DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

3 WESTCHESTER PARK DRIVE

TOWN/VILLAGE OF HARRISON
WESTCHESTER COUNTY, NEW YORK

FINAL
ENVIRONMENTAL IMPACT STATEMENT

Prepared For Submission To:

TOWN OF HARRISON PLANNING BOARD
TOWN OF HARRISON, NEW YORK

OCTOBER 2019

3 WESTCHESTER PARK DRIVE
TOWN/VILLAGE OF HARRISON
WESTCHESTER COUNTY, NEW YORK

FINAL
ENVIRONMENTAL IMPACT STATEMENT

LEAD AGENCY:

TOWN OF HARRISON PLANNING BOARD
One Heineman Place
Harrison, NY 10528
Attention: Rosemarie Cusumano
Secretary
Phone: (914) 670-3077

SUBMISSION DATE:
October 4, 2019

LEAD AGENCY ACCEPTANCE DATE:

_____, 2019

APPLICANT:

MCP II 3 WESTCHESTER LLC
260 Franklin Street, Suite 620
Boston, MA 02110

LOCATION OF PROPOSED DEVELOPMENT:
3 Westchester Park Drive
Harrison, NY 10604

PREPARED BY:
Divney Tung Schwalbe, LLP
One North Broadway, Suite 1407
White Plains, New York 10601
Partner-In-Charge:
Andrew V. Tung, ASLA, Esq.
Associate-In-Charge:
Matthew N. Steinberg, AICP
(914) 428-0010

PLANNER AND SITE ENGINEER
DIVNEY TUNG SCHWALBE, LLP
One North Broadway
White Plains, NY 10601

ATTORNEY
MCCULLOUGH, GOLDBERGER & STAUDT, LLP
1311 Mamaroneck Avenue
White Plains, NY 10605

WETLAND AND ECOLOGICAL RESOURCES
WILLIAM KENNY ASSOCIATES
195 Tunxis Hill Road
Fairfield, CT 06825

ARCHITECT
BEINFIELD ARCHITECTURE
11 Chestnut Street
South Norwalk, CT 06854

TRAFFIC ENGINEER
PROVIDENT DESIGN ENGINEERING
7 Skyline Drive
Hawthorne, NY 10532

FISCAL
URBANOMICS
115 Fifth Avenue
New York, NY 10003

SCHOOLS
BFJ PLANNING
115 Fifth Avenue
New York, NY 10003

MARKET RESEARCH
RCLCO REAL ESTATE ADVISORS
7200 Wisconsin Avenue
Bethesda, MD 20814

CULTURAL RESOURCES

HUDSON VALLEY CULTURAL RESOURCE CONSULTANTS
3 Lyons Drive
Poughkeepsie, NY 12601

GEOTECHNICAL

WHITESTONE ASSOCIATES, INC.
30 Technology Drive
Warren, NJ 07059

ENVIRONMENTAL

AEI CONSULTANTS
30 Montgomery Street
Jersey City, NJ 07302

RETAIL

ABRAMS RETAIL STRATEGIES
10 E. 53rd Street, 16th Floor
New York, NY 10022

TABLE OF CONTENTS

PAGE

I. INTRODUCTION I-1

A. Organization of FEIS I-1
B. Draft Environmental Impact Statement I-2

II. RESPONSES TO DEIS COMMENTS

II.II. Description of Proposed Action II.II-1
- Project Description II.II-1
- Retail II.II-2
- Affordable Housing II.II-5
- Subdivision II.II-6
- Parking II.II-8
- Building Design II.II-8
- Recreational Component II.II-10
- Access and Circulation II.II-10
- Utilities II.II-11
- Stormwater Management II.II-12
- Market Study II.II-12
- Benefits to the Town II.II-15

II.A. Land Use and Zoning II.A-1
- Connectivity II.A-1
- Zoning Compliance II.A-4
- Planning Studies II.A-6

II.B. Geology and Soils II.B-1
- Earthwork II.B-1
- Rock Removal II.B-1
- Planning Techniques II.B-2

II.D. Vegetation and Wildlife II.D-1
- Vegetation and Wildlife II.D-1
- Tree Removal II.D-1

II.F. Stormwater Management II.F-1
- Stormwater Maintenance II.F-1

II.G. Utilities II.G-1
- Water Supply II.G-1
- Sanitary Sewer II.G-1
- Gas Service II.G-3

II.H. Traffic and Transportation II.H-1
- Existing Conditions II.H-1
- Traffic Volumes II.H-1
- Capacity Analysis II.H-3
- Interconnector Roadway Analysis II.H-5
- Parking II.H-6

- Sight Distance II.H-7
- Air Quality II.H-7
- Transit II.H-8
- Construction Traffic II.H-11
- Accident History II.H-11
- Traffic Study Edits II-H-12
- Approvals II-H-12

II.I. Visual Resources and Community Character II.I-1
- Visual Impacts II.I-1

II.J. Community Facilities and Services II.J-1
- Schools II.J-1
- Police II.J-2
- Open Space and Recreation II.J-3
- Solid Waste II.J-4

II.N. Construction Impacts II.N-1
- Construction Phasing II.N-1

III. APPENDICES
1. RELEVANT CORRESPONDENCE
2. DEIS COMMENTS
   A. Comment Letter List
   B. Comment Log
   C. Comment Letters and Public Hearing Transcripts
3. SUPPLEMENTAL TRAFFIC IMPACT STUDY
4. RENTAL APARTMENT MARKET STUDY RESPONSE
5. RETAIL FEASIBILITY STUDY

LIST OF TABLES

TABLE NUMBER		PAGE**
II.II-1	Zoning Compliance Table	II.II
II.A-1	Zoning Compliance Table	II.A

**Tables are located at the end of the applicable FEIS Section.

LIST OF FIGURES

FIGURE NUMBER		PAGE**
II.II-1	Streetscape Concept	II.II
II.II-2	Streetscape Concept Details	II.II
II.II-3	Revised Interim Building B Plan	II.II
II.II-4	Updated Ground Floor Plan	II.II
II.II-5	Retail and Guest Parking Diagram	II.II
II.II-6	Proposed Access Easement	II.II
II.II-7	Garage Entry and Circulation	II.II
II.II-8	Garage Entry and Circulation	II.II
II.A-1	Proposed Access Easement	II.A
II.A-2	Retail and Guest Parking Diagram	II.A
II.I-1	Updated Ground Floor Plan and Elevations	II.I
II.I-2	View from Westchester Park Drive at North Entrance – View 2 Updated	II.I
II.N-1	Revised Interim Building B Plan	II.N

**Figures are located at the end of the applicable FEIS Section.

LIST OF FULL-SIZE DRAWINGS

DRAWING NO.	DRAWING NAME	BY WHOM	SCALE	DATE
	Cover Sheet	Divney Tung Schwalbe, LLP	1”=30’	10/4/19
SP-0.1	Legend and General Notes	Divney Tung Schwalbe, LLP	1”=30’	4/2/19
SP-0.2	Existing Conditions Plan	Divney Tung Schwalbe, LLP	1”=30’	10/4/19
SP-1.0	Site Layout Plan	Divney Tung Schwalbe, LLP	1”=30’	10/4/19
SP-2.0	Grading and Drainage Plan	Divney Tung Schwalbe, LLP	1”=30’	10/4/19
SP-3.0	Utility Plan	Divney Tung Schwalbe, LLP	1”=30’	10/4/19
SP-4.0	Soil and Erosion Control Plan	Divney Tung Schwalbe, LLP	1”=30’	10/4/19
SP-4.1	Soil and Erosion Sediment Control Notes & Details	Divney Tung Schwalbe, LLP	NTS	4/2/19
SP-5.0	Materials Plan	Copley Wolff	1”=30’	10/4/19
SP-5.1	Planting Plan	Copley Wolff	1”=30’	10/4/19
SP-5.2	Landscape Details	Copley Wolff	NTS	11/5/18
SP-5.3	Landscape Details	Copley Wolff	NTS	11/5/18
SP-5.4	Landscape Details	Copley Wolff	NTS	11/5/18
SP-6.0	Lighting Plan	Divney Tung Schwalbe, LLP	NTS	10/4/19
SP-6.1	Lighting Details	Divney Tung Schwalbe, LLP	1”=30’	11/5/18
SP-6.2	Lighting Details	Divney Tung Schwalbe, LLP	1”=30’	11/5/18
SP-7.1	Site Details	Divney Tung Schwalbe, LLP	NTS	11/5/18
SP-7.2	Site Details	Divney Tung Schwalbe, LLP	NTS	11/5/18
SP-7.3	Site Details	Divney Tung Schwalbe, LLP	NTS	11/5/18
SP-7.4	Site Details	Divney Tung Schwalbe, LLP	NTS	11/5/18
SP-8.0	Emergency Service Vehicle Maneuvering Plan	Divney Tung Schwalbe, LLP	1”=30’	10/4/19
SP-9.0	Tree Removal Plan	Divney Tung Schwalbe, LLP	1”=30’	4/2/19
1 OF 1	Final Subdivision Plat	Control Point Associates	1”=40’	8/28/19

I. INTRODUCTION

I. INTRODUCTION

This Final Environmental Impact Statement ("FEIS") is submitted in compliance with Article 8 of the New York State Environmental Conservation Law governing State Environmental Quality Review ("SEQR"), Part 617 of Title 6 of the Rules and Regulations of the New York State Department of Environmental Conservation, and a Draft Environmental Impact Statement ("DEIS") Scope adopted on February 19th, 2019 by the Planning Board of the Town of Harrison acting as SEQR Lead Agency ("Lead Agency") for the 3 Westchester Park Drive project ("Proposed Action" or "Proposed Project") by MCP II 3 Westchester LLC (the "Applicant").

A. ORGANIZATION OF FEIS

This FEIS is comprised of the following sections:

Section I is the Introduction which contains this description of the FEIS format and a discussion of the Draft Environmental Impact Statement ("DEIS").

Section II contains the *Responses to the DEIS Comments*. The responses to the comments are organized by DEIS Section Heading. Where applicable, sections have been further broken down into sub-headings that correspond to the content of the comments. Comments that are similar in content have been grouped together to allow for coordinated responses. The comments appear in a bold type with the corresponding comment number(s) identified in the left margin of the page. The responses appear in standard type directly under the corresponding comment(s).

Section III contains the *Appendices to the FEIS*. This section of the FEIS includes *Relevant FEIS Correspondence*, the *DEIS Comment Letter List*, the *DEIS Comment Log* (which provides a listing of the individual comments), and copies of the transcripts of the DEIS Public Hearings and written comments received by the Lead Agency. Each speaker and comment letter or transcript section have been assigned an "Item Number" (located at the top of the letter or in the left margin of the transcript) and each comment by a particular speaker or author has been

sequentially numbered. The Comment Log identifies the date of the comment letter or the public hearing comment; the name of the author or speaker; the assigned comment number; and the section of the FEIS in which the comment has been addressed. The copies of the hearing transcripts and comment letters have been labeled with Item Numbers corresponding to the DEIS Comment Log and are found in Section III of this FEIS.

B. THE PROPOSED ACTION

The Draft Environmental Impact Statement for the 3 Westchester Park Drive project, which was accepted as complete by the Lead Agency on April 23rd, 2019 and was the subject of public meetings and hearings held by the Lead Agency on May 21st, 2019, and June 25th, 2019, is hereby incorporated into and made part of this Final Environmental Impact Statement by reference.

As described in the DEIS, the 3 Westchester Park Drive project site, located at 3 Westchester Park Drive (the "Site"), consists of approximately 10.63 acres located at the intersection of Westchester Park Drive and Westchester Avenue and is currently improved by an existing approximately 160,000 square-foot, five-story office building that was built in 1982 and is now vacant. The Site is located in the central western portion of an area in Harrison, New York referred to as the "teardrop" (Teardrop), named for the shape created by the convergence of I-287, I-684, and the Hutchinson River Parkway. The Project Site is within the SB-0 "Special Business" Zoning District and designated on the Town of Harrison Tax Map as Tax Parcel 0631. – 18.

The Proposed Project consists of the replacement of the existing office building with two multifamily residential buildings situated to face each other across the tree-lined central access drive from Westchester Park Drive. The buildings would contain a total of 450 units and 697 fully-enclosed structured parking spaces (37 parking spaces would also be provided in surface parking lots), with Building A containing 234 units and 372 spaces and Building B containing

216 units and 359 spaces. Stoops, patio gardens, on-street entry doors, and parallel parking spaces to buffer traffic would be included along the central drive through the Proposed Project to encourage socializing and gathering of neighbors.

The Proposed Project would provide approximately 70,000 square feet of outdoor recreation space and approximately 20,000 square feet of indoor amenity space that would include a fitness center, conference room, and residents' lounges. The Proposed Project would include outdoor courtyards programmed with game lawns, pool decks, and grilling and dining terraces. Each courtyard would be unique, providing different experiences to residents. Looping around the Project Site, there would be a 12-foot wide, approximately ½ mile long, meandering multiuse path that would be designed to accommodate joggers, bicyclists, and dogwalkers, and would connect to outdoor fitness areas and dog runs. These areas would all be landscaped with native plantings. The existing knoll of trees along Westchester Park Drive would be preserved and the existing stormwater recharge detention basin located along Westchester Park Drive would be enhanced with restoration plantings.

The Proposed Action would include the subdivision of the existing Site into two parcels of 5.54 and 5.09 acres, each of which would contain one building and would be fully compliant with regulations for SB-0 Multifamily Residential. The subdivision would allow for greater flexibility in the financing of the development. The Applicant would also put in place a legal mechanism acceptable to the Town Attorney that restricts the number of units allowed to 450 for the entire Site.

The DEIS also included discussions of potential impacts associated with the Proposed Action related to land use and zoning; geology and soils; topography and slopes; vegetation and wildlife; wetlands; stormwater management; utilities; traffic and transportation; visual resources and community character; community services and facilities; cultural resources; hazardous materials; and construction, as well as measures the Applicant proposed to minimize or avoid such impacts. Further, the DEIS considered alternatives to the Proposed Project,

including a No Action Alternative, Existing Zoning (SB-0): Renovating Existing Office Alternative, Repurpose the Site with Large Scale/Big Box Retail Use Alternative, SB-0 Multi-Family Residential – No Subdivision Alternative, Single Building Alternative, and a SB-0 Multi-Family Residential – First-Floor Non-Residential Use Alternative.

In response to comments made on the DEIS and subsequent discussions with the Lead Agency, its consultants and other parties, the Applicant is proposing modifications to the Project. The changes to the Project include the provision approximately 7,800 square feet of Retail-oriented space on the Site, including outdoor areas dedicated in support of Retail uses. A total of approximately 6,000 square-feet of enclosed Retail-oriented space, approximately 3,580 square-feet in Building A and approximately 2,460 square-feet in Building B, will be provided on the Site and able to accommodate approximately four to seven Retail-oriented tenants depending on use. The enclosed Retail-oriented spaces in Building A and Building B will also be complemented by a combined total of approximately 1,800 square feet of dedicated outdoor area that could be used by Retail-oriented tenants for uses such as restaurant seating areas or outside space for a doggie-day-care among other uses. The Applicant is now proposing to set aside 5% of its residential units to be affordable to households earning 80% of the area median income (AMI). In order to help further the Town's goal of providing a connection from Westchester Park Drive to Corporate Park Drive, the Applicant will provide an easement to the Town over the central drive, rear service drive, and adjoining walkways of the Proposed Project that would create a 24-hour publicly accessible connection from Westchester Park Drive to the neighboring Carraway site.

COMMENT NUMBER	COMMENT/RESPONSE

PROJECT DESCRIPTION

301

Clarify the "communal amenity space." What uses will occur in these spaces? How will users of the spaces be authorized and permitted? Are limitation of the use of these spaces anticipated- daily operating hours, length of occupancy, etc.?

- **Patrick Cleary, Planning Consultant, 7/24/19**

As stated in Section II of the DEIS, potential uses in the building amenity spaces include work-from-home spaces, meeting rooms, game/recreation rooms, coffee bar, fitness center, and resident lounges that would be available to residents and their guests. Residents would have access to amenity spaces in the buildings through a keycard system. The hours of operation for the spaces may vary based on seasonal use and would be modified by building management staff as necessary.

302

Additional detail is requested regarding the design of the central street separating the two buildings. Employing "complete Street" principles is commendable, however, the preliminary site plans depict rather basic improvements, with an emphasis on private resident spaces. Initial discussions with the applicant indicated that the creation of a "Main Street"- the implication being a very public space. Clarify how this area will be activated to create a unifying public space.

- **Patrick Cleary, Planning Consultant, 7/24/19**

Figures II.II-1 and II.II-2 show details of the designed streetscape for the Proposed Project. Between the parking lanes and sidewalks is a 4' wide landscape/furniture zone, which buffers pedestrians from vehicles and provides space for tree planting, street furniture, lighting, and art opportunities. Paving in this zone is visually more detailed to draw the focus away from vehicles and create an attractive place for people to circulate and gather. The material palette, for hardscape and planting along the streetscape, is consistent to unify the entire public space.

To foster a sense of community and activate the central drive between the two buildings, the streetscape is fronted by residential units with stoops and patio gardens to encourage gathering and generate interaction between neighbors. The proximity of the spaces is designed to promote socializing between people sitting on the stoops, hanging out in the patios and walking down the street.

As the public spine through the property, the central drive enhances neighborhood walkability by providing access from Westchester Park Drive all the way through the development to the neighboring Carraway property

via a proposed public easement. It will act as a direct pedestrian link to residents' apartments , the amenity spaces on the Site, and the spaces designated for SB-0 retail use, retail service use, or restaurant use (per §235-17Y) on either side of the entry drive into the Site. The spaces designated for SB-0 retail use, retail service use, or restaurant use are located at the front of the development to provide the necessary retail frontage required for its success. The incorporation of space designated for SB-0 retail use, retail service use, or restaurant use preserves the character of the two entry structures of the Proposed Project, while creating a lively environment at the front of the development that connects to the more residential neighborhood street at the back of the development.

303

Clarify how the central street would be improved if the development is phased, or if only one building is constructed. Would the improvement on only one half the street be constructed?

- **Patrick Cleary, Planning Consultant, 7/24/19**

The Applicant plans to construct both of the proposed buildings, sequencing construction operations from the Building A site to the Building B site as shown in DEIS Figures III.N-1 to III.N-11. The streetscape elements along both sides of the central drive, including sidewalks, street trees, lighting, and the top course of roadway paving, will be installed prior to proposed occupancy of Building A. If however due to currently unforeseen circumstances there is a delay of more than one month between the construction completion of Building A and the commencement of construction of Building B, the Applicant will install the sidewalk, street trees, lighting and other streetscape elements on the Building A side of the central drive and complete the top course of paving to the Building B curb. The Building B site would be graded and planted with native meadow grass as shown in Figure II.II-3, *Revised Interim Building B Plan*.

RETAIL

PH-303

I'm wondering on Main Street, where you have 450 apartments and you have potentially I think the number at 680 residents, potentially some variation and then you have Toll Brothers with another four hundred some odd apartments, with connection between the two, we're hoping. Just seems to me the Main Street would be enhanced and we talked about people coming off Westchester Park Drive to go shopping. We're not thinking about it. I'm thinking you have a captive audience of people right there. Wouldn't the retail enhance the Main Street and provide things for people not to have to leave the site. Just think of the uses that a small village which you're creating could use. I mean I don't know Granola Bar, a small version of that, coffee shop, a nail salon. I mean these are the things that people in downtowns which are creating a little village would want. Study it. Let us know. Using your experts, if it works or doesn't work.

- **Thomas Heaslip, Planning Board Chairman, Public Hearing 05/21/19**

In response to DEIS comments received and upon further study, the Applicant will provide space designated for SB-0 retail use, retail service use, or restaurant use (per §235-17Y) (collectively, Retail). As detailed in the Retail/Commercial Feasibility Study prepared by Abram Retail Strategies of Compass that can be found in Appendix 5 of this FEIS, the Site does not have either the resident population or pass-by traffic required to meet the requirements of national retailers. Therefore, the Applicant considered local retailers when determining the provision of Retail on the Site.

The Applicant's discussions with retail leasing brokers and retail consultants identified types of local retail, such as pet grooming or doggie-day-care, small footprint convenience, hair/nail salon, and sports medicine use, that have the potential to be successful at the Site and their typical square footages. Based on these determinations, as shown in Figure II.II-4, *Updated Ground Floor Plan*, the Proposed Project will provide a total of approximately 7,800 square feet of Retail-oriented space on the Site, including outdoor areas dedicated in support of Retail uses. A total of approximately 6,000 square-feet of enclosed Retail-oriented space, approximately 3,580 square-feet in Building A and approximately 2,460 square-feet in Building B, will be provided on the Site and able to accommodate approximately four to seven Retail-oriented tenants depending on use. The enclosed Retail-oriented spaces in Building A and Building B will also be complemented by a combined total of approximately 1,800 square feet of dedicated outdoor area that could be used by Retail-oriented tenants for uses such as restaurant seating areas or outside space for a doggie-day-care among other uses.

The Applicant shall use commercially reasonable efforts to secure at least four tenants for the Retail spaces. The Applicant shall also use commercially reasonable efforts to ensure that one of such tenants is a food-related use.

These spaces designated for Retail were incorporated into the Site in a way that preserves the character of the two entry structures at the front of the Site and which also allows for greater retail frontage that is necessary for its success. The configuration of the space designated for Retail also allows for a large area of external space which may be important to Retail tenants, while also maintaining high-quality interior amenity spaces for residents.

Section 235-17Y of the Harrison zoning code provides that parking requirements for SB-0 retail, retail service and restaurant uses may be lowered based on the combination of land uses on the site and opportunities for shared parking:

(3) In instances where the SB-0 retail use, retail service use, or restaurant use will be combined with other uses on the site, the Planning Board may, subject to the submission of a vehicle trip-generation report by the Applicant, reduce the required off-street parking requirement from one space per 175 square feet of floor area to no less than one space per 400 square feet of floor area for retail and retail service uses, and from one per four permanent seats or 150 square feet of floor area to one per six permanent seats or 300 square feet of floor area, whichever is greater, for restaurant use.

(4) Shared parking between any SB-0 retail use, retail service use, or restaurant use shall be provided wherever feasible.

Of the 6,046 square feet of space provided for Retail, assuming two-thirds (4,030 square feet) is retail use or retail service use and one-third (2,016 square feet) is restaurant use would result in a range of 17 to 37 required parking spaces for Retail at full occupancy[1]. The Applicant anticipates availing itself of one or both of the provisions to lower parking requirements as Retail tenants are identified. Prospective locations for 8 parking spaces in close proximity to the Retail areas in Buildings A and B are shown on Figure II.II-5, *Retail and Guest Parking Diagram*. Additional Retail spaces as needed would also be provided in the two parking garages (as each contains at least 50 spaces, 100 spaces total, more than are required to meet the applicable residential parking requirements) so that the Proposed Project would comply with the parking requirements for SB-0 retail use, retail service use, or restaurant use.

304

Concern has been expressed that the development of residential uses in the tear drop, unsupported by ancillary retail and service uses may negatively impact the marketability of the residences. Document why supportive retail or service uses are not proposed.

- **Patrick Cleary, Planning Consultant, 7/24/19**

In response to DEIS comments received and upon further study, the Applicant will provide space designated for SB-0 retail use, retail service use, or restaurant use (per §235-17Y) (collectively, Retail). As detailed in the

[1] At one space per 175 SF, 4,030 SF of retail use or retail service use results in 23 required spaces and at one space per 400 SF it results in 10.1 required spaces. At one space per 150 SF, 2,016 SF of restaurant use results in 13.4 required spaces, and at one space per 300 SF it results in 6.7 required spaces. The required range of off-street parking spaces is based on whether or not the Applicant is granted a reduction in the amount of required off-street parking for the Proposed Project following future submission of a vehicle trip generation report to the Planning Board.

Retail/Commercial Feasibility Study prepared by Abram Retail Strategies of Compass that can be found in Appendix 5 of this FEIS, the Site does not have either the resident population or pass-by traffic required to meet the requirements of national retailers. Therefore, the Applicant considered local retailers when determining the provision of Retail on the Site.

The Applicant's discussions with retail leasing brokers and retail consultants identified types of local retail, such as pet grooming or doggie-day-care, small footprint convenience, hair/nail salon, and sports medicine use, that have the potential to be successful at the Site and their typical square footages. Based on these determinations, as shown in Figure II.II-4, *Updated Ground Floor Plan*, the Proposed Project will provide a total of approximately 7,800 square feet of Retail-oriented space on the Site, including outdoor areas dedicated in support of Retail uses. A total of approximately 6,000 square-feet of enclosed Retail-oriented space, approximately 3,580 square-feet in Building A and approximately 2,460 square-feet in Building B, will be provided on the Site and able to accommodate approximately four to seven Retail-oriented tenants depending on use. The enclosed Retail-oriented spaces in Building A and Building B will also be complemented by a combined total of approximately 1,800 square feet of dedicated outdoor area that could be used by Retail-oriented tenants for uses such as restaurant seating areas or outside space for a doggie-day-care among other uses. See the response to comment number PH-303.

Additionally, the Proposed Project would provide residents with amenities such as a coffee bar, residents' lounges, and work-from-home spaces. Partnerships with nearby businesses such as Life Time Fitness could also be arranged to provide residents with on-site personal training and services such as dry-clean drop-off/pick-up could be arranged through local vendors, dependent upon resident demand.

305 **Has any consideration been given to accommodating temporary "pop-up" retail, service or food uses (food trucks, etc.) at the site? Once again, the lack of supportive and complimentary retail and service uses at this isolated site is problematic.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

As shown in Figure II.II-4, *Updated Ground Floor Plan*, rather than provide temporary "pop-up" retail, the Proposed Project will provide a total of approximately 7,800 square feet of Retail-oriented space on the Site, including outdoor areas dedicated in support of Retail uses. A total of approximately 6,000 square-feet of enclosed Retail-oriented space, approximately 3,580 square-feet in Building A and approximately 2,460

square-feet in Building B, will be provided on the Site and able to accommodate approximately four to seven Retail-oriented tenants depending on use. The enclosed Retail-oriented spaces in Building A and Building B will also be complemented by a combined total of approximately 1,800 square feet of dedicated outdoor area that could be used by Retail-oriented tenants for uses such as restaurant seating areas or outside space for a doggie-day-care among other uses. See the response to comment number PH-303.

318 **Reference should be made to the retail market, and the potential for, and the applicants decision to exclude, retail uses from the project.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

In response to DEIS comments received and upon further study, the Applicant will provide space designated for SB-0 retail use, retail service use, or restaurant use (per §235-17Y) (collectively, Retail). As detailed in the Retail/Commercial Feasibility Study prepared by Abram Retail Strategies of Compass that can be found in Appendix 5 of this FEIS, the Site does not have either the resident population or pass-by traffic required to meet the requirements of national retailers. Therefore, the Applicant considered local retailers when determining the provision of Retail on the Site.

The Applicant's discussions with retail leasing brokers and retail consultants identified types of local retail, such as pet grooming or doggie-day-care, small footprint convenience, hair/nail salon, and sports medicine use, that have the potential to be successful at the Site and their typical square footages. Based on these determinations, as shown in Figure II.II-4, *Updated Ground Floor Plan*, the Proposed Project will provide a total of approximately 7,800 square feet of Retail-oriented space on the Site, including outdoor areas dedicated in support of Retail uses. A total of approximately 6,000 square-feet of enclosed Retail-oriented space, approximately 3,580 square-feet in Building A and approximately 2,460 square-feet in Building B, will be provided on the Site and able to accommodate approximately four to seven Retail-oriented tenants depending on use. The enclosed Retail-oriented spaces in Building A and Building B will also be complemented by a combined total of approximately 1,800 square feet of dedicated outdoor area that could be used by Retail-oriented tenants for uses such as restaurant seating areas or outside space for a doggie-day-care among other uses. See the response to comment number PH-303.

AFFORDABLE HOUSING

PH-304

The other thing I was wondering, you didn't talk about affordable housing at all.
- **Thomas Heaslip, Planning Board Chairman, Public Hearing 05/21/19**

204

The draft EIS includes no discussion of the Stipulation of Settlement and Dismissal entered in the *U.S. ex rel. Anti-Discrimination Center v. Westchester*. in which the Country produced a fair and affordable housing implementation plan containing *Model Ordinance Provisions* to affirmatively further fair housing (AFFH). The Country Planning Board specifically asked for this discussion during our review of the scoping document. The lack of this discussion in the draft EIS is a deficiency that must be corrected and addressed in the final EIS.
- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

PH-601

At the end of 2014, we stopped the proposed MTA-Avalon development because it failed to include any affordable housing, continuing a 30 year old policy in Harrison. We won that fight as the MTA and Harrison agreed to a five percent set aside, which is being honored in the latest plan to build the project downtown.

Later, in 2016 we successfully negotiated a 10% set aside for affordable housing with Toll Brothers in a project similar to 3 Westchester Park Drive. The 103-105 Corporate Park Drive is well on its way to completion. So, why should 3 Westchester Park Drive be any different? Especially in light of the Settlement Order against Westchester County, which remains in effect and cites Harrison as one of the "eligible communities" that has failed in its zoning to produce fair and affordable housing.
- **Alexander Roberts, Executive Director, Community Housing Innovations, Public Hearing 6/25/19**

Although it is not a requirement of the Town of Harrison, the Applicant proposes to set aside five (5%) percent of its total units (or 23 units) for households earning 80% of the area median income (AMI), where housing costs will not exceed 30% of 80% AMI. The Avalon project under construction next to the Harrison Metro-North station also provided 5% of the units as affordable, but that only amounted to 7 units due to the lower total number of units in the development. It is also the Applicant's understanding that the Harrison Lofts Project (36 units total) did not include any affordable units.[2] Moreover, as compared to comparable suburban projects in the area, total construction costs are anticipated to be approximately 20% higher (exclusive of land costs) for the Proposed Project. This is due to many issues, including hard cost inflation significantly exceeding CPI inflation, higher labor costs, and higher materials costs due to tariffs and other federal trade policies. In addition, the

[2] It must also be noted that including the proposed affordable units in the Proposed Project, the Town/Village of Harrison will have contributed seventy-two (72) units of affordable housing to the overall Westchester County mix, well above Harrison's proportionate share of the 750 total units required by the County's HUD settlement. In addition, it is our understanding that the County has exceeded the total 750 units required, and will be certifying that fact to HUD in the near future.

Proposed Project's design with two (2) buildings with separate garages, ground-level residential units on all sides and a central drive extending the entry court is more expensive to construct than a single larger building with one garage and fewer opportunities for street-level activity and resident interaction.

PH-602

In fact, the Westchester County Planning Board, noting the absence of any commitment to affordable housing for this development in the DEIS said, "We continue to point out that all new residential developments in eligible communities are expected to contribute towards affirmatively furthering fair housing and a 10% set aside of affordable AFFH units is standard for development of this type. We also continue to urge the Town/Village to take steps towards adopting the Model Ordinance Provisions.

- **Alexander Roberts, Executive Director, Community Housing Innovations, Public Hearing 6/25/19**

205

We continue to point out that all new residential developments in eligible communities are expected to contribute towards affirmatively furthering fair housing and that a 10% set aside of affordable AFFH units is standard for developments of this type. We also continue to urge the Town/Village to take steps towards adopting the *Model Ordinance Provisions.*

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

It is the Applicant's understanding that the Town/Village Board of Harrison has previously considered but opted not to adopt the *Model Ordinance Provisions*.

PH-603

By giving the developer the option of paying into a Harrison Affordable Housing Fund, this presents a huge opportunity for Harrison to generate over $9 million at $200,000 per unit, which I believe could produce up to three times the number of affordable units. Here's how.

Harrison has many two family homes and older apartment buildings with relatively modest rents – some that would even be considered affordable. If you offered Harrison landlords a lump sum payment of $70,000 to reduce their rent by $300 per month, to the affordable level, and rent to qualified low income households, I believe you would get many of them to do so. Getting a check for $70,000 in return for losing $3,600 per year for 30 years is a good deal. In this way, that $200,000+ payment could be leveraged to produce at least twice as many affordable units which would be scattered around town rather than concentrated in one place.

This would inject millions into the Harrison economy, help multifamily owners improve their buildings and lower their debt. It is a far more efficient way to create affordable housing; but the Planning Board would have to be clear that these funds must be expended to create affordable housing within one or two years, because too many municipal affordable housing funds are diverted to other uses. Because this has not been tried, perhaps you might limit the developer to buying out up to half of its obligation, with half required to be built on site. I would be happy to assist in setting up such a pilot program, with a request for proposals to Harrison landlords and

owners.

- **Alexander Roberts, Executive Director, Community Housing Innovations, Public Hearing 6/25/19**

It is the Applicant's understanding that a "Harrison Affordable Housing Fund" as described does not exist, nor is one proposed or contemplated by the Town. In addition, there is no Town/Village requirement for payments to be made as described.

SUBDIVISION

PH-101

One of the things I've focused on too is the impact if only one of the buildings is completed, because there's a subdivision situation. I appreciate this drawing that's been inserted. I'm not sure I like the way it's titled. I think it should be more specific to a situation that looks at just one building. I think furthermore the way the road goes right down the middle of the subdivision, we need to see further addressing how the road would have to move if the second lot has to be separated from the first lot. As a Planning Board person, I feel absolutely that that has to be looked at. You're asking us to look at a subdivision situation here. We have to look at these as two potentially separate situations. That's your application.
There's a road going right down the middle joining the two lots. That's fine in terms of a final, if that gets built. I want to see a drawing that shows what happens to that road in the case that only one building is built. Doesn't mean you have to redesign the whole building. Doesn't mean that at all. I need to see what would we do, how would access work. I want to see more thought given to that.

- **Nonie Reich, Planning Board Member, Public Hearing 05/21/19**

PH-103

There may be a scenario where they don't build the second building. It's important we address that. It doesn't have to be a full blown redevelopment. How would the road work in that case. Now we have one building, 5 months in. How does that road work then.

- **Nonie Reich, Planning Board Member, Public Hearing 05/21/19**

PH-105

The plan you've given us should state clearly this is the alternative, if one gets built. I'd like you to put in in here. I feel like I was heard last time. It's the same drawing without the second building there. How would you access the building? There is no further thought into it.

- **Nonie Reich, Planning Board Member, Public Hearing 05/21/19**

Figure III.N-12, *Interim Building B Plan*, in the DEIS has been updated to give greater detail as to what would occur on Parcel B in the event that there is a delay in the construction of Building B. The updated plan is shown in Figure II.II-3, *Revised Interim Building B Plan*, of this FEIS. The Applicant intends to construct both buildings and does not consider Figure II.II-4 to be an alternative but an illustration of a situation in which there is more than a one-month delay in between the construction completion of Building A and the construction start of Building B.

Should this interim condition occur, the shared central drive, autocourt and the rear access drive and loop around Building A would be constructed and provide full access to the Building A main entrance, garage, and loading area. Cross easements would be established to allow for vehicular and pedestrian access across the two lots.

313 **Clarify that both lots that are proposed to be created through the subdivision of the parcel, both individually comply with SB-0 Multi-family Residential zoning requirements.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

As shown in Table II.II-1, *Zoning Compliance Table*, both Parcel A and Parcel B individually comply with the SB-0 Multi-Family Residential zoning requirements and SB-0 retail use, retail service use, and restaurant use zoning requirements.

PARKING

306 **Access to the parking garages is proposed from southern end of the central street. This location may disrupt the continuity of the "Main Street" streetscape design and interfere with pedestrian movements. Has consideration been given to locating the garage access at the rear of the buildings in order to maintain the integrity of the "Main Street?"**

- **Patrick Cleary, Planning Consultant, 7/24/19**

As shown on Figure II-11, *Illustrative Plan*; Figure II-7, *Building A Elevations*; and Figure II-9, *Building B Elevations* in the DEIS, the proposed streetscape design elements including street trees and sidewalks will extend the full length of the buildings' facing facades from the autocourt southward to the rear service drive. Crosswalks are proposed across the garage entry drives to facilitate pedestrian movements to the perimeter fitness path at the rear of the buildings. The garage entries have been located at the far end of the central drive in part to separate them from the loading areas at the rear of the buildings and to simplify and provide greater visibility for driver movements into the garages.

The building loading areas have been located to face the rear service drive near the opposing building corners in order to utilize roadway areas beyond the garage entries for required turning movements. See Figures II.II-7 and II.II-8. Moving the garage entries to the rear of the buildings beyond the loading areas would increase the potential for conflict between entering/exiting cars and maneuvering trucks.

307 **Clarify how the distribution of guest parking spaces "based on operational experience" will be accomplished. How would the changes be reflected on the approved site plan?**

- **Patrick Cleary, Planning Consultant, 7/24/19**

Parking spaces in unassigned areas at the entry level of each garage, in front of the gated access for resident-only parking would be available for guest parking and for Retail parking, as required. Based on data from 15 multifamily rental projects owned or operated by the Applicant, a ratio of 0.15 guest parking spaces per unit was applied to the Proposed Project resulting in 35.1 and 32.4 anticipated visitor parking spaces in Building A and Building B, respectively, which will be accommodated in the visitor and retail parking areas of the garages. Limits on the amount of overnight guest parking would be adjusted as required based on the level of usage. Overnight guest vehicles would be required to register at the management office and be provided with a parking pass for display. The approximate locations of the guest and Retail parking areas and the automated gated entries that would move to accommodate vehicles entering and exiting the resident-only parking areas, are shown in Figure II.II-5*, Retail and Guest Parking Diagram*. Guests would be able to access the building lobby from the guest parking area in the garage.

BUILDING OPERATIONS

PH-302 **Has there been any like look at solar on the roof or over parking structures?**
- **Thomas Heaslip, Planning Board Chairman, Public Hearing 05/21/19**

222 **Although the draft EIS includes a number of sustainable building features to be included in this development, we recommend the applicant consider the potential for including as much "green" or sustainable building methods and technologies as possible into the proposed development.**
- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

As noted in Section II of the DEIS, the Proposed Project will include a number of sustainable features including, utility submetering, Energy Star appliances, 95% covered parking spaces, interior bike storage, zero use of CFC based refrigerators, accessible storage and collection areas for recyclables, construction waste management, its operation as a "non-smoking" facility, operable windows, low flow plumbing fixtures, and a majority of LED light fixtures. The Proposed Project will also include the following sustainable features:

SITE DESIGN

1. Minimize light pollution through the use of dark sky compliant LED fixtures with downward facing, hooded light sources that provide cutoff control..
2. Maximize use of drought-tolerant landscaping throughout the

site, such as Inkberry, Shenandoah Switch Grass, Swamp White Oak, Eastern Red Cedar, Hummingbird Summersweet, Grow Low Fragrant Sumac, Catmint, and Russian Sage.

3. Maximize re-charge of roof/rainwater runoff into the groundwater.
4. Minimize heat island effect through interior parking/reduced paving.

BUILDING DESIGN

1. Implement construction waste management plan.
2. Properly insulate and seal the entire exterior building envelope. Tape and seal all lapped joints within continuous air barrier.
3. Provide no-VOC interior paints
4. Provide low-VOC carpets, resilient flooring and adhesives.
5. Provide 90% or higher efficiency furnaces/AC units with zero use of CFC-based refrigerants.
6. Provide air infiltration compartmentalization between all units and units/public areas.
7. Provide light-colored high-albedo roof materials

The Applicant will also study the potential for the installation of solar panels and will implement them at the Proposed Project if the Applicant determines it is practicable to do so.

308 **How will bulk refuse be addressed (a particular concern when building tenants move in and out of apartments). Is the recycling drop-off area sufficient for this?**

- **Patrick Cleary, Planning Consultant, 7/24/19**

Trash and recyclable collection areas and trash chute access closets would be cleaned on a daily basis. Full-time building maintenance staff would coordinate the trash and recyclable pick-ups to meet the demands of the Proposed Project.

309 **Has the location of the storage unit closets been established? The location of storage units may represent a Fire Department concern.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

The location of the storage unit closets has not yet been established. The units themselves would have rated walls, doors, and ceilings and would be sprinkled and limited in size. In the Applicant's experience these factors address most Fire Department concerns. The location of storage units would be established and available for final review of the Proposed Project by the Purchase Fire Department.

RECREATIONAL COMPONENT

310 **Clarify how the fitness path would allow access to the "public during restricted hours." Would some physical restriction be employed (a gate or some other measure). How would this restriction be enforced?**

- **Patrick Cleary, Planning Consultant, 7/24/19**

There would be signage stating that public access is permitted during daylight hours (e.g. 9 AM – 8 PM), which will be enforced by on-site security personnel. No physical restriction or gate is proposed.

ACCESS AND CIRCULATION

311 **How would the public access through connection between the project site and the Carraway be limited to "hours to be determined in the agreement with the adjoining property owner"?**
The Planning Board has expressed the opinion that this access should be fully publicly accessible, and not restricted.

- **Patrick Cleary, Planning Consultant, 7/24/19**

The Applicant will provide an easement to the Town over the central and rear service drives and adjacent walkways through the Site to the property line adjacent to the neighboring Carraway development that would allow for a 24-hour publicly accessible connection. (see Figure II.II-6, *Proposed Access Easement*). Traffic and speed management tools such as speed humps or tables would be employed if necessary.

312 **Accessing the parking garages from the central street may disrupt the continuity of the streetscape, and the design objective of creating a new "Main Street." Is access from the rear of the buildings feasible (similar to the access scheme utilized in the adjacent Carraway development).**

- **Patrick Cleary, Planning Consultant, 7/24/19**

As shown on Figure II-11, *Illustrative Plan*; Figure II-7, *Building A Elevations*; and Figure II-9, *Building B Elevations* in the DEIS, the proposed streetscape design elements including street trees and sidewalks will extend the full length of the buildings' facing facades from the autocourt southward to the rear service drive. Crosswalks are proposed across the garage entry drives to facilitate pedestrian movements to the perimeter fitness path at the rear of the buildings. The garage entries have been located at the far end of the central drive in part to separate them from the loading areas at the rear of the buildings and to simplify and provide greater visibility for driver movements into the garages.

The building loading areas have been located to face the rear service drive near the opposing building corners in order to utilize roadway areas beyond

the garage entries for required turning movements. See Figures II.II-7 and II.II-8. Moving the garage entries to the rear of the buildings beyond the loading areas would increase the potential for conflict between entering/exiting cars and maneuvering trucks.

UTILITIES

314 **Identify if adequate capacity exists in the water supply system to support the water demand of the development.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

The Applicant has submitted the project's estimated water demands to Westchester Joint Water Works (WJWW) along with a request for water supply service which can be found in Appendix 1 of this FEIS. The Applicant met with WJWW on September 5th, 2019 to discuss the results of its analysis to determine any needs for water system improvements beyond those shown on the plans to accommodate the added water demands on the supply system and was informed that WJWW is in the process of issuing a "will serve" letter for the Proposed Project.

315 **Identify if adequate capacity exists in the sanitary sewer system to support the water demand of the development.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

316 **As with all prior developments within the teardrop, verification is necessary (through a video-survey or other method found suitable to the Town Engineer) to establish the physical suitability of the existing sewer pipes and associated infrastructural equipment.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

At a July 31, 2019 meeting with the Applicant's civil engineer, the Harrison Town Engineer requested that the Applicant video inspect the existing Town sewer mains between the Site's existing sanitary connection point in Westchester Park Drive and the connecting manhole to the Corporate Park Drive main in Westchester Avenue. The Applicant will submit the video to the Town Engineering Department for its review and determination of any needed mitigation, and to confirm adequate capacity in the mains for the project's proposed sanitary flows. An August 1st, 2019 letter from Westchester County DEF included in FEIS Appendix 1 states "Westchester County's Mamaroneck Wastewater Treatment Plant and Mamaroneck Trunk Sewer system will serve and have sufficient capacity to accommodate the proposed flow increase" from the Proposed Project.

STORMWATER MANAGEMENT

317

Verify that in addition to maintaining the current hydrology, the post development rate of runoff will not exceed the existing condition.
- **Patrick Cleary, Planning Consultant, 7/24/19**

As described in Section III.N. Stormwater Management, of the DEIS, the proposed peak rate of runoff will be maintained at or below existing conditions for each of the three discharge points on the Site and for the combined flow.

MARKET STUDY

PH-404

To that point that market study only, obviously you're putting a lot of money into this. You think you're going to fill them up. What happens if you don't? What happens with the apartments if they're built, 450 of them, what kind of impact could that have on the rentals and the mix of the numbers of people that could go into an apartment. That would be somewhat less expensive. Then they are here in case you miss on the market.
- **Joseph Stout, Planning Board Member, Public Hearing 05/21/19**

PH- 501

Many of those are luxury type of rentals and so the question that I have in terms of this multi building residential project is, will this kind of project, which it doesn't have the benefit being close to the railroad and having walkable amendments, including doctors and retail and that kind of thing, also the price point might bee a little bit better, would this project be attracting, more likely to attract families and the impact and relationship to schools. Would there be more school age children.
- **Cheryl Pine, Purchase Resident, Public Hearing 05/21/19**

The demand projections of the Market Study are based upon data collected from the U.S. Census Bureau and Bureau of Labor Statistics and are supported by comprehensive economic forecasts from multiple secondary sources. While it is impossible to forecast demographic and economic trends with 100% accuracy, RCLCO has established a proven track record of accuracy by utilizing the best available data and methodologies to produce its forecasts and recommendations. Further details on the basis of the Market Study and data in support of its findings can be found in the *Rental Apartment Market Study Response* report provided by RCLCO in Appendix 4 of this FEIS.

As detailed in the *Rental Apartment Market Study Response*, the success of The Apex at 290 apartments in Elmsford, NY provides evidence of demand for rental apartments in more suburban locations, even a location with fewer local amenities than those surrounding the Site, such as Life Time Fitness and the Wegmans Food Market that is currently under construction. Additionally, many older renters and mature professionals prefer a quieter setting with local amenities, like the Proposed Project, over an urban core location. The Proposed Project is not walkable from a Metro-North train

station, however the Site has excellent highway access allowing for approximately 8 – 15 minute drives to local train stations if desired, or to local employment.

As noted in the *Rental Apartment Market Study Response*, RCLCO believes the development will be able to achieve the recommended pricing at the Site, but if the property were met with slower demand the situation is more likely to warrant temporary rent concessions (e.g. 1-month free rent during the first 12 months) to boost initial leasing velocity rather than long-term changes in price positioning. RCLCO writes that "even if the property were met with slower demand requiring a change in price point, the relative change would not likely produce a noticeably different demographic at the site." This statement is based on analysis of the demographics in the market and, more specifically, on demographic analysis of likely renters at the subject site.

RCLCO's analysis determined that 36% of rental demand in the market over the next five years is expected from empty nesters and mature professionals, including both middle-income and high-income households. The analysis shows the demographic breakdown of likely renters in the market is similar in the market in both high-income and middle-income brackets. Because of this, RCLCO believes that the specifics of the site (e.g. location, amenities, and unit sizes) and existing demographics in the market, both of which suggest relatively few families at the development, will be the primary drivers of the demographic drawn to the site. Only a price change reducing rents at the site to be in line with workforce housing in the market, which RCLCO believes is extremely unlikely, is likely to produce a demographic change at the site. RCLCO believes the limited price changes that would be potentially necessary to generate demand in a weaker than anticipated market are unlikely to noticeably alter the amount of families at the Proposed Project or generate a significantly different amount of school children than the 28-32 that has been estimated for the Proposed Project.

202 **The *Market Analysis & Strategic Development Recommendations* (market study) that was submitted with the draft EIS notes that there continues to be strong demand for rental apartments in central Westchester County. However, the market study also cautions that estimated new apartment construction will outpace estimated demand over the next five years, creating a potential "oversupply risk". When this risk potential is combined with the fact that Westchester County has very little historical experience with placing such large multi-family apartment buildings in relatively isolated locations, it will be critical for the Town/Village and the applicant to focus on the concept of creating an efficient and attractive multi-use place in this area through connectivity to adjacent sites, facilitating pedestrian and bicycle circulation and improving transit access. As the market study points out, the subject points out, the subject site is at a clear disadvantage to six of the seven comparable residential**

developments studied because it is not in a downtown and has a "lack of neighborhood feel". We also point out that other advantages the market study attributes to the site, such as "unmatched access to the highways" and the anticipated opening of a nearby supermarket, are the same advantages that we attributed to Monarch at Ridge Hill Village in Yonkers, which was not successfully built out.

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

RCLCO's Market Study points out that despite estimated deliveries outpacing estimated demand within the PMA over the next five years, RCLCO believes the market contains sufficient pent up demand to absorb the new deliveries within a reasonable timeframe. The *Rental Apartment Market Study Response* prepared by RCLCO and that can be found in Appendix 4 of this FEIS, further outlines mitigating factors of the risk of oversupply. RCLCO focused its Market Study heavily on the supply and demand balance existing in the market currently and the projected supply and demand balance in the market over the next five years, concluding that annual demand is expected to match annual new deliveries in the market over the next five years.

Market fundamentals are strong currently, with multiple factors pointing to significant pent up demand within the market due to years of undersupply. Additionally, the proposed development will be differentiated from a majority of the current rental apartment development pipeline due to its quieter location outside of Downtown White Plains, its lower price point compared to new product Downtown, and by offering a significant subset of larger units targeted toward empty nesters. Consumer research conducted by RCLCO has consistently shown older renters tend to be drawn to quieter suburban locations nearby the homes they downsize from, which will be a particular advantage for the Site compared to the new developments located within the Downtown core of White Plains.

The Proposed Project would also provide a sidewalk along its Westchester Park Drive frontage. The Proposed Project is not in a downtown area, but it offers proximity to neighborhood amenities including the Wegmans Food Market that is under construction and the existing Life Time Fitness.

The Monarch at Ridge Hill was developed as luxury condominiums in the suburban Ridge Hill retail development in Yonkers, NY. Condominium sales are impacted by different market variables compared to rental apartments. Due to a multitude of development failures, the property was transitioned in part to rental apartments which are currently 98.4% occupied and achieving rents averaging $3,161 per unit per month. The success of the development as rental apartments despite numerous failures during and following development, highlights the strong market for

suburban rental apartments in Westchester County. Further, the relative failure of the development as condominiums can likely be attribute to failure of the development team, including highly publicized disagreements and lawsuits pertaining to the development among investment partners prior to, during, and after construction of the project in 2012.

203 **We urge the Town/Village to consider both the strengths and weaknesses of the development potential of this site. Our understanding of the market study is that it will be critical for this development (and the development that is proposed or occurring on other "teardrop" properties) to be done thoughtfully, with the aim of creating a new, better integrated, efficient and attractive mixed-use place. If not, we are concerned that the "teardrop" area will not be as successful as downtown areas with their "built-in" advantages, especially if the oversupply risk cited in the market study ultimately occurs. It is within this context of creating "efficient and attractive multi-use places" that we continue our comments.**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

The Harrison Town Board adopted zoning permitting "SB-0 Multifamily Residential" and "SB-0 retail use; retail service use; restaurant use" as special permit uses in April 2016 to encourage the mixed-use redevelopment of sites within the Teardrop area with multi-family residential and supporting retail or restaurant uses. As described in Section I. Introduction of this FEIS and responses to comment numbers PH-303, 304, and 305; based on additional study with retail leasing brokers and consultants, the Applicant is now proposing to include a total of approximately 6,000 square feet of enclosed space for SB-0 retail use, retail service use, or restaurant use (per §235-17Y) and a total of approximately 1,800 square feet of dedicated outdoor area for use by Retail-oriented tenants in Building A and Building B. This totals approximately 7,800 square feet of retail-oriented space. (see Figure II.II-4, *Updated Ground Floor Plan*).

BENEFITS TO THE TOWN

319 **To compare the net positive fiscal benefits, provide the current taxes generated from the site.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

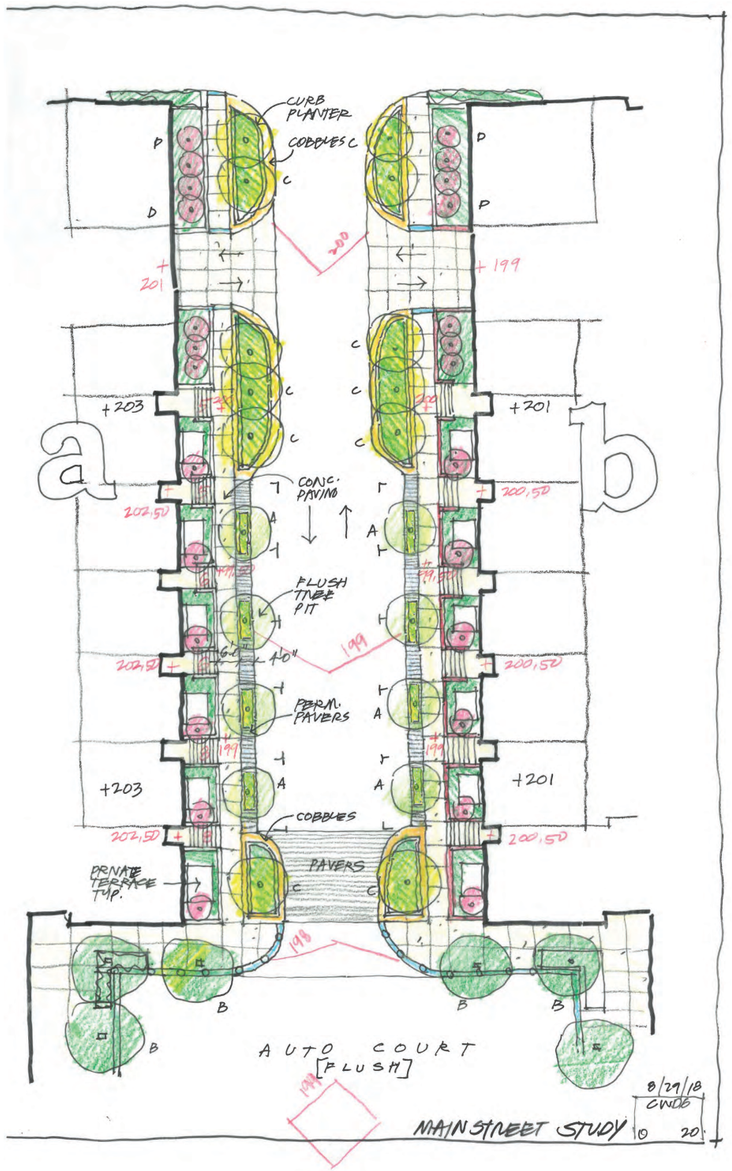
The estimated total taxes currently generated by the Site are approximately $417,908. As shown in Table 7 of the Annual Fiscal Impacts report in Appendix 9 of the DEIS, the current net fiscal benefits from the Site to the Town of Harrison and the Harrison Central School District combined are estimated to be approximately $269,747 annually. The projected net fiscal benefits from the Proposed Project to the Town of Harrison and the Harrison Central School District combined are estimated to be

approximately $304,972 to $426,230[3] annually. The net increase in fiscal benefits to the Town and the School District with the Proposed Project are estimated to be approximately $35,225 to $156,483.

The estimation of costs to the Harrison Central School District conservatively include fixed costs which account for approximately 24% of the School District's proposed budget. Discounting for fixed costs to the School District, the combined net fiscal benefits to the Town of Harrison and the Harrison Central School District are estimated to be approximately $528,214 to $621,567[4]. The net increase in fiscal benefits to the Town and the School District with the Proposed Project, discounting for fixed costs to the School District are estimated to be approximately $258,467 to $351,820 annually.

The Proposed Project's modification to include spaces designated for SB-0 retail use, retail service use, or restaurant use (per §235-17Y) would generate additional sales tax revenue at a rate of 8.375% of sales comprised of New York State, Metropolitan Transportation Authority (MTA), Westchester County, and local tax rates.

[3] These amounts were incorrectly stated in the DEIS and have been revised here to accurately reflect the estimated projections.
[4] Calculated using the 76.23% of the HCSD Proposed Budget attributed to Program costs to find the marginal education cost per child. This results in an estimated cost per child of $22,373 rather than the estimated $29,349 that includes fixed costs. This marginal cost per child was then multiplied by the projected 28-32 school children for the Proposed Project.



Copley Wolff Design Group
Landscape Architects & Planners

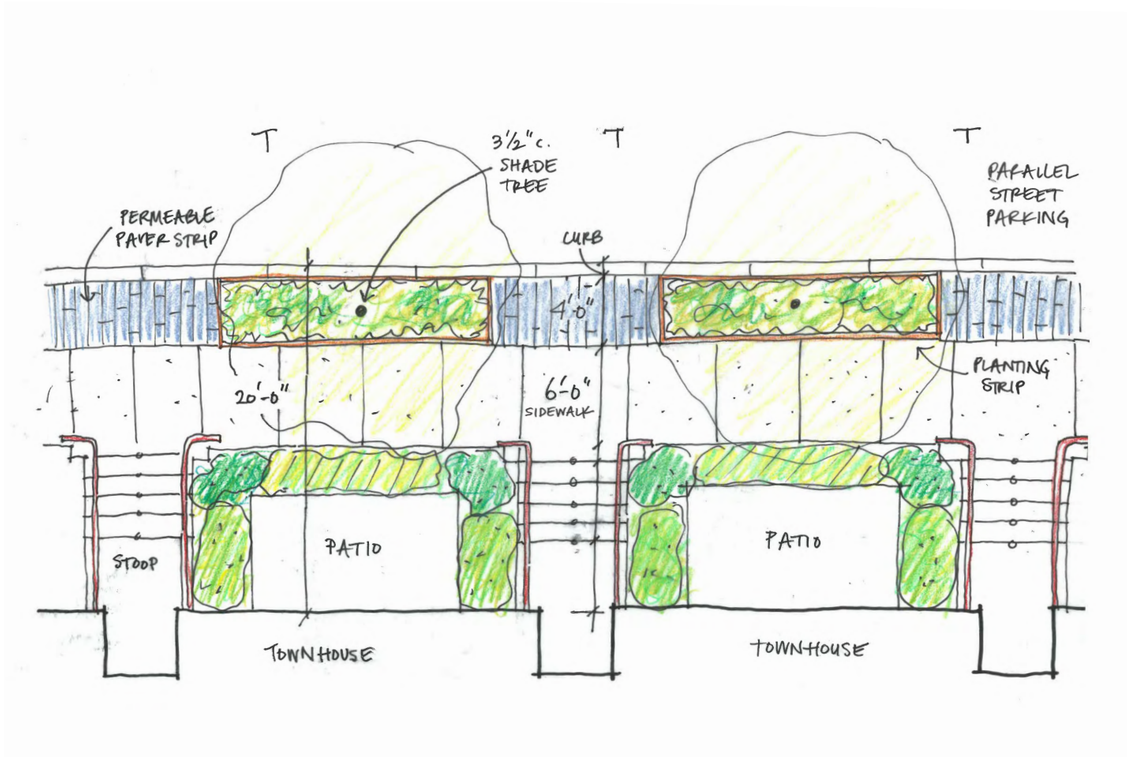
N

Divney • Tung • Schwalbe
Intelligent Land Use

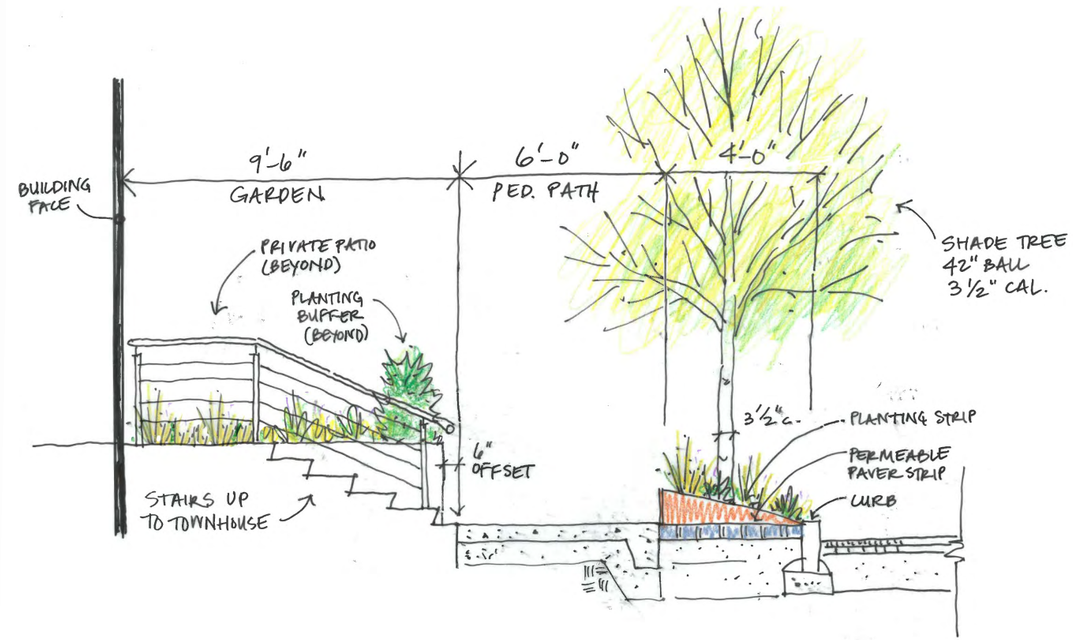
STREETSCAPE CONCEPT
3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.II-1

STREETSCAPE PLAN



STREETSCAPE SECTION



Copley Wolff Design Group
Landscape Architects & Planners

N

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

STREETSCAPE CONCEPT DETAILS
3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.II-2

N

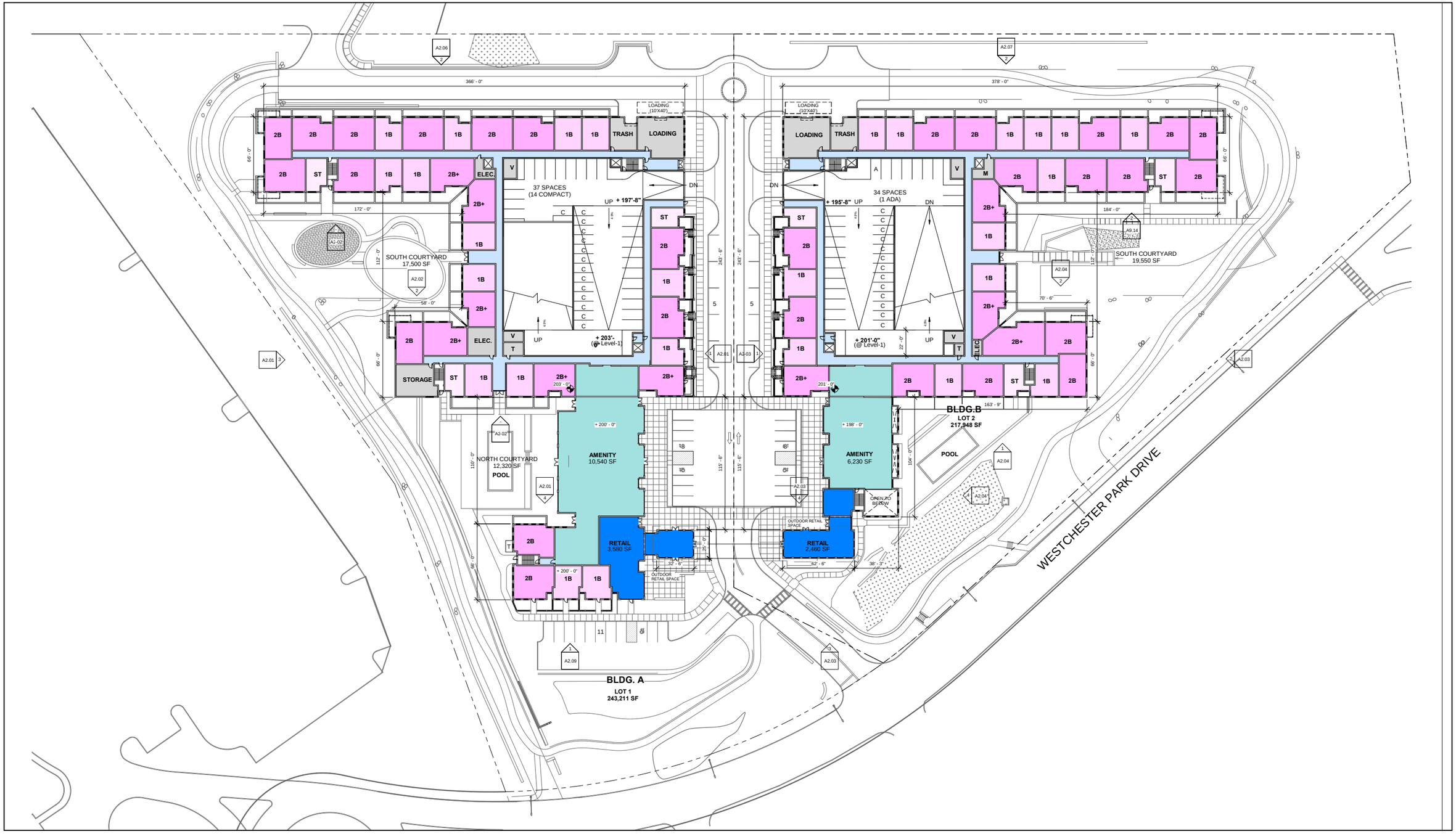
0 40 80

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

REVISED INTERIM BUILDING B PLAN

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.II-3



1 INCH = 80 FEET

N

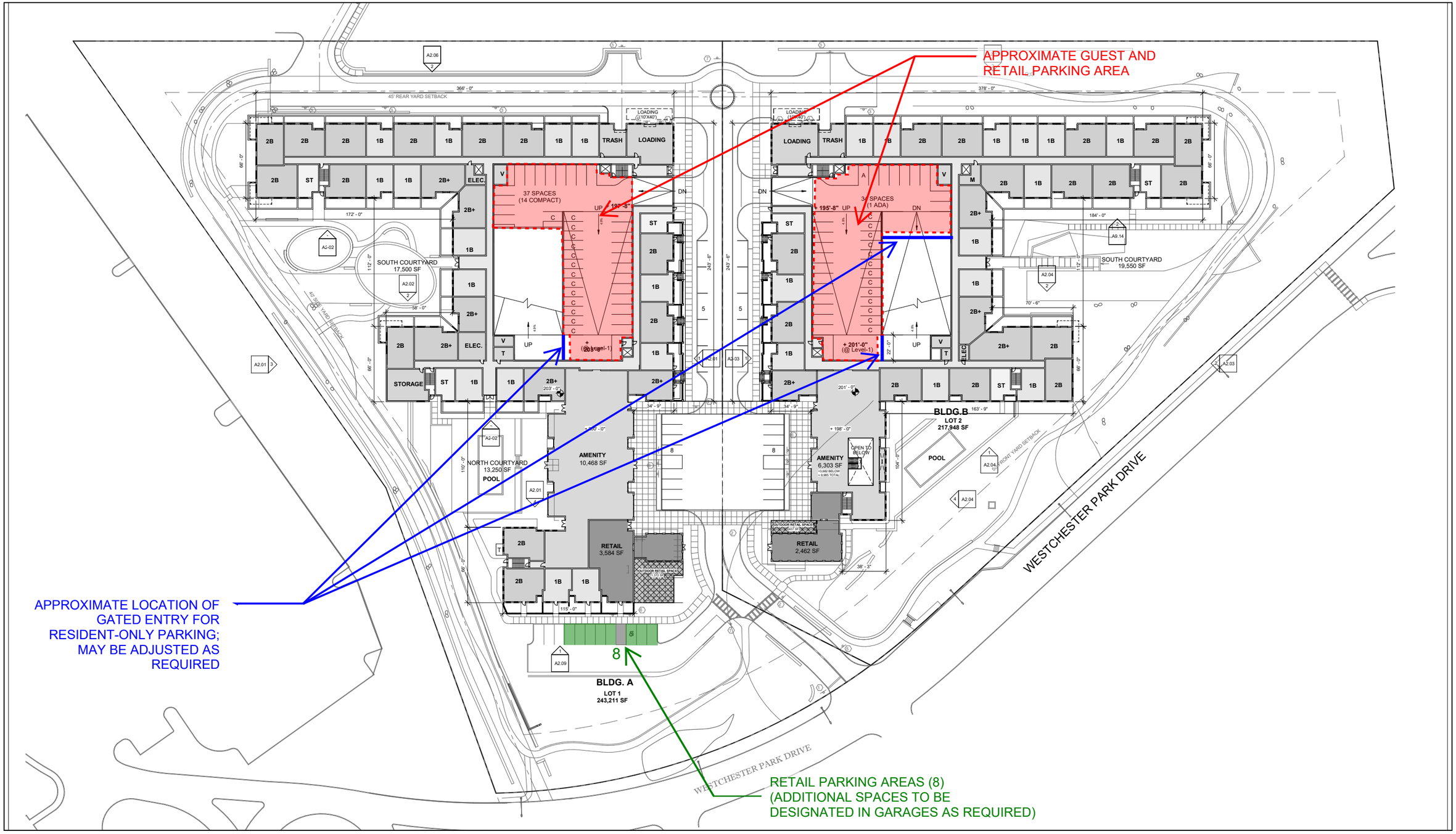
DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

UPDATED GROUND FLOOR PLAN

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.II-4



N

1 INCH = 80 FEET

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

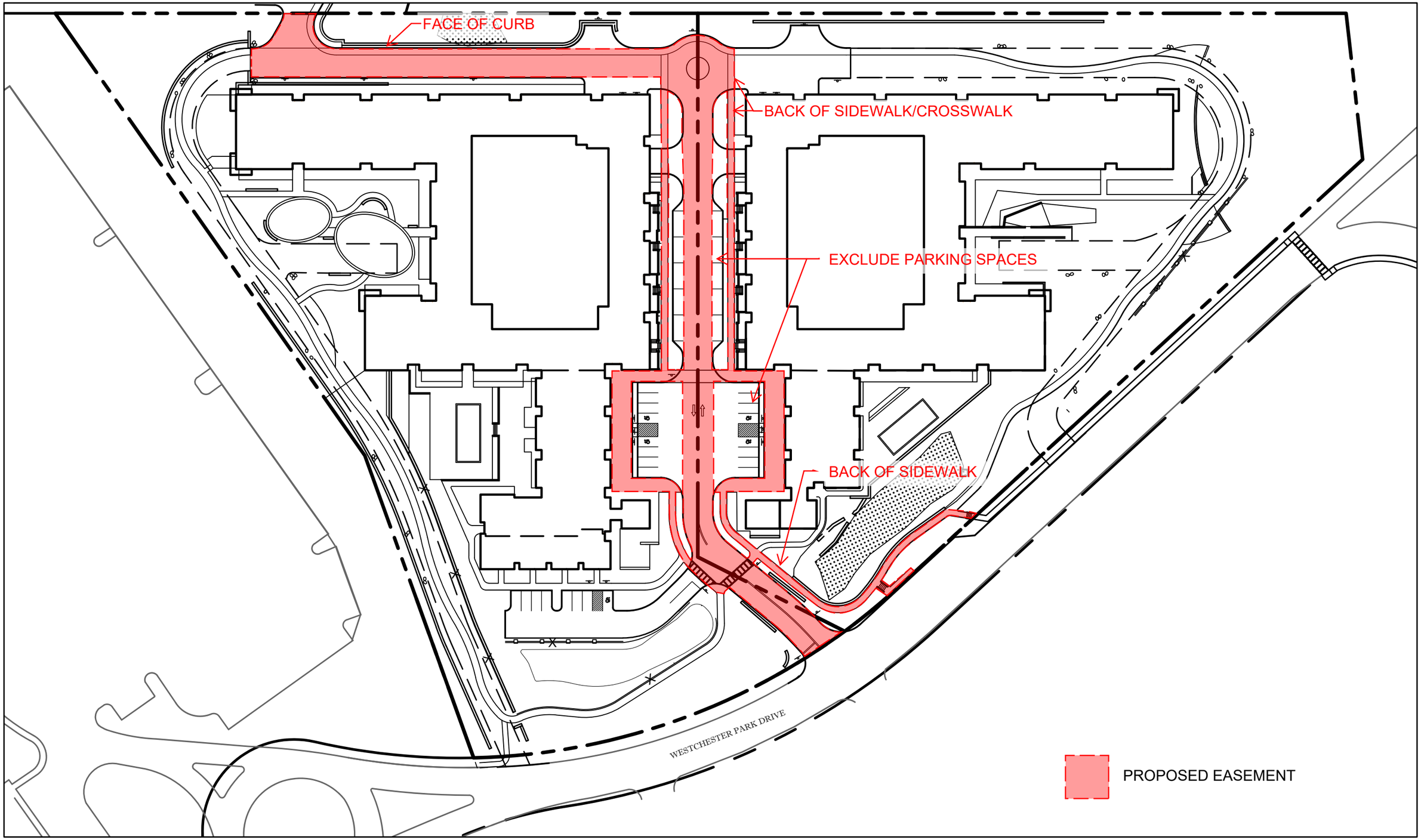
DRAWING BY: Beinfield Architecture, October 4th, 2019

RETAIL AND GUEST PARKING DIAGRAM

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.II-5

PLOTTED BY: DIVNEY TUNG SCHWALBE, LLP JULIE CLEVELAND 9/16/2019 12:12 PM L:\826 3 WESTCHESTER PARK DRIVE\DESIGN\826 SPLANJC.DWG



N

0 40 80

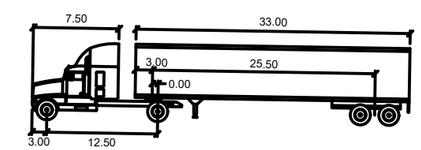
DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

PROPOSED ACCESS EASEMENT

3 WESTCHESTER PARK DRIVE
HARRISON, NY

FIG. II.II-6

TRASH
LOADING
LOADING
TRASH
GARAGE ENTRY
GARAGE ENTRY
BUILDING A
BUILDING B
POND
WESTCHESTER PARK DRIVE



WB-40

	feet		
Tractor Width	: 8.00	Lock to Lock Time	: 6.0
Trailer Width	: 8.00	Steering Angle	: 20.3
Tractor Track	: 8.00	Articulating Angle	: 70.0
Trailer Track	: 8.00		

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use
Divney Tung Schwalbe, LLP
One North Broadway
White Plains, NY 10601
P: 914.428.0010
F: 914.428.0017

N

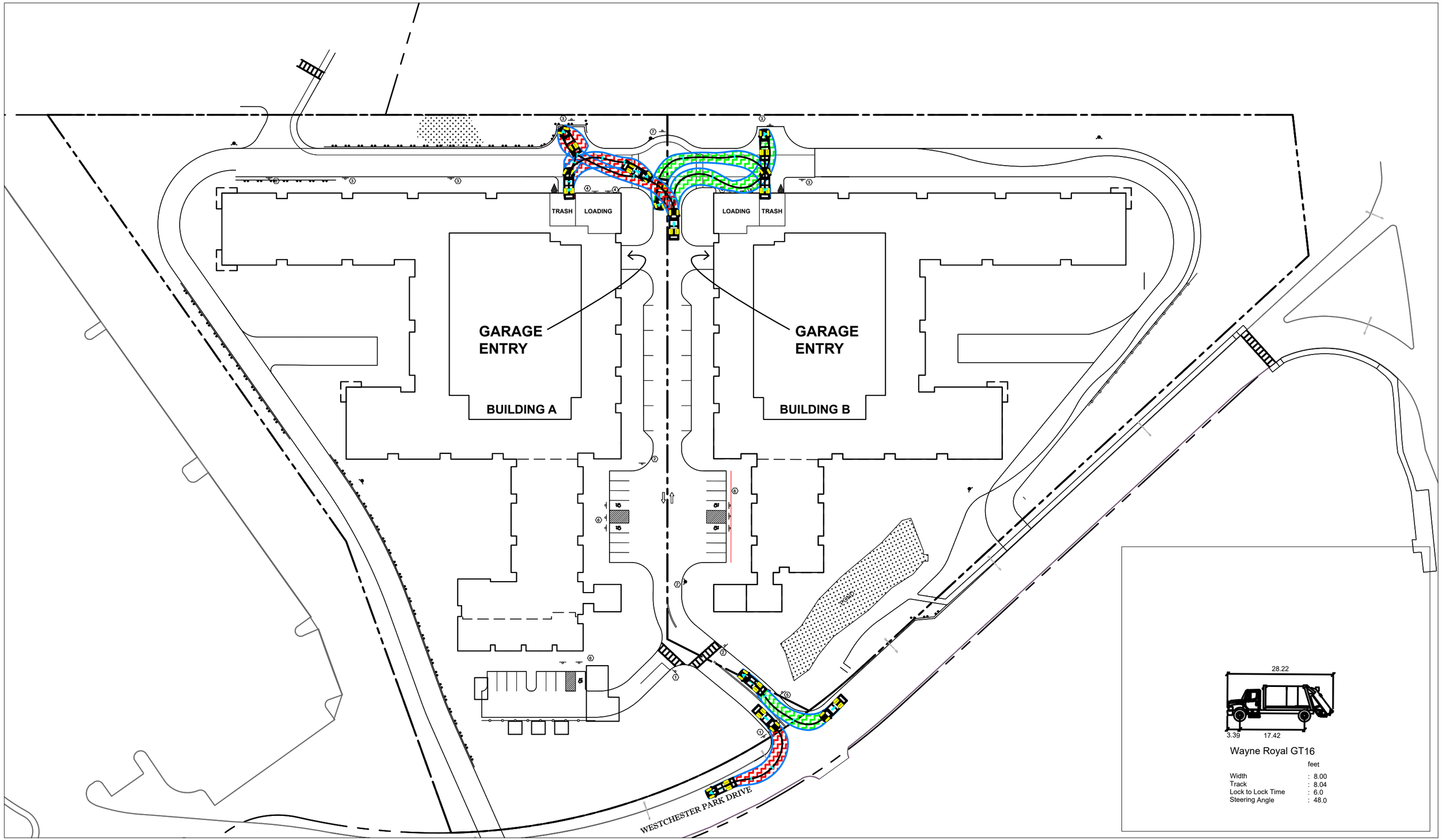
0 20 40 80

SCALE: 1" = 80'

3 Westchester Park Drive - WB-40 Circulation Diagram

Harrison, New York

FIG. II.II-7



DIVNEY • TUNG • SCHWALBE
Intelligent Land Use
Divney Tung Schwalbe, LLP
One North Broadway
White Plains, NY 10601
P: 914.428.0010
F: 914.428.0017

0 20 40 80

SCALE: 1" = 80'

3 Westchester Park Drive - Refuse Truck Circulation Diagram

Harrison, New York

FIG. II.II-8

TABLE II.II-1

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

ZONING COMPLIANCE TABLE

CODE SECTION[1]	SB-0 DISTRICT	REQUIRED/ PERMITTED	PROPOSED		
			FULL SITE	PARCEL A	PARCEL B
	ARTICLE V - SPECIAL EXCEPTION USES				
235-17X	**SB-0 MULTI-FAMILY RESIDENTIAL**				
235-17X(2)	**Minimum Lot Area (acres)**	5	10.63	5.54	5.09
	To be located on roads w/direct access to Westchester Ave	Required	Yes	Yes	Yes
235-17X(3)	**Minimum Frontage, Public or Private Roadway (feet)**	350	972	352	620
235-17X(4)	**Maximum Dwelling Units**	450	450	234	216
235-17X(5)	**Maximum Building Coverage**	45%	33%	32%	33%
235-17X(7)	**Minimum Apartment Sizes (square feet)**				
	Efficiency (Studio)	475	To Comply	To Comply	To Comply
	One-Bedroom	600	To Comply	To Comply	To Comply
	Maximum Number of Bedrooms / Dwelling Unit	3	3	3	3
235-17X(9)	**Minimum Recreation Space (square feet)**	2,500	To Comply	To Comply	To Comply
235-17X(10)	**Minimum Parking Spaces / Dwelling Unit**	1.25			
	Calculated minimum for proposed dwelling units - Full Site	562.5	731		
	Calculated minimum for proposed dwelling units - Parcel A	292.5		372	
	Calculated minimum for proposed dwelling units - Parcel B	270.0			359
235-17X(11)	**Minimum Landscape Buffer Adjoining Nonresidentail Use (feet)**				
	Front Yard	25	50	140	50
	Side Yard	40	40	40	40
	Rear Yard	40	70	70	70
235-17X(14)	**Dimensional Requirements**				
	Lot Area				
	Minimum Site Total (acres)	5	10.63	5.54	5.09
	Minimum per Family Unit (square feet)	350	To Comply	To Comply	To Comply
	Lot Coverage				
	Maximum Building Coverage	45%	33%	32%	33%
	Lot Width (feet)	300	989	313	676
	Required Yards (feet)				
	Front	50[2]	50	140	50
	Side (adjoining residence district)	100	NA	NA	NA
	Side (adjoining business district)	40	40	40	40
	Rear	45	70	70	70
	Habitable Floor Area (minimum square feet)	475	To Comply	To Comply	To Comply
	Height				
	Stories	6	6	5	6
	Floor Area Ratio	No Req't	NA	NA	NA
235-17Y	**SB-0 RETAIL USE; RETAIL SERVICE USE; RESTAURANT USE**				
235-17Y(1)	**Maximum Gross Floor Area (square feet)**	25,000	6,046	3,584	2,462
	Outdoor Dining (square feet)	Permitted	1,809	1,372	437
235-17Y(3)	**Minimum Parking Spaces**				
	Retail Use / Retail Service Use	1 / 175-400 sf[3]	To Comply[5]	To Comply[5]	To Comply[5]
	Restaurant Use	1 / 4-6 seats or 1 / 150-300 sf[4]	To Comply[5]	To Comply[5]	To Comply[5]

Footnotes:

[1] Per the Zoning Ordinance of the Town/Village of Harrison, NY, accessed 10/02/19 at https://ecode360.com.

[2] "The front yard may be reduced to 25 feet for an area not to exceed 25% of the total width of that portion of the building parallel to the required front yard."

[3] "The Planning Board may, subject to the submission of a vehicle trip-generation report by the Applicant, reduce the… requirement from 1 sp / 175 sf to no less than 1 sp / 400 sf."

[4] "The Planning Board may, subject to the submission of a vehicle trip-generation report by the Applicant, reduce the… requirement from 1 sp / 4 permanent seats or 150 sf to 1 sp / 6 permanent seats or 300 sf, whichever is greater."

[5] Number of required spaces to be determined following identification of tenant(s) and submission of projected vehicle trip generation report by Applicant.

COMMENT NUMBER	COMMENT/RESPONSE
	CONNECTIVITY
PH-301	**If you're on Westchester Avenue at five o'clock, there is no place to go without the internal circulation dumping 110 or 80 cars out there at that time is an issue. That's the easiest and best way to get there. It's not publicly owned. If you can study another way to get there I think that's key to keeping the cars in the teardrop off of Westchester Avenue at those peak times.** **- Thomas Heaslip, Planning Board Chairman, Public Hearing 05/21/19**
PH- 401	**I'm concerned about the one with the Carraway, we tried and you need to look if there's another way around.** **- Joseph Stout, Planning Board Member, Public Hearing 05/21/19**
	The Site abuts two properties that have frontage on Corporate Park Drive, the Carraway Project and the Hyatt House Hotel. An existing emergency access connector between the Site and the Carraway site was established when both sites were first occupied by office buildings. That physical connection is being retained and improved to accommodate current Town of Harrison emergency vehicle turning movements in the approved Carraway site plan and the Proposed Project site plan. As shown in Figure II.A-1, *Proposed Access Easement*, the Applicant will provide the Town with an easement over the central drive, rear service drive, and adjoining walkways connecting Westchester Park Drive to the property line adjacent to the neighboring Carraway development that would allow for a 24-hour publicly accessible connection. See DEIS Figure III.A-3. The Hyatt House consists of an L-shaped building bordered on all sides by on-grade parking lots that connect to Corporate Park Drive through a single access drive. There are no separate internal roadways within the Hyatt House site, and no existing connection between the Hyatt House site and the Project Site. See DEIS Figure III.A-3. In the opinion of the Applicant's traffic's consultant**,** routing a new non-emergency access through a hotel parking lot from an adjoining use is not a good traffic management practice, could result in unsafe traffic conditions, and would be unlikely to be acceptable to the hotel owner. This would lead to higher speed 'cut-thru' trips interacting with vehicles maneuvering into and out of the 90-degree parking stalls along this route. Further, the elevation along the Project Site's rear internal roadway is approximately 18 feet higher and 115 feet distant from the rear parking lot of Hyatt House, and the new roadway required to make that connection would approach a 20% grade and be too steep for safe vehicular use (particularly emergency response vehicles).

As discussed in Section 2.1 of Appendix 3, when comparing No-Build to Build with Improvement Conditions, the travel route from 3WPD to Corporate Park Drive utilizing Westchester Avenue will experience a minimal increase in travel times during the Peak AM Hour, and will experience a reduction in travel times during the Peak PM Hour. In the Applicant's opinion, although not required to mitigate any particular traffic condition, expanding the use of the existing emergency connector between the Site and the Carraway site is the most practicable option for creating a new vehicular connection between Westchester Park Drive and Corporate Park Drive, as requested by the Planning Board.

206 **We point out that much of the analysis in the draft EIS makes the assumption that this connection will be made. If a connection cannot be made, the final EIS must be able to measure the impacts to vehicular and non-motorized transportation that will result from this lack of connection. We also point out that both the draft EIS and the market study discuss the site's proximity to the new Wegmans supermarket and other "teardrop" area properties as an advantage for residential development. However, this advantage of proximity is not real unless a connection can be made between Corporate Park Drive and Westchester Park Drive.**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

As illustrated in the Level of Service Summary Tables contained in Appendix 3-D, the interconnector road is not required to offset any specific traffic impact. Even if the connection cannot be made, with the implementation of traffic signal timing modifications the incremental increase in traffic generated by the Proposed Project would be mitigated beyond its impact, and the Proposed Project would not have an adverse impact on the adjacent roadway network after implementation of the proposed improvements.

As described in the *Rental Apartment Market Study* Response in Appendix 4 of this FEIS, RCLCO was not made aware of the potential for a connector road linking the Site to the Carraway site, and thus assumed in the Market Study analysis that residents at the site would need to use Westchester Avenue to access Wegmans Food Market. RCLCO does not believe the one-way configuration of Westchester Avenue will serve as a significant hindrance for residents of the Site or limit the positive impact of the Site's location near Wegmans.

207 **In addition, while a finalized site plan has not been submitted with the draft EIS, the document describes a building program that would "contribute to the sense of place" by providing "stoops, on-street entry doors, parallel parking spaces to buffer traffic, and sidewalks with street trees". However, the conceptual design as shown in the document is still essentially an isolated pod with the connection between the Carraway and the subject site functioning as a "back door" connection behind each building. It would be preferable if the subject site would be developed with better connections to adjacent sites**

as a primary feature of creating community instead of relying on cosmetic treatments to "create the feeling of real street on which people live".

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

The Proposed Project will provide a sidewalk along its Westchester Park Drive frontage, eastward towards Life Time Fitness and westward towards Westchester Avenue. This sidewalk would connect to the central drive of the Proposed Project that would be a direct link to residents' apartments fronted by stoops with patio gardens to encourage gathering and interaction between neighbors. The proximity of the space is designed to promote socializing between people sitting on the stoops, hanging out in the patios and walking down the street.

215 **As we recommended in our previous letters, because this proposal represents the second major land use change on Westchester Park Drive, sidewalks should be constructed along the entire length of this road. Sidewalks are expected amenities for multi-family buildings within walking distance of businesses. The market study also points this out by stating "improving walkability in the immediate surroundings through trails and sidewalks will further increase the appeal".**

While a final site plan has not been submitted with the draft EIS, the conceptual drawings appear to only show a "meandering multiuse path that would be designed to accommodate joggers, bicyclists, and dog-walkers and connect to outdoor fitness areas and dog runs." Although the draft EIS show several "circulation diagrams" or "connectivity diagrams" with general pedestrian access shown along Westchester Park Drive or connecting to adjacent sites, the diagrams and preliminary site plan indicate that some of this "circulation" and "connectivity" will not have sidewalks.

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

The Proposed Project will include a sidewalk along its Westchester Park Drive frontage, eastward towards Life Time Fitness and westward towards Westchester Avenue. Additionally, the Applicant will provide an easement to the Town over the central drive, rear service drive, and adjoining walkways of the Proposed Project to allow a 24-hour publicly accessible pedestrian and vehicular connection that would connect the Site to the Carraway development (see Figure II.A-1, *Proposed Access Easement*). These sidewalk connections are shown in the Figure III. A-3, *Connectivity Diagram*, and in Figure II-18, *Circulation Diagram*, of the DEIS in addition to the Site Layout Plan located in the drawing set submitted with the DEIS.

216 **We agree with the findings of the market study that "improving walkability in the immediate surrounding" is an important opportunity for this application. Providing sidewalks is critical to the success of this area as a mixed-use place where people want to live. We continue to remind the Town/Village that Westchester County Planning Department staff is available to meet with the Town/Village and the applicant to provide technical assistance in assessing the feasibility and cost of a sidewalk along Westchester Park Drive. The Town/Village should also consider amending its zoning regulations within the "teardrop" area to require the provision of sidewalks as a condition of site**

plan approval.

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

Comment directed at the Town/Village of Harrison. The Applicant is providing a sidewalk along the Site's Westchester Park Drive frontage as shown on SP-1.0 Site Layout Plan submitted with this FEIS.

217 **We wish to point out that the ongoing redevelopment of the "teardrop" area is an excellent example of the importance of bicycle access since this area will have many different within close biking distance of one other. A trip that may be seen by some as "too far to walk" may be just the right distance for a bicycle trip. Better connections between the various sites combined with the provision of bicycle parking or even a bicycle sharing program could be a key amenity for this area helping it compete with downtown locations that naturally have the advantages of walkability and bikeability. We recommend this be taken into consideration.**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

The Proposed Project will provide interior bicycle storage and bicycle parking but would not establish a bike sharing program. As shown in Figure II.A-1, *Proposed Access Easement*, the Proposed Project would also create a 24-hour publicly accessible connection by providing the Town with an easement over the central drive, rear service drive, and adjoining walkways connecting the Site and the property line adjoining the Carraway project that would improve connectivity for biking, in addition to vehicular and pedestrian connectivity.

218 **We also point out that improved bicycle access and connectivity was envisioned 10 years ago as part of a previous renovation of 4 Westchester Park Drive (then known as Gannett Drive). Our referral files from 2009 (Referral File Number HAR 09-010) contain plans to construct a metal and glass shelter for bicycle parking which was intended as a high-visibility amenity to encourage cycling with the "teardrop" area.**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

Comment directed at the Town/Village of Harrison. The Applicant will provide the Town with an easement over the central dive, rear service drive, and adjoining walkways connecting Westchester Park Drive to the property line adjacent to the neighboring Carraway development that would allow for a 24-hour publicly accessible pedestrian, bicycle, and vehicular connection.

ZONING COMPLIANCE

320 **Does each building provide adequate (zoning compliant) off-street parking, or is the parking addressed cumulatively? If only one of the two buildings is development, is adequate parking still available?**

- **Patrick Cleary, Planning Consultant, 7/24/19**

As shown in the Table II.A.-1, *Zoning Compliance Table*, Parcel A would provide 372 off-street parking spaces (293 required) and Parcel B would

provide 359 off-street parking (270 required).

Section 235-17Y of the Harrison zoning code provides that parking requirements for SB-0 retail, retail service and restaurant uses may be lowered based on the combination of land uses on the site and opportunities for shared parking:

> (3) In instances where the SB-0 retail use, retail service use, or restaurant use will be combined with other uses on the site, the Planning Board may, subject to the submission of a vehicle trip-generation report by the Applicant, reduce the required off-street parking requirement from one space per 175 square feet of floor area to no less than one space per 400 square feet of floor area for retail and retail service uses, and from one per four permanent seats or 150 square feet of floor area to one per six permanent seats or 300 square feet of floor area, whichever is greater, for restaurant use.
>
> (4) Shared parking between any SB-0 retail use, retail service use, or restaurant use shall be provided wherever feasible.

Of the 6,046 square feet of space provided for Retail, assuming two-thirds (4,030 square feet) is retail use or retail service use and one-third (2,016 square feet) is restaurant use would result in a range of 17 to 37 required parking spaces for Retail at full occupancy[1]. The Applicant anticipates availing itself of one or both of the provisions to lower parking requirements as Retail tenants are identified. Prospective locations for 8 parking spaces in close proximity to the Retail areas in Buildings A and B are shown on Figure II.II-5, *Retail and Guest Parking Diagram*. Additional Retail spaces as needed would also be provided in the two parking garages (as each contains at least 50 spaces, 100 spaces total, more than are required to meet the applicable residential parking requirements) so that the Proposed Project would comply with the parking requirements for SB-0 retail use, retail service use, or restaurant use.

The Applicant does not plan to construct only one of the proposed buildings, but if this occurs for some currently unforeseen reason, the required amount

[1] At one space per 175 SF, 4,030 SF of retail use or retail service use results in 23 required spaces and at one space per 400 SF it results in 10.1 required spaces. At one space per 150 SF, 2,016 SF of restaurant use results in 13.4 required spaces, and at one space per 300 SF it results in 6.7 required spaces. The required range of off-street parking spaces is based on whether or not the Applicant is granted a reduction in the amount of required off-street parking for the Proposed Project following future submission of a vehicle trip generation report to the Planning Board.

of off-street parking would still be provided for the initially-constructed building.

321 **Document more fully the comment "Buffers would be maintained to the maximum extent possible." What do the existing buffer consist of? Are they wooded or open? Are they effective, or do they require supplemental screening to be effective?**

- **Patrick Cleary, Planning Consultant, 7/24/19**

The existing vegetative buffers between the Site and adjoining parcels (Lifetime Fitness, Carraway, Hyatt House Hotel) consist primarily of deciduous woodland trees and understory with a few interspersed evergreen trees. The buffers generally extend along both sides of the shared boundaries, with limited gaps along the northeast (adjoining Lifetime Fitness parking lot) and southeast (adjoining Hyatt House parking lot) property lines. New deciduous and evergreen trees are proposed to supplement the buffers as shown on SP 5.1 Planting Plan.

322 **Clarify if any of the 70,000 square feet of proposed usable open space is publicly accessible, or is it restricted to building tenants.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

The fitness path, comprising approximately 30,000 square feet of the proposed usable open space, would be open to the public during daylight hours, which would be enforced by on-site security personnel. No physical restriction or gate is proposed.

323 **The applicant should provide the support for the conclusion that "existing municipal services and facilities are anticipated to be adequate."**
As noted elsewhere in this memorandum, the Applicant is requested to inspect and videotape the sanitary sewer to ensure that it has adequate capacity and is in a condition to accommodate the additional wastewater generated by the project. It would be expected that this analysis would be required before the conclusion about the adequacy of the facilities could be made.

- **Patrick Cleary, Planning Consultant, 7/24/19**

The Applicant has submitted the project's estimated water demands to Westchester Joint Water Works (WJWW) along with a request for water supply service which can be found in Appendix 1 of this FEIS. The Applicant has scheduled a meeting with WJWW on September 5th, 2019 to discuss the results of its analysis to determine any needs for water system improvements beyond those shown on the plans to accommodate the added water demands on the supply system. The Applicant would make the necessary improvements required to serve the Proposed Project.

As stated in Section G of the DEIS, the estimated peak sanitary sewer flows

associated with the Proposed Project would be within the capacity of the existing sewer system with the installation of a liner in the section of sewer that crosses under I-287. At a July 31, 2019 meeting with the Applicant's civil engineer, the Harrison Town Engineer requested that the Applicant video inspect the existing Town sewer mains between the Site's existing sanitary connection point in Westchester Park Drive and the connecting manhole to the Corporate Park Drive main in Westchester Avenue. The Applicant will submit the video to the Town Engineering Department for its review and determination of any needed mitigation, and to confirm adequate capacity in the mains for the project's proposed sanitary flows. An August 1st, 2019 letter from Westchester County DEF included in FEIS Appendix 1 states "Westchester County's Mamaroneck Wastewater Treatment Plant and Mamaroneck Trunk Sewer system will serve and have sufficient capacity to accommodate the proposed flow increase" from the Proposed Project.

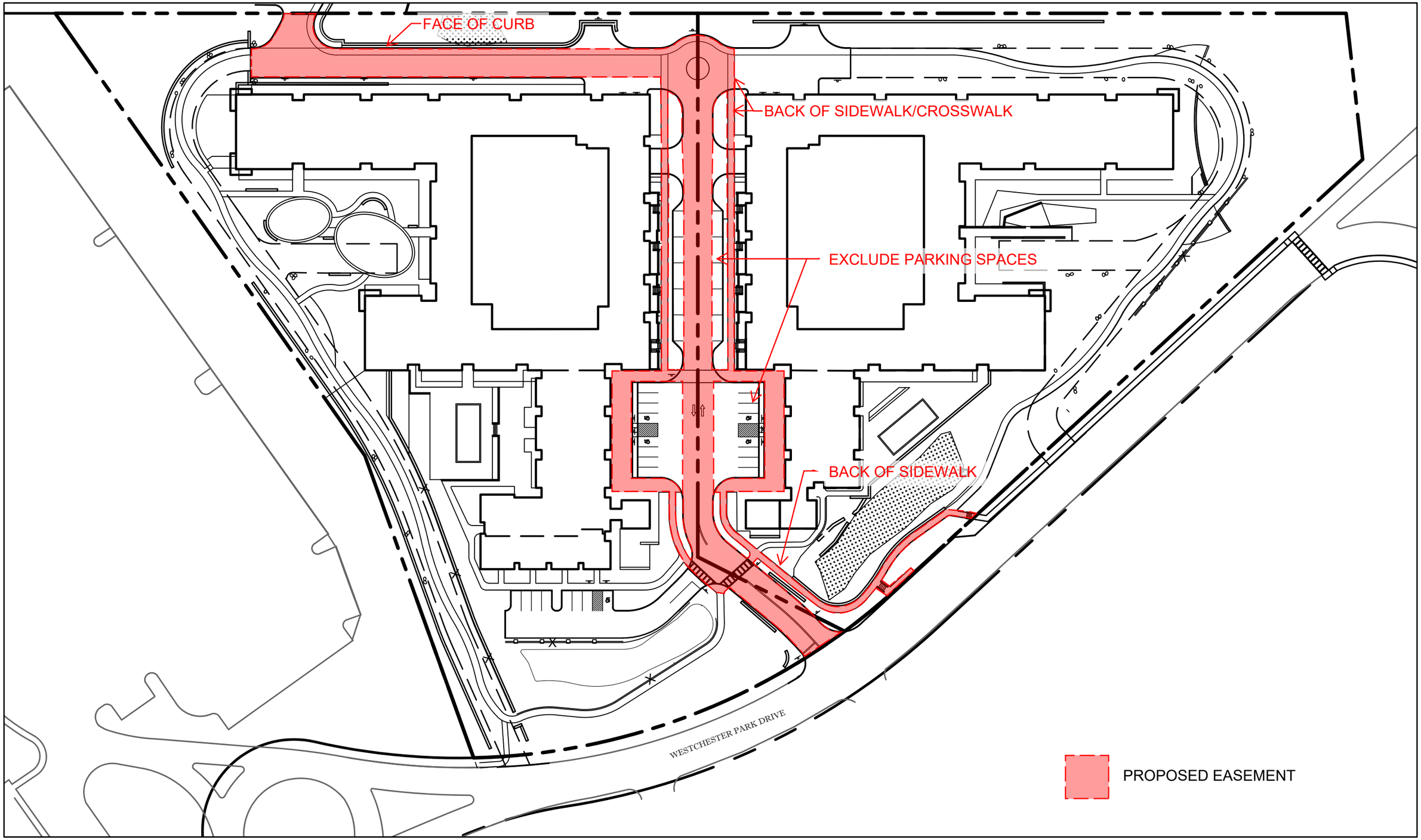
PLANNING STUDIES

201 **The subject site, having once been a highway-oriented suburban office park building, is not in an established downtown center. However, if developed as proposed, it would continue the trend of redevelopment within the "teardrop" area, which is transitioning away from office uses to a mix of retail, residential, medical, recreational, and hotel uses. The overall concept of this transition is consistent with the *Westchester 2025* policy transforming already-developed sections of corridors into efficient and attractive multi-use places. However, the success of this transition rests on the implementation of several key planning principles.**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

Comment noted.

PLOTTED BY: DIVNEY TUNG SCHWALBE, LLP JULIE CLEVELAND 9/16/2019 12:12 PM L:\826 3 WESTCHESTER PARK DRIVE\DESIGN\826 SPLANJC.DWG



N

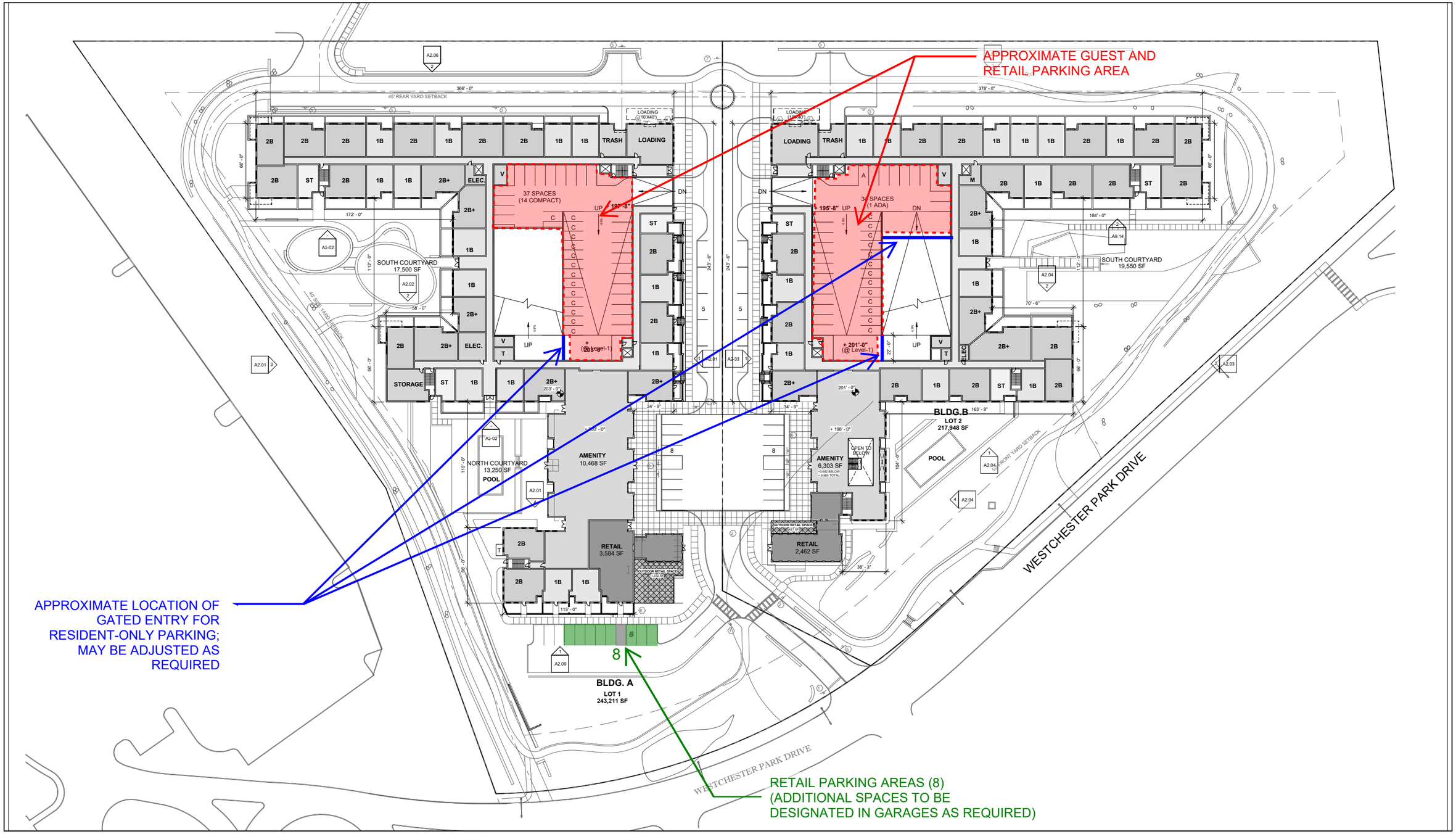
0 40 80

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

PROPOSED ACCESS EASEMENT

3 WESTCHESTER PARK DRIVE
HARRISON, NY

FIG. II.A-1



N

1 INCH = 80 FEET

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October 4th, 2019

RETAIL AND GUEST PARKING DIAGRAM

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.A-2

TABLE II.A-1

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

ZONING COMPLIANCE TABLE

CODE SECTION[1]	SB-0 DISTRICT	REQUIRED/ PERMITTED	PROPOSED		
			FULL SITE	PARCEL A	PARCEL B
	ARTICLE V - SPECIAL EXCEPTION USES				
235-17X	**SB-0 MULTI-FAMILY RESIDENTIAL**				
235-17X(2)	**Minimum Lot Area (acres)**	5	10.63	5.54	5.09
	To be located on roads w/direct access to Westchester Ave	Required	Yes	Yes	Yes
235-17X(3)	**Minimum Frontage, Public or Private Roadway (feet)**	350	972	352	620
235-17X(4)	**Maximum Dwelling Units**	450	450	234	216
235-17X(5)	**Maximum Building Coverage**	45%	33%	32%	33%
235-17X(7)	**Minimum Apartment Sizes (square feet)**				
	Efficiency (Studio)	475	To Comply	To Comply	To Comply
	One-Bedroom	600	To Comply	To Comply	To Comply
	Maximum Number of Bedrooms / Dwelling Unit	3	3	3	3
235-17X(9)	**Minimum Recreation Space (square feet)**	2,500	To Comply	To Comply	To Comply
235-17X(10)	**Minimum Parking Spaces / Dwelling Unit**	1.25			
	Calculated minimum for proposed dwelling units - Full Site	562.5	731		
	Calculated minimum for proposed dwelling units - Parcel A	292.5		372	
	Calculated minimum for proposed dwelling units - Parcel B	270.0			359
235-17X(11)	**Minimum Landscape Buffer Adjoining Nonresidentail Use (feet)**				
	Front Yard	25	50	140	50
	Side Yard	40	40	40	40
	Rear Yard	40	70	70	70
235-17X(14)	**Dimensional Requirements**				
	Lot Area				
	Minimum Site Total (acres)	5	10.63	5.54	5.09
	Minimum per Family Unit (square feet)	350	To Comply	To Comply	To Comply
	Lot Coverage				
	Maximum Building Coverage	45%	33%	32%	33%
	Lot Width (feet)	300	989	313	676
	Required Yards (feet)				
	Front	50[2]	50	140	50
	Side (adjoining residence district)	100	NA	NA	NA
	Side (adjoining business district)	40	40	40	40
	Rear	45	70	70	70
	Habitable Floor Area (minimum square feet)	475	To Comply	To Comply	To Comply
	Height				
	Stories	6	6	5	6
	Floor Area Ratio	No Req't	NA	NA	NA
235-17Y	**SB-0 RETAIL USE; RETAIL SERVICE USE; RESTAURANT USE**				
235-17Y(1)	**Maximum Gross Floor Area (square feet)**	25,000	6,046	3,584	2,462
	Outdoor Dining (square feet)	Permitted	1,809	1,372	437
235-17Y(3)	**Minimum Parking Spaces**				
	Retail Use / Retail Service Use	1 / 175-400 sf[3]	To Comply[5]	To Comply[5]	To Comply[5]
	Restaurant Use	1 / 4-6 seats or 1 / 150-300 sf[4]	To Comply[5]	To Comply[5]	To Comply[5]

Footnotes:

[1] Per the Zoning Ordinance of the Town/Village of Harrison, NY, accessed 10/02/19 at https://ecode360.com.

[2] "The front yard may be reduced to 25 feet for an area not to exceed 25% of the total width of that portion of the building parallel to the required front yard."

[3] "The Planning Board may, subject to the submission of a vehicle trip-generation report by the Applicant, reduce the… requirement from 1 sp / 175 sf to no less than 1 sp / 400 sf."

[4] "The Planning Board may, subject to the submission of a vehicle trip-generation report by the Applicant, reduce the… requirement from 1 sp / 4 permanent seats or 150 sf to 1 sp / 6 permanent seats or 300 sf, whichever is greater."

[5] Number of required spaces to be determined following identification of tenant(s) and submission of projected vehicle trip generation report by Applicant.

COMMENT NUMBER	COMMENT/RESPONSE
	EARTHWORK
324	**Clarify if all existing fill materials will be reused on-site, or will some removal of existing fill occur.** - **Patrick Cleary, Planning Consultant, 7/24/19** The existing fill materials on the Site would be re-used to the maximum extent possible. Unsuitable fill material, such as organic material would not be re-used in construction of the Proposed Project and would be removed from the Site.
325	**Verify that the 5-acre limit of disturbance will be maintained, even during the 2 month mass clearing period.** - **Patrick Cleary, Planning Consultant, 7/24/19** The maximum limit of open disturbed area during construction is expected to conform to the five-acre limitation of the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (GP-0-15-002). Any change to the five-acre limit would require that the Applicant file a waiver request and supporting documentation with the Town Engineering Department for its approval.
	ROCK REMOVAL
326	**The Applicant is requested to investigate the rock removal and site grading operating at the Wegmans site, which proved to be more difficult and time consuming due to the character and hardness of rock. This information should be incorporated into the assessment of potential rock removal impacts.** - **Patrick Cleary, Planning Consultant, 7/24/19** The Applicant's engineer contacted Wegmans on July 29th, 2019 via phone call and it was advised that there was no difficulty in removing the rock on the Wegmans site. Drilling, blasting, and rock removal operations generally proceeded as planned. However, more rock was encountered than had been originally estimated by its geotechnical engineer which resulted in an extended length of rock removal efforts at the site. Further, the increase in rock quantity swelled during processing creating a cut and fill imbalance requiring the removal of some material off-site. As described in DEIS Section III.B., the amount of rock removal on the Site for the Proposed Project was estimated, taking into account the geotechnical report prepared by Whitestone Associates and provided in the DEIS.

PLANNING TECHNIQUES

327 **Document and quantify the amount (by percentage) of "existing level areas" that will be reused, as opposed to areas where grading will occur.**
- **Patrick Cleary, Planning Consultant, 7/24/19**

The referenced sentence in Section III.B. of the DEIS, "the Proposed Project has been designed to re-use existing level areas for new building pads, parking areas and open spaces to avoid the disturbance of rock where practicable" should have more accurately read: "The Proposed Project has been designed to re-use existing developed areas..." There are few level areas on the existing site, as the parking lots slope generally from three to five percent. The previously developed area on the Site is approximately six acres, approximately four acres of which is parking lot areas. The amount of area that would be disturbed by the Proposed Project is estimated to be approximately 9.5 acres, or an additional 3.5 acres of land not previously developed.

COMMENT NUMBER	COMMENT/RESPONSE

VEGETATION AND WILDLIFE

328

The conclusion that "all of the identified ecosystems are considered regionally common" is inaccurate.
According to the New York State Natural Heritage Database, the Oak-Tulip Tree Forest is secure globally; however it is "very vulnerable" in New York State with between 6 to 100 occurrences within its fairly limited range, which includes the norther half of Long Island in the Coastal Lowlands Ecozone, the Manhattan Hills, Hudson Highlands and Triassic Lowlands Ecozones.

- **Patrick Cleary, Planning Consultant, 7/24/19**

According to the New York State Natural Heritage Database, the Oak-Tulip Tree Forest, as defined in the DEC March 2014 publication *Ecological Communities of New York State*, is secure globally and in New York State its relative rarity ranges from being less than "apparently secure" to "very vulnerable". According to the publication, the acreage of this community in New York State ranges from few to limited. However, regionally, in southern New York and southern Connecticut, the Oak-Tulip Tree Forest is very common. William Kenny Associates has observed hundreds of acres of this forest type at many locations within 50 miles of the project site. The Oak-Tulip community that is present onsite is a degraded variant of the Oak-Tulip community from the DEC publication. Invasive tree species such as Norway maple, tree of heaven and black locust and other invasive vegetation are very common in portions of the onsite forest and the forested areas are very small, narrow or both. Due to the presence of invasive vegetation and the size and shape of the onsite areas, the value of the onsite community is substantially less than that of large, mostly pure Oak-Tulip Communities.

TREE REMOVAL

329

Identify the number of existing trees within the site perimeter.

- **Patrick Cleary, Planning Consultant, 7/24/19**

As discussed in DEIS Section D.1.(4)b., *Tree Survey*, there are approximately 100 existing trees within the site perimeter outside of the proposed limit of disturbance.

COMMENT NUMBER	COMMENT/RESPONSE
	STORMWATER MAINTENANCE
PH-402	**The other thing that I'd like you to look at, the fact the storm water basins have not been maintained. That happens a lot, because the developments get built, office parks or residential and then you know, years go by and here we are. What is the long-term plan for making sure they stay here and stay clean and stay active and do what they're supposed to do. The quality of the water and the volume of the water, we understand the volumes of the water goes down here somewhere when it rains.** - **Joseph Stout, Planning Board Member, Public Hearing 5/21/19** The Applicant has provided a Stormwater Pollution Prevention Plan (SWPPP) that outlines stormwater maintenance procedures for the Site for Town Engineer review. The Applicant anticipates that it would be required as a condition of site plan approval to provide the Town of Harrison with an easement to maintain stormwater facilities on the Site should the property owner fail to do so.

As described in Section II of this FEIS, the Proposed Project will now provide approximately 6,000 square feet of space designated for SB-0 retail use, retail service use, and restaurant use. Based on a multiplying factor of 0.1 GPD per square foot and using *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems*, the addition of space designated for SB-0 retail use, retail service use, and restaurant use results in an estimated increase of between 600 GPD and 1500 GPD in sanitary sewer and water flows[1] at full-occupancy based on final use. This represents less than a 2-percent increase in total project flows. Based on this, the addition of space designated for SB-0 retail use, retail service use, and restaurant use is not anticipated to result in a significant increase in flows from the Proposed Project.

COMMENT NUMBER	COMMENT/RESPONSE
	WATER SUPPLY
330	**Are any water saving devices proposed in the residential building (low flow fixtures, etc.)?** - **Patrick Cleary, Planning Consultant, 7/24/19**
	"Low-flow" plumbing fixtures will be utilized in the proposed buildings.
	SANITARY SEWER
219	**Since 2010, it has been the policy of the County Department of Environmental Facilities (WCDEF) that municipal governments require the applicant to identify mitigation measures that will offset the projected increase in flow. The best means to do so is through the reduction of inflow and infiltration (I&I) at a ratio of three for one for market rate units and at a ratio of one for one for affordable AFFH units.** **Although we specifically asked for a discussion of I&I in our comments on the scoping document, the draft EIS does not contain this discussion. The final EIS must provide specific details on how implementation of I&I improvements is to be accomplished. For example, will the applicant be required to place funds into a dedicated account for I&I work based on a per gallon cost of removal of flow through I&I? How will I&I projects be identified? Who will conduct the work and in what timeframe?** - **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**
	During an August 1, 2019 meeting with the Applicant's civil engineer, the Harrison Town Engineer requested that to supplement the information provided in the DEIS (including the Appendix 7 Sanitary Sewer Investigation report), the Applicant video inspect the Town sanitary mains in Westchester Park Drive and Westchester Avenue that would serve the Proposed Project.

[1] Sanitary Flow Rates based on *New York State Design Standards for Intermediate Sized Wastewater Treatment Systems*, March 5, 2014, Table B-3, Typical Hydraulic Loading Rate; Water Rates computed at 110% of estimated Sewer Rates.

The video inspection should begin at the existing manhole along the Site's Westchester Park Drive frontage and run through the Westchester Park Drive and Westchester Avenue mains, ending at the intersecting manhole (SMH-S3) with the Corporate Park Drive main. The flow through SMH-S3 was monitored and described as part of the DEIS Appendix 7 report. Following review of the Applicant's video inspection and other area inflow and infiltration conditions, the Town Engineer will make a determination during the Site Plan review process as to appropriate mitigation measures for the Project's increase in sanitary flow. The Applicant will undertake the specific mitigation measures once they are identified by the Town Engineer.

220 **The County Planning Board further recommends that the Town/Village implement a program that requires inspection of sewer laterals from private structures for leaks and illegal connections to the sewer system, such as from sump pumps. These private connections to the system have been found to be a significant source of avoidable flows. At a minimum, we encourage the Town/Village to enact a requirement that a sewer lateral inspection be conducted at the time property ownership is transferred and any necessary corrective action be enforceable by the municipal building inspector.**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

Comment directed at the Town/Village of Harrison.

331 **No reference to any inflow or infiltration analysis is noted in the previous investigations of the sewer lines. I&I should be addressed and documented.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

During an August 1, 2019 meeting with the Applicant's civil engineer, the Harrison Town Engineer requested that to supplement the information provided in the DEIS (including the Appendix 7 Sanitary Sewer Investigation report), the Applicant video inspect the Town sanitary mains in Westchester Park Drive and Westchester Avenue that would serve the Proposed Project. The video inspection should begin at the existing manhole along the Site's Westchester Park Drive frontage and run through the Westchester Park Drive and Westchester Avenue mains, ending at the intersecting manhole (SMH-S3) with the Corporate Park Drive main. The flow through SMH-S3 was monitored and described as part of the DEIS Appendix 7 report. Following review of the Applicant's video inspection and other area inflow and infiltration conditions, the Town Engineer will make a determination during the Site Plan review process as to appropriate mitigation measures for the Project's increase in sanitary flow. The Applicant will undertake the specific mitigation measures once they are identified by the Town Engineer.

332 **The statement that the "the treatment plant has capacity to accommodate the added flow" must be confirmed by the Westchester County Department of Environmental Facilities.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

A letter was received on August 1st, 2019 (see Appendix 1 of this FEIS) from the Westchester County Department of Environmental Facilities (WCDEF) acknowledging that Westchester County's Mamaroneck Wastewater Treatment Plant and Mamaroneck Trunk Sewer System will serve and have sufficient capacity to accommodate the added flow of the Proposed Project.

333 **It is noted that the 366 gpm of wastewater is within the capacity limit of the sewer. Quantify the difference between the flow and capacity limit.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

As noted in Section III.G of the DEIS, the estimated peak flow attributable to the Westchester Park Drive sewer would be 366 gpm and within the estimated 426 gpm capacity limitation of the existing sanitary sewer between SMH-10 and SMH-11 located at the intersection of Westchester Park Drive and Westchester Avenue (westbound). The estimated peak flow to the Westchester Park Drive sewer is 60 gpm less than the estimated capacity limitation of the existing sanitary sewer.

334 **Explain how installing a liner in the pipe will increase its capacity.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

As noted in Section III.G of the DEIS, the use of an HPDE liner with a reduced and more efficient Manning Coefficient (n=0.009) would provide for less friction through the limiting 130-foot section of cast-iron sewer crossing under I-287, and therefore increase its throughput or effective capacity.

GAS SERVICE

PH-403 **I'd like you to look at all alternative energy sources other than, you know, relying on Con Ed to lift the gas moratorium in 3 years. What happens if that happens.**

- **Joseph Stout, Planning Board Member, Public Hearing 5/21/2019**

335 **The statement that Con Ed "has the capacity to provide gas and electric service." Should be qualified in light of the existing has moratorium.**

-**Patrick Cleary, Planning Consultant, 7/24/19**

As described in Section III.G. of the DEIS, the Applicant submitted a request in December 2018, prior to the March 15th, 2019 deadline to file an application for new gas service as part of Con Edison's gas moratorium. A written determination, a copy of which can be found in Appendix 1 of this FEIS, was received in January 2019 and states Con Edison will install a new

4-inch medium pressure plastic gas service from the existing main within Westchester Park Drive to each of the proposed buildings to accommodate the gas consumption for the Proposed Project.

The Traffic Impact Study submitted with the DEIS was updated to address the comments received and to include the spaces designated for SB-0 retail use, retail service use, and restaurant use that are now being provided in the Proposed Project. The updated study can be found in Appendix 3 of this FEIS.

COMMENT NUMBER	COMMENT/RESPONSE
	EXISTING CONDITIONS
101	**Traffic counts for the study area intersections were conducted on Wednesday, June 6, 2018 as well as Automatic Traffic Recorders (ATR's) from June 5, 2018- June 14, 2018. These traffic counts were compared to NYSDOT historical data as well as other recent traffic counts for other development in the immediate area. The resulting Year 2019 Existing Traffic Volumes are appropriate.** - **John Collins, Principal Associate, Maser Consulting, 5/17/2019** Comment noted.
102	**A detailed description of Westchester Park Drive including the existing and proposed uses along the roadway, posted speed limit, location of bus stops, if sidewalks are provided and the general condition of the roadway should be provided.** - **John Collins, Principal Associate, Maser Consulting, 5/17/2019** Westchester Park Drive is a two-lane roadway (one lane in each direction) with a posted Speed Limit of 25 miles per hour. It extends from its signalized intersection with Westchester Avenue in the south for approximately 1,250 feet to its northerly terminus at the entrance to Life Time Fitness. Westchester Park Drive currently serves an office use at 2-4 Westchester Park Drive, Life Time Fitness as well as the proposed Project site. Bus Stops are provided along the site frontage of each of the three land uses served by Westchester Park Drive. No sidewalk is currently provided along Westchester Park Drive; however, sidewalk is proposed along the proposed Project site frontage.
	TRAFFIC VOLUMES
103	**A compounded background growth factor was 1% per year (for a total background growth of 2.01%) to the 2020 Design Year was utilized as well as traffic for 103-105 Corporate Park Drive (Carraway property), Wegmans and 104 Corporate Drive. In addition, to the adjacent developments, the re-occupancy of the existing office building was also included as part of the background traffic volumes. The resulting Year 2020 No-Build Traffic Volumes are appropriate.** - **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

Comment noted.

104 **A sensitivity analysis should be conducted without any public transportation credit, since there could be significantly less reductions if the shuttle/jitney is not provided/discontinued, less carpooling/working from home and due to the location of the site it is anticipated that there would be minimal walking trips (independent of public transportation). The resulting Trip Generation based in ITE (without any reductions) would be a total of 150 trips (39 entering trips and 111 exiting trips) during the Weekday Peak AM Hour and a total of 188 trips (115 entering trips and 73 exiting trips) during the Weekday Peak PM Hour.**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

107 **A sensitivity with the ITE Trip Generation without any reductions should be conducted (See Comment 4).**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

A sensitivity analysis has been performed without any public transportation credit. The findings of the sensitivity analysis are outlined in Appendix 3 – "Supplemental Traffic Impact Study for Final Environmental Impact Statement". The findings of the sensitivity analysis indicate the mitigation required for the proposed Project would be the same as mitigation required if the public transportation credit considered in the DEIS traffic analysis was applied.

105 **The arrival and departure distributions are not reflective of each other. For example the arrival distribution shows 9% from Bryant Avenue while the departure distribution shows 18% to Bryant Avenue, similarly 7% is shown from the West Red Oaks Drive with 0% to West Red Oaks Drive. These arrival/departure discrepancies should be clarified/adjusted and used with for updated analysis.**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

106 **The Year 2020 Build Traffic Volumes and analysis will need to be updated based on the arrival/departure distributions (See Comment 5).**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

The Arrival and Departure Distributions were updated to reflect the same origin and destination percentages. The updated arrival and departure distributions are illustrated on Figures 6 through 9 in Appendix 3-A. All updated analysis is reflective of these revised trip distributions.

337 **Is the 25% public transit factor realistic given the unique characteristics of this site? Empirical data from similarly situated developments would be helpful in determining if this factor is justifiable. This site is not in a transit friendly location. Support for the statement that "mass transit utilization rates may be higher" should be documented. Contrary to the statements in the DEIS, it is anticipated that this site will be particularly dependent upon passenger vehicles.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

The 25% factor was applied strictly based upon the US Census Data for the Town of Harrison and the City of White Plains, which indicates 63.4% and 67.9% of residents drive to work from each of these communities, respectively. Recognizing that this site is not located as close to a Metro-North train station as other areas within these two communities, it is understood that the 25% factor may not be realized. Based on the foregoing, a sensitivity analysis has been performed without any public transportation credit. The findings of the sensitivity analysis are outlined in Appendix 3. The findings of the sensitivity analysis indicate the mitigation required for the proposed Project would be the same as the mitigation required if the public transportation credit considered in the DEIS traffic analysis was applied. It is the Applicant's opinion that the Sensitivity Analysis is conservative, as some percentage of residents will utilize other means of transportation, albeit it may not be as high as 25%.

338 **Document how ride share services (Lyft and Uber) will effect traffic volumes.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

Ride share services, such as Uber or Lyft will only go to benefit the proposed Project from a traffic impact standpoint. Rideshare services could facilitate more carpooling among residents, resulting in less trips from the Site. These services could potentially provide a more economical and efficient service than shuttle/jitney service. The ride share services are a more on-demand service that most users prefer.

A possible concern with rideshare services is the trip will enter and exit the site within the same Peak Hour, potentially "doubling" the number of trips. Ideally, a rideshare trip will pick-up another fare at the drop-off point or at a location nearby. Thus, the trip would not "double" across the entire travel route. Additionally, the Applicant will facilitate carpooling at the Site using a message-board or similar means to link residents with similar schedules, which would lead to rideshare services picking up or dropping off multiple residents with one trip. In many instances, the trip that the rideshare replaces would be a 'kiss and ride' trip, in which one person drives and drops-off another, typically at a train station, that could have the same effect or greater depending upon the origin/destination of the 'kiss and ride' drop-off vehicle, and would not have the same carpool potential as the rideshare service.

339 **It is noted that the trip distribution was calculated used existing 2018 traffic patterns. Those 2018 traffic patterns reflected the previous uses (basically underutilized office uses and Life Time Fitness) and did not reflect the new residential use patterns. The arrival and departure distributions should take into consideration the travel patterns of the new residential uses, and be revised accordingly.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

US Census Journey to Work data was reviewed for the Town of Harrison and the trip distributions were updated accordingly. The updated arrival and departure distributions are illustrated on Figures 6 through 9 in Appendix 3-A. All updated analysis is reflective of these revised trip distributions.

CAPACITY ANALYSIS

108 **The analysis utilizes both the default Peak Hour Factor of 0.92 and Heavy Vehicle Factor of 2%. The analysis should be updated to reflect the observed Peak Hour Factors and Heavy Vehicle Factors based on the traffic count data contained in Appendix E of the TIS.**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

All analysis has been updated with the calculated Peak Hour Factors and observed Heavy Vehicle Percentages. The results of the updated analysis are contained in Appendix 3.

109 **In the review of 104 Corporate Park Drive, Westchester County DPW required that the intersection of Westchester Avenue Eastbound with the I-287 Eastbound Off-Ramp be evaluated. This location should be analyzed.**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

212 **The traffic study fails to assess the most constrained signalized intersection in the area in terms of capacity: eastbound Westchester Ave and the exit ramp from eastbound I-287. This intersection operates over capacity in both the weekday morning and evening peak hours. This intersection must be analyzed as part of the EIS and it is likely that mitigation will be needed for WCDPWT approval. The recommended mitigation is to widen eastbound Westchester Avenue downstream of the signal to enable the two eastbound Westchester Avenue approach lanes to operate as a through and through/right rather than as separate through hand right turn lanes. This additional lane would then be then dropped prior to the merge from the southbound Hutchinson River Parkway to eastbound Westchester Avenue ramp, approximately 600 feet to the east. Without improving this key intersection, which is located within the Town/Village of Harrison, further development and/or redevelopment on the Westchester Avenue corridor should not be approved.**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

The updated traffic analysis has included the intersection of Westchester Avenue Eastbound and the I-287 Eastbound Off-Ramp as a study location. Based upon the results of the analysis, the Levels of Service will remain unchanged from No-Build to Build conditions. During the Peak AM Hour, the increase in overall delay from No-Build to Build conditions is only 0.3 seconds. During the Peak PM Hour, the overall delay decreases by 3.7 seconds from No-Build to Build conditions. Therefore, no mitigation is required for this location. Additional information is provided in Appendix 3.

213 **In order to assess the proposed mitigation at the intersection of westbound Westchester Avenue and Corporate Park Drive, the traffic study must be revised to incorporate the latest mitigation proposal for the combine Wegmans and proposed medical office redevelopment, specifically at the traffic light intersections of both eastbound and westbound Westchester Avenue with Corporate Park Drive, including the proposed signaled slip ramp from Corporate Park Drive to westbound Westchester Avenue. This mitigation plan has been approved by WCDPWT**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

Improvement plans were obtained from the WCDPWT for the intersections of Corporate Park Drive with Eastbound and Westbound Westchester Avenue. These improvements are being proposed in conjunction with the Application for 104 Corporate Park Drive. These improvements have been considered in the updated traffic analysis contained in this Report. The findings of the updated analysis are summarized in Appendix 3.

336 **The traffic impact analysis should take into account the 300 unit project at 1133 Westchester Avenue, White Plains, proposed by the RPW Group.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

Traffic volumes associated with the 1133 Westchester Avenue Residential Development currently proposed in the City of White Plains have been included in the background traffic volumes. This adjacent development is in addition to the other adjacent developments originally considered in the DEIS (Wegman's, 104 Corporate Park Drive and Carraway), which are all reflected in the updated No-Build Traffic Volumes and traffic analysis contained in Appendix 3.

INTERCONNECTOR ROADWAY ANALYSIS

110 **An analysis was conducted with the potential interconnection by taking into consideration the potential reduction of trips to the surrounding roadway network as "interplay" between all the uses along Westchester Park Drive and Corporate Park Drive. A copy of the NCHRP Report 684 Trip Capture Estimation worksheets should be provided.**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

A copy of the NCHRP Report 684 Trip Capture Estimation worksheets are contained in Appendix 3-F.

111 **However, the location of the connector would not be obvious and convenient to all users. For example, shoppers at Wegmans may not realize that access to Life Time Fitness is available through the connector. Therefore, an alternate analysis should be provided for a reduced "interplay".**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

A sensitivity analysis has been performed for more limited Interconnector

Roadway usage that only considers use by traffic originating from/destined to 3 Westchester Park Drive and/or Carraway. Additionally, it does not consider any public transportation credit. The findings of the sensitivity analysis indicate the mitigation required for the proposed Project would be the same as mitigation required if the credit considered in the DEIS traffic analysis was applied. Additional detail on the sensitivity analysis is provided in Appendix 3.

112 **The Interconnector Roadway Analysis does not consider a redistribution of traffic volumes, along both Corporate Dive and Westchester Park Drive that would use the interconnection to access Westchester Avenue primarily those from Westchester Park Drive to Corporate Drive to directly access Westchester Avenue Eastbound. A build analysis of these potential diversions without the interplay credit should be provided.**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

The re-routed traffic from 2-4 Westchester Park Drive that may utilize the Interconnector Roadway were considered in the DEIS traffic analysis. Figure 12 contained in Appendix 3-A illustrates those traffic volumes. Traffic volumes for other uses were calculated utilizing the NCHRP Report 684 Trip Capture Estimation worksheets, which are contained in Appendix 3-F and are illustrated on Figure 13.

345 **The connection between the project site and the Carraway should be identified as a traffic mitigation measure. Clarify how the operation of this connector would effect traffic operating conditions.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

The Applicant is continuing to explore the opportunity of providing an Interconnector Roadway between the proposed Project Site and the Carraway Project Site currently under construction along Corporate Park Drive. As illustrated in the Level of Service Summary Tables contained in Appendix 3-D, the provision of the Interconnector Roadway would provide some added benefit by lowering average vehicular delays on the adjacent roadway network; however, this is not required mitigation to offset any specific traffic impact, but rather is a good faith by the Applicant to further the Town of Harrison's policy goal of providing connectivity between the three (3) existing roads in the "teardrop" area. As discussed in Section 2.1 of Appendix 3, when comparing No-Build to Build with Improvement Conditions, the travel route from 3WPD to Corporate Park Drive utilizing Westchester Avenue will experience a minimal increase in travel times during the Peak AM Hour, and will experience a reduction in travel times during the Peak PM Hour.

PARKING

113 **The TIS indicates some 731 parking spaces will be provide with the Site Plan indicating some 713 parking spaces. The proposed number of parking spaces should be confirmed.**
- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

The Proposed Project would provide 731 parking spaces. The Site Layout Plan (SP-1.0) submitted with the DEIS shows 351 parking spaces in the Building A parking garage, 346 in the Building B parking garage, 8 in the surface parking lot in front of Building A, 16 in the entry court surface parking area, and 10 parallel spaces along the central drive. This totals 731 parking spaces. The Proposed Project was updated to include three additional surface parking spaces in the lot in front of Building A, shown in the revised Drawing Plan Set submitted with this FEIS.

114 **The Traffic Impact Study provides a Parking Demand Table (Table 5.0.1) indicating a parking demand of some 594 parking spaces (which would equate to a 1.32 parking rate) based on ITE Rates. The corresponding ITE Land Use excerpts should be provides so the parking rate and demand can be verified.**
- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

The excerpts from this publication are contained in Appendix 3-G.

115 **A comparison to the Town Parking Rate should also be provided.**
- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

The Town of Harrison Zoning Ordinance requires the provision of 1.25 spaces per residential unit for SB-0 Multifamily Residential (per §235-17X) for a total of 562.5 parking spaces.

341 **The Applicant is requested to provide documentation from similar projects identifying visitor parking rates, and peak hours.**
- **Patrick Cleary, Planning Consultant, 7/24/19**

. Parking information for 15 multifamily rental projects owned or operated by the Applicant shows average visitor parking spaces provided at a rate of 0.14 spaces per unit. A ratio of 0.15 was applied for the Proposed Project resulting, in 35.1 and 32.4 needed visitor parking spaces in Building A and Building B, respectively, which will be accommodated in the visitor and retail parking areas of the garages.

SIGHT DISTANCE

116 **It appears that Stopping Sight Distance can be provided at the Site Driveway.**
- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

Comment noted.

340 **Sight distances were calculated based upon the posted 30-mph speed limit. The Applicant is requested to establish the actual average speeds of vehicles traveling along Westchester Park Drive, and adjust sight distances to reflect actual travel speeds.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

In order to more accurately verify the required sight distance, PDE recorded travel speeds on both directions of Westchester Park Drive in the immediate vicinity of the proposed Project site driveway. The travel speeds were recorded for all vehicles travelling on Westchester Park Drive for a one-week period. The raw data from the travel speed recordings is included in Appendix 3-K. Based upon the recorded data, the average travel speed in both directions on Westchester Park Drive is approximately 30 MPH. Therefore, the sight distance findings in the DEIS are still applicable.

AIR QUALITY

117 **The NYSDOT Co Microscale Analysis Screening Program "Needs Analysis" should be conducted to determine if the proposed Project will require a detailed air quality analysis at any of the study area intersections.**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

A "Needs Analysis" was conducted as per the NYSDOT CO Microscale Analysis Screening Program. Details of the analysis are contained in Appendix 3. The results of the analysis indicate a CO Microscale Analysis is not required.

342 **The DEIS only assessed the incremental traffic generated by the project to determine air quality impacts. How is this incremental increase influenced by the existing heavy volumes of traffic (and resulting air quality impacts) on adjacent Westchester Avenue and I-287.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

A "Needs Analysis" was conducted as per the NYSDOT CO Microscale Analysis Screening Program. Details of the analysis are contained in Appendix 3. The results of the analysis indicate a CO Microscale Analysis is not required.

TRANSIT

208 **As noted above, this application offers the opportunity to provide a vehicular connection between Corporate Park Drive and Westchester Park Drive, however, the draft EIS does not examine the suitability of this connection for transit vehicles. We noted in our comments on the draft scope that "the EIS should examine the vehicle size limitations involved with a proposed connection between the subject site and the Carraway site to determine if transit, ride-sharing and micro-transit services can utilize this connection."**

The draft EIS does not contain this discussion. However, as the market study points out, this development is at a clear disadvantage to almost all other comparable residential developments because it lacks walkable access to a Metro-North station. Efficient transit, ride-sharing or micro-transit services can mitigate this disadvantage. Therefore it will be important for the final EIS to address this.

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

The proposed connection between Westchester Park Drive and Corporate Park Drive through the Site would be able to accommodate a 40' passenger bus. Given this, it can be concluded that the proposed connection would also be suitable for the smaller vehicles that are used for ride-sharing and micro-transit services.

As detailed in the *Rental Apartment Market Study Response*, the success of The Apex at 290 apartments in Elmsford, NY provides evidence of demand for rental apartments in more suburban locations, even a location with fewer local amenities than those surrounding the Site, such as Life Time Fitness and Wegmans Food Market that is currently under construction. Further, the Proposed Project will provide a total of approximately 7,800 square feet of Retail-oriented space on the Site, including outdoor areas dedicated in support of Retail uses. A total of approximately 6,000 square-feet of enclosed Retail-oriented space, approximately 3,580 square-feet in Building A and approximately 2,460 square-feet in Building B, will be provided on the Site and able to accommodate approximately four to seven Retail-oriented tenants depending on use. The enclosed Retail-oriented spaces in Building A and Building B will also be complemented by a combined total of approximately 1,800 square feet of dedicated outdoor area that could be used by Retail-oriented tenants for uses such as restaurant seating areas or outside space for a doggie-day-care among other uses.

Additionally, many older renters and mature professionals prefer a quieter setting with local amenities, like the Proposed Project, over an urban core location. The Proposed Project is not walkable from a Metro-North train station, however the Site has excellent highway access allowing for approximately 8 – 15 minute drives to local train stations if desired, or to local employment.

209 **The draft EIS only provides a one-paragraph discussion of Metro-North utilization, estimating that approximately 149 people in the proposed building may seek to ride Metro-North each day. The only mitigation that is considered is the possibility of running a shuttle between the site and a train station "based on resident demand". However, we note that resident-only shuttles to train station are not generally an effective solution. We have seen shuttles used as a condition of approval only to be discontinued a few years later. Given that the site will be immediately adjacent to another apartment building, a hotel, and near two major employment sites (Wegmans**

and Life Time fitness) the focus on transit mobility should take the needs of all of these sites into account and not focus on individual shuttles servicing individual sites.

For example, Bee Line Loop B serves both Corporate Park Drive and Westchester Park Drive. This is an existing transit service that must travel "up and back" each road due to the lack of a connection. Therefore, the new connection between the subject site and the Carraway could potentially improve service on Loop B if designed to accommodate buses. In addition, Loop B is set up to run primarily at peak times to serve office park populations that are, in this case, being replaced by a residential population. There may be a potential for Loop B to take residential tenants to and from the train station at the times the office workers are dropped off or picked up from nearby sites. The Town/Village should require the applicant to reach out the County Department of Public Works and Transportation on these matters, and the result of that discussion should be documented in the final EIS.

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

The intent of the potential Interconnector Roadway is to possibly lessen the amount of traffic that would need to perform the circuitous route via the Westchester Avenue Eastbound and Westbound service roads, to travel to Westchester Park Drive to Corporate Park Drive. The Loop B route runs counterclockwise around I-287 via the Westchester Avenue Eastbound and Westbound service roads. Therefore, the Loop B route would still need to travel both directions of Westchester Avenue, even with access through the potential Interconnector Roadway. Access through the Interconnector Roadway would only circumvent approximately 800 feet of travel distance (approximately 400 feet on each Westchester Park Drive and 400 feet on Corporate Park Drive). The travel distance from Corporate Park Drive to Westchester Park Drive would generally be the same, whether performed on the Interconnector Roadway or via Westchester Avenue. Thus, provision of access for the Bee-Line Bus Route Loop B through the Interconnector Roadway would not provide a significant benefit and would not translate to a noticeable reduction in service times. This was confirmed in a conversation with representatives of the WCDPWT. WCDPWT representatives also conveyed that the Bee Line Bus ridership of the proposed Project residents may not be as critical to traffic reductions as the provision of shuttle service to Metro-North. As noted previously, this could be provided via a shuttle bus or ridesharing through providers such as Uber or Lyft. In the event, the shuttle bus was not provided, and the Bee-Line Bus is not an effective mode for residents to travel to/from the train station, the Applicant has indicated they could institute a voucher program for ridesharing services where it would provide vouchers to residents to utilize ride-share services to MNR stations or it may explore contracting directly with rideshare services to transport residents to MNR stations. Similar programs have been effectively implemented by the Applicant at other facilities. Additionally, the Applicant will facilitate carpooling at the Site using a message-board or similar means to

link residents with similar schedules.

210 **Furthermore, as transit services continue to evolve in the age of the "shared economy," the final EIS should also include a discussion of the role transportation network companies (such as Uber and Lyft) and micro-transit (such as Via) can have on transit mobility in this area. Improving connectivity for these services throughout the "teardrop" area can further mitigate the disadvantages posed by the site being far from a downtown or train station. A County Department of Public Works and Transportation study entitled *"First and Last Mile Connections Mobility Study"* gives a good background about transportation network companies and examples of micro-transit that could have potential along the Platinum Mile. This report is available at http://transporation.westchestergov.com/planning-division/projects.**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

Ridesharing services provided by transportation network companies would be able to access the Site to serve residents of the Proposed Project.

343 **Section b. (1) of the DEIS indicated that as much as 25% of residents—or more, would utilize mass transit, and noted the proximity of the site to Bee-Line bus routes. As noted above, that percentage appears optimistic. The same 25% is also applied to Metro-North utilization. What portion of the 25% applies to the Bee-Line and Metro-North.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

The 25% mass transit credit was conservatively based upon the US Census Data, that indicated only 63.4% and 67.9% of residents drove to work from the Town of Harrison and the City of White Plains, respectively. A portion of the 25% that was attributed to Metro-North utilization in the DEIS would be attributed to the Bee-Line bus system, resulting in a smaller projected number of residents who would utilize Metro-North stations. The following Table summarizes the balance of commuter methods, as per the US Census

Data:

TABLE III.H.1
JOURNEY TO WORK US CENSUS DATA
TOWN OF HARRISON AND CITY OF WHITE PLAINS, NEW YORK

Transport Mode	Harrison	White Plains	Average
Drove Alone	57.7%	58.3%	58.0%
Carpooled	5.7%	9.6%	7.7%
Public Transportation (excl. taxi)	20.9%	17.7%	19.3%
Walked	8.2%	7.9%	8.1%
Other Means	0.8%	2.1%	1.5%
Worked at Home	6.6%	4.5%	5.6%

344 **Which Metro-North stations would residents utilize (White Plains, North WP, Port Chester, Rye or Harrison).**

- **Patrick Cleary, Planning Consultant, 7/24/19**

Depending on a resident's destination they would likely either use the Harlem Line or the New Haven Line of the Metro-North Railroad. The most convenient Harlem Line stops by car range three to four miles from the Proposed Project and are the White Plains and North White Plains stations, with the White Plains station being the most convenient by bus from the Proposed Project. The most convenient stops on the New Haven Line range four to five miles from the Proposed Project and are the Harrison, Rye, and Port Chester stations by car, with Port Chester being the most convenient by bus from the Proposed Project.

346 **Clarify the operation of the shuttle or "alternative means of getting residents to the nearby MNR stations."**

- **Patrick Cleary, Planning Consultant, 7/24/19**

In addition to, or as an alternative to a property operated shuttle to MNR stations, the Applicant may also look at providing vouchers to residents to utilize ride-share services to MNR stations or may explore contracting directly with rideshare services to transport residents to MNR stations. Property management will facilitate carpooling of residents by providing a means for residents with similar schedules to link up, which could be done through a message-board or another similar method.

CONSTRUCTION TRAFFIC

118 **A description of the construction phasing and schedule including hours of operation should be provided as well as the potential traffic during peak/off peak hours, number of workers, number of trucks, type of trucks and any mitigation that maybe needed during the (i.e. traffic, noise). As noted in the TIS, a Maintenance and Protection Plan will need to be developed. In addition, a Construction Management Plan would be beneficial.**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

A description of and plans illustrating construction phasing for the Proposed Project can be found in Section III.N. of the DEIS. As described in the DEIS, construction of the Proposed Project is anticipated to last a period of approximately 34 months and the daily number of construction employee vehicles is expected to range from 34 to 222. This estimate does not account for any carpooling of construction workers as is typical, and which will be expected to further reduce construction employee traffic demands. Construction employees are expected to arrive between 6:30 AM and 7:30 AM and typically depart the Site by 4:00 PM. This would be offset from the existing commuter peak hours described in the traffic impact study of 8:00 AM to

9:00 AM and 5:00 PM to 6:00 PM. The number of daily construction truck round-trips would be expected to range between 12 to 25 over the period of construction and include typical construction trucks utilized for this type of development such as concrete mixing trucks and dump trucks.

In compliance with the Town's Noise Ordinance, construction activities performed outside of a fully enclosed structure would be prohibited after 8:00 PM or before 7:30 AM on weekdays or before 10:00 AM on weekends and national and state holidays. In compliance with applicable laws, restrictions would be placed on on-site vehicles idle times for all vehicles not using the engine to operate a loading, unloading, or processing device (e.g. concrete mixing trucks). A Construction Management Plan will be developed for the Proposed Project.

ACCIDENT HISTORY

119 **Accident history should be provided and summarized for the study area roadways/intersections to determine if there are nay significant accidents patterns.**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

The most recent three years of available accident data was obtained from the NYSDOT for the study area. The raw data sheets are contained in Appendix 3-H along with a Table summarizing the accidents by location. Although some locations currently exceed the statewide average, the incremental increase in traffic associated with the Proposed Project is not anticipated to increase accident rates at any of these locations. It should also be noted that of the 149 total accidents that occurred within the study area, only one resulted in a serious injury and there were zero fatalities.

TRAFFIC STUDY EDITS

120 **While the following does not affect the technical aspects of the Traffic Impact Study, the following is noted:**

- **The Existing Traffic Volume Figure is mislabeled and should be Figure No. 2**
- **Various figure numbers a mis-referenced in the TIS**
- **Appendix G does not include the reference historical NYSDOT and other recent traffic counts from the other development traffic studies in the area.**

- **John Collins, Principal Associate, Maser Consulting, 5/17/2019**

All Traffic Volume Figures have been appropriately updated and are contained in Appendix 3-A. Figure number references are correctly referenced in the "Supplemental Traffic Impact Study for Final Environmental Impact Statement". Historical NYSDOT count data and other recent traffic count data is included in Appendix 3-J.

214 **Please note that the traffic signals on Westchester Avenue are under the jurisdiction of WCDPWT, not WCDOT as stated in the traffic study.**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

Any future reference to the traffic signal jurisdiction will be appropriately made to WCDPWT.

APPROVALS

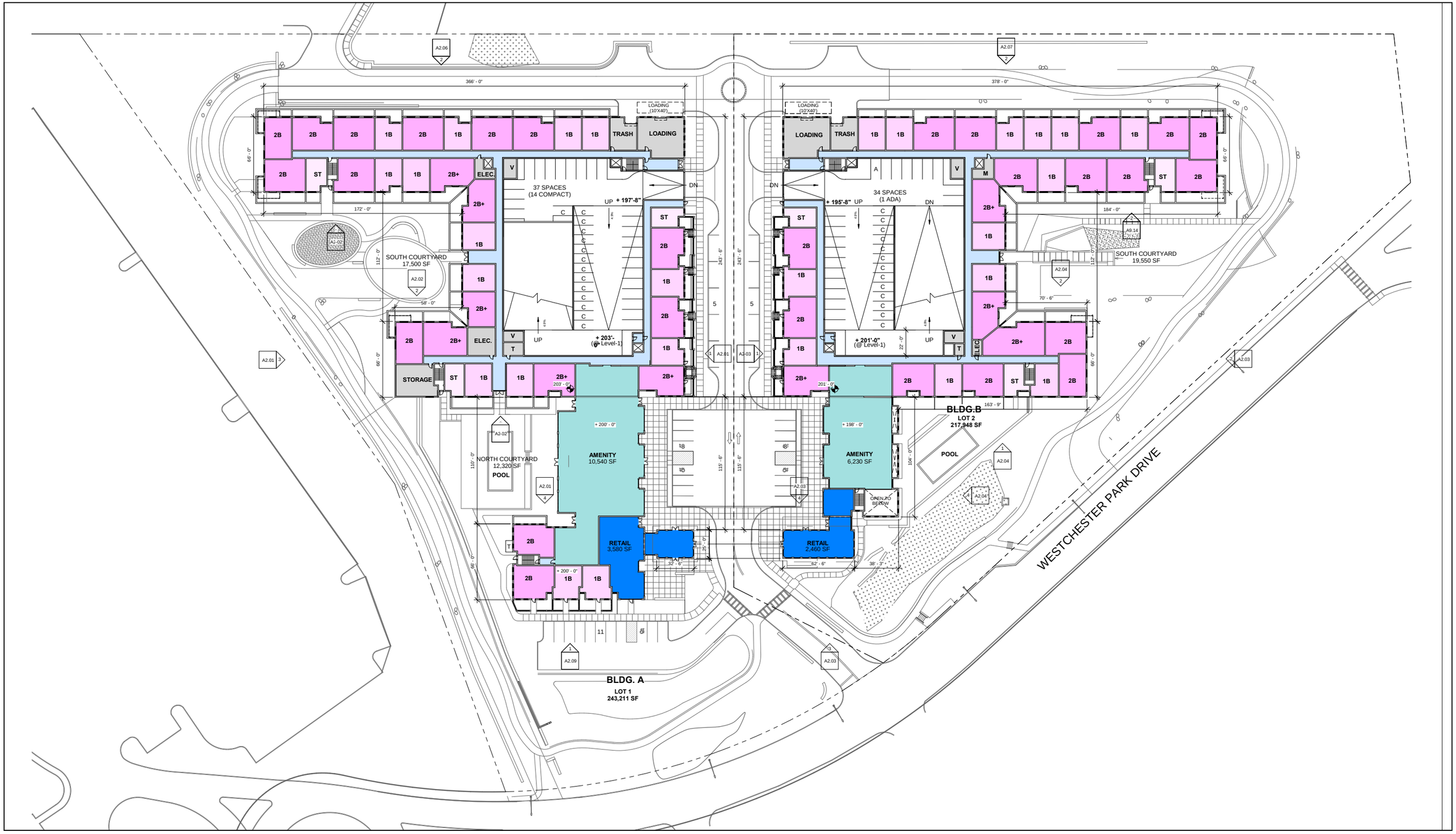
211 **Because the subject site contains frontage on Westchester Avenue (County Road 62), a building approval is required from the Westchester County Department of Public Works and Transportation (WCDPWT) in accordance with Section 239-F of the General Municipal Law. A County Road Work Permit will also be required from WCDPWT for any and all mitigation on Westchester Avenue.**

- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

The Applicant will obtain the necessary approvals from WCDPWT.

The design of the buildings has been slightly modified to include spaces designated for SB-0 retail use, retail service use, or restaurant use (per §235-17Y) in the smaller structures flanking the entry drive at the front of the Proposed Project. The revised ground floor plan and elevations are shown in the II.I-1 Figures.

COMMENT NUMBER	COMMENT/RESPONSE
	VISUAL IMPACTS
347	**Figure III.I-3 depicts views from Westchester Park Drive. Large exposed foundations are a prevalent component of this view. Measures to mitigate this condition are necessary.** - **Patrick Cleary, Planning Consultant, 7/24/19** Figure III.I-3 and the landscape plan from the DEIS have been updated to show proposed plantings. The updated DEIS Figure III.I-3 is Figure II.I-2 of this FEIS.
348	**Concern exists that the "farmhouse" character of the two front buildings does not stylistically relate to the more "modern" architectural character of the two main buildings. A design objective would be to ensure that all of the buildings are architecturally integrated.** - **Patrick Cleary, Planning Consultant, 7/24/19** The design of this community is anchored around the central drive and autocourt area, fronted with retail uses, gathering spaces, and walk-up apartment units. The relationship between the buildings and these public spaces endows the community with a sense of place that recalls the positive social attributes of a traditional neighborhood street. The architecture of the smaller structures flanking the entrance to the central drive references a more vernacular architecture to serve as a transitional gateway from the suburban surroundings to the urbanized, human-scaled environment within the Project's central drive. The larger-scaled buildings are modern abstractions of the more vernacular design of the smaller pavilion structures: utilizing the same materials, proportions, and fenestration as the smaller structures to integrate the entire project. As foreground elements, the pavilion structures reduce the visual scale of the complex and add interest to the arrival experience while allowing more light into the autocourt area than if they were the same height as the surrounding buildings. The retail uses slated to occur inside and around the pavilions will enliven the street and square.



1 INCH = 80 FEET

N

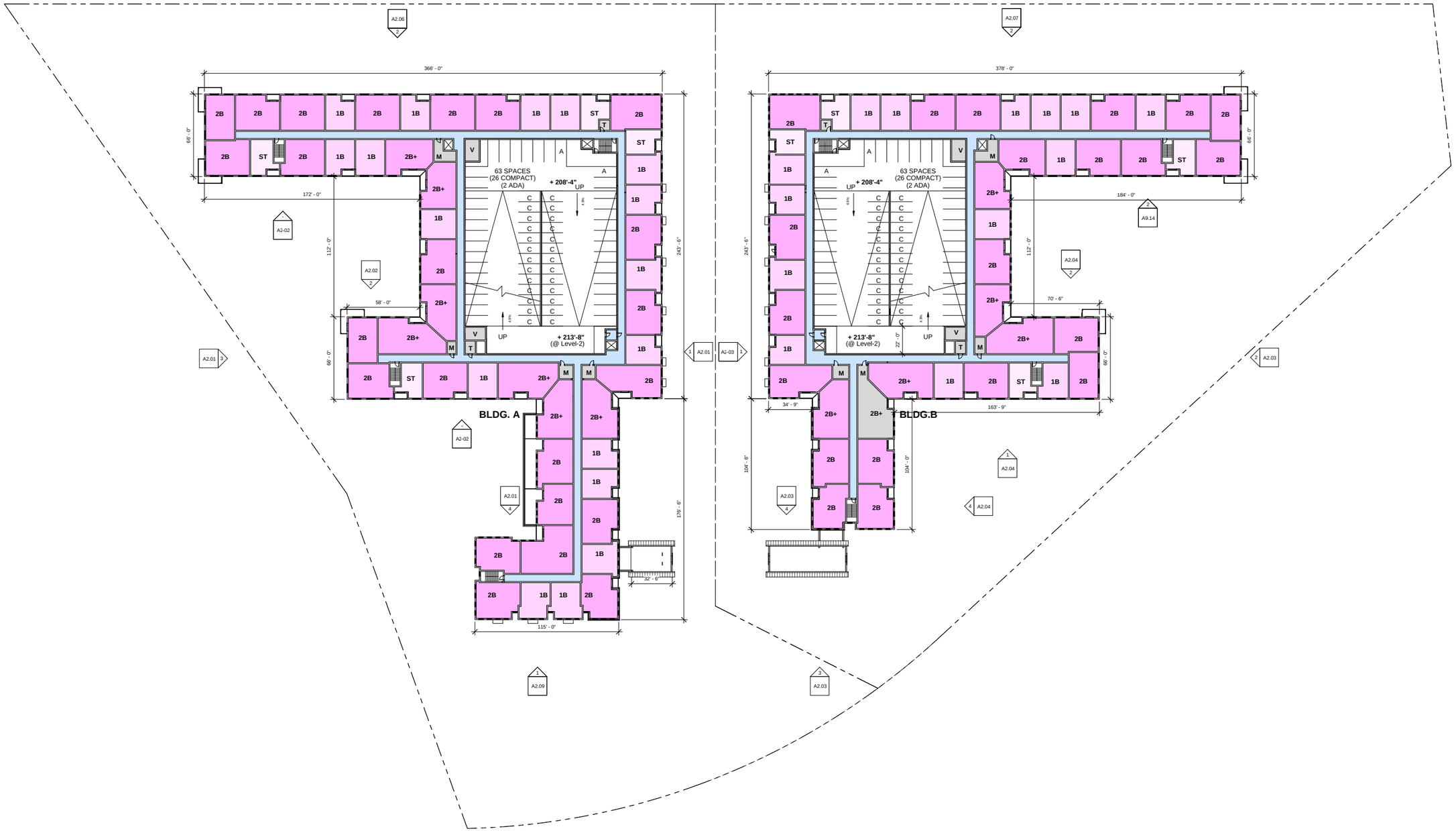
DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

UPDATED GROUND FLOOR PLAN

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1A



1 INCH = 80 FEET

N

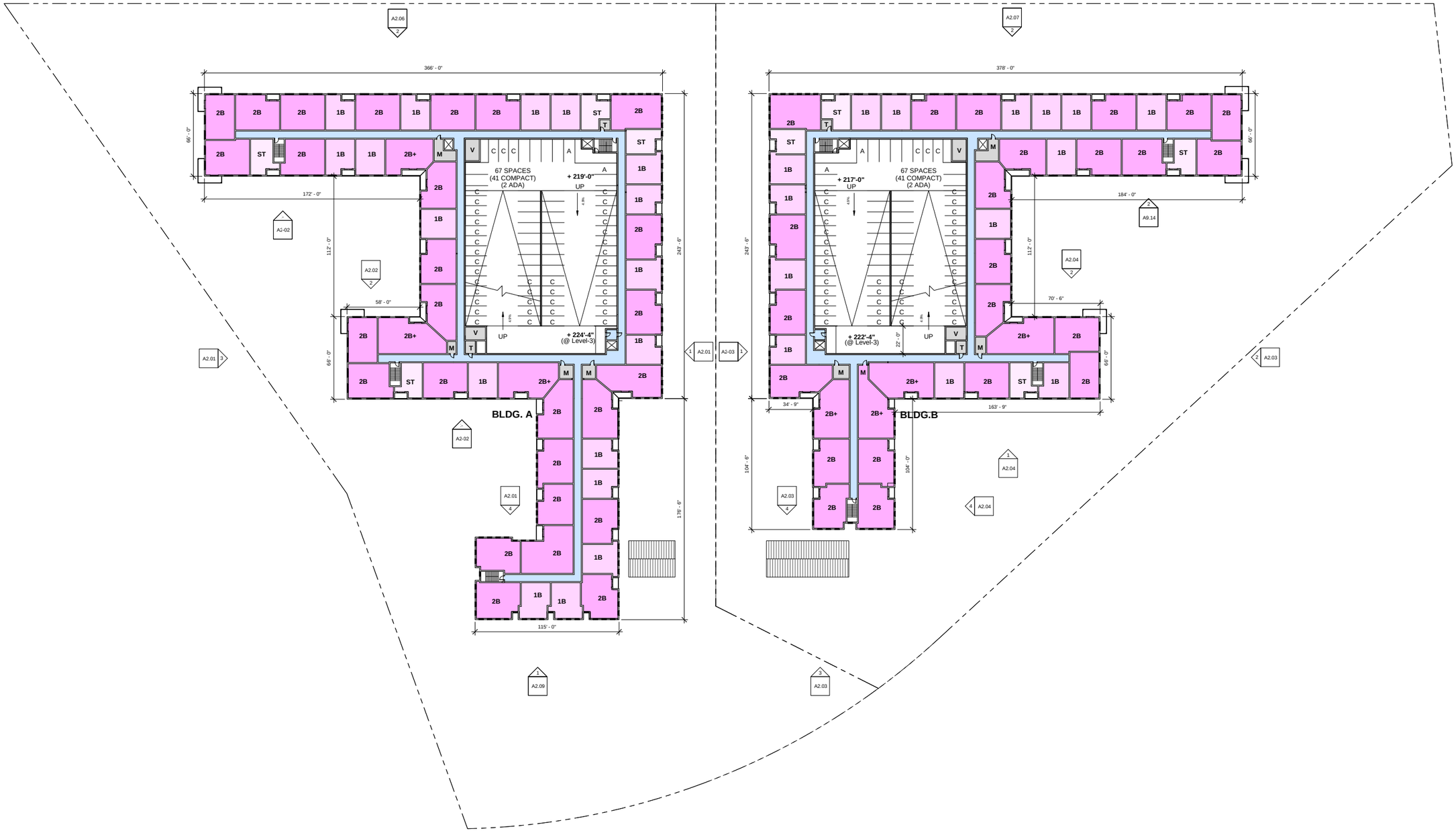
DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

UPDATED LEVEL 2 FLOOR PLAN

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1B



1 INCH = 80 FEET

N

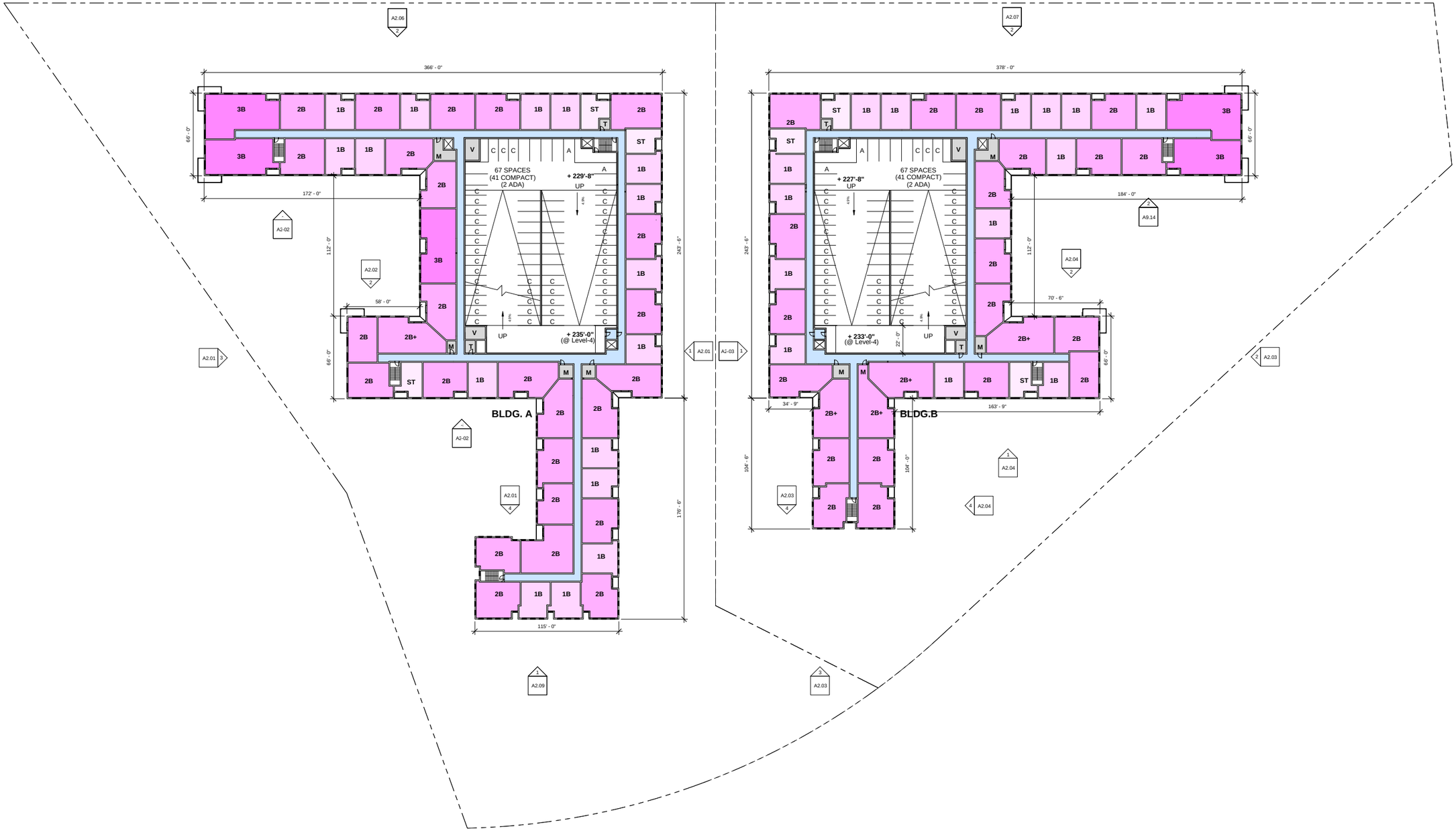
DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

UPDATED LEVEL 3 FLOOR PLAN

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1C



1 INCH = 80 FEET

N

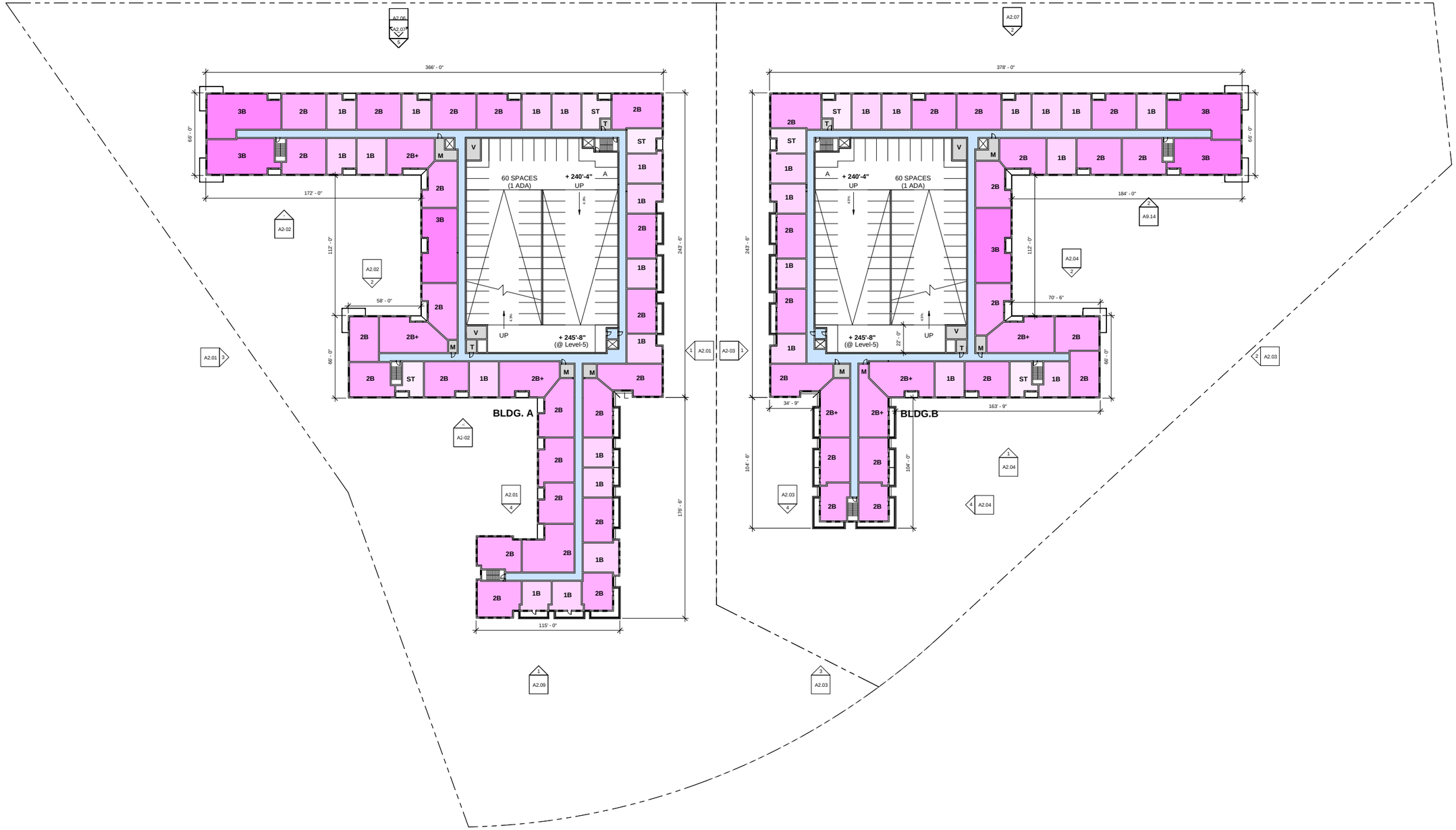
DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

UPDATED LEVEL 4 FLOOR PLAN

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1D



1 INCH = 80 FEET

N

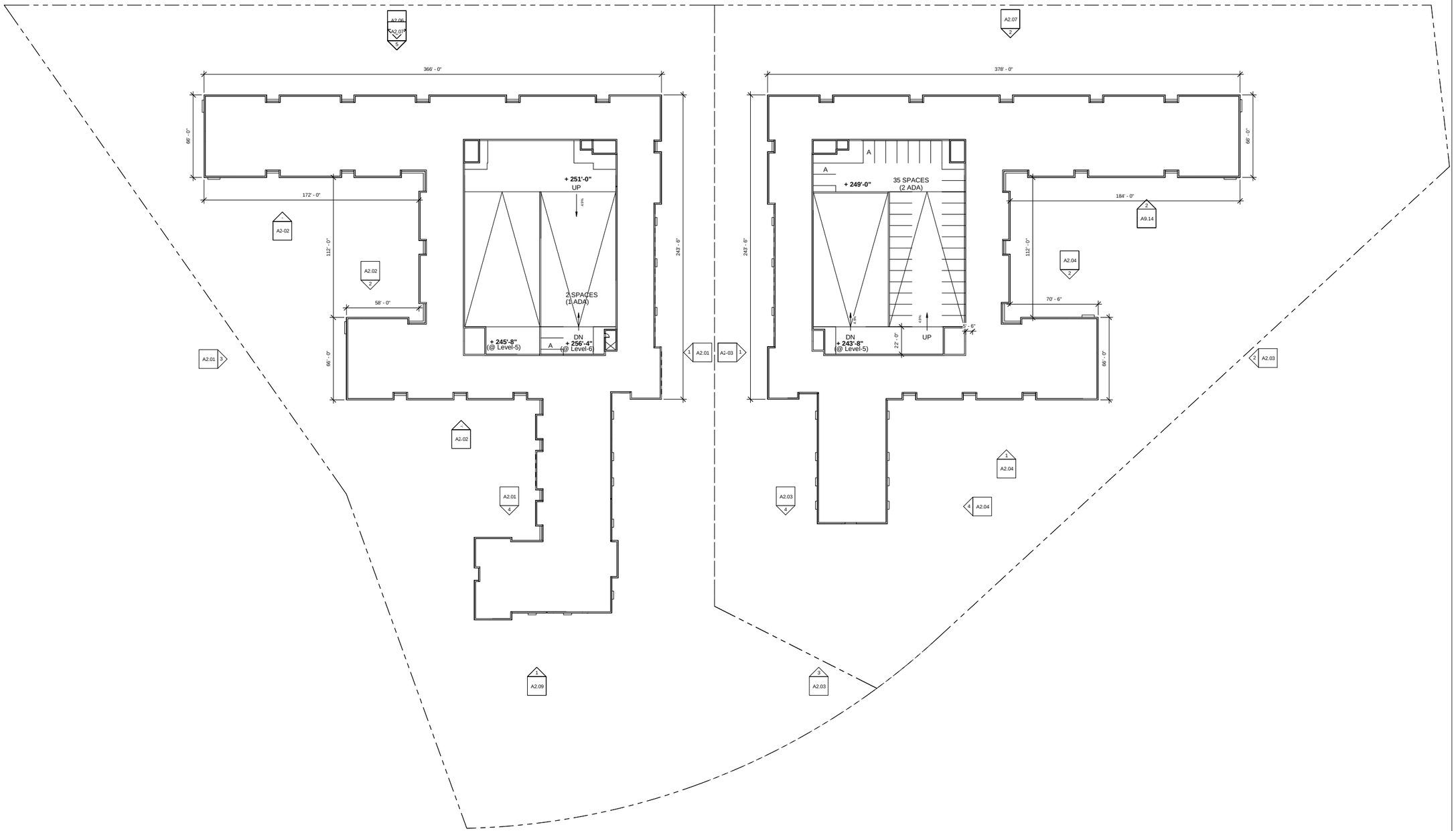
DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

UPDATED LEVEL 5 FLOOR PLAN

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1E



1 INCH = 80 FEET

N

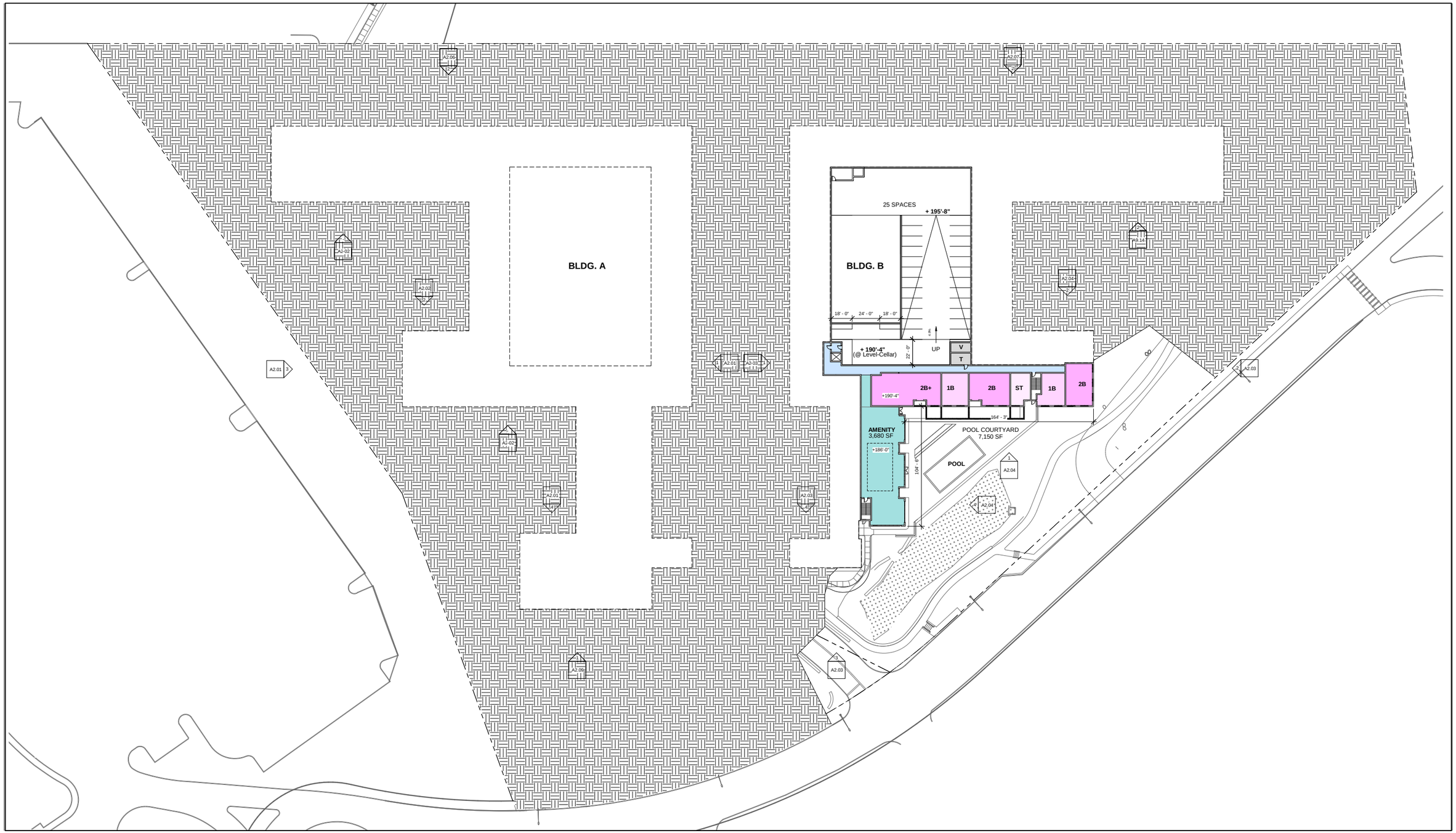
DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

UPDATED LEVEL 6 FLOOR PLAN

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1F



1 INCH = 80 FEET

N

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

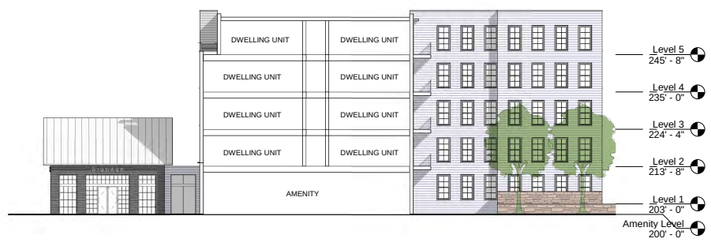
DRAWING BY: Beinfield Architecture, October, 2019

UPDATED CELLAR PLAN

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1G

1 BLDG A - WEST
1/16" = 1'-0"



4 BLDG A - NORTH COURTYARD, SOUTH
1/16" = 1'-0"

2 BLDG A - NORTH
1/16" = 1'-0"

3 BLDG A - EAST
1/16" = 1'-0"

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

BUILDING A ELEVATIONS

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1H

3 BLDG A - NORTH COURTYARD, NORTH
1/16" = 1'-0"

4 BLDG A - SOUTH
1/16" = 1'-0"

1 BLDG A - SOUTH COURTYARD, NORTH
1/16" = 1'-0"

2 BLDG A - SOUTH COURTYARD, SOUTH
1/16" = 1'-0"

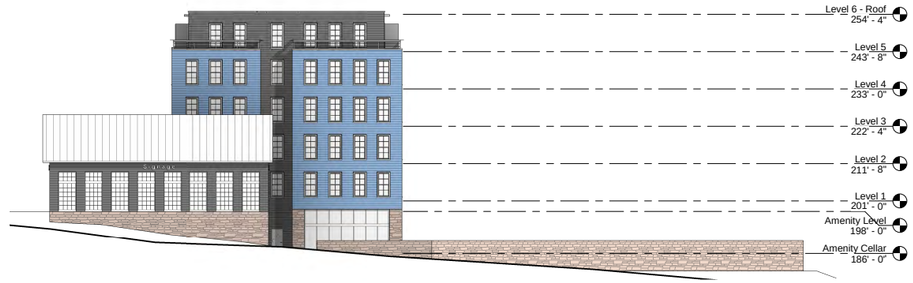
DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

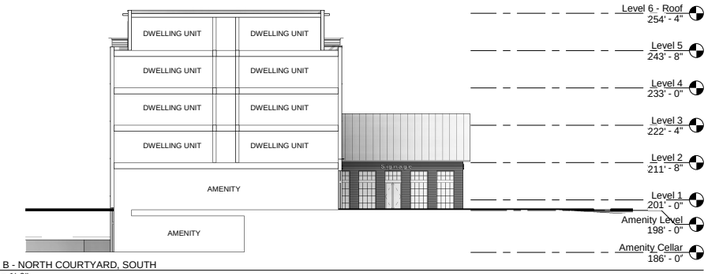
BUILDING A ELEVATIONS

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1I



3 BLDG B - NORTH
1/16" = 1'-0"



4 BLDG B - NORTH COURTYARD, SOUTH
1/16" = 1'-0"

1 BLDG B - EAST
1/16" = 1'-0"

2 BLDG B - WEST
1/16" = 1'-0"

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

BUILDING B ELEVATIONS

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1J

5 BLDG B - SOUTH
1/16" = 1'-0"

1 BLDG B - NORTH COURTYARD, NORTH
1/16" = 1'-0"

4 BLDG B - NORTH COURTYARD, WEST
1/16" = 1'-0"

3 BLDG B - SOUTH COURTYARD, NORTH
1/16" = 1'-0"

2 BLDG B -
1/16" = 1'

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

DRAWING BY: Beinfield Architecture, October, 2019

BUILDING B ELEVATIONS

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.I-1K

COMMENT NUMBER	COMMENT/RESPONSE
	SCHOOLS
PH-502	**The questions is, it's the services and the facilities that would have an effect in the schools and that is the way our schools run now in our communities is in our neighborhood communities. There's home ownership. There's continuity. The students stay within the school district for a significant amount of time. If there are issues with the students that they need special care, special educational opportunities, special health issues, whatever, that can be addressed over time, that could be integrated into the school program. Family of renters might—mean definitely has a different timeframe, one or two year lease, even if it's renewed, it's a shorter amount of time. The Harrison School District itself and the elementary schools, what would the impact be in terms of having to be resilient in a sense maybe needing more teachers from year to year, if 28 to 32 students, that's the equivalent of a class and a half. Then if there are special needs children, you need to address what their issues are. Then the extra expenses of dealing with students.** - **Cheryl Pine, Purchase Resident, Public Hearing 05/21/19** In the Applicant's experience, no different provisions are required for students living in rental housing than in owner-occupied housing. Even if a family moves out of their housing, regardless of its status as either rental or owned, it is reasonable to assume that they would make efforts to find new housing within the same school district as to not relocate their child if possible. Additionally, in New York State, a municipality may not legally regulate the ownership status of housing (condominium, fee single or rental) as this has not been seen as relating to public health and safety. It is correspondingly a school district's responsibility to educate all who are of school age within its boundaries regardless of the type of housing tenancy that the students may come from. To act differently would raise issues of the lack of inclusiveness or diversity within the student body. With regard to the impact of the 28-32 students expected to be generated by the project, as described in section III.J.1. of the DEIS, the projected school children would likely be split between the Purchase School (elementary), Louis Klein Middle School, and Harrison High School. If distribution amongst the grades were even, there would be 2-3 students per grade. When looking at historical enrollment, both the Purchase School and the Louis M. Klein Middle School are significantly below their previous highs in enrollment. Purchase School enrollment has 146 fewer students than it did at its peak in 2007 had has shown a consistent decline in enrollment for the past 10 years. Therefore, even if all 32 anticipated students were enrolled in the Purchase School, the school would still be far below its peak enrollment from 2007. As described in Section III.J.1. of the DEIS, the Proposed Project

would result in a net positive fiscal impact to the school district.

With regard to students with special needs, 3-4 students are anticipated to be in the special education population. When distributed amongst the schools and grades, it is reasonable to conclude the small number of students will not have a significant impact on special needs programs.

PH-503

So whether the quality and the number of the schools in Harrison would be impacted by this project is a question that is of concern to me and so I hope that that can be addressed and because the communities of Purchase and Harrison, the Harrison School District, obviously the schools is one of the aspects that draw us to our community and that make our homes marketable and that attract our future neighbors.

- **Cheryl Pine, Purchase Resident, Public Hearing 5/21/19**

As described in section III.K.1. of the DEIS, the Proposed Project is expected to provide approximately $2,213,035 in annual tax revenues annually. Of the approximately $2,212,035 in tax revenues generated, approximately $1,229,565 will go to the Harrison Central School District. Also, now that the Proposed Project has been modified to include spaces designated for SB-0 retail use, retail service use, or restaurant use (per §235-17Y) it would generate additional sales tax revenue at a rate of 8.375% of sales, a portion of which is local sales tax. The estimated 28 to 32 additional school children from the Proposed Project would cost approximately $821,774 to $939,170 to educate annually, calculated based on the 2018-2019 Harrison Central School District budget. The Proposed Project would result in a net positive fiscal impact to the Harrison Central School of approximately $290,395 to $407,791 annually.

Further, according to U.S. Census data, the number of households with children is decreasing as discussed in section III.J.1. of the DEIS and in the School Children Analysis prepared by BFJ Planning located in Appendix 8 of the DEIS. Births in Westchester County have declined by 22.8% since 2000, which is also projected to result in a drop in school enrollment. In 2016-2017, the Purchase Elementary School, which would serve the Proposed Project, had 146 fewer students than it had at its peak 2007 enrollment. These demographic shifts have been observed in other school districts comparable to Harrison Central School District, such as Scarsdale Public School District and the Bronxville Union Free School District that both project declining enrollment for the upcoming decade.

349

Clarify how bussing of students will be accommodated at this development.

- **Patrick Cleary, Planning Consultant, 7/24/19**

A request was made of the Transportation Supervisor of the Harrison Central

School District seeking information on school bus routes and stops for the Proposed Project, a copy of which can be found in Appendix 1 of this FEIS. A response was received on August 8th, 2019 from the Transportation Department that stated that ideally all necessary routes would have one stop at the entrance to the Site on Westchester Park Drive. A walkway from the proposed autocourt to Westchester Park Drive is shown in the Site Layout Plan, SP-1.0.

POLICE

350 **The impacts on police services resulting from the transformation of the Tear Drop from office parks to support residential and other uses, should be documented more fully.**

- **Patrick Cleary, Planning Consultant, 7/24/19**

A letter was sent to the Harrison Police Department on January 30th, 2019 that requested the Department to describe its anticipated future demands without the Proposed Project and to identify any potential impacts from the Proposed Project. A letter dated February 7th, 2019 was received from the Chief of Police, Joseph J. Yasinski of the Harrison Police Department and can be found in Appendix 1 of this FEIS. In the letter, Chief Yasinski identifies two projects within the Teardrop, Wegmans Food Market and the Carraway project as among some of the major projects underway in Harrison. It projects that the Department's demand and call volume is expected to increase within the next five years due to, but not limited to, traffic enforcement, pedestrian traffic, larcenies, aided cases and motor vehicle accidents. The letter from the Harrison Police Department does not identify any issues with its ability accommodate potential service calls to the Proposed Project.

OPEN SPACE AND RECREATION

351 **The projection of required developed open space based on the NRPA standards, should add to the 2017 census population number, all the additional residents attributable to all the pending residential developments in the Town (i.e. Avalon, Playhouse Lofts, Colonial Arms, Saville Plaza, etc.)**

- **Patrick Cleary, Planning Consultant, 7/24/19**

The additional residents estimated from the Avalon, Playhouse Lofts, Colonial Arms, Saville Plaza, and the Carraway projects added to the 2017 U.S. Census population would result in a population count of approximately 29,608[2]. Based on this population number, the suggested amount of

[2] Calculated using the population projections from the Avalon and Carraway DEISs. For the remaining projects, demographic multipliers from the 2018 Rutgers University Study, "Who Lives in New Jersey

developed open space would be approximately 185 acres to 311 acres. The estimated increase in population from the Proposed Project would increase this range by approximately 4 to 6 acres, for a total of 189 acres to 317 acres. According to Harrison's 2013 Comprehensive Plan, there are approximately 84 acres of municipally-owned public parks and approximately 174 acres of Town-owned open space located within its boundaries[3].

352 **Clarify if public access will be available to any of the proposed open space features.**
- **Patrick Cleary, Planning Consultant, 7/24/19**

The fitness path would be accessible to the public during daylight hours (e.g. 9 AM – 8 PM), which will be enforced by on-site security personnel. No physical restriction or gate is proposed.

SOLID WASTE

221 **We note that the applicant has stated in the draft EIS that the buildings will comply with the recycling provisions provided by the Westchester County Source Separation Law. We recommend that the Town/Village require the applicant to verify what storage measures are provided to accommodate the expanded County recycling program.**
- **Norma V. Drummond, Commissioner, County Planning Board, 6/25/19**

The Applicant would provide adequate storage space to accommodate the required recycling of plastics coded 1-7 under the expansion of the County's Source Separation Law. The property manager would coordinate the trash and recyclable pick-ups that would be done via a private hauler at the trash and recyclable collection areas located at the rear of each building to meet the needs of the Proposed Project. Each of the proposed buildings would have an area for residents to drop-off their recyclables.

Housing?" (Voicu and Listokin) were used. An average of the multipliers for 5-49 Units (Rent), 0-1 BR and 5-49 Units (Rent), 2 BR for all values was applied to the unit counts for each of the projects.
[3] Town/Village of Harrison Comprehensive Plan. Adopted December 19, 2013. Page 62.

COMMENT NUMBER	COMMENT/RESPONSE

CONSTRUCTION PHASING

PH-102

The second thing I want to ask about is presumably if the building on the left is going to be completed, I don't know, at some point before the building on the right is complete, it suggests that people are going to be moving sequentially, yet I don't believe I see anything that addresses that in here in terms of traffic and how is that going to be addressed in terms of part of the building impacts.

- **Nonie Reich, Planning Board Member, Public Hearing 05/21/19**

PH-104

People are moving into the first building as the second building is being built. You know, this may be typical in the sense you don't have to put in an FEIS. I noticed they have all the construction employee estimates. That also doesn't include residential, the impacts of having both residential and construction employees having to come and go at the same time.

- **Nonie Reich, Planning Board Member, Public Hearing 05/21/19**

As described in Section III.N. of the DEIS, it is anticipated that construction of the Proposed Project would take place over an approximately 34-month period in which the construction activities for Building A would precede those for Building B. However, Building A would be expected to open its first units during the 25-27-month period of construction, at which point the vertical construction of Building B would be completed. As shown in the construction snapshots for Month 25-27 and the following months provided in DEIS Section III.N., construction activities occurring outside of Building B would be limited to landscaping and construction parking would be provided in the completed garage of Building B.

Construction traffic would be separated from Building A residential traffic by the offset times and direction of construction and residential trips at peak hours and through the use of the loop road and lower driveway rather than the central drive for some of the construction traffic. When the separation of Building A residential traffic and construction traffic is not possible, a flag person would be employed to direct the flow of construction and resident traffic. Construction employees are expected to arrive at the Site between 6:30 AM and 7:30 AM and typically depart the Site by 4:00 PM. Estimating that half of the units[1] in Building A are occupied while construction on Parcel B is still occurring, there would be approximately 29 residents exiting and approximately 10 residents entering the Proposed Project during the AM peak hour (8:00 AM to 9:00 AM), and approximately 19 residents exiting

[1] Based on the potential lease up pace identified in the RCLCO Market Study of approximately 15-16 units per month.

and approximately 30 residents entering the Proposed Project during the PM peak hour (5:00 PM to 6:00)[2]. These peak hours are offset from the arrival and departure times to the Site estimated for construction employees. Additionally, as the units in Building A lease up and the number of residents increases, the amount of construction activity would be decreasing.

The number of construction employee vehicles estimated is at its peak during the 10-12-month construction period, prior to the first units opening in Building A. Additionally, the number of round-trips for construction trucks is at its lowest at 12 trips per day, at the time of and following units opening in Building A.

PH-201

If the second building B is never built or for a long time it's not built, what's it going to look like? I heard the word meadow landscaping, fencing. Is it a safe area? It's a construction site with a building ripped out of the ground and something filled in. I'd like to know how that would play out.

- **Marshall Donat, Planning Board Member, Public Hearing 05/21/19**

Figure III.N-12, *Interim Building Plan*, from the DEIS was updated to provide greater detail as to what would occur on Parcel B should the start of construction of Building B be delayed by more than one month after the construction completion of Building A. The updated plan is shown in Figure II.N-1 of this FEIS and is an illustration of the situation, should it occur for some unforeseen reason, at approximately Month 25 of construction. In this event, Parcel B would be predominantly an open green meadow space with a graded and stabilized loop road maintained for future construction access. The existing lower driveway would also be maintained and stabilized for future construction entry. The central drive of the Proposed Project would be fully constructed, and cross-easements would be in place to provide access to the entire road across the two lots. Wetland mitigation work including the removal of invasive species, the removal of accumulated stormwater runoff sediment, and the planting of native trees and shrubs would have been implemented at existing Wetland A.

[2] These estimates are calculated proportionally, based on updated site generated traffic volumes shown in Appendix A, Figure No. 15 of the Supplemental Traffic Impact Study (STIS) located in Appendix 3 of this FEIS.

CARRAWAY

WETLAND B

HYATT HOUSE

TW 208.0
BW 200.6

TW 214.5
BW 206.5

DRAINAGE SWALE

LIMIT OF DISTURBANCE, TYP.
TW 206.5
BW 206.0

2:1 SLOPE

6:1 SLP.

12:1 SLP.

MEADOW

BUILDING A

+202.0

LIFETIME FITNESS

WETLAND A

LIMIT OF DISTURBANCE

WETLAND MITIGATION
WORK TO BE COMPLETED
DURING BUILDING A
CONSTRUCTION PHASE

STORM WATER BASIN

+198

+207

N

0 40 80

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

REVISED INTERIM BUILDING B PLAN

3 WESTCHESTER PARK DRIVE
HARRISON, NEW YORK

FIG. II.N-1

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

3 WESTCHESTER PARK DRIVE

TOWN/VILLAGE OF HARRISON
WESTCHESTER COUNTY, NEW YORK

FINAL
ENVIRONMENTAL IMPACT STATEMENT
APPENDICES

Prepared For Submission To:

TOWN OF HARRISON PLANNING BOARD
TOWN OF HARRISON, NEW YORK

OCTOBER 2019

1. RELEVANT CORRESPONDENCE

2. DEIS COMMENTS

A. DEIS COMMENT LETTER LIST

B. DEIS COMMENT LETTER LOG

C. DEIS PUBLIC HEARING TRANSCRIPTS AND COMMENT LETTERS

3. SUPPLEMENTAL TRAFFIC IMPACT STUDY — Provident Design Engineering

4. RENTAL APARTMENT MARKET STUDY RESPONSE — RCLCO Real Estate Advisors

5. RETAIL FEASIBILITY STUDY — Abrams Retail Strategies

CON EDISON GAS DETERMINATION

conEdison
a conEdison, inc. company

Consolidated Edison Company of New York, Inc.
Customer's Gas Service Layout (2-80)
Equipment to be installed by the Customer's Contractor

Case ID	MC-392376
Layout/Ticket #	
Customer Service Date 7/8/19	

* See Explanation Below

Service Address	3 Westchester Park Drive
Unit/Suite#	
City State Zip	Harrison, NY 10604
Project Name	MCP II Westchester LLC
Created By/Date	Ziegler, Thomas/ January 7, 2019

Customer	Patrick Sousa	**Contractor**	Mark Gratz
CompanyName	MCP II Westchester LLC	**CompanyName**	Divney Tung Schwalbe
Address	301 MERRITT 7	**Address**	1N BROADWAY
Unit/Suite#		**Unit/Suite#**	
City State Zip	NORWALK CT 06851	**City State Zip**	WHITE PLAINS NY 10601
E-mail	psousa@marcuspartners.com	**E-mail**	mgratz@divneytungschwalbe.com
Phone	(617)823-5627	**Phone**	(914)329-3352

Con Edison Service Determination
INSTALL/REPLACE SERVICE
Con Edison will install a new 4 inch medium pressure plastic gas service from the main to each of the two building lines.

Customer Cost Estimate&Account Deposit

*****Customer Cost**		**Account Deposit**	
****Firm Gas**		****Dual Fuel Firm Gas**	
****Dual Fuel Interruptible Gas**		**Advance of Need**	

Please Review the following Items
This Service Layout is subject to revision based on field conditions and customer or Con Edison needs.
Modification of this Layout may only be done by an authorized Con Edison representative. Please contact your representative if you need a written revision.
Please review the specifications referenced in this document to ensure any new equipment is compliant with the Gas codes of the local authorities having jurisdiction and Con Edison specifications.
This Layout is good for 60 days. Please check back with your representative for the most recent specifications prior to starting your work.
Final Inspections are completed by Con Edison representatives at no cost to the customer.
Any changes to existing joints, fittings, pipes etc. must be filed with the local authorities having jurisdiction and be authorized for service by said authorities prior to Con Edison inspection and your service being energized.
If you have any questions prior to starting your work, please contact your representative.
Gas services de-energized for any reason may require authorization by the local authorities having jurisdiction prior to service restoration.
All certificates of inspection must be approved by the authorities having jurisdiction prior to energizing services.
If you have any questions prior to starting your work, please contact your representative.
Representatives require 48 hours of notice to schedule Inspections.
When the contractor's work is completed, the customer or contractor must arrange for an inspection with a representative and submit a Final Checklist
When the contractor's work is completed, the customer or contractor must arrange for an inspection with a representative and submit a Pressure Test Affidavit

- Any individual (contractor or licensed plumber) who is working on below grade pipelines and service lines must adhere to all federal, state and Con Edison requirements for any new construction work. This includes all requirements for Gas Operator Qualification (OQ).
- Individuals performing below grade gas work must have a Northeast Gas Association (NGA) OQ Certification Card prior to the project start dat and readily available throughout to verify OQ task compliance.
- The following work cannot be performed by non-operator qualified plumbers and/or contractors:
  - Installation and/or joining of a plastic pipeline, below grade.
  - Installation and/or joining of a steel pipeline, below grade.
- The following work is restricted and cannot be performed by customer plumbers/contractors, unless they are operator qualified and participating in a Drug & Alcohol program:
  - Any "repair" work on a pipeline.
  - Operation of a valve on a pipeline (i.e. operation of a curb valve and/or head of service valve)
  - Any operations and maintenance (O&M) tasks performed on a pipeline.
- Outdoor Meter Set Assembly work will remain with the plumbers/customer contractors.

If a customer's contractor or licensed plumber does not have individuals available with the necessary operator qualifications to perform the abov described work, the following options will be available:

- A Customer contractor can provide (excavate) the trench, and Con Edison will perform the below grade gas work (Con Edison will charge th customer an accommodation cost for this work).
- Backfill of trench must be supervised by someone Operator Qualified for Covered Task 71.
- Customer licensed plumbers will continue to install associated outdoor gas meter assemblies.

Operator Qualification (OQ) Requirements

When working on buried gas service pipe, a Customers' Licensed Master Plumber is required to be Operator Qualified per Subpart N in 49 CFR Pa 192.

Con Edison is advising those customer contractors or licensed plumbers seeking Operator Qualifications to use Northeast Gas Association (NGA) O Program.

For information on becoming Operator Qualified please visit the Northeast Gas Association web site located at: http://www.northeastgas.org/tq operator.php .The NGA can also be contacted via the following email: oq@northeastgas.org to request new Operator Qualification, to schedul changes, cancellations or when scheduling a "hands on" evaluator for Operator Qualification. Please note that all cancellations require 72 busines hours.

Welding and assembly of new "outdoor" above-ground meter-sets and/or new inside gas service piping between the foundation wall and the gas meter outlet does not require a Customer's Licensed Master Plumber to be operator qualified.

Equipment&Specifications			
Equipment Type	**Qty**	**Equipment Description**	**Specification**
Customer Piping		Trenching, BackFilling, Welding, Restoring after Repairs, Elect	Customer Piping
Regulator Equipment		Regulator Peck Vent Installation	EO-17118
Metering Equipment		Installation of Class 500TC to Class 1000TC Diaphragm Gas Meters – Indoors	G-316
Lock Valves		Method of Securing Lock-Wing Valves	G-690
Supports		Supporting Gas Service Meters and Regulators	G-695
Approved Head Valves		Plug Valves for Head of Service Installations	Head Valves

Prerequisites for Construction	
The Customer's/Contractor's responsibilities prior to service construction are to:	Customer to complete by:

Prerequisites for Final Inspection	
The Customer's/Contractor's responsibilities prior to requesting a Final Inspection are to:	Customer to complete by:
Notify your representative when you are ready for an Inspection and Submit a Final Checklist	6/10/19
Provide a Completed Application for Service	6/10/19
Provide City Certificates or Underwriters Certificates authorizing Gas service.	6/10/19

* Inability to meet the deadlines outlined above will jeopardize Con Edison's ability to meet the Customer Service Date.

WESTCHESTER COUNTY DEPARTMENT OF ENVIRONMENTAL FACILITIES

Westchester gov.com

George S. Latimer
County Executive

Department of Environmental Facilities

Vincent F. Kopicki, P.E.
Commissioner

August 1, 2019

Mr. Mark Gratz, P.E.
Divney Tung Schwalbe, LLP
1 North Broadway
White Plains, NY 10601

Re: Mamaroneck SSD and Mamaroneck Trunk Sewer System
3 Westchester Park Drive
Harrison (T)

Dear Mr. Gratz:

Receipt of your July 29, 2019 letter (enclosed) to the Department requesting a statement of adequate capacity for the County's Sewerage Facilities to serve the above referenced project is acknowledged. Please be advised that Westchester County's Mamaroneck Wastewater Treatment Plant and Mamaroneck Trunk Sewer system will serve and have sufficient capacity to accommodate the proposed flow increase of 69,000 gallons per day to be generated by the above referenced project. Since it appears that the sewer connection from the property will discharge into the Town of Harrison's sanitary sewer system prior to discharge into County owned facilities, you must contact the Town of Harrison in order to obtain a statement of adequate capacity and condition of the Town's sanitary sewer system to accommodate the increase in sewerage flows generated from the project.

However, we propose as we have done in other County sewer districts that the additional flow to the system is offset by reductions in inflow and infiltration (I&I). The removal for this project should be on a three for one ratio similar to the requirements by NYSDEC for sewer extension approvals in the New Rochelle sewer district. We feel this project warrants the same consideration. For units that are considered fair and affordable housing units, the removal ratio for those units can be reduced to a one to one ratio.

Please contact the undersigned at (914) 813-5419 if you need further information.

Very truly yours,

Marian Pompa, Jr., P.E.
Associate Engineer

cc: Vincent Kopicki, P.E., Commissioner
David Kvinge – Westchester County Dept. of Planning
file

REDUCE REUSE RECYCLE

Division of Solid Waste
Wastewater Treatment
Water Agency

270 North Avenue
New Rochelle, New York 10801 Telephone: (914) 813-5400 Fax: (914) 813-5460 Website: westchestergov.com

DIVNEY • TUNG • SCHWALBE
Intelligent Land Use

Divney Tung Schwalbe, LLP
One North Broadway
White Plains, NY 10601

P: 914.428.0010
F: 914.428.0017

www.divneytungschwalbe.com

Andrew V. Tung, ASLA, Esq., LEED AP
Gerhard M. Schwalbe, P.E.

William J. Carey, Jr.
Mark S. Gratz, P.E.
Maria Coplit Alfaro, P.E.
Donna M. Maiello, ASLA, RLA

Jason E. Bajor, ASLA, RLA
Cosimo Reale, CPESC
Mark J. Shogren, P.E.
Matthew N. Steinberg, AICP

March 7, 2019

Mr. Paul Kutzy
Westchester Joint Water Works
1625 Mamaroneck Avenue
Mamaroneck, NY 10543

Re: 3 Westchester Park Drive, Town/Village of Harrison
Proposed 450-Unit Residential Development
Water Supply Connection Request

Dear Mr. Kutzy,

We hereby submit this letter request for expanded water service to 3 Westchester Park Drive for planning and discussion purposes. A 160,000 SF office building, currently located on the site, will be demolished and replaced with a new 450-unit residential development. The Project, which is being developed by MCP II 3 Westchester, LLC will consist of a 2-lot subdivision of the 10-acre site and will include two new buildings with a combined total of 450 residential units of varying size. Each building shall contain a mix of studio, 1-bedroom, 2-bedroom, and 3-bedroom units.

It has been estimated that the net increase in domestic water demand over that which currently exists is approximately 74,700 gpd and a domestic peak flow increase of approximately 200 GPM.

Enclosed is a site plan of the proposed residential development along with an estimate of projected domestic water demand for the Project. The two (2) residential buildings are planned to be constructed as a single-phase project with both expected to come on line in 2022. The enclosed Site Utility Plan, Drawing SP-3.1 shows the preliminary location for the proposed water service connections (fire and domestic), six (6) new on-site hydrant locations, and the preliminary on-site water main routing. Pending project approvals. the estimated start of construction is currently planned for early 2020.

The domestic water demands for the Project are summarized on the attached Water Supply Demand Estimate table with an estimated peak flow demand of 287 GPM (including irrigation.) The Needed Fire Flow (NFF) demand for each building has also been calculated at 1000 GPM for 2 hours using the latest ISO Guide For Determination of Needed Fire Flow (2014 Edition.)

To assist the Town/Village of Harrison in their review of the project the Applicant hereby requests that WJWW issue a "Will Serve" letter for the Project acknowledging that there is sufficient capacity in the water supply network to service the Project.

Should you have any questions or need additional information please do not hesitate to contact me.

Very truly yours,

Gerhard Schwalbe

Gerhard M. Schwalbe, P.E.
Partner

cc: W. Keller, Trammel Crow
P. Sousa, Marcus Partners

File 826.8 (w/attach)

3 WESTCHESTER PARK DRIVE
PURCHASE, NEW YORK

Date: 03/04/19
By: MSG/GMS
Issue No.: 1
Rev:

TABLE NO. 1 - WATER SUPPLY DEMAND ESTIMATE

USE		QTY.	UNITS	RATE (gal/unit)	SANI. FLOW (gpd)	WATER FLOW (gpd)
1. Building A						
a.	Studio	17	Ea.	110	1,870	2,057
b.	1-Bedroom	80	Ea.	110	8,800	9,680
c.	2-Bedroom	131	Ea.	220	28,820	31,702
d.	3-Bedroom	6	Ea.	330	1,980	2,178
e.	Amenity	11,500	SF	0.1	920	1,012
f.	Pool	67	Swimmers	10	536	590
2. Building B						
a.	Studio	18	Ea.	110	1,980	2,178
b.	1-Bedroom	70	Ea.	110	7,700	8,470
c.	2-Bedroom	123	Ea.	220	27,060	29,766
d.	3-Bedroom	5	Ea.	330	1,650	1,815
e.	Amenity	7,000	SF	0.1	560	616
f.	Pool	67	Swimmers	10	536	590
	Average Daily Demand		gpd		82,412	**90,653**
	Maximum Day Peaking Factor					2.0
	Maximum Day Demand		gpd			**181,306**
	Peak Flow Factor					3.8
	Peak Flow		gpm			**239**
	Irrigation, if added		gpm			**48**

Notes:

1. Quantities based on Overall Site Plan, Drawing No. SP-0.2, dated 11/6/18.
2. Sanitary Flow Rates based *New York State Design Standards for Intemediate Sized Wastewater Treatment Systems* , March 5, 2014, Table B-3, Typical Hydraulic Loading Rate; Water Rates computed at 110% of estimated Sewer Rates.
3. 20% water saving reduction reflected in the 2014 NYSDEC residential bedroom unit flow rates only.
4. Swimmers based on 1 bather per 15 SF of pool surface area calculated at 1,000 SF per pool.
5. Irrigation estimate based on an assumed 1-inch coverage per week, and an 8 zone spray irrigation system covering approximately 1.25 acres with staggered watering times.

HARRISON POLICE DEPARTMENT

TOWN/VILLAGE OF HARRISON
POLICE DEPARTMENT

650 North Street
Harrison, New York 10528
Phone: (914) 967-0739 ~ Fax: (914) 813-7421

February 7, 2019

To Whom It May Concern,

In response to your request concerning the impact of your facility at 3 Westchester Park Drive, we have concluded the following:

Existing Conditions:

1. The Harrison Police Department consists of 69 sworn members. The majority of our Police Officers are assigned to the Patrol Division and supplemented by our Detective Division and Traffic Unit. We average 12,000 calls for service per year. The Town of Harrison is approximately 25 square miles which includes Purchase, West Harrison and the downtown business district which are all covered by our department.

2. Our average response time to calls on Westchester Park Drive can range from 1 minute to 10 minutes which varies according to severity of the emergency.

3. Westchester Park Drive is highly accessible due to its proximity to Westchester Avenue, Interstates 287 and 684, and the Hutchinson River Parkway.

In summary, within the next 5 years, aside from your project, there are 6 major residential and commercial projects that are either underway or in the final pre-construction stages. These include Wegman's Grocery Store, Brightview Senior Living, Avalon Communities, and Toll Brothers Residential. Our demands and call volume are anticipated to increase due to, but will not be limited to, traffic enforcement, pedestrian traffic, larcenies, aided cases and motor vehicle accidents.

Respectfully,

Joseph J. Yasinski
Chief of Police

TRANSPORTATION DEPARTMENT, HARRISON CENTRAL SCHOOL DISTRICT

Cleveland, Julie

From: Cleveland, Julie
Sent: Tuesday, July 30, 2019 2:43 PM
To: 'mpoleski@harrisoncsd.org'
Cc: Tung, Andrew V.
Subject: 3 WPD - bus information requested
Attachments: 826 3 WPD Overall Site Plan_reduced.pdf; 826 3 WPD Site Location_Aerial Image_reduced.pdf

Dear Ms. Poleski,

Our firm serves as the planning and engineering consultant for MCP II 3 Westchester LLC, the owner of property located at 3 Westchester Park Drive, which is just north of Westchester Avenue, and is on the tax lot identified as Block 631, Lot 18. The Site is approximately 10.63 acres and is improved with an existing 5-story office building. See attached figure *Site Location*. Our firm coordinated the preparation and submission of the Draft Environmental Impact Statement (DEIS) for the project, which is overseen by the Town of Harrison Planning Board serving as Lead Agency for the State Environmental Quality Review (SEQR) process.

MCP II 3 Westchester LLC proposes to replace the existing office building with two multifamily residential buildings containing a total of 450 rental dwelling units to be comprised of approximately 33 studios, 152 one-bedrooms, 254 two-bedrooms and 11 three-bedrooms. See the attached *Overall Site Plan*. It is estimated that the two buildings will have a total resident population of approximately 595 and approximately 28-32 school children have been estimated to be generated by the Project. The Project is served by the Purchase School (elementary), Louis Klein Middle School, and Harrison High School.

One of the comments we received on the DEIS for the Proposed Project asked how the bussing of students will be accommodated at this development. In order to address this comment in the Final Environmental Impact Statement (FEIS), we are seeking your input and assistance. The information you provide in regards to the following points will be incorporated into the FEIS:

1. Are there existing bus routes that you anticipate could serve school children at the Proposed Project or that could be modified to do so?

2. Where would the bus route provide a stop for school children who reside in the Proposed Project? Would it be located along Westchester Park Drive or would the bus need to enter the Site?

If possible, we would greatly appreciate receiving your responses to the questions by August 23rd, 2019 so that they could be included in the FEIS that we plan to submit to the Town. I would also be available to meet or speak on the telephone with you if that would be convenient. Should you have any questions, please let me know. You can also call me directly at 914-428-0010.

Very truly yours,

Julie Cleveland
Planner

Cleveland, Julie

From: Gene George <georgeg@harrisoncsd.org>
Sent: Thursday, August 8, 2019 3:41 PM
To: Cleveland, Julie
Cc: Maria Poleski; Louis Wool; Robert Salierno
Subject: Re: 3 WPD - bus information requested

In response to your inquiry:

1.Without the actual number of students and the schools that they attend (we transport to over 50 public and private schools on more than 300 routes), we cannot definitively determine whether or not additional routes would or would not be required.

2. Ideally all necessary routes would have one stop at the entrance to the site on Westchester Park Drive. It would ultimately be determined by the distance from the furthest residence to the site entrance. Buses would enter the site to accommodate Students with special needs.

On Tue, Jul 30, 2019 at 5:35 PM Maria Poleski <mpoleski@harrisoncsd.org> wrote:

Can you please help me with this. THanks.

Maria Poleski
Transportation Supervisor
Harrison Central School District
50 Union Avenue
Harrison, NY 10528
914-630-3303
914-630-3077

---------- Forwarded message ---------
From: **Cleveland, Julie** <jcleveland@divneytungschwalbe.com>
Date: Tue, Jul 30, 2019 at 2:43 PM
Subject: 3 WPD - bus information requested
To: mpoleski@harrisoncsd.org <mpoleski@harrisoncsd.org>
Cc: Tung, Andrew V. <atung@divneytungschwalbe.com>

Dear Ms. Poleski,

Our firm serves as the planning and engineering consultant for MCP II 3 Westchester LLC, the owner of property located at 3 Westchester Park Drive, which is just north of Westchester Avenue, and is on the tax lot identified as Block 631, Lot 18. The Site is approximately 10.63 acres and is improved with an existing 5-story office building. See attached figure *Site Location*. Our firm coordinated the preparation and submission of the Draft Environmental Impact Statement (DEIS) for the project, which is overseen by the Town of Harrison Planning Board serving as Lead Agency for the State Environmental Quality Review (SEQR) process.

A. DEIS COMMENT LETTER LIST

DEIS COMMENT LETTER LIST

LETTER NO.	AUTHOR	DATE OF LETTER
PH1	Public Hearing Transcript	5/21/2019
PH2	Public Hearing Transcript	6/25/2019
1	John Collins, Ph.D., P.E., Principal Associate, Maser Consulting P. A., 400 Columbus Avenue, Suite 180E, Valhalla, NY 10595	5/17/2019
2	Norma V. Drummond, Commissioner, County Planning Board, 432 Michaelian Office Building, 148 Martine Avenue, White Plains, NY 10601	6/25/2019
3	Patrick Cleary, Planning Consultant, Harrison NY	7/24/209

B. DEIS COMMENT LETTER LOG

3 WESTCHESTER PARK DRIVE
TOWN OF HARRISON, NY

DEIS COMMENT LOG

Letter No.	Author	Comment No.	Topic	FEIS Section
PH-1	Nonie Reich, Planning Board Member	PH101	Subdivision	II.II
		PH102	Construction Phasing	II.N
		PH103	Subdivision	II.II
		PH104	Construction Phasing	II.N
		PH105	Subdivision	II.II
PH-2	Marshall Donat, Planning Board Member	PH201	Construction Phasing	II.N
PH-3	Thomas Heaslip, Planning Board Chairman	PH301	Connectivity	II.A
		PH302	Building Operations	II.II
		PH303	Retail	II.II
		PH304	Affordable Housing	II.II
PH-4	Joseph Stout, Planning Board Member	PH401	Connectivity	II.A
		PH402	Stormwater Maintenance	II.F
		PH403	Gas Service	II.G
		PH404	Market Study	II.II
PH-5	Cheryl Pine, Purchase Resident	PH501	Market Study	II.II
		PH502	Schools	II.J
		PH503	Schools	II.J
	PUBLIC HEARING #2 - JUNE 25, 2019			
PH2-6	Alexander Roberts, Executive Director, Community Housing Innovations	PH601	Affordable Housing	II.II
		PH602	Affordable Housing	II.II
		PH603	Affordable Housing	II.II
	PUBLIC COMMENT LETTERS			
1	John Collins, Principal Associate, Maser Consulting P.A., 400 Columbus Avenue, Suite 180E, Valhalla, NY 10595	101	Existing Conditions	II.H
		102	Existing Conditions	II.H
		103	Traffic Volumes	II.H

3 WESTCHESTER PARK DRIVE
TOWN OF HARRISON, NY

DEIS COMMENT LOG

Letter No.	Author	Comment No.	Topic	FEIS Section
		104	Traffic Volumes	II.H
		105	Traffic Volumes	II.H
		106	Traffic Volumes	II.H
		107	Traffic Volumes	II.H
		108	Capacity Analysis	II.H
		109	Capacity Analysis	II.H
		110	Interconnector Roadway Analysis	II.H
		111	Interconnector Roadway Analysis	II.H
		112	Interconnector Roadway Analysis	II.H
		113	Parking	II.H
		114	Parking	II.H
		115	Parking	II.H
		116	Sight Distance	II.H
		117	Air Quality	II.H
		118	Constuction Traffic	II.H
		119	Accident History	II.H
		120	Traffic Study Edits	II.H
2	Norma Drummond, Commissioner, Westchester County Planning Board, 432 Michaelian Office Building, 148 Martine Avneue, White Plains, New York 10601	201	Planning Studies	II.A
		202	Market Study	II.II
		203	Market Study	II.II
		204	Affordable Housing	II.II
		205	Affordable Housing	II.II
		206	Connectivity	II.A
		207	Connectivity	II.A
		208	Transit	II.H
		209	Transit	II.H
		210	Transit	II.H

3 WESTCHESTER PARK DRIVE
TOWN OF HARRISON, NY

DEIS COMMENT LOG

Letter No.	Author	Comment No.	Topic	FEIS Section
		211	Approvals	II.H
		212	Capacity Analysis	II.H
		213	Capacity Analysis	II.H
		214	Traffic Study Edits	II.H
		215	Connectivity	II.A
		216	Connectivity	II.A
		217	Connectivity	II.A
		218	Connectivity	II.A
		219	Sanitary Sewer	II.G
		220	Sanitary Sewer	II.G
		221	Solid Waste	II.J
		222	Building Operations	II.II
3	Patrick Cleary, AICP, CEP, PP, LEED AP, Planning Consultant, Harrison NY	301	Project Description	II.II
		302	Project Description	II.II
		303	Project Description	II.II
		304	Retail	II.II
		305	Retail	II.II
		306	Parking	II.II
		307	Parking	II.II
		308	Building Operations	II.II
		309	Building Operations	II.II
		310	Recreational Component	II.II
		311	Access and Circulation	II.II
		312	Access and Circulation	II.II
		313	Subdivision	II.II
		314	Utilities	II.II
		315	Utilities	II.II
		316	Utilities	II.II

3 WESTCHESTER PARK DRIVE
TOWN OF HARRISON, NY

DEIS COMMENT LOG

Letter No.	Author	Comment No.	Topic	FEIS Section
		317	Stormwater Management	II.II
		318	Retail	II.II
		319	Benefits to the Town	II.II
		320	Zoning Compliance	II.A
		321	Zoning Compliance	II.A
		322	Zoning Compliance	II.A
		323	Zoning Compliance	II.A
		324	Earthwork	II.B
		325	Earthwork	II.B
		326	Rock Removal	II.B
		327	Planning Techniques	II.B
		328	Vegetation and Wildlife	II.D
		329	Tree Removal	II.D
		330	Water Supply	II.G
		331	Sanitary Sewer	II.G
		332	Sanitary Sewer	II.G
		333	Sanitary Sewer	II.G
		334	Sanitary Sewer	II.G
		335	Gas Service	II.G
		336	Capacity Analysis	II.H
		337	Traffic Volumes	II.H
		338	Traffic Volumes	II.H
		339	Traffic Volumes	II.H
		340	Sight Distance	II.H
		341	Parking	II.H
		342	Air Quality	II.H
		343	Transit	II.H
		344	Transit	II.H

3 WESTCHESTER PARK DRIVE
TOWN OF HARRISON, NY

DEIS COMMENT LOG

Letter No.	Author	Comment No.	Topic	FEIS Section
		345	Interconnector Roadway Analysis	II.H
		346	Transit	II.H
		347	Visual Impacts	II.I
		348	Visual Impacts	II.I
		349	Schools	II.J
		350	Police	II.J
		351	Open Space and Recreation	II.J
		352	Open Space and Recreation	II.J

C. DEIS PUBLIC HEARING TRANSCRIPTS AND COMMENT LETTERS

HARRISON PLANNING BOARD

Tuesday, May 21, 2019

PRESENT:

Thomas Heaslip, Chairman

Nonie Reich

Marshall Donat

Jeffrey Spano

Joseph Stout

Chip Marrano

Ethan Levinson

Andy Huntoon, Trammell Crow

Andrew Tung, Divney, Tung

Seth Mandelbaum, McCullough, Goldberger & Stout

HARRISON PLANNING BOARD: 5/21/19

THE CHAIRMAN: Westchester Park Drive.

MR. MANDELBAUM: Good evening members of the board. My name is Seth Mandelbaum with the law firm of McCullough, Goldberger & Staudt. I'm very pleased to be here once again regarding the proposal at 3 Westchester Park Drive. As you know this is the public hearing on the Draft Environmental Impact Statement, which was accepted as complete by this Board last month, in your role as Lead Agency based on the scope or outline that the Board had previously approved. I'd like to introduce our team members who are here this evening. Then we have about a 20 minute presentation, which we'll go through the highlights of the DEIS. The public hearing is on the substantive applications for this proposal, which we'll hear some more

detail on in a few moments. Those applications include the special exception use permit for SBO multi-family residential use, site plan, wetlands slope permit and minor two lot subdivision. The public hearing is on all of those applications tonight, as well as the DEIS. With me from Marcus Partners, affiliate of Marcus Partners, the owner of the property that purchased the property at on-line auction last year, David Fiore, principal, New York Regional Director, and Patrick Sousa, Vice President of Development, Trammell Crow Residential, a high quality national builder of multi-family residential. They're managing Director Andy Huntoon is here. You'll hear from Andy. Andy Tung and Julie Cleveland, as well as Carlito Holt traffic consultant and Frank Fish. This evening we'll be presenting to you. Of course we have

a stenographer here to create a transcript for inclusion in the FEIS, once the hearing is closed by this Board, at the appropriate time. We understand you typically would have some written comment period after that, typically around ten days or so. Then we'll prepare the FEIS for review by the planning staff and ultimately the Board, because that will become your document, as you call for in the DEIS process and ask you to adopt. We have to go to the Town Board for the final special exception use permit approval. Go to the next slide.

THE CHAIRMAN: We don't know how this is going to go. We allotted one hour for the public hearing. If we start to go over, we'll adjourn and push it over to the next month.

MR. MANDELBAUM: Understood.

This is an aerial that the board knows very well. In the so

called teardrop area between 287, the Hutch and 684. There have been many applications over the last few years. The old Gannett facility which became Life Time Fitness and has been there for several years now. We've got the Hyatt House Hotel, which has been there many years. The Caraway Toll Brothers, the Wegmans is under construction. Used to be three office buildings. Finally the site here at 3 Westchester Park Drive, which currently has a vacant office building. Proposed for a new multi-family residential building that's permitted as of right by special exception use permit and we're not proposing any variances for this proposal. It's fully conforming with all the requirements for a special permit. With that, I'd like to bring up Andy Huntoon to tell you a little bit about Tramell Crow Residential and some of the

interesting and exciting amenities and features for this facility and Andy Tung will take a few minutes to walk the Board and public through the Draft EIS. We have an updated video to show at the end which is that simulation that you may remember that kind of flies around the site and surrounding area. So I think that will be useful to run through again.

MR. HUNTOON: Thank you for having us this evening. Briefly give you a little bit of background on Tramell Crow. I'll run you through our vision for the project. We're a national privately owned apartment multi-family building owner. We build nationally 3,000 apartment homes per year, in the west coast to the east coast. We have partnered with Marcus Partners on this project to come in and do the multi family aspect for them. We're really excited for the opportunity. We

spent a lot of time digging into the local market, trying to understand what makes sense here, who wants to live here. I wanted to develop a project targeted to working professionals and empty nesters, create a sense of community at the property. Andy will walk you through a lot of details. We tried to create an entry drive here, stepped the scale down of the building towards the front, as you drive in, farm houses attached to the building to bring the scale down and make it feel like a smaller situation. It looks better, indoor, outdoor space here. People are going to live here. We want them to live here and enjoy their time here. Within these buildings there's significant amount of amenity areas, twenty thousand feet of inside space, ten thousand per side, filled up with things targeted towards working

professionals, fitness centers. Built in computer desks, coffee lounges that people can use in the mornings, during the day or the evenings, depending if they work from home or from an office. We created significant outdoor green space to get outside landscape. Pool in each one of these buildings. Big courtyard area here. As you drive into the property you'll be able to see through the trees on either side and see the pools and have the garden courtyards here and here. Barbecue stations outside. Seating. Dog parks here and here. Fire access loop that goes around the property. It's landscaped. It's going to sort of dual purpose as a fire access lane and walking trail, where you can walk around the property. You want to get some exercise you can do that. Really trying to create opportunity for people to get outside and enjoy

themselves. Main Street, we have done through here. We've got on the the grounds, there's tree lined. Try to get a Main Street feel to it. Make the property beautiful, all sides of it. The garages are completely enclosed on all four sides. There won't be a back side to the building, wherever you're looking at it, a well done building, so the people can get outside and when we have nice weather. We're super excited about the project. We're thrilled with the opportunity to work with you in the community, hopefully to bring something to Harrison. Will be a great value and provide clean modern energy efficient housing for people. Thank you, very much.

MR. TUNG: Good evening, Mr. Chairman, members of the board. Andy Tung, along with other consultants that Seth introduced. We have prepared a draft environmental impact

statement that was a document to follow the scope, adopted by the Board in February of this year. I'd like to hit on the some of the high spots, if you will, of the document. It fully addresses all the issues in the scope. The ones I'm going to touch on tonight, include section two. The proposed action, the proposed project, Andy has given you a high level overview of that. I will go into a little more detail. Section two, the environmental impact and potential mitigation measures. Of those four topics that are covered in section two, section three rather. Then section four are the reasonable alternatives, given the capabilities and feasibility of the project. Five identified the scope. I'll run through each of those, as well. At the end of this I have an aid to picture the project in three dimensions. We have updated the

video. It's a two minute video. In terms of the proposed action, the site location touched on the teardrop, which is a shape of land bounded by three highways, limited access highways on the west side of Harrison and within that area is the SBO district, special business office district, developed in the 1970's and '80's. This slide which Seth showed with the proposed project superimposed right now has an office building in the center of it, surrounded by some existing office buildings and other buildings which have been changed over as a result of the town's effort to repurpose the area within the SBO district and the teardrop. This aerial photo of the 3 Westchester Park Drive site. Ten point six acres, with frontage on Westchester Park Drive, along the bottom single building in the center of the site, five stories on the

front, four stories in the back, as the site rises towards the back. Two driveways onto Westchester Park Drive, as Westchester Park Drive rises up from Westchester Avenue to the top, where Lifetime Fitness is. We have an upper and lower drive. This building is one hundred sixty thousand square feet built. Currently vacant. Surrounded by surface parking spaces. Here's a view to the building from Westchester Park Drive, at the lower drive. Just to the left of the slide, just passed the tree is the upper drive and enters the parking lots or at least the parking lots on both sides of the existing building. This end which Andy used during his presentation is the illustrative site map for the project, total of four hundred fifty apartments to be constructed within the parameters of the SBO multi-family special permit use

provisions. This will be two buildings that face each other, across what we call the Main Street by center of the property, leads from the lower drive, rather the upper drive at the location of the upper drive to the existing office building. You can see the surrounding landscape which I'll describe in more detail. Here's a view, a shot from the video, which I'll show shortly, at that upper drive, looking towards the entry court shared by the two buildings. Building A on the left, building B on the right. We'll come up with better names as we go forward. This is a floor plan of the first level of the two buildings to give you an idea of the arrangement of the usage on the site. This is Westchester Park Drive, the entry drive. We saw the entry pavilions on both sides contain the reception areas, the lobbies and

indoor spaces Andy was describing. Within the center of each building are two parking structures containing a total of 691 spaces, which is the bulk of the spaces on the site. By enclosing those two structures here and here within the buildings they're not visible from the outside and to enter them, you drive into the site passed the main entry and the two lobby areas down the Main Street, then to either side to the parking structures. Everybody who comes to the site has the feeling of entrance that you get by coming in through the front door, past the front door to the parking area, not going around the back to the parking structure. The arrangement of the two buildings was very critical, the space around what would otherwise be large buildings that carried through to the arrangement of residential units, especially on the ground floor.

Along that Main Street coming in here the units on either side of Main Street have accesses directly to Main Street. You you can go into the central lobbies on both sides. The units on the ground floor have access to the outside, either onto the street through stoops and front doors or on the outside to small terraces through back doors if you will. These are some of the elevations of the building. With all the elevations it's difficult to get a feeling for the building from the elevations, which is why we'll show the video shortly. Andy mentioned something about a farm house aesthetic. What the architects have done here is try to vary the facade of the larger buildings in a number of ways, by breaking that up into smaller pieces. You can see some of that here with the different colors, the planes of the buildings stepping

back and forward to give a little bit of relief as you go past and around the building. Also by creating two smaller pavilions, farm house type pavilions at the main entry, so as you come onto the site and come to the entry courtyards it's a smaller building to greet you. Gives you a transition into the site. Focus on the landscape here, with the wings of residential units that extend out to the site, that allows the landscape to extend into the site. Besides the two courtyards at the front, which are just behind the spaces, will have paved areas, a pool on both sides. As you move to the back of the site the courtyards become larger, more natural in feeling, to allow for planted areas and lawn areas. They're all connected by a series, by the perimeter loop road and perimeter path that Andy described that will allow you to walk around the building

for about a half mile, if you so choose. The next two slides of the landscape developed by the landscape architect during the back and forth how the building and site would interrelate. On the left, the Main Street, diagram of the Main Street, on the right, there will be a limited amount of on-grade parallel parking on Main Street, a separator planter, sidewalks and then stoops leading into the units that have frontage right on the Main Street. The next slide shows the combination loop road, which is used for emergency access around the entire building. That was developed in coordination with the Purchase Fire Department at one of the series of meetings we had with the department. It will have a twelve foot wide paved component, which is the walking path, walking and biking path you can take around the building, fully making the loop,

if you choose. This same shot with the same slide with the landscape, the proposed subdivision. The proposal to have two buildings, each on their own site. The boundary, dividing boundary runs down the Main Street and goes someplace off towards Westchester Avenue to provide the parcel on the left, with the appropriate frontage as required by the SBO multi-family regulations. The site on the left, five point five acres, five point one, both of which satisfy the five acre minimum within the SBO district. Section three, part three of the EIS is the environmental conditions, anticipated impacts and possible mitigation measures. There's a series of fourteen different issues or topics that are addressed in the section. I'm going to touch on eight of them, beginning with land use and zoning. Back to the SBO district and the

teardrop. When this site was developed it's a special business district and it was developed during the late 1970's early '80's, with prime office uses. They had access off Westchester Avenue onto cul-de-sacs or driveways extended to the east from Westchester Avenue and in great part because of the topography, these were deadend cul-de-sacs, so as you came off from left to right you went up and that created a series of development lots. There was little connectivity, there was no connectivity at the back of the cul-de-sac because of the topography was quite varied at the back. Over the years, those uses have begun to change. There has become more of a need, more of a desire to make a connection between the different cul-de-sacs. As a result we at the 3 Westchester Park Drive site and the adjoining

neighbors, Caraway front on Corporate Park Drive, have been in discussions for a number of months, with the assistance of the Town Planner, the encouragement of the Town Planner how we can create an internal connection between Westchester Park Drive and Corporate Park Drive. The way we show that along the Main Street coming across the back of the loop road and come down the left side of the access road provides access to the Caraway parking garage. If that's able to be done that connection would occur on private land owned by 3 Westchester Park Drive and the Caraway, so we need to work together with the Town to make that happen. We're encouraged or we're optimistic that will happen and we're committed to working with the Town to achieve that. Next section, topography and slopes. This is an overlay of the proposed two buildings

and faintly you can see the outline of the existing office building below, which is set on a diagonal to the grade of the new office buildings. The orange and red and yellow areas connote the areas of steep slopes under Harrison law. They were created to basically level out the parking areas and the building for the existing office building, so you can see they run around the perimeter, a little here and here, surrounding a storm water wetlands created for the office building, a little bit at the back along the storm water wetlands that served the office building. The grading for this proposal with the two buildings in the center and Main Street will adjust that grading for the office building slightly to create different areas. There will be some change to the steep slopes shown, that will be done in a

controlled manner. They will be stabilized with vegetation, grading walls and exposed rock in some cases as part of this construction. The two wetland areas I described that were storm water wetlands, one in the front and rear of the site, are the only wet areas on the site. In the case of the larger one at the front, this is between the two existing driveways along Westchester Park Drive, was created to take the storm water from the office building, the one at the back was the top of a water course that was adapted for storm water use. These have not been maintained over the past number of years. They have silted in, particularly the one at the front of the property and there have been a series of invasive vegetation because it's not maintained. There's been a mix of the original plantings and new invasives. Part of this proposal

will be to clean out the basins, to reestablish native vegetation as opposed to invasives, so they can reclaim their function as part of the storm water system and part of the surrounding natural habitat. In terms of storm water management, most of the site, a little more than half the site has been noted by the blue line from here to here, goes down to Westchester Park Drive through the existing storm water system. The balance goes out towards Corporate Park Drive. The water sheds will be maintained in the proposed storm water plan. The two existing basins will be reutilized and revegetated as a part of that plan. We'll be adding a third basin here at the front, on the upside of the new entry drive, a basin here and here and there, along with other water quality measures, such as storm infiltration basins and vegetative swales to provide the

water quality treatment that's now required under DEC regulations that was not required at the time of the original application, the original office building. In terms of site utilities, all the utilities of the existing office building come off Westchester Park Drive. They will continue to do so. The two new buildings each will have water, sewage and gas. In coordination with the Fire Department, we have proposed to have all fire loops that extends all the way around the building, so it did can provide water along the loop road so the Fire Department has the best access, physical access, as well as access to water around all sides of the building. We have registered the project with Con Ed prior to the enactment of the gas moratorium, so long as we continue to process the project, we have our supply reserved in their book. In

terms of traffic, the scope identified eight intersections which were to be studied in terms of potential impacts to traffic from this project, all along Westchester Avenue as shown by the circles in this photograph. Our traffic engineer studied the existing conditions, proposed conditions, without the project and proposed conditions with the project and found that the projected level of service with the project would be the same as without the project, in the future conditions and all eight intersections, with the exception of 1 Corporate Park Drive and Westchester Avenue westbound at the intersection. In order to replicate the level of service, there would be some additional traffic signal changes needed, timing changes to balance out the traffic along the main roadway with the traffic on

Corporate Park Drive. In terms of visual character, visual resources and community character. In the scope there were identified six vantage points from around the site where we were asked to look at views both before and after along Westchester Park Drive, the other three from further distance around the site. I'm going to show you four of those views. The first one will begin at the site driveway. Viewpoint number two, this is the upper driveway, so in all of these slides the view on the left is the existing view today. The view on the right will be the view with the proposed building in place, the upper drive. The new driveway to the entry court is basically the same location as the upper drive to the office building. At the beginning or the intersection of Westchester Park Drive and Westchester Avenue right by

the sign, you can look up the rock face today and you don't see anything because the building is set back in the center of the site. In the future you'll be able to see the type of building and invite you to come up to Westchester Park Drive. From Corporate Park Drive, this is a view between the Hyatt Hotel on the left and the Carraway under construction on the right. All these views were taken in winter so you don't have the benefit or blockage of the screening of intervening vegetation during the winter, you can see at the back the existing office building. In the future you will see the back, the tops of buildings A and B in the Winter. During the summer this aerial in between the two buildings is vegetated, so that those leaves will block the view from Corporate Park Drive. Then finally the last simulation I have is 684. As you're

traveling southbound is sixty miles an hour. The building within the teardrop are not that visible. Here you can see the middle ground, this is in the winter, all the leaves are off the trees. The top of the Lifetime Fitness building, which is close he's to 684. The three Westchester Park Drive buildings would not be able to be seen, but are indicated in the proposed view on the right by a dashed yellow line. In the summer you see neither one of these buildings because of the vegetation. The last section in section three is construction impacts. Total construction activity is anticipated to take about thirty-four months, just under 3 years to build out the site, complete with both buildings. In order to explain how our contractors propose to do that, we prepared what we call construction snap shots at eleven

intervals during that duration, each one showing the activity on the site and perhaps most importantly, for the sake of the DEC general permit for construction activities related construction activity, we show the amount of uncovered land or exposed soil at any given point in time. DEC has the regulation the amount of soil that can be exposed at five acres unless special application is made to the MS-4, in this case to the Town of Harrison. By creating these snap shots we're able to track the activity, but also the amount of exposure, to make sure as we propose here we are able to stay under the five acre cap. This snapshot from one to three site preparation will involve the demolition of the existing building and the beginning of the removal of some of the parking areas. The idea to move from left to right as viewed in this vantage point

from building A to building B. Most efficiently we would have the various trades move collectively, move progressively across the site so they don't have to come back and come back later on and remobilize. Currently both buildings would be built in sequence, one after the other. Here you can see the red area, is the area of exposed soil. In this case month 4 to 6, primarily the left side of the site, 7 to 9 the left side stabilized with the construction of the foundations and paths for the parking garage and the right side can begin to be worked on in terms of site work. Jumping ahead to the end of the project, month 28 to 30, both buildings complete. The landscaping is going to be installed by the last phase 31 to 34, both of these phases, there's nothing exposed in terms of the DEC permits. Our exposure is down to 0. We're asking in the scope

to look what would happen if building B were not to be built in sequence with building A because of the way that is shown in the snap shots, that decision point happens very early in the process of the earlier snap shots. We don't anticipate it happening. We believe we're going to move from one to the other. In the event it happened this is what the site will look like. Building A would be constructed on it's own site. B would have some removal, including the building which straddles the line. Some of the parking areas, some of the grading done, that would be stabilized as a meadow until such time as construction began again on the B side. We don't anticipate it happening. We wanted to include it. Section four, the alternatives to the proposed action. These are per SEQRA. These are alternatives to the

action that are feasible, considering the objective and capabilities of the sponsor. This table, which I can't read from this distance, I showed to demonstrate what we did. One of the things we did in comparing the alternatives, prepared a table that list of various quantitative elements of each of the alternatives as compared to the proposed action. We prepared site plans for each one of these alternatives so that the effect of different plans could be viewed similarly side-by-side. The proposed action here, we remove the trees. Don't show any trees on the alternatives. Without the trees it's easier to see the buildings and paving and compare the differences between the plans. Here's the proposed plan. The two buildings and the subdivision line between and the Main Street dividing them. The first two alternatives, one is no action.

The second is renovated office building, have the same plan, the plan as it is today. Single office building, no action, except area, which is required under SEQRA. Nothing happens. It continues to look like what it is today. Under renovated office scenario to the extent the building can be renovated, you have to replace the mechanical systems, the skin, most of all the other components you would still end up with a 1982 office building, with a new skin and new set of clothes, but it still wouldn't meet the requirements for a modern day office use in terms of location, floor-to-floor height and other components, where some of the buildings within the teardrop have been renovated for other uses. This required different parking for medical uses. No such user was identified for in this site for this

sponsor. This is not a feasible alternative. The next alternative, large scale retail project. What is shown here seventy five thousand square foot building at the back of the site, 375 parking spaces, five per thousand of the town code. This is a ten acre site. There's a special permit provision within the SBO indicating large scale retail requires a minimum of twenty acres. A site like this which could be done would require a change to that zone to allow for that on the smaller site. We don't know that that retail and smaller site of this size fits in with the master plans vision for the invigoration of the teardrop and not a proposal of this sponsor. The next two slides are variations on the same program, different architecture, different program components. This is an alternative single building. It would have four hundred fifty

apartments as the proposed action because of the configuration of the center garage still wrapped by the building because it's a single garage, a little smaller than the combined two garages. It would have one hundred less parking spaces. The architecture is a little more downtown, main street up the center. The main street we believe is an important component of our plan in that it provides for entry, provides for connectivity to the Carraway site through the Main Street drive, as opposed to going up the side. It allows for more units to have exits on the ground floor, the space between the buildings. The single building plan is not flexible in terms of construction or occupancy as the two building plan. This is not a preferred plan. The last alternative adds a retail component, which is permitted within the SBO district. A

small retail component, seventy-five hundred square feet, located at the front of one of the buildings, so it could attract people going by on Corporate Park Drive. With that seventy five hundred would be an additional surface parking area in front to account for those parking needs. This was looked at by our applicant during the early planning stages for the project. It was determined that size and location of retail use, it did not really attract any retail tenants because they did not think the amount of traffic along Westchester Park Drive and within the site was enough to support on a long term basis a retail operation at that site. It also would as shown here would need to be, if it was to be on the site, at the front of the site for easy access for people on Westchester Park Drive in that location, serves to he reduce the

amount of area provided for the entry court space. It kind of gets in the way of the other things that the applicant is trying to provide, which include things like concierge services, dry cleaning pickup, coffee service, which are the types of things we believe that was envisioned for a subsidiary retail use for a residential project, but doesn't have enough traffic to keep it going. I apologize for rushing through this. There's a lot of material in the DEIS. We tried to account for all of the scope. I would like to show the two minute video to give a better idea of the three dimensional view driving through and flying over the proposed site.

MR. MANDELBAUM: Thank you. That's our presentation this evening. We're happy to answer any board questions or of course take the public comments in.

CHAIRMAN HEASLIP: Why don't we go to the Board part of this and open it up to the public.

PH-101

MS. REICH: One of the things I've focused on too is the impact if only one of the buildings is completed, because there's a subdivision situation. I appreciate this drawing that's been inserted. I'm not sure I like the way it's titled. I think it should be more specific to a situation that looks at just one building. I think furthermore the way the road goes right down the middle of the subdivision, we need to see further addressing how the road would have to move if the second lot has to be separated from the first lot. As a Planning Board person, I feel absolutely that that has to be looked at. You're asking us to look at a subdivision situation here. We have

PH-101 (contd)

to look at these as two potentially separate situations. That's your application.

MR. MANDELBAUM: Yes, to create two lots.

PH-101 (contd)

MS. REICH: There's a road going right down the middle joining the two lots. That's fine in terms of a final, if that gets built. I want to see a drawing that shows what happens to that road in the case that only one building is built. Doesn't mean you have to redesign the whole building. Doesn't mean that at all. I need to see what would we do, how would access work. I want to see more thought given to that. If it's just the building in the end to the left, if we're calling it that. The second thing I want to ask about is presumably if the building on the left is going to be completed, I don't know, at some point before the building on the right is complete, it

PH-102

PH-102 (contd)

suggests that people are going to be moving in sequentially, yet I don't believe I see anything that addresses that in here in terms of traffic and how is that going to be addressed in terms of part of the building impacts. If the applicant is willing to say nobody moves in until the two buildings are complete or one is complete and decide we're not building the second, that's one thing.

MR. MANDELBAUM: People will start moving into the building.

MS. REICH: That's not addressed in here. The plan of construction clearly states you're building both buildings.

MR. MANDELBAUM: Correct.

CHAIRMAN HEASLIP: You're taking advantage of one building. In the marketing study you talk about occupying the one building and phasing into the second, so you don't

have four hundred fifty apartments coming on market at once. If that's the plan.

MR. MANDELBAUM: Right.

CHAIRMAN HEASLIP: The only thing I can see for the subdivision, so sell one and keep one, because subdividing doesn't make sense, any other reason for it. If you're committed to build both, you committed to the maximum lot capacity on each one, as stated, with a total of 450 on the site. We don't have to be concerned you're going to be building one and coming back and say we're going to build 450 on the one and 250 on the other one. We're not concerned with that. The resolution will state when we get to that point, you committed and it will be an FEIS, you're going to build 2 buildings over a 34 month period. You're going to try to occupy building A while under construction on building B.

MS. REICH: They already said they can't guarantee that.

CHAIRMAN HEASLIP: If you went to that point, no build on B and then wanted to build that or change that, you would have to create a whole new road system.

MS. REICH: That's what I'm trying to say. They already said there could be a scenario where one is built and the other isn't built.

CHAIRMAN HEASLIP: I don't see that in the DEIS. They clearly made the pitch here in the DEIS, telling us and the rest of the world, they're building 2 buildings over a 34 month period.

MR. MANDELBAUM: Correct.

CHAIRMAN HEASLIP: No other plan in there to not build the other building.

MR. MANDELBAUM: The only other plan was added if building B did not immediately follow building A and had

to be stabilized for some period of time. That's what the new plan that was added addresses.

MS. REICH: I feel like you are looking at this differently. You're buying into the fact what they say now, subdivision, 2 buildings. That's what they're doing. I'm coming from the point of view, that's what they're saying. There may be a scenario where they don't build the second building. It's important we address that. It doesn't have to be a full blown redevelopment. How would the road work in that case. Now we have one building, 5 months in. How does that road work then.

PH-103

The second point is, people are moving into the first building as the second building is being built. You know, this may be typical in the sense you don't have to put in an FEIS. I noticed they have all the construction employee estimates.

PH-104

PH-104 (contd)

That also doesn't include residential, the impacts of having both residential and construction employees having to come and go at the same time.

CHAIRMAN HEASLIP: To get to your point, the way the process works, they're taking down the information. They need to respond to the question and you know, what happens --

MS. REICH: Does the question sound clear?

MR. MANDELBAUM: I understand. It's really 2 questions.

MS. REICH: It is 2 questions.

PH-105

They have to be addressed. The plan you've given us should state clearly this is the alternative, if one gets built. I'd like you to put it in here. I feel like I was heard last time. It's the same drawing without the second building there. How would you access the building? There is no

PH-105 (contd)

further thought into it.

MR. MANDELBAUM: Understood. That plan shows if building B was not built immediately after building A. I understand what you're saying.

MS. REICH: You could turn around and you have every right to sell the second lot.

MR. MANDELBAUM: We'll answer those questions in the FEIS.

CHAIRMAN HEASLIP: What do we do then? The applicant is held to standard of what's been approved, which is 2 buildings. The size of the building is set. The number of residences are set. The green space is set. The pool, everything that they're providing to us on a set of plans. That's what is set. If they decide not to build it, they want to make a change, they have to come back to the board. The Board may not be inclined to allow them to do it at that time. The market studied may be

different. We may be way over the top with apartments.

MS. REICH: If we approve it they have the right.

CHAIRMAN HEASLIP: Only to the size and dimensions and all the requirements they had in the plan.

PH-201

MR. DONAT: If the second building B is never built or for a long time it's not built, what's it going to look like? I heard the word meadow landscaping, fencing. Is it a safe area? It's a construction site with a building ripped out of the ground and something filled in. I'd like to know how that would play out.

MS. REICH: Just for the record, I said it before, we have never looked at a situation where you asked for a subdivision, two buildings actually part of the same development, where they're so connected. I'm not trying to give you a personal response other than

that. This is technical, absolutely in my mind completely technical.

MR. MANDELBAUM: Drawing a line on the map to create separate parcels. We understand the question.

MS. REICH: May or may not.

CHAIRMAN HEASLIP: Thank you for obviously addressing that in your preparation. Actually what happens if that alternative doesn't work, what is the other piece. It always seems like every traffic study we see shows no impact for any development. If you're on Westchester Avenue at five o'clock, there is no place to go without the internal circulation dumping 110 or 80 cars out there at that time is an issue. That's the easiest and best way to get there. It's not publicly owned. If you can study another way to get there I think that's key to keeping the cars in the tear drop off of Westchester Avenue at those peak times.

PH-301

MR. MANDELBAUM: You're saying another way to get there.

MR. STOUT: To get from Westchester Park Drive to Corporate Park Drive without going through White Plains.

We talked about it. If you leave your house and you want to go get dinner at Wegman's it could take you forty minutes to get there.

MS. REICH: It's one of the great selling points of this, because Wegman's will be there. If you can't access Wegman's, it's ridiculous.

PH-401

MR. STOUT: I'm concerned about the one with the car away, we tried and you need to look if there's another way around. The other thing that I'd like you to look at, the fact the storm water basins have not been maintained. That happens a lot, because the developments get built, office parks or residential and then you know, years go by and here we

PH-402

PH-402 (contd)

are. What is the long-term plan for making sure they stay here and stay clean and stay active and do what they're supposed to do. The quality of the water and the volume of the water, we understand the volumes of the water goes down here somewhere when it rains.

MR. MANDELBAUM: You may or I may not be aware of it. It happens after we're through the Planning Board under the DEIS, we have to give the Town an easement to maintain the storm water features if the property owner fails to do so. That happens in every development. We have to provide that before we can close-out the development through the Engineering Department.

MR. STOUT: If it's redundant to put in the FEIS, don't do it. If it's something we can look at it.

PH-403

I'd like you to look at all alternative energy sources other

PH-403 (contd)

than, you know, relying on Con Ed to lift the gas moratorium in 3 years. What happens if that happens?

CHAIRMAN HEASLIP: You touched on technology in the EIS, to Joe's point. Has there been any like look at solar on the roof or over parking structures? You're very familiar with that. You handled the application, one or two, up in Purchase already.

PH-302

MR. STOUT: Parking on the roof.

MR. TUNG: Not on the roof.

MR. STOUT: The cars will be outside.

MR. TUNG: The top level is exposed, yes.

CHAIRMAN HEASLIP: You call this a Main Street, which is nice. You refer to the plan that talks about, uses in that teardrop. You studied on a marketing study apartments, which I didn't see any

study on, because you said the applicant figured out that they didn't feel that retail would work. I'm wondering on Main Street, where you have 450 apartments and you have potentially I think the number at 680 residents, potentially some variation and then you have Toll Brothers with another four hundred some odd apartments, with connection between the two, we're hoping. Just seems to me the Main Street would be enhanced and we talked about people coming off Westchester Park Drive to go shopping. We're not thinking about it. I'm thinking you have a captive audience of people right there. Wouldn't the retail enhance the Main Street and provide things for people not to have to leave the site? Just think of the uses that a small village which you're creating could use. I mean I don't know granola bar, a small version of that, coffee

PH-303

PH-303 (contd)

shop, a nail salon. I mean these are the things that people in downtowns which are creating a little village would want. Study it. Let us know. Using your experts, if it works or doesn't work. Seems to us it might work. The other thing I was wondering, you didn't talk about affordable housing at all. I don't know if that's something that should be looked at in the plan.

PH-304

PH-404

MR. STOUT: To that point the market study only, obviously you're putting a lot of money into this. You think you're going to fill them up. What happens if you don't? What happens with the apartments if they're built, 450 of them, what kind of impact could that have on the rentals and the mix of the numbers of people that could go into an apartment. That would be somewhat less expensive. Then they are here in case you miss on the market.

Hopefully, it's wildly successful and there's a waiting list a mile long. Everywhere in the County, as you and I had many discussions about, there's the market rate rental apartments, co-ops, rental apartments. I know there's a lot of people in Brooklyn that can't afford it. There's a lot of them being built in White Plains, New Rochelle, Yonkers.

MR. MANDELBAUM: We'll study that.

CHAIRMAN HEASLIP: Let's have a motion to open the public hearing. Anybody want to come forward and comment on the application.

MS. PINE: Good evening, Chairman and Planning Board and proponent. I just want to address the -- Cheryl Pine. I live in Purchase. I just wanted to address the topic under the heading of 3J1, community facilities and services. That was not discussed a little bit

earlier. That includes schools and the emergency and police services. The schools issues sort of is connected to the marketability question that just was raised a few minutes ago. In 2018 White Plains approved 4,000 additional units, apartment units for White Plains. Many of those are luxury type of rentals and so the question that I have in terms of this multi building residential project is, will this kind of project, which it doesn't have the benefit being close to the railroad and having walkable amendments, including doctors and retail and that kind of thing, also the price point might be a little bit better, would this project be attracting, more likely to attract families and the impact and relationship to schools? Would there be more school age children. In the DEIS they anticipated there would be

PH-501

a minimal amount of impact on the Harrison Central School District. The number they estimated was about 28 to 32 more school age children. That's dependent on the marketability issue, whether the predominance of the renters are the empty nesters and the younger professionals. The two local closest elementary schools each have about 300 students. So if there was up to 32 new school children that would be fairly significant and then the Carraway also would have additional school children. The question is, it's the services and the facilities that would have an effect in the schools and that is the way our schools run now in our communities is in our neighborhood communities. There's home ownership. There's continuity. The students stay within the School District for a significant amount of time. If there are issues with the students that

PH-502

PH-502 (contd)

they need special care, special educational opportunities, special health issues, whatever, that can be addressed over time, that could be integrated into the school program. Family of renters might -- I mean definitely has a different timeframe, one or two year lease, even if it's renewed, it's a shorter amount of time. The Harrison School District itself and the elementary schools, what would the impact be in terms of having to be resilient in a sense maybe needing more teachers from year to year, if 28 to 32 students, that's the equivalent of a class and a half. Then if there are special needs children, you need to address what their issues are. Then the extra expenses of dealing with the students. The voting on the school budget day, the schools is a very significant issue and I think, as was raised with the Carraway project,

there are no real comparative numbers within Harrison or Purchase of a similar project, where you have a corporate office building, with obviously no school children, being converted into residential buildings. So whether the quality and the number of the schools in Harrison would be impacted by this project is a question that is of concern to me and so I hope that that can be addressed and because the communities of Purchase and Harrison, the Harrison School District, obviously the schools is one of the aspects that draw us to our community and that make our homes marketable and that attract our future neighbors. I hope this issue can be addressed.

PH-503

CHAIRMAN HEASLIP: In further studies. Time is up. Keep the public hearing open until next month.

HARRISON PLANNING BOARD 6/25/19:

(Public Hearing)

Good evening. Seth Mandelbaum from the law firm of McCullough, Goldberger & Staudt, on behalf of Marcus Partners, who, as you may remember, are proposing a new 450 unit residential development in 2 buildings at the current location of 3 Westchester Park Drive, the vacant office building. As you recall, we had the opening of the DEIS public hearing last month. It was continued until tonight to take additional public comment, if any. So in my discussions with Pat, we indicated we did not need to do another presentation. We have the board up for reference of the rendered site plan. We have our key consultants here this evening, in case there are specific questions. Assuming the Board is comfortable in doing so at the end of the public comments, we ask the Board consider closing the hearing to verbal testimony and then I know you typically put a written comment period on that, as well, some period of 10 to 15 days,

whatever the Board is comfortable with. We would take the summer to work on the FEIS proposal, which of course, becomes your document at the end of the process and work with Pat for his initial comments. The goal being for the September meeting, you'd have in front of you the draft FEIS for consideration. That's the schedule we're anticipating over the next months

THE CHAIRMAN: Sounds doable.

MR. MANDELBAUM: I stand down, unless there's specific questions for you us and we're here.

THE CHAIRMAN: A motion to reopen the public hearing. Unanimous. Public hearing is open. Anybody in the room want to come forward on the application.

MR. ROBERTS: Thank you. Alexander Roberts, Executive Director of Community Housing Innovations, non profit provider of housing and human services. Also Cofounder of the Westchester Work Force Housing

Coalition. You might remember, some of you, at the end of 2014, we stopped the proposed MTA Avalon Development because it failed to include any affordable housing, continuing a 30 year old policy in Harrison. We won that fight, as the MTA and Harrison agreed to a 5 percent set aside, which is being honored in the latest plan to build the project downtown. Later in 2016 we successfully negotiated a 10 percent set aside for affordable housing with Toll Brothers, in a project similar to 3 Westchester Park Drive. The 103-105 Corporate Park Drive is well on it's way to completion. So why should 3 Westchester Park Drive be any different? Especially, in light of the settlement order against Westchester County, which remains `in effect and cites Harrison as as one of the eligible communities that has

PH-601

PH-601 cont.

failed in it's zoning to produce fair and affordable housing.

PH-602

In fact, the Westchester County Planning Board, noting the absence of any commitment to affordable housing for this development in the DEIS said, we continue to point out that all new residential developments in eligible communities are expected to contribute towards affirmatively furthering fair housing and a 10 percent set aside of affordable AFFH units is standard for developments of this type. We also continue to urge the town/village to take steps towards adopting the model ordinance provisions. The model ordinance specifies that 10 percent of the units be affordable to households with income up to 60 percent of the area median income, which is sixty-five thousand dollars for a family of 3. That represents a salary of 32.50 per hour. And yet

market rents have skyrocketed so much that the gap today is even greater than it was 3 years ago. However, the growing chasm between the cost of producing affordable housing in these amenity rich projects, and what an affordable rent can sustain presents an interesting opportunity for this board, which I laid out in the column in the Westchester County Business Journal and a white paper released by Enterprise Community Partners. The average cost of producing the average one or two bedroom apartment in a low income building in Westchester is a little over four hundred thousand dollars. The rent only covers a mortgage of about one hundred thousand dollars. Therefore the affordable housing developer must find three hundred thousand dollars in taxpayer subsidies to produce one apartment. The problem is even greater for private developers like

MCP, whose market rate apartments and amenities cost even more. Thus in Stamford, for example, developers are willing to pay two hundred thirty thousand dollars as a payment in lieu to get out of the obligation to produce the housing on-site. By giving the developer the option of paying into a Harrison affordable housing fund, this presents a huge opportunity for Harrison to generate over nine million dollars at two hundred thousand dollars per unit, which I believe could produce up to three times the number of affordable units. Harrison has many two family homes and older apartment buildings with relatively modest rents. Some of that would even be considered affordable. If you offered Harrison landlords a lump sum payment of seventy thousand dollars to reduce their rent by three hundred dollars per month to the affordable level and

PH-603

PH-603 Cont.

the rent to the qualified low income households, I believe you would get many of them to do so. Getting a check for seventy thousand dollars in return for losing thirty-six hundred dollars per year for thirty years is a good deal. In this way that two hundred thousand dollars plus payment, could be leveraged to produce at least twice as many affordable units, which would be scattered around town, rather than concentrated in one place. This would inject millions into the Harrison economy, help multi-family owners improve their buildings and lower their debt. It is a far more efficient way to create affordable housing, but the Planning Board would have to be clear that these funds must be expended to create affordable housing within one or two years, because too many municipal affordable housing funds are diverted to other

PH-603 Cont.

uses. Because this has not been tried, perhaps you might limit the developer to buying out up to half of it's obligation with half required to be built on-site. I would be happy to assist in setting up such a pilot program, with a request for proposals to the Harrison landlords and owners.

(Attachment to the transcript was read at this time.)

MR. MANDELBAUM: That's it for us.

THE CHAIRMAN: Comments? Close the public hearing.

THE TOWN PLANNER: Extend the written comment period.

THE CHAIRMAN: I propose 30 days. Anything else?

MR. MANDELBAUM: Not at this time.

MASER CONSULTING P.A.

Engineers
Planners
Surveyors
Landscape Architects
Environmental Scientists

COMMENT LETTER NO. 1

400 Columbus Avenue, Suite 180E
Valhalla, NY 10595
T: 914.347.7500
F: 914.347.7266
www.maserconsulting.com

May 17, 2019

VIA UPS

Mr. Thomas Heaslip, Chairman
Town of Harrison
Planning Board
One Heineman Place
Harrison, NY 10528

Re: 3 Westchester Park Drive Redevelopment
Town of Harrison, Westchester County, New York
MC Project No. 19004298A

Dear Chairman Heaslip:

The following is our review of the 3 Westchester Park Drive Redevelopment Traffic Impact Study dated March 15, 2019 prepared by Provident Design Engineering. Once the additional information is provided, a further review including the results of analysis and any additional mitigation that may be needed will be conducted.

1. PROJECT DESCRIPTION

The proposed Project will consist of the redevelopment of the existing Office building (approximately 160,000 s.f.) located at 3 Westchester Park Drive for 450 residential units. Access will be provided by a single driveway to Westchester Park Drive with all traffic arriving/departing the signalized right turn entry/right turn exit intersection with Westchester Avenue Westbound. The Applicant is also considering a shuttle/jitney service based on the residential/tenant demand. It should also be noted that the Applicant is exploring providing an Interconnected Roadway between the proposed Project Site and the Carraway Project Site (formerly known as Residences at Corporate Park Drive).

2. EXISTING CONDITIONS

101 Traffic counts for the study area intersections were conducted on Wednesday, June 6, 2018 as well as Automatic Traffic Recorders (ATR's) from June 5, 2018 – June 14, 2018. These traffic counts were compared to NYSDOT historical data as well as other recent traffic counts for other development in the immediate area. The resulting Year 2018 Existing Traffic Volumes are appropriate.

35 YEARS OF Customer Loyalty through Client Satisfaction

102 **A detailed description of Westchester Park Drive including the existing and proposed uses along the roadway, posted speed limit, location of bus stops, if sidewalks are provided and the general condition of the roadway should be provided.**

3. 2020 NO-BUILD TRAFFIC VOLUMES

103 A compounded background growth factor was 1% per year (for a total background growth of 2.01%) to the 2020 Design Year was utilized as well as traffic for 103-105 Corporate Park Drive (Carraway property), Wegmans and 104 Corporate Drive. In addition, to the adjacent developments, the re-occupancy of the existing office building was also included as part of the background traffic volumes. The resulting Year 2020 No-Build Traffic Volumes are appropriate.

4. SITE GENERATED TRAFFIC VOLUMES

Trip generation estimates were conducted using data published by the Institute of Transportation Engineers (ITE) – Trip Generation Manual, 10th Edition for ITE Land Use 221-Mid-Rise Multifamily Housing. The Trip Generation estimates included a 25% reduction in trips for public transit, including the Bee-Line Bus System, walking trips, carpooling/working from home (based on US Census data for the Town of Harrison and City of White Plains) as well as the consideration by the Applicant to provide shuttle/jitney service. The resulting Trip Generation used in the analysis was a total of 112 trips (29 entering trips and 83 exiting trips) during the Weekday Peak AM Hour and a total of 141 trips (86 entering trips and 55 exiting trips) during the Weekday Peak PM Hour.

104 **A sensitivity analysis should be conducted without any public transportation credit, since there could be significantly less reductions if the shuttle/jitney is not provided/discontinued, less carpooling/working from home and due to the location of the site it is anticipated that there would be minimal walking trips (independent of public transportation). The resulting Trip Generation based in ITE (without any reductions) would be a total of 150 trips (39 entering trips and 111 exiting trips) during the Weekday Peak AM Hour and a total of 188 trips (115 entering trips and 73 exiting trips) during the Weekday Peak PM Hour.**

5. ARRIVAL/DEPARTURE DISTRIBUTION

105 **The arrival and departure distributions are not reflective of each other. For example the arrival distribution shows 9% from Bryant Avenue while the departure distribution shows 18% to Bryant Avenue, similarly 7% is shown from West Red Oaks Drive with 0% to West Red Oaks Drive. These arrival/departure discrepancies should be clarified/adjusted and used with for updated analysis.**

6. YEAR 2020 BUILD TRAFFIC VOLUMES

106 • **The Year 2020 Build Traffic Volumes and analysis will need to be updated based on the arrival/departure distributions (See Comment 5).**

107 • **A sensitivity with the ITE Trip Generation without any reductions should be conducted (See Comment 4).**

7. CAPACITY ANALYSIS (TECHNICAL ANALYSIS)

The capacity analysis (Synchro Analysis) was conducted using the latest Highway Capacity Manual (HCM), 6th Edition.

108 • The analysis utilizes both the default Peak Hour Factor of 0.92 and Heavy Vehicle Factor of 2%. **The analysis should be updated to reflect the observed Peak Hour Factors and Heavy Vehicle Factors based on the traffic count data contained in Appendix E of the TIS.**

109 • **In the review of 104 Corporate Park Drive, Westchester County DPW required that the intersection of Westchester Avenue Eastbound with the I-287 Eastbound Off-Ramp be evaluated. This location should be analyzed.**

Once the analysis is updated based on our comments above, a detailed technical review of the results of the analysis (Levels of Service, Delays and Queues) will be conducted to determine if any additional mitigation may be required at the study area intersections.

8. INTERCONNECTOR ROADWAY ANALYSIS

As previously discussed, the Applicant is exploring providing an Interconnected Roadway between the proposed Project Site and the Carraway Project Site (formerly known as Residences at Corporate Park Drive).

110 • An analysis was conducted with the potential interconnection by taking into consideration the potential reduction of trips to the surrounding roadway network as "interplay" between all the uses along Westchester Park Drive and Corporate Park Drive. **A copy of the NCHRP Report 684 Trip Capture Estimation worksheets should be provided.**

111 However, the location of the connector would not be obvious and convenient to all users. For example, shoppers at Wegmans may not realize that access to lifetime fitness is available through the connector. **Therefore, an alternate analysis should be provided for a reduced "interplay".**

112 • The Interconnector Roadway Analysis does not consider a redistribution of traffic volumes along both Corporate Drive and Westchester Park Drive that would use the interconnection to access Westchester Avenue primarily those from Westchester Park Dive to Corporate Drive to directly access Westchester Avenue Eastbound. **A Build analysis of these potential diversions without the interplay credit should be provided.**

9. PARKING

113 • The TIS indicates some 731 parking spaces will be provide with the Site Plan indicating some 713 parking spaces. **The proposed number of parking spaces should be confirmed.**

114 • The Traffic Impact Study provides a Parking Demand Table (Table 5.0.1) indicating a parking demand of some 594 parking spaces (which would equate to a 1.32 parking rate) based on ITE Rates. **The corresponding ITE Land Use excerpts should be provides so the parking rate and demand can be verified.**

115 • **A comparison to the Town Parking Rate should also be provided.**

10. SIGHT DISTANCE

116 It appears that Stopping Sight Distance can be provides at the Site Driveway.

11. AIR QUALITY

117 **The NYSDOT CO Microscale Analysis Screening Program "Needs Analysis" should be conducted to determine if the proposed Project will require a detailed air quality analysis at any of the study area intersections.**

12. CONSTRUCTION

118 **A description of the construction phasing and schedule including hours of operation should be provided as well as the potential traffic during peak/off peak hours, number of workers, number of trucks/type of trucks and any mitigation that maybe needed during the (i.e. traffic, noise). As noted in the TIS, a Maintenance and Protection Plan will need to be developed. In addition, a Construction Management Plan would be beneficial.**

13. OTHER INFORMATION

119 **Accident history should be provided and summarized for the study area roadways/intersections to determine if there are any significant accidents patterns.**

14. MISCELLANEOUS COMMENTS

While the following does not affect the technical aspects of the Traffic Impact Study, the following is noted:

120

- The Existing Traffic Volume Figure is mislabeled and should be Figure No. 2
- Various Figure numbers are mis-referenced in the TIS.
- Appendix G does not include the reference historical NYSDOT and other recent traffic counts from the other development traffic studies in the area.

Very truly yours,
MASER CONSULTING P.A.

John T. Collins, Ph.D., P.E., Principal Associate

COMMENT LETTER NO. 2

Westchester gov.com

George Latimer
County Executive

County Planning Board

June 25, 2019

Rosemarie Cusumano, Secretary
Town/Village of Harrison Planning Board
1 Heineman Place
Harrison, NY 10528

Subject: **Referral File No. HAR 19-001B – 3 Westchester Park Drive**
Site Plan and Special Exception Use Approval
Draft Environmental Impact Statement

Dear Ms. Cusumano:

The Westchester County Planning Board has received a draft environmental impact statement (EIS) (dated accepted April 25, 2019) including preliminary site plans (dated revised April 2, 2019) for the proposed redevelopment of a 10.63-acre vacant office building site located at 3 Westchester Park Drive, which is within the area commonly known as the "teardrop" of the "Platinum Mile". The applicant proposes to demolish all structures on the site and construct two six-story apartment buildings containing a total of 450 units (33 studio, 152 one-bedroom, 254 two-bedroom and 11 three-bedroom) and 731 parking spaces. Each building will also include a pool, pool deck and amenity space.

The subject site is located in the SB-0 Special Business Zoning District which allows multi-family buildings as a special exception use. The applicant is seeking to subdivide the site into two lots which would conform to SB-0 regulations and to construct a new street between the two lots. The two buildings would be located on opposite sides of this new street which would function as the main driveway into and out of the development. 697 parking spaces would be provided in garages located inside of each building, and 34 surface parking spaces would be provided along the new street.

We offered preliminary comments on this matter under Section 239 L, M and N of the General Municipal Law and Section 277.61 of the County Administrative Code and responded to the Town/Village in letters dated December 4, 2018 and January 15, 2019. We now offer the following comments specific to the draft EIS:

1. <u>Consistency with County Planning Board policies.</u> The County Planning Board's long-range planning policies set forth in ***Westchester 2025—Context for County and Municipal Planning and Policies to Guide County Planning,*** adopted by the Board on May 6, 2008, amended January 5, 2010 and its recommended strategies set forth in ***Patterns for Westchester: The Land and the People***, adopted December 5, 1995, call for the channeling of growth towards existing downtown centers where shopping, services and transit are within walking distance. Outside of established centers, County Planning Board policies focus on transportation corridors and advocate that already-developed sections of these corridors be transformed into "efficient and attractive multi-use places".

432 Michaelian Office Building
148 Martine Avenue
White Plains, New York 10601 Telephone: (914) 995-4400 Website: westchestergov.com

201 The subject site, having once been a highway-oriented suburban office park building, is not in an established downtown center. However, if developed as proposed, it would continue the trend of redevelopment within the "teardrop" area, which is transitioning away from office uses to a mix of retail, residential, medical, recreational, and hotel uses. The overall concept of this transition is consistent with the ***Westchester 2025*** policy transforming already-developed sections of corridors into efficient and attractive multi-use places. However, the success of this transition rests on the implementation of several key planning principles.

202 The *Market Analysis & Strategic Development Recommendations* (market study) that was submitted with the draft EIS notes that there continues to be strong demand for rental apartments in central Westchester County. However, the market study also cautions that estimated new apartment construction will outpace estimated demand over the next five years, creating a potential "oversupply risk". When this risk potential is combined with the fact that Westchester County has very little historical experience with placing such large multi-family apartment buildings in relatively isolated locations, it will be critical for the Town/Village and the applicant to focus on the concept of creating an efficient and attractive multi-use place in this area through connectivity to adjacent sites, facilitating pedestrian and bicycle circulation and improving transit access. As the market study points out, the subject site is at a clear disadvantage to six of the seven comparable residential developments studied because it is not in a downtown and lacks walkable access to a train station, lacks retail and dining options within walking distance, and has a "lack of neighborhood feel". We also point out that the other advantages the market study attributes to the site, such as "unmatched access to highways" and the anticipated opening of a nearby supermarket, are the same advantages that were attributed to the Monarch at Ridge Hill Village in Yonkers, which was not successfully built out.

203 We urge the Town/Village to consider both the strengths and weaknesses of the development potential of this site. Our understanding of the market study is that it will be critical for this development (and the development that is proposed or occurring on other "teardrop" properties) to be done thoughtfully, with the aim of creating a new, better integrated, efficient and attractive mixed-use place. If not, we are concerned that the "teardrop" area will not be as successful as downtown areas with their "built-in" advantages, especially if the oversupply risk cited in the market study ultimately occurs. It is within this context of creating "efficient and attractive multi-use places" that we continue our comments.

204 **2. <u>Affirmatively furthering fair housing.</u>** The draft EIS includes no discussion of the Stipulation of Settlement and Dismissal entered in *U.S. ex rel. Anti-Discrimination Center v. Westchester,* in which the County produced a fair and affordable housing implementation plan containing *Model Ordinance Provisions* to affirmatively further fair housing (AFFH). The County Planning Board specifically asked for this discussion during our review of the scoping document. The lack of this discussion in the draft EIS is a deficiency that must be corrected and addressed in the final EIS.

205 We continue to point out that all new residential developments in eligible communities are expected to contribute towards affirmatively furthering fair housing and that a 10% set aside of affordable AFFH units is standard for developments of this type. We also continue to urge the Town/Village to take steps towards adopting the *Model Ordinance Provisions.*

3. <u>Road connectivity and connections between sites.</u> We are pleased that the draft EIS acknowledges the issues created by the lack of connectivity between uses within the "teardrop" area and the three dead-end roadways (West Red Oak Lane, Corporate Park Drive and Westchester Park Drive) which often require absurdly circuitous routes to travel between sites that may abut each other. The draft EIS notes that it is the

applicant's intention to provide a pedestrian and a vehicular connection to the adjacent Carraway site, which would open up a transportation connection between Westchester Park Drive and Corporate Park Drive. However, the draft EIS states that this connection would be "subject to an agreement with the adjoining Carraway property owner."

206 We recommend the Town/Village require the applicant to resolve the issue of this connection before the final EIS is accepted. We point out that much of the analysis in the draft EIS makes the assumption that this connection will be made. If a connection cannot be made, the final EIS must be able to measure the impacts to vehicular and non-motorized transportation that will result from this lack of connection. We also point out that both the draft EIS and the market study discuss the site's proximity to the new Wegmans supermarket and other "teardrop" area properties as an advantage for residential development. However, this advantage of proximity is not real unless a connection can be made between Corporate Park Drive and Westchester Park Drive.

207 In addition, while a finalized site plan has not been submitted with the draft EIS, the document describes a building program that would "contribute to the sense of place" by providing "stoops, on-street entry doors, parallel parking spaces to buffer traffic, and sidewalks with street trees". However, the conceptual design as shown in the document is still essentially an isolated pod, with the connection between the Carraway and the subject site functioning as a "back door" connection behind each building. It would be preferable if the subject site could be developed with better connections to adjacent sites as a primary feature of creating community instead of relying on cosmetic treatments to "create the feeling of a real street on which people live".

4. <u>Transit access and mobility</u>. It has been difficult for the County to provide efficient transit services within the "teardrop" area due to the three dead-end roadways and the lack of connection between sites. As noted above, this application offers the opportunity to provide a vehicular connection between Corporate Park Drive and Westchester Park Drive, however, the draft EIS does not examine the suitability of this connection for transit vehicles. We noted in our comments on the draft scope that "the EIS should examine the vehicle size limitations involved with a proposed connection between the subject site and the Carraway site to determine if transit, ride-sharing and micro-transit services can utilize this connection." The draft EIS does not contain this discussion. However, as the market study points out, this development is at a clear disadvantage to almost all other comparable residential developments because it lacks walkable access to a Metro-North station. Efficient transit, ride sharing or micro-transit services can mitigate this disadvantage. Therefore it will be important for the final EIS to address this.

208

209 The draft EIS only provides a one-paragraph discussion of Metro-North utilization, estimating that approximately 149 people in the proposed building may seek to ride Metro-North each day. The only mitigation that is considered is the possibility of running a shuttle between the site and a train station "based on resident demand". However, we note that resident-only shuttles to train stations are not generally an effective solution. we have seen shuttles used as a condition of approval only to be discontinued a few years later. Given that the site will be immediately adjacent to another apartment building, a hotel, and near two major employment sites (Wegmans and LifeTime fitness) the focus on transit mobility should take the needs of all of these sites into account and not focus on individual shuttles servicing individual sites.

For example, Bee-Line Loop B serves both Corporate Park Drive and Westchester Park Drive. This is an existing transit service that must travel "up and back" each road due to the lack of a connection. Therefore,

209 (contd) the new connection between the subject site and the Carraway could potentially improve service on Loop B if designed to accommodate buses. In addition, Loop B is set up to run primarily at peak times to serve office park populations that are, in this case, being replaced by a residential population. There may be a potential for Loop B to take residential tenants to and from the train station at the times the office workers are dropped off or picked up from nearby sites. The Town/Village should require the applicant to reach out to the County Department of Public Works and Transportation on these matters, and the result of that discussion should be documented in the final EIS.

210 Furthermore, as transit services continue to evolve in the age of the "shared economy," the final EIS should also include a discussion of the role transportation network companies (such as Uber and Lyft) and micro-transit (such as Via) can have on transit mobility in this area. Improving connectivity for these services throughout the "teardrop" area can further mitigate the disadvantages posed by the site being far from a downtown or train station. A County Department of Public Works and Transportation study entitled ***"First and Last Mile Connections Mobility Study"*** gives a good background about transportation network companies and examples of micro-transit that could have potential along the Platinum Mile. This report is available at: http://transportation.westchestergov.com/planning-division/projects.

211 **5. <u>County road.</u>** Because the subject site contains frontage on Westchester Avenue (County Road 62), a building approval is required from the Westchester County Department of Public Works and Transportation (WCDPWT) in accordance with Section 239-F of the General Municipal Law. A County Road Work Permit will also be required from WCDPWT for any and all mitigation on Westchester Avenue.

212 The traffic study fails to assess the most constrained signalized intersection in the area in terms of capacity: eastbound Westchester Ave and the exit ramp from eastbound I-287. This intersection operates over capacity in both the weekday morning and evening peak hours. This intersection must be analyzed as part of the EIS and it is likely that mitigation will be needed for WCDPWT approval. The recommended mitigation is to widen eastbound Westchester Avenue downstream of the signal to enable the two eastbound Westchester Avenue approach lanes to operate as a through and through/right rather than as separate through and right turn lanes. This additional lane would then be dropped prior to the merge from the southbound Hutchinson River Parkway to eastbound Westchester Avenue ramp, approximately 600 feet to the east. Without improving this key intersection, which is located within the Town/Village of Harrison, further development and/or redevelopment on the Westchester Avenue corridor should not be approved.

213 In order to assess the proposed mitigation at the intersection of westbound Westchester Avenue and Corporate Park Drive, the traffic study must be revised to incorporate the latest mitigation proposal for the combined Wegmans and proposed medical office redevelopment, specifically at the traffic light intersections of both eastbound and westbound Westchester Avenue with Corporate Park Drive, including the proposed signaled slip ramp from Corporate Park Drive to westbound Westchester Avenue. This mitigation plan has been approved by WCDPWT.

214 Please note that the traffic signals on Westchester Avenue are under the jurisdiction of WCDPWT, not WCDOT as stated in the traffic study.

5. <u>Sidewalks.</u> Westchester Park Drive has no sidewalks - on either side - for its entire length. There is one sidewalk within the Life Time Fitness site, connecting it to the Loop B bus stop. A small sidewalk connection also exists between the end Westchester Park Drive and another Bee-Line Bus stop that services routes on

Westchester Avenue. As we recommended in our previous letters, because this proposal represents the second major land use change on Westchester Park Drive, sidewalks should be constructed along the entire length of this road. Sidewalks are expected amenities for multi-family buildings within walking distance of businesses. The market study also points this out by stating "improving walkability in the immediate surroundings through trails and sidewalks will further increase the appeal".

215

While a final site plan has not been submitted with the draft EIS, the conceptual drawings appear to only show a "meandering multiuse path that would be designed to accommodate joggers, bicyclists and dog-walkers and connect to outdoor fitness areas and dog runs". Although the draft EIS shows several "circulation diagrams" or "connectivity diagrams" with general pedestrian access shown along Westchester Park Drive or connecting to adjacent sites, the diagrams and preliminary site plan indicate that some of this "circulation" and "connectivity" will not have sidewalks.

We agree with the findings of the market study that "improving walkability in the immediate surroundings" is an important opportunity for this application. Providing sidewalks is critical to the success of this area as a mixed-use place where people want to live. We continue to remind the Town/Village that Westchester County Planning Department staff is available to meet with the Town/Village and the applicant to provide technical assistance in assessing the feasibility and cost of a sidewalk along Westchester Park Drive. The Town/Village should also consider amending its zoning regulations within the "teardrop" area to require the provision of sidewalks as a condition of site plan approval.

216

6. **Bicycle access.** Although the Westchester Avenue corridor is generally seen as a difficult environment for bicycling, we are encouraged by the applicant's commitment to provide a bicycle storage area within the proposed building. We wish to point out that the ongoing redevelopment of the "teardrop" area is an excellent example of the importance of bicycle access since this area will have many different within close biking distance of one other. A trip that may be seen by some as "too far to walk" may be just the right distance for a bicycle trip. Better connections between the various sites combined with the provision of bicycle parking – or even a bicycle sharing program – could be a key amenity for this area helping it compete with downtown locations that naturally have the advantages of walkability and bikeability. We recommend this be taken into consideration.

217

We also point out that improved bicycle access and connectivity was envisioned 10 years ago as part of a previous renovation of 4 Westchester Park Drive (then known as Gannett Drive). Our referral files from 2009 (Referral File Number HAR 09-010) contain plans to construct a metal and glass shelter for bicycle parking which was intended as a high-visibility amenity to encourage cycling within the "teardrop" area.

218

7. **Sewage flows**. The proposed development will increase sewage flows from this site into the existing infrastructure and will add to the volume requiring treatment at the Mamaroneck Water Resource Recovery Facility operated by Westchester County. Since 2010, it has been the policy of the County Department of Environmental Facilities (WCDEF) that municipal governments require the applicant to identify mitigation measures that will offset the projected increase in flow. The best means to do so is through the reduction of inflow and infiltration (I&I) at a ratio of three for one for market rate units and at a ratio of one for one for affordable AFFH units.

219

Although we specifically asked for a discussion of I&I in our comments on the scoping document, the draft EIS does not contain this discussion. The final EIS must provide specific details on how implementation of

219 (contd) I&I improvements is to be accomplished. For example, will the applicant be required to place funds into a dedicated account for I&I work based on a per gallon cost of removal of flow through I&I? How will I&I projects be identified? Who will conduct the work and in what timeframe?

220 The County Planning Board further recommends that the Town/Village implement a program that requires inspection of sewer laterals from private structures for leaks and illegal connections to the sewer system, such as from sump pumps. These private connections to the system have been found to be a significant source of avoidable flows. At a minimum, we encourage the Town/Village to enact a requirement that a sewer lateral inspection be conducted at the time property ownership is transferred and any necessary corrective action be enforceable by the municipal building inspector.

221 **8. Recycling.** We note that the applicant has stated in the draft EIS that the buildings will comply with the recycling provisions provided by the Westchester County Source Separation Law. We recommend that the Town/Village require the applicant to verify what storage measures are provided to accommodate the expanded County recycling program. County regulations for recycling may be found at http://environment.westchestergov.com.

222 **9. Green building technology**. Although the draft EIS includes a number of sustainable building features to be included in this development, we recommend the applicant consider the potential for including as much "green" or sustainable building methods and technologies as possible into the proposed development.

Thank you for calling this matter to our attention.

Respectfully,
WESTCHESTER COUNTY PLANNING BOARD

By:

Norma V. Drummond
Commissioner

NVD/LH/MV

COMMENT LETTER NO. 3

TOWN OF HARRISON MEMORANDUM

To: Chairman Heaslip & Members of the Planning Board

From: Patrick Cleary, AICP, CEP, PP, LEED AP, Planning Consultant

Date: July 24, 2019

Re: **3 WESTCHESTER PARK DRIVE** – (Block 631, Lot 18), Draft Environmental Impact Statement, Substantive Review

---

The following review comments are offered regarding the 3 Westchester Park Drive, Draft Environmental Impact Statement, prepared by Divney Tung Schwalbe, dated April 2, 2019

#	PAGE	COMMENT	
Section II – Description of the Proposed Action			
1	II-3	**3. Project Description** – 2nd §, 1st sentence – Clarify the "communal amenity space." What uses will occur in these spaces? How will users of the spaces be authorized and permitted? Are limitations of the use of these spaces anticipated – daily operating hours, length of occupancy, etc?	301
2	II-3	**3. Project Description –** Additional detail is requested regarding the design of the central street separating the two buildings. Employing "Complete Street" principles is commendable, however, the preliminary site plans depict rather basic improvements, with an emphasis on private resident spaces. Initial discussions with the applicant indicated that the creation of a "Main Street" – the implication being a very public space. Clarify how this area will be activated to create a unifying public space.	302
3	II-3	**3. Project Description –** Clarify how the central street would be improved if the development is phased, or if only one building is constructed. Would the improvement on only one half the street be constructed?	303
4	II-4	**3. Project Description –** Concern has been expressed that the development of residential uses in the tear drop, unsupported by ancillary retail and service uses may negatively impact the marketability of the residences. Document why supportive retail or service uses are not proposed.	304
5	II-4	**3. Project Description –** Has any consideration been given to accommodating temporary "pop-up" retail, service or food uses (food trucks, etc.) at the site? Once again, the lack of supportive and	305

		complimentary retail and service uses at this isolated site is problematic.	305 Cont.
6	II-4	**(1) Parking** – Access to the parking garages is proposed from southern end of the central street. This location may disrupt the continuity of the "Main Street" streetscape design and interfere with pedestrian movements. Has consideration been given to locating the garage access at the rear of the buildings in order to maintain the integrity of the "Main Street?"	306
7	II-4	**(1) Parking –** 1st §, 6th sentence – Clarify how the distribution of guest parking spaces "based on operational experience" will be accomplished. How would the changes be reflected on the approved site plan?	307
8	II-5	**(2) Building Operations –** How will bulk refuse be addressed (a particular concern when building tenants move in and out of apartments). Is the recycling drop-off area sufficient for this?	308
9	II-5	**(2) Building Operations –** 2nd §, 3rd sentence – Has the location of the storage unit closets been established? The location of storage units may represent a Fire Department concern.	309
10	II-5	**b. Recreational Component –** Clarify how the fitness path would allow access to the "public during restricted hours." Would some physical restriction be employed (a gate or some other measure). How would this restriction be enforced?	310
11	II-6	**c. Access and Circulation -** 1st §, last sentence – How would the public access through connection between the project site and the Carraway be limited to "hours to be determined in the agreement with the adjoining property owner"? The Planning Board has expressed the opinion that this access should be fully publicly accessible, and not restricted.	311
11	II-6	**c. Access and Circulation –** 2nd §, 3rd sentence – Accessing the parking garages from the central street may disrupt the continuity of the streetscape, and the design objective of creating a new "Main Street." Is access from the rear of the buildings feasible (similar to the access scheme utilized in the adjacent Carraway development).	312
12	II-8	Clarify that both lots that are proposed to be created through the subdivision of the parcel, both individually comply with SB-0 Multi-family Residential zoning requirements.	313
13	II-8	**a. Water Supply –** Identify if adequate capacity exists in the water supply system to support the water demand of the development.	314
14	II-8	**b. Sanitary Sewage -** Identify if adequate capacity exists in the sanitary sewer system to support the water demand of the development.	315
15	II-8	**b. Sanitary Sewage –** As with all prior developments within the teardrop, verification is necessary (through a video-survey or other method found suitable to the Town Engineer) to establish	316

		the physical suitability of the existing sewer pipes and associated infrastructural equipment.	316 Cont.
16	II-9	**e. Stormwater Management –** 1st sentence – verify that in addition to maintaining the current hydrology, the post development rate of runoff will not exceed the existing condition.	317
17	II-10	**a. Market Study –** Reference should be made to the retail market, and the potential for, and the applicants decision to exclude, retail uses from the project.	318
18	II-11	**e. Benefits to the Town –** To compare the net positive fiscal benefits, provide the current taxes generated from the site.	319
Section III A. Land Use and Zoning			
19	III.A-11	**7 –** Does each building provide adequate (zoning compliant) off-street parking, or is the parking addressed cumulatively? If only one of the two buildings is developed, is adequate parking still available?	320
20	III.A-11	**8 –** Document more fully the comment "Buffers would be maintained to the maximum extent possible." What do the existing buffer consist of? Are they wooded or open? Are they effective, or do they require supplemental screening to be effective?	321
21	III.A-12	**10 –** Clarify if any of the 70,000 square feet of proposed usable open space is publicly accessible, or is it restricted to building tenants.	322
22	III.A-12	**12 –** The applicant should provide the support for the conclusion that "existing municipal services and facilities are anticipated to be adequate." As noted elsewhere in this memorandum, the Applicant is requested to inspect and videotape the sanitary sewer to ensure that it has adequate capacity and is in a condition to accommodate the additional wastewater generated by the project. It would be expected that this analysis would be required before the conclusion about the adequacy of the facilities could be made.	323
Section III.B Geology & Soils			
23	III.B-3	**(1) Suitability for Construction –** Clarify if all existing fill materials will be reused on-site, or will some removal of existing fill occur.	324
24	III.B-5	Verify that the 5-acre limit of disturbance will be maintained, even during the 2 month mass clearing period.	325
25	III.B-5	The Applicant is requested to investigate the rock removal and site grading operations at the Wegmans site, which proved to be more difficult and time consuming due to the character and hardness of rock. This information should be incorporated into the assessment of potential rock removal impacts.	326

26	III.B-5	**a. Planning Techniques to Avoid Rock Disturbances –** Document and quantify the amount (by percentage) of "existing level areas" that will be reused, as opposed to areas where grading will occur.	327
III.D. Vegetation & Wildlife			
27	III.D-3	**a. Vegetation & Wildlife –** The conclusion that "all of the identified ecosystems are considered regionally common" is inaccurate. According to the New York State Natural Heritage Database, the Oak-Tulip Tree Forest is secure globally; however it is "very vulnerable" in New York State with between 6 to 100 occurrences within its fairly limited range, which includes the northern half of Long Island in the Coastal Lowlands Ecozone, the Manhattan Hills, Hudson Highlands and Triassic Lowlands Ecozones.	328
28	III.D-3	**b. Tree Removal –** Identify the number of existing trees within the site perimeter.	329
III.G. Utilities			
29	III.G-2	**C. Mitigation Measures –** Are any water saving devices proposed in the residential building (low flow fixtures, etc.)?	330
30	III.G-4	**2. Previous Investigations –** No reference to any inflow or infiltration analysis is noted in the previous investigations of the sewer lines. I&I should be addressed and documented.	331
31	III.G-6	The statement that "the treatment plant has capacity to accommodate the added flow" must be confirmed by the Westchester County Department of Environmental Facilities.	332
32	III.G-6	**c.Mitigation Measures** – It is noted that the 366 gpm of wastewater is within the capacity limit of the sewer. Quantify the difference between the flow and capacity limit.	333
33	III.G-6	**c. Mitigation Measures** – Explain how installing a liner in the pipe will increase it's capacity.	334
34	III.G-7	**c. Mitigation Measures** – The statement that Con Ed "has the capacity to provide gas and electric service." Should be qualified in light of the existing gas moratorium.	335
III. H – Traffic & Transportation			
35	III.H-8	**2. Anticipated Impacts –** The traffic impact analysis should take into account the 300 unit project at 1133 Westchester Avenue, White Plains, proposed by the RPW Group.	336
36	III.H-10	**(1) Projected Traffic Volumes –** Is the 25% public transit factor realistic given the unique characteristics of this site? Empirical data from similarly situated developments would be helpful in determining if this factor is justifiable. This site is not in a transit friendly location. Support for the statement that "mass transit utilization rates may be higher" should be documented. Contrary	337

		to the statements in the DEIS, it is anticipated that this site will be particularly dependent upon passenger vehicles.	337 Cont.
37	III.H-11	**(1) Projected Traffic Volumes** – Document how ride share services (Lyft and Uber) will effect traffic volumes.	338
38	III.H-11	**(2) Arrival and Departure Distributions** – It is noted that the trip distribution was calculated using existing 2018 traffic patterns. Those 2018 traffic patterns reflected the previous uses (basically underutilized office uses and Life Time Fitness) and did not reflect the new residential use patterns. The arrival and departure distributions should take into consideration the travel patterns of the new residential uses, and be revised accordingly.	339
39	III.H-14	**c. Sight Distance** – Sight distances were calculated based upon the posted 30-mph speed limit. The Applicant is requested to establish the actual average speeds of vehicles traveling along Westchester Park Drive, and adjust sight distances to reflect actual travel speeds.	340
40	III.H-14	**e. Parking Analysis** – The Applicant is requested to provide documentation from similar projects identifying visitor parking rates, and peak hours.	341
41	III.H-14	**f. Potential Traffic Related Air Quality Impacts** – The DEIS only assessed the incremental traffic generated by the project to determine air quality impacts. How is this incremental increase influenced by the existing heavy volumes of traffic (and resulting air quality impacts) on adjacent Westchester Avenue and I-287.	342
42	III.H-15	**g. Metro-North Utilization** – Section b. (1) of the DEIS indicated that as much as 25% of residents – or more, would utilize mass transit, and noted the proximity of the site to Bee-Line bus routes. As noted above, that percentage appears optimistic. The same 25% is also applied to Metro-North utilization. What portion of the 25% applies to the Bee-Line and Metro-North.	343
43	III.H-15	**g. Metro-North Utilization** – Which Metro-North stations would residents utilize (White Plains, North WP, Port Chester, Rye or Harrison).	344
44	III.H-15	**3. Mitigation Measures** – The connection between the project site and the Carraway should be identified as a traffic mitigation measure. Clarify how the operation of this connector would effect traffic operating conditions.	345
45	III.H-15	**3. Mitigation Measures** – Clarify the operation of the shuttle or "alternative means of getting residents to the nearby MNR stations."	346
III.I – Visual Resources & Community Character			
46	III.I-2	**2. Anticipated Impacts** – Figure III.I-3 depicts views from Westchester Park Drive. Large exposed foundations are a prevalent component of this view. Measures to mitigate this condition are necessary.	347

47	III.I-2	**2. Anticipated Impacts –** Concern exists that the "farmhouse" character of the two front buildings does not stylistically relate to the more "modern" architectural character of the two main buildings. A design objective would be to ensure that all of the buildings are architecturally integrated.	348
III.J – Community Facilities and Services			
48	III.J-4	**(3) Impacts to the Harrison Central School District** – Clarify how bussing of students will be accommodated at this development.	349
49	III.J-5	**2. Police b. Anticipated Impacts –** The impacts on police services resulting from the transformation of the Tear Drop from office parks to support residential and other uses, should be documented more fully.	350
50	III.J-10	**4. Open Space & Recreation b. Anticipated Impacts –** the projection of required developed open space based on the NRPA standards, should add to the 2017 census population number, all the additional residents attributable to all the pending residential developments in the Town (i.e. Avalon, Playhouse Lofts, Colonial Arms, Saville Plaza, etc.)	351
51	III.J-11	**4. Open Space & Recreation c. Mitigation Measures –** Clarify if public access will be available to any of the proposed open space features.	352

SUPPLEMENTAL TRAFFIC IMPACT STUDY
FOR FINAL ENVIRONMENTAL IMPACT STATEMENT

3 WESTCHESTER PARK DRIVE REDEVELOPMENT

Town of Harrison, Westchester County, New York

Prepared for

MCP II 3 Westchester LLC

260 Franklin Street, Suite 620
Boston, Massachusetts

Prepared by

Provident Design Engineering, PLLC
7 Skyline Drive
Hawthorne, New York

August 27, 2019
Revised October 4, 2019
PDE Project No. 18-018

TABLE OF CONTENTS

SECTION DESCRIPTION PAGE

SECTION 1 – INTRODUCTION 1

1.0 INTRODUCTION 1

SECTION 2 – UPDATED BASE PARAMETERS TRAFFIC ANALYSIS 2

2.0 UPDATED BASE PARAMETERS 2
2.1 RESULTS OF UPDATED BASE PARAMETERS TRAFFIC ANALYSIS 4

SECTION 3 – SENSITIVITY ANALYSIS 7

3.0 SENSITIVITY ANALYSIS SCENARIOS 7

SECTION 4 – ADDITIONAL ITEMS 9

4.0 PARKING 9
4.1 ACCIDENT HISTORY 9
4.2 AIR QUALITY 10
4.3 BEE-LINE BUS ACCOMODATION 11
4.4 SIGHT DISTANCE 12

SECTION 5 – CONCLUSIONS 13

5.0 CONCLUSIONS 13

APPENDIX

APPENDIX A – FIGURES
APPENDIX B – PEAK HOUR FACTOR CALCULATIONS
APPENDIX C – HEAVY VEHICLE PERCENTAGES
APPENDIX D – LEVEL OF SERVICE SUMMARY TABLES
APPENDIX E – CAPACITY ANALYSIS WORKSHEETS
APPENDIX F – NHCRP REPORT 684 TRIP CAPTURE ESTIMATION WORKSHEETS
APPENDIX G – ITE PARKING GENERATION EXCERPTS
APPENDIX H – ACCIDENT DATA
APPENDIX I – NYSDOT CO MICROSCALE SCREENING PROGRAM "NEEDS ANALYSIS"
APPENDIX J – NYSDOT/OTHER STUDY HISTORICAL COUNT DATA
APPENDIX K – WESTCHESTER PARK DRIVE TRAVEL SPEED DATA
APPENDIX L – TRIP GENERATION TABLE

SECTION 1 – INTRODUCTION

1.0 INTRODUCTION

Provident Design Engineering (PDE) has prepared this Supplemental Traffic Impact Study (STIS) for the proposed redevelopment of the existing Office Building located at 3 Westchester Park Drive in the Town of Harrison, Westchester County, New York (see Figure No. 1 in Appendix A) ("Project"). PDE has been retained by MCP II 3 Westchester LLC to analyze the traffic impacts associated with the proposed Project and to identify roadway improvements, if required, to mitigate any adverse impact.

This STIS addresses comments raised on the DEIS Traffic Impact Study with respect to base parameters utilized, as well as performance of Sensitivity Analyses that consider two scenarios with no mass transit credit and reduced interconnector roadway utilization. Additionally, the STIS addresses other comments that pertain to Parking; Accident History; Air Quality; Bee-Line Bus Accommodation; and Sight Distance.

SECTION 2 – UPDATED BASE PARAMETERS TRAFFIC ANALYSIS

2.0 UPDATED BASE PARAMETERS

Based upon comments received on the DEIS Traffic Impact Study, the STIS considered the following updates to the base parameters of the traffic analysis:

Proposed Retail Use - The Traffic Impact Study submitted with the DEIS was updated to include up to 7,800 square feet of retail space, of which up to 1,800 square feet may be outdoor patio area. This is now being provided in the Proposed Project. Updated Trip Generation Table reflecting this added retail use is contained in Appendix L.

Peak Hour Factor (PHF) – The calculated PHF for each study location was calculated based upon the traffic counts performed and utilized in the STIS analysis. The PHF calculations are provided in Appendix B.

Heavy Vehicle Percentage – The Heavy Vehicle Percentage for each intersection movement observed during the performance of the traffic counts were utilized in the STIS analysis. The Heavy Vehicle Percentages are provided in Appendix C.

Trip Distributions – The Arrival and Departure Distributions were updated to reflect the same origin and destination percentages. Additionally, US Census Journey to Work data

was reviewed for the Town of Harrison and the trip distributions were updated accordingly. Arrival and Departure Distributions are illustrated on Figures 6 through 9 in Appendix A. The STIS analysis considered the updated traffic volumes associated with the revised Trip Distributions.

Additional Background Traffic Volumes – Traffic volumes associated with the 1133 Westchester Avenue Residential Development currently proposed in the City of White Plains have been included in the background traffic volumes. This adjacent development is in addition to the other adjacent developments originally considered in the DEIS (Wegman's, 104 Corporate Park Drive and Carraway), which are all reflected in the updated No-Build Traffic Volumes and traffic analysis contained in this Report.

Inclusion of Intersection Improvements Proposed by Others – Improvement plans were obtained from the Westchester County Department of Public Works and Transportation (WCDPWT) for the intersections of Corporate Park Drive with Eastbound and Westbound Westchester Avenue. These improvements are being proposed in conjunction with the Application for 104 Corporate Park Drive. These improvements have been considered in the updated traffic analysis contained in this Report.

Additional Study Location – The intersection of Westchester Avenue Eastbound and I-287 Eastbound Off-Ramp has been included in the STIS analysis. Traffic Volumes for this location were obtained from the Traffic Impact Study prepared for 104 Corporate Park

Drive. This location is included on the updated traffic volume figures contained in Appendix A.

2.1 RESULTS OF UPDATED BASE PARAMETERS TRAFFIC ANALYSIS

Capacity analyses were performed with the updated base parameters at each of the study locations, the results of the capacity analyses are outlined in the Level of Service Summary Tables D-1 through D-18 included in Appendix D. Capacity analysis worksheets are contained in Appendix E.

As can be seen in the Level of Service Summary Tables, the results remain generally unchanged, when compared with the DEIS Traffic Impact Study with the exception of the intersection of Westchester Avenue Westbound and Bryant Avenue. The updated analysis identified a need for traffic signal timing modifications at this location. This was primarily due to the added traffic volumes at this location from the 1133 Westchester Avenue Project.

With respect to the added study location at the intersection of Westchester Avenue Eastbound and I-287 Eastbound Off-Ramp, the Levels of Service will remain unchanged from No-Build to Build conditions. During the Peak AM Hour, the increase in overall delay from No-Build to Build conditions is only 0.3 seconds. During the Peak PM Hour,

the overall delay actually decreases by 4.0 seconds from No-Build to Build conditions. Therefore, no mitigation is required for this location.

Based on the foregoing, the mitigation necessary to offset the proposed Project's incremental traffic impacts are as follows:

1. Traffic signal timing modifications at the intersection of Westchester Avenue Westbound and Corporate Park Drive (previously recommended mitigation in DEIS).
2. Traffic signal timing modifications at the intersection of Westchester Avenue Westbound and Bryant Avenue.

The mitigation identified above adequately offsets the incremental increase in traffic from the proposed Project. The Applicant has agreed to grant an easement to the Town of Harrison for vehicular circulation over its main entry drive and rear service drive that would provide an "interconnector" between Westchester Park Drive and Corporate Park Drive through the proposed Project Site and the Carraway Project Site currently under construction along Corporate Park Drive. As illustrated in the Level of Service Summary Tables, the provision of the Interconnector would provide some added benefit by lowering average vehicular delays on the adjacent roadway network; however, this is not required mitigation to offset any specific traffic impact. In addition, without the Interconnector "Build with Improvement Conditions" travel times between the Site and Corporate Park

Drive would be approximately 3 ½ minutes. When compared with the No-Build conditions, this travel route would only experience a slight increase during the Peak AM Hour (approximately 20 seconds) but would actually experience a decrease of 1 minute during the Peak PM Hour. Therefore, the mitigation noted above (traffic signal timing modifications at two locations) adequately offsets any incremental traffic impact from the proposed Project along this travel route.

SECTION 3 – SENSITIVITY ANALYSIS

3.0 SENSITIVITY ANALYSIS SCENARIOS

Based upon comments received on the DEIS Traffic Impact Study, the STIS considered two Sensitivity Analysis scenarios, as follows:

1. Analysis without consideration of any public transportation credit. It should be noted that this analysis is not likely to be representative of future conditions, since there will almost certainly be other means of access to public transit utilization, if shuttle/jitney service were not provided/discontinued. This could include ridesharing through providers such as Uber and Lyft.
2. Reduced usage of Interconnector. This scenario only considers usage of the Interconnector by traffic originating from/destined to 3 Westchester Park Drive and/or Carraway. Additionally, it does not consider any public transportation credit.

The Site-generated and Build Traffic Volumes associated with each Sensitivity Analysis Scenario are illustrated on Figures 15 through 18 in Appendix A. The resultant Levels of Service for each study location and scenario are outlined in Tables D-19 through D-36 in Appendix D. Capacity analysis worksheets are contained in Appendix E. The NHCRP Report 684 Trip Capture Estimation worksheets are included in Appendix F.

Based upon the results of the Sensitivity Analysis, the mitigation required to offset the proposed Project's incremental increase in traffic would remain the same. It should also be noted that it is the Applicant's opinion that the Sensitivity Analysis is overly conservative in assuming no Mass Transit Credit. Based upon US Census Data, only 63.4% and 67.9% of residents drove to work from the Town of Harrison and the City of White Plains, respectively.

SECTION 4 – ADDITIONAL ITEMS

4.0 PARKING

The proposed Project will provide a total of 734 off-street parking spaces (three additional surface parking spaces have been added from the DEIS plan to the FEIS plan). The Town of Harrison Zoning Ordinance requires the provision of 1.25 spaces per residential unit for a total of 562.5 parking spaces. The Town of Harrison Zoning Ordinance requires 1 space per 150-175 sf, depending upon the actual mix (restaurant, versus service retail). The Institute of Transportation Engineers (ITE) publication entitled "Parking Generation" 5th Edition identifies an anticipated parking demand of 616 parking spaces. The excerpts from this publication are contained in Appendix G.

4.1 ACCIDENT HISTORY

The most recent three years of available accident data was obtained from the New York State Department of Transportation (NYSDOT) for the study area. The raw data sheets are contained in Appendix H along with a Table summarizing the accidents by location. Although some locations currently exceed the statewide average, the incremental increase in traffic associated with the Proposed Project is not anticipated to increase accident rates at any of these locations. It should also be noted that of the 149 total accidents that occurred within the study area, only one resulted in a serious injury and there were zero fatalities.

4.2 AIR QUALITY

The NYSDOT CO Microscale Analysis Screening Program "Need Analysis" has been performed. The following criteria are considered when determining the need for a CO Microscale Analysis:

1. If the Build Intersection Level of Service is an A, B or C then CO Microscale Analysis is unnecessary.
2. If the Build Intersection Level of Service is a D, E or F then the additional following criteria must be considered:
    a. Decrease in distance to a source receptor – This criterion is not applicable since there are no new lanes for geometric roadway modifications that would shift traffic close to a source receptor.
    b. 10% or more increase in traffic volumes – This criterion is not met as summarized in the Table provided in Appendix I.
    c. 10% or more increase in vehicle emissions – This criterion is generally not applicable, since the proposed emission factors would remain the same, as there would not be a substantial negative change in vehicle speeds (see item 2.e. below); vehicle mix (i.e. additional heavy vehicles); or vehicle operations.
    d. Increase in number of queued lanes – This criterion is not applicable since the proposed Project will not be adding any new lanes.

e. 20% reduction in speed – This criterion is not met. As illustrated in the Table contained in Appendix I, the average speed along each roadway segment will either remain the same or improve from No-Build to Build with Improvement conditions.

Based on the foregoing, the incremental increase in traffic associated with the Proposed Project would not meet the criteria for requiring a detailed CO Microscale Analysis.

4.3 BEE-LINE BUS ACCOMODATION

The intent of the Interconnector Roadway is to lessen the amount of traffic that would need to perform the circuitous route via the Westchester Avenue Eastbound and Westbound service roads, to travel from Westchester Park Drive to Corporate Park Drive. The Loop B route runs counterclockwise around I-287 via the Westchester Avenue Eastbound and Westbound service roads. Therefore, the Loop B route would still need to travel both directions of Westchester Avenue, even with access through the Interconnector Roadway. Access through the Interconnector Roadway would only circumvent approximately 800 feet of travel distance (approximately 400 feet on each Westchester Park Drive and 400 feet on Corporate Park Drive). The travel distance from Corporate Park Drive to Westchester Park Drive would generally be the same, whether performed on the Interconnector Roadway or via Westchester Avenue. Thus, provision

of access for the Bee-Line Bus Route Loop B through the Interconnector Roadway would not provide a significant benefit and would not translate to a noticeable reduction in service times. This was confirmed in a conversation with representatives of the WCDPWT. WCDPWT representatives also conveyed that the Bee Line Bus ridership of the proposed Project residents may not be as critical to traffic reductions as the provision of shuttle service to Metro-North. As noted previously, this could be provided via a shuttle bus or ridesharing through providers such as Uber or Lyft.

4.4 SIGHT DISTANCE

In order to more accurately verify the required sight distance, PDE recorded travel speeds on both directions of Westchester Park Drive in the immediate vicinity of the proposed Project site driveway. The travel speeds were recorded for all vehicles traveling on Westchester Park Drive for a one-week period. The raw data from the travel speed recordings is included in Appendix K. Based upon the recorded data, the average travel speed in both directions on Westchester Park Drive is approximately 30 MPH. Therefore, the sight distance findings in the DEIS are still applicable.

SECTION 5 – CONCLUSIONS

5.0 CONCLUSIONS

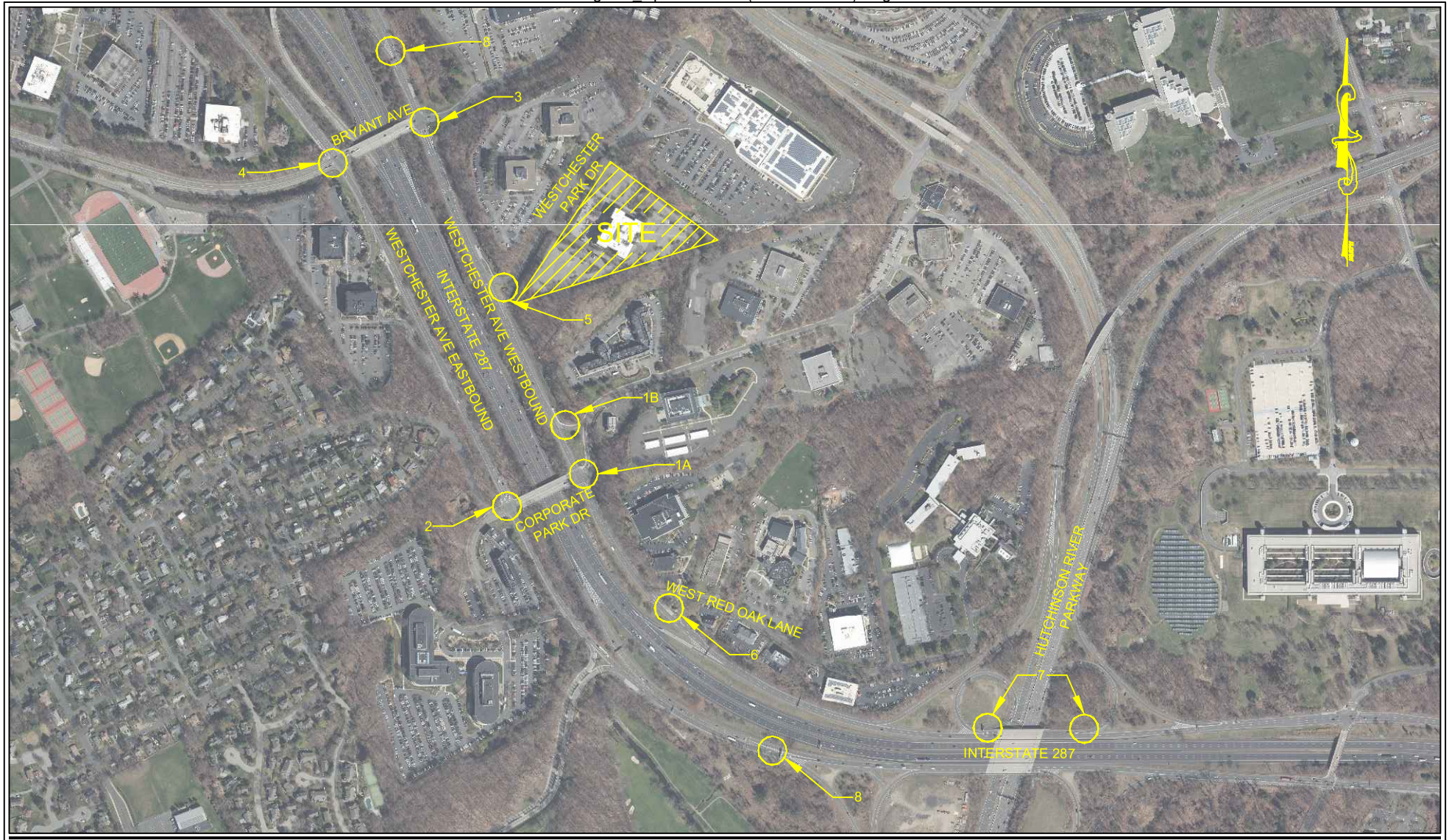
It is the considered professional opinion of Provident Design Engineering that the Supplemental Analysis provided in this Report adequately demonstrates that with the implementation of traffic signal timing modifications at the intersections of Westchester Avenue Westbound/Corporate Park Drive and Westchester Avenue Westbound and Bryant Avenue, the incremental increase in traffic generated by the proposed Project would be mitigated beyond its impact, and the proposed Project would not have an adverse impact on the adjacent roadway network after implementation of the proposed improvements. Safe and efficient traffic operation would be provided.

It should also be noted that although it is not required mitigation to offset any specific traffic impact, the Applicant has agreed to grant an easement to the Town of Harrison for vehicular circulation over its main entry drive and rear service drive that would provide an "interconnector" between Westchester Park Drive and Corporate Park Drive through the proposed Project Site and the Carraway Project Site currently under construction along Corporate Park Drive. This would provide an Overall Public Benefit by internally capturing trips between the various uses along Westchester Park Drive and Corporate Park Drive, thus lessening the need for these vehicles to travel along Westchester Avenue westbound and eastbound.

APPENDIX A

FIGURES

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

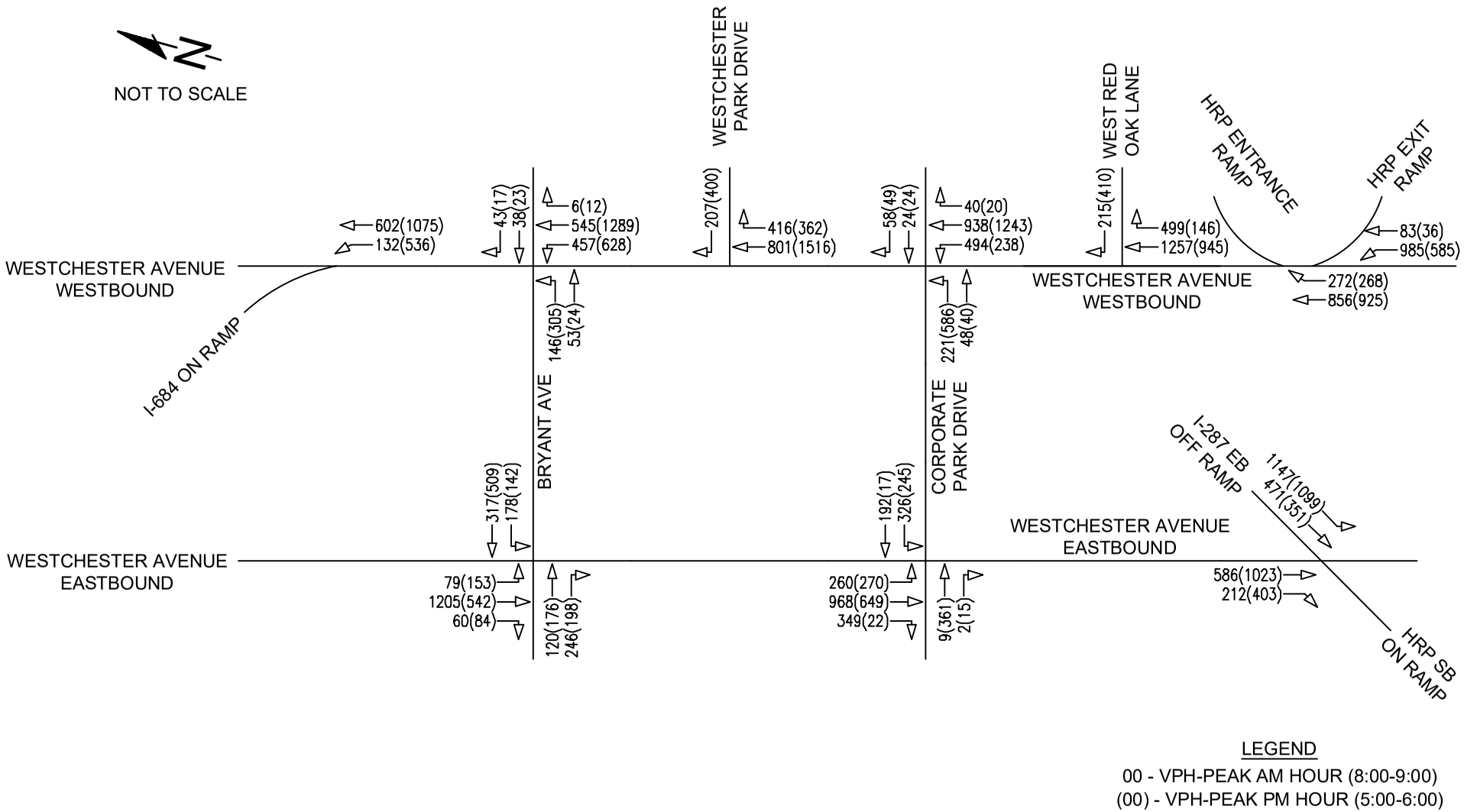
© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis
Site Location
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 1

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



Provident design engineering
7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

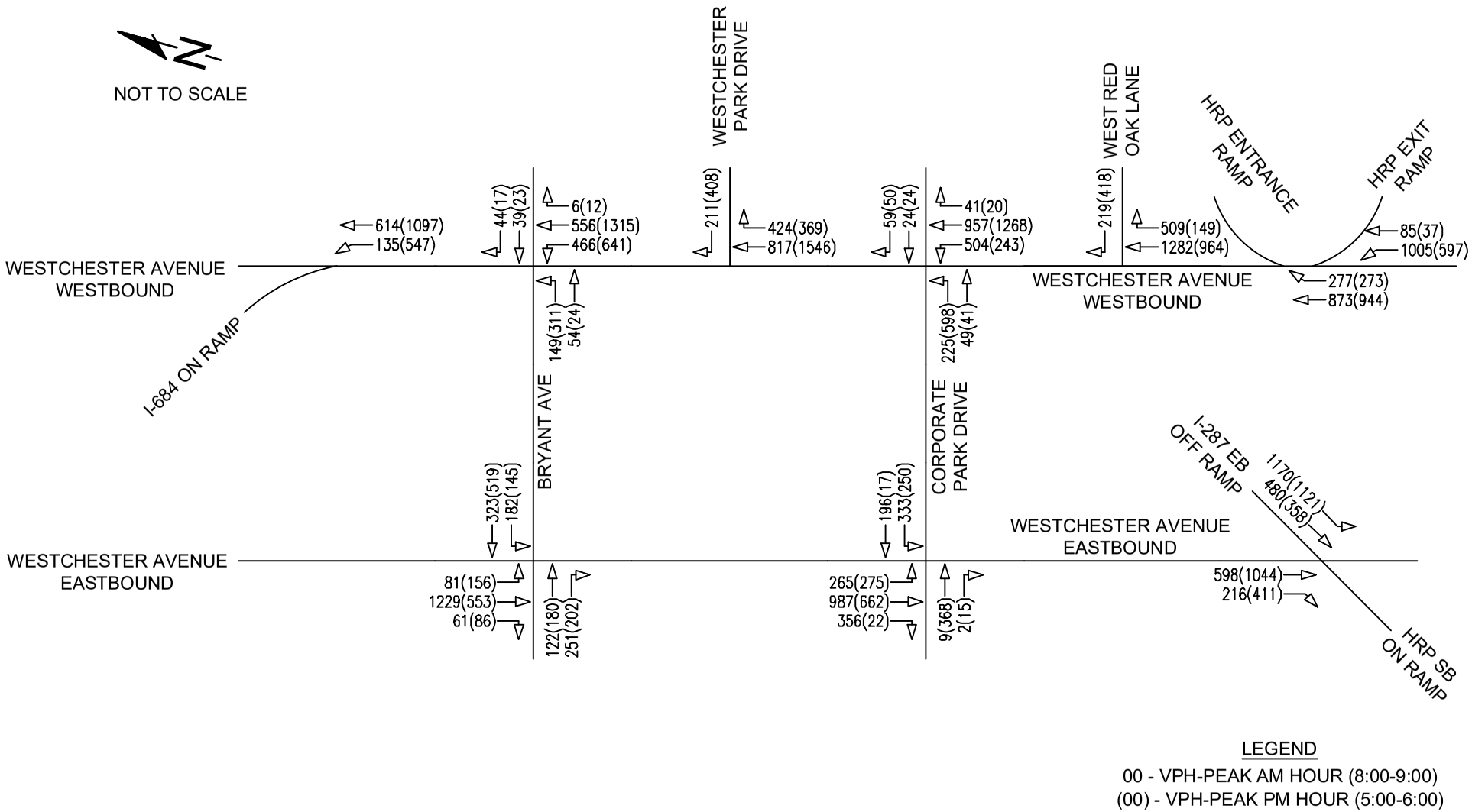
© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis
Existing Traffic Volumes
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 2

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



LEGEND

00 - VPH-PEAK AM HOUR (8:00-9:00)

(00) - VPH-PEAK PM HOUR (5:00-6:00)

Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532

TEL: (914) 592-4040 WWW.PDERESULTS.COM

© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis

Grown Traffic Volumes

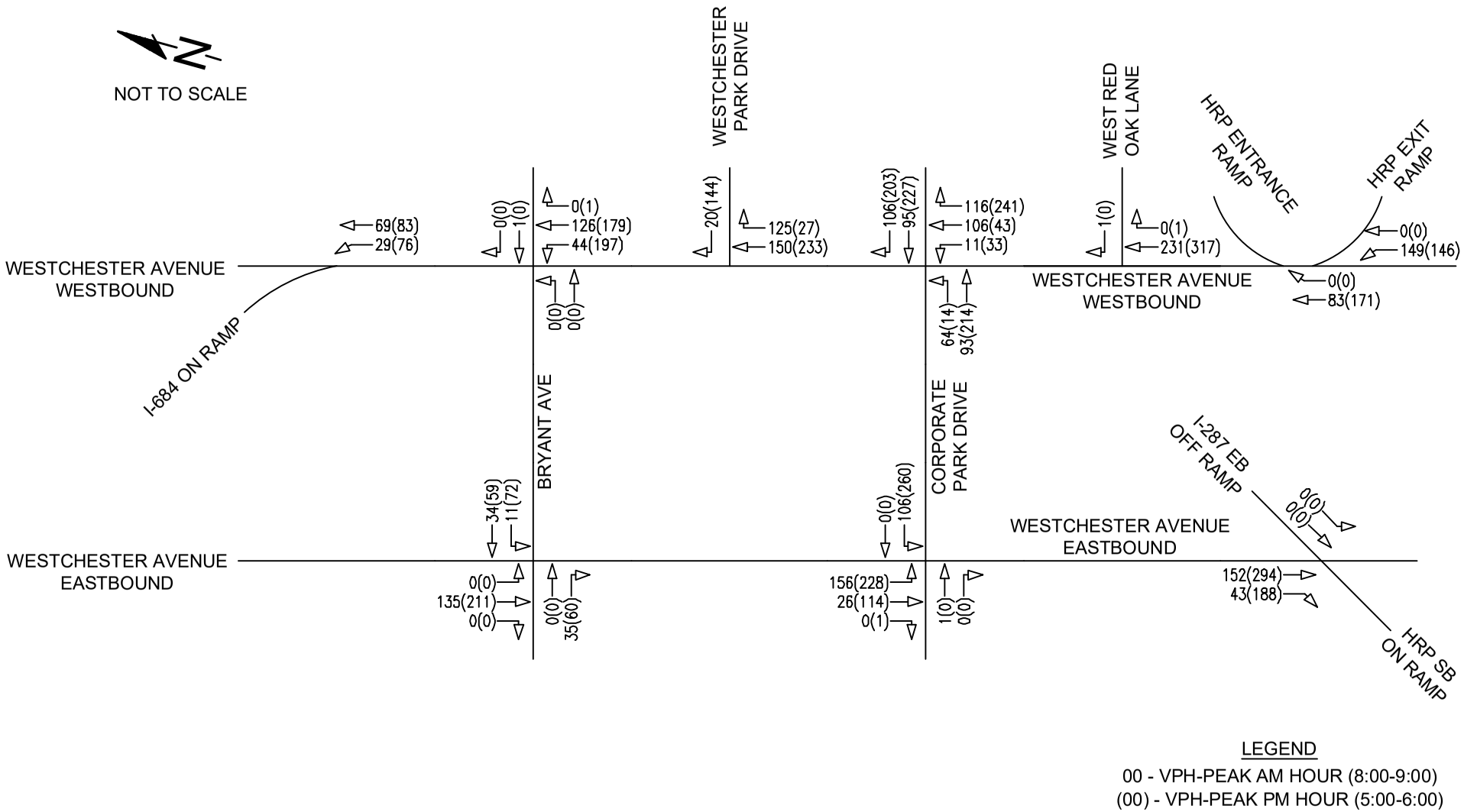
Harrison, Westchester, NY

Project No. 18-018

July 2019

Figure No. 3

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



Provident design engineering
7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

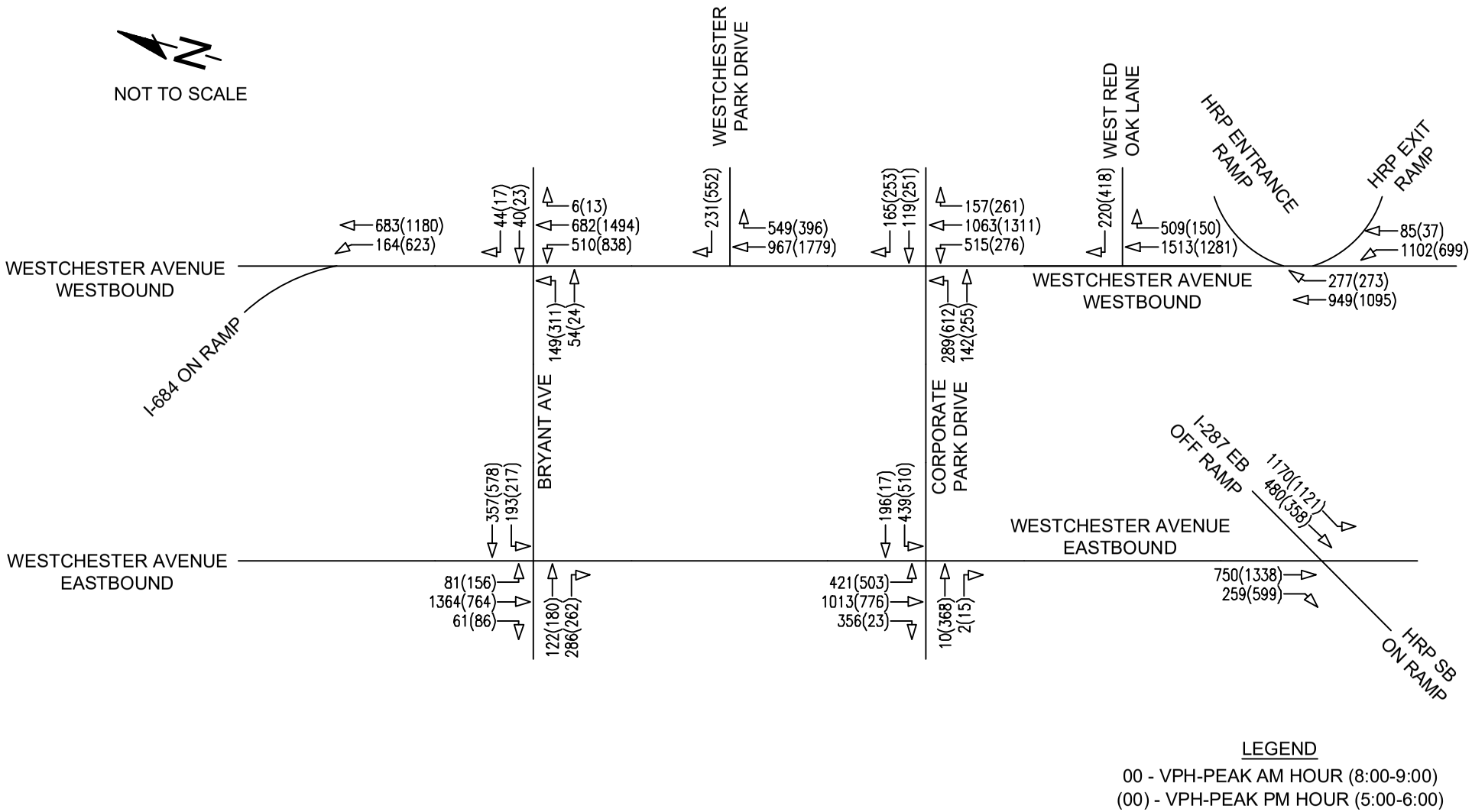
© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis
Adjacent Development Traffic Volumes
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 4

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



LEGEND

00 - VPH-PEAK AM HOUR (8:00-9:00)

(00) - VPH-PEAK PM HOUR (5:00-6:00)

Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532

TEL: (914) 592-4040 WWW.PDERESULTS.COM

© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis

No Build Traffic Volumes

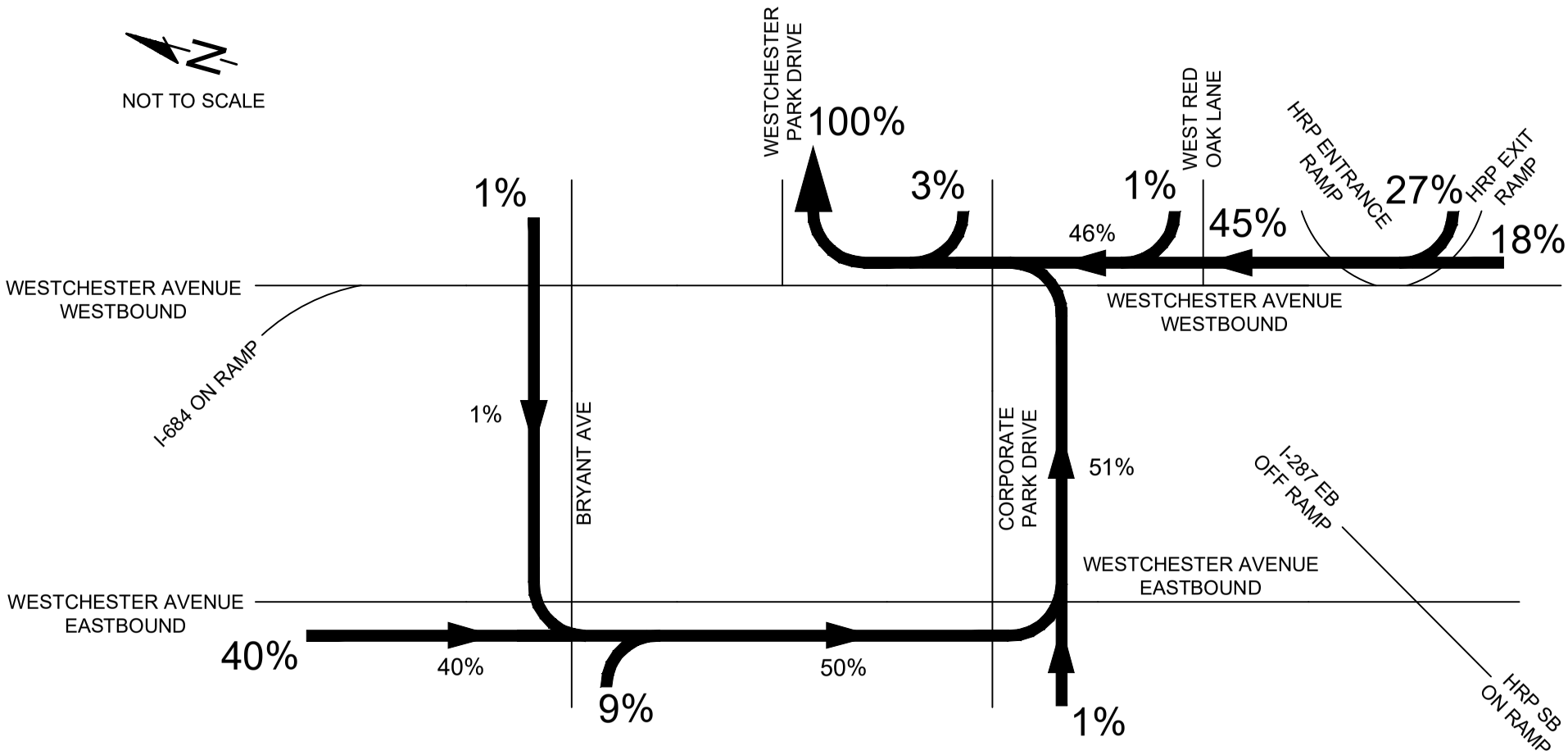
Harrison, Westchester, NY

Project No. 18-018

July 2019

Figure No. 5

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

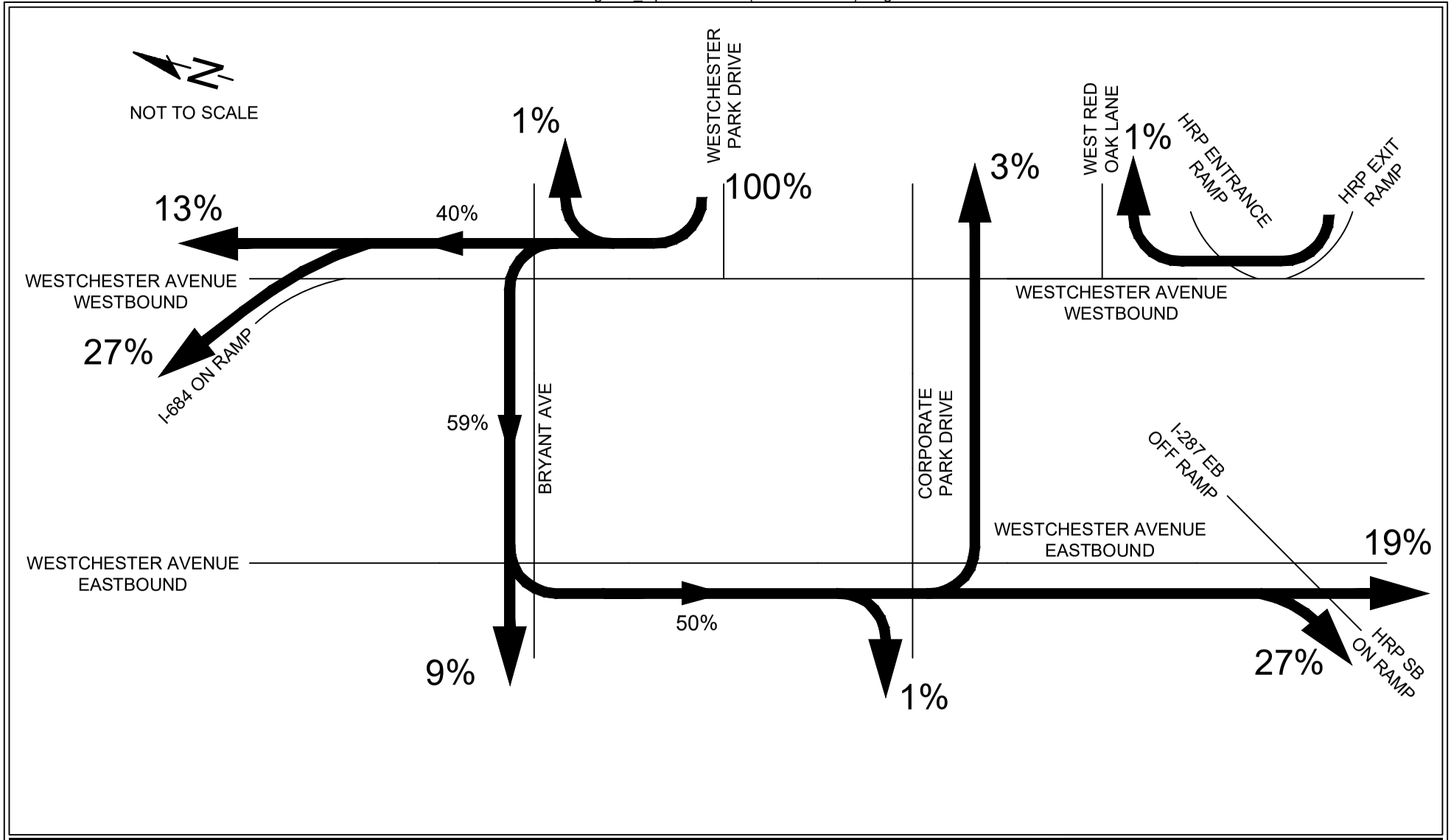
© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis
Arrival Distribution - Office
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 6

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

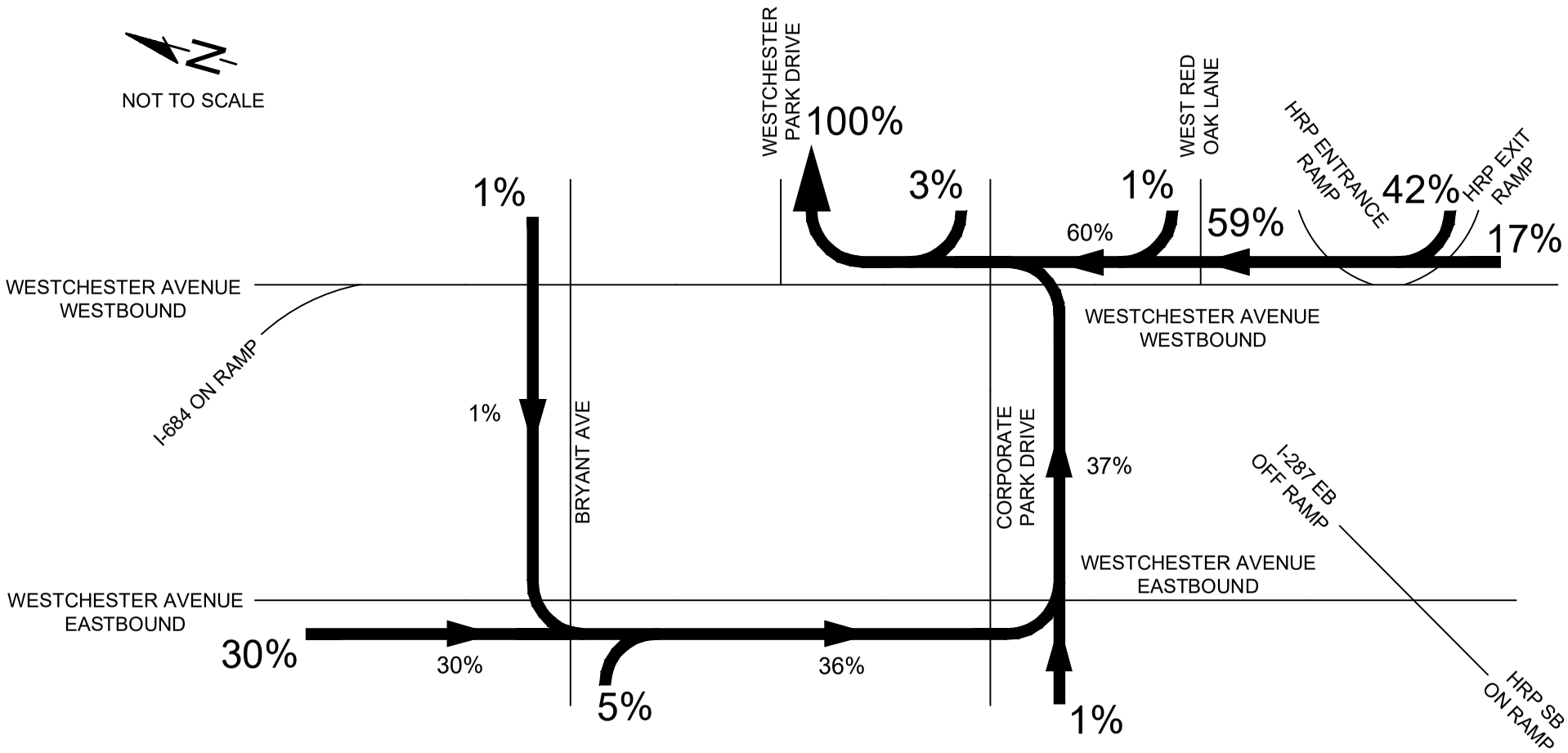
© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis
Departure Distribution - Office
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 7

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_REV 10-02-19 (FEIS).dwg



Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

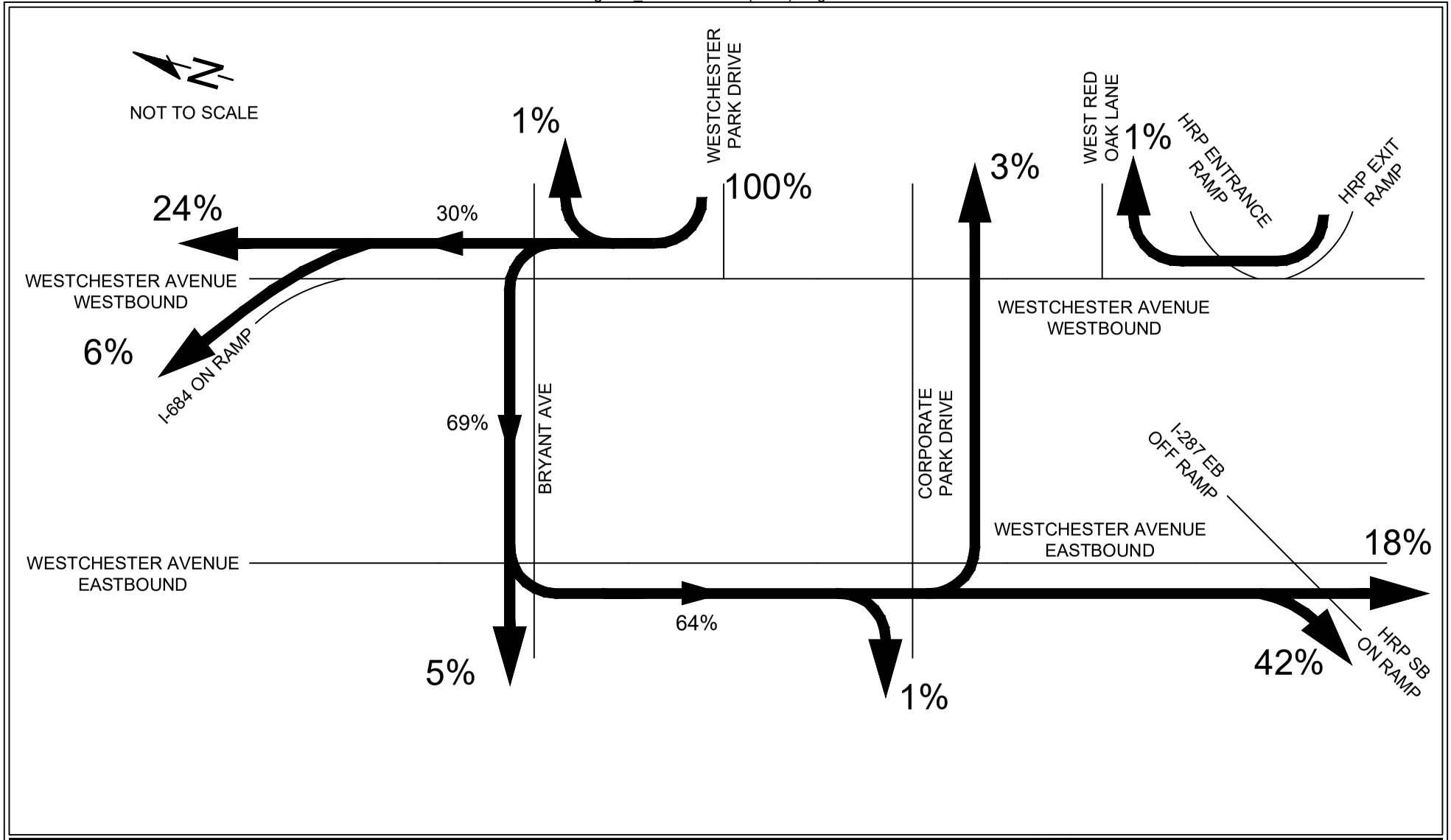
© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis
Arrival Distribution - Residential
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 8

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_REV 10-02-19 (FEIS).dwg



Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

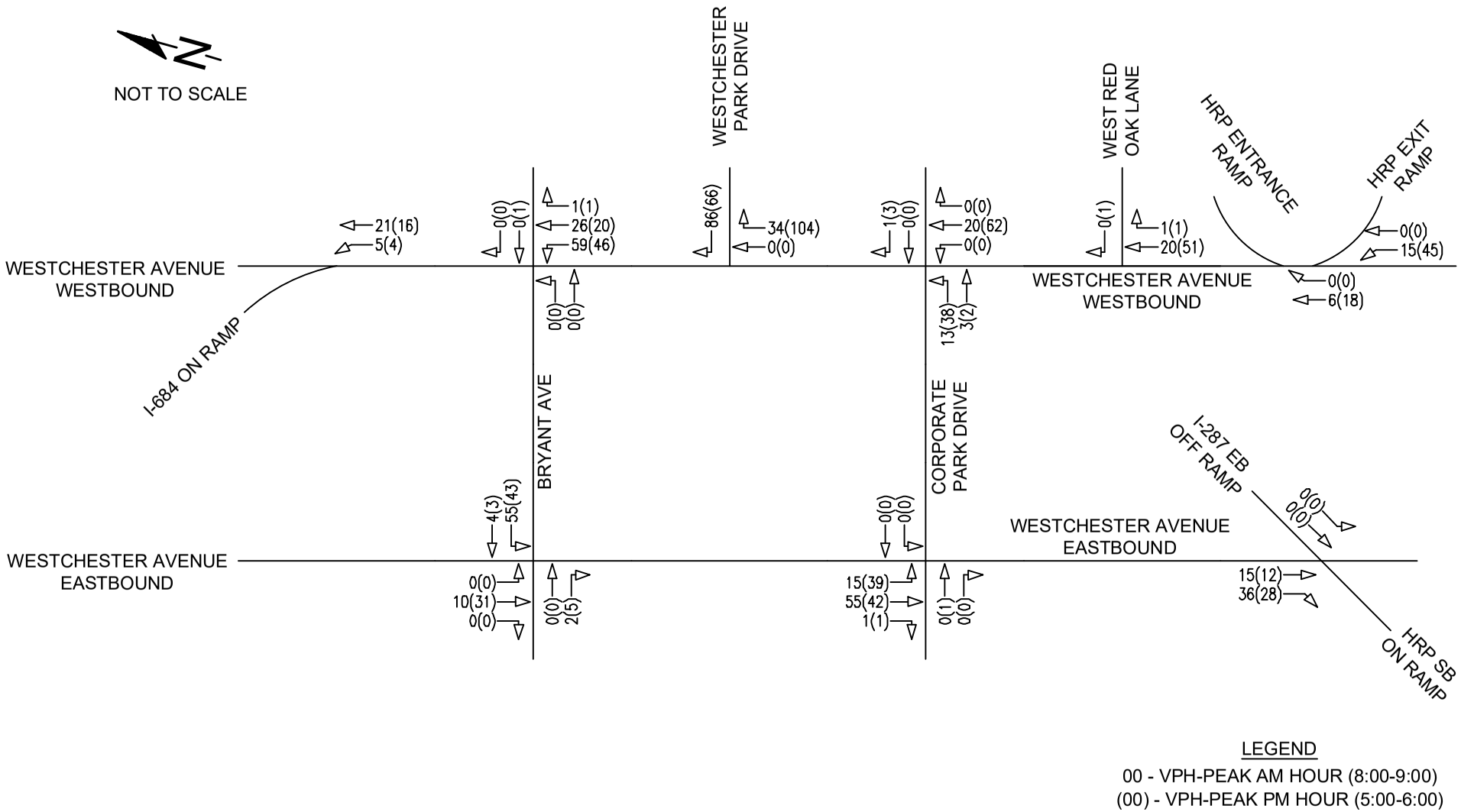
© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis
Departure Distribution - Residential
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 9

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



LEGEND

00 - VPH-PEAK AM HOUR (8:00-9:00)

(00) - VPH-PEAK PM HOUR (5:00-6:00)

Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532

TEL: (914) 592-4040 WWW.PDERESULTS.COM

© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis

Site Generated Traffic Volumes

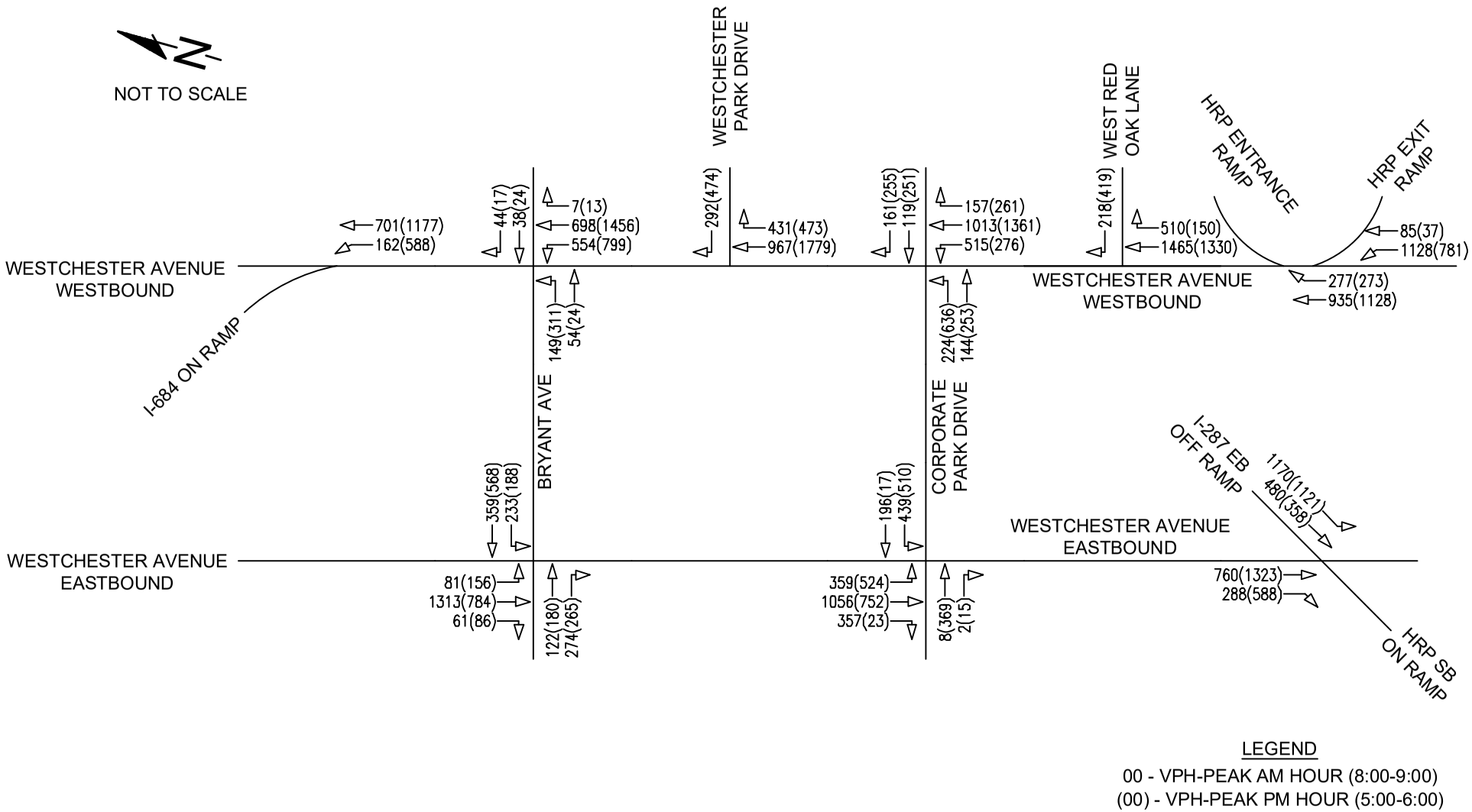
Harrison, Westchester, NY

Project No. 18-018

July 2019

Figure No. 10

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

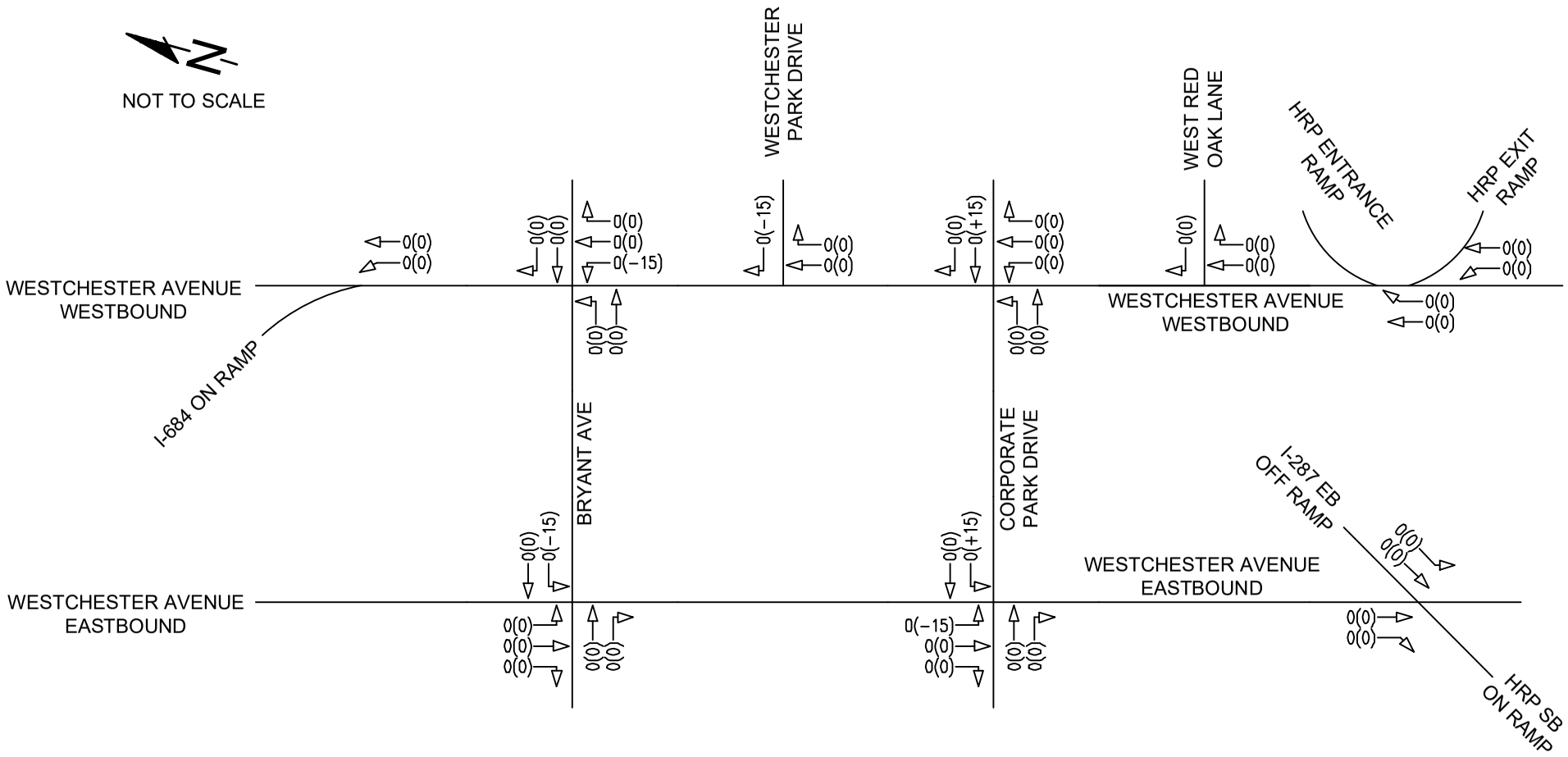
© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis
Build Traffic Volumes
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 11

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



LEGEND

00 - VPH-PEAK AM HOUR (8:00-9:00)

(00) - VPH-PEAK PM HOUR (5:00-6:00)

Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532

TEL: (914) 592-4040 WWW.PDERESULTS.COM

© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis

Rerouted Traffic Volumes

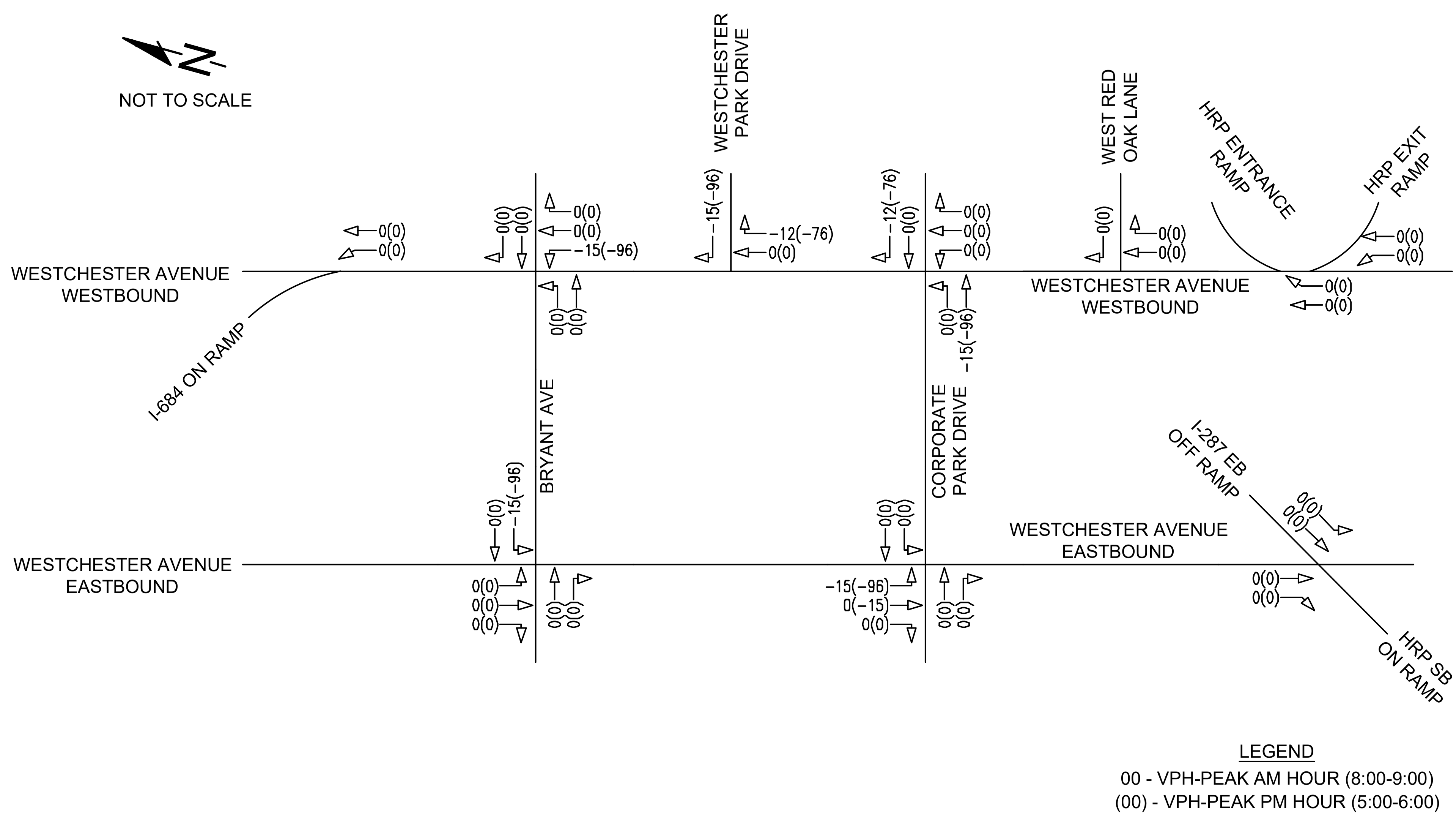
Harrison, Westchester, NY

Project No. 18-018

July 2019

Figure No. 12

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



Provident design engineering
7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

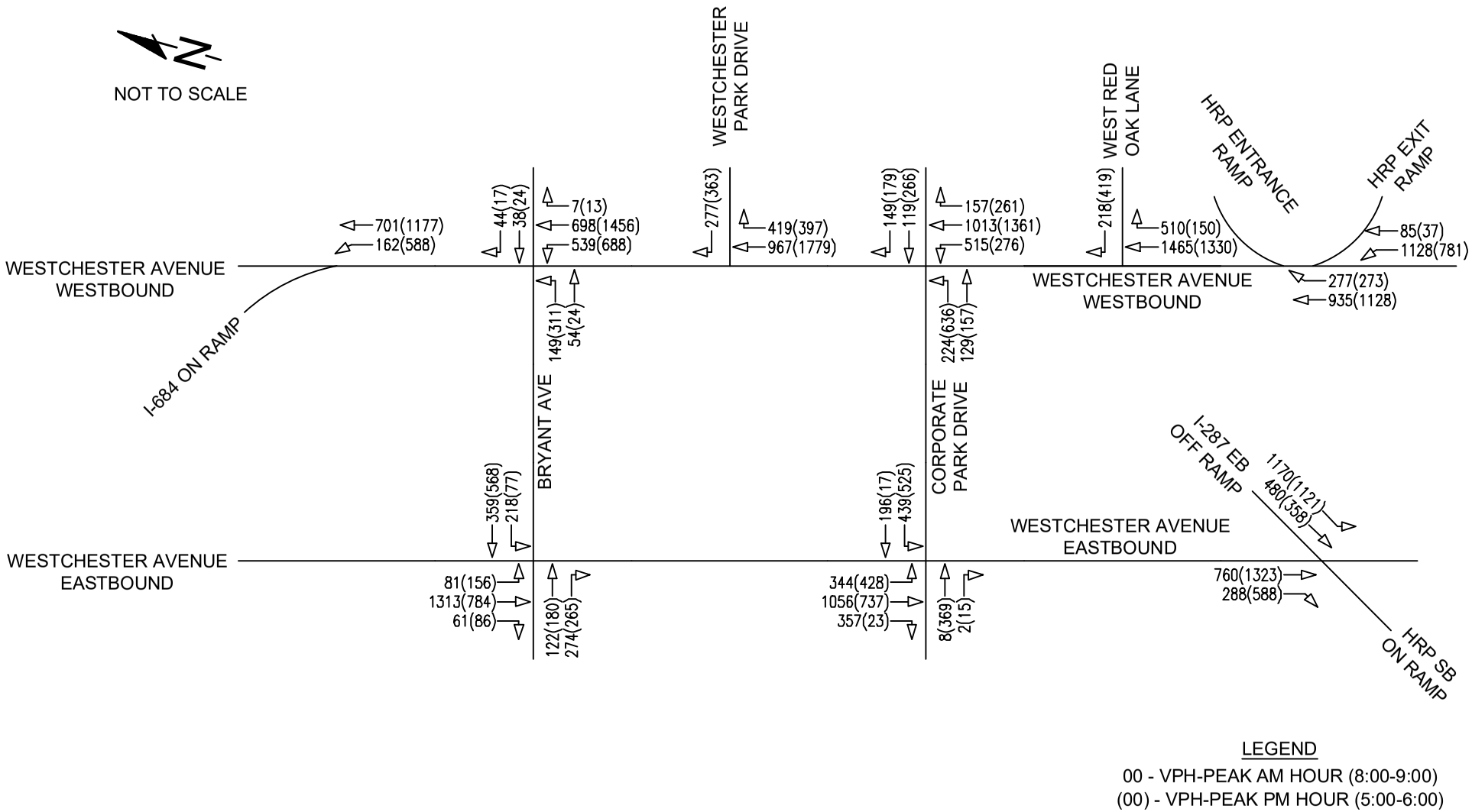
© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis
Interconnector Road
Rerouted Traffic Volumes
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 13

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_Updated DEIS (REV 10-02-19).dwg



Provident design engineering
7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

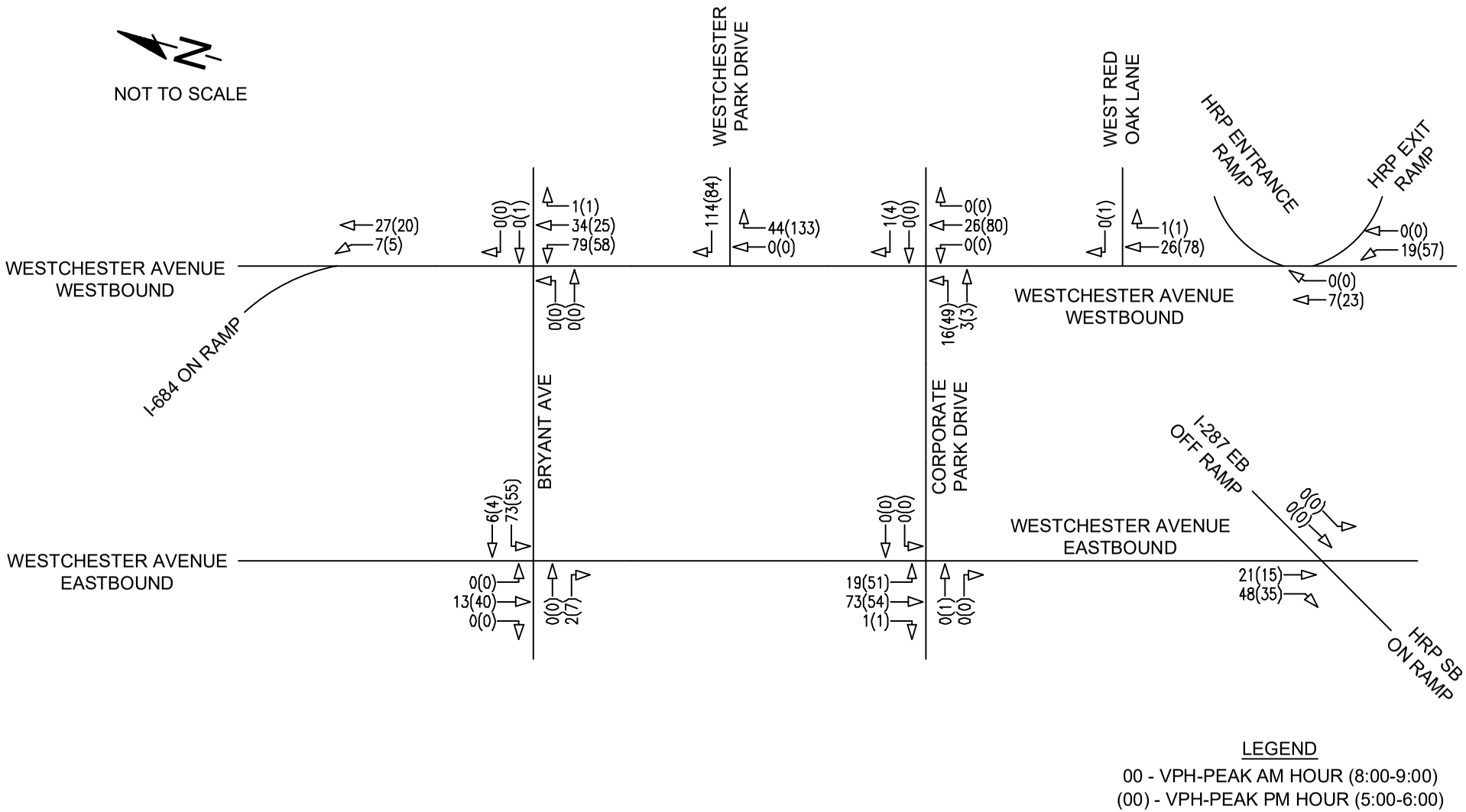
© PROVIDENT DESIGN ENGINEERING, PLLC

Updated DEIS Analysis
Build with Interconnector Road
Rerouted Traffic Volumes
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 14

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_REV 10-02-19 (FEIS).dwg



LEGEND

00 - VPH-PEAK AM HOUR (8:00-9:00)

(00) - VPH-PEAK PM HOUR (5:00-6:00)

Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532

TEL: (914) 592-4040 WWW.PDERESULTS.COM

© PROVIDENT DESIGN ENGINEERING, PLLC

FEIS Sensitivity Analysis

Site Generated Traffic Volumes

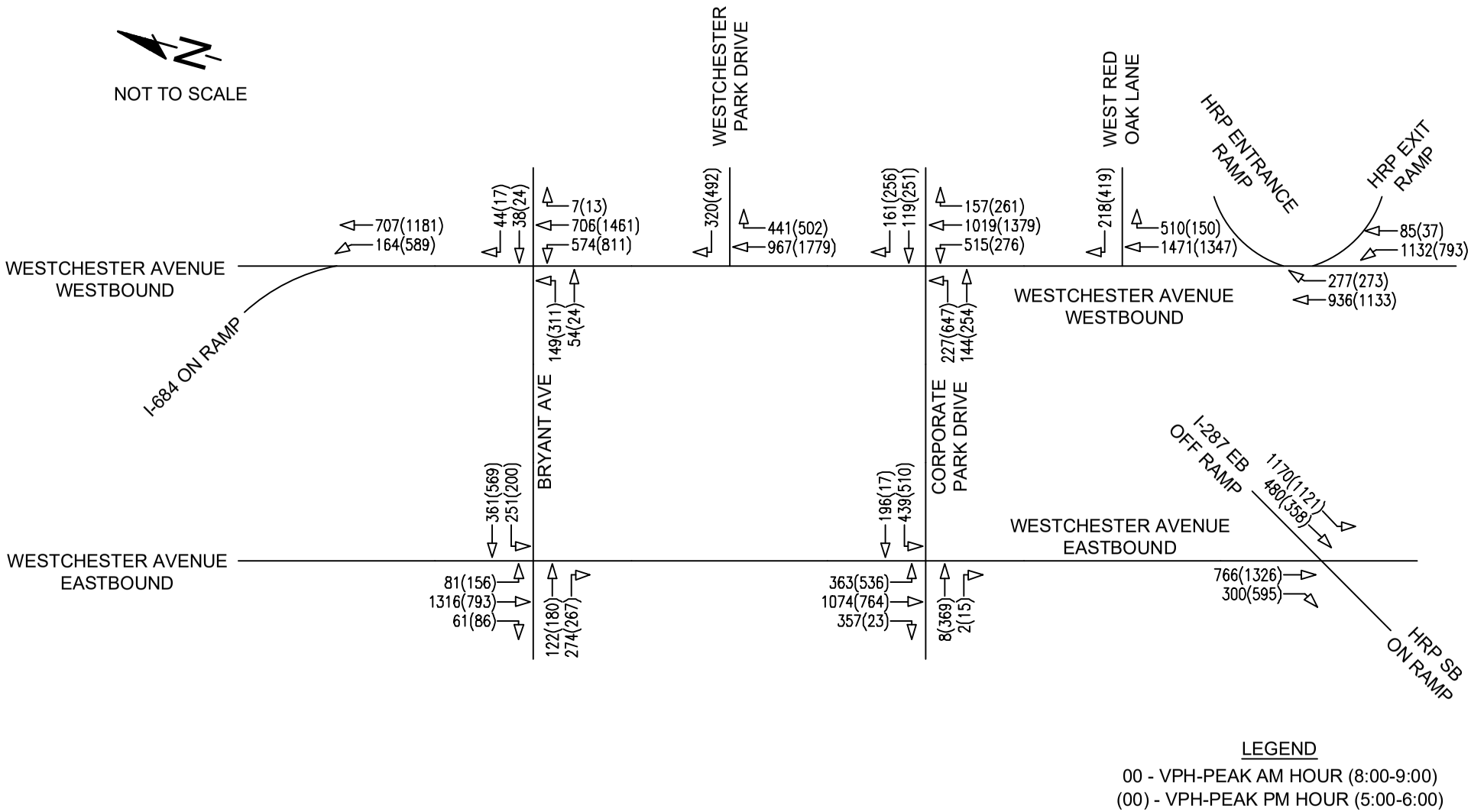
Harrison, Westchester, NY

Project No. 18-018

July 2019

Figure No. 15

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_REV 10-02-19 (FEIS).dwg



LEGEND

00 - VPH-PEAK AM HOUR (8:00-9:00)

(00) - VPH-PEAK PM HOUR (5:00-6:00)

Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532

TEL: (914) 592-4040 WWW.PDERESULTS.COM

© PROVIDENT DESIGN ENGINEERING, PLLC

FEIS Sensitivity Analysis

Build Traffic Volumes

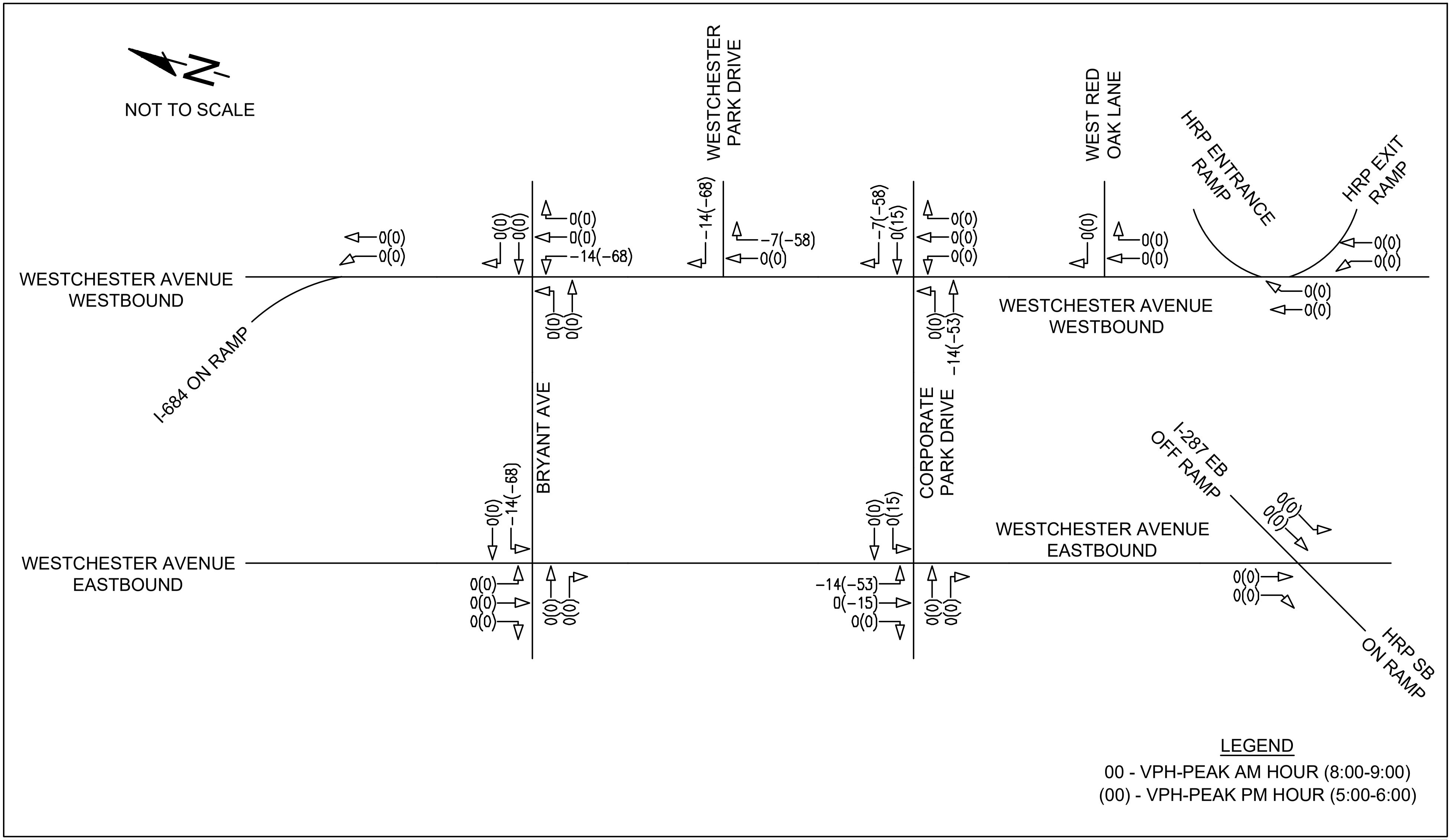
Harrison, Westchester, NY

Project No. 18-018

July 2019

Figure No. 16

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_REV 10-02-19 (FEIS).dwg



Provident design engineering
7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532
TEL: (914) 592-4040 WWW.PDERESULTS.COM

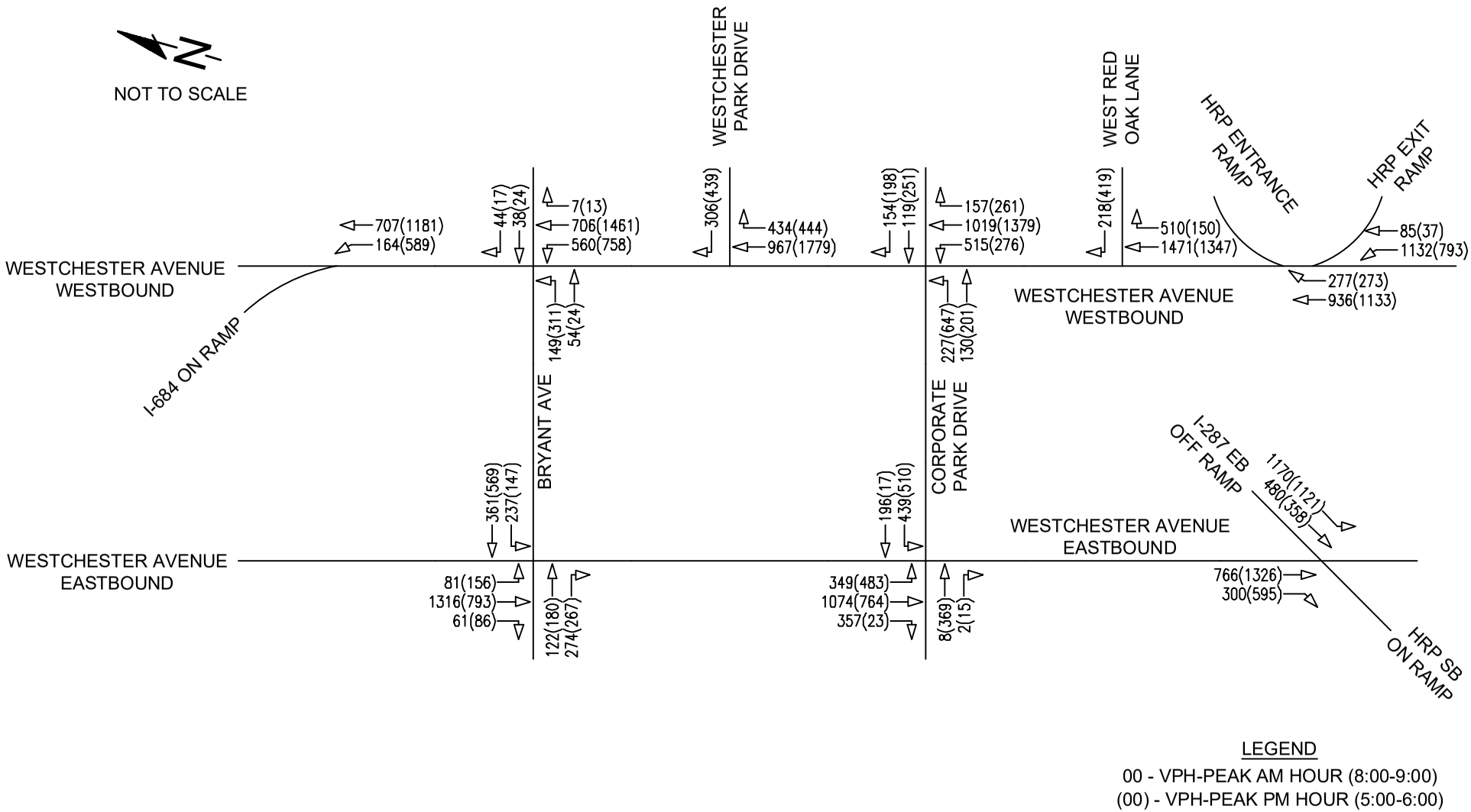
© PROVIDENT DESIGN ENGINEERING, PLLC

FEIS Sensitivity Analysis
Interconnector Road
Rerouted Traffic Volumes
Harrison, Westchester, NY

Project No. 18-018
July 2019

Figure No. 17

Q:\PROJECTS-18\18-018 Westchester Park Drive\AutoCAD\Traffic\18-018 TrafficFigures_REV 10-02-19 (FEIS).dwg



LEGEND

00 - VPH-PEAK AM HOUR (8:00-9:00)

(00) - VPH-PEAK PM HOUR (5:00-6:00)

Provident design engineering

7 SKYLINE DRIVE, HAWTHORNE, NEW YORK 10532

TEL: (914) 592-4040 WWW.PDERESULTS.COM

© PROVIDENT DESIGN ENGINEERING, PLLC

FEIS Sensitivity Analysis

Build with Interconnector Road

Rerouted Traffic Volumes

Harrison, Westchester, NY

Project No. 18-018

July 2019

Figure No. 18

APPENDIX B

PEAK HOUR FACTOR CALCULATIONS

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

LOCATION 1
Westchester Park Drive & Westchester Avenue Westbound

LOCATION 2
Westchester Avenue Westbound & Bryant Avenu

TIME			1 SB R	2 WB T	3 WB R			PHF	1 SB T	2 SB R	3 NB L	4 NB T	5 WB L	6 WB T
7:30 AM	-	7:45 AM	39	124	56	219		0.93	9	10	34	10	70	83
7:45 AM	-	8:00 AM	55	174	67	296			4	5	41	13	101	127
8:00 AM	-	8:15 AM	58	193	86	337			22	22	29	14	114	134
8:15 AM	-	8:30 AM	53	199	132	384	1,236		3	2	40	12	108	133
8:30 AM	-	8:45 AM	40	195	94	329	1,346		8	9	31	16	96	140
8:45 AM	-	9:00 AM	56	214	104	374	1,424		5	10	46	11	136	134
9:00 AM	-	9:15 AM	47	150	134	331	1,418		9	6	37	9	93	107
9:15 AM	-	9:30 AM	63	170	145	378	1,412		0	7	40	11	95	126

TRAFFIC COUNT
JOB NO.: **18-018**
PROJECT: **Westchester Park**
LOCATION: **Harrison, NY**

COUNT DATE
Wednesday, June 6, 2018

LOCATION 3
Westchester Avenue Eastbound & Bryant Avenue

Westchester A

TIME			7 WB R			PHF	1 SB L	2 SB T	3 EB L	4 EB T	5 EB R	6 NB T	7 NB R			PHF	1 SB T	2 SB R
7:30 AM	-	7:45 AM	7	223		0.93	33	47	16	140	23	32	30	321		0.91	5	9
7:45 AM	-	8:00 AM	7	298			31	65	19	225	13	33	40	426			4	12
8:00 AM	-	8:15 AM	3	338			56	82	22	276	12	23	52	523			8	13
8:15 AM	-	8:30 AM	0	298	1,157		40	75	16	268	16	37	61	513	1,783		4	12
8:30 AM	-	8:45 AM	2	302	1,236		35	66	25	327	13	26	67	559	2,021		5	18
8:45 AM	-	9:00 AM	1	343	1,281		47	86	18	334	19	38	66	608	2,203		7	15
9:00 AM	-	9:15 AM	4	265	1,208		43	69	16	291	5	31	70	525	2,205		3	12
9:15 AM	-	9:30 AM	2	281	1,191		38	55	22	231	5	29	34	414	2,106		6	10

Provident design engineering

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

LOCATION 4
venue Westbound & Corporate Park Drive

LOCATION 5
Westchester Avenue Eastbound and Corporate Park Drive

TIME			3 NB L	4 NB T	5 WB L	6 WB T	7 WB R			PHF	1 SB L	2 SB T	4 EB L	5 EB T	6 EB R	8 NB T	9 NB R		
7:30 AM	-	7:45 AM	26	2	47	145	6	240		0.95	32	21	25	144	27	1	0	250	
7:45 AM	-	8:00 AM	36	8	64	200	11	335			43	24	38	188	52	6	1	352	
8:00 AM	-	8:15 AM	45	13	120	220	15	434			93	36	57	253	65	4	1	509	
8:15 AM	-	8:30 AM	57	16	123	260	8	480	1,489		80	46	69	207	88	2	0	492	1,603
8:30 AM	-	8:45 AM	57	7	139	219	9	454	1,703		83	60	63	255	85	0	1	547	1,900
8:45 AM	-	9:00 AM	62	12	112	237	8	453	1,821		68	50	67	253	111	3	0	552	2,100
9:00 AM	-	9:15 AM	68	12	115	206	10	426	1,813		64	55	76	221	111	5	1	533	2,124
9:15 AM	-	9:30 AM	69	6	75	228	7	401	1,734		48	32	69	169	70	2	0	390	2,022

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

LOCATION 6
West Red Oak Lane & Westchester Avenue Westbound

LOCATION 7
Westchester Avenue & I-684 On-Ramp

TIME	PHF	1 WB T	2 WB R	3 SB R			PHF	1 WB L	2 WB T	
7:30 AM - 7:45 AM	0.96	216	73	22	311		0.92	23	117	140
7:45 AM - 8:00 AM		244	152	38	434			26	133	159
8:00 AM - 8:15 AM		255	179	107	541			40	155	195
8:15 AM - 8:30 AM		313	102	55	470	1,756		20	151	171
8:30 AM - 8:45 AM		354	94	32	480	1,925		42	145	187
8:45 AM - 9:00 AM		350	124	23	497	1,988		27	141	168
9:00 AM - 9:15 AM		311	102	11	424	1,871		24	141	165
9:15 AM - 9:30 AM		254	72	22	348	1,749		23	132	155

TRAFFIC COUNT
JOB NO.: **18-018**
PROJECT: **Westchester Park**
LOCATION: **Harrison, NY**

COUNT DATE
Wednesday, June 6, 2018

LOCATION 8
Hutchinson Parkway Entrance Ramp/I-287 Exit Ramp and Westchester Ave (EB)

TIME				PHF		PHF
7:30 AM	-	7:45 AM		0.92		0.97
7:45 AM	-	8:00 AM				
8:00 AM	-	8:15 AM				
8:15 AM	-	8:30 AM	665			
8:30 AM	-	8:45 AM	712			
8:45 AM	-	9:00 AM	721			
9:00 AM	-	9:15 AM	691			
9:15 AM	-	9:30 AM	675			

Provident design engineering

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

LOCATION 1
Westchester Park Drive & Westchester Avenue Westbound

LOCATION 2
Westchester Avenue Westbound & Bryant Avenu

TIME			1 SB R	2 WB T	3 WB R			PHF	1 SB T	2 SB R	3 NB L	4 NB T	5 WB L	6 WB T
4:30 PM	-	4:45 PM	70	233	67	370		0.86	11	16	79	6	99	207
4:45 PM	-	5:00 PM	65	262	90	417			17	26	72	6	98	222
5:00 PM	-	5:15 PM	121	382	65	568			4	18	108	8	141	349
5:15 PM	-	5:30 PM	97	474	81	652	2,007		7	1	70	2	164	436
5:30 PM	-	5:45 PM	88	329	112	529	2,166		1	1	64	5	161	283
5:45 PM	-	6:00 PM	94	296	91	481	2,230		5	3	66	9	162	221
6:00 PM	-	6:15 PM	91	219	63	373	2,035		5	21	68	9	117	180
6:15 PM	-	6:30 PM	101	188	66	355	1,738		1	11	54	9	107	180

TRAFFIC COUNT
JOB NO.: **18-018**
PROJECT: **Westchester Park**
LOCATION: **Harrison, NY**

COUNT DATE
Wednesday, June 6, 2018

LOCATION 3
Westchester Avenue Eastbound & Bryant Avenue

Westchester A

TIME			7 WB R			PHF	1 SB L	2 SB T	3 EB L	4 EB T	5 EB R	6 NB T	7 NB R			PHF	1 SB T	2 SB R
4:30 PM	-	4:45 PM	6	424		0.84	29	82	43	152	14	41	45	406		0.93	8	11
4:45 PM	-	5:00 PM	6	447			32	74	29	125	10	47	35	352			5	13
5:00 PM	-	5:15 PM	3	631			43	105	55	146	22	56	51	478			9	8
5:15 PM	-	5:30 PM	2	682	2,184		23	143	30	127	17	43	41	424	1,660		8	10
5:30 PM	-	5:45 PM	4	519	2,279		31	120	30	150	21	42	49	443	1,697		4	15
5:45 PM	-	6:00 PM	3	469	2,301		39	123	38	119	24	35	57	435	1,780		3	19
6:00 PM	-	6:15 PM	6	406	2,076		31	103	47	96	10	27	46	360	1,662		8	13
6:15 PM	-	6:30 PM	7	369	1,763		32	76	28	91	11	38	32	308	1,546		3	16

TRAFFIC COUNT
JOB NO.: **18-018**
PROJECT: **Westchester Park**
LOCATION: **Harrison, NY**

COUNT DATE
Wednesday, June 6, 2018

LOCATION 4
venue Westbound & Corporate Park Drive

LOCATION 5
Westchester Avenue Eastbound and Corporate Park Drive

TIME			3 NB L	4 NB T	5 WB L	6 WB T	7 WB R			PHF	1 SB L	2 SB T	4 EB L	5 EB T	6 EB R	8 NB T	9 NB R		
4:30 PM	-	4:45 PM	75	10	48	219	10	381		0.87	59	1	45	177	2	39	0	323	
4:45 PM	-	5:00 PM	87	5	48	247	12	417			48	4	49	174	4	48	1	328	
5:00 PM	-	5:15 PM	154	6	70	293	6	546			75	5	60	197	6	108	5	456	
5:15 PM	-	5:30 PM	179	10	51	370	6	634	1,978		60	2	68	152	7	126	7	422	1,529
5:30 PM	-	5:45 PM	144	10	62	307	5	547	2,144		63	3	80	147	4	77	3	377	1,583
5:45 PM	-	6:00 PM	109	14	55	273	3	476	2,203		57	1	69	153	5	60	0	345	1,600
6:00 PM	-	6:15 PM	101	12	48	167	6	355	2,012		56	1	54	139	2	67	1	320	1,464
6:15 PM	-	6:30 PM	86	17	37	152	5	316	1,694		37	2	57	102	1	29	0	228	1,270

TRAFFIC COUNT
JOB NO.: **18-018**
PROJECT: **Westchester Park**
LOCATION: **Harrison, NY**

COUNT DATE
Wednesday, June 6, 2018

LOCATION 6
West Red Oak Lane & Westchester Avenue Westbound

LOCATION 7
Westchester Avenue & I-684 On-Ramp

TIME	PHF	1 WB T	2 WB R	3 SB R			PHF	1 WB L	2 WB T	
4:30 PM - 4:45 PM	0.88	192	31	73	296		0.96	104	195	299
4:45 PM - 5:00 PM		172	24	73	269			99	169	268
5:00 PM - 5:15 PM		245	23	125	393			161	276	437
5:15 PM - 5:30 PM		279	37	90	406	1,364		132	270	402
5:30 PM - 5:45 PM		241	33	124	398	1,466		104	254	358
5:45 PM - 6:00 PM		215	53	87	355	1,552		89	174	263
6:00 PM - 6:15 PM		156	49	64	269	1,428		68	175	243
6:15 PM - 6:30 PM		139	36	58	233	1,255		67	140	207

TRAFFIC COUNT
JOB NO.: **18-018**
PROJECT: **Westchester Park**
LOCATION: **Harrison, NY**

COUNT DATE
Wednesday, June 6, 2018

LOCATION 8
Hutchinson Parkway Entrance Ramp/I-287 Exit Ramp and Westchester Ave (EB)

TIME				PHF		PHF
4:30 PM	-	4:45 PM		0.84		0.88
4:45 PM	-	5:00 PM				
5:00 PM	-	5:15 PM				
5:15 PM	-	5:30 PM	1,406			
5:30 PM	-	5:45 PM	1,465			
5:45 PM	-	6:00 PM	1,460			
6:00 PM	-	6:15 PM	1,266			
6:15 PM	-	6:30 PM	1,071			

PHF SUMMARY		
Intersection	**AM PHF**	**PM PHF**
Westchester Park Drive & Westchester Avenue Westbound	0.93	0.86
Westchester Avenue Westbound & Bryant Avenue	0.93	0.84
Westchester Avenue Eastbound & Bryant Avenue	0.91	0.93
Westchester Avenue Westbound & Corporate Park Drive	0.95	0.87
Westchester Avenue Eastbound and Corporate Park Drive	0.96	0.88
West Red Oak Lane & Westchester Avenue Westbound	0.92	0.96
Westchester Avenue & I-684 On-Ramp	0.92	0.84
Hutchinson Parkway Entrance Ramp/I-287 Exit Ramp and Westchester Ave (EB)	0.97	0.88

APPENDIX C

HEAVY VEHICLE PERCENTAGES

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

LOCATION 1
Westchester Park Drive & Westchester Avenue Westbound

TIME			1 SB R All	1 SB R Trucks Only	1 SB R Buses Only	1 SB R Heavy Vehicles	2 WB T All	2 WB T Trucks Only	2 WB T Buses Only	2 WB T Heavy Vehicles	3 WB R All	3 WB R Trucks Only	3 WB R Buses Only	3 WB R Heavy Vehicles
7:30 AM	-	7:45 AM	39	0	0	0	124	2	5	7	56	2	1	3
7:45 AM	-	8:00 AM	55	1	1	2	174	3	5	8	67	0	0	0
8:00 AM	-	8:15 AM	58	0	0	0	193	6	16	22	86	1	0	1
8:15 AM	-	8:30 AM	53	0	1	1	199	7	9	16	132	0	1	1
8:30 AM	-	8:45 AM	40	1	0	1	195	5	5	10	94	0	0	0
8:45 AM	-	9:00 AM	56	1	1	2	214	2	6	8	104	0	1	1
9:00 AM	-	9:15 AM	47	0	0	0	150	5	3	8	134	1	0	1
9:15 AM	-	9:30 AM	63	0	0	0	170	5	2	7	145	0	0	0
			SB R Heavy Vehicle Percentage				**WB T Heavy Vehicle Percentage**				**WB R Heavy Vehicle Percentage**			
			1.9				7.0				0.7			

TOTAL Heavy Vehicle Percentage
4.4

All	Trucks Only
1	
SB	
9	2
4	0
22	1
3	1
8	2
5	2
9	3
0	0
SB T Heavy Vel	
15	

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE	*LOCATION 2*																	
Wednesday, June 6, 2018	Westchester Avenue Westbound & Bryant Avenue																	
	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles
	1		2				3				4				5			
TIME	T		SB R				NB L				NB T				WB L			
7:30 AM - 7:45 AM	0	2	10	3	0	3	34	1	1	2	10	1	0	1	70	2	2	4
7:45 AM - 8:00 AM	0	0	5	0	1	1	41	1	1	2	13	2	0	2	101	1	0	1
8:00 AM - 8:15 AM	0	1	22	3	0	3	29	0	2	2	14	0	1	1	114	5	3	8
8:15 AM - 8:30 AM	0	1	2	0	0	0	40	3	3	6	12	6	0	6	108	5	1	6
8:30 AM - 8:45 AM	0	2	9	6	0	6	31	0	2	2	16	10	0	10	96	1	0	1
8:45 AM - 9:00 AM	0	2	10	6	0	6	46	1	0	1	11	5	0	5	136	0	2	2
9:00 AM - 9:15 AM	0	3	6	1	1	2	37	2	0	2	9	4	0	4	93	2	0	2
9:15 AM - 9:30 AM	0	0	7	4	0	4	40	3	3	6	11	5	0	5	95	0	1	1
	hicle Percentage		SB R Heavy Vehicle Percentage				NB L Heavy Vehicle Percentage				NB T Heavy Vehicle Percentage				WB L Heavy Vehicle Percentage			
	.8		34.9				7.5				41.5				3.7			

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

TIME			6 WB T All	6 WB T Trucks Only	6 WB T Buses Only	6 WB T Heavy Vehicles	7 WB R All	7 WB R Trucks Only	7 WB R Buses Only	7 WB R Heavy Vehicles	1 SB L All	1 SB L Trucks Only	1 SB L Buses Only	1 SB L Heavy Vehicles	2 SB T All	2 SB T Trucks Only	2 SB T Buses Only
7:30 AM	-	7:45 AM	83	0	2	2	7	0	0	0	33	1	0	1	47	2	2
7:45 AM	-	8:00 AM	127	2	6	8	7	2	1	3	31	0	0	0	65	1	0
8:00 AM	-	8:15 AM	134	1	14	15	3	1	0	1	56	0	0	0	82	6	3
8:15 AM	-	8:30 AM	133	1	9	10	0	0	0	0	40	0	0	0	75	4	1
8:30 AM	-	8:45 AM	140	5	4	9	2	0	1	1	35	2	0	2	66	1	0
8:45 AM	-	9:00 AM	134	1	5	6	1	0	1	1	47	1	0	1	86	1	2
9:00 AM	-	9:15 AM	107	2	3	5	4	2	0	2	43	3	0	3	69	1	0
9:15 AM	-	9:30 AM	126	3	1	4	2	0	0	0	38	0	1	1	55	0	0
			WB T Heavy Vehicle Percentage				**WB R Heavy Vehicle Percentage**				**TOTAL Heavy Vehicle Percentage**				**SB L Heavy Vehicle Percentage**		**SB T Heavy Vehicle Percentage**
			7.4				50.0				8.9				1.7		5.8

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE	*LOCATION 3*																	
Wednesday, June 6, 2018	Westchester Avenue Eastbound & Bryant Avenue																	
	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All
	3					4				5				6				
TIME	EB L					EB T				EB R				NB T				
7:30 AM - 7:45 AM	4	16	1	0	1	140	12	0	12	23	0	0	0	32	1	0	1	30
7:45 AM - 8:00 AM	1	19	2	0	2	225	3	0	3	13	0	0	0	33	1	0	1	40
8:00 AM - 8:15 AM	9	22	1	0	1	276	5	0	5	12	1	0	1	23	2	0	2	52
8:15 AM - 8:30 AM	5	16	5	0	5	268	6	0	6	16	1	1	2	37	2	0	2	61
8:30 AM - 8:45 AM	1	25	12	0	12	327	2	5	7	13	2	0	2	26	0	2	2	67
8:45 AM - 9:00 AM	3	18	5	0	5	334	0	11	11	19	0	1	1	38	1	0	1	66
9:00 AM - 9:15 AM	1	16	3	0	3	291	2	2	4	5	0	0	0	31	3	0	3	70
9:15 AM - 9:30 AM	0	22	7	0	7	231	2	3	5	5	2	0	2	29	1	4	5	34
	EB L Heavy Vehicle Percentage					EB T Heavy Vehicle Percentage				EB R Heavy Vehicle Percentage				NB T Heavy Vehicle Percentage				
	28.4					2.4				10.0				5.6				

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

TIME			7 NB R				1 SB T				2 SB R				3 NB L			
			Trucks Only	Buses Only	Heavy Vehicles		All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles
7:30 AM	-	7:45 AM	0	0	0		5	0	0	0	9	0	0	0	26	1	2	3
7:45 AM	-	8:00 AM	3	1	4		4	0	0	0	12	1	0	1	36	0	1	1
8:00 AM	-	8:15 AM	1	0	1		8	1	0	1	13	0	0	0	45	1	0	1
8:15 AM	-	8:30 AM	0	1	1		4	1	0	1	12	0	0	0	57	1	3	4
8:30 AM	-	8:45 AM	0	4	4		5	0	0	0	18	1	1	2	57	0	0	0
8:45 AM	-	9:00 AM	0	2	2		7	0	0	0	15	0	1	1	62	0	1	1
9:00 AM	-	9:15 AM	1	2	3		3	0	0	0	12	1	0	1	68	1	0	1
9:15 AM	-	9:30 AM	0	0	0		6	0	0	0	10	1	0	1	69	0	0	0
			NB R Heavy Vehicle Percentage			TOTAL Heavy Vehicle Percentage	SB T Heavy Vehicle Percentage				SB R Heavy Vehicle Percentage				NB L Heavy Vehicle Percentage			
			3.3			4.3	8.3				5.2				2.7			

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE	*LOCATION 4*																
Wednesday, June 6, 2018	Westchester Avenue Westbound & Corporate Park Drive																
	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	
	4				5				6				7				
TIME	NB T				WB L				WB T				WB R				
7:30 AM - 7:45 AM	2	0	0	0	47	1	2	3	145	3	5	8	6	0	0	0	
7:45 AM - 8:00 AM	8	1	0	1	64	1	0	1	200	3	4	7	11	1	0	1	
8:00 AM - 8:15 AM	13	1	0	1	120	1	21	22	220	5	18	23	15	0	0	0	
8:15 AM - 8:30 AM	16	0	0	0	123	3	2	5	260	5	7	12	8	1	0	1	
8:30 AM - 8:45 AM	7	0	1	1	139	3	1	4	219	5	4	9	9	0	0	0	
8:45 AM - 9:00 AM	12	0	1	1	112	3	3	6	237	0	4	4	8	1	0	1	
9:00 AM - 9:15 AM	12	1	0	1	115	0	1	1	206	5	3	8	10	1	0	1	
9:15 AM - 9:30 AM	6	0	0	0	75	1	0	1	228	2	1	3	7	0	0	0	
	NB T Heavy Vehicle Percentage				WB L Heavy Vehicle Percentage				WB T Heavy Vehicle Percentage				WB R Heavy Vehicle Percentage				TOTAL Heavy Vehicle Percentage
	6.3				7.5				5.1				5.0				5.5

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

LOCATION 5
Westchester Avenue Eastbound and Corporate Park

TIME	1 SB L All	1 SB L Trucks Only	1 SB L Buses Only	1 SB L Heavy Vehicles	2 SB T All	2 SB T Trucks Only	2 SB T Buses Only	2 SB T Heavy Vehicles	3 EB L All	3 EB L Trucks Only	3 EB L Buses Only	3 EB L Heavy Vehicles	4 EB T All	4 EB T Trucks Only	4 EB T Buses Only	4 EB T Heavy Vehicles
7:30 AM - 7:45 AM	32	0	2	2	21	0	0	0	25	1	2	3	144	3	8	11
7:45 AM - 8:00 AM	43	1	0	1	24	0	0	0	38	1	0	1	188	3	4	7
8:00 AM - 8:15 AM	93	2	20	22	36	0	0	0	57	2	0	2	253	5	3	8
8:15 AM - 8:30 AM	80	3	2	5	46	0	0	0	69	1	2	3	207	5	5	10
8:30 AM - 8:45 AM	83	3	1	4	60	0	0	0	63	0	1	1	255	6	4	10
8:45 AM - 9:00 AM	68	3	0	3	50	0	3	3	67	0	1	1	253	1	11	12
9:00 AM - 9:15 AM	64	0	1	1	55	0	0	0	76	2	0	2	221	4	5	9
9:15 AM - 9:30 AM	48	1	0	1	32	0	0	0	69	0	0	0	169	2	2	4

SB L Heavy Vehicle Percentage	SB T Heavy Vehicle Percentage	EB L Heavy Vehicle Percentage	EB T Heavy Vehicle Percentage
10.5	1.6	2.7	4.1

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE																	
Wednesday, June 6, 2018	Drive																
	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles		All	Trucks Only	Buses Only
	5				6				7					1		
TIME	EB R				NB T				NB R					WB T		
7:30 AM - 7:45 AM	27	0	0	0	1	0	0	0	0	0	0	0		216	4	5
7:45 AM - 8:00 AM	52	0	2	2	6	0	1	1	1	0	0	0		244	0	4
8:00 AM - 8:15 AM	65	0	2	2	4	0	0	0	1	0	1	1		255	5	4
8:15 AM - 8:30 AM	88	0	0	0	2	0	0	0	0	0	0	0		313	6	5
8:30 AM - 8:45 AM	85	0	0	0	0	0	0	0	1	0	0	0		354	2	5
8:45 AM - 9:00 AM	111	0	3	3	3	0	1	1	0	0	0	0		350	3	5
9:00 AM - 9:15 AM	111	0	0	0	5	0	0	0	1	0	0	0		311	4	2
9:15 AM - 9:30 AM	70	0	1	1	2	0	0	0	0	0	0	0		254	15	1
	EB R Heavy Vehicle Percentage				NB T Heavy Vehicle Percentage				NB R Heavy Vehicle Percentage				TOTAL Heavy Vehicle Percentage	WB T Heavy Vehicle Percentage		
	1.4				11.1				50.0				4.3	2.8		

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE	LOCATION 6									
Wednesday, June 6, 2018	West Red Oak Lane & Westchester Avenue Westbound									
	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	
		2				3				
TIME		WB R				SB R				
7:30 AM - 7:45 AM	9	73	0	7	7	22	2	1	3	
7:45 AM - 8:00 AM	4	152	1	19	20	38	2	2	4	
8:00 AM - 8:15 AM	9	179	0	15	15	107	3	38	41	
8:15 AM - 8:30 AM	11	102	1	2	3	55	1	3	4	
8:30 AM - 8:45 AM	7	94	1	0	1	32	0	0	0	
8:45 AM - 9:00 AM	8	124	0	1	1	23	0	1	1	
9:00 AM - 9:15 AM	6	102	2	2	4	11	0	0	0	
9:15 AM - 9:30 AM	16	72	4	0	4	22	6	2	8	
		WB R Heavy Vehicle Percentage				SB R Heavy Vehicle Percentage				TOTAL Heavy Vehicle Percentage
		4.0				21.2				5.1

LOCATION 7					
Westchester Avenue & I-684 On-Ramp					
All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only
1				2	
WB L				WI	
23	2	1	3	117	4
26	1	0	1	133	4
40	2	1	3	155	5
20	2	0	2	151	8
42	6	3	9	145	7
27	5	0	5	141	7
24	1	2	3	141	10
23	2	1	3	132	8
WB L Heavy Vehicle Percentage				WB T Heavy Ve	
14.7				1(	

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE			
Wednesday, June 6, 2018			
		Buses Only	**Heavy Vehicles**
TIME		**2 3 T**	
7:30 AM	- 7:45 AM	4	8
7:45 AM	- 8:00 AM	7	11
8:00 AM	- 8:15 AM	16	21
8:15 AM	- 8:30 AM	9	17
8:30 AM	- 8:45 AM	4	11
8:45 AM	- 9:00 AM	5	12
9:00 AM	- 9:15 AM	4	14
9:15 AM	- 9:30 AM	2	10
		hicle Percentage	**TOTAL Heavy Vehicle Percentage**
		),3	11.1

LOCATION 8											
Hutchinson Parkway Entrance Ramp/I-287 Exit Ramp and Westchester Ave (EB)											
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
EB L	**EB T**	**EB R**	**WB L**	**WB T**	**WB R**	**NB L**	**NB T**	**NB R**	**SB L**	**SB T**	**SB R**
Heavy Vehicle %	**Heavy Vehicle %**	**Heavy Vehicle %**	**Heavy Vehicle %**	**Heavy Vehicle %**	**Heavy Vehicle %**	**Heavy Vehicle %**	**Heavy Vehicle %**	**Heavy Vehicle %**	**Heavy Vehicle %**	**Heavy Vehicle %**	**Heavy Vehicle %**
0	7	12	0	0	0	0	0	0	0	1	0

	EB T	EB R	SB T	TOTAL
Total Vehicles	586	212	471	1,269
Truck Percentage	7	12	1	
Total Trucks	41	25	5	71
Overall Truck %	5.6			

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

TIME			*LOCATION 1* Westchester Park Drive & Westchester Avenue Westbound														
			All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles		All	Trucks Only
			1				2				3					1	
			SB R				WB T				WB R					SB	
4:30 PM	-	4:45 PM	70	1	1	2	233	5	8	13	67	1	1	2		11	4
4:45 PM	-	5:00 PM	65	0	1	1	262	3	3	6	90	0	0	0		17	1
5:00 PM	-	5:15 PM	121	0	2	2	382	1	9	10	65	1	0	1		4	0
5:15 PM	-	5:30 PM	97	1	0	1	474	5	4	9	81	0	0	0		7	1
5:30 PM	-	5:45 PM	88	0	1	1	329	3	10	13	112	0	0	0		1	0
5:45 PM	-	6:00 PM	94	0	0	0	296	2	2	4	91	0	0	0		5	2
6:00 PM	-	6:15 PM	91	0	2	2	219	3	3	6	63	0	2	2		5	2
6:15 PM	-	6:30 PM	101	0	0	0	188	1	2	3	66	0	0	0		1	1
			SB R Heavy Vehicle Percentage				WB T Heavy Vehicle Percentage				WB R Heavy Vehicle Percentage				TOTAL Heavy Vehicle Percentage	SB T Heavy Vel	
			1.0				2.4				0.3				1.8	17	

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE	*LOCATION 2*																	
Wednesday, June 6, 2018	Westchester Avenue Westbound & Bryant Avenue																	
	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles
	1		2				3				4				5			
TIME	T		SB R				NB L				NB T				WB L			
4:30 PM - 4:45 PM	0	4	16	5	0	5	79	2	0	2	6	1	0	1	99	2	0	2
4:45 PM - 5:00 PM	0	1	26	3	1	4	72	2	0	2	6	1	0	1	98	1	0	1
5:00 PM - 5:15 PM	0	0	18	2	1	3	108	1	0	1	8	4	0	4	141	0	0	0
5:15 PM - 5:30 PM	0	1	1	0	0	0	70	1	0	1	2	1	0	1	164	4	0	4
5:30 PM - 5:45 PM	0	0	1	0	1	1	64	0	0	0	5	3	0	3	161	0	0	0
5:45 PM - 6:00 PM	0	2	3	2	0	2	66	0	0	0	9	3	0	3	162	1	0	1
6:00 PM - 6:15 PM	0	2	21	8	2	10	68	0	0	0	9	7	0	7	117	0	0	0
6:15 PM - 6:30 PM	0	1	11	8	0	8	54	1	0	1	9	4	0	4	107	0	0	0
	hicle Percentage		SB R Heavy Vehicle Percentage				NB L Heavy Vehicle Percentage				NB T Heavy Vehicle Percentage				WB L Heavy Vehicle Percentage			
	.6		26.1				0.6				45.8				0.8			

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

TIME			6 WB T All	6 WB T Trucks Only	6 WB T Buses Only	6 WB T Heavy Vehicles	7 WB R All	7 WB R Trucks Only	7 WB R Buses Only	7 WB R Heavy Vehicles	1 SB L All	1 SB L Trucks Only	1 SB L Buses Only	1 SB L Heavy Vehicles	2 SB T All	2 SB T Trucks Only	2 SB T Buses Only
4:30 PM	-	4:45 PM	207	3	7	10	6	2	1	3	29	2	0	2	82	3	0
4:45 PM	-	5:00 PM	222	1	3	4	6	0	0	0	32	1	0	1	74	2	0
5:00 PM	-	5:15 PM	349	1	10	11	3	0	1	1	43	0	0	0	105	1	0
5:15 PM	-	5:30 PM	436	0	4	4	2	2	0	2	23	1	0	1	143	3	0
5:30 PM	-	5:45 PM	283	1	10	11	4	0	1	1	31	0	0	0	120	0	0
5:45 PM	-	6:00 PM	221	0	3	3	3	0	0	0	39	1	0	1	123	2	0
6:00 PM	-	6:15 PM	180	0	3	3	6	3	2	5	31	1	0	1	103	1	0
6:15 PM	-	6:30 PM	180	0	1	1	7	1	0	1	32	0	0	0	76	1	0
			WB T Heavy Vehicle Percentage				WB R Heavy Vehicle Percentage				TOTAL Heavy Vehicle Percentage				SB L Heavy Vehicle Percentage		SB T Heavy Vehicle Percentage
			2.2				33.3				2.6				1.5		1.2

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE	*LOCATION 3*																	
Wednesday, June 6, 2018	Westchester Avenue Eastbound & Bryant Avenue																	
	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All
	3					4				5				6				
TIME	EB L					EB T				EB R				NB T				
4:30 PM - 4:45 PM	3	43	3	0	3	152	4	7	11	14	0	0	0	41	0	0	0	45
4:45 PM - 5:00 PM	2	29	2	0	2	125	1	4	5	10	0	0	0	47	1	0	1	35
5:00 PM - 5:15 PM	1	55	4	0	4	146	0	2	2	22	1	0	1	56	1	0	1	51
5:15 PM - 5:30 PM	3	30	1	0	1	127	0	9	9	17	0	0	0	43	1	0	1	41
5:30 PM - 5:45 PM	0	30	2	0	2	150	1	4	5	21	0	0	0	42	1	0	1	49
5:45 PM - 6:00 PM	2	38	4	0	4	119	1	1	2	24	0	0	0	35	1	0	1	57
6:00 PM - 6:15 PM	1	47	6	0	6	96	1	6	7	10	0	0	0	27	1	0	1	46
6:15 PM - 6:30 PM	1	28	4	0	4	91	0	3	3	11	0	0	0	38	1	0	1	32
	EB L Heavy Vehicle Percentage					EB T Heavy Vehicle Percentage				EB R Heavy Vehicle Percentage				NB T Heavy Vehicle Percentage				
	7.2					3.3				1.2				2.3				

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

TIME			7 NB R Trucks Only	7 NB R Buses Only	7 NB R Heavy Vehicles	1 SB T All	1 SB T Trucks Only	1 SB T Buses Only	1 SB T Heavy Vehicles	2 SB R All	2 SB R Trucks Only	2 SB R Buses Only	2 SB R Heavy Vehicles	3 NB L All	3 NB L Trucks Only	3 NB L Buses Only	3 NB L Heavy Vehicles
4:30 PM	-	4:45 PM	0	0	0	8	0	0	0	11	1	1	2	75	2	1	3
4:45 PM	-	5:00 PM	0	1	1	5	0	0	0	13	1	0	1	87	0	1	1
5:00 PM	-	5:15 PM	3	0	3	9	0	0	0	8	0	1	1	154	0	4	4
5:15 PM	-	5:30 PM	1	0	1	8	0	0	0	10	0	1	1	179	0	0	0
5:30 PM	-	5:45 PM	1	0	1	4	0	0	0	15	0	0	0	144	0	4	4
5:45 PM	-	6:00 PM	0	0	0	3	0	0	0	19	0	0	0	109	1	0	1
6:00 PM	-	6:15 PM	3	0	3	8	0	0	0	13	0	2	2	101	0	2	2
6:15 PM	-	6:30 PM	1	0	1	3	0	0	0	16	0	0	0	86	0	0	0
											0	0					
			NB R Heavy Vehicle Percentage			SB T Heavy Vehicle Percentage				SB R Heavy Vehicle Percentage				NB L Heavy Vehicle Percentage			
			2.5			0.0				3.8				1.5			

TOTAL Heavy Vehicle Percentage
2.6

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE	*LOCATION 4*																
Wednesday, June 6, 2018	Westchester Avenue Westbound & Corporate Park Drive																
	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	
	4				5				6				7				
TIME	NB T				WB L				WB T				WB R				
4:30 PM - 4:45 PM	10	0	1	1	48	0	0	0	219	3	6	9	10	1	0	1	
4:45 PM - 5:00 PM	5	0	0	0	48	0	1	1	247	0	3	3	12	0	0	0	
5:00 PM - 5:15 PM	6	0	1	1	70	0	0	0	293	2	5	7	6	0	0	0	
5:15 PM - 5:30 PM	10	0	1	1	51	0	1	1	370	4	4	8	6	0	0	0	
5:30 PM - 5:45 PM	10	0	0	0	62	0	0	0	307	3	6	9	5	0	0	0	
5:45 PM - 6:00 PM	14	0	0	0	55	0	2	2	273	1	3	4	3	0	0	0	
6:00 PM - 6:15 PM	12	0	2	2	48	0	0	0	167	3	1	4	6	0	0	0	
6:15 PM - 6:30 PM	17	0	1	1	37	0	1	1	152	1	2	3	5	0	0	0	
	NB T Heavy Vehicle Percentage				WB L Heavy Vehicle Percentage				WB T Heavy Vehicle Percentage				WB R Heavy Vehicle Percentage				TOTAL Heavy Vehicle Percentage
	5.0				1.3				2.3				0.0				2.0

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE
Wednesday, June 6, 2018

LOCATION 5
Westchester Avenue Eastbound and Corporate Park

TIME			1				2				3				4			
			SB L				SB T				EB L				EB T			
			All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles
4:30 PM	-	4:45 PM	59	0	0	0	1	0	0	0	45	1	2	3	177	3	5	8
4:45 PM	-	5:00 PM	48	0	1	1	4	0	0	0	49	0	1	1	174	4	3	7
5:00 PM	-	5:15 PM	75	0	0	0	5	0	0	0	60	0	2	2	197	2	1	3
5:15 PM	-	5:30 PM	60	0	1	1	2	0	0	0	68	0	1	1	152	2	4	6
5:30 PM	-	5:45 PM	63	0	0	0	3	0	0	0	80	0	1	1	147	0	1	1
5:45 PM	-	6:00 PM	57	0	2	2	1	0	0	0	69	0	0	0	153	1	1	2
6:00 PM	-	6:15 PM	56	0	0	0	1	0	0	0	54	0	4	4	139	5	1	6
6:15 PM	-	6:30 PM	37	0	1	1	2	0	0	0	57	1	1	2	102	1	1	2
			SB L Heavy Vehicle Percentage				**SB T Heavy Vehicle Percentage**				**EB L Heavy Vehicle Percentage**				**EB T Heavy Vehicle Percentage**			
			1.2				0.0				1.4				1.8			

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE																		
Wednesday, June 6, 2018	Drive																	
	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles		All	Trucks Only	Buses Only
	5				6				7					1		
TIME	EB R				NB T				NB R					WB T		
4:30 PM - 4:45 PM	2	0	1	1	39	1	0	1	0	0	0	0		192	3	3
4:45 PM - 5:00 PM	4	0	1	1	48	0	0	0	1	0	0	0		172	1	1
5:00 PM - 5:15 PM	6	0	0	0	108	0	3	3	5	0	0	0		245	0	6
5:15 PM - 5:30 PM	7	0	4	4	126	0	0	0	7	0	0	0		279	2	6
5:30 PM - 5:45 PM	4	0	0	0	77	0	3	3	3	0	0	0		241	3	4
5:45 PM - 6:00 PM	5	0	1	1	60	1	0	1	0	0	0	0		215	0	2
6:00 PM - 6:15 PM	2	0	1	1	67	0	1	1	1	0	0	0		156	2	2
6:15 PM - 6:30 PM	1	0	0	0	29	0	0	0	0	0	0	0		139	2	2
															0	0
	EB R Heavy Vehicle Percentage				NB T Heavy Vehicle Percentage				NB R Heavy Vehicle Percentage				TOTAL Heavy Vehicle Percentage	WB T Heavy Vehicle Percentage		
	22.7				1.9				0.0				1.9	2.3		

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE	LOCATION 6										LOCATION 7					
Wednesday, June 6, 2018	West Red Oak Lane & Westchester Avenue Westbound										Westchester Avenue & I-684 On-Ramp					
	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only	Buses Only	Heavy Vehicles		All	Trucks Only	Buses Only	Heavy Vehicles	All	Trucks Only
		2				3					1					
TIME		WB R				SB R					WB L					W
4:30 PM - 4:45 PM	6	31	0	3	3	73	0	2	2		104	1	0	1	195	4
4:45 PM - 5:00 PM	2	24	0	0	0	73	1	1	2		99	4	0	4	169	2
5:00 PM - 5:15 PM	6	23	1	1	2	125	0	0	0		161	0	0	0	276	2
5:15 PM - 5:30 PM	8	37	2	3	5	90	2	2	4		132	0	0	0	270	3
5:30 PM - 5:45 PM	7	33	1	0	1	124	0	2	2		104	1	0	1	254	7
5:45 PM - 6:00 PM	2	53	0	0	0	87	0	0	0		89	0	0	0	174	6
6:00 PM - 6:15 PM	4	49	0	2	2	64	0	1	1		68	0	0	0	175	4
6:15 PM - 6:30 PM	4	36	0	0	0	58	0	2	2		67	0	0	0	140	5
			0	0			0	0								
		WB R Heavy Vehicle Percentage				SB R Heavy Vehicle Percentage				TOTAL Heavy Vehicle Percentage	WB L Heavy Vehicle Percentage				WB T Heavy Ve	
		5.5				1.4				2.4	0.2				3	

TRAFFIC COUNT
JOB NO.: 18-018
PROJECT: Westchester Park
LOCATION: Harrison, NY

COUNT DATE				
Wednesday, June 6, 2018				
		Buses Only	Heavy Vehicles	
TIME		2		
		3 T		
4:30 PM	- 4:45 PM	5	9	
4:45 PM	- 5:00 PM	3	5	
5:00 PM	- 5:15 PM	9	11	
5:15 PM	- 5:30 PM	3	6	
5:30 PM	- 5:45 PM	8	15	
5:45 PM	- 6:00 PM	0	6	
6:00 PM	- 6:15 PM	5	9	
6:15 PM	- 6:30 PM	6	11	
		hicle Percentage		TOTAL Heavy Vehicle Percentage
		.9		2.7

LOCATION 8											
Hutchinson Parkway Entrance Ramp/I-287 Exit Ramp and Westchester Ave (EB)											
1	2	3	4	5	6	7	8	9	10	11	12
EB L	EB T	EB R	WB L	WB T	WB R	NB L	NB T	NB R	SB L	SB T	SB R
Heavy Vehicle %	Heavy Vehicle %	Heavy Vehicle %	Heavy Vehicle %	Heavy Vehicle %	Heavy Vehicle %	Heavy Vehicle %	Heavy Vehicle %	Heavy Vehicle %	Heavy Vehicle %	Heavy Vehicle %	Heavy Vehicle %
0	1	2	0	0	0	0	0	0	0	1	2

	EB T	EB R	SB T	TOTAL
Total Vehicles	102	403	351	856
Truck Percentage	1	2	1	
Total Trucks	1	8	4	13
Overall Truck %	1.5			

TRUCK PERCENTAGE SUMMARY

Intersection	AM Truck Percentages													PM Truck Percentages												
	SB L	SB T	SB R	EB L	EB T	EB R	NB L	NB T	NB R	WB L	WB T	WB R	TOTAL	SB L	SB T	SB R	EB L	EB T	EB R	NB L	NB T	NB R	WB L	WB T	WB R	TOTAL
Westchester Park Drive & Westchester Avenue Westbound	N/A	N/A	1.9	N/A	N/A	N/A	N/A	N/A	N/A	N/A	7.0	0.7	4.4	N/A	N/A	1.0	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.4	0.3	1.8
Westchester Avenue Westbound & Bryant Avenue	N/A	15.8	34.9	N/A	N/A	N/A	7.5	41.5	N/A	3.7	7.4	50.0	8.9	N/A	17.6	26.1	N/A	N/A	N/A	0.6	45.8	N/A	0.8	2.2	33.3	2.6
Westchester Avenue Eastbound & Bryant Avenue	1.7	5.8	N/A	28.4	2.4	10.0	N/A	5.6	3.3	N/A	N/A	N/A	4.3	1.5	1.2	N/A	7.2	3.3	1.2	N/A	2.3	2.5	N/A	N/A	N/A	2.6
Westchester Avenue Westbound & Corporate Park Drive	N/A	8.3	5.2	N/A	N/A	N/A	2.7	6.3	N/A	7.5	5.1	5.0	5.5	N/A	0.0	3.8	N/A	N/A	N/A	1.5	5.0	N/A	1.3	2.3	0.0	2.0
Westchester Avenue Eastbound and Corporate Park Drive	10.5	1.6	N/A	2.7	4.1	1.4	N/A	11.1	50.0	N/A	N/A	N/A	4.3	1.2	0.0	N/A	1.4	1.8	22.7	N/A	1.9	0.0	N/A	N/A	N/A	1.9
West Red Oak Lane & Westchester Avenue Westbound	N/A	N/A	21.2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.8	4.0	5.1	N/A	N/A	1.4	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.3	5.5	2.4
Westchester Avenue & I-684 On-Ramp	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	14.7	10.3	N/A	11.1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	0.2	3.9	N/A	2.7
Hutchinson Parkway Entrance Ramp/I-287 Exit Ramp and Westchester Ave (EB)	0.0	1.0	0.0	0.0	7.0	12.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	0.0	1.0	2.0	0.0	1.0	2.0	0.0	0.0	0.0	0.0	0.0	0.0	1.5

APPENDIX D

LEVEL OF SERVICE SUMMARY TABLES

TABLE NO. D-1A
UPDATED DEIS ANALYSIS
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBOUND & CORPORATE PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**	**2020 BUILD WITH IMPV**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE								
NB	L	C 32.7	C 25.3	C 31.3	F 111.8	F 95.9	F 113.3	F 95.5
	T	C 28.0	B 17.1	C 27.8	A 4.9	C 20.4	C 20.6	C 20.8
	OVERALL	***C 31.8***	***C 22.6***	***C 29.9***	***F 105.0***	***E 73.7***	***F 86.9***	***E 74.2***
SB	T	D 36.4	D 42.4	D 46.8	C 24.5	F 128.1	F 158.3	D 52.2
WESTCHESTER AVENUE WESTBOUND								
WB	L	C 26.4	C 33.0	C 28.9	B 19.0	B 19.2	B 18.9	B 18.8
	T	C 22.0	C 28.0	C 23.8	D 51.9	D 44.1	D 49.5	D 47.6
	R	A 0.1	A 3.8	A 3.7	A 0.1	A 3.1	A 3.1	A 3.1
	OVERALL	***C 22.9***	***C 27.3***	***C 23.5***	***D 46.0***	***C 34.6***	***D 38.7***	***D 37.3***
INTERSECTION		**C 24.4**	**C 27.2**	**C 25.8**	**E 62.9**	**D 53.9**	**E 62.7**	**D 49.3**

TABLE NO. D-1B
UPDATED DEIS ANALYSIS
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE & CORPORATE PARK DRIVE RAMP

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**	**2020 BUILD WITH IMPV**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE RAMP								
SB	R	b 14.8	A 8.7	A 5.3	d 26.0	F 133.5	F 175.7	E 55.8
WESTCHESTER AVENUE								
WB	T	a 0.0	A 3.8	A 0.8	a 0.0	A 7.0	B 10.8	C 20.1
INTERSECTION		**b 14.8**	**A 4.3**	**A 1.3**	**d 26.0**	**C 21.7**	**C 29.5**	**C 24.1**

TABLE NO. D-2
UPDATED DEIS ANALYSIS
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE EASTBOUND & CORPORATE PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	2020 NO-BUILD	2020 BUILD	2018 EXISTING	2020 NO-BUILD	2020 BUILD
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE							
NB	TR	D 35.3	D 35.6	C 35.0	C 34.9	C 27.6	C 27.6
SB	L	D 39.1	D 41.3	D 40.6	C 23.0	B 16.6	B 16.6
	T	C 30.4	D 41.0	D 40.2	A 4.8	B 17.9	B 18.0
	OVERALL	***D 35.9***	***D 41.2***	***D 40.4***	***C 21.9***	***B 17.3***	***B 17.3***
WESTCHESTER AVENUE EASTBOUND							
EB	L	C 20.6	C 22.2	C 20.3	B 13.1	D 44.9	D 52.5
	TR	C 28.9	C 27.8	C 28.3	B 13.3	C 20.7	B 19.3
	OVERALL	***C 27.5***	***C 26.5***	***C 26.7***	***B 13.2***	***C 30.1***	***C 32.7***
INTERSECTION		**C 29.6**	**C 30.4**	**C 30.3**	**B 19.8**	**C 26.6**	**C 28.1**

TABLE NO. D-3
UPDATED DEIS ANALYSIS
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBOUND & BRYANT AVENUE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**	**2020 BUILD WITH IMPV**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
BRYANT AVENUE								
NB	L	A 5.9	A 5.9	A 6.0	C 34.0	C 32.8	B 19.6	C 33.7
	T	A 5.4	A 5.3	A 5.3	B 12.8	B 11.4	A 7.7	B 11.8
	OVERALL	***A*** ***5.7***	***A*** ***5.7***	***A*** ***5.8***	***C*** ***32.4***	***C*** ***31.3***	***B*** ***18.7***	***C*** ***32.1***
SB	TR	B 16.7	B 16.8	B 16.5	C 22.3	C 22.3	B 18.7	C 21.3
WESTCHESTER AVENUE WESTBOUND								
WB	L	C 31.2	D 43.8	D 50.0	C 27.8	F 90.3	F 133.8	E 71.4
	T	B 15.7	C 25.7	C 25.2	C 24.5	D 44.3	F 87.1	D 38.1
	R	- 0.0	A 0.0	A 0.0	A 0.1	A 0.1	A 0.1	A 0.1
	OVERALL	***C*** ***22.6***	***C*** ***33.3***	***D*** ***36.0***	***C*** ***25.4***	***E*** ***60.5***	***F*** ***103.1***	***D*** ***49.6***
INTERSECTION		**B** **19.6**	**C** **28.6**	**C** **31.0**	**C** **26.4**	**E** **56.3**	**F** **91.1**	**D** **46.9**

TABLE NO. D-4
UPDATED DEIS ANALYSIS
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE EASTBOUND & BRYANT AVENUE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
BRYANT AVENUE							
NB	TR	C 32.4	D 37.4	D 36.8	B 14.6	C 21.1	C 20.4
SB	LT	A 9.6	B 15.6	B 15.8	A 0.7	A 2.0	A 1.5
WESTCHESTER AVENUE EASTBOUND							
EB	L	B 11.4	B 10.5	B 10.7	C 25.9	B 19.8	B 19.6
	T	C 21.2	C 21.3	C 21.0	C 29.5	C 25.9	C 26.0
	R	A 0.8	A 0.8	A 0.9	A 2.8	A 2.2	A 2.2
	OVERALL	***B*** ***19.7***	***B*** ***19.9***	***B*** ***19.6***	***C*** ***25.9***	***C*** ***23.0***	***C*** ***23.0***
INTERSECTION		**B** **19.5**	**C** **21.8**	**C** **21.5**	**B** **14.5**	**B** **15.2**	**B** **15.2**

TABLE NO. D-5
UPDATED DEIS ANALYSIS
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBOUND & WESTCHESTER PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
WESTCHESTER PARK DRIVE							
SB	R	A 2.3	A 7.3	A 8.7	C 23.4	C 31.1	C 27.9
WESTCHESTER AVENUE WESTBOUND							
WB	T	C 22.0	C 21.7	C 21.7	C 20.4	C 32.7	C 32.7
INTERSECTION		**B 17.9**	**B 18.9**	**B 18.7**	**C 21.0**	**C 32.4**	**C 31.7**

TABLE NO. D-6
UPDATED DEIS ANALYSIS
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBBOUND & WEST RED OAK LANE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
WEST RED OAK LANE							
SB	R	d 33.7	f 62.6	f 54.3	e 35.2	f 99.4	f 116.4
WESTCHESTER AVENUE WESTBOUND							
WB	T	a 0.0	a 0.0	a 0.0	a 0.0	a 0.0	a 0.0
INTERSECTION		**d 33.7**	**f 62.6**	**f 54.3**	**e 35.2**	**f 99.4**	**f 116.4**

TABLE NO. D-7
UPDATED DEIS ANALYSIS
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBBOUND & HUTCHINSON RIVER PARKWAY

APPROACH	PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
	2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)
WEAVE	**D** **33.4**	**E** **39.0**	**E** **38.1**	**C** **24.2**	**D** **30.2**	**D** **31.1**

TABLE NO. D-8
UPDATED DEIS ANALYSIS
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE ON-RAMP & I-684

APPROACH	PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
	2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)
DIVERGE	**A** **7.6**	**A** **8.6**	**A** **8.8**	**A** **7.2**	**B** **15.6**	**B** **15.5**

TABLE D-9

UPDATED DEIS ANALYSIS

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

I-287 EXIT RAMP/HUTCHINSON RIVER PARKWAY & WESTCHESTER AVENUE EASTBOUND

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
I-287 Exit Ramp							
SB	L	F 134.8	F 217.9	F 219.4	F 290.2	F 304.1	F 304.1
	T	C 21.1	C 25.0	C 24.8	B 19.5	B 19.7	B 19.7
	OVERALL	***F 101.7***	***F 161.7***	***F 162.8***	***F 224.6***	***F 235.2***	***F 235.2***
Westchester Avenue							
EB	T	D 41.0	E 58.9	E 62.4	F 235.7	F 432.1	F 422.7
	R/TR	A 3.7	A 4.4	A 5.3	A 7.5	B 19.0	B 18.0
	OVERALL	***C 31.1***	***D 44.9***	***D 46.7***	***F 171.2***	***F 304.3***	***F 298.2***
INTERSECTION		**E 78.3**	**F 117.4**	**F 117.7**	**F 198.2**	**F 274.4**	**F 270.7**

TABLE NO. D-10A
UPDATED DEIS ANALYSIS WITH INTERCONNECTOR ROAD
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBOUND & CORPORATE PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2020 INTERCONNECTOR ROADWAY WITH IMPV
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE								
NB	L	C 32.7	C 25.3	C 22.6	F 111.9	F 95.7	F 119.3	F 95.5
	T	C 28.0	B 17.1	B 17.5	A 4.9	C 20.4	B 17.7	B 17.7
	OVERALL	***C*** ***31.8***	***C*** ***22.6***	***C*** ***20.7***	***F*** ***105.0***	***E*** ***73.6***	***F*** ***99.2***	***F*** ***80.1***
SB	T	D 36.4	D 42.4	D 42.4	C 24.5	F 128.1	F 183.6	E 55.5
WESTCHESTER AVENUE WESTBOUND								
WB	L	C 26.4	C 33.0	C 30.9	B 19.0	B 18.4	B 18.9	B 18.8
	T	C 22.0	C 28.0	C 25.3	51.9 47.6	D 39.7	D 49.5	D 47.6
	R	A 0.1	A 3.8	A 3.7	A 0.1	A 3.1	A 3.1	A 3.1
	OVERALL	***C*** ***22.9***	***C*** ***27.3***	***C*** ***25.0***	***D*** ***46.0***	***C*** ***31.4***	***D*** ***38.7***	***D*** ***37.3***
INTERSECTION		**C** **24.4**	**C** **27.2**	**C** **25.3**	**E** **62.9**	**D** **52.4**	**E** **68.0**	**D** **50.4**

TABLE NO. D-10B
UPDATED DEIS ANALYSIS WITH INTERCONNECTOR ROAD
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE & CORPORATE PARK DRIVE RAMP

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2020 INTERCONNECTOR ROADWAY WITH IMPV
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE RAMP								
SB	R	b 14.8	A 8.7	A 3.7	d 26.0	F 133.5	E 70.1	D 38.2
WESTCHESTER AVENUE								
WB	T	a 0.0	A 3.8	A 3.5	a 0.0	A 7.0	B 10.8	C 20.1
INTERSECTION		**b 14.8**	**A 4.3**	**A 3.5**	**d 26.0**	**C 21.7**	**B 15.7**	**C 21.6**

TABLE NO. D-11

UPDATED DEIS ANALYSIS WITH INTERCONNECTOR ROAD

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE EASTBOUND & CORPORATE PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE							
NB	TR	D 35.3	D 35.6	C 35.0	C 34.9	C 27.6	C 27.6
SB	L	D 39.1	D 41.3	D 41.5	C 23.0	B 16.6	B 17.7
	T	C 30.4	D 41.0	D 41.1	A 4.8	B 17.9	B 18.5
	OVERALL	***D*** ***35.9***	***D*** ***41.2***	***D*** ***41.3***	***C*** ***21.9***	***B*** ***17.3***	***B*** ***18.1***
WESTCHESTER AVENUE EASTBOUND							
EB	L	C 20.6	C 22.2	C 20.3	B 13.1	D 44.9	C 25.1
	TR	C 28.9	C 27.8	C 28.5	B 13.3	C 20.7	B 16.6
	OVERALL	***C*** ***27.5***	***C*** ***26.5***	***C*** ***26.9***	***B*** ***13.2***	***C*** ***30.1***	***B*** ***19.7***
INTERSECTION		**C** **29.6**	**C** **30.4**	**C** **30.7**	**B** **19.8**	**C** **26.6**	**C** **20.7**

TABLE NO. D-12
UPDATED DEIS ANALYSIS WITH INTERCONNECTOR ROAD
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBOUND & BRYANT AVENUE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2020 INTERCONNECTOR ROADWAY WITH IMPV**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
BRYANT AVENUE								
NB	L	A 5.9	A 5.9	A 6.0	D 40.6	C 32.8	C 21.5	D 35.6
	T	A 5.4	A 5.3	A 5.3	B 12.8	B 11.4	A 8.7	B 13.0
	OVERALL	***A*** ***5.7***	***A*** ***5.7***	***A*** ***5.8***	***D*** ***38.5***	***C*** ***31.3***	***C*** ***20.5***	***C*** ***33.9***
SB	TR	B 16.7	B 16.8	B 16.5	C 21.9	C 22.3	B 18.7	C 21.3
WESTCHESTER AVENUE WESTBOUND								
WB	L	C 31.2	D 43.8	D 47.3	C 27.8	F 90.3	E 70.4	D 36.0
	T	B 15.7	C 25.7	C 25.4	C 24.5	D 44.3	F 87.1	D 38.1
	R	- 0.0	A 0.0	A 0.0	A 0.1	A 0.1	A 0.1	A 0.1
	OVERALL	***C*** ***22.6***	***C*** ***33.3***	***C*** ***34.7***	***C*** ***25.4***	***E*** ***60.5***	***F*** ***81.3***	***D*** ***37.2***
INTERSECTION		**B** **19.6**	**C** **28.6**	**C** **29.9**	**C** **27.2**	**E** **56.3**	**E** **72.2**	**D** **36.5**

TABLE NO. D-13
UPDATED DEIS ANALYSIS WITH INTERCONNECTOR ROAD
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE EASTBOUND & BRYANT AVENUE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
BRYANT AVENUE							
NB	TR	C 32.4	D 37.4	D 36.4	B 14.6	C 21.1	B 14.3
SB	LT	A 9.6	B 15.6	B 15.1	A 0.7	A 2.0	A 0.6
WESTCHESTER AVENUE EASTBOUND							
EB	L	B 11.4	B 10.5	B 10.7	C 25.9	B 19.8	B 19.6
	T	C 21.2	C 21.3	C 21.0	C 29.5	C 25.9	C 26.0
	R	A 0.8	A 0.8	A 0.9	A 2.8	A 2.2	A 2.2
	OVERALL	***B*** ***19.7***	***B*** ***19.9***	***B*** ***19.6***	***C*** ***25.9***	***C*** ***23.0***	***C*** ***23.0***
INTERSECTION		**B** **19.5**	**C** **21.8**	**C** **21.3**	**B** **14.5**	**B** **15.2**	**B** **14.3**

TABLE NO. D-14
UPDATED DEIS ANALYSIS WITH INTERCONNECTOR ROAD
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBOUND & WESTCHESTER PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
WESTCHESTER PARK DRIVE							
SB	R	A 2.3	A 7.3	A 8.4	C 23.4	C 31.1	C 24.9
WESTCHESTER AVENUE WESTBOUND							
WB	T	C 22.0	C 21.7	C 21.7	C 20.4	C 32.7	C 32.7
INTERSECTION		**B 17.9**	**B 18.9**	**B 18.7**	**C 21.0**	**C 32.4**	**C 31.4**

TABLE NO. D-15
UPDATED DEIS ANALYSIS WITH INTERCONNECTOR ROAD
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBBOUND & WEST RED OAK LANE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
WEST RED OAK LANE							
SB	R	d 33.7	f 62.6	f 54.3	e 35.2	f 99.4	f 116.4
WESTCHESTER AVENUE WESTBOUND							
WB	T	a 0.0	a 0.0	a 0.0	a 0.0	a 0.0	a 0.0
INTERSECTION		**d 33.7**	**f 62.6**	**f 54.3**	**e 35.2**	**f 99.4**	**f 116.4**

TABLE NO. D-16

UPDATED DEIS ANALYSIS WITH INTERCONNECTOR ROAD

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE WESTBBOUND & HUTCHINSON RIVER PARKWAY

APPROACH	PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY
	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)
WEAVE	**C** **33.4**	**D** **39.0**	**D** **38.1**	**C** **24.2**	**C** **30.2**	**C** **31.1**

TABLE NO. D-17
UPDATED DEIS ANALYSIS WITH INTERCONNECTOR ROAD
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE ON-RAMP & I-684

APPROACH	PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY
	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)
DIVERGE	**A** **7.6**	**A** **8.6**	**A** **8.9**	**A** **7.2**	**B** **15.6**	**B** **15.5**

TABLE D-18
UPDATED DEIS ANALYSIS WITH INTERCONNECTOR ROAD
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
I-287 EXIT RAMP/HUTCHINSON RIVER PARKWAY & WESTCHESTER AVENUE EASTBOUND

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
I-287 Exit Ramp							
SB	L	F 134.8	F 217.9	F 219.4	F 290.2	F 304.1	F 304.1
	T	C 21.1	C 25.0	C 24.8	B 19.5	B 19.7	B 19.7
	OVERALL	***F*** ***101.7***	***F*** ***161.7***	***F*** ***162.8***	***F*** ***224.6***	***F*** ***235.2***	***F*** ***235.2***
Westchester Avenue							
EB	T	D 41.0	E 58.9	E 62.4	F 235.7	F 432.1	F 422.7
	R/TR	A 3.7	A 4.4	A 5.2	A 7.5	B 19.0	B 18.0
	OVERALL	***C*** ***31.1***	***D*** ***44.9***	***D*** ***46.7***	***F*** ***171.2***	***F*** ***304.3***	***F*** ***298.2***
INTERSECTION		**E** **78.3**	**F** **117.4**	**F** **117.7**	**F** **198.2**	**F** **274.4**	**F** **270.7**

TABLE NO. D-19A
FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT CREDIT)
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBOUND & CORPORATE PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**	**2020 BUILD WITH IMPV**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE								
NB	L	C 32.7	C 25.3	C 22.5	F 111.8	F 95.9	F 122.5	F 97.6
	T	C 28.0	B 17.1	B 17.7	A 4.9	C 20.4	C 20.7	C 20.8
	OVERALL	***C*** ***31.8***	***C*** ***22.6***	***C*** ***20.6***	***F*** ***105.0***	***E*** ***73.7***	***F*** ***93.8***	***E*** ***76.0***
SB	T	D 36.4	D 42.4	D 42.4	C 24.5	F 114.8	F 147.4	D 49.9
WESTCHESTER AVENUE WESTBOUND								
WB	L	C 26.4	C 33.0	C 31.3	B 19.0	B 19.2	B 18.9	B 18.8
	T	C 22.0	C 28.0	C 25.7	D 51.9	D 44.1	D 52.4	D 50.9
	R	A 0.1	A 3.8	A 3.8	A 0.1	A 3.1	A 3.1	A 3.1
	OVERALL	***C*** ***22.9***	***C*** ***27.3***	***C*** ***25.4***	***D*** ***46.0***	***C*** ***34.6***	***D*** ***40.8***	***D*** ***39.7***
INTERSECTION		**C** **24.4**	**C** **27.2**	**C** **25.5**	**E** **62.9**	**D** **52.8**	**E** **65.1**	**D** **51.2**

TABLE NO. D-19B
FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT CREDIT)
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE & CORPORATE PARK DRIVE RAMP

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	2020 NO-BUILD	2020 BUILD	2018 EXISTING	2020 NO-BUILD	2020 BUILD	2020 BUILD WITH IMPV
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE RAMP								
SB	R	b 14.8	A 8.7	A 4.7	C 26.0	F 133.5	F 184.7	E 57.0
WESTCHESTER AVENUE								
WB	T	a 0.0	A 3.8	A 3.5	A 0.0	A 7.0	B 12.8	C 25.4
INTERSECTION		**b 14.8**	**A 4.3**	**A 3.7**	**C 26.0**	**C 21.7**	**C 32.2**	**C 28.9**

TABLE NO. D-20
FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT CREDIT)
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE EASTBOUND & CORPORATE PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE							
NB	TR	D 35.3	D 35.6	C 35.0	C 34.9	C 27.6	C 27.6
SB	L	D 39.1	D 41.3	D 41.4	C 23.0	B 16.6	B 16.6
	T	C 30.4	D 41.0	D 41.0	A 4.8	B 17.9	B 18.0
	OVERALL	***D*** ***35.9***	***D*** ***41.2***	***D*** ***41.2***	***C*** ***21.9***	***B*** ***17.3***	***B*** ***17.3***
WESTCHESTER AVENUE EASTBOUND							
EB	L	C 20.6	C 22.2	C 20.1	B 13.1	D 45.2	E 58.4
	TR	C 28.9	C 27.8	C 28.5	B 13.3	C 21.0	B 19.7
	OVERALL	***C*** ***27.5***	***C*** ***26.5***	***C*** ***26.8***	***B*** ***13.2***	***C*** ***30.4***	***D*** ***35.4***
INTERSECTION		**C** **29.6**	**C** **30.4**	**C** **30.6**	**B** **19.8**	**C** **26.8**	**C** **29.8**

TABLE NO. D-21
FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT CREDIT)
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE WESTBOUND & BRYANT AVENUE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**	**2020 BUILD WITH IMPV**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
BRYANT AVENUE								
NB	L	A 5.9	A 5.9	A 6.0	D 40.6	C 32.8	B 19.4	C 33.5
	T	A 5.4	A 5.3	A 5.3	B 12.8	B 11.4	A 7.5	B 11.5
	OVERALL	***A*** ***5.7***	***A*** ***5.7***	***A*** ***5.8***	***D*** ***38.5***	***C*** ***31.3***	***B*** ***18.6***	***C*** ***31.9***
SB	TR	B 16.7	B 16.8	B 16.5	C 21.9	C 22.3	B 18.7	C 21.3
WESTCHESTER AVENUE WESTBOUND								
WB	L	C 31.2	D 43.8	D 53.2	C 27.8	F 90.3	F 141.3	E 76.7
	T	B 15.7	C 25.7	C 25.0	C 24.5	D 44.3	F 88.7	D 38.8
	R	A 0.0	A 0.0	A 0.0	A 0.1	A 0.1	A 0.1	A 0.1
	OVERALL	***C*** ***22.6***	***C*** ***33.3***	***D*** ***37.4***	***C*** ***25.4***	***E*** ***60.5***	***F*** ***106.9***	***D*** ***52.1***
INTERSECTION		**B** **19.6**	**C** **28.6**	**C** **32.3**	**C** **27.2**	**E** **56.3**	**F** **94.4**	**D** **49.0**

TABLE NO. D-22
FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT CREDIT)
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE EASTBOUND & BRYANT AVENUE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
BRYANT AVENUE							
NB	TR	C 32.4	D 37.4	D 37.1	B 14.6	C 21.1	C 21.1
SB	LT	A 9.6	B 15.6	B 17.0	A 0.7	A 1.1	A 1.7
WESTCHESTER AVENUE EASTBOUND							
EB	L	B 11.4	B 10.5	B 10.6	C 25.9	B 19.8	B 19.4
	T	C 21.2	C 21.3	C 20.9	C 29.5	C 25.9	C 26.0
	R	A 0.8	A 0.8	A 0.9	A 2.8	A 2.2	A 2.2
	OVERALL	***B 19.7***	***B 19.9***	***B 19.5***	***C 25.9***	***C 23.0***	***C 23.0***
INTERSECTION		**B 19.5**	**C 21.8**	**C 21.7**	**B 14.5**	**B 14.8**	**B 15.4**

TABLE NO. D-23

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT CREDIT)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE WESTBOUND & WESTCHESTER PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
WESTCHESTER PARK DRIVE							
SB	R	A 2.3	A 7.3	A 9.4	C 23.4	C 31.1	C 28.6
WESTCHESTER AVENUE WESTBOUND							
WB	T	C 22.0	C 21.7	C 21.7	C 20.4	C 32.7	C 32.7
INTERSECTION		**B 17.9**	**B 18.9**	**B 18.6**	**C 21.0**	**C 32.4**	**C 31.8**

TABLE NO. D-24

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT CREDIT)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE WESTBBOUND & WEST RED OAK LANE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
WEST RED OAK LANE							
SB	R	d 33.7	f 62.6	f 55.4	e 35.2	f 99.4	f 122.0
WESTCHESTER AVENUE WESTBOUND							
WB	T	a 0.0	a 0.0	a 0.0	a 0.0	a 0.0	a 0.0
INTERSECTION		**d 33.7**	**f 62.6**	**f 55.4**	**e 35.2**	**f 99.4**	**f 122.0**

TABLE NO. D-25

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT CREDIT)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE WESTBBOUND & HUTCHINSON RIVER PARKWAY

APPROACH	PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
	2018 EXISTING	2020 NO-BUILD	2020 BUILD	2018 EXISTING	2020 NO-BUILD	2020 BUILD
	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
WEAVE	**D 33.4**	**E 39.0**	**E 38.1**	**C 24.2**	**D 30.2**	**D 31.5**

TABLE NO. D-26
FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT CREDIT)
PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE
WESTCHESTER AVENUE ON-RAMP & I-684

APPROACH	PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
	2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)
DIVERGE	**A** **7.6**	**A** **8.6**	**A** **8.9**	**A** **7.2**	**B** **15.6**	**B** **15.6**

TABLE NO. D-27

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT CREDIT)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

I-287 EXIT RAMP/HUTCHINSON RIVER PARKWAY & WESTCHESTER AVENUE EASTBOUND

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 BUILD**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 BUILD**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
I-287 Exit Ramp							
SB	L	F 134.8	F 217.9	F 220.1	F 290.2	F 304.1	F 304.1
	T	C 21.1	C 25.0	C 25.0	B 19.5	B 19.7	B 19.7
	OVERALL	***F*** ***101.7***	***F*** ***161.7***	***F*** ***163.3***	***F*** ***224.6***	***F*** ***235.2***	***F*** ***235.2***
Westchester Avenue							
EB	T	D 41.0	E 58.9	E 64.3	F 235.7	F 432.1	F 424.9
	R/TR	A 3.7	A 4.4	A 5.7	A 7.5	B 19.0	B 18.6
	OVERALL	***C*** ***31.1***	***D*** ***44.9***	***D*** ***47.9***	***F*** ***171.2***	***F*** ***304.3***	***F*** ***299.1***
INTERSECTION		**E** **78.3**	**F** **117.4**	**F** **118.0**	**F** **198.2**	**F** **274.4**	**F** **271.3**

TABLE NO. D-28A

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT WITH LIMITED INTERCONNECTOR ROAD USE) (ONLY 3WPD AND CARRAWAY)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE WESTBOUND & CORPORATE PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2020 INTERCONNECTOR ROADWAY WITH IMPV**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE								
NB	L	C 32.7	C 25.3	C 22.7	F 111.8	F 95.7	F 123.1	F 97.6
	T	C 28.0	B 17.1	B 17.5	A 4.9	C 20.4	B 18.6	B 18.6
	OVERALL	***C*** ***31.8***	***C*** ***22.6***	***C*** ***20.8***	***F*** ***105.0***	***E*** ***73.6***	***F*** ***98.4***	***E*** ***78.9***
SB	T	D 36.4	D 42.4	D 42.4	C 24.5	F 128.1	F 152.8	D 49.9
WESTCHESTER AVENUE WESTBOUND								
WB	L	C 26.4	C 33.0	C 31.2	B 19.0	B 18.4	B 18.9	B 18.8
	T	C 22.0	C 28.0	C 25.7	D 51.9	D 39.7	D 51.8	D 50.9
	R	A 0.1	A 3.8	A 3.7	A 0.1	A 3.1	A 3.1	A 3.1
	OVERALL	***C*** ***22.9***	***C*** ***27.3***	***C*** ***25.3***	***D*** ***46.0***	***C*** ***31.4***	***D*** ***40.4***	***D*** ***39.7***
INTERSECTION		**C** **24.4**	**C** **27.2**	**C** **25.5**	**E** **62.9**	**D** **52.4**	**E** **66.1**	**D** **51.6**

TABLE NO. D-28B

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT WITH LIMITED INTERCONNECTOR ROAD USE) (ONLY 3WPD AND CARRAWAY)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE & CORPORATE PARK DRIVE RAMP

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2020 INTERCONNECTOR ROADWAY WITH IMPV
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE RAMP								
SB	R	b 14.8	A 8.7	A 4.1	C 26.0	F 133.5	F 97.2	D 41.7
WESTCHESTER AVENUE								
WB	T	a 0.0	A 3.8	A 3.5	A 0.0	A 7.0	B 13.7	C 25.4
INTERSECTION		**b 14.8**	**A 4.3**	**A 3.6**	**C 26.0**	**C 21.7**	**C 21.1**	**C 26.8**

TABLE NO. D-29

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT WITH LIMITED INTERCONNECTOR ROAD USE) (ONLY 3WPD AND CARRAWAY)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE EASTBOUND & CORPORATE PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
CORPORATE PARK DRIVE							
NB	TR	D 35.3	D 35.6	C 35.0	C 34.9	C 27.6	D 35.2
SB	L	D 39.1	D 41.3	D 41.4	C 23.0	B 16.6	C 22.7
	T	C 30.4	D 41.0	D 41.0	A 4.8	B 17.9	C 23.9
	OVERALL	***D*** ***35.9***	***D*** ***41.2***	***D*** ***41.2***	***C*** ***21.9***	***B*** ***17.3***	***C*** ***23.3***
WESTCHESTER AVENUE EASTBOUND							
EB	L	C 20.6	C 22.2	C 20.1	B 13.1	D 45.2	B 19.6
	TR	C 28.9	C 27.8	C 28.7	B 13.3	C 21.0	B 12.2
	OVERALL	***C*** ***27.5***	***C*** ***26.5***	***C*** ***27.0***	***B*** ***13.2***	***C*** ***30.4***	***B*** ***15.0***
INTERSECTION		**C** **29.6**	**C** **30.4**	**C** **30.7**	**B** **19.8**	**C** **26.8**	**C** **20.6**

TABLE NO. D-30

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT WITH LIMITED INTERCONNECTOR ROAD USE) (ONLY 3WPD AND CARRAWAY)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE WESTBOUND & BRYANT AVENUE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)			
		2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2020 INTERCONNECTOR ROADWAY WITH IMPV
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
BRYANT AVENUE								
NB	L	A 5.9	A 5.9	A 6.0	D 40.6	C 32.8	C 20.1	C 34.3
	T	A 5.4	A 5.3	A 5.3	B 12.8	B 11.4	A 7.9	B 12.0
	OVERALL	***A*** ***5.7***	***A*** ***5.7***	***A*** ***5.8***	***D*** ***38.5***	***C*** ***31.3***	***B*** ***19.2***	***C*** ***32.6***
SB	TR	B 16.7	B 16.8	B 16.5	C 21.9	C 22.3	B 18.7	C 21.3
WESTCHESTER AVENUE WESTBOUND								
WB	L	C 31.2	D 43.8	D 51.0	C 27.8	F 90.3	F 108.5	D 54.9
	T	B 15.7	C 25.7	C 25.2	C 24.5	D 44.3	F 88.7	D 38.8
	R	A 0.0	A 0.0	A 0.0	A 0.1	A 0.1	A 0.1	A 0.1
	OVERALL	***C*** ***22.6***	***C*** ***33.3***	***D*** ***36.4***	***C*** ***25.4***	***E*** ***60.5***	***F*** ***94.9***	***D*** ***44.0***
INTERSECTION		**B** **19.6**	**C** **28.6**	**C** **31.4**	**C** **27.2**	**E** **56.3**	**F** **84.0**	**D** **42.2**

TABLE NO. D-31

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT WITH LIMITED INTERCONNECTOR ROAD USE) (ONLY 3WPD AND CARRAWAY)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE EASTBOUND & BRYANT AVENUE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
BRYANT AVENUE							
NB	TR	C 32.4	D 37.4	D 36.8	B 14.6	C 21.1	B 18.7
SB	LT	A 9.6	B 15.6	B 16.2	A 0.7	A 1.1	A 0.8
WESTCHESTER AVENUE EASTBOUND							
EB	L	B 11.4	B 10.5	B 10.6	C 25.9	B 19.8	B 19.4
	T	C 21.2	C 21.3	C 20.9	C 29.5	C 25.9	C 26.0
	R	A 0.8	A 0.8	A 0.9	A 2.8	A 2.2	A 2.2
	OVERALL	***B*** ***19.7***	***B*** ***19.9***	***B*** ***19.5***	***C*** ***25.9***	***C*** ***23.0***	***C*** ***23.0***
INTERSECTION		**B** **19.5**	**C** **21.8**	**C** **21.5**	**B** **14.5**	**B** **14.8**	**B** **14.9**

TABLE NO. D-32

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT WITH LIMITED INTERCONNECTOR ROAD USE) (ONLY 3WPD AND CARRAWAY)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE WESTBOUND & WESTCHESTER PARK DRIVE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
WESTCHESTER PARK DRIVE							
SB	R	A 2.3	A 7.3	A 9.1	C 23.4	C 31.1	C 26.8
8							
WB	T	C 22.0	C 21.7	C 21.7	C 20.4	C 32.7	C 32.7
INTERSECTION		**B 17.9**	**B 18.9**	**B 18.7**	**C 21.0**	**C 32.4**	**C 31.6**

TABLE NO. D-33

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT WITH LIMITED INTERCONNECTOR ROAD USE) (ONLY 3WPD AND CARRAWAY)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE WESTBBOUND & WEST RED OAK LANE

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
WEST RED OAK LANE							
SB	R	d 33.7	f 62.6	f 55.4	e 35.2	f 99.4	f 122.0
WESTCHESTER AVENUE WESTBOUND							
WB	T	a 0.0	a 0.0	a 0.0	a 0.0	a 0.0	a 0.0
INTERSECTION		**d 33.7**	**f 62.6**	**f 55.4**	**e 35.2**	**f 99.4**	**f 122.0**

TABLE NO. D-34

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT WITH LIMITED INTERCONNECTOR ROAD USE) (ONLY 3WPD AND CARRAWAY)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE WESTBBOUND & HUTCHINSON RIVER PARKWAY

APPROACH	PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY
	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
WEAVE	**D 33.4**	**E 39.0**	**E 38.1**	**C 24.2**	**D 30.2**	**D 31.5**

TABLE NO. D-35

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT WITH LIMITED INTERCONNECTOR ROAD USE) (ONLY 3WPD AND CARRAWAY)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

WESTCHESTER AVENUE ON-RAMP & I-684

APPROACH	PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY	2018 EXISTING	2020 NO-BUILD	2020 INTERCONNECTOR ROADWAY
	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)	LOS DENSITY (pc/mi/ln)
DIVERGE	**A** **7.6**	**A** **8.6**	**A** **8.9**	**A** **7.2**	**B** **15.6**	**B** **15.6**

TABLE NO. D-36

FEIS SENSITIVITY ANALYSIS (NO MASS TRANSIT WITH LIMITED INTERCONNECTOR ROAD USE) (ONLY 3WPD AND CARRAWAY)

PEAK HOUR LEVEL OF SERVICE SUMMARY TABLE

I-287 EXIT RAMP/HUTCHINSON RIVER PARKWAY & WESTCHESTER AVENUE EASTBOUND

APPROACH		PEAK AM HOUR (8:00 - 9:00 AM)			PEAK PM HOUR (5:00 - 6:00 PM)		
		2018 EXISTING	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**	**2018 EXISTING**	**2020 NO-BUILD**	**2020 INTERCONNECTOR ROADWAY**
		LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)	LOS DELAY (sec)
I-287 Exit Ramp							
SB	L	F 134.8	F 217.9	F 220.1	F 290.2	F 304.1	F 304.1
	T	C 21.1	C 25.0	C 25.0	B 19.5	B 19.7	B 19.7
	OVERALL	***F*** ***101.7***	***F*** ***161.7***	***F*** ***163.3***	***F*** ***224.6***	***F*** ***235.2***	***F*** ***235.2***
Westchester Avenue							
EB	T	D 41.0	E 58.9	E 64.3	F 235.7	F 432.1	F 424.9
	R/TR	A 3.7	A 4.4	A 5.7	A 7.5	B 19.0	B 18.6
	OVERALL	***C*** ***31.1***	***D*** ***44.9***	***D*** ***47.9***	***F*** ***171.2***	***F*** ***304.3***	***F*** ***299.1***
INTERSECTION		**E** **78.3**	**F** **117.4**	**F** **118.0**	**F** **198.2**	**F** **274.4**	**F** **271.3**

APPENDIX E

CAPACITY ANALYSIS WORKSHEETS

UPDATED DEIS ANALYSIS

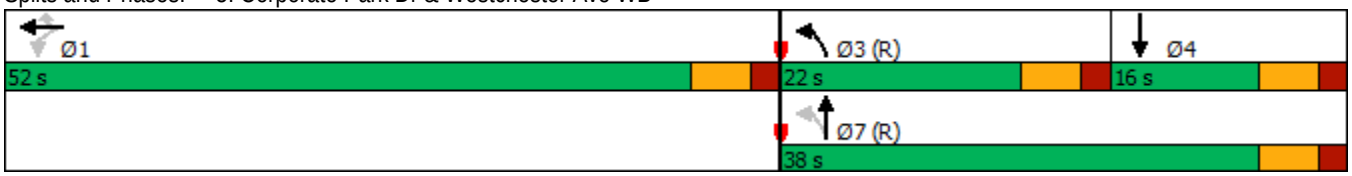
PEAK AM HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	494	938	40	221	48	0	0	24	0
Future Volume (vph)	0	0	0	494	938	40	221	48	0	0	24	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1671	3438	1538	1752	1792	0	0	3343	0
Flt Permitted				0.950			0.463					
Satd. Flow (perm)	0	0	0	1671	3438	1538	854	1792	0	0	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	8%	5%	5%	3%	6%	0%	0%	8%	5%
Adj. Flow (vph)	0	0	0	520	987	42	233	51	0	0	25	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	520	987	42	233	51	0	0	25	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				52.0	52.0	52.0	22.0	38.0			16.0	
Total Split (%)				57.8%	57.8%	57.8%	24.4%	42.2%			17.8%	
Maximum Green (s)				46.0	46.0	46.0	16.0	32.0			10.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			Max	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				39.0	39.0	39.0	39.0	39.0			10.0	
Actuated g/C Ratio				0.43	0.43	0.43	0.43	0.43			0.11	
v/c Ratio				0.72	0.66	0.06	0.39	0.07			0.07	
Control Delay				26.3	22.0	0.1	32.6	27.8			36.4	
Queue Delay				0.1	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				26.4	22.0	0.1	32.6	27.8			36.4	
LOS				C	C	A	C	C			D	
Approach Delay					22.9			31.8			36.4	
Approach LOS					C			C			D	
90th %ile Green (s)				46.0	46.0	46.0	16.0	32.0			10.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
70th %ile Green (s)				45.2	45.2	45.2	16.8	32.8			10.0	
70th %ile Term Code				Gap	Gap	Gap	Coord	Coord			MaxR	
50th %ile Green (s)				40.2	40.2	40.2	21.8	37.8			10.0	
50th %ile Term Code				Gap	Gap	Gap	Coord	Coord			MaxR	
30th %ile Green (s)				35.3	35.3	35.3	26.7	42.7			10.0	
30th %ile Term Code				Gap	Gap	Gap	Coord	Coord			MaxR	
10th %ile Green (s)				28.5	28.5	28.5	33.5	49.5			10.0	
10th %ile Term Code				Gap	Gap	Gap	Coord	Coord			MaxR	
Stops (vph)				383	693	0	210	44			23	
Fuel Used(gal)				9	16	0	3	1			0	
CO Emissions (g/hr)				621	1099	14	227	45			25	
NOx Emissions (g/hr)				121	214	3	44	9			5	
VOC Emissions (g/hr)				144	255	3	53	11			6	
Dilemma Vehicles (#)				0	43	0	0	0			0	
Queue Length 50th (ft)				230	221	0	136	23			6	
Queue Length 95th (ft)				303	250	0	216	67			18	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				854	1757	839	598	775			371	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				19	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.62	0.56	0.05	0.39	0.07			0.07	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 4 (4%), Referenced to phase 3:NBL and 7:NBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 24.4	Intersection LOS: C
Intersection Capacity Utilization 78.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



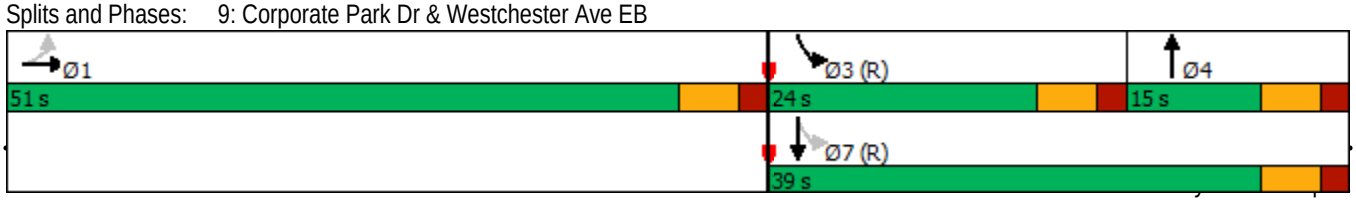
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	260	968	349	0	0	0	0	9	2	326	192	0
Future Volume (vph)	260	968	349	0	0	0	0	9	2	326	192	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.960						0.973				
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1752	3358	0	0	0	0	0	3196	0	1626	1863	0
Flt Permitted	0.950									0.513		
Satd. Flow (perm)	1752	3358	0	0	0	0	0	3196	0	878	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		81						2				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1870			373			359	
Travel Time (s)		34.4			42.5			8.5			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	4%	1%	0%	0%	0%	0%	11%	5%	11%	2%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	50	0	0	0
Adj. Flow (vph)	271	1008	364	0	0	0	0	9	2	340	200	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	271	1372	0	0	0	0	0	11	0	340	200	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Detector Phase	1	1						4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0						4.0		1.0	4.0	
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	51.0	51.0						15.0		24.0	39.0	
Total Split (%)	56.7%	56.7%						16.7%		26.7%	43.3%	
Maximum Green (s)	45.0	45.0						9.0		18.0	33.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Recall Mode	None	None						None		C-Max	C-Max	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	10.0	10.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	42.9	42.9						6.3		35.1	35.1	
Actuated g/C Ratio	0.48	0.48						0.07		0.39	0.39	
v/c Ratio	0.32	0.83						0.05		0.56	0.28	
Control Delay	20.6	28.9						35.2		37.6	30.4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay	0.0	0.0						0.0		1.5	0.0	
Total Delay	20.6	28.9						35.2		39.1	30.4	
LOS	C	C						D		D	C	
Approach Delay		27.5						35.2			35.9	
Approach LOS		C						D			D	
90th %ile Green (s)	45.0	45.0						9.0		18.0	33.0	
90th %ile Term Code	Max	Max						Hold		Coord	Coord	
70th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
70th %ile Term Code	Max	Max						Skip		Coord	Coord	
50th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
50th %ile Term Code	Max	Max						Skip		Coord	Coord	
30th %ile Green (s)	42.6	42.6						0.0		35.4	35.4	
30th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
10th %ile Green (s)	37.1	37.1						0.0		40.9	40.9	
10th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
Stops (vph)	155	1001						12		312	184	
Fuel Used(gal)	6	36						0		5	3	
CO Emissions (g/hr)	431	2488						12		359	192	
NOx Emissions (g/hr)	84	484						2		70	37	
VOC Emissions (g/hr)	100	577						3		83	44	
Dilemma Vehicles (#)	0	133						0		0	0	
Queue Length 50th (ft)	92	235						2		204	120	
Queue Length 95th (ft)	142	306						11		#294	187	
Internal Link Dist (ft)		1937			1790			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	876	1719						321		608	725	
Starvation Cap Reductn	0	0						0		126	0	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.31	0.80						0.03		0.71	0.28	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 29.6 Intersection LOS: C
Intersection Capacity Utilization 78.3% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB

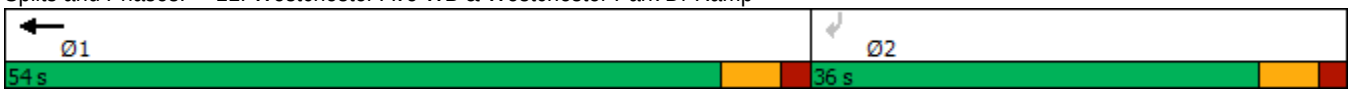


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱↱
Traffic Volume (vph)	0	0	801	0	0	207
Future Volume (vph)	0	0	801	0	0	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3374	0	0	2787
Flt Permitted						
Satd. Flow (perm)	0	0	3374	0	0	2787
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						228
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	7%	0%	0%	2%
Adj. Flow (vph)	0	0	861	0	0	223
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	861	0	0	223
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			25.0			10.0
Total Split (s)			54.0			36.0
Total Split (%)			60.0%			40.0%
Maximum Green (s)			48.0			30.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			23.1			30.1
Actuated g/C Ratio			0.35			0.46
v/c Ratio			0.72			0.16
Control Delay			22.0			2.3
Queue Delay			0.0			0.0
Total Delay			22.0			2.3
LOS			C			A
Approach Delay			22.0		2.3	
Approach LOS			C		A	
90th %ile Green (s)			30.9			30.0
90th %ile Term Code			Gap			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			26.1			30.0
70th %ile Term Code			Gap			MaxR
50th %ile Green (s)			22.7			30.0
50th %ile Term Code			Gap			MaxR
30th %ile Green (s)			20.5			30.0
30th %ile Term Code			Gap			MaxR
10th %ile Green (s)			16.5			30.0
10th %ile Term Code			Gap			MaxR
Stops (vph)			642			19
Fuel Used(gal)			11			0
CO Emissions (g/hr)			754			33
NOx Emissions (g/hr)			147			6
VOC Emissions (g/hr)			175			8
Dilemma Vehicles (#)			46			0
Queue Length 50th (ft)			152			0
Queue Length 95th (ft)			208			19
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			2492			1409
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.35			0.16

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 65.3	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 39.4%	ICU Level of Service A
Analysis Period (min) 15	
90th %ile Actuated Cycle: 72.9	
70th %ile Actuated Cycle: 68.1	
50th %ile Actuated Cycle: 64.7	
30th %ile Actuated Cycle: 62.5	
10th %ile Actuated Cycle: 58.5	

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



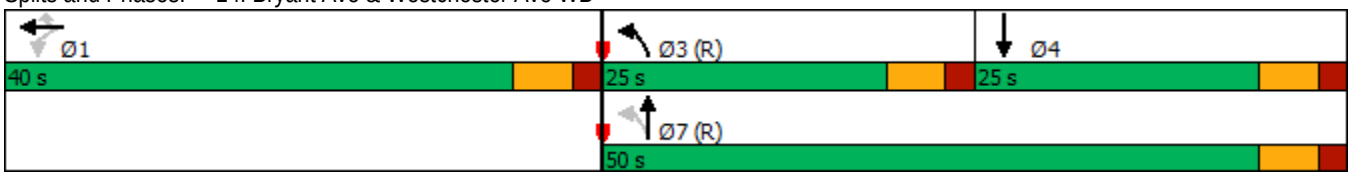
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	457	545	6	146	53	0	0	38	43
Future Volume (vph)	0	0	0	457	545	6	146	53	0	0	38	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.921	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1736	3374	1077	1671	1338	0	0	2638	0
Flt Permitted				0.950			0.500					
Satd. Flow (perm)	0	0	0	1736	3374	1077	880	1338	0	0	2638	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109					46	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	4%	7%	50%	8%	42%	0%	0%	16%	35%
Adj. Flow (vph)	0	0	0	491	586	6	157	57	0	0	41	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	491	586	6	157	57	0	0	87	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				40.0	40.0	40.0	25.0	50.0			25.0	
Total Split (%)				44.4%	44.4%	44.4%	27.8%	55.6%			27.8%	
Maximum Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				30.7	30.7	30.7	47.3	47.3			16.3	
Actuated g/C Ratio				0.34	0.34	0.34	0.53	0.53			0.18	
v/c Ratio				0.83	0.51	0.01	0.22	0.08			0.17	
Control Delay				40.1	24.9	0.0	5.9	5.4			16.7	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				40.1	24.9	0.0	5.9	5.4			16.7	
LOS				D	C	A	A	A			B	
Approach Delay					31.6			5.7			16.7	
Approach LOS					C			A			B	
90th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				33.3	33.3	33.3	19.7	44.7			19.0	
50th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Hold	
30th %ile Green (s)				29.4	29.4	29.4	23.6	48.6			19.0	
30th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Hold	
10th %ile Green (s)				22.6	22.6	22.6	55.4	55.4			0.0	
10th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Skip	
Stops (vph)				402	411	0	28	9			35	
Fuel Used(gal)				10	10	0	1	0			1	
CO Emissions (g/hr)				728	703	3	59	20			49	
NOx Emissions (g/hr)				142	137	0	11	4			9	
VOC Emissions (g/hr)				169	163	1	14	5			11	
Dilemma Vehicles (#)				0	26	0	0	0			0	
Queue Length 50th (ft)				241	131	0	17	6			10	
Queue Length 95th (ft)				361	177	0	m29	m12			30	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				655	1274	474	703	703			593	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.75	0.46	0.01	0.22	0.08			0.15	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 24 (27%), Referenced to phase 3:NBL and 7:NBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 26.7	Intersection LOS: C
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave WB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	1205	60	0	0	0	0	120	246	178	317	0
Future Volume (vph)	79	1205	60	0	0	0	0	120	246	178	317	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.899				
Flt Protected	0.950										0.982	
Satd. Flow (prot)	1410	3539	1468	0	0	0	0	3121	0	0	3390	0
Flt Permitted	0.950										0.580	
Satd. Flow (perm)	1410	3539	1468	0	0	0	0	3121	0	0	2003	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109					69				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	28%	2%	10%	0%	0%	0%	0%	6%	3%	2%	6%	0%
Adj. Flow (vph)	87	1324	66	0	0	0	0	132	270	196	348	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	1324	66	0	0	0	0	402	0	0	544	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	56.0	56.0	56.0					23.0		11.0	34.0	
Total Split (%)	62.2%	62.2%	62.2%					25.6%		12.2%	37.8%	
Maximum Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	44.5	44.5	44.5					17.0			33.5	
Actuated g/C Ratio	0.49	0.49	0.49					0.19			0.37	
v/c Ratio	0.12	0.76	0.08					0.62			0.60	
Control Delay	11.4	21.2	0.8					32.4			9.6	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	11.4	21.2	0.8					32.4			9.6	
LOS	B	C	A					C			A	
Approach Delay		19.7						32.4			9.6	
Approach LOS		B						C			A	
90th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	48.7	48.7	48.7					17.0		6.3	29.3	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	45.5	45.5	45.5					17.0		9.5	32.5	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	41.9	41.9	41.9					17.0		13.1	36.1	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	36.3	36.3	36.3					17.0		18.7	41.7	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	38	908	2					274			245	
Fuel Used(gal)	1	19	0					6			4	
CO Emissions (g/hr)	59	1298	18					411			283	
NOx Emissions (g/hr)	12	252	3					80			55	
VOC Emissions (g/hr)	14	301	4					95			66	
Dilemma Vehicles (#)	0	55	0					0			0	
Queue Length 50th (ft)	25	297	0					92			52	
Queue Length 95th (ft)	44	336	7					141			#126	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	783	1966	864					645			908	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.11	0.67	0.08					0.62			0.60	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 6.6 (7%), Referenced to phase 3:SBL and 7:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 19.5	Intersection LOS: B
Intersection Capacity Utilization 73.5%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB

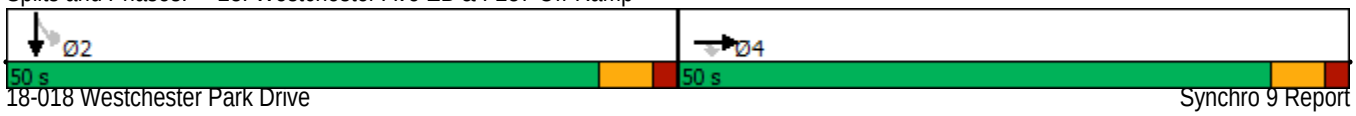
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	586	212	0	0	0	0	0	0	1147	471	0
Future Volume (vph)	0	586	212	0	0	0	0	0	0	1147	471	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			219							180		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1870			548			285			896	
Travel Time (s)		31.9			12.5			6.5			20.4	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	12%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	604	219	0	0	0	0	0	0	1182	486	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	604	219	0	0	0	0	0	0	1182	486	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		50.0	50.0							50.0	50.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		44.0	44.0							44.0	44.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		35.7	35.7							44.4	44.4	
Actuated g/C Ratio		0.39	0.39							0.48	0.48	
v/c Ratio		0.88	0.32							1.23	0.54	
Control Delay		41.0	3.7							134.8	21.1	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		41.0	3.7							134.8	21.1	
LOS		D	A							F	C	
Approach Delay		31.1									101.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C									F	
90th %ile Green (s)		44.0	44.0							44.0	44.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		44.0	44.0							44.0	44.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		37.9	37.9							44.0	44.0	
50th %ile Term Code		Gap	Gap							MaxR	MaxR	
30th %ile Green (s)		31.4	31.4							44.0	44.0	
30th %ile Term Code		Gap	Gap							MaxR	MaxR	
10th %ile Green (s)		23.5	23.5							44.0	44.0	
10th %ile Term Code		Gap	Gap							MaxR	MaxR	
Stops (vph)		513	18							775	326	
Fuel Used(gal)		17	3							44	7	
CO Emissions (g/hr)		1214	212							3060	497	
NOx Emissions (g/hr)		236	41							595	97	
VOC Emissions (g/hr)		281	49							709	115	
Dilemma Vehicles (#)		27	0							0	0	
Queue Length 50th (ft)		318	0							~833	200	
Queue Length 95th (ft)		464	41							#1172	332	
Internal Link Dist (ft)		1790			468			205			816	
Turn Bay Length (ft)												
Base Capacity (vph)		854	807							962	904	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		0.71	0.27							1.23	0.54	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 92.2
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.23
Intersection Signal Delay: 78.3 Intersection LOS: E
Intersection Capacity Utilization 104.4% ICU Level of Service G
Analysis Period (min) 15
90th %ile Actuated Cycle: 100
70th %ile Actuated Cycle: 100
50th %ile Actuated Cycle: 93.9
30th %ile Actuated Cycle: 87.4
10th %ile Actuated Cycle: 79.5
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Westchester Ave EB & I-287 Off-Ramp



Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1257	0	0	215
Future Vol, veh/h	0	0	1257	0	0	215
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	0	0	21
Mvmt Flow	0	0	1366	0	0	234

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	683
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.32
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.51
Pot Cap-1 Maneuver	-	0	0	350
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	350
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	33.7
HCM LOS		D

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	350
HCM Lane V/C Ratio	-	0.668
HCM Control Delay (s)	-	33.7
HCM Lane LOS	-	D
HCM 95th %tile Q(veh)	-	4.6

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1159	0	0	58
Future Vol, veh/h	0	0	1159	0	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	0	0	1220	0	0	61

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	610
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.35
Pot Cap-1 Maneuver	-	0	0	430
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	430
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	14.8
HCM LOS		B

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	430
HCM Lane V/C Ratio	-	0.142
HCM Control Delay (s)	-	14.8
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.5

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2018 Existing
Jurisdiction	Harrison	Time Period Analyzed	Peak AM Hour
Project Description	18-018 3 Westchester PArk Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	602	132
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	15.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.870
Flow Rate (vi),pc/h	720	165
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.16	0.09

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.573
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	47.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	720	Ramp Junction Speed (S), mi/h	47.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	7.6
Level of Service (LOS)	A	Density in Ramp Influence Area (DR), pc/mi/ln	6.8

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	2/28/2019
Agency	Provident Design Engineering	Analysis Year	2018
Jurisdiction	Harrison	Time Period Analyzed	Peak AM Hour
Project Description	18-018 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	856	985	83	272
Peak Hour Factor (PHF)	0.92	0.92	0.92	0.92
Total Trucks, %	3.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	1.000	1.000	1.000
Flow Rate (v_i), pc/h	958	1071	90	296
Weaving Flow Rate (v_W), pc/h	1367	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1048	Density-Based Capacity (c_{IWL}), pc/h/ln		1580
Total Flow Rate (v), pc/h	2415	Demand Flow-Based Capacity (c_{IW}), pc/h		4240
Volume Ratio (VR)	0.566	Weaving Segment Capacity (c_W), veh/h		3124
Minimum Lane Change Rate (LC_{MIN}), lc/h	1367	Adjusted Weaving Area Capacity, pc/h		3160
Maximum Weaving Length (L_{MAX}), ft	8608	Volume-to-Capacity Ratio (v/c)		0.76

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	26	Average Weaving Speed (S_W), mi/h	37.8
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	102	Average Non-Weaving Speed (S_{NW}), mi/h	34.4
Weaving Lane Change Rate (LC_W), lc/h	1398	Average Speed (S), mi/h	36.2
Weaving Lane Change Rate (LC_{All}), lc/h	1500	Density (D), pc/mi/ln	33.4
Weaving Intensity Factor (W)	0.538	Level of Service (LOS)	D

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	515	1063	157	289	142	0	0	119	0
Future Volume (vph)	0	0	0	515	1063	157	289	142	0	0	119	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1671	3438	1538	1752	1792	0	0	3343	0
Flt Permitted				0.950			0.673					
Satd. Flow (perm)	0	0	0	1671	3438	1538	1241	1792	0	0	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						165						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	8%	5%	5%	3%	6%	0%	0%	8%	5%
Adj. Flow (vph)	0	0	0	542	1119	165	304	149	0	0	125	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	542	1119	165	304	149	0	0	125	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5		3	8			4	
Permitted Phases				5		5	8					
Detector Phase				5	5	5	3	8			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0			10.0	
Total Split (s)				42.0	42.0	42.0	32.0	44.0			12.0	
Total Split (%)				46.7%	46.7%	46.7%	35.6%	48.9%			13.3%	
Maximum Green (s)				36.0	36.0	36.0	26.0	38.0			6.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag				Lead	Lead	Lead	Lag				Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				C-Min	C-Min	C-Min	None	None			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				37.5	37.5	37.5	40.5	40.5			8.5	
Actuated g/C Ratio				0.42	0.42	0.42	0.45	0.45			0.09	
v/c Ratio				0.78	0.78	0.22	0.43	0.18			0.40	
Control Delay				33.0	28.0	3.8	24.4	17.1			41.8	
Queue Delay				0.0	0.0	0.0	0.9	0.0			0.6	

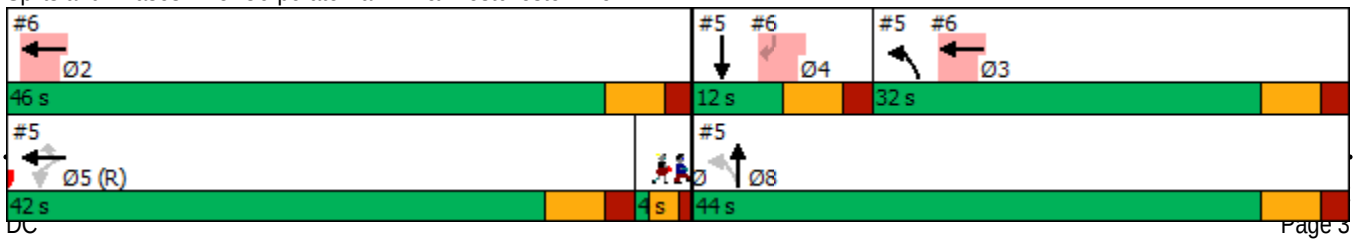
Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	1.0
Minimum Split (s)	24.0	4.0
Total Split (s)	46.0	4.0
Total Split (%)	51%	4%
Maximum Green (s)	40.0	1.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	2.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lag
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				33.0	28.0	3.8	25.3	17.1			42.4	
LOS				C	C	A	C	B			D	
Approach Delay					27.3			22.6			42.4	
Approach LOS					C			C			D	
90th %ile Green (s)				36.0	36.0	36.0	26.0	42.0			10.0	
90th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
70th %ile Green (s)				36.0	36.0	36.0	26.3	42.0			9.7	
70th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
50th %ile Green (s)				36.0	36.0	36.0	27.3	42.0			8.7	
50th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
30th %ile Green (s)				36.0	36.0	36.0	28.3	42.0			7.7	
30th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
10th %ile Green (s)				43.4	43.4	43.4	22.3	34.6			6.3	
10th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
Stops (vph)				425	891	17	262	113			109	
Fuel Used(gal)				10	20	1	4	2			2	
CO Emissions (g/hr)				715	1409	75	258	106			133	
NOx Emissions (g/hr)				139	274	15	50	21			26	
VOC Emissions (g/hr)				166	327	17	60	25			31	
Dilemma Vehicles (#)				0	59	0	0	0			0	
Queue Length 50th (ft)				268	291	0	150	71			35	
Queue Length 95th (ft)				#444	376	37	268	125			62	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				695	1431	737	720	820			315	
Starvation Cap Reductn				0	0	0	196	0			0	
Spillback Cap Reductn				0	0	0	0	0			43	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.78	0.78	0.22	0.58	0.18			0.46	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 27.2 Intersection LOS: C
Intersection Capacity Utilization 62.1% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø2	Ø6
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	36.0	0.0
90th %ile Term Code	Coord	Skip
70th %ile Green (s)	36.0	0.0
70th %ile Term Code	Coord	Skip
50th %ile Green (s)	36.0	0.0
50th %ile Term Code	Coord	Skip
30th %ile Green (s)	36.0	0.0
30th %ile Term Code	Coord	Skip
10th %ile Green (s)	43.4	0.0
10th %ile Term Code	Coord	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

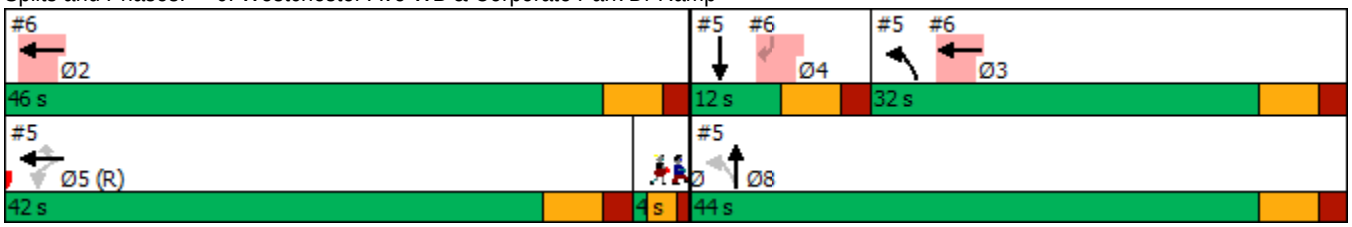
Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Lane Configurations			↑↑			↱↱					
Traffic Volume (vph)	0	0	1352	0	0	165					
Future Volume (vph)	0	0	1352	0	0	165					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88					
Frt						0.850					
Flt Protected											
Satd. Flow (prot)	0	0	3438	0	0	2707					
Flt Permitted											
Satd. Flow (perm)	0	0	3438	0	0	2707					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)						182					
Link Speed (mph)		30	30		30						
Link Distance (ft)		573	376		253						
Travel Time (s)		13.0	8.5		5.8						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95					
Heavy Vehicles (%)	0%	0%	5%	0%	0%	5%					
Adj. Flow (vph)	0	0	1423	0	0	174					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	1423	0	0	174					
Turn Type			NA			Perm					
Protected Phases			2 3				2	3	5	6	8
Permitted Phases						4					
Detector Phase			2 3			4					
Switch Phase											
Minimum Initial (s)						4.0	5.0	1.0	5.0	1.0	4.0
Minimum Split (s)						10.0	24.0	11.0	26.0	4.0	16.0
Total Split (s)						12.0	46.0	32.0	42.0	4.0	44.0
Total Split (%)						13.3%	51%	36%	47%	4%	49%
Maximum Green (s)						6.0	40.0	26.0	36.0	1.0	38.0
Yellow Time (s)						4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)						2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)						0.0					
Total Lost Time (s)						6.0					
Lead/Lag						Lead		Lag	Lead	Lag	
Lead-Lag Optimize?						Yes		Yes	Yes	Yes	
Vehicle Extension (s)						3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode						None	None	None	C-Min	None	None
Walk Time (s)							7.0		7.0	7.0	
Flash Dont Walk (s)							11.0		10.0	11.0	
Pedestrian Calls (#/hr)							0		0	0	
Act Effct Green (s)			69.5			8.5					
Actuated g/C Ratio			0.77			0.09					
v/c Ratio			0.54			0.41					
Control Delay			3.6			8.7					
Queue Delay			0.2			0.0					
Total Delay			3.8			8.7					
LOS			A			A					
Approach Delay			3.8		8.7						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Approach LOS			A		A						
90th %ile Green (s)						10.0	36.0	26.0	36.0	0.0	42.0
90th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
70th %ile Green (s)						9.7	36.0	26.3	36.0	0.0	42.0
70th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
50th %ile Green (s)						8.7	36.0	27.3	36.0	0.0	42.0
50th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
30th %ile Green (s)						7.7	36.0	28.3	36.0	0.0	42.0
30th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
10th %ile Green (s)						6.3	43.4	22.3	43.4	0.0	34.6
10th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
Stops (vph)			326			23					
Fuel Used(gal)			7			1					
CO Emissions (g/hr)			472			52					
NOx Emissions (g/hr)			92			10					
VOC Emissions (g/hr)			109			12					
Dilemma Vehicles (#)			0			0					
Queue Length 50th (ft)			56			0					
Queue Length 95th (ft)			146			29					
Internal Link Dist (ft)		493	296		173						
Turn Bay Length (ft)											
Base Capacity (vph)			2760			420					
Starvation Cap Reductn			520			0					
Spillback Cap Reductn			0			0					
Storage Cap Reductn			0			0					
Reduced v/c Ratio			0.64			0.41					

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 36 (40%), Referenced to phase 5:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 4.3	Intersection LOS: A
Intersection Capacity Utilization 53.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Westchester Ave WB & Corporate Park Dr Ramp



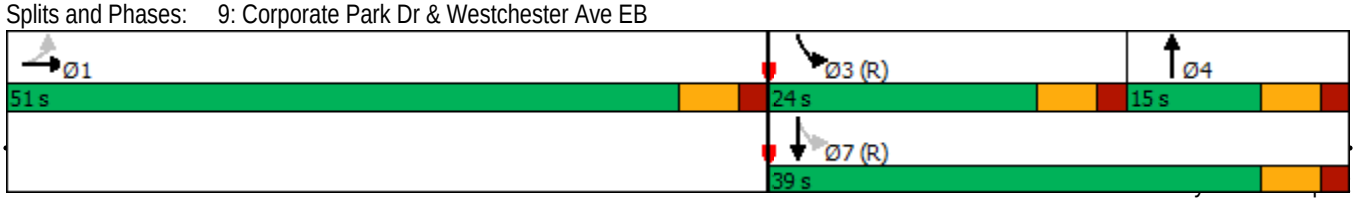
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	421	1013	356	0	0	0	0	10	2	439	196	0
Future Volume (vph)	421	1013	356	0	0	0	0	10	2	439	196	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.961						0.975				
Flt Protected	0.950									0.950	0.981	
Satd. Flow (prot)	1752	3361	0	0	0	0	0	2996	0	1545	1678	0
Flt Permitted	0.950									0.513	0.358	
Satd. Flow (perm)	1752	3361	0	0	0	0	0	2996	0	834	612	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		78						2				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1907			373			359	
Travel Time (s)		34.4			43.3			8.5			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	4%	1%	0%	0%	0%	0%	11%	50%	11%	2%	0%
Adj. Flow (vph)	439	1055	371	0	0	0	0	10	2	457	204	0
Shared Lane Traffic (%)										29%		
Lane Group Flow (vph)	439	1426	0	0	0	0	0	12	0	324	337	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Detector Phase	1	1						4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0						4.0		1.0	4.0	
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	51.0	51.0						15.0		24.0	39.0	
Total Split (%)	56.7%	56.7%						16.7%		26.7%	43.3%	
Maximum Green (s)	45.0	45.0						9.0		18.0	33.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Recall Mode	None	None						None		C-Max	C-Max	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	10.0	10.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	43.9	43.9						6.4		34.1	34.1	
Actuated g/C Ratio	0.49	0.49						0.07		0.38	0.38	
v/c Ratio	0.51	0.85						0.06		0.58	0.56	
Control Delay	22.2	27.8						35.6		39.8	39.1	
Queue Delay	0.0	0.0						0.0		1.6	1.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	22.2	27.8						35.6		41.3	41.0	
LOS	C	C						D		D	D	
Approach Delay		26.5						35.6			41.2	
Approach LOS		C						D			D	
90th %ile Green (s)	45.0	45.0						9.0		18.0	33.0	
90th %ile Term Code	Max	Max						Hold		Coord	Coord	
70th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
70th %ile Term Code	Max	Max						Skip		Coord	Coord	
50th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
50th %ile Term Code	Max	Max						Skip		Coord	Coord	
30th %ile Green (s)	44.9	44.9						0.0		33.1	33.1	
30th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
10th %ile Green (s)	39.5	39.5						0.0		38.5	38.5	
10th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
Stops (vph)	273	894						13		295	301	
Fuel Used(gal)	10	35						0		5	5	
CO Emissions (g/hr)	723	2465						14		351	360	
NOx Emissions (g/hr)	141	480						3		68	70	
VOC Emissions (g/hr)	168	571						3		81	83	
Dilemma Vehicles (#)	0	121						0		0	0	
Queue Length 50th (ft)	155	254						3		213	222	
Queue Length 95th (ft)	m231	350						11		m278	m#292	
Internal Link Dist (ft)		1937			1827			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	876	1719						301		562	600	
Starvation Cap Reductn	0	0						0		107	137	
Spillback Cap Reductn	2	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.50	0.83						0.04		0.71	0.73	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 30.4 Intersection LOS: C
Intersection Capacity Utilization 81.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB

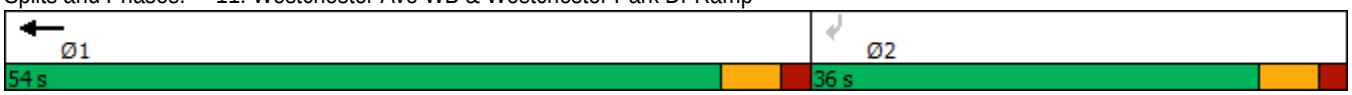


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱↱
Traffic Volume (vph)	0	0	967	0	0	231
Future Volume (vph)	0	0	967	0	0	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3374	0	0	2787
Flt Permitted						
Satd. Flow (perm)	0	0	3374	0	0	2787
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						143
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	7%	0%	0%	2%
Adj. Flow (vph)	0	0	1040	0	0	248
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1040	0	0	248
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			25.0			10.0
Total Split (s)			54.0			36.0
Total Split (%)			60.0%			40.0%
Maximum Green (s)			48.0			30.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			29.4			30.2
Actuated g/C Ratio			0.41			0.42
v/c Ratio			0.75			0.20
Control Delay			21.7			7.3
Queue Delay			0.0			0.0
Total Delay			21.7			7.3
LOS			C			A
Approach Delay			21.7		7.3	
Approach LOS			C		A	
90th %ile Green (s)			39.4			30.0
90th %ile Term Code			Gap			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			33.4			30.0
70th %ile Term Code			Gap			MaxR
50th %ile Green (s)			29.3			30.0
50th %ile Term Code			Gap			MaxR
30th %ile Green (s)			25.5			30.0
30th %ile Term Code			Gap			MaxR
10th %ile Green (s)			20.8			30.0
10th %ile Term Code			Gap			MaxR
Stops (vph)			762			64
Fuel Used(gal)			13			1
CO Emissions (g/hr)			897			70
NOx Emissions (g/hr)			175			14
VOC Emissions (g/hr)			208			16
Dilemma Vehicles (#)			51			0
Queue Length 50th (ft)			198			15
Queue Length 95th (ft)			262			46
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			2277			1258
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.46			0.20

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 71.7	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 44.8%	ICU Level of Service A
Analysis Period (min) 15	
90th %ile Actuated Cycle: 81.4	
70th %ile Actuated Cycle: 75.4	
50th %ile Actuated Cycle: 71.3	
30th %ile Actuated Cycle: 67.5	
10th %ile Actuated Cycle: 62.8	

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



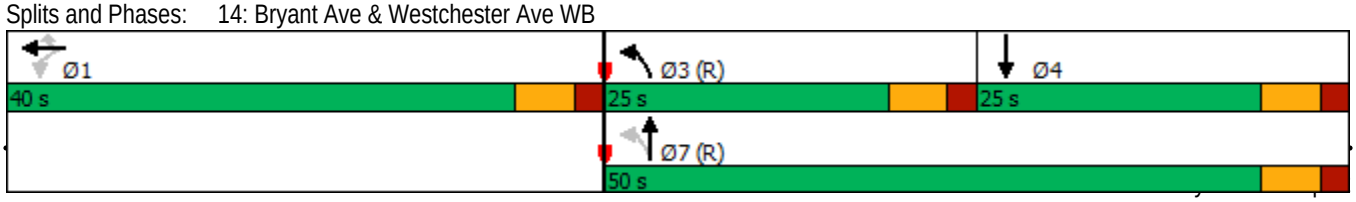
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	510	682	6	149	54	0	0	40	44
Future Volume (vph)	0	0	0	510	682	6	149	54	0	0	40	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.922	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1736	3374	1077	1671	1338	0	0	2643	0
Flt Permitted				0.950			0.499					
Satd. Flow (perm)	0	0	0	1736	3374	1077	878	1338	0	0	2643	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109					47	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	4%	7%	50%	8%	42%	0%	0%	16%	35%
Adj. Flow (vph)	0	0	0	548	733	6	160	58	0	0	43	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	548	733	6	160	58	0	0	90	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				40.0	40.0	40.0	25.0	50.0			25.0	
Total Split (%)				44.4%	44.4%	44.4%	27.8%	55.6%			27.8%	
Maximum Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				32.4	32.4	32.4	45.6	45.6			16.3	
Actuated g/C Ratio				0.36	0.36	0.36	0.51	0.51			0.18	
v/c Ratio				0.88	0.60	0.01	0.24	0.09			0.17	
Control Delay				43.8	25.7	0.0	5.9	5.3			16.8	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				43.8	25.7	0.0	5.9	5.3			16.8	
LOS				D	C	A	A	A			B	
Approach Delay					33.3			5.7			16.8	
Approach LOS					C			A			B	
90th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				33.2	33.2	33.2	19.8	44.8			19.0	
30th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Hold	
10th %ile Green (s)				26.6	26.6	26.6	51.4	51.4			0.0	
10th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Skip	
Stops (vph)				442	532	0	26	9			37	
Fuel Used(gal)				12	13	0	1	0			1	
CO Emissions (g/hr)				835	900	3	59	21			51	
NOx Emissions (g/hr)				162	175	0	11	4			10	
VOC Emissions (g/hr)				194	209	1	14	5			12	
Dilemma Vehicles (#)				0	35	0	0	0			0	
Queue Length 50th (ft)				278	171	0	18	6			10	
Queue Length 95th (ft)				#460	229	0	m25	m10			30	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				655	1274	474	671	678			595	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.84	0.58	0.01	0.24	0.09			0.15	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 24 (27%), Referenced to phase 3:NBL and 7:NBTL, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.88	
Intersection Signal Delay: 28.6	Intersection LOS: C
Intersection Capacity Utilization 53.2%	ICU Level of Service A
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave WB



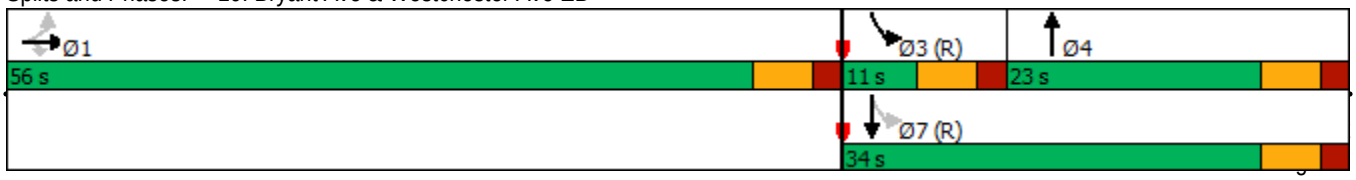
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	1364	61	0	0	0	0	122	286	193	357	0
Future Volume (vph)	81	1364	61	0	0	0	0	122	286	193	357	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.895				
Flt Protected	0.950										0.983	
Satd. Flow (prot)	1410	3539	1468	0	0	0	0	3110	0	0	3393	0
Flt Permitted	0.950										0.560	
Satd. Flow (perm)	1410	3539	1468	0	0	0	0	3110	0	0	1933	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109					51				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	28%	2%	10%	0%	0%	0%	0%	6%	3%	2%	6%	0%
Adj. Flow (vph)	89	1499	67	0	0	0	0	134	314	212	392	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	1499	67	0	0	0	0	448	0	0	604	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	56.0	56.0	56.0					23.0		11.0	34.0	
Total Split (%)	62.2%	62.2%	62.2%					25.6%		12.2%	37.8%	
Maximum Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	47.4	47.4	47.4					17.0			30.6	
Actuated g/C Ratio	0.53	0.53	0.53					0.19			0.34	
v/c Ratio	0.12	0.81	0.08					0.92dr			0.77	
Control Delay	10.5	21.3	0.8					37.4			15.6	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	10.5	21.3	0.8					37.4			15.6	
LOS	B	C	A					D			B	
Approach Delay		19.9						37.4			15.6	
Approach LOS		B						D			B	
90th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
70th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
50th %ile Green (s)	49.4	49.4	49.4					17.0		5.6	28.6	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	46.4	46.4	46.4					17.0		8.6	31.6	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	41.0	41.0	41.0					17.0		14.0	37.0	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	36	1056	2					334			327	
Fuel Used(gal)	1	21	0					7			5	
CO Emissions (g/hr)	58	1491	18					498			382	
NOx Emissions (g/hr)	11	290	3					97			74	
VOC Emissions (g/hr)	13	345	4					115			89	
Dilemma Vehicles (#)	0	66	0					0			0	
Queue Length 50th (ft)	23	329	0					112			106	
Queue Length 95th (ft)	45	412	7					165			m#158	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	783	1966	864					628			782	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.11	0.76	0.08					0.71			0.77	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6.6 (7%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 21.8 Intersection LOS: C
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



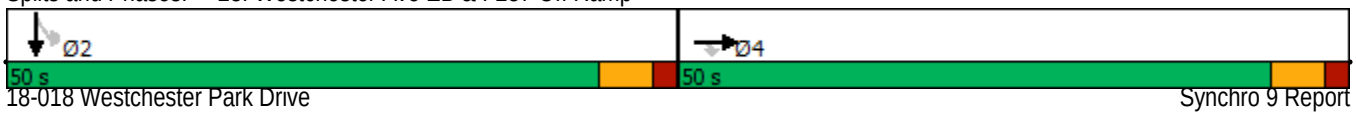
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	750	259	0	0	0	0	0	0	1170	480	0
Future Volume (vph)	0	750	259	0	0	0	0	0	0	1170	480	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			244							106		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1907			451			213			1028	
Travel Time (s)		32.5			10.3			4.8			23.4	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	12%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	773	267	0	0	0	0	0	0	1206	495	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	773	267	0	0	0	0	0	0	1206	495	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		50.0	50.0							50.0	50.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		44.0	44.0							44.0	44.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		44.0	44.0							44.0	44.0	
Actuated g/C Ratio		0.44	0.44							0.44	0.44	
v/c Ratio		0.99	0.35							1.41	0.60	
Control Delay		58.9	4.4							217.9	25.0	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		58.9	4.4							217.9	25.0	
LOS		E	A							F	C	
Approach Delay		44.9									161.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									F	
90th %ile Green (s)		44.0	44.0							44.0	44.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		44.0	44.0							44.0	44.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		44.0	44.0							44.0	44.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		44.0	44.0							44.0	44.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		44.0	44.0							44.0	44.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		636	31							829	356	
Fuel Used(gal)		25	4							66	8	
CO Emissions (g/hr)		1744	272							4603	577	
NOx Emissions (g/hr)		339	53							896	112	
VOC Emissions (g/hr)		404	63							1067	134	
Dilemma Vehicles (#)		35	0							0	0	
Queue Length 50th (ft)		475	8							~1008	234	
Queue Length 95th (ft)		#735	54							#1264	340	
Internal Link Dist (ft)		1827			371			133			948	
Turn Bay Length (ft)												
Base Capacity (vph)		781	771							853	827	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		0.99	0.35							1.41	0.60	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.41
Intersection Signal Delay: 117.4 Intersection LOS: F
Intersection Capacity Utilization 114.3% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 100
70th %ile Actuated Cycle: 100
50th %ile Actuated Cycle: 100
30th %ile Actuated Cycle: 100
10th %ile Actuated Cycle: 100
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Westchester Ave EB & I-287 Off Ramp



Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1513	0	0	220
Future Vol, veh/h	0	0	1513	0	0	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	0	0	21
Mvmt Flow	0	0	1645	0	0	239

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	823
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.32
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.51
Pot Cap-1 Maneuver	-	0	0	280
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	280
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	62.6
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	280
HCM Lane V/C Ratio	-	0.854
HCM Control Delay (s)	-	62.6
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	7.3

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 No-Build
Jurisdiction	Harrison	Time Period Analyzed	Peak AM Hour
Project Description	18-018 3 Westchester PArk Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	683	164
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	15.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.870
Flow Rate (vi),pc/h	817	205
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.18	0.11

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.576
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	47.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	817	Ramp Junction Speed (S), mi/h	47.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	8.6
Level of Service (LOS)	A	Density in Ramp Influence Area (DR), pc/mi/ln	7.7

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	2/28/2019
Agency	Provident Design Engineering	Analysis Year	2019
Jurisdiction	Harrison	Time Period Analyzed	AM Peak
Project Description	18-018 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	956	1154	85	277
Peak Hour Factor (PHF)	0.92	0.92	0.92	0.92
Total Trucks, %	3.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1070	1254	92	301
Weaving Flow Rate (v_W), pc/h	1555	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1162	Density-Based Capacity (c_{IWL}), pc/h/ln		1574
Total Flow Rate (v), pc/h	2717	Demand Flow-Based Capacity (c_{IW}), pc/h		4196
Volume Ratio (VR)	0.572	Weaving Segment Capacity (c_W), veh/h		3112
Minimum Lane Change Rate (LC_{MIN}), lc/h	1555	Adjusted Weaving Area Capacity, pc/h		3148
Maximum Weaving Length (L_{MAX}), ft	8680	Volume-to-Capacity Ratio (v/c)		0.86

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	29	Average Weaving Speed (S_W), mi/h	36.9
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	125	Average Non-Weaving Speed (S_{NW}), mi/h	32.3
Weaving Lane Change Rate (LC_W), lc/h	1586	Average Speed (S), mi/h	34.8
Weaving Lane Change Rate (LC_{All}), lc/h	1711	Density (D), pc/mi/ln	39.0
Weaving Intensity Factor (W)	0.597	Level of Service (LOS)	E

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	515	1013	157	224	144	0	0	119	0
Future Volume (vph)	0	0	0	515	1013	157	224	144	0	0	119	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1671	3438	1538	1752	1792	0	0	3343	0
Flt Permitted				0.950			0.362					
Satd. Flow (perm)	0	0	0	1671	3438	1538	668	1792	0	0	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						165						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	8%	5%	5%	3%	6%	0%	0%	8%	5%
Adj. Flow (vph)	0	0	0	542	1066	165	236	152	0	0	125	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	542	1066	165	236	152	0	0	125	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5		3	8			4	
Permitted Phases				5		5	8					
Detector Phase				5	5	5	3	8			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0			4.0	
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0			10.0	
Total Split (s)				42.0	42.0	42.0	32.0	44.0			12.0	
Total Split (%)				46.7%	46.7%	46.7%	35.6%	48.9%			13.3%	
Maximum Green (s)				36.0	36.0	36.0	26.0	38.0			6.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag				Lead	Lead	Lead	Lead				Lag	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				C-Min	C-Min	C-Min	None	None			None	
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				40.5	40.5	40.5	37.5	37.5			6.9	
Actuated g/C Ratio				0.45	0.45	0.45	0.42	0.42			0.08	
v/c Ratio				0.72	0.69	0.21	0.41	0.20			0.49	
Control Delay				28.7	23.8	3.7	31.3	27.8			46.8	
Queue Delay				0.2	0.0	0.0	0.0	0.0			0.0	

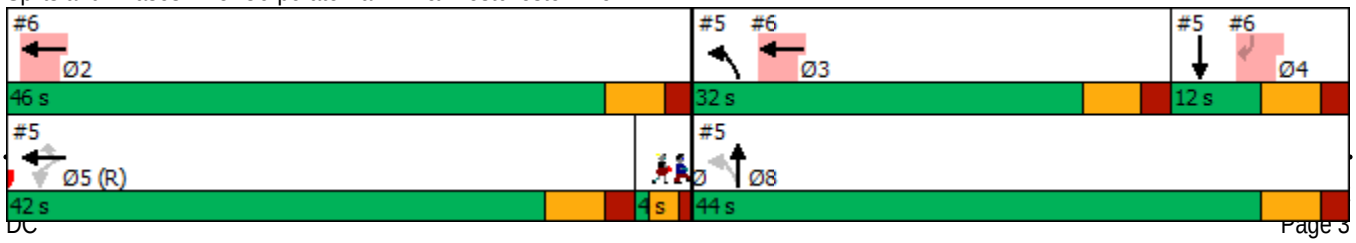
Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	1.0
Minimum Split (s)	16.0	4.0
Total Split (s)	46.0	4.0
Total Split (%)	51%	4%
Maximum Green (s)	40.0	1.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	2.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lag
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				28.9	23.8	3.7	31.3	27.8			46.8	
LOS				C	C	A	C	C			D	
Approach Delay					23.5			29.9			46.8	
Approach LOS					C			C			D	
90th %ile Green (s)				36.0	36.0	36.0	30.0	42.0			6.0	
90th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
70th %ile Green (s)				36.0	36.0	36.0	30.0	42.0			6.0	
70th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
50th %ile Green (s)				37.2	37.2	37.2	26.1	40.8			8.7	
50th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
30th %ile Green (s)				43.4	43.4	43.4	20.9	34.6			7.7	
30th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
10th %ile Green (s)				50.0	50.0	50.0	15.7	28.0			6.3	
10th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
Stops (vph)				408	794	17	172	108			112	
Fuel Used(gal)				10	18	1	3	2			2	
CO Emissions (g/hr)				672	1244	75	210	127			142	
NOx Emissions (g/hr)				131	242	15	41	25			28	
VOC Emissions (g/hr)				156	288	17	49	29			33	
Dilemma Vehicles (#)				0	56	0	0	0			0	
Queue Length 50th (ft)				261	264	0	0	0			35	
Queue Length 95th (ft)				#444	351	37	217	154			66	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				752	1548	783	610	799			257	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				13	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.73	0.69	0.21	0.39	0.19			0.49	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 48 (53%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.72
Intersection Signal Delay: 25.8 Intersection LOS: C
Intersection Capacity Utilization 57.6% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø2	Ø6
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	36.0	0.0
90th %ile Term Code	Coord	Skip
70th %ile Green (s)	36.0	0.0
70th %ile Term Code	Coord	Skip
50th %ile Green (s)	37.2	0.0
50th %ile Term Code	Coord	Skip
30th %ile Green (s)	43.4	0.0
30th %ile Term Code	Coord	Skip
10th %ile Green (s)	50.0	0.0
10th %ile Term Code	Coord	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

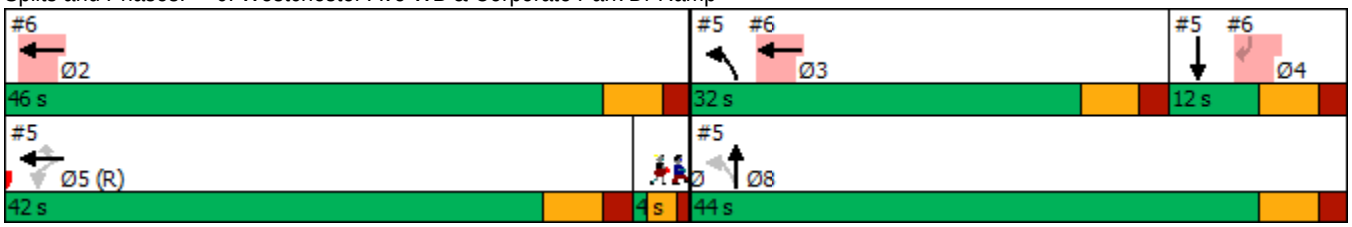
Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Lane Configurations			↑↑			↱↱					
Traffic Volume (vph)	0	0	1237	0	0	161					
Future Volume (vph)	0	0	1237	0	0	161					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88					
Frt						0.850					
Flt Protected											
Satd. Flow (prot)	0	0	3438	0	0	2707					
Flt Permitted											
Satd. Flow (perm)	0	0	3438	0	0	2707					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)						224					
Link Speed (mph)		30	30		30						
Link Distance (ft)		573	376		253						
Travel Time (s)		13.0	8.5		5.8						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95					
Heavy Vehicles (%)	0%	0%	5%	0%	0%	5%					
Adj. Flow (vph)	0	0	1302	0	0	169					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	1302	0	0	169					
Turn Type			NA			Perm					
Protected Phases			2 3				2	3	5	6	8
Permitted Phases						4					
Detector Phase			2 3			4					
Switch Phase											
Minimum Initial (s)						4.0	5.0	1.0	5.0	1.0	5.0
Minimum Split (s)						10.0	16.0	11.0	26.0	4.0	16.0
Total Split (s)						12.0	46.0	32.0	42.0	4.0	44.0
Total Split (%)						13.3%	51%	36%	47%	4%	49%
Maximum Green (s)						6.0	40.0	26.0	36.0	1.0	38.0
Yellow Time (s)						4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)						2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)						0.0					
Total Lost Time (s)						6.0					
Lead/Lag						Lag		Lead	Lead	Lag	
Lead-Lag Optimize?						Yes		Yes	Yes	Yes	
Vehicle Extension (s)						3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode						None	None	None	C-Min	None	None
Walk Time (s)							7.0		7.0	7.0	7.0
Flash Dont Walk (s)							11.0		10.0	11.0	11.0
Pedestrian Calls (#/hr)							0		0	0	0
Act Effct Green (s)			71.1			6.9					
Actuated g/C Ratio			0.79			0.08					
v/c Ratio			0.48			0.41					
Control Delay			0.5			5.3					
Queue Delay			0.3			0.0					
Total Delay			0.8			5.3					
LOS			A			A					
Approach Delay			0.8		5.3						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Approach LOS			A		A						
90th %ile Green (s)						6.0	36.0	30.0	36.0	0.0	42.0
90th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
70th %ile Green (s)						6.0	36.0	30.0	36.0	0.0	42.0
70th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
50th %ile Green (s)						8.7	37.2	26.1	37.2	0.0	40.8
50th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
30th %ile Green (s)						7.7	43.4	20.9	43.4	0.0	34.6
30th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
10th %ile Green (s)						6.3	50.0	15.7	50.0	0.0	28.0
10th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
Stops (vph)			10			9					
Fuel Used(gal)			4			1					
CO Emissions (g/hr)			267			38					
NOx Emissions (g/hr)			52			7					
VOC Emissions (g/hr)			62			9					
Dilemma Vehicles (#)			0			0					
Queue Length 50th (ft)			0			0					
Queue Length 95th (ft)			0			15					
Internal Link Dist (ft)		493	296		173						
Turn Bay Length (ft)											
Base Capacity (vph)			2777			415					
Starvation Cap Reductn			703			0					
Spillback Cap Reductn			0			0					
Storage Cap Reductn			0			0					
Reduced v/c Ratio			0.63			0.41					

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 48 (53%), Referenced to phase 5:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 1.3	Intersection LOS: A
Intersection Capacity Utilization 49.8%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Westchester Ave WB & Corporate Park Dr Ramp



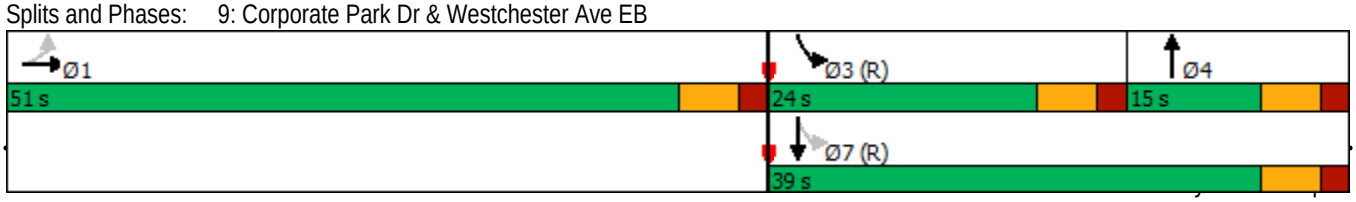
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	359	1056	357	0	0	0	0	8	2	439	196	0
Future Volume (vph)	359	1056	357	0	0	0	0	8	2	439	196	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.962						0.970				
Flt Protected	0.950									0.950	0.981	
Satd. Flow (prot)	1752	3364	0	0	0	0	0	2948	0	1545	1678	0
Flt Permitted	0.950									0.513	0.358	
Satd. Flow (perm)	1752	3364	0	0	0	0	0	2948	0	834	612	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74						2				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1970			373			359	
Travel Time (s)		34.4			44.8			8.5			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	4%	1%	0%	0%	0%	0%	11%	50%	11%	2%	0%
Adj. Flow (vph)	374	1100	372	0	0	0	0	8	2	457	204	0
Shared Lane Traffic (%)										29%		
Lane Group Flow (vph)	374	1472	0	0	0	0	0	10	0	324	337	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Detector Phase	1	1						4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0						4.0		1.0	4.0	
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	51.0	51.0						15.0		24.0	39.0	
Total Split (%)	56.7%	56.7%						16.7%		26.7%	43.3%	
Maximum Green (s)	45.0	45.0						9.0		18.0	33.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Recall Mode	None	None						None		C-Max	C-Max	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	10.0	10.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	44.1	44.1						6.3		33.9	33.9	
Actuated g/C Ratio	0.49	0.49						0.07		0.38	0.38	
v/c Ratio	0.44	0.87						0.05		0.58	0.57	
Control Delay	20.3	28.3						35.0		38.9	38.2	
Queue Delay	0.0	0.0						0.0		1.7	2.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	20.3	28.3						35.0		40.6	40.2	
LOS	C	C						C		D	D	
Approach Delay		26.7						35.0			40.4	
Approach LOS		C						C			D	
90th %ile Green (s)	45.0	45.0						9.0		18.0	33.0	
90th %ile Term Code	Max	Max						Hold		Coord	Coord	
70th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
70th %ile Term Code	Max	Max						Skip		Coord	Coord	
50th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
50th %ile Term Code	Max	Max						Skip		Coord	Coord	
30th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
30th %ile Term Code	Max	Max						Skip		Coord	Coord	
10th %ile Green (s)	40.7	40.7						0.0		37.3	37.3	
10th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
Stops (vph)	217	901						10		291	297	
Fuel Used(gal)	9	36						0		5	5	
CO Emissions (g/hr)	596	2539						11		346	354	
NOx Emissions (g/hr)	116	494						2		67	69	
VOC Emissions (g/hr)	138	589						3		80	82	
Dilemma Vehicles (#)	0	133						0		0	0	
Queue Length 50th (ft)	127	258						2		213	222	
Queue Length 95th (ft)	m187	366						10		m#298	m#330	
Internal Link Dist (ft)		1937			1890			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	876	1719						296		557	595	
Starvation Cap Reductn	0	0						0		107	137	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.43	0.86						0.03		0.72	0.74	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 30.3 Intersection LOS: C
Intersection Capacity Utilization 82.1% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB

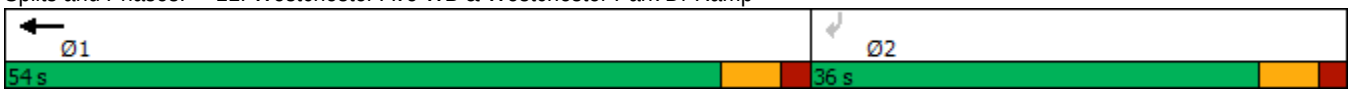


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱↱
Traffic Volume (vph)	0	0	967	0	0	292
Future Volume (vph)	0	0	967	0	0	292
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3374	0	0	2787
Flt Permitted						
Satd. Flow (perm)	0	0	3374	0	0	2787
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						143
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	7%	0%	0%	2%
Adj. Flow (vph)	0	0	1040	0	0	314
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1040	0	0	314
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			25.0			10.0
Total Split (s)			54.0			36.0
Total Split (%)			60.0%			40.0%
Maximum Green (s)			48.0			30.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			29.4			30.2
Actuated g/C Ratio			0.41			0.42
v/c Ratio			0.75			0.25
Control Delay			21.7			8.7
Queue Delay			0.0			0.0
Total Delay			21.7			8.7
LOS			C			A
Approach Delay			21.7		8.7	
Approach LOS			C		A	
90th %ile Green (s)			39.4			30.0
90th %ile Term Code			Gap			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			33.4			30.0
70th %ile Term Code			Gap			MaxR
50th %ile Green (s)			29.3			30.0
50th %ile Term Code			Gap			MaxR
30th %ile Green (s)			25.5			30.0
30th %ile Term Code			Gap			MaxR
10th %ile Green (s)			20.8			30.0
10th %ile Term Code			Gap			MaxR
Stops (vph)			762			99
Fuel Used(gal)			13			1
CO Emissions (g/hr)			897			101
NOx Emissions (g/hr)			175			20
VOC Emissions (g/hr)			208			23
Dilemma Vehicles (#)			51			0
Queue Length 50th (ft)			198			25
Queue Length 95th (ft)			262			63
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			2277			1258
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.46			0.25

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 71.7	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 46.9%	ICU Level of Service A
Analysis Period (min) 15	
90th %ile Actuated Cycle: 81.4	
70th %ile Actuated Cycle: 75.4	
50th %ile Actuated Cycle: 71.3	
30th %ile Actuated Cycle: 67.5	
10th %ile Actuated Cycle: 62.8	

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



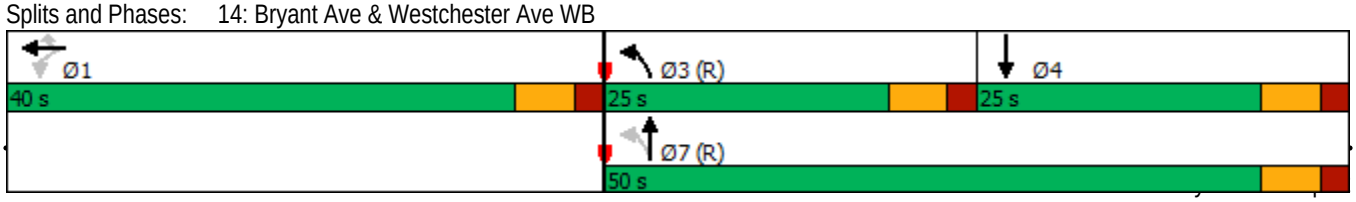
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	554	698	7	149	54	0	0	38	44
Future Volume (vph)	0	0	0	554	698	7	149	54	0	0	38	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.920	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1736	3374	1077	1671	1338	0	0	2633	0
Flt Permitted				0.950			0.500					
Satd. Flow (perm)	0	0	0	1736	3374	1077	880	1338	0	0	2633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109					47	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	4%	7%	50%	8%	42%	0%	0%	16%	35%
Adj. Flow (vph)	0	0	0	596	751	8	160	58	0	0	41	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	596	751	8	160	58	0	0	88	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				40.0	40.0	40.0	25.0	50.0			25.0	
Total Split (%)				44.4%	44.4%	44.4%	27.8%	55.6%			27.8%	
Maximum Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				33.4	33.4	33.4	44.6	44.6			16.3	
Actuated g/C Ratio				0.37	0.37	0.37	0.50	0.50			0.18	
v/c Ratio				0.93	0.60	0.02	0.25	0.09			0.17	
Control Delay				50.0	25.2	0.0	6.0	5.3			16.5	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				50.0	25.2	0.0	6.0	5.3			16.5	
LOS				D	C	A	A	A			B	
Approach Delay					36.0			5.8			16.5	
Approach LOS					D			A			B	
90th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
10th %ile Green (s)				30.8	30.8	30.8	47.2	47.2			0.0	
10th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Skip	
Stops (vph)				476	542	0	26	9			35	
Fuel Used(gal)				14	13	0	1	0			1	
CO Emissions (g/hr)				953	915	3	59	21			49	
NOx Emissions (g/hr)				185	178	1	11	4			9	
VOC Emissions (g/hr)				221	212	1	14	5			11	
Dilemma Vehicles (#)				0	38	0	0	0			0	
Queue Length 50th (ft)				315	176	0	17	6			10	
Queue Length 95th (ft)				#522	235	0	m26	m11			30	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				655	1274	474	653	663			592	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.91	0.59	0.02	0.25	0.09			0.15	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 31.0 Intersection LOS: C
Intersection Capacity Utilization 55.6% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave WB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	1313	61	0	0	0	0	122	274	233	359	0
Future Volume (vph)	81	1313	61	0	0	0	0	122	274	233	359	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.896				
Flt Protected	0.950										0.981	
Satd. Flow (prot)	1410	3539	1468	0	0	0	0	3112	0	0	3391	0
Flt Permitted	0.950										0.559	
Satd. Flow (perm)	1410	3539	1468	0	0	0	0	3112	0	0	1932	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109					48				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	28%	2%	10%	0%	0%	0%	0%	6%	3%	2%	6%	0%
Adj. Flow (vph)	89	1443	67	0	0	0	0	134	301	256	395	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	1443	67	0	0	0	0	435	0	0	651	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	56.0	56.0	56.0					23.0		11.0	34.0	
Total Split (%)	62.2%	62.2%	62.2%					25.6%		12.2%	37.8%	
Maximum Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	46.6	46.6	46.6					17.0			31.4	
Actuated g/C Ratio	0.52	0.52	0.52					0.19			0.35	
v/c Ratio	0.12	0.79	0.08					0.89dr			0.88dl	
Control Delay	10.7	21.0	0.9					36.8			15.8	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	10.7	21.0	0.9					36.8			15.8	
LOS	B	C	A					D			B	
Approach Delay		19.6						36.8			15.8	
Approach LOS		B						D			B	
90th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
70th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
50th %ile Green (s)	48.4	48.4	48.4					17.0		6.6	29.6	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	45.0	45.0	45.0					17.0		10.0	33.0	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	39.7	39.7	39.7					17.0		15.3	38.3	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	37	1003	2					323			292	
Fuel Used(gal)	1	20	0					7			6	
CO Emissions (g/hr)	59	1420	18					480			390	
NOx Emissions (g/hr)	11	276	3					93			76	
VOC Emissions (g/hr)	14	329	4					111			90	
Dilemma Vehicles (#)	0	64	0					0			0	
Queue Length 50th (ft)	24	317	0					108			93	
Queue Length 95th (ft)	45	385	7					161			m#154	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	783	1966	864					626			809	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.11	0.73	0.08					0.69			0.80	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6.6 (7%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.80
Intersection Signal Delay: 21.5 Intersection LOS: C
Intersection Capacity Utilization 80.2% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB

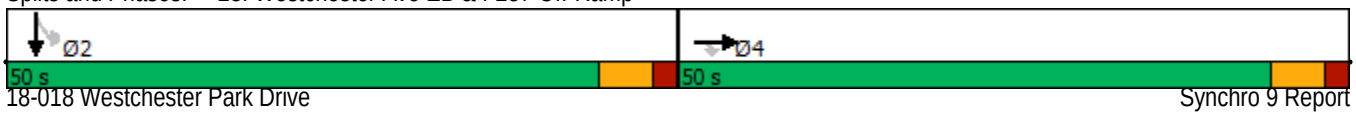
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	760	288	0	0	0	0	0	0	1170	480	0
Future Volume (vph)	0	760	288	0	0	0	0	0	0	1170	480	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1776	1442	0	0	0	0	0	0	1805	1900	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1776	1442	0	0	0	0	0	0	1805	1900	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			252							103		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1970			482			185			1061	
Travel Time (s)		33.6			11.0			4.2			24.1	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	12%	0%	0%	0%	0%	1%	0%	0%	0%	0%
Adj. Flow (vph)	0	784	297	0	0	0	0	0	0	1206	495	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	784	297	0	0	0	0	0	0	1206	495	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		50.0	50.0							50.0	50.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		44.0	44.0							44.0	44.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		44.0	44.0							44.0	44.0	
Actuated g/C Ratio		0.44	0.44							0.44	0.44	
v/c Ratio		1.00	0.38							1.42	0.59	
Control Delay		62.4	5.3							219.4	24.8	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		62.4	5.3							219.4	24.8	
LOS		E	A							F	C	
Approach Delay		46.7									162.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									F	
90th %ile Green (s)		44.0	44.0							44.0	44.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		44.0	44.0							44.0	44.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		44.0	44.0							44.0	44.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		44.0	44.0							44.0	44.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		44.0	44.0							44.0	44.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		646	41							829	354	
Fuel Used(gal)		26	5							67	8	
CO Emissions (g/hr)		1829	319							4649	584	
NOx Emissions (g/hr)		356	62							905	114	
VOC Emissions (g/hr)		424	74							1077	135	
Dilemma Vehicles (#)		35	0							0	0	
Queue Length 50th (ft)		~491	16							~1010	233	
Queue Length 95th (ft)		#752	68							#1266	338	
Internal Link Dist (ft)		1890			402			105			981	
Turn Bay Length (ft)												
Base Capacity (vph)		781	775							851	836	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.00	0.38							1.42	0.59	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.42
Intersection Signal Delay: 117.7 Intersection LOS: F
Intersection Capacity Utilization 114.8% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 100
70th %ile Actuated Cycle: 100
50th %ile Actuated Cycle: 100
30th %ile Actuated Cycle: 100
10th %ile Actuated Cycle: 100
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Westchester Ave EB & I-287 Off-Ramp



Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1465	0	0	218
Future Vol, veh/h	0	0	1465	0	0	218
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	0	0	21
Mvmt Flow	0	0	1592	0	0	237

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	796
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.32
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.51
Pot Cap-1 Maneuver	-	0	0	292
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	292
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	54.3
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	292
HCM Lane V/C Ratio	-	0.811
HCM Control Delay (s)	-	54.3
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	6.6

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 No-Build
Jurisdiction	Harrison	Time Period Analyzed	Peak AM Hour
Project Description	18-018 3 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	701	162
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	15.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.870
Flow Rate (vi),pc/h	838	202
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.19	0.11

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.576
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	47.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	838	Ramp Junction Speed (S), mi/h	47.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	8.8
Level of Service (LOS)	A	Density in Ramp Influence Area (DR), pc/mi/ln	7.9

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	2/28/2019
Agency	Provident Design Engineering	Analysis Year	2019
Jurisdiction	Harrison	Time Period Analyzed	AM Peak
Project Description	18-018 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	935	1128	85	277
Peak Hour Factor (PHF)	0.92	0.92	0.92	0.92
Total Trucks, %	3.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1047	1226	92	301
Weaving Flow Rate (v_W), pc/h	1527	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1139	Density-Based Capacity (c_{IWL}), pc/h/ln		1573
Total Flow Rate (v), pc/h	2666	Demand Flow-Based Capacity (c_{IW}), pc/h		4188
Volume Ratio (VR)	0.573	Weaving Segment Capacity (c_W), veh/h		3110
Minimum Lane Change Rate (LC_{MIN}), lc/h	1527	Adjusted Weaving Area Capacity, pc/h		3146
Maximum Weaving Length (L_{MAX}), ft	8692	Volume-to-Capacity Ratio (v/c)		0.85

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	28	Average Weaving Speed (S_W), mi/h	37.1
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	120	Average Non-Weaving Speed (S_{NW}), mi/h	32.6
Weaving Lane Change Rate (LC_W), lc/h	1558	Average Speed (S), mi/h	35.0
Weaving Lane Change Rate (LC_{All}), lc/h	1678	Density (D), pc/mi/ln	38.1
Weaving Intensity Factor (W)	0.587	Level of Service (LOS)	E

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	515	1013	157	224	129	0	0	119	0
Future Volume (vph)	0	0	0	515	1013	157	224	129	0	0	119	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1671	3438	1538	1752	1792	0	0	3343	0
Flt Permitted				0.950			0.673					
Satd. Flow (perm)	0	0	0	1671	3438	1538	1241	1792	0	0	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						165						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	8%	5%	5%	3%	6%	0%	0%	8%	5%
Adj. Flow (vph)	0	0	0	542	1066	165	236	136	0	0	125	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	542	1066	165	236	136	0	0	125	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5		3	8			4	
Permitted Phases				5		5	8					
Detector Phase				5	5	5	3	8			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0			4.0	
Minimum Split (s)				26.0	26.0	26.0	11.0	24.0			10.0	
Total Split (s)				42.0	42.0	42.0	32.0	44.0			12.0	
Total Split (%)				46.7%	46.7%	46.7%	35.6%	48.9%			13.3%	
Maximum Green (s)				36.0	36.0	36.0	26.0	38.0			6.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag				Lead	Lead	Lead	Lag				Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				C-Min	C-Min	C-Min	None	None			None	
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				38.8	38.8	38.8	39.2	39.2			8.5	
Actuated g/C Ratio				0.43	0.43	0.43	0.44	0.44			0.09	
v/c Ratio				0.75	0.72	0.22	0.35	0.17			0.40	
Control Delay				30.9	25.3	3.7	22.6	17.5			41.8	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.6	

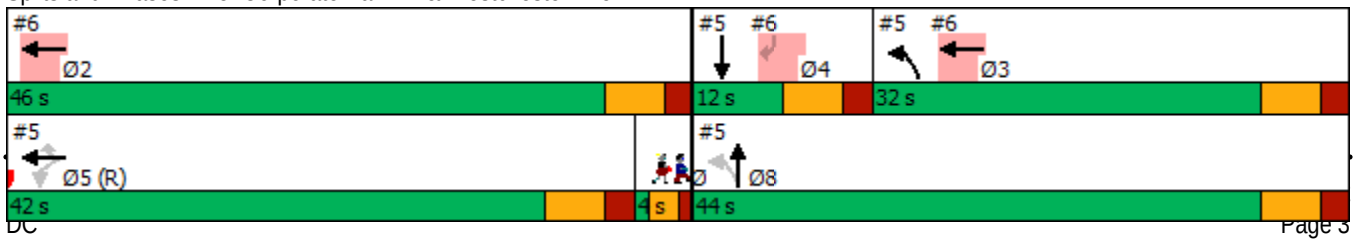
Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	1.0
Minimum Split (s)	24.0	4.0
Total Split (s)	46.0	4.0
Total Split (%)	51%	4%
Maximum Green (s)	40.0	1.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	2.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lag
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				30.9	25.3	3.7	22.6	17.5			42.4	
LOS				C	C	A	C	B			D	
Approach Delay					25.0			20.7			42.4	
Approach LOS					C			C			D	
90th %ile Green (s)				36.0	36.0	36.0	26.0	42.0			10.0	
90th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
70th %ile Green (s)				36.0	36.0	36.0	26.3	42.0			9.7	
70th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
50th %ile Green (s)				36.0	36.0	36.0	27.3	42.0			8.7	
50th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
30th %ile Green (s)				39.5	39.5	39.5	24.8	38.5			7.7	
30th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
10th %ile Green (s)				46.6	46.6	46.6	19.1	31.4			6.3	
10th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
Stops (vph)				417	817	17	191	101			109	
Fuel Used(gal)				10	18	1	3	1			2	
CO Emissions (g/hr)				694	1282	75	190	96			133	
NOx Emissions (g/hr)				135	249	15	37	19			26	
VOC Emissions (g/hr)				161	297	17	44	22			31	
Dilemma Vehicles (#)				0	56	0	0	0			0	
Queue Length 50th (ft)				268	271	0	112	64			35	
Queue Length 95th (ft)				#444	351	37	197	116			62	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				720	1483	757	712	806			315	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			43	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.75	0.72	0.22	0.33	0.17			0.46	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.75
Intersection Signal Delay: 25.3 Intersection LOS: C
Intersection Capacity Utilization 57.6% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø2	Ø6
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	36.0	0.0
90th %ile Term Code	Coord	Skip
70th %ile Green (s)	36.0	0.0
70th %ile Term Code	Coord	Skip
50th %ile Green (s)	36.0	0.0
50th %ile Term Code	Coord	Skip
30th %ile Green (s)	39.5	0.0
30th %ile Term Code	Coord	Skip
10th %ile Green (s)	46.6	0.0
10th %ile Term Code	Coord	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

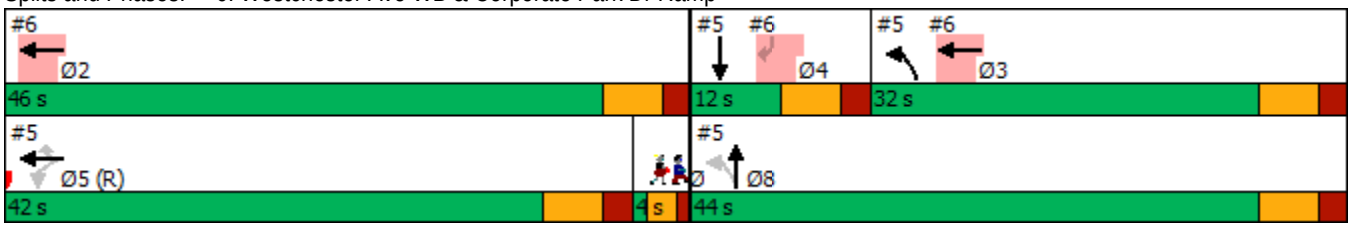
Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Lane Configurations											
Traffic Volume (vph)	0	0	1237	0	0	149					
Future Volume (vph)	0	0	1237	0	0	149					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88					
Frt						0.850					
Flt Protected											
Satd. Flow (prot)	0	0	3438	0	0	2707					
Flt Permitted											
Satd. Flow (perm)	0	0	3438	0	0	2707					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)						224					
Link Speed (mph)		30	30		30						
Link Distance (ft)		573	376		253						
Travel Time (s)		13.0	8.5		5.8						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95					
Heavy Vehicles (%)	0%	0%	5%	0%	0%	5%					
Adj. Flow (vph)	0	0	1302	0	0	157					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	1302	0	0	157					
Turn Type			NA			Perm					
Protected Phases			2 3				2	3	5	6	8
Permitted Phases						4					
Detector Phase			2 3			4					
Switch Phase											
Minimum Initial (s)						4.0	5.0	1.0	5.0	1.0	5.0
Minimum Split (s)						10.0	24.0	11.0	26.0	4.0	24.0
Total Split (s)						12.0	46.0	32.0	42.0	4.0	44.0
Total Split (%)						13.3%	51%	36%	47%	4%	49%
Maximum Green (s)						6.0	40.0	26.0	36.0	1.0	38.0
Yellow Time (s)						4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)						2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)						0.0					
Total Lost Time (s)						6.0					
Lead/Lag						Lead		Lag	Lead	Lag	
Lead-Lag Optimize?						Yes		Yes	Yes	Yes	
Vehicle Extension (s)						3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode						None	None	None	C-Min	None	None
Walk Time (s)							7.0		7.0	7.0	7.0
Flash Dont Walk (s)							11.0		10.0	11.0	11.0
Pedestrian Calls (#/hr)							0		0	0	0
Act Effct Green (s)			69.5			8.5					
Actuated g/C Ratio			0.77			0.09					
v/c Ratio			0.49			0.34					
Control Delay			3.3			3.7					
Queue Delay			0.2			0.0					
Total Delay			3.5			3.7					
LOS			A			A					
Approach Delay			3.5		3.7						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Approach LOS			A		A						
90th %ile Green (s)						10.0	36.0	26.0	36.0	0.0	42.0
90th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
70th %ile Green (s)						9.7	36.0	26.3	36.0	0.0	42.0
70th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
50th %ile Green (s)						8.7	36.0	27.3	36.0	0.0	42.0
50th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
30th %ile Green (s)						7.7	39.5	24.8	39.5	0.0	38.5
30th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
10th %ile Green (s)						6.3	46.6	19.1	46.6	0.0	31.4
10th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
Stops (vph)			284			6					
Fuel Used(gal)			6			0					
CO Emissions (g/hr)			421			31					
NOx Emissions (g/hr)			82			6					
VOC Emissions (g/hr)			98			7					
Dilemma Vehicles (#)			0			0					
Queue Length 50th (ft)			54			0					
Queue Length 95th (ft)			125			10					
Internal Link Dist (ft)		493	296		173						
Turn Bay Length (ft)											
Base Capacity (vph)			2714			457					
Starvation Cap Reductn			562			0					
Spillback Cap Reductn			0			0					
Storage Cap Reductn			0			0					
Reduced v/c Ratio			0.61			0.34					

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 36 (40%), Referenced to phase 5:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 3.5	Intersection LOS: A
Intersection Capacity Utilization 49.4%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Westchester Ave WB & Corporate Park Dr Ramp



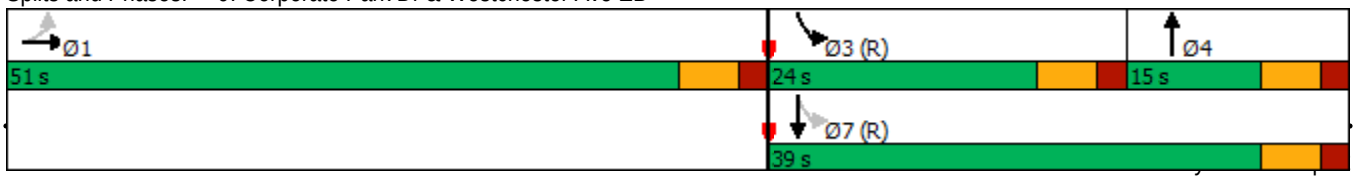
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	344	1056	357	0	0	0	0	8	2	439	196	0
Future Volume (vph)	344	1056	357	0	0	0	0	8	2	439	196	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.962						0.970				
Flt Protected	0.950									0.950	0.981	
Satd. Flow (prot)	1752	3364	0	0	0	0	0	2948	0	1545	1678	0
Flt Permitted	0.950									0.513	0.358	
Satd. Flow (perm)	1752	3364	0	0	0	0	0	2948	0	834	612	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		74						2				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1913			373			359	
Travel Time (s)		34.4			43.5			8.5			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	4%	1%	0%	0%	0%	0%	11%	50%	11%	2%	0%
Adj. Flow (vph)	358	1100	372	0	0	0	0	8	2	457	204	0
Shared Lane Traffic (%)										29%		
Lane Group Flow (vph)	358	1472	0	0	0	0	0	10	0	324	337	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Detector Phase	1	1						4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0						4.0		1.0	4.0	
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	51.0	51.0						15.0		24.0	39.0	
Total Split (%)	56.7%	56.7%						16.7%		26.7%	43.3%	
Maximum Green (s)	45.0	45.0						9.0		18.0	33.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Recall Mode	None	None						None		C-Max	C-Max	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	10.0	10.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	44.1	44.1						6.3		33.9	33.9	
Actuated g/C Ratio	0.49	0.49						0.07		0.38	0.38	
v/c Ratio	0.42	0.87						0.05		0.58	0.57	
Control Delay	20.3	28.5						35.0		39.8	39.1	
Queue Delay	0.0	0.0						0.0		1.7	2.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	20.3	28.5						35.0		41.5	41.1	
LOS	C	C						C		D	D	
Approach Delay		26.9						35.0			41.3	
Approach LOS		C						C			D	
90th %ile Green (s)	45.0	45.0						9.0		18.0	33.0	
90th %ile Term Code	Max	Max						Hold		Coord	Coord	
70th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
70th %ile Term Code	Max	Max						Skip		Coord	Coord	
50th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
50th %ile Term Code	Max	Max						Skip		Coord	Coord	
30th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
30th %ile Term Code	Max	Max						Skip		Coord	Coord	
10th %ile Green (s)	40.7	40.7						0.0		37.3	37.3	
10th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
Stops (vph)	207	903						10		291	296	
Fuel Used(gal)	8	36						0		5	5	
CO Emissions (g/hr)	571	2544						11		349	358	
NOx Emissions (g/hr)	111	495						2		68	70	
VOC Emissions (g/hr)	132	590						3		81	83	
Dilemma Vehicles (#)	0	134						0		0	0	
Queue Length 50th (ft)	122	260						2		213	222	
Queue Length 95th (ft)	m179	366						10		m287	m#308	
Internal Link Dist (ft)		1937			1833			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	876	1719						296		557	595	
Starvation Cap Reductn	0	0						0		107	137	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.41	0.86						0.03		0.72	0.74	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 30.7 Intersection LOS: C
Intersection Capacity Utilization 82.1% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB

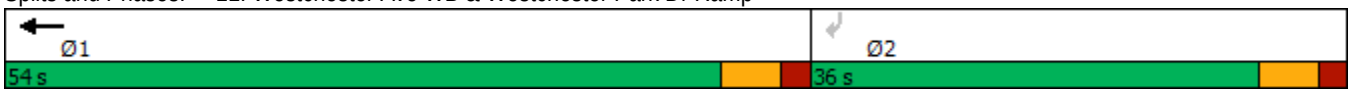


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱↱
Traffic Volume (vph)	0	0	967	0	0	277
Future Volume (vph)	0	0	967	0	0	277
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3374	0	0	2787
Flt Permitted						
Satd. Flow (perm)	0	0	3374	0	0	2787
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						143
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	7%	0%	0%	2%
Adj. Flow (vph)	0	0	1040	0	0	298
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1040	0	0	298
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			25.0			10.0
Total Split (s)			54.0			36.0
Total Split (%)			60.0%			40.0%
Maximum Green (s)			48.0			30.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			29.4			30.2
Actuated g/C Ratio			0.41			0.42
v/c Ratio			0.75			0.24
Control Delay			21.7			8.4
Queue Delay			0.0			0.0
Total Delay			21.7			8.4
LOS			C			A
Approach Delay			21.7		8.4	
Approach LOS			C		A	
90th %ile Green (s)			39.4			30.0
90th %ile Term Code			Gap			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			33.4			30.0
70th %ile Term Code			Gap			MaxR
50th %ile Green (s)			29.3			30.0
50th %ile Term Code			Gap			MaxR
30th %ile Green (s)			25.5			30.0
30th %ile Term Code			Gap			MaxR
10th %ile Green (s)			20.8			30.0
10th %ile Term Code			Gap			MaxR
Stops (vph)			762			89
Fuel Used(gal)			13			1
CO Emissions (g/hr)			897			93
NOx Emissions (g/hr)			175			18
VOC Emissions (g/hr)			208			22
Dilemma Vehicles (#)			51			0
Queue Length 50th (ft)			198			22
Queue Length 95th (ft)			262			59
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			2277			1258
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.46			0.24

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 71.7	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 46.4%	ICU Level of Service A
Analysis Period (min) 15	
90th %ile Actuated Cycle: 81.4	
70th %ile Actuated Cycle: 75.4	
50th %ile Actuated Cycle: 71.3	
30th %ile Actuated Cycle: 67.5	
10th %ile Actuated Cycle: 62.8	

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



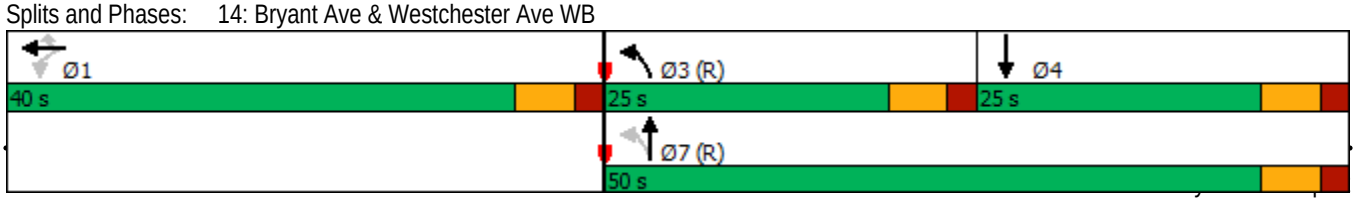
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	539	698	7	149	54	0	0	38	44
Future Volume (vph)	0	0	0	539	698	7	149	54	0	0	38	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.920	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1736	3374	1077	1671	1338	0	0	2633	0
Flt Permitted				0.950			0.500					
Satd. Flow (perm)	0	0	0	1736	3374	1077	880	1338	0	0	2633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109					47	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	4%	7%	50%	8%	42%	0%	0%	16%	35%
Adj. Flow (vph)	0	0	0	580	751	8	160	58	0	0	41	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	580	751	8	160	58	0	0	88	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				40.0	40.0	40.0	25.0	50.0			25.0	
Total Split (%)				44.4%	44.4%	44.4%	27.8%	55.6%			27.8%	
Maximum Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				33.1	33.1	33.1	44.9	44.9			16.3	
Actuated g/C Ratio				0.37	0.37	0.37	0.50	0.50			0.18	
v/c Ratio				0.91	0.61	0.02	0.24	0.09			0.17	
Control Delay				47.3	25.4	0.0	6.0	5.3			16.5	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				47.3	25.4	0.0	6.0	5.3			16.5	
LOS				D	C	A	A	A			B	
Approach Delay					34.7			5.8			16.5	
Approach LOS					C			A			B	
90th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
10th %ile Green (s)				29.6	29.6	29.6	48.4	48.4			0.0	
10th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Skip	
Stops (vph)				467	544	0	26	9			35	
Fuel Used(gal)				13	13	0	1	0			1	
CO Emissions (g/hr)				909	918	3	59	21			49	
NOx Emissions (g/hr)				177	179	1	11	4			9	
VOC Emissions (g/hr)				211	213	1	14	5			11	
Dilemma Vehicles (#)				0	38	0	0	0			0	
Queue Length 50th (ft)				302	176	0	17	6			10	
Queue Length 95th (ft)				#502	235	0	m26	m11			30	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				655	1274	474	657	667			592	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.89	0.59	0.02	0.24	0.09			0.15	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 24 (27%), Referenced to phase 3:NBL and 7:NBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.91	
Intersection Signal Delay: 29.9	Intersection LOS: C
Intersection Capacity Utilization 54.8%	ICU Level of Service A
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave WB



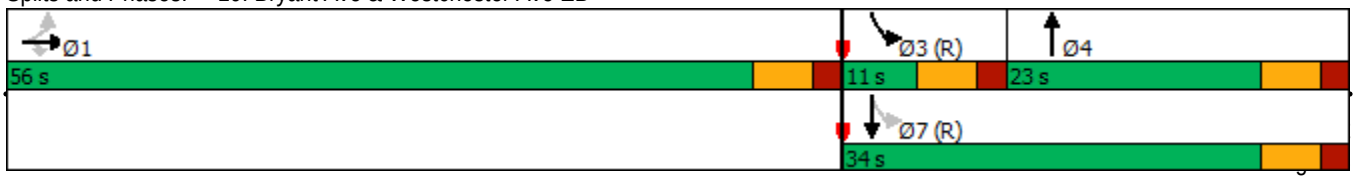
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	1313	61	0	0	0	0	122	274	218	359	0
Future Volume (vph)	81	1313	61	0	0	0	0	122	274	218	359	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.896				
Flt Protected	0.950										0.981	
Satd. Flow (prot)	1410	3539	1468	0	0	0	0	3112	0	0	3389	0
Flt Permitted	0.950										0.562	
Satd. Flow (perm)	1410	3539	1468	0	0	0	0	3112	0	0	1942	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109					51				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	28%	2%	10%	0%	0%	0%	0%	6%	3%	2%	6%	0%
Adj. Flow (vph)	89	1443	67	0	0	0	0	134	301	240	395	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	1443	67	0	0	0	0	435	0	0	635	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	56.0	56.0	56.0					23.0		11.0	34.0	
Total Split (%)	62.2%	62.2%	62.2%					25.6%		12.2%	37.8%	
Maximum Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	46.6	46.6	46.6					17.0			31.4	
Actuated g/C Ratio	0.52	0.52	0.52					0.19			0.35	
v/c Ratio	0.12	0.79	0.08					0.88dr			0.78	
Control Delay	10.7	21.0	0.9					36.4			15.1	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	10.7	21.0	0.9					36.4			15.1	
LOS	B	C	A					D			B	
Approach Delay		19.6						36.4			15.1	
Approach LOS		B						D			B	
90th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
70th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
50th %ile Green (s)	48.4	48.4	48.4					17.0		6.6	29.6	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	45.0	45.0	45.0					17.0		10.0	33.0	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	39.7	39.7	39.7					17.0		15.3	38.3	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	37	1003	2					320			294	
Fuel Used(gal)	1	20	0					7			5	
CO Emissions (g/hr)	59	1420	18					476			379	
NOx Emissions (g/hr)	11	276	3					93			74	
VOC Emissions (g/hr)	14	329	4					110			88	
Dilemma Vehicles (#)	0	64	0					0			0	
Queue Length 50th (ft)	24	317	0					107			93	
Queue Length 95th (ft)	45	385	7					160			m#153	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	783	1966	864					629			811	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.11	0.73	0.08					0.69			0.78	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6.6 (7%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.79
Intersection Signal Delay: 21.3 Intersection LOS: C
Intersection Capacity Utilization 79.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



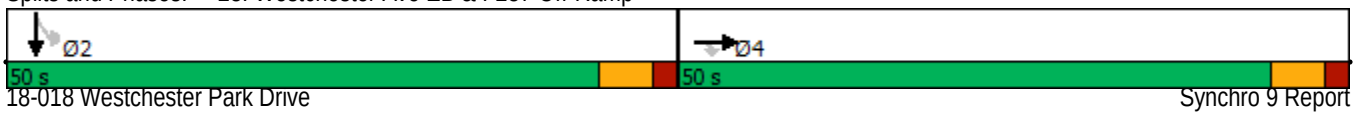
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	760	288	0	0	0	0	0	0	1170	480	0
Future Volume (vph)	0	760	288	0	0	0	0	0	0	1170	480	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1776	1442	0	0	0	0	0	0	1805	1900	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1776	1442	0	0	0	0	0	0	1805	1900	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			252							103		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1913			583			202			1285	
Travel Time (s)		32.6			13.3			4.6			29.2	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	12%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Adj. Flow (vph)	0	784	297	0	0	0	0	0	0	1206	495	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	784	297	0	0	0	0	0	0	1206	495	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		50.0	50.0							50.0	50.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		44.0	44.0							44.0	44.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		44.0	44.0							44.0	44.0	
Actuated g/C Ratio		0.44	0.44							0.44	0.44	
v/c Ratio		1.00	0.38							1.42	0.59	
Control Delay		62.4	5.3							219.4	24.8	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		62.4	5.3							219.4	24.8	
LOS		E	A							F	C	
Approach Delay		46.7									162.8	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									F	
90th %ile Green (s)		44.0	44.0							44.0	44.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		44.0	44.0							44.0	44.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		44.0	44.0							44.0	44.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		44.0	44.0							44.0	44.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		44.0	44.0							44.0	44.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		646	41							829	354	
Fuel Used(gal)		26	4							69	9	
CO Emissions (g/hr)		1808	311							4792	643	
NOx Emissions (g/hr)		352	61							932	125	
VOC Emissions (g/hr)		419	72							1111	149	
Dilemma Vehicles (#)		35	0							0	0	
Queue Length 50th (ft)		~491	16							~1010	233	
Queue Length 95th (ft)		#752	68							#1266	338	
Internal Link Dist (ft)		1833			503			122			1205	
Turn Bay Length (ft)												
Base Capacity (vph)		781	775							851	836	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.00	0.38							1.42	0.59	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.42
Intersection Signal Delay: 117.7 Intersection LOS: F
Intersection Capacity Utilization 114.8% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 100
70th %ile Actuated Cycle: 100
50th %ile Actuated Cycle: 100
30th %ile Actuated Cycle: 100
10th %ile Actuated Cycle: 100
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Westchester Ave EB & I-287 Off-Ramp



Intersection	
Int Delay, s/veh	7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1465	0	0	218
Future Vol, veh/h	0	0	1465	0	0	218
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	0	0	21
Mvmt Flow	0	0	1592	0	0	237

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	796
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.32
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.51
Pot Cap-1 Maneuver	-	0	0	292
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	292
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	54.3
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	292
HCM Lane V/C Ratio	-	0.811
HCM Control Delay (s)	-	54.3
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	6.6

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 No-Build
Jurisdiction	Harrison	Time Period Analyzed	Peak AM Hour
Project Description	18-018 3 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	701	162
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	15.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.870
Flow Rate (vi),pc/h	838	202
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.19	0.11

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.576
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	47.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	838	Ramp Junction Speed (S), mi/h	47.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	8.8
Level of Service (LOS)	A	Density in Ramp Influence Area (DR), pc/mi/ln	7.9

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	2/28/2019
Agency	Provident Design Engineering	Analysis Year	2019
Jurisdiction	Harrison	Time Period Analyzed	AM Peak
Project Description	18-018 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	935	1128	85	277
Peak Hour Factor (PHF)	0.92	0.92	0.92	0.92
Total Trucks, %	3.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1047	1226	92	301
Weaving Flow Rate (v_W), pc/h	1527	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1139	Density-Based Capacity (c_{IWL}), pc/h/ln		1573
Total Flow Rate (v), pc/h	2666	Demand Flow-Based Capacity (c_{IW}), pc/h		4188
Volume Ratio (VR)	0.573	Weaving Segment Capacity (c_W), veh/h		3110
Minimum Lane Change Rate (LC_{MIN}), lc/h	1527	Adjusted Weaving Area Capacity, pc/h		3146
Maximum Weaving Length (L_{MAX}), ft	8692	Volume-to-Capacity Ratio (v/c)		0.85

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	28	Average Weaving Speed (S_W), mi/h	37.1
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	120	Average Non-Weaving Speed (S_{NW}), mi/h	32.6
Weaving Lane Change Rate (LC_W), lc/h	1558	Average Speed (S), mi/h	35.0
Weaving Lane Change Rate (LC_{All}), lc/h	1678	Density (D), pc/mi/ln	38.1
Weaving Intensity Factor (W)	0.587	Level of Service (LOS)	E

Copyright © 2019 University of Florida. All Rights Reserved.

UPDATED DEIS ANALYSIS

PEAK PM HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	238	1243	20	586	40	0	0	24	0
Future Volume (vph)	0	0	0	238	1243	20	586	40	0	0	24	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1615	1770	1810	0	0	3581	0
Flt Permitted				0.950			0.553					
Satd. Flow (perm)	0	0	0	1787	3539	1615	1030	1810	0	0	3581	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	2%	5%	0%	0%	0%	0%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	4	0
Adj. Flow (vph)	0	0	0	274	1429	23	674	46	0	0	28	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	274	1429	23	674	46	0	0	28	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				38.0	38.0	38.0	18.0	42.0			24.0	
Total Split (%)				47.5%	47.5%	47.5%	22.5%	52.5%			30.0%	
Maximum Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			Max	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				32.0	32.0	32.0	36.0	36.0			18.0	
Actuated g/C Ratio				0.40	0.40	0.40	0.45	0.45			0.22	
v/c Ratio				0.38	1.01	0.03	1.17	0.06			0.03	
Control Delay				19.0	51.9	0.1	111.8	4.9			24.5	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay				19.0	51.9	0.1	111.8	4.9			24.5	
LOS				B	D	A	F	A			C	
Approach Delay					46.0			105.0			24.5	
Approach LOS					D			F			C	
90th %ile Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
70th %ile Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
50th %ile Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
30th %ile Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
10th %ile Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
Stops (vph)				162	1070	0	443	18			20	
Fuel Used(gal)				4	30	0	17	0			0	
CO Emissions (g/hr)				259	2090	7	1218	18			20	
NOx Emissions (g/hr)				50	407	1	237	3			4	
VOC Emissions (g/hr)				60	484	2	282	4			5	
Dilemma Vehicles (#)				0	72	0	0	0			0	
Queue Length 50th (ft)				94	~374	0	~426	0			5	
Queue Length 95th (ft)				149	#499	0	#603	m16			15	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				714	1415	719	574	814			805	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.38	1.01	0.03	1.17	0.06			0.03	

Intersection Summary

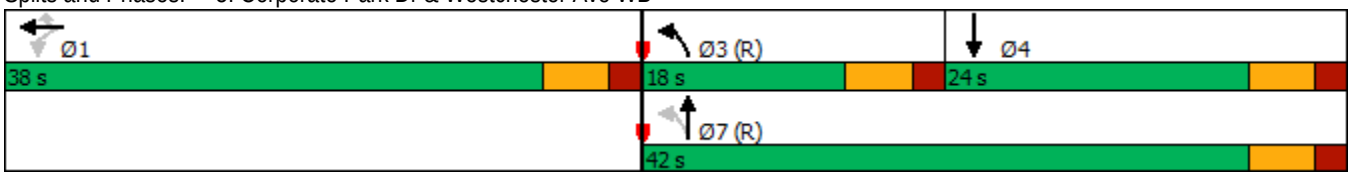
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 68 (85%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 62.9 Intersection LOS: E
Intersection Capacity Utilization 73.1% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



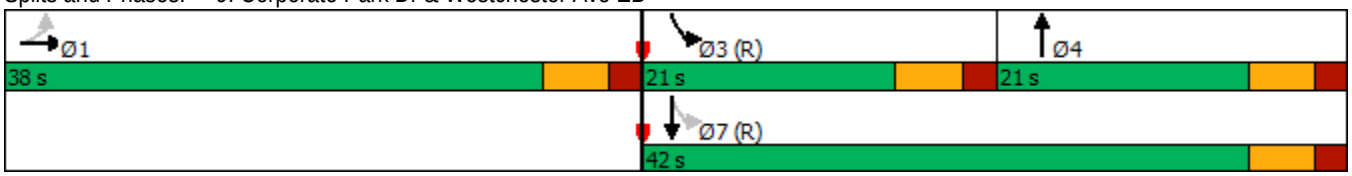
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	649	22	0	0	0	0	361	15	245	17	0
Future Volume (vph)	270	649	22	0	0	0	0	361	15	245	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.995						0.994				
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1787	3498	0	0	0	0	0	3521	0	1787	1900	0
Flt Permitted	0.950									0.281		
Satd. Flow (perm)	1787	3498	0	0	0	0	0	3521	0	529	1900	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						5				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1959			373			359	
Travel Time (s)		34.4			44.5			8.5			8.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	23%	0%	0%	0%	0%	2%	0%	1%	0%	0%
Adj. Flow (vph)	307	738	25	0	0	0	0	410	17	278	19	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	307	763	0	0	0	0	0	427	0	278	19	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	38.0	38.0						21.0		21.0	42.0	
Total Split (%)	47.5%	47.5%						26.3%		26.3%	52.5%	
Maximum Green (s)	32.0	32.0						15.0		15.0	36.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	32.0	32.0						15.0		36.0	36.0	
Actuated g/C Ratio	0.40	0.40						0.19		0.45	0.45	
v/c Ratio	0.43	0.54						0.64		0.59	0.02	
Control Delay	12.7	13.3						34.8		23.0	4.7	
Queue Delay	0.4	0.0						0.1		0.0	0.0	
Total Delay	13.1	13.3						34.9		23.0	4.7	
LOS	B	B						C		C	A	
Approach Delay		13.2						34.9			21.9	
Approach LOS		B						C			C	
Stops (vph)	155	486						332		162	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fuel Used(gal)	6	16						6		3	0	
CO Emissions (g/hr)	413	1102						391		191	6	
NOx Emissions (g/hr)	80	214						76		37	1	
VOC Emissions (g/hr)	96	255						91		44	1	
Dilemma Vehicles (#)	0	11						0		0	0	
Queue Length 50th (ft)	62	80						103		43	2	
Queue Length 95th (ft)	99	128						147		118	m5	
Internal Link Dist (ft)		1937			1879			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	714	1402						664		473	855	
Starvation Cap Reductn	0	0						0		0	0	
Spillback Cap Reductn	120	0						14		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.52	0.54						0.66		0.59	0.02	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 26 (33%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 55
Control Type: Pretimed
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 19.8 Intersection LOS: B
Intersection Capacity Utilization 73.1% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB

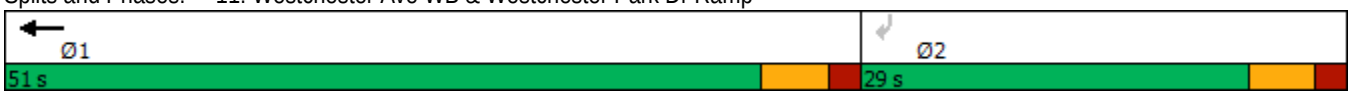


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	1516	0	0	400
Future Volume (vph)	0	0	1516	0	0	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	2814
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	2814
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						36
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	0%	0%	1%
Adj. Flow (vph)	0	0	1648	0	0	435
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1648	0	0	435
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			20.0			10.0
Total Split (s)			51.0			29.0
Total Split (%)			63.8%			36.3%
Maximum Green (s)			45.0			23.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			42.0			23.1
Actuated g/C Ratio			0.54			0.30
v/c Ratio			0.86			0.50
Control Delay			20.4			23.4
Queue Delay			0.0			0.0
Total Delay			20.4			23.4
LOS			C			C
Approach Delay			20.4		23.4	
Approach LOS			C		C	
90th %ile Green (s)			45.0			23.0
90th %ile Term Code			Max			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			45.0			23.0
70th %ile Term Code			Max			MaxR
50th %ile Green (s)			45.0			23.0
50th %ile Term Code			Max			MaxR
30th %ile Green (s)			42.3			23.0
30th %ile Term Code			Gap			MaxR
10th %ile Green (s)			33.3			23.0
10th %ile Term Code			Gap			MaxR
Stops (vph)			1207			293
Fuel Used(gal)			20			4
CO Emissions (g/hr)			1386			283
NOx Emissions (g/hr)			270			55
VOC Emissions (g/hr)			321			66
Dilemma Vehicles (#)			89			0
Queue Length 50th (ft)			327			93
Queue Length 95th (ft)			428			142
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			2072			867
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.80			0.50

Intersection Summary	
Area Type: Other	
Cycle Length: 80	
Actuated Cycle Length: 77.1	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	
90th %ile Actuated Cycle: 80	
70th %ile Actuated Cycle: 80	
50th %ile Actuated Cycle: 80	
30th %ile Actuated Cycle: 77.3	
10th %ile Actuated Cycle: 68.3	

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



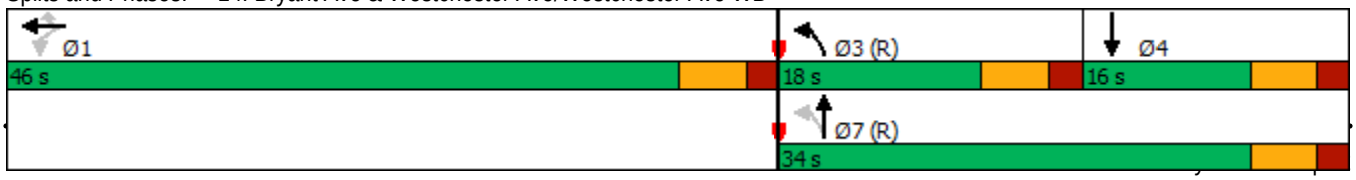
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	628	1289	12	305	24	0	0	23	17
Future Volume (vph)	0	0	0	628	1289	12	305	24	0	0	23	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.936	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1214	1787	1301	0	0	2783	0
Flt Permitted				0.950			0.362					
Satd. Flow (perm)	0	0	0	1787	3539	1214	681	1301	0	0	2783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123					20	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	1%	2%	33%	1%	46%	0%	0%	18%	26%
Adj. Flow (vph)	0	0	0	748	1535	14	363	29	0	0	27	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	748	1535	14	363	29	0	0	47	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				46.0	46.0	46.0	18.0	34.0			16.0	
Total Split (%)				57.5%	57.5%	57.5%	22.5%	42.5%			20.0%	
Maximum Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				40.0	40.0	40.0	28.0	28.0			8.2	
Actuated g/C Ratio				0.50	0.50	0.50	0.35	0.35			0.10	
v/c Ratio				0.84	0.87	0.02	0.74	0.06			0.16	
Control Delay				27.8	24.5	0.1	34.0	12.8			22.3	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				27.8	24.5	0.1	34.0	12.8			22.3	
LOS				C	C	A	C	B			C	
Approach Delay					25.4			32.4			22.3	
Approach LOS					C			C			C	
90th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
10th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
Stops (vph)				503	1058	0	209	10			25	
Fuel Used(gal)				12	25	0	4	0			0	
CO Emissions (g/hr)				857	1715	5	303	14			30	
NOx Emissions (g/hr)				167	334	1	59	3			6	
VOC Emissions (g/hr)				199	397	1	70	3			7	
Dilemma Vehicles (#)				0	80	0	0	0			0	
Queue Length 50th (ft)				304	337	0	151	4			6	
Queue Length 95th (ft)				411	385	0	#228	m14			20	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				893	1769	668	492	455			365	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.84	0.87	0.02	0.74	0.06			0.13	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 24 (30%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 26.4 Intersection LOS: C
Intersection Capacity Utilization 69.2% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave/Westchester Ave WB

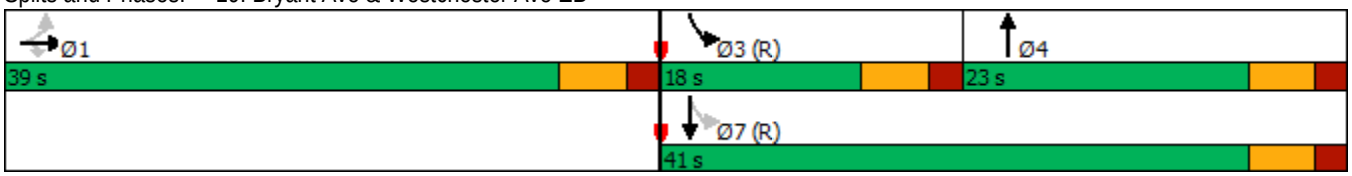


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	542	84	0	0	0	0	176	198	142	509	0
Future Volume (vph)	153	542	84	0	0	0	0	176	198	142	509	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.921				
Flt Protected	0.950										0.989	
Satd. Flow (prot)	1687	3505	1599	0	0	0	0	3260	0	0	3527	0
Flt Permitted	0.950										0.636	
Satd. Flow (perm)	1687	3505	1599	0	0	0	0	3260	0	0	2268	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123					213				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	3%	1%	0%	0%	0%	0%	2%	2%	2%	1%	0%
Adj. Flow (vph)	165	583	90	0	0	0	0	189	213	153	547	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	165	583	90	0	0	0	0	402	0	0	700	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	39.0	39.0	39.0					23.0		18.0	41.0	
Total Split (%)	48.8%	48.8%	48.8%					28.8%		22.5%	51.3%	
Maximum Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	20.5	20.5	20.5					17.0			47.5	
Actuated g/C Ratio	0.26	0.26	0.26					0.21			0.59	
v/c Ratio	0.38	0.65	0.18					0.47			0.40	
Control Delay	25.9	29.5	2.8					14.6			0.7	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	25.9	29.5	2.8					14.6			0.7	
LOS	C	C	A					B			A	
Approach Delay		25.9						14.6			0.7	
Approach LOS		C						B			A	
90th %ile Green (s)	27.2	27.2	27.2					17.0		17.8	40.8	
90th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
70th %ile Green (s)	23.1	23.1	23.1					17.0		21.9	44.9	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	20.5	20.5	20.5					17.0		24.5	47.5	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	17.7	17.7	17.7					17.0		27.3	50.3	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	14.0	14.0	14.0					17.0		31.0	54.0	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	118	456	6					150			15	
Fuel Used(gal)	3	10	0					4			2	
CO Emissions (g/hr)	177	681	29					275			171	
NOx Emissions (g/hr)	34	132	6					53			33	
VOC Emissions (g/hr)	41	158	7					64			40	
Dilemma Vehicles (#)	0	26	0					0			0	
Queue Length 50th (ft)	68	136	0					41			4	
Queue Length 95th (ft)	107	167	18					82			m7	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	695	1445	731					860			1732	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.24	0.40	0.12					0.47			0.40	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 3:SBL and 7:SBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 59.4%	ICU Level of Service B
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



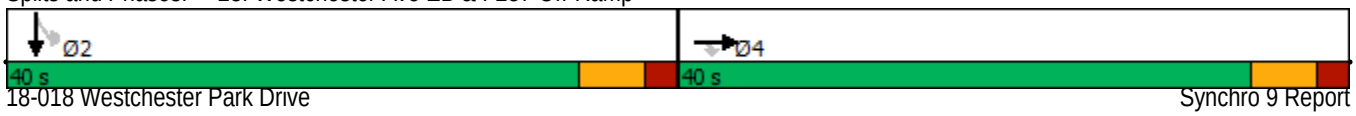
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1023	403	0	0	0	0	0	0	1099	351	0
Future Volume (vph)	0	1023	403	0	0	0	0	0	0	1099	351	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			323							41		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1959			419			159			1098	
Travel Time (s)		33.4			9.5			3.6			25.0	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	1163	458	0	0	0	0	0	0	1249	399	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1163	458	0	0	0	0	0	0	1249	399	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		40.0	40.0							40.0	40.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		34.0	34.0							34.0	34.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		34.0	34.0							34.0	34.0	
Actuated g/C Ratio		0.42	0.42							0.42	0.42	
v/c Ratio		1.46	0.53							1.58	0.50	
Control Delay		235.7	7.5							290.2	19.5	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		235.7	7.5							290.2	19.5	
LOS		F	A							F	B	
Approach Delay		171.2									224.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F									F	
90th %ile Green (s)		34.0	34.0							34.0	34.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		34.0	34.0							34.0	34.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		34.0	34.0							34.0	34.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		34.0	34.0							34.0	34.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		34.0	34.0							34.0	34.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		784	98							799	246	
Fuel Used(gal)		70	7							79	6	
CO Emissions (g/hr)		4920	485							5504	402	
NOx Emissions (g/hr)		957	94							1071	78	
VOC Emissions (g/hr)		1140	112							1276	93	
Dilemma Vehicles (#)		44	0							0	0	
Queue Length 50th (ft)		~806	41							~901	141	
Queue Length 95th (ft)		#1008	109							#1110	213	
Internal Link Dist (ft)		1879			339			79			1018	
Turn Bay Length (ft)												
Base Capacity (vph)		799	858							790	799	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.46	0.53							1.58	0.50	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.58
Intersection Signal Delay: 198.2 — Intersection LOS: F
Intersection Capacity Utilization 124.7% — ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 80
70th %ile Actuated Cycle: 80
50th %ile Actuated Cycle: 80
30th %ile Actuated Cycle: 80
10th %ile Actuated Cycle: 80
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Westchester Ave EB & I-287 Off-Ramp



Intersection	
Int Delay, s/veh	10.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	945	0	0	410
Future Vol, veh/h	0	0	945	0	0	410
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	984	0	0	427

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	492
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	525
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	525
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	35.2
HCM LOS		E

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	525
HCM Lane V/C Ratio	-	0.813
HCM Control Delay (s)	-	35.2
HCM Lane LOS	-	E
HCM 95th %tile Q(veh)	-	7.9

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1829	0	0	49
Future Vol, veh/h	0	0	1829	0	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	0	0	0
Mvmt Flow	0	0	2102	0	0	56

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	1051
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	227
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	227
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	26
HCM LOS		D

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	227
HCM Lane V/C Ratio	-	0.248
HCM Control Delay (s)	-	26
HCM Lane LOS	-	D
HCM 95th %tile Q(veh)	-	0.9

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2018 Existing
Jurisdiction	Harrison	Time Period Analyzed	Peak PM Hour
Project Description	18-018 3 Westchester PArk Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	536	1075
Peak Hour Factor (PHF)	0.84	0.84
Total Trucks, %	4.00	0.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	1.000
Flow Rate (vi),pc/h	663	1280
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.15	0.67

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.673
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	46.3
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	663	Ramp Junction Speed (S), mi/h	46.3
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	7.2
Level of Service (LOS)	A	Density in Ramp Influence Area (DR), pc/mi/ln	6.4

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	2/28/2019
Agency	Provident Design Engineering	Analysis Year	2019
Jurisdiction	Harrison	Time Period Analyzed	PM Peak
Project Description	18-018 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	925	585	36	268
Peak Hour Factor (PHF)	0.96	0.96	0.96	0.96
Total Trucks, %	2.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	1.000	1.000	1.000
Flow Rate (v_i), pc/h	983	609	38	279
Weaving Flow Rate (v_W), pc/h	888	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1021	Density-Based Capacity (c_{IWL}), pc/h/ln		1671
Total Flow Rate (v), pc/h	1909	Demand Flow-Based Capacity (c_{IW}), pc/h		5161
Volume Ratio (VR)	0.465	Weaving Segment Capacity (c_W), veh/h		3308
Minimum Lane Change Rate (LC_{MIN}), lc/h	888	Adjusted Weaving Area Capacity, pc/h		3342
Maximum Weaving Length (L_{MAX}), ft	7420	Volume-to-Capacity Ratio (v/c)		0.57

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	26	Average Weaving Speed (S_W), mi/h	40.1
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	96	Average Non-Weaving Speed (S_{NW}), mi/h	39.0
Weaving Lane Change Rate (LC_W), lc/h	919	Average Speed (S), mi/h	39.5
Weaving Lane Change Rate (LC_{All}), lc/h	1015	Density (D), pc/mi/ln	24.2
Weaving Intensity Factor (W)	0.395	Level of Service (LOS)	C

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	276	1311	261	612	255	0	0	251	0
Future Volume (vph)	0	0	0	276	1311	261	612	255	0	0	251	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1615	1770	1810	0	0	3471	0
Flt Permitted				0.950			0.499					
Satd. Flow (perm)	0	0	0	1787	3539	1615	930	1810	0	0	3471	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						300						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	2%	5%	0%	0%	4%	0%
Adj. Flow (vph)	0	0	0	317	1507	300	703	293	0	0	289	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	317	1507	300	703	293	0	0	289	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5		3	8			4	
Permitted Phases				5		5	8					
Detector Phase				5	5	5	3	8			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0			4.0	
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0			10.0	
Total Split (s)				42.0	42.0	42.0	32.0	44.0			12.0	
Total Split (%)				46.7%	46.7%	46.7%	35.6%	48.9%			13.3%	
Maximum Green (s)				36.0	36.0	36.0	26.0	38.0			6.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag				Lead	Lead	Lead	Lag				Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				C-Min	C-Min	C-Min	None	None			None	
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				39.2	39.2	39.2	38.8	38.8			6.8	
Actuated g/C Ratio				0.44	0.44	0.44	0.43	0.43			0.08	
v/c Ratio				0.41	0.98	0.34	1.09	0.38			1.10	
Control Delay				19.2	44.1	3.1	92.7	19.5			128.1	
Queue Delay				0.0	0.0	0.0	3.1	0.9			0.0	

Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	4.0	1.0
Minimum Split (s)	24.0	4.0
Total Split (s)	46.0	4.0
Total Split (%)	51%	4%
Maximum Green (s)	40.0	1.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	2.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lag
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				19.2	44.1	3.1	95.9	20.4			128.1	
LOS				B	D	A	F	C			F	
Approach Delay					34.6			73.7			128.1	
Approach LOS					C			E			F	
90th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
90th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
70th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
70th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
50th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
50th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
30th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
30th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
10th %ile Green (s)				36.0	36.0	36.0	26.0	42.0			10.0	
10th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
Stops (vph)				182	1149	22	451	169			190	
Fuel Used(gal)				4	30	2	16	3			8	
CO Emissions (g/hr)				297	2072	118	1102	186			572	
NOx Emissions (g/hr)				58	403	23	214	36			111	
VOC Emissions (g/hr)				69	480	27	255	43			133	
Dilemma Vehicles (#)				0	70	0	0	0			0	
Queue Length 50th (ft)				118	422	0	~436	112			~108	
Queue Length 95th (ft)				177	#551	39	#639	170			#182	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				778	1541	872	643	780			262	
Starvation Cap Reductn				0	0	0	0	262			0	
Spillback Cap Reductn				0	0	0	42	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.41	0.98	0.34	1.17	0.57			1.10	

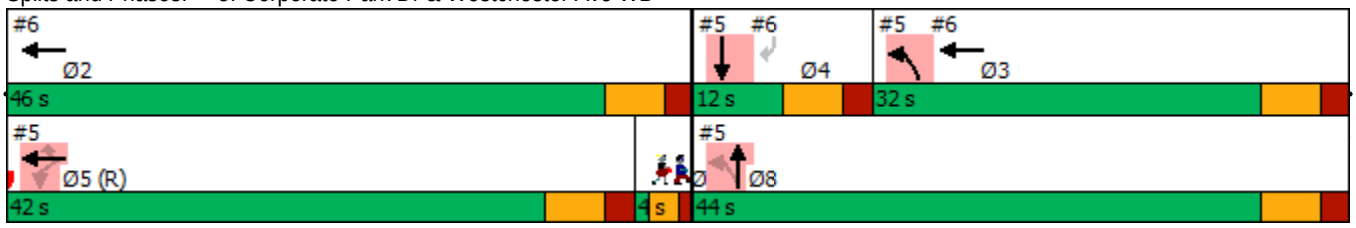
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 53.9 Intersection LOS: D
Intersection Capacity Utilization 92.1% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø2	Ø6
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	40.0	0.0
90th %ile Term Code	Coord	Skip
70th %ile Green (s)	40.0	0.0
70th %ile Term Code	Coord	Skip
50th %ile Green (s)	40.0	0.0
50th %ile Term Code	Coord	Skip
30th %ile Green (s)	40.0	0.0
30th %ile Term Code	Coord	Skip
10th %ile Green (s)	36.0	0.0
10th %ile Term Code	Coord	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Lane Configurations			↑↑			↱↱					
Traffic Volume (vph)	0	0	1923	0	0	253					
Future Volume (vph)	0	0	1923	0	0	253					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88					
Frt						0.850					
Flt Protected											
Satd. Flow (prot)	0	0	3539	0	0	2842					
Flt Permitted											
Satd. Flow (perm)	0	0	3539	0	0	2842					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)						45					
Link Speed (mph)		30	30		30						
Link Distance (ft)		573	376		253						
Travel Time (s)		13.0	8.5		5.8						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87					
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%					
Adj. Flow (vph)	0	0	2210	0	0	291					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	2210	0	0	291					
Turn Type			NA			Perm					
Protected Phases			2 3				2	3	5	6	8
Permitted Phases						4					
Detector Phase			2 3			4					
Switch Phase											
Minimum Initial (s)						4.0	4.0	1.0	5.0	1.0	5.0
Minimum Split (s)						10.0	24.0	11.0	26.0	4.0	16.0
Total Split (s)						12.0	46.0	32.0	42.0	4.0	44.0
Total Split (%)						13.3%	51%	36%	47%	4%	49%
Maximum Green (s)						6.0	40.0	26.0	36.0	1.0	38.0
Yellow Time (s)						4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)						2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)						0.0					
Total Lost Time (s)						6.0					
Lead/Lag						Lead		Lag	Lead	Lag	
Lead-Lag Optimize?						Yes		Yes	Yes	Yes	
Vehicle Extension (s)						3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode						None	None	None	C-Min	None	None
Walk Time (s)							7.0		7.0	7.0	7.0
Flash Dont Walk (s)							11.0		10.0	11.0	11.0
Pedestrian Calls (#/hr)							0		0	0	0
Act Effct Green (s)			71.2			6.8					
Actuated g/C Ratio			0.79			0.08					
v/c Ratio			0.79			1.14					
Control Delay			4.1			133.5					
Queue Delay			2.8			0.0					
Total Delay			7.0			133.5					
LOS			A			F					
Approach Delay			7.0		133.5						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Approach LOS			A		F						
90th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
90th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
70th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
70th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
50th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
50th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
30th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
30th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
10th %ile Green (s)						10.0	36.0	26.0	36.0	0.0	42.0
10th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
Stops (vph)			496			155					
Fuel Used(gal)			10			8					
CO Emissions (g/hr)			699			575					
NOx Emissions (g/hr)			136			112					
VOC Emissions (g/hr)			162			133					
Dilemma Vehicles (#)			0			0					
Queue Length 50th (ft)			111			~105					
Queue Length 95th (ft)			m133			#185					
Internal Link Dist (ft)		493	296		173						
Turn Bay Length (ft)											
Base Capacity (vph)			2831			256					
Starvation Cap Reductn			494			0					
Spillback Cap Reductn			0			0					
Storage Cap Reductn			0			0					
Reduced v/c Ratio			0.95			1.14					

Intersection Summary

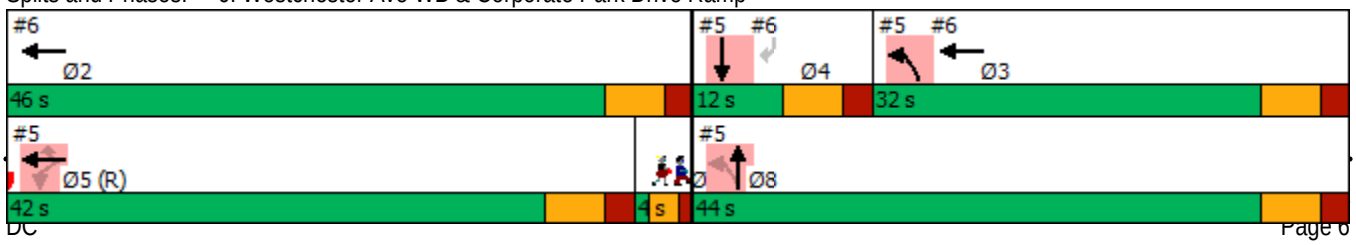
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 21.7 Intersection LOS: C
Intersection Capacity Utilization 72.0% ICU Level of Service C
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Westchester Ave WB & Corporate Park Drive Ramp



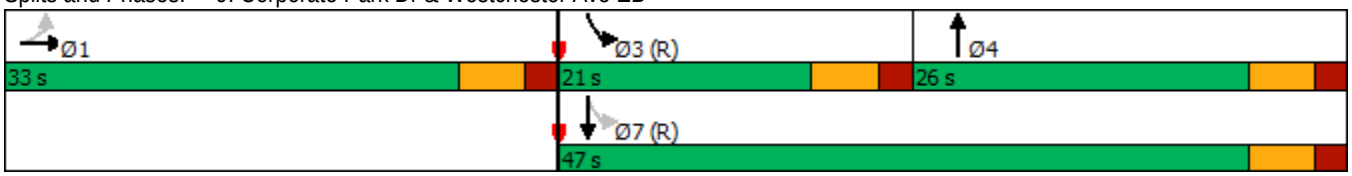
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	503	776	23	0	0	0	0	368	15	510	17	0
Future Volume (vph)	503	776	23	0	0	0	0	368	15	510	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.996						0.994				
Flt Protected	0.950									0.950	0.955	
Satd. Flow (prot)	1787	3504	0	0	0	0	0	3521	0	1698	1708	0
Flt Permitted	0.950									0.331	0.312	
Satd. Flow (perm)	1787	3504	0	0	0	0	0	3521	0	592	558	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4						5				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1951			373			359	
Travel Time (s)		34.4			44.3			8.5			8.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	23%	0%	0%	0%	0%	2%	0%	1%	0%	0%
Adj. Flow (vph)	572	882	26	0	0	0	0	418	17	580	19	0
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	572	908	0	0	0	0	0	435	0	296	303	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	33.0	33.0						26.0		21.0	47.0	
Total Split (%)	41.3%	41.3%						32.5%		26.3%	58.8%	
Maximum Green (s)	27.0	27.0						20.0		15.0	41.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	27.0	27.0						20.0		41.0	41.0	
Actuated g/C Ratio	0.34	0.34						0.25		0.51	0.51	
v/c Ratio	0.95	0.77						0.49		0.58	0.60	
Control Delay	45.2	21.0						27.6		16.6	17.2	
Queue Delay	0.0	0.0						0.0		0.0	0.7	
Total Delay	45.2	21.0						27.6		16.6	17.9	
LOS	D	C						C		B	B	
Approach Delay		30.4						27.6			17.3	
Approach LOS		C						C			B	
Stops (vph)	451	732						313		148	152	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fuel Used(gal)	16	22						5		2	3	
CO Emissions (g/hr)	1115	1506						349		170	176	
NOx Emissions (g/hr)	217	293						68		33	34	
VOC Emissions (g/hr)	258	349						81		39	41	
Dilemma Vehicles (#)	0	18						0		0	0	
Queue Length 50th (ft)	300	235						96		86	89	
Queue Length 95th (ft)	#469	283						137		137	141	
Internal Link Dist (ft)		1937			1871			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	603	1185						884		510	501	
Starvation Cap Reductn	0	0						0		0	46	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.95	0.77						0.49		0.58	0.67	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 26 (33%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 26.8 Intersection LOS: C
Intersection Capacity Utilization 88.0% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB



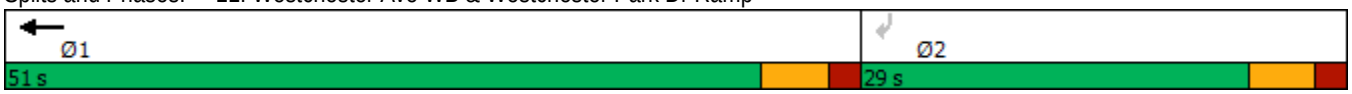
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱↱
Traffic Volume (vph)	0	0	1779	0	0	552
Future Volume (vph)	0	0	1779	0	0	552
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	2814
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	2814
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						17
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	0%	0%	1%
Adj. Flow (vph)	0	0	1934	0	0	600
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1934	0	0	600
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			20.0			10.0
Total Split (s)			51.0			29.0
Total Split (%)			63.8%			36.3%
Maximum Green (s)			45.0			23.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			45.0			23.0
Actuated g/C Ratio			0.56			0.29
v/c Ratio			0.97			0.73
Control Delay			32.7			31.1
Queue Delay			0.0			0.0
Total Delay			32.7			31.1
LOS			C			C
Approach Delay			32.7		31.1	
Approach LOS			C		C	
90th %ile Green (s)			45.0			23.0
90th %ile Term Code			Max			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			45.0			23.0
70th %ile Term Code			Max			MaxR
50th %ile Green (s)			45.0			23.0
50th %ile Term Code			Max			MaxR
30th %ile Green (s)			45.0			23.0
30th %ile Term Code			Max			MaxR
10th %ile Green (s)			45.0			23.0
10th %ile Term Code			Max			MaxR
Stops (vph)			1470			471
Fuel Used(gal)			28			7
CO Emissions (g/hr)			1977			477
NOx Emissions (g/hr)			385			93
VOC Emissions (g/hr)			458			110
Dilemma Vehicles (#)			106			0
Queue Length 50th (ft)			452			148
Queue Length 95th (ft)			#656			213
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			1990			821
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.97			0.73

Intersection Summary	
Area Type: Other	
Cycle Length: 80	
Actuated Cycle Length: 80	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 32.4	Intersection LOS: C
Intersection Capacity Utilization 78.5%	ICU Level of Service D
Analysis Period (min) 15	
90th %ile Actuated Cycle: 80	
70th %ile Actuated Cycle: 80	
50th %ile Actuated Cycle: 80	
30th %ile Actuated Cycle: 80	
10th %ile Actuated Cycle: 80	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	838	1494	13	311	24	0	0	23	17
Future Volume (vph)	0	0	0	838	1494	13	311	24	0	0	23	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.936	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1214	1787	1301	0	0	2783	0
Flt Permitted				0.950			0.362					
Satd. Flow (perm)	0	0	0	1787	3539	1214	681	1301	0	0	2783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123					20	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	1%	2%	33%	1%	46%	0%	0%	18%	26%
Adj. Flow (vph)	0	0	0	998	1779	15	370	29	0	0	27	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	998	1779	15	370	29	0	0	47	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				46.0	46.0	46.0	18.0	34.0			16.0	
Total Split (%)				57.5%	57.5%	57.5%	22.5%	42.5%			20.0%	
Maximum Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				40.0	40.0	40.0	28.0	28.0			8.2	
Actuated g/C Ratio				0.50	0.50	0.50	0.35	0.35			0.10	
v/c Ratio				1.12	1.01	0.02	0.75	0.06			0.16	
Control Delay				90.3	44.3	0.1	32.8	11.4			22.3	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				90.3	44.3	0.1	32.8	11.4			22.3	
LOS				F	D	A	C	B			C	
Approach Delay					60.5			31.3			22.3	
Approach LOS					E			C			C	
90th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
10th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
Stops (vph)				682	1266	0	212	10			25	
Fuel Used(gal)				27	35	0	4	0			0	
CO Emissions (g/hr)				1896	2435	5	303	14			30	
NOx Emissions (g/hr)				369	474	1	59	3			6	
VOC Emissions (g/hr)				439	564	1	70	3			7	
Dilemma Vehicles (#)				0	88	0	0	0			0	
Queue Length 50th (ft)				~582	~450	0	157	4			6	
Queue Length 95th (ft)				#723	#556	0	#221	m12			20	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				893	1769	668	492	455			365	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				1.12	1.01	0.02	0.75	0.06			0.13	

Intersection Summary

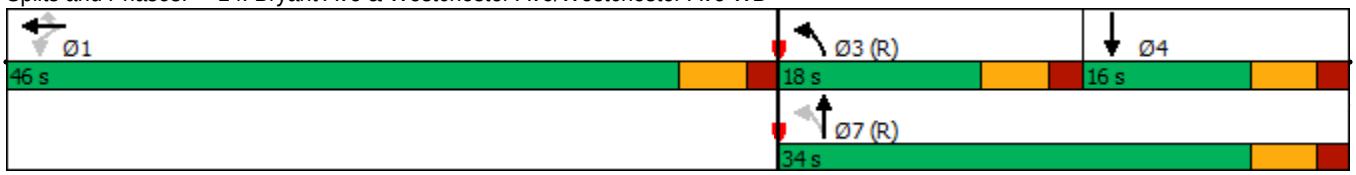
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 24 (30%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 56.3 Intersection LOS: E
Intersection Capacity Utilization 80.3% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave/Westchester Ave WB



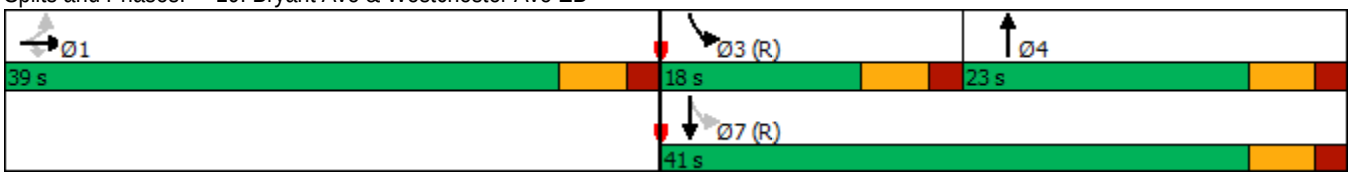
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	764	86	0	0	0	0	180	262	217	578	0
Future Volume (vph)	156	764	86	0	0	0	0	180	262	217	578	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.911				
Flt Protected	0.950										0.987	
Satd. Flow (prot)	1687	3505	1599	0	0	0	0	3224	0	0	3518	0
Flt Permitted	0.950										0.582	
Satd. Flow (perm)	1687	3505	1599	0	0	0	0	3224	0	0	2075	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123					170				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	3%	1%	0%	0%	0%	0%	2%	2%	2%	1%	0%
Adj. Flow (vph)	168	822	92	0	0	0	0	194	282	233	622	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	822	92	0	0	0	0	476	0	0	855	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	39.0	39.0	39.0					23.0		18.0	41.0	
Total Split (%)	48.8%	48.8%	48.8%					28.8%		22.5%	51.3%	
Maximum Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	26.9	26.9	26.9					17.0			41.1	
Actuated g/C Ratio	0.34	0.34	0.34					0.21			0.51	
v/c Ratio	0.30	0.70	0.15					0.58			0.61	
Control Delay	19.8	25.9	2.2					21.1			1.1	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	19.8	25.9	2.2					21.1			1.1	
LOS	B	C	A					C			A	
Approach Delay		23.0						21.1			1.1	
Approach LOS		C						C			A	
90th %ile Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	30.5	30.5	30.5					17.0		14.5	37.5	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	27.2	27.2	27.2					17.0		17.8	40.8	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	24.3	24.3	24.3					17.0		20.7	43.7	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	19.5	19.5	19.5					17.0		25.5	48.5	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	106	624	6					252			82	
Fuel Used(gal)	2	13	0					6			3	
CO Emissions (g/hr)	157	907	29					395			237	
NOx Emissions (g/hr)	31	177	6					77			46	
VOC Emissions (g/hr)	36	210	7					92			55	
Dilemma Vehicles (#)	0	39	0					0			0	
Queue Length 50th (ft)	61	183	0					70			4	
Queue Length 95th (ft)	96	216	16					118			m8	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	695	1445	731					818			1392	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.24	0.57	0.13					0.58			0.61	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 3:SBL and 7:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1338	599	0	0	0	0	0	0	1121	358	0
Future Volume (vph)	0	1338	599	0	0	0	0	0	0	1121	358	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			315							41		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1951			431			169			1063	
Travel Time (s)		33.3			9.8			3.8			24.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	1520	681	0	0	0	0	0	0	1274	407	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1520	681	0	0	0	0	0	0	1274	407	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		40.0	40.0							40.0	40.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		34.0	34.0							34.0	34.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		34.0	34.0							34.0	34.0	
Actuated g/C Ratio		0.42	0.42							0.42	0.42	
v/c Ratio		1.90	0.80							1.61	0.51	
Control Delay		432.1	19.0							304.1	19.7	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		432.1	19.0							304.1	19.7	
LOS		F	B							F	B	
Approach Delay		304.3									235.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F									F	
90th %ile Green (s)		34.0	34.0							34.0	34.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		34.0	34.0							34.0	34.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		34.0	34.0							34.0	34.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		34.0	34.0							34.0	34.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		34.0	34.0							34.0	34.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		975	302							811	254	
Fuel Used(gal)		145	13							83	6	
CO Emissions (g/hr)		10134	924							5813	406	
NOx Emissions (g/hr)		1972	180							1131	79	
VOC Emissions (g/hr)		2349	214							1347	94	
Dilemma Vehicles (#)		44	0							0	0	
Queue Length 50th (ft)		~1183	156							~928	145	
Queue Length 95th (ft)		#1390	297							#1139	218	
Internal Link Dist (ft)		1871			351			89			983	
Turn Bay Length (ft)												
Base Capacity (vph)		799	853							790	799	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.90	0.80							1.61	0.51	

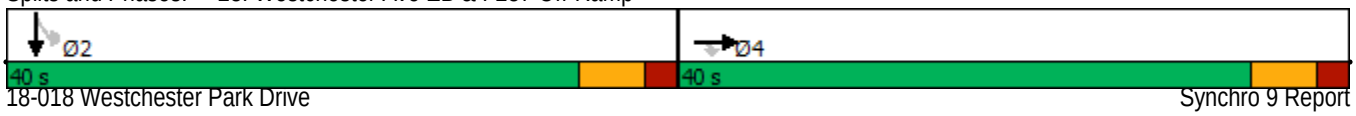
Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.90
Intersection Signal Delay: 274.4 — Intersection LOS: F
Intersection Capacity Utilization 142.5% — ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 80
70th %ile Actuated Cycle: 80
50th %ile Actuated Cycle: 80
30th %ile Actuated Cycle: 80
10th %ile Actuated Cycle: 80

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Westchester Ave EB & I-287 Off-Ramp



Intersection	
Int Delay, s/veh	24.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1281	0	0	418
Future Vol, veh/h	0	0	1281	0	0	418
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	1334	0	0	435

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	667
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	~ 404
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	~ 404
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	99.4
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	404
HCM Lane V/C Ratio	-	1.078
HCM Control Delay (s)	-	99.4
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	14.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 No-Build
Jurisdiction	Harrison	Time Period Analyzed	Peak PM Hour
Project Description	18-018 3 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1180	623
Peak Hour Factor (PHF)	0.84	0.84
Total Trucks, %	4.00	0.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	1.000
Flow Rate (vi),pc/h	1460	742
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.32	0.39

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.625
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	46.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	1460	Ramp Junction Speed (S), mi/h	46.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	15.6
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	13.2

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	2/28/2019
Agency	Provident Design Engineering	Analysis Year	2020
Jurisdiction	Harrison	Time Period Analyzed	PM Peak
Project Description	18-018 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	1115	743	37	273
Peak Hour Factor (PHF)	0.96	0.96	0.96	0.96
Total Trucks, %	2.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1185	774	39	284
Weaving Flow Rate (v_W), pc/h	1058	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1224	Density-Based Capacity (c_{IWL}), pc/h/ln		1671
Total Flow Rate (v), pc/h	2282	Demand Flow-Based Capacity (c_{IW}), pc/h		5172
Volume Ratio (VR)	0.464	Weaving Segment Capacity (c_W), veh/h		3307
Minimum Lane Change Rate (LC_{MIN}), lc/h	1058	Adjusted Weaving Area Capacity, pc/h		3342
Maximum Weaving Length (L_{MAX}), ft	7409	Volume-to-Capacity Ratio (v/c)		0.68

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	31	Average Weaving Speed (S_W), mi/h	39.0
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	138	Average Non-Weaving Speed (S_{NW}), mi/h	36.9
Weaving Lane Change Rate (LC_W), lc/h	1089	Average Speed (S), mi/h	37.8
Weaving Lane Change Rate (LC_{All}), lc/h	1227	Density (D), pc/mi/ln	30.2
Weaving Intensity Factor (W)	0.459	Level of Service (LOS)	D

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	276	1361	261	636	253	0	0	251	0
Future Volume (vph)	0	0	0	276	1361	261	636	253	0	0	251	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1615	1770	1810	0	0	3471	0
Flt Permitted				0.950			0.494					
Satd. Flow (perm)	0	0	0	1787	3539	1615	920	1810	0	0	3471	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						300						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	2%	5%	0%	0%	4%	0%
Adj. Flow (vph)	0	0	0	317	1564	300	731	291	0	0	289	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	317	1564	300	731	291	0	0	289	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5		3	8			4	
Permitted Phases				5		5	8					
Detector Phase				5	5	5	3	8			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0			4.0	
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0			10.0	
Total Split (s)				42.0	42.0	42.0	32.0	44.0			12.0	
Total Split (%)				46.7%	46.7%	46.7%	35.6%	48.9%			13.3%	
Maximum Green (s)				36.0	36.0	36.0	26.0	38.0			6.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag				Lead	Lead	Lead	Lag				Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				C-Max	C-Max	C-Max	None	None			Max	
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				39.7	39.7	39.7	38.3	38.3			6.3	
Actuated g/C Ratio				0.44	0.44	0.44	0.43	0.43			0.07	
v/c Ratio				0.40	1.00	0.34	1.15	0.38			1.19	
Control Delay				18.9	49.5	3.1	112.6	19.6			158.3	
Queue Delay				0.0	0.0	0.0	0.7	1.0			0.0	

Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	1.0
Minimum Split (s)	16.0	4.0
Total Split (s)	46.0	4.0
Total Split (%)	51%	4%
Maximum Green (s)	40.0	1.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	2.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lag
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				18.9	49.5	3.1	113.3	20.6			158.3	
LOS				B	D	A	F	C			F	
Approach Delay					38.7			86.9			158.3	
Approach LOS					D			F			F	
90th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
90th %ile Term Code				Coord	Coord	Coord	Max	Hold			MaxR	
70th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
70th %ile Term Code				Coord	Coord	Coord	Max	Hold			MaxR	
50th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
50th %ile Term Code				Coord	Coord	Coord	Max	Hold			MaxR	
30th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
30th %ile Term Code				Coord	Coord	Coord	Max	Hold			MaxR	
10th %ile Green (s)				38.5	38.5	38.5	26.0	39.5			7.5	
10th %ile Term Code				Coord	Coord	Coord	Max	Hold			MaxR	
Stops (vph)				181	1186	22	469	168			195	
Fuel Used(gal)				4	32	2	19	3			10	
CO Emissions (g/hr)				296	2252	118	1325	185			682	
NOx Emissions (g/hr)				58	438	23	258	36			133	
VOC Emissions (g/hr)				69	522	27	307	43			158	
Dilemma Vehicles (#)				0	71	0	0	0			0	
Queue Length 50th (ft)				118	450	0	~495	111			~108	
Queue Length 95th (ft)				177	#585	39	#673	168			#182	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				788	1560	880	637	770			243	
Starvation Cap Reductn				0	0	0	0	263			0	
Spillback Cap Reductn				0	0	0	59	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.40	1.00	0.34	1.26	0.57			1.19	

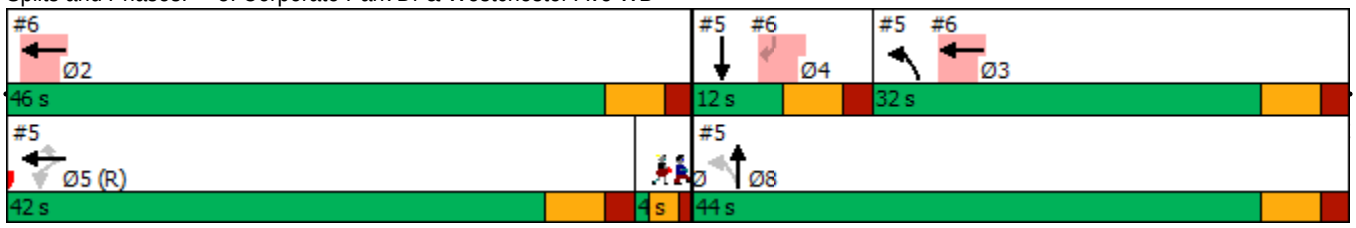
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 54 (60%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.25
Intersection Signal Delay: 62.7 Intersection LOS: E
Intersection Capacity Utilization 94.8% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø2	Ø6
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	40.0	0.0
90th %ile Term Code	Coord	Skip
70th %ile Green (s)	40.0	0.0
70th %ile Term Code	Coord	Skip
50th %ile Green (s)	40.0	0.0
50th %ile Term Code	Coord	Skip
30th %ile Green (s)	40.0	0.0
30th %ile Term Code	Coord	Skip
10th %ile Green (s)	38.5	0.0
10th %ile Term Code	Coord	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Lane Configurations											
Traffic Volume (vph)	0	0	1997	0	0	255					
Future Volume (vph)	0	0	1997	0	0	255					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88					
Frt						0.850					
Flt Protected											
Satd. Flow (prot)	0	0	3539	0	0	2842					
Flt Permitted											
Satd. Flow (perm)	0	0	3539	0	0	2842					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)						39					
Link Speed (mph)		30	30		30						
Link Distance (ft)		573	376		253						
Travel Time (s)		13.0	8.5		5.8						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87					
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%					
Adj. Flow (vph)	0	0	2295	0	0	293					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	2295	0	0	293					
Turn Type			NA			Perm					
Protected Phases			2 3				2	3	5	6	8
Permitted Phases						4					
Detector Phase			2 3			4					
Switch Phase											
Minimum Initial (s)						4.0	5.0	1.0	5.0	1.0	5.0
Minimum Split (s)						10.0	16.0	11.0	26.0	4.0	16.0
Total Split (s)						12.0	46.0	32.0	42.0	4.0	44.0
Total Split (%)						13.3%	51%	36%	47%	4%	49%
Maximum Green (s)						6.0	40.0	26.0	36.0	1.0	38.0
Yellow Time (s)						4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)						2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)						0.0					
Total Lost Time (s)						6.0					
Lead/Lag						Lead		Lag	Lead	Lag	
Lead-Lag Optimize?						Yes		Yes	Yes	Yes	
Vehicle Extension (s)						3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode						Max	None	None	C-Max	None	None
Walk Time (s)							7.0		7.0	7.0	7.0
Flash Dont Walk (s)							11.0		10.0	11.0	11.0
Pedestrian Calls (#/hr)							0		0	0	0
Act Effct Green (s)			71.7			6.3					
Actuated g/C Ratio			0.80			0.07					
v/c Ratio			0.81			1.25					
Control Delay			4.8			175.7					
Queue Delay			6.0			0.0					
Total Delay			10.8			175.7					
LOS			B			F					
Approach Delay			10.8		175.7						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Approach LOS			B		F						
90th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
90th %ile Term Code						MaxR	Coord	Max	Coord	Skip	Hold
70th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
70th %ile Term Code						MaxR	Coord	Max	Coord	Skip	Hold
50th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
50th %ile Term Code						MaxR	Coord	Max	Coord	Skip	Hold
30th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
30th %ile Term Code						MaxR	Coord	Max	Coord	Skip	Hold
10th %ile Green (s)						7.5	38.5	26.0	38.5	0.0	39.5
10th %ile Term Code						MaxR	Coord	Max	Coord	Skip	Hold
Stops (vph)			577			163					
Fuel Used(gal)			11			11					
CO Emissions (g/hr)			768			736					
NOx Emissions (g/hr)			149			143					
VOC Emissions (g/hr)			178			171					
Dilemma Vehicles (#)			0			0					
Queue Length 50th (ft)			139			~110					
Queue Length 95th (ft)			m133			#191					
Internal Link Dist (ft)		493	296		173						
Turn Bay Length (ft)											
Base Capacity (vph)			2831			234					
Starvation Cap Reductn			494			0					
Spillback Cap Reductn			0			0					
Storage Cap Reductn			0			0					
Reduced v/c Ratio			0.98			1.25					

Intersection Summary

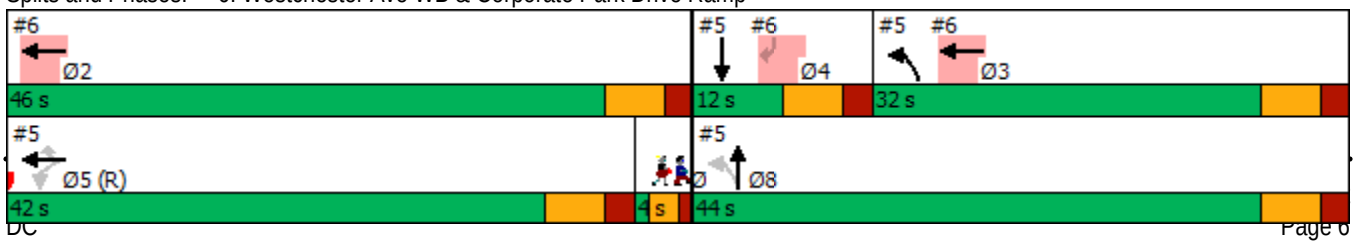
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 54 (60%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.25
Intersection Signal Delay: 29.5 Intersection LOS: C
Intersection Capacity Utilization 74.1% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Westchester Ave WB & Corporate Park Drive Ramp



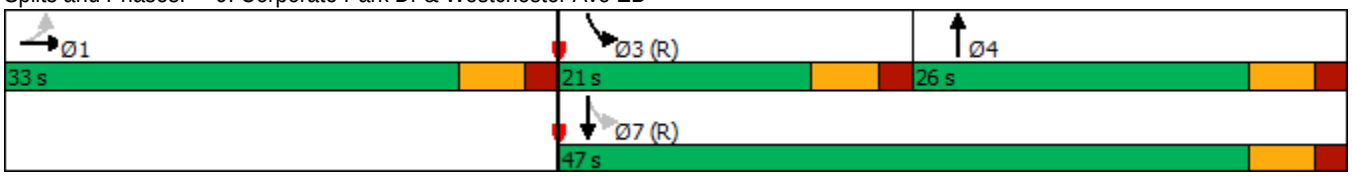
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	524	752	23	0	0	0	0	369	15	510	17	0
Future Volume (vph)	524	752	23	0	0	0	0	369	15	510	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.996						0.994				
Flt Protected	0.950									0.950	0.955	
Satd. Flow (prot)	1787	3504	0	0	0	0	0	3521	0	1698	1708	0
Flt Permitted	0.950									0.331	0.311	
Satd. Flow (perm)	1787	3504	0	0	0	0	0	3521	0	592	556	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4						5				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1967			373			359	
Travel Time (s)		34.4			44.7			8.5			8.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	23%	0%	0%	0%	0%	2%	0%	1%	0%	0%
Adj. Flow (vph)	595	855	26	0	0	0	0	419	17	580	19	0
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	595	881	0	0	0	0	0	436	0	296	303	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	33.0	33.0						26.0		21.0	47.0	
Total Split (%)	41.3%	41.3%						32.5%		26.3%	58.8%	
Maximum Green (s)	27.0	27.0						20.0		15.0	41.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	27.0	27.0						20.0		41.0	41.0	
Actuated g/C Ratio	0.34	0.34						0.25		0.51	0.51	
v/c Ratio	0.99	0.74						0.49		0.58	0.61	
Control Delay	52.5	19.3						27.6		16.6	17.3	
Queue Delay	0.0	0.0						0.0		0.0	0.7	
Total Delay	52.5	19.3						27.6		16.6	18.0	
LOS	D	B						C		B	B	
Approach Delay		32.7						27.6			17.3	
Approach LOS		C						C			B	
Stops (vph)	466	694						314		148	152	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fuel Used(gal)	17	20						5		2	3	
CO Emissions (g/hr)	1213	1430						350		170	177	
NOx Emissions (g/hr)	236	278						68		33	34	
VOC Emissions (g/hr)	281	332						81		39	41	
Dilemma Vehicles (#)	0	18						0		0	0	
Queue Length 50th (ft)	315	205						96		86	89	
Queue Length 95th (ft)	#494	256						137		137	141	
Internal Link Dist (ft)		1937			1887			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	603	1185						884		510	500	
Starvation Cap Reductn	0	0						0		0	45	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.99	0.74						0.49		0.58	0.67	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 26 (33%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 28.1 Intersection LOS: C
Intersection Capacity Utilization 90.6% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB



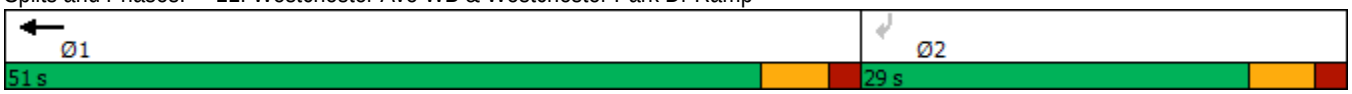
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱↱
Traffic Volume (vph)	0	0	1779	0	0	474
Future Volume (vph)	0	0	1779	0	0	474
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	2814
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	2814
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						17
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	0%	0%	1%
Adj. Flow (vph)	0	0	1934	0	0	515
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1934	0	0	515
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			20.0			10.0
Total Split (s)			51.0			29.0
Total Split (%)			63.8%			36.3%
Maximum Green (s)			45.0			23.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			45.0			23.0
Actuated g/C Ratio			0.56			0.29
v/c Ratio			0.97			0.63
Control Delay			32.7			27.9
Queue Delay			0.0			0.0
Total Delay			32.7			27.9
LOS			C			C
Approach Delay			32.7		27.9	
Approach LOS			C		C	
90th %ile Green (s)			45.0			23.0
90th %ile Term Code			Max			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			45.0			23.0
70th %ile Term Code			Max			MaxR
50th %ile Green (s)			45.0			23.0
50th %ile Term Code			Max			MaxR
30th %ile Green (s)			45.0			23.0
30th %ile Term Code			Max			MaxR
10th %ile Green (s)			45.0			23.0
10th %ile Term Code			Max			MaxR
Stops (vph)			1470			387
Fuel Used(gal)			28			5
CO Emissions (g/hr)			1977			381
NOx Emissions (g/hr)			385			74
VOC Emissions (g/hr)			458			88
Dilemma Vehicles (#)			106			0
Queue Length 50th (ft)			452			122
Queue Length 95th (ft)			#656			178
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			1990			821
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.97			0.63

Intersection Summary	
Area Type: Other	
Cycle Length: 80	
Actuated Cycle Length: 80	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 31.7	Intersection LOS: C
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	
90th %ile Actuated Cycle: 80	
70th %ile Actuated Cycle: 80	
50th %ile Actuated Cycle: 80	
30th %ile Actuated Cycle: 80	
10th %ile Actuated Cycle: 80	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	799	1456	13	311	24	0	0	24	17
Future Volume (vph)	0	0	0	799	1456	13	311	24	0	0	24	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.939	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1214	1787	1301	0	0	2795	0
Flt Permitted				0.950			0.445					
Satd. Flow (perm)	0	0	0	1787	3539	1214	837	1301	0	0	2795	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123					20	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	1%	2%	33%	1%	46%	0%	0%	18%	26%
Adj. Flow (vph)	0	0	0	951	1733	15	370	29	0	0	29	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	951	1733	15	370	29	0	0	49	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				41.0	41.0	41.0	17.0	39.0			22.0	
Total Split (%)				51.3%	51.3%	51.3%	21.3%	48.8%			27.5%	
Maximum Green (s)				35.0	35.0	35.0	11.0	33.0			16.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				35.0	35.0	35.0	33.0	33.0			11.8	
Actuated g/C Ratio				0.44	0.44	0.44	0.41	0.41			0.15	
v/c Ratio				1.22	1.12	0.03	0.64	0.05			0.11	
Control Delay				133.8	87.1	0.1	19.6	7.7			18.7	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				133.8	87.1	0.1	19.6	7.7			18.7	
LOS				F	F	A	B	A			B	
Approach Delay					103.1			18.7			18.7	
Approach LOS					F			B			B	
90th %ile Green (s)				35.0	35.0	35.0	11.0	33.0			16.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				35.0	35.0	35.0	11.0	33.0			16.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				35.0	35.0	35.0	11.0	33.0			16.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				35.0	35.0	35.0	33.0	33.0			0.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
10th %ile Green (s)				35.0	35.0	35.0	33.0	33.0			0.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
Stops (vph)				640	1224	0	199	7			23	
Fuel Used(gal)				33	47	0	3	0			0	
CO Emissions (g/hr)				2295	3255	5	239	11			28	
NOx Emissions (g/hr)				447	633	1	47	2			5	
VOC Emissions (g/hr)				532	754	1	55	3			6	
Dilemma Vehicles (#)				0	80	0	0	0			0	
Queue Length 50th (ft)				~592	~533	0	74	4			6	
Queue Length 95th (ft)				#732	#593	0	#191	m8			18	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				781	1548	600	580	536			575	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				1.22	1.12	0.03	0.64	0.05			0.09	

Intersection Summary

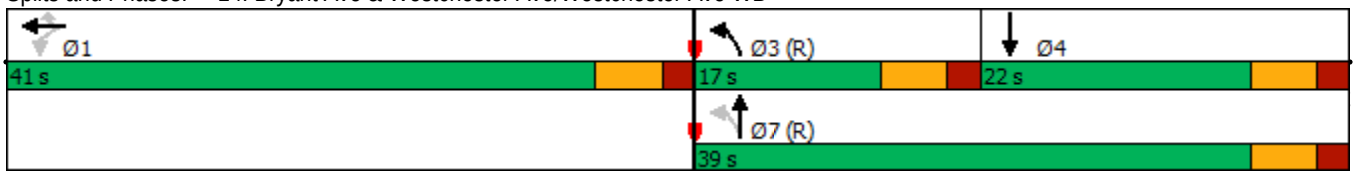
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 24 (30%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.22
Intersection Signal Delay: 91.1 Intersection LOS: F
Intersection Capacity Utilization 78.2% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave/Westchester Ave WB



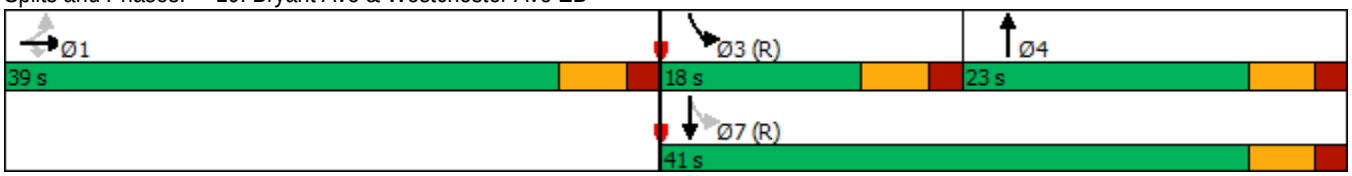
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	784	86	0	0	0	0	180	265	188	568	0
Future Volume (vph)	156	784	86	0	0	0	0	180	265	188	568	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.911				
Flt Protected	0.950										0.988	
Satd. Flow (prot)	1687	3505	1599	0	0	0	0	3224	0	0	3523	0
Flt Permitted	0.950										0.587	
Satd. Flow (perm)	1687	3505	1599	0	0	0	0	3224	0	0	2093	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123					182				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	3%	1%	0%	0%	0%	0%	2%	2%	2%	1%	0%
Adj. Flow (vph)	168	843	92	0	0	0	0	194	285	202	611	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	843	92	0	0	0	0	479	0	0	813	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	39.0	39.0	39.0					23.0		18.0	41.0	
Total Split (%)	48.8%	48.8%	48.8%					28.8%		22.5%	51.3%	
Maximum Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	27.2	27.2	27.2					17.0			40.8	
Actuated g/C Ratio	0.34	0.34	0.34					0.21			0.51	
v/c Ratio	0.29	0.71	0.15					0.58			0.59	
Control Delay	19.6	26.0	2.2					20.4			1.5	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	19.6	26.0	2.2					20.4			1.5	
LOS	B	C	A					C			A	
Approach Delay		23.0						20.4			1.5	
Approach LOS		C						C			A	
90th %ile Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	30.9	30.9	30.9					17.0		14.1	37.1	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	27.6	27.6	27.6					17.0		17.4	40.4	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	24.7	24.7	24.7					17.0		20.3	43.3	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	19.9	19.9	19.9					17.0		25.1	48.1	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	105	640	6					243			50	
Fuel Used(gal)	2	13	0					6			3	
CO Emissions (g/hr)	156	931	29					388			219	
NOx Emissions (g/hr)	30	181	6					76			43	
VOC Emissions (g/hr)	36	216	7					90			51	
Dilemma Vehicles (#)	0	40	0					0			0	
Queue Length 50th (ft)	60	187	0					68			5	
Queue Length 95th (ft)	96	224	16					116			m5	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	695	1445	731					828			1384	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.24	0.58	0.13					0.58			0.59	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 3:SBL and 7:SBTL, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.2	Intersection LOS: B
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1323	588	0	0	0	0	0	0	1121	358	0
Future Volume (vph)	0	1323	588	0	0	0	0	0	0	1121	358	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			315							41		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1967			459			138			933	
Travel Time (s)		33.5			10.4			3.1			21.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	1503	668	0	0	0	0	0	0	1274	407	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1503	668	0	0	0	0	0	0	1274	407	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		40.0	40.0							40.0	40.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		34.0	34.0							34.0	34.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		34.0	34.0							34.0	34.0	
Actuated g/C Ratio		0.42	0.42							0.42	0.42	
v/c Ratio		1.88	0.78							1.61	0.51	
Control Delay		422.7	18.0							304.1	19.7	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		422.7	18.0							304.1	19.7	
LOS		F	B							F	B	
Approach Delay		298.2									235.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F									F	
90th %ile Green (s)		34.0	34.0							34.0	34.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		34.0	34.0							34.0	34.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		34.0	34.0							34.0	34.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		34.0	34.0							34.0	34.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		34.0	34.0							34.0	34.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		964	291							811	254	
Fuel Used(gal)		141	13							82	5	
CO Emissions (g/hr)		9854	899							5734	380	
NOx Emissions (g/hr)		1917	175							1116	74	
VOC Emissions (g/hr)		2284	208							1329	88	
Dilemma Vehicles (#)		44	0							0	0	
Queue Length 50th (ft)		~1165	147							~928	145	
Queue Length 95th (ft)		#1372	282							#1139	218	
Internal Link Dist (ft)		1887			379			58			853	
Turn Bay Length (ft)												
Base Capacity (vph)		799	853							790	799	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.88	0.78							1.61	0.51	

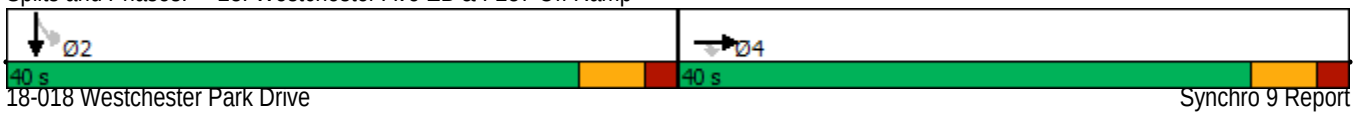
Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.88
Intersection Signal Delay: 270.7 — Intersection LOS: F
Intersection Capacity Utilization 141.7% — ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 80
70th %ile Actuated Cycle: 80
50th %ile Actuated Cycle: 80
30th %ile Actuated Cycle: 80
10th %ile Actuated Cycle: 80

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Westchester Ave EB & I-287 Off Ramp



Intersection	
Int Delay, s/veh	27.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1330	0	0	419
Future Vol, veh/h	0	0	1330	0	0	419
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	1385	0	0	436

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	693
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	~ 388
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	~ 388
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	116.4
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	388
HCM Lane V/C Ratio	-	1.125
HCM Control Delay (s)	-	116.4
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	16.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 Build
Jurisdiction	Harrison	Time Period Analyzed	Peak PM Hour
Project Description	18-018 3 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	1177	588
Peak Hour Factor (PHF)	0.84	0.84
Total Trucks, %	4.00	0.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.962	1.000
Flow Rate (v_i),pc/h	1457	700
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.32	0.37

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.621
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	46.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	60.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1457	Ramp Junction Speed (S), mi/h	46.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	15.5
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	13.2

Managed Lane Geometric Data			
Managed Lane Type	Continuous Access	Free-Flow Speed (FFS), mi/h	75.4
Number of Managed Lanes, ln	1	Terrain Type	Level
Managed Lane Length, ft	5280	Percent Grade, %	-
Managed Lane Adjustment Factors			
Driver Population	All Familiar	Driver Population CAF	1.000
Weather Type	Non-Severe Weather	Weather Type CAF	1.000
Driver Population SAF	1.000	Final Speed Adjustment Factor (SAF)	1.000
Weather Type SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Demand Adjustment Factor (DAF)	1.000		
Managed Lane Demand and Capacity			
Volume (V_{ML}), veh/h	0	Heavy Vehicle Adjustment Factor (f_{HV})	1.000
Peak Hour Factor	0.94	Flow Rate ($V_{p,ML}$), pc/h/ln	0
Total Trucks, %	0.00	Capacity (c), pc/h/ln	1804
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	1804
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.00
Passenger Car Equivalent (E_T)	2.000		
Managed Lane Speed and Density			
Breakpoint (BP_{ML})	500	Indicator Variable (I_c)	-
Speed 1 (S_1), mi/h	75.4	Average Speed (S_{ML}), mi/h	75.4
Speed 2 (S_2), mi/h	-	Density (D_{ML}), pc/mi/ln	0.0
Speed 3 (S_3), mi/h	-	Level of Service (LOS)	A

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	2/28/2019
Agency	Provident Design Engineering	Analysis Year	2019
Jurisdiction	Harrison	Time Period Analyzed	PM Peak
Project Description	18-018 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	1128	781	37	273
Peak Hour Factor (PHF)	0.96	0.96	0.96	0.96
Total Trucks, %	2.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1199	814	39	284
Weaving Flow Rate (v_W), pc/h	1098	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1238	Density-Based Capacity (c_{IWL}), pc/h/ln		1666
Total Flow Rate (v), pc/h	2336	Demand Flow-Based Capacity (c_{IW}), pc/h		5106
Volume Ratio (VR)	0.470	Weaving Segment Capacity (c_W), veh/h		3298
Minimum Lane Change Rate (LC_{MIN}), lc/h	1098	Adjusted Weaving Area Capacity, pc/h		3332
Maximum Weaving Length (L_{MAX}), ft	7478	Volume-to-Capacity Ratio (v/c)		0.70

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	31	Average Weaving Speed (S_W), mi/h	38.8
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	141	Average Non-Weaving Speed (S_{NW}), mi/h	36.5
Weaving Lane Change Rate (LC_W), lc/h	1129	Average Speed (S), mi/h	37.5
Weaving Lane Change Rate (LC_{All}), lc/h	1270	Density (D), pc/mi/ln	31.1
Weaving Intensity Factor (W)	0.472	Level of Service (LOS)	D

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	276	1361	261	636	253	0	0	251	0
Future Volume (vph)	0	0	0	276	1361	261	636	253	0	0	251	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1615	1770	1810	0	0	3471	0
Flt Permitted				0.950			0.500					
Satd. Flow (perm)	0	0	0	1787	3539	1615	931	1810	0	0	3471	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						300						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	2%	5%	0%	0%	4%	0%
Adj. Flow (vph)	0	0	0	317	1564	300	731	291	0	0	289	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	317	1564	300	731	291	0	0	289	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5!		3	8			1 4!	
Permitted Phases				5!		5	8					
Detector Phase				5	5	5	3	8			1 4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0				
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0				
Total Split (s)				42.0	42.0	42.0	36.0	44.0				
Total Split (%)				46.7%	46.7%	46.7%	40.0%	48.9%				
Maximum Green (s)				36.0	36.0	36.0	30.0	38.0				
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0				
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0				
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0				
Lead/Lag				Lead	Lead	Lead	Lag					
Lead-Lag Optimize?				Yes	Yes	Yes	Yes					
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0				
Recall Mode				C-Max	C-Max	C-Max	None	None				
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				40.0	40.0	40.0	38.0	38.0			10.0	
Actuated g/C Ratio				0.44	0.44	0.44	0.42	0.42			0.11	
v/c Ratio				0.40	0.99	0.34	1.09	0.38			0.75	
Control Delay				18.8	47.6	3.1	89.8	19.8			52.2	
Queue Delay				0.0	0.0	0.0	5.7	1.0			0.0	

Lane Group	Ø1	Ø2	Ø4	Ø6
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	2	4	6
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	2.0	5.0	4.0	1.0
Minimum Split (s)	4.0	16.0	10.0	4.0
Total Split (s)	4.0	42.0	8.0	4.0
Total Split (%)	4%	47%	9%	4%
Maximum Green (s)	2.0	36.0	2.0	1.0
Yellow Time (s)	2.0	4.0	4.0	2.0
All-Red Time (s)	0.0	2.0	2.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	Max	None
Walk Time (s)		7.0		7.0
Flash Dont Walk (s)		11.0		11.0
Pedestrian Calls (#/hr)		0		0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				18.8	47.6	3.1	95.5	20.8			52.2	
LOS				B	D	A	F	C			D	
Approach Delay					37.3			74.2			52.2	
Approach LOS					D			E			D	
90th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
90th %ile Term Code				Coord	Coord	Coord	Max	Hold				
70th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
70th %ile Term Code				Coord	Coord	Coord	Max	Hold				
50th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
50th %ile Term Code				Coord	Coord	Coord	Max	Hold				
30th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
30th %ile Term Code				Coord	Coord	Coord	Max	Hold				
10th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
10th %ile Term Code				Coord	Coord	Coord	Max	Hold				
Stops (vph)				180	1179	22	493	168			231	
Fuel Used(gal)				4	32	2	16	3			5	
CO Emissions (g/hr)				294	2209	118	1127	186			317	
NOx Emissions (g/hr)				57	430	23	219	36			62	
VOC Emissions (g/hr)				68	512	27	261	43			74	
Dilemma Vehicles (#)				0	71	0	0	0			0	
Queue Length 50th (ft)				118	450	0	~472	111			85	
Queue Length 95th (ft)				177	#585	39	#650	168			#133	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				794	1572	884	672	764			385	
Starvation Cap Reductn				0	0	0	0	263			0	
Spillback Cap Reductn				0	0	0	83	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.40	0.99	0.34	1.24	0.58			0.75	

Intersection Summary

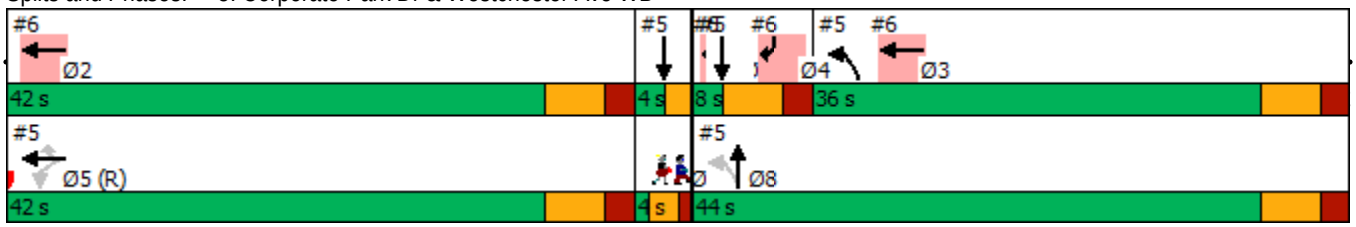
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 54 (60%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.09
Intersection Signal Delay: 49.3 Intersection LOS: D
Intersection Capacity Utilization 93.1% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø1	Ø2	Ø4	Ø6
Total Delay				
LOS				
Approach Delay				
Approach LOS				
90th %ile Green (s)	2.0	36.0	2.0	0.0
90th %ile Term Code	Max	Coord	MaxR	Skip
70th %ile Green (s)	2.0	36.0	2.0	0.0
70th %ile Term Code	Max	Coord	MaxR	Skip
50th %ile Green (s)	2.0	36.0	2.0	0.0
50th %ile Term Code	Max	Coord	MaxR	Skip
30th %ile Green (s)	2.0	36.0	2.0	0.0
30th %ile Term Code	Max	Coord	MaxR	Skip
10th %ile Green (s)	2.0	36.0	2.0	0.0
10th %ile Term Code	Max	Coord	MaxR	Skip
Stops (vph)				
Fuel Used(gal)				
CO Emissions (g/hr)				
NOx Emissions (g/hr)				
VOC Emissions (g/hr)				
Dilemma Vehicles (#)				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6
Lane Configurations												
Traffic Volume (vph)	0	0	1997	0	0	255						
Future Volume (vph)	0	0	1997	0	0	255						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88						
Frt						0.850						
Flt Protected												
Satd. Flow (prot)	0	0	3539	0	0	2842						
Flt Permitted												
Satd. Flow (perm)	0	0	3539	0	0	2842						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)						39						
Link Speed (mph)		30	30		30							
Link Distance (ft)		573	376		253							
Travel Time (s)		13.0	8.5		5.8							
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87						
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%						
Adj. Flow (vph)	0	0	2295	0	0	293						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	2295	0	0	293						
Turn Type			NA			custom						
Protected Phases			2 3			1 4	1	2	3	4	5	6
Permitted Phases												
Detector Phase			2 3			1 4						
Switch Phase												
Minimum Initial (s)							2.0	5.0	1.0	4.0	5.0	1.0
Minimum Split (s)							4.0	16.0	11.0	10.0	26.0	4.0
Total Split (s)							4.0	42.0	36.0	8.0	42.0	4.0
Total Split (%)							4%	47%	40%	9%	47%	4%
Maximum Green (s)							2.0	36.0	30.0	2.0	36.0	1.0
Yellow Time (s)							2.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)							0.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag							Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)							3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode							None	None	None	Max	C-Max	None
Walk Time (s)								7.0			7.0	7.0
Flash Dont Walk (s)								11.0			10.0	11.0
Pedestrian Calls (#/hr)								0			0	0
Act Effct Green (s)			72.0			10.0						
Actuated g/C Ratio			0.80			0.11						
v/c Ratio			0.81			0.84						
Control Delay			6.0			55.8						
Queue Delay			14.1			0.0						
Total Delay			20.1			55.8						
LOS			C			E						
Approach Delay			20.1		55.8							

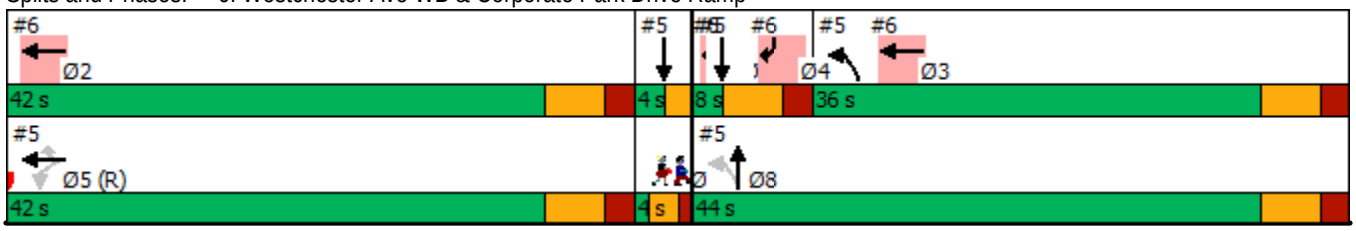
Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	16.0
Total Split (s)	44.0
Total Split (%)	49%
Maximum Green (s)	38.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6
Approach LOS			C		E							
90th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
90th %ile Term Code							Max	Coord	Max	MaxR	Coord	Skip
70th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
70th %ile Term Code							Max	Coord	Max	MaxR	Coord	Skip
50th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
50th %ile Term Code							Max	Coord	Max	MaxR	Coord	Skip
30th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
30th %ile Term Code							Max	Coord	Max	MaxR	Coord	Skip
10th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
10th %ile Term Code							Max	Coord	Max	MaxR	Coord	Skip
Stops (vph)			717			200						
Fuel Used(gal)			12			5						
CO Emissions (g/hr)			856			315						
NOx Emissions (g/hr)			166			61						
VOC Emissions (g/hr)			198			73						
Dilemma Vehicles (#)			0			0						
Queue Length 50th (ft)			190			81						
Queue Length 95th (ft)			m186			#148						
Internal Link Dist (ft)		493	296		173							
Turn Bay Length (ft)												
Base Capacity (vph)			2831			350						
Starvation Cap Reductn			574			0						
Spillback Cap Reductn			0			0						
Storage Cap Reductn			0			0						
Reduced v/c Ratio			1.02			0.84						

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 54 (60%), Referenced to phase 5:WBTL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.09	
Intersection Signal Delay: 24.1	Intersection LOS: C
Intersection Capacity Utilization 72.5%	ICU Level of Service C
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Westchester Ave WB & Corporate Park Drive Ramp



Lane Group	Ø8
Approach LOS	
90th %ile Green (s)	38.0
90th %ile Term Code	Hold
70th %ile Green (s)	38.0
70th %ile Term Code	Hold
50th %ile Green (s)	38.0
50th %ile Term Code	Hold
30th %ile Green (s)	38.0
30th %ile Term Code	Hold
10th %ile Green (s)	38.0
10th %ile Term Code	Hold
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

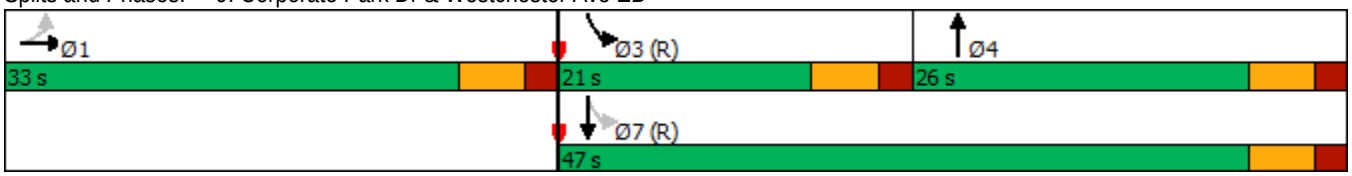
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	524	752	23	0	0	0	0	369	15	510	17	0
Future Volume (vph)	524	752	23	0	0	0	0	369	15	510	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.996						0.994				
Flt Protected	0.950									0.950	0.955	
Satd. Flow (prot)	1787	3504	0	0	0	0	0	3521	0	1698	1708	0
Flt Permitted	0.950									0.331	0.311	
Satd. Flow (perm)	1787	3504	0	0	0	0	0	3521	0	592	556	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4						5				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1967			373			359	
Travel Time (s)		34.4			44.7			8.5			8.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	23%	0%	0%	0%	0%	2%	0%	1%	0%	0%
Adj. Flow (vph)	595	855	26	0	0	0	0	419	17	580	19	0
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	595	881	0	0	0	0	0	436	0	296	303	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	33.0	33.0						26.0		21.0	47.0	
Total Split (%)	41.3%	41.3%						32.5%		26.3%	58.8%	
Maximum Green (s)	27.0	27.0						20.0		15.0	41.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	27.0	27.0						20.0		41.0	41.0	
Actuated g/C Ratio	0.34	0.34						0.25		0.51	0.51	
v/c Ratio	0.99	0.74						0.49		0.58	0.61	
Control Delay	52.8	19.6						27.6		16.6	17.3	
Queue Delay	0.0	0.0						0.0		0.0	0.7	
Total Delay	52.8	19.6						27.6		16.6	18.0	
LOS	D	B						C		B	B	
Approach Delay		33.0						27.6			17.3	
Approach LOS		C						C			B	
Stops (vph)	466	695						314		148	152	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fuel Used(gal)	17	21						5		2	3	
CO Emissions (g/hr)	1215	1435						350		170	177	
NOx Emissions (g/hr)	236	279						68		33	34	
VOC Emissions (g/hr)	282	333						81		39	41	
Dilemma Vehicles (#)	0	18						0		0	0	
Queue Length 50th (ft)	314	205						96		86	89	
Queue Length 95th (ft)	#494	256						137		137	141	
Internal Link Dist (ft)		1937			1887			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	603	1185						884		510	500	
Starvation Cap Reductn	0	0						0		0	45	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.99	0.74						0.49		0.58	0.67	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 26 (33%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.99
Intersection Signal Delay: 28.3 Intersection LOS: C
Intersection Capacity Utilization 88.9% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB



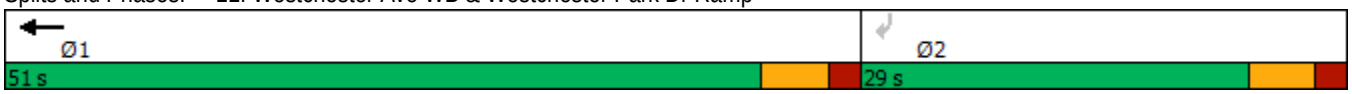
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	1779	0	0	474
Future Volume (vph)	0	0	1779	0	0	474
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	2814
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	2814
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						17
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	0%	0%	1%
Adj. Flow (vph)	0	0	1934	0	0	515
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1934	0	0	515
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			20.0			10.0
Total Split (s)			51.0			29.0
Total Split (%)			63.8%			36.3%
Maximum Green (s)			45.0			23.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			45.0			23.0
Actuated g/C Ratio			0.56			0.29
v/c Ratio			0.97			0.63
Control Delay			32.7			27.9
Queue Delay			0.0			0.0
Total Delay			32.7			27.9
LOS			C			C
Approach Delay			32.7		27.9	
Approach LOS			C		C	
90th %ile Green (s)			45.0			23.0
90th %ile Term Code			Max			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			45.0			23.0
70th %ile Term Code			Max			MaxR
50th %ile Green (s)			45.0			23.0
50th %ile Term Code			Max			MaxR
30th %ile Green (s)			45.0			23.0
30th %ile Term Code			Max			MaxR
10th %ile Green (s)			45.0			23.0
10th %ile Term Code			Max			MaxR
Stops (vph)			1470			387
Fuel Used(gal)			28			5
CO Emissions (g/hr)			1977			381
NOx Emissions (g/hr)			385			74
VOC Emissions (g/hr)			458			88
Dilemma Vehicles (#)			106			0
Queue Length 50th (ft)			452			122
Queue Length 95th (ft)			#656			178
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			1990			821
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.97			0.63

Intersection Summary	
Area Type: Other	
Cycle Length: 80	
Actuated Cycle Length: 80	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 31.7	Intersection LOS: C
Intersection Capacity Utilization 75.8%	ICU Level of Service D
Analysis Period (min) 15	
90th %ile Actuated Cycle: 80	
70th %ile Actuated Cycle: 80	
50th %ile Actuated Cycle: 80	
30th %ile Actuated Cycle: 80	
10th %ile Actuated Cycle: 80	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	799	1456	13	311	24	0	0	24	17
Future Volume (vph)	0	0	0	799	1456	13	311	24	0	0	24	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.939	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1214	1787	1301	0	0	2795	0
Flt Permitted				0.950			0.395					
Satd. Flow (perm)	0	0	0	1787	3539	1214	743	1301	0	0	2795	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123					20	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	1%	2%	33%	1%	46%	0%	0%	18%	26%
Adj. Flow (vph)	0	0	0	951	1733	15	370	29	0	0	29	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	951	1733	15	370	29	0	0	49	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				46.0	46.0	46.0	16.0	34.0			18.0	
Total Split (%)				57.5%	57.5%	57.5%	20.0%	42.5%			22.5%	
Maximum Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				40.0	40.0	40.0	28.0	28.0			9.4	
Actuated g/C Ratio				0.50	0.50	0.50	0.35	0.35			0.12	
v/c Ratio				1.06	0.98	0.02	0.76	0.06			0.14	
Control Delay				71.4	38.1	0.1	33.7	11.8			21.3	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				71.4	38.1	0.1	33.7	11.8			21.3	
LOS				E	D	A	C	B			C	
Approach Delay					49.6			32.1			21.3	
Approach LOS					D			C			C	
90th %ile Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
10th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
Stops (vph)				651	1230	0	201	10			25	
Fuel Used(gal)				23	32	0	4	0			0	
CO Emissions (g/hr)				1593	2242	5	303	14			30	
NOx Emissions (g/hr)				310	436	1	59	3			6	
VOC Emissions (g/hr)				369	520	1	70	3			7	
Dilemma Vehicles (#)				0	87	0	0	0			0	
Queue Length 50th (ft)				~533	422	0	153	4			6	
Queue Length 95th (ft)				#673	#531	0	#257	m12			20	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				893	1769	668	484	455			436	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				1.06	0.98	0.02	0.76	0.06			0.11	

Intersection Summary

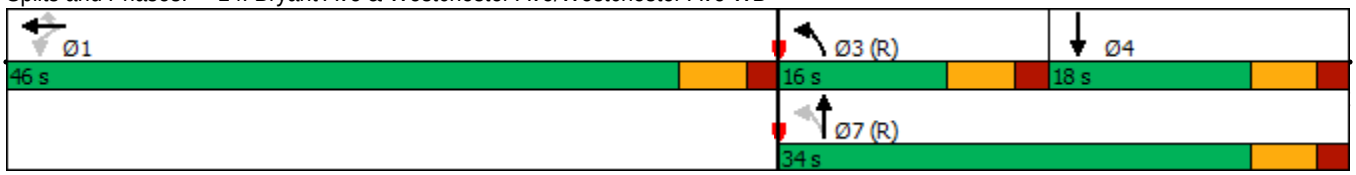
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 24 (30%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.06
Intersection Signal Delay: 46.9 Intersection LOS: D
Intersection Capacity Utilization 78.2% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave/Westchester Ave WB

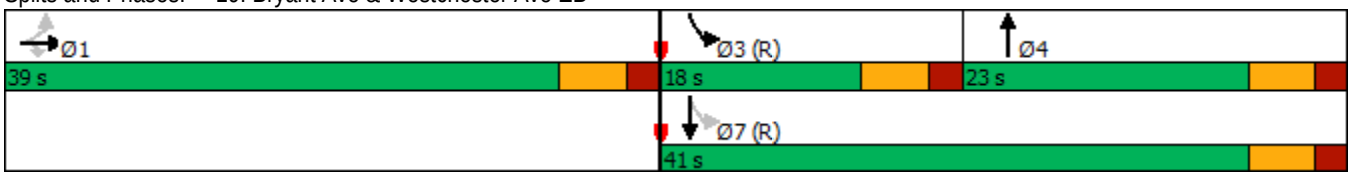


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	784	86	0	0	0	0	180	265	188	568	0
Future Volume (vph)	156	784	86	0	0	0	0	180	265	188	568	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.911				
Flt Protected	0.950										0.988	
Satd. Flow (prot)	1687	3505	1599	0	0	0	0	3224	0	0	3523	0
Flt Permitted	0.950										0.587	
Satd. Flow (perm)	1687	3505	1599	0	0	0	0	3224	0	0	2093	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123					182				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	3%	1%	0%	0%	0%	0%	2%	2%	2%	1%	0%
Adj. Flow (vph)	168	843	92	0	0	0	0	194	285	202	611	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	843	92	0	0	0	0	479	0	0	813	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	39.0	39.0	39.0					23.0		18.0	41.0	
Total Split (%)	48.8%	48.8%	48.8%					28.8%		22.5%	51.3%	
Maximum Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	27.2	27.2	27.2					17.0			40.8	
Actuated g/C Ratio	0.34	0.34	0.34					0.21			0.51	
v/c Ratio	0.29	0.71	0.15					0.58			0.59	
Control Delay	19.6	26.0	2.2					20.4			1.0	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	19.6	26.0	2.2					20.4			1.0	
LOS	B	C	A					C			A	
Approach Delay		23.0						20.4			1.0	
Approach LOS		C						C			A	
90th %ile Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	30.9	30.9	30.9					17.0		14.1	37.1	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	27.6	27.6	27.6					17.0		17.4	40.4	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	24.7	24.7	24.7					17.0		20.3	43.3	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	19.9	19.9	19.9					17.0		25.1	48.1	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	105	640	6					243			73	
Fuel Used(gal)	2	13	0					6			3	
CO Emissions (g/hr)	156	931	29					388			223	
NOx Emissions (g/hr)	30	181	6					76			43	
VOC Emissions (g/hr)	36	216	7					90			52	
Dilemma Vehicles (#)	0	40	0					0			0	
Queue Length 50th (ft)	60	187	0					68			5	
Queue Length 95th (ft)	96	224	16					116			m8	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	695	1445	731					828			1384	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.24	0.58	0.13					0.58			0.59	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 3:SBL and 7:SBTL, Start of Green	
Natural Cycle: 50	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.0	Intersection LOS: B
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1323	588	0	0	0	0	0	0	1121	358	0
Future Volume (vph)	0	1323	588	0	0	0	0	0	0	1121	358	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			315							41		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1967			459			138			933	
Travel Time (s)		33.5			10.4			3.1			21.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	1503	668	0	0	0	0	0	0	1274	407	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1503	668	0	0	0	0	0	0	1274	407	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		40.0	40.0							40.0	40.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		34.0	34.0							34.0	34.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		34.0	34.0							34.0	34.0	
Actuated g/C Ratio		0.42	0.42							0.42	0.42	
v/c Ratio		1.88	0.78							1.61	0.51	
Control Delay		422.7	18.0							304.1	19.7	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		422.7	18.0							304.1	19.7	
LOS		F	B							F	B	
Approach Delay		298.2									235.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F									F	
90th %ile Green (s)		34.0	34.0							34.0	34.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		34.0	34.0							34.0	34.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		34.0	34.0							34.0	34.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		34.0	34.0							34.0	34.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		34.0	34.0							34.0	34.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		964	291							811	254	
Fuel Used(gal)		141	13							82	5	
CO Emissions (g/hr)		9854	899							5734	380	
NOx Emissions (g/hr)		1917	175							1116	74	
VOC Emissions (g/hr)		2284	208							1329	88	
Dilemma Vehicles (#)		44	0							0	0	
Queue Length 50th (ft)		~1165	147							~928	145	
Queue Length 95th (ft)		#1372	282							#1139	218	
Internal Link Dist (ft)		1887			379			58			853	
Turn Bay Length (ft)												
Base Capacity (vph)		799	853							790	799	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.88	0.78							1.61	0.51	

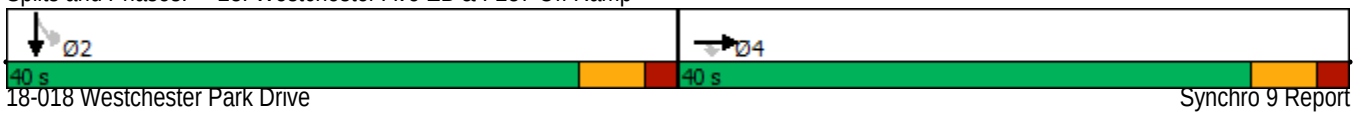
Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.88
Intersection Signal Delay: 270.7 — Intersection LOS: F
Intersection Capacity Utilization 141.7% — ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 80
70th %ile Actuated Cycle: 80
50th %ile Actuated Cycle: 80
30th %ile Actuated Cycle: 80
10th %ile Actuated Cycle: 80

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Westchester Ave EB & I-287 Off Ramp



Intersection	
Int Delay, s/veh	27.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1330	0	0	419
Future Vol, veh/h	0	0	1330	0	0	419
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	1385	0	0	436

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	693
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	~ 388
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	~ 388
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	116.4
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	388
HCM Lane V/C Ratio	-	1.125
HCM Control Delay (s)	-	116.4
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	16.2

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 Build
Jurisdiction	Harrison	Time Period Analyzed	Peak PM Hour
Project Description	18-018 3 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	1177	588
Peak Hour Factor (PHF)	0.84	0.84
Total Trucks, %	4.00	0.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.962	1.000
Flow Rate (v_i),pc/h	1457	700
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.32	0.37

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.621
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	46.9
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	60.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1457	Ramp Junction Speed (S), mi/h	46.9
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	15.5
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	13.2

Managed Lane Geometric Data			
Managed Lane Type	Continuous Access	Free-Flow Speed (FFS), mi/h	75.4
Number of Managed Lanes, ln	1	Terrain Type	Level
Managed Lane Length, ft	5280	Percent Grade, %	-
Managed Lane Adjustment Factors			
Driver Population	All Familiar	Driver Population CAF	1.000
Weather Type	Non-Severe Weather	Weather Type CAF	1.000
Driver Population SAF	1.000	Final Speed Adjustment Factor (SAF)	1.000
Weather Type SAF	1.000	Final Capacity Adjustment Factor (CAF)	1.000
Demand Adjustment Factor (DAF)	1.000		
Managed Lane Demand and Capacity			
Volume (V_{ML}), veh/h	0	Heavy Vehicle Adjustment Factor (f_{HV})	1.000
Peak Hour Factor	0.94	Flow Rate ($V_{p,ML}$), pc/h/ln	0
Total Trucks, %	0.00	Capacity (c), pc/h/ln	1804
Single-Unit Trucks (SUT), %	-	Adjusted Cpacity (c_{adj}), pc/h/ln	1804
Tractor-Trailers (TT), %	-	Volume-to-Capacity Ratio (v/c)	0.00
Passenger Car Equivalent (E_T)	2.000		
Managed Lane Speed and Density			
Breakpoint (BP_{ML})	500	Indicator Variable (I_c)	-
Speed 1 (S_1), mi/h	75.4	Average Speed (S_{ML}), mi/h	75.4
Speed 2 (S_2), mi/h	-	Density (D_{ML}), pc/mi/ln	0.0
Speed 3 (S_3), mi/h	-	Level of Service (LOS)	A

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	2/28/2019
Agency	Provident Design Engineering	Analysis Year	2019
Jurisdiction	Harrison	Time Period Analyzed	PM Peak
Project Description	18-018 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	1128	781	37	273
Peak Hour Factor (PHF)	0.96	0.96	0.96	0.96
Total Trucks, %	2.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1199	814	39	284
Weaving Flow Rate (v_W), pc/h	1098	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1238	Density-Based Capacity (c_{IWL}), pc/h/ln		1666
Total Flow Rate (v), pc/h	2336	Demand Flow-Based Capacity (c_{IW}), pc/h		5106
Volume Ratio (VR)	0.470	Weaving Segment Capacity (c_W), veh/h		3298
Minimum Lane Change Rate (LC_{MIN}), lc/h	1098	Adjusted Weaving Area Capacity, pc/h		3332
Maximum Weaving Length (L_{MAX}), ft	7478	Volume-to-Capacity Ratio (v/c)		0.70

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	31	Average Weaving Speed (S_W), mi/h	38.8
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	141	Average Non-Weaving Speed (S_{NW}), mi/h	36.5
Weaving Lane Change Rate (LC_W), lc/h	1129	Average Speed (S), mi/h	37.5
Weaving Lane Change Rate (LC_{All}), lc/h	1270	Density (D), pc/mi/ln	31.1
Weaving Intensity Factor (W)	0.472	Level of Service (LOS)	D

Copyright © 2019 University of Florida. All Rights Reserved.

FEIS SENSITIVITY ANALYSIS

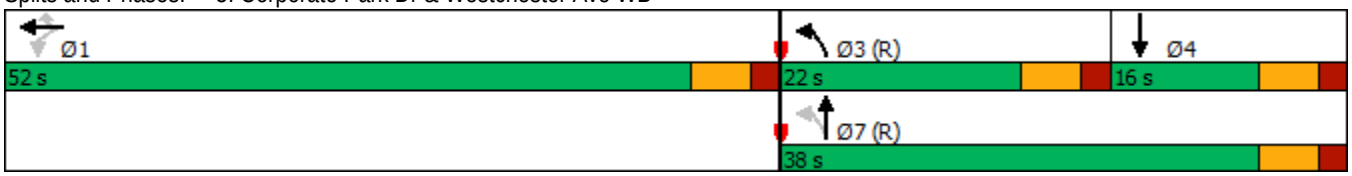
PEAK AM HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	494	938	40	221	48	0	0	24	0
Future Volume (vph)	0	0	0	494	938	40	221	48	0	0	24	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1671	3438	1538	1752	1792	0	0	3343	0
Flt Permitted				0.950			0.463					
Satd. Flow (perm)	0	0	0	1671	3438	1538	854	1792	0	0	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	8%	5%	5%	3%	6%	0%	0%	8%	5%
Adj. Flow (vph)	0	0	0	520	987	42	233	51	0	0	25	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	520	987	42	233	51	0	0	25	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				52.0	52.0	52.0	22.0	38.0			16.0	
Total Split (%)				57.8%	57.8%	57.8%	24.4%	42.2%			17.8%	
Maximum Green (s)				46.0	46.0	46.0	16.0	32.0			10.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			Max	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				39.0	39.0	39.0	39.0	39.0			10.0	
Actuated g/C Ratio				0.43	0.43	0.43	0.43	0.43			0.11	
v/c Ratio				0.72	0.66	0.06	0.39	0.07			0.07	
Control Delay				26.3	22.0	0.1	32.6	27.8			36.4	
Queue Delay				0.1	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				26.4	22.0	0.1	32.6	27.8			36.4	
LOS				C	C	A	C	C			D	
Approach Delay					22.9			31.8			36.4	
Approach LOS					C			C			D	
90th %ile Green (s)				46.0	46.0	46.0	16.0	32.0			10.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
70th %ile Green (s)				45.2	45.2	45.2	16.8	32.8			10.0	
70th %ile Term Code				Gap	Gap	Gap	Coord	Coord			MaxR	
50th %ile Green (s)				40.2	40.2	40.2	21.8	37.8			10.0	
50th %ile Term Code				Gap	Gap	Gap	Coord	Coord			MaxR	
30th %ile Green (s)				35.3	35.3	35.3	26.7	42.7			10.0	
30th %ile Term Code				Gap	Gap	Gap	Coord	Coord			MaxR	
10th %ile Green (s)				28.5	28.5	28.5	33.5	49.5			10.0	
10th %ile Term Code				Gap	Gap	Gap	Coord	Coord			MaxR	
Stops (vph)				383	693	0	210	44			23	
Fuel Used(gal)				9	16	0	3	1			0	
CO Emissions (g/hr)				621	1099	14	227	45			25	
NOx Emissions (g/hr)				121	214	3	44	9			5	
VOC Emissions (g/hr)				144	255	3	53	11			6	
Dilemma Vehicles (#)				0	43	0	0	0			0	
Queue Length 50th (ft)				230	221	0	136	23			6	
Queue Length 95th (ft)				303	250	0	216	67			18	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				854	1757	839	598	775			371	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				19	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.62	0.56	0.05	0.39	0.07			0.07	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 4 (4%), Referenced to phase 3:NBL and 7:NBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 24.4	Intersection LOS: C
Intersection Capacity Utilization 78.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



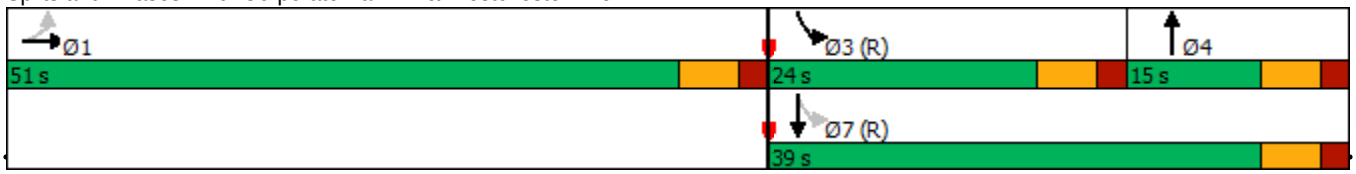
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	260	968	349	0	0	0	0	9	2	326	192	0
Future Volume (vph)	260	968	349	0	0	0	0	9	2	326	192	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.960						0.973				
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1752	3358	0	0	0	0	0	2974	0	1626	1863	0
Flt Permitted	0.950									0.513		
Satd. Flow (perm)	1752	3358	0	0	0	0	0	2974	0	878	1863	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		81						2				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1963			373			359	
Travel Time (s)		34.4			44.6			8.5			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	4%	1%	0%	0%	0%	0%	11%	50%	11%	2%	0%
Adj. Flow (vph)	271	1008	364	0	0	0	0	9	2	340	200	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	271	1372	0	0	0	0	0	11	0	340	200	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Detector Phase	1	1						4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0						4.0		1.0	4.0	
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	51.0	51.0						15.0		24.0	39.0	
Total Split (%)	56.7%	56.7%						16.7%		26.7%	43.3%	
Maximum Green (s)	45.0	45.0						9.0		18.0	33.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Recall Mode	None	None						None		C-Max	C-Max	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	10.0	10.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	42.9	42.9						6.3		35.1	35.1	
Actuated g/C Ratio	0.48	0.48						0.07		0.39	0.39	
v/c Ratio	0.32	0.83						0.05		0.56	0.28	
Control Delay	20.6	28.9						35.3		37.6	30.4	
Queue Delay	0.0	0.0						0.0		1.5	0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	20.6	28.9						35.3		39.1	30.4	
LOS	C	C						D		D	C	
Approach Delay		27.5						35.3			35.9	
Approach LOS		C						D			D	
90th %ile Green (s)	45.0	45.0						9.0		18.0	33.0	
90th %ile Term Code	Max	Max						Hold		Coord	Coord	
70th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
70th %ile Term Code	Max	Max						Skip		Coord	Coord	
50th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
50th %ile Term Code	Max	Max						Skip		Coord	Coord	
30th %ile Green (s)	42.6	42.6						0.0		35.4	35.4	
30th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
10th %ile Green (s)	37.1	37.1						0.0		40.9	40.9	
10th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
Stops (vph)	155	1001						12		312	184	
Fuel Used(gal)	6	36						0		5	3	
CO Emissions (g/hr)	431	2488						12		359	192	
NOx Emissions (g/hr)	84	484						2		70	37	
VOC Emissions (g/hr)	100	577						3		83	44	
Dilemma Vehicles (#)	0	133						0		0	0	
Queue Length 50th (ft)	92	235						2		204	120	
Queue Length 95th (ft)	142	306						11		#294	187	
Internal Link Dist (ft)		1937			1883			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	876	1719						299		608	725	
Starvation Cap Reductn	0	0						0		126	0	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.31	0.80						0.04		0.71	0.28	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 45
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.83
Intersection Signal Delay: 29.6 Intersection LOS: C
Intersection Capacity Utilization 78.3% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB

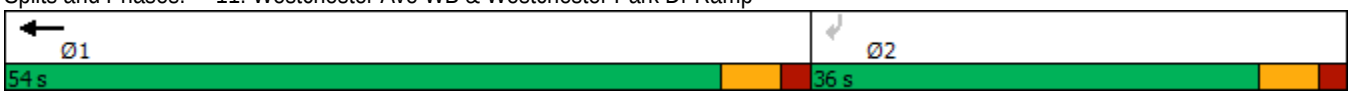


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱↱
Traffic Volume (vph)	0	0	801	0	0	207
Future Volume (vph)	0	0	801	0	0	207
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3374	0	0	2787
Flt Permitted						
Satd. Flow (perm)	0	0	3374	0	0	2787
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						228
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	7%	0%	0%	2%
Adj. Flow (vph)	0	0	861	0	0	223
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	861	0	0	223
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			25.0			10.0
Total Split (s)			54.0			36.0
Total Split (%)			60.0%			40.0%
Maximum Green (s)			48.0			30.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			23.1			30.1
Actuated g/C Ratio			0.35			0.46
v/c Ratio			0.72			0.16
Control Delay			22.0			2.3
Queue Delay			0.0			0.0
Total Delay			22.0			2.3
LOS			C			A
Approach Delay			22.0		2.3	
Approach LOS			C		A	
90th %ile Green (s)			30.9			30.0
90th %ile Term Code			Gap			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			26.1			30.0
70th %ile Term Code			Gap			MaxR
50th %ile Green (s)			22.7			30.0
50th %ile Term Code			Gap			MaxR
30th %ile Green (s)			20.5			30.0
30th %ile Term Code			Gap			MaxR
10th %ile Green (s)			16.5			30.0
10th %ile Term Code			Gap			MaxR
Stops (vph)			642			19
Fuel Used(gal)			11			0
CO Emissions (g/hr)			754			33
NOx Emissions (g/hr)			147			6
VOC Emissions (g/hr)			175			8
Dilemma Vehicles (#)			46			0
Queue Length 50th (ft)			152			0
Queue Length 95th (ft)			208			19
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			2492			1409
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.35			0.16

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 65.3	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.72	
Intersection Signal Delay: 17.9	Intersection LOS: B
Intersection Capacity Utilization 39.4%	ICU Level of Service A
Analysis Period (min) 15	
90th %ile Actuated Cycle: 72.9	
70th %ile Actuated Cycle: 68.1	
50th %ile Actuated Cycle: 64.7	
30th %ile Actuated Cycle: 62.5	
10th %ile Actuated Cycle: 58.5	

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



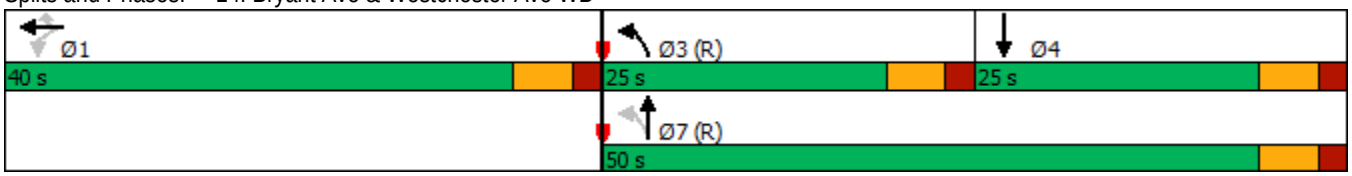
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	457	545	6	146	53	0	0	38	43
Future Volume (vph)	0	0	0	457	545	6	146	53	0	0	38	43
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.921	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1736	3374	1077	1671	1338	0	0	2638	0
Flt Permitted				0.950			0.500					
Satd. Flow (perm)	0	0	0	1736	3374	1077	880	1338	0	0	2638	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109					46	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	4%	7%	50%	8%	42%	0%	0%	16%	35%
Adj. Flow (vph)	0	0	0	491	586	6	157	57	0	0	41	46
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	491	586	6	157	57	0	0	87	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				40.0	40.0	40.0	25.0	50.0			25.0	
Total Split (%)				44.4%	44.4%	44.4%	27.8%	55.6%			27.8%	
Maximum Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				30.7	30.7	30.7	47.3	47.3			16.3	
Actuated g/C Ratio				0.34	0.34	0.34	0.53	0.53			0.18	
v/c Ratio				0.83	0.51	0.01	0.22	0.08			0.17	
Control Delay				40.1	24.9	0.0	5.9	5.4			16.7	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				40.1	24.9	0.0	5.9	5.4			16.7	
LOS				D	C	A	A	A			B	
Approach Delay					31.6			5.7			16.7	
Approach LOS					C			A			B	
90th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				33.3	33.3	33.3	19.7	44.7			19.0	
50th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Hold	
30th %ile Green (s)				29.4	29.4	29.4	23.6	48.6			19.0	
30th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Hold	
10th %ile Green (s)				22.6	22.6	22.6	55.4	55.4			0.0	
10th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Skip	
Stops (vph)				402	411	0	28	9			35	
Fuel Used(gal)				10	10	0	1	0			1	
CO Emissions (g/hr)				728	703	3	59	20			49	
NOx Emissions (g/hr)				142	137	0	11	4			9	
VOC Emissions (g/hr)				169	163	1	14	5			11	
Dilemma Vehicles (#)				0	26	0	0	0			0	
Queue Length 50th (ft)				241	131	0	17	6			10	
Queue Length 95th (ft)				361	177	0	m29	m12			30	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				655	1274	474	703	703			593	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.75	0.46	0.01	0.22	0.08			0.15	

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 24 (27%), Referenced to phase 3:NBL and 7:NBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 26.7	Intersection LOS: C
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave WB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	79	1205	60	0	0	0	0	120	246	178	317	0
Future Volume (vph)	79	1205	60	0	0	0	0	120	246	178	317	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.899				
Flt Protected	0.950										0.982	
Satd. Flow (prot)	1410	3539	1468	0	0	0	0	3121	0	0	3390	0
Flt Permitted	0.950										0.580	
Satd. Flow (perm)	1410	3539	1468	0	0	0	0	3121	0	0	2003	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109					69				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	28%	2%	10%	0%	0%	0%	0%	6%	3%	2%	6%	0%
Adj. Flow (vph)	87	1324	66	0	0	0	0	132	270	196	348	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	87	1324	66	0	0	0	0	402	0	0	544	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	56.0	56.0	56.0					23.0		11.0	34.0	
Total Split (%)	62.2%	62.2%	62.2%					25.6%		12.2%	37.8%	
Maximum Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	44.5	44.5	44.5					17.0			33.5	
Actuated g/C Ratio	0.49	0.49	0.49					0.19			0.37	
v/c Ratio	0.12	0.76	0.08					0.62			0.60	
Control Delay	11.4	21.2	0.8					32.4			9.6	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	11.4	21.2	0.8					32.4			9.6	
LOS	B	C	A					C			A	
Approach Delay		19.7						32.4			9.6	
Approach LOS		B						C			A	
90th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	48.7	48.7	48.7					17.0		6.3	29.3	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	45.5	45.5	45.5					17.0		9.5	32.5	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	41.9	41.9	41.9					17.0		13.1	36.1	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	36.3	36.3	36.3					17.0		18.7	41.7	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	38	908	2					274			245	
Fuel Used(gal)	1	19	0					6			4	
CO Emissions (g/hr)	59	1298	18					411			283	
NOx Emissions (g/hr)	12	252	3					80			55	
VOC Emissions (g/hr)	14	301	4					95			66	
Dilemma Vehicles (#)	0	55	0					0			0	
Queue Length 50th (ft)	25	297	0					92			52	
Queue Length 95th (ft)	44	336	7					141			#126	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	783	1966	864					645			908	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.11	0.67	0.08					0.62			0.60	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6.6 (7%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 19.5 Intersection LOS: B
Intersection Capacity Utilization 73.5% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB

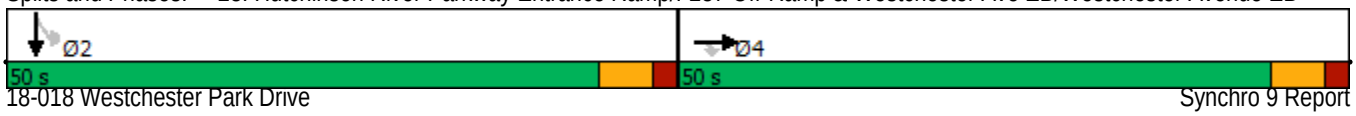
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	586	212	0	0	0	0	0	0	1147	471	0
Future Volume (vph)	0	586	212	0	0	0	0	0	0	1147	471	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			219							180		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1963			449			201			1090	
Travel Time (s)		33.5			10.2			4.6			24.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	12%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	604	219	0	0	0	0	0	0	1182	486	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	604	219	0	0	0	0	0	0	1182	486	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		50.0	50.0							50.0	50.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		44.0	44.0							44.0	44.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		35.7	35.7							44.4	44.4	
Actuated g/C Ratio		0.39	0.39							0.48	0.48	
v/c Ratio		0.88	0.32							1.23	0.54	
Control Delay		41.0	3.7							134.8	21.1	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		41.0	3.7							134.8	21.1	
LOS		D	A							F	C	
Approach Delay		31.1									101.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C									F	
90th %ile Green (s)		44.0	44.0							44.0	44.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		44.0	44.0							44.0	44.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		37.9	37.9							44.0	44.0	
50th %ile Term Code		Gap	Gap							MaxR	MaxR	
30th %ile Green (s)		31.4	31.4							44.0	44.0	
30th %ile Term Code		Gap	Gap							MaxR	MaxR	
10th %ile Green (s)		23.5	23.5							44.0	44.0	
10th %ile Term Code		Gap	Gap							MaxR	MaxR	
Stops (vph)		513	18							775	326	
Fuel Used(gal)		18	3							46	8	
CO Emissions (g/hr)		1240	221							3181	547	
NOx Emissions (g/hr)		241	43							619	106	
VOC Emissions (g/hr)		287	51							737	127	
Dilemma Vehicles (#)		27	0							0	0	
Queue Length 50th (ft)		318	0							~833	200	
Queue Length 95th (ft)		464	41							#1172	332	
Internal Link Dist (ft)		1883			369			121			1010	
Turn Bay Length (ft)												
Base Capacity (vph)		854	807							962	904	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		0.71	0.27							1.23	0.54	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 92.2
Natural Cycle: 140
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.23
Intersection Signal Delay: 78.3 Intersection LOS: E
Intersection Capacity Utilization 104.4% ICU Level of Service G
Analysis Period (min) 15
90th %ile Actuated Cycle: 100
70th %ile Actuated Cycle: 100
50th %ile Actuated Cycle: 93.9
30th %ile Actuated Cycle: 87.4
10th %ile Actuated Cycle: 79.5
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Hutchinson River Parkway Entrance Ramp/I-287 Off-Ramp & Westchester Ave EB/Westchester Avenue EB



Intersection	
Int Delay, s/veh	4.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1257	0	0	215
Future Vol, veh/h	0	0	1257	0	0	215
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	0	0	21
Mvmt Flow	0	0	1366	0	0	234

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	683
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.32
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.51
Pot Cap-1 Maneuver	-	0	0	350
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	350
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	33.7
HCM LOS		D

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	350
HCM Lane V/C Ratio	-	0.668
HCM Control Delay (s)	-	33.7
HCM Lane LOS	-	D
HCM 95th %tile Q(veh)	-	4.6

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1159	0	0	58
Future Vol, veh/h	0	0	1159	0	0	58
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	0	0	5	0	0	5
Mvmt Flow	0	0	1220	0	0	61

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	610
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.35
Pot Cap-1 Maneuver	-	0	0	430
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	430
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	14.8
HCM LOS		B

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	430
HCM Lane V/C Ratio	-	0.142
HCM Control Delay (s)	-	14.8
HCM Lane LOS	-	B
HCM 95th %tile Q(veh)	-	0.5

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2018 Existing
Jurisdiction	Harrison	Time Period Analyzed	Peak AM Hour
Project Description	18-018 3 Westchester PArk Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	602	132
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	15.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.870
Flow Rate (vi),pc/h	720	165
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.16	0.09

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.573
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	47.6
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	720	Ramp Junction Speed (S), mi/h	47.6
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	7.6
Level of Service (LOS)	A	Density in Ramp Influence Area (DR), pc/mi/ln	6.8

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	7/10/2019
Agency	PDE	Analysis Year	2019
Jurisdiction	Harrison, NY	Time Period Analyzed	AM Peak
Project Description	18-018 - Westchester Park Drive - 2018 Existing	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	856	985	83	272
Peak Hour Factor (PHF)	0.92	0.92	0.92	0.92
Total Trucks, %	3.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	1.000	1.000	1.000
Flow Rate (v_i), pc/h	958	1071	90	296
Weaving Flow Rate (v_W), pc/h	1367	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1048	Density-Based Capacity (c_{IWL}), pc/h/ln		1580
Total Flow Rate (v), pc/h	2415	Demand Flow-Based Capacity (c_{IW}), pc/h		4240
Volume Ratio (VR)	0.566	Weaving Segment Capacity (c_W), veh/h		3124
Minimum Lane Change Rate (LC_{MIN}), lc/h	1367	Adjusted Weaving Area Capacity, pc/h		3160
Maximum Weaving Length (L_{MAX}), ft	8608	Volume-to-Capacity Ratio (v/c)		0.76

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	26	Average Weaving Speed (S_W), mi/h	37.8
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	102	Average Non-Weaving Speed (S_{NW}), mi/h	34.4
Weaving Lane Change Rate (LC_W), lc/h	1398	Average Speed (S), mi/h	36.2
Weaving Lane Change Rate (LC_{All}), lc/h	1500	Density (D), pc/mi/ln	33.4
Weaving Intensity Factor (W)	0.538	Level of Service (LOS)	D

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	515	1063	157	289	142	0	0	119	0
Future Volume (vph)	0	0	0	515	1063	157	289	142	0	0	119	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1671	3438	1538	1752	1792	0	0	3343	0
Flt Permitted				0.950			0.673					
Satd. Flow (perm)	0	0	0	1671	3438	1538	1241	1792	0	0	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						165						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	8%	5%	5%	3%	6%	0%	0%	8%	5%
Adj. Flow (vph)	0	0	0	542	1119	165	304	149	0	0	125	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	542	1119	165	304	149	0	0	125	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5		3	8			4	
Permitted Phases				5		5	8					
Detector Phase				5	5	5	3	8			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0			4.0	
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0			10.0	
Total Split (s)				42.0	42.0	42.0	32.0	44.0			12.0	
Total Split (%)				46.7%	46.7%	46.7%	35.6%	48.9%			13.3%	
Maximum Green (s)				36.0	36.0	36.0	26.0	38.0			6.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag				Lead	Lead	Lead	Lag				Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				C-Min	C-Min	C-Min	None	None			None	
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				37.5	37.5	37.5	40.5	40.5			8.5	
Actuated g/C Ratio				0.42	0.42	0.42	0.45	0.45			0.09	
v/c Ratio				0.78	0.78	0.22	0.43	0.18			0.40	
Control Delay				33.0	28.0	3.8	24.4	17.1			41.8	
Queue Delay				0.0	0.0	0.0	0.9	0.0			0.6	

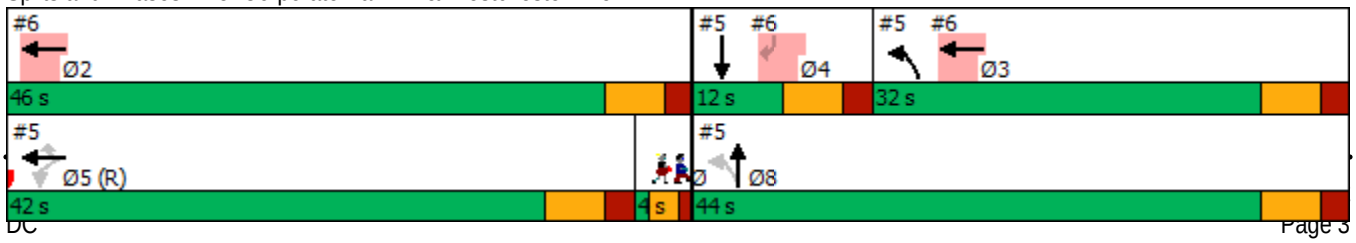
Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	1.0
Minimum Split (s)	16.0	4.0
Total Split (s)	46.0	4.0
Total Split (%)	51%	4%
Maximum Green (s)	40.0	1.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	2.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lag
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				33.0	28.0	3.8	25.3	17.1			42.4	
LOS				C	C	A	C	B			D	
Approach Delay					27.3			22.6			42.4	
Approach LOS					C			C			D	
90th %ile Green (s)				36.0	36.0	36.0	26.0	42.0			10.0	
90th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
70th %ile Green (s)				36.0	36.0	36.0	26.3	42.0			9.7	
70th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
50th %ile Green (s)				36.0	36.0	36.0	27.3	42.0			8.7	
50th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
30th %ile Green (s)				36.0	36.0	36.0	28.3	42.0			7.7	
30th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
10th %ile Green (s)				43.4	43.4	43.4	22.3	34.6			6.3	
10th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
Stops (vph)				425	891	17	262	113			109	
Fuel Used(gal)				10	20	1	4	2			2	
CO Emissions (g/hr)				715	1409	75	258	106			133	
NOx Emissions (g/hr)				139	274	15	50	21			26	
VOC Emissions (g/hr)				166	327	17	60	25			31	
Dilemma Vehicles (#)				0	59	0	0	0			0	
Queue Length 50th (ft)				268	291	0	150	71			35	
Queue Length 95th (ft)				#444	376	37	268	125			62	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				695	1431	737	720	820			315	
Starvation Cap Reductn				0	0	0	196	0			0	
Spillback Cap Reductn				0	0	0	0	0			43	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.78	0.78	0.22	0.58	0.18			0.46	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.78
Intersection Signal Delay: 27.2 Intersection LOS: C
Intersection Capacity Utilization 62.1% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø2	Ø6
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	36.0	0.0
90th %ile Term Code	Coord	Skip
70th %ile Green (s)	36.0	0.0
70th %ile Term Code	Coord	Skip
50th %ile Green (s)	36.0	0.0
50th %ile Term Code	Coord	Skip
30th %ile Green (s)	36.0	0.0
30th %ile Term Code	Coord	Skip
10th %ile Green (s)	43.4	0.0
10th %ile Term Code	Coord	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

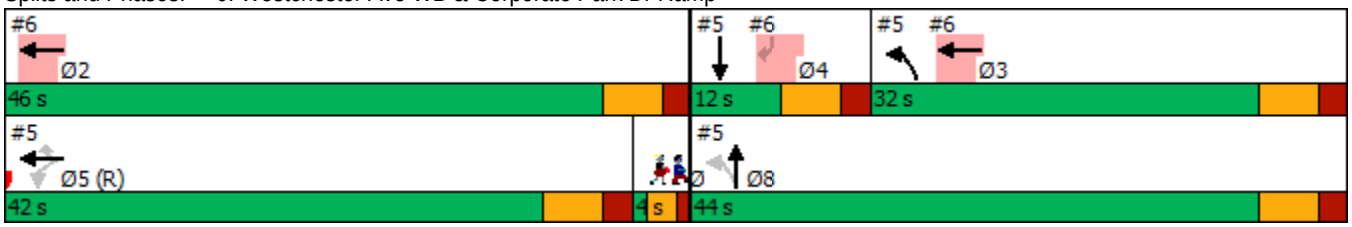
Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Lane Configurations											
Traffic Volume (vph)	0	0	1352	0	0	165					
Future Volume (vph)	0	0	1352	0	0	165					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88					
Frt						0.850					
Flt Protected											
Satd. Flow (prot)	0	0	3438	0	0	2707					
Flt Permitted											
Satd. Flow (perm)	0	0	3438	0	0	2707					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)						182					
Link Speed (mph)		30	30		30						
Link Distance (ft)		573	376		253						
Travel Time (s)		13.0	8.5		5.8						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95					
Heavy Vehicles (%)	0%	0%	5%	0%	0%	5%					
Adj. Flow (vph)	0	0	1423	0	0	174					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	1423	0	0	174					
Turn Type			NA			Perm					
Protected Phases			2 3				2	3	5	6	8
Permitted Phases						4					
Detector Phase			2 3			4					
Switch Phase											
Minimum Initial (s)						4.0	5.0	1.0	5.0	1.0	5.0
Minimum Split (s)						10.0	16.0	11.0	26.0	4.0	16.0
Total Split (s)						12.0	46.0	32.0	42.0	4.0	44.0
Total Split (%)						13.3%	51%	36%	47%	4%	49%
Maximum Green (s)						6.0	40.0	26.0	36.0	1.0	38.0
Yellow Time (s)						4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)						2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)						0.0					
Total Lost Time (s)						6.0					
Lead/Lag						Lead		Lag	Lead	Lag	
Lead-Lag Optimize?						Yes		Yes	Yes	Yes	
Vehicle Extension (s)						3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode						None	None	None	C-Min	None	None
Walk Time (s)							7.0		7.0	7.0	7.0
Flash Dont Walk (s)							11.0		10.0	11.0	11.0
Pedestrian Calls (#/hr)							0		0	0	0
Act Effct Green (s)			69.5			8.5					
Actuated g/C Ratio			0.77			0.09					
v/c Ratio			0.54			0.41					
Control Delay			3.6			8.7					
Queue Delay			0.2			0.0					
Total Delay			3.8			8.7					
LOS			A			A					
Approach Delay			3.8		8.7						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Approach LOS			A		A						
90th %ile Green (s)						10.0	36.0	26.0	36.0	0.0	42.0
90th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
70th %ile Green (s)						9.7	36.0	26.3	36.0	0.0	42.0
70th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
50th %ile Green (s)						8.7	36.0	27.3	36.0	0.0	42.0
50th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
30th %ile Green (s)						7.7	36.0	28.3	36.0	0.0	42.0
30th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
10th %ile Green (s)						6.3	43.4	22.3	43.4	0.0	34.6
10th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
Stops (vph)			326			23					
Fuel Used(gal)			7			1					
CO Emissions (g/hr)			472			52					
NOx Emissions (g/hr)			92			10					
VOC Emissions (g/hr)			109			12					
Dilemma Vehicles (#)			0			0					
Queue Length 50th (ft)			56			0					
Queue Length 95th (ft)			146			29					
Internal Link Dist (ft)		493	296		173						
Turn Bay Length (ft)											
Base Capacity (vph)			2760			420					
Starvation Cap Reductn			520			0					
Spillback Cap Reductn			0			0					
Storage Cap Reductn			0			0					
Reduced v/c Ratio			0.64			0.41					

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 36 (40%), Referenced to phase 5:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.78	
Intersection Signal Delay: 4.3	Intersection LOS: A
Intersection Capacity Utilization 53.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Westchester Ave WB & Corporate Park Dr Ramp



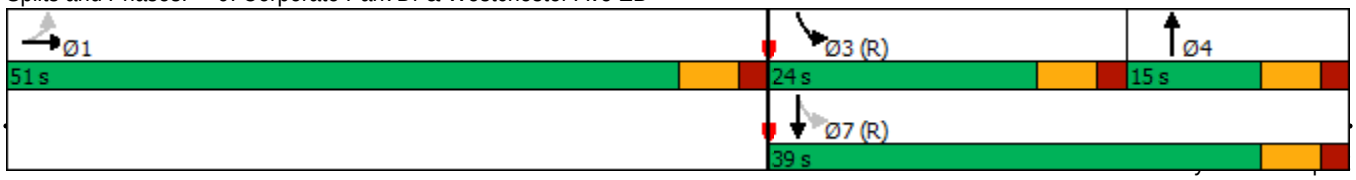
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	421	1013	356	0	0	0	0	10	2	439	196	0
Future Volume (vph)	421	1013	356	0	0	0	0	10	2	439	196	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.961						0.975				
Flt Protected	0.950									0.950	0.981	
Satd. Flow (prot)	1752	3361	0	0	0	0	0	2996	0	1545	1678	0
Flt Permitted	0.950									0.513	0.358	
Satd. Flow (perm)	1752	3361	0	0	0	0	0	2996	0	834	612	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		78						2				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1963			373			359	
Travel Time (s)		34.4			44.6			8.5			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	4%	1%	0%	0%	0%	0%	11%	50%	11%	2%	0%
Adj. Flow (vph)	439	1055	371	0	0	0	0	10	2	457	204	0
Shared Lane Traffic (%)										29%		
Lane Group Flow (vph)	439	1426	0	0	0	0	0	12	0	324	337	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Detector Phase	1	1						4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0						4.0		1.0	4.0	
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	51.0	51.0						15.0		24.0	39.0	
Total Split (%)	56.7%	56.7%						16.7%		26.7%	43.3%	
Maximum Green (s)	45.0	45.0						9.0		18.0	33.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Recall Mode	None	None						None		C-Max	C-Max	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	10.0	10.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	43.9	43.9						6.4		34.1	34.1	
Actuated g/C Ratio	0.49	0.49						0.07		0.38	0.38	
v/c Ratio	0.51	0.85						0.06		0.58	0.56	
Control Delay	22.2	27.8						35.6		39.8	39.1	
Queue Delay	0.0	0.0						0.0		1.6	1.9	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	22.2	27.8						35.6		41.3	41.0	
LOS	C	C						D		D	D	
Approach Delay		26.5						35.6			41.2	
Approach LOS		C						D			D	
90th %ile Green (s)	45.0	45.0						9.0		18.0	33.0	
90th %ile Term Code	Max	Max						Hold		Coord	Coord	
70th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
70th %ile Term Code	Max	Max						Skip		Coord	Coord	
50th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
50th %ile Term Code	Max	Max						Skip		Coord	Coord	
30th %ile Green (s)	44.9	44.9						0.0		33.1	33.1	
30th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
10th %ile Green (s)	39.5	39.5						0.0		38.5	38.5	
10th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
Stops (vph)	273	894						13		295	301	
Fuel Used(gal)	10	35						0		5	5	
CO Emissions (g/hr)	723	2465						14		351	360	
NOx Emissions (g/hr)	141	480						3		68	70	
VOC Emissions (g/hr)	168	571						3		81	83	
Dilemma Vehicles (#)	0	121						0		0	0	
Queue Length 50th (ft)	155	254						3		213	222	
Queue Length 95th (ft)	m231	350						11		m278	m#292	
Internal Link Dist (ft)		1937			1883			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	876	1719						301		562	600	
Starvation Cap Reductn	0	0						0		107	137	
Spillback Cap Reductn	2	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.50	0.83						0.04		0.71	0.73	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 30.4 Intersection LOS: C
Intersection Capacity Utilization 81.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB

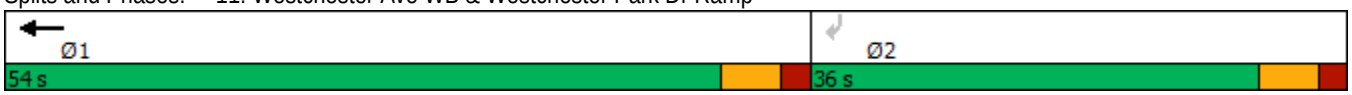


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱↱
Traffic Volume (vph)	0	0	967	0	0	231
Future Volume (vph)	0	0	967	0	0	231
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3374	0	0	2787
Flt Permitted						
Satd. Flow (perm)	0	0	3374	0	0	2787
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						143
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	7%	0%	0%	2%
Adj. Flow (vph)	0	0	1040	0	0	248
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1040	0	0	248
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			25.0			10.0
Total Split (s)			54.0			36.0
Total Split (%)			60.0%			40.0%
Maximum Green (s)			48.0			30.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			29.4			30.2
Actuated g/C Ratio			0.41			0.42
v/c Ratio			0.75			0.20
Control Delay			21.7			7.3
Queue Delay			0.0			0.0
Total Delay			21.7			7.3
LOS			C			A
Approach Delay			21.7		7.3	
Approach LOS			C		A	
90th %ile Green (s)			39.4			30.0
90th %ile Term Code			Gap			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			33.4			30.0
70th %ile Term Code			Gap			MaxR
50th %ile Green (s)			29.3			30.0
50th %ile Term Code			Gap			MaxR
30th %ile Green (s)			25.5			30.0
30th %ile Term Code			Gap			MaxR
10th %ile Green (s)			20.8			30.0
10th %ile Term Code			Gap			MaxR
Stops (vph)			762			64
Fuel Used(gal)			13			1
CO Emissions (g/hr)			897			70
NOx Emissions (g/hr)			175			14
VOC Emissions (g/hr)			208			16
Dilemma Vehicles (#)			51			0
Queue Length 50th (ft)			198			15
Queue Length 95th (ft)			262			46
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			2277			1258
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.46			0.20

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 71.7	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 18.9	Intersection LOS: B
Intersection Capacity Utilization 44.8%	ICU Level of Service A
Analysis Period (min) 15	
90th %ile Actuated Cycle: 81.4	
70th %ile Actuated Cycle: 75.4	
50th %ile Actuated Cycle: 71.3	
30th %ile Actuated Cycle: 67.5	
10th %ile Actuated Cycle: 62.8	

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



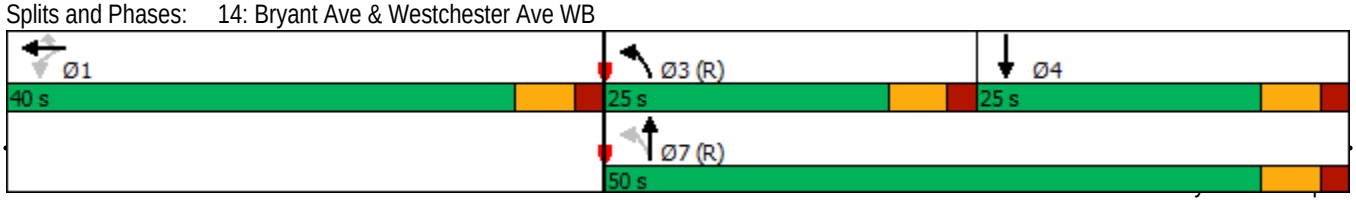
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	510	682	6	149	54	0	0	40	44
Future Volume (vph)	0	0	0	510	682	6	149	54	0	0	40	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.922	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1736	3374	1077	1671	1338	0	0	2643	0
Flt Permitted				0.950			0.499					
Satd. Flow (perm)	0	0	0	1736	3374	1077	878	1338	0	0	2643	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109					47	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	4%	7%	50%	8%	42%	0%	0%	16%	35%
Adj. Flow (vph)	0	0	0	548	733	6	160	58	0	0	43	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	548	733	6	160	58	0	0	90	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				40.0	40.0	40.0	25.0	50.0			25.0	
Total Split (%)				44.4%	44.4%	44.4%	27.8%	55.6%			27.8%	
Maximum Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				32.4	32.4	32.4	45.6	45.6			16.3	
Actuated g/C Ratio				0.36	0.36	0.36	0.51	0.51			0.18	
v/c Ratio				0.88	0.60	0.01	0.24	0.09			0.17	
Control Delay				43.8	25.7	0.0	5.9	5.3			16.8	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				43.8	25.7	0.0	5.9	5.3			16.8	
LOS				D	C	A	A	A			B	
Approach Delay					33.3			5.7			16.8	
Approach LOS					C			A			B	
90th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				33.2	33.2	33.2	19.8	44.8			19.0	
30th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Hold	
10th %ile Green (s)				26.6	26.6	26.6	51.4	51.4			0.0	
10th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Skip	
Stops (vph)				442	532	0	26	9			37	
Fuel Used(gal)				12	13	0	1	0			1	
CO Emissions (g/hr)				835	900	3	59	21			51	
NOx Emissions (g/hr)				162	175	0	11	4			10	
VOC Emissions (g/hr)				194	209	1	14	5			12	
Dilemma Vehicles (#)				0	35	0	0	0			0	
Queue Length 50th (ft)				278	171	0	18	6			10	
Queue Length 95th (ft)				#460	229	0	m25	m10			30	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				655	1274	474	671	678			595	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.84	0.58	0.01	0.24	0.09			0.15	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 50
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 28.6 Intersection LOS: C
Intersection Capacity Utilization 53.2% ICU Level of Service A
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave WB



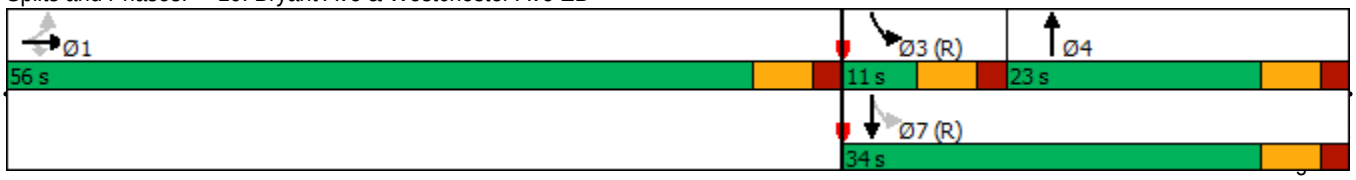
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	1364	61	0	0	0	0	122	286	193	357	0
Future Volume (vph)	81	1364	61	0	0	0	0	122	286	193	357	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.895				
Flt Protected	0.950										0.983	
Satd. Flow (prot)	1410	3539	1468	0	0	0	0	3110	0	0	3393	0
Flt Permitted	0.950										0.560	
Satd. Flow (perm)	1410	3539	1468	0	0	0	0	3110	0	0	1933	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109					51				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	28%	2%	10%	0%	0%	0%	0%	6%	3%	2%	6%	0%
Adj. Flow (vph)	89	1499	67	0	0	0	0	134	314	212	392	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	1499	67	0	0	0	0	448	0	0	604	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	56.0	56.0	56.0					23.0		11.0	34.0	
Total Split (%)	62.2%	62.2%	62.2%					25.6%		12.2%	37.8%	
Maximum Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	47.4	47.4	47.4					17.0			30.6	
Actuated g/C Ratio	0.53	0.53	0.53					0.19			0.34	
v/c Ratio	0.12	0.81	0.08					0.92dr			0.77	
Control Delay	10.5	21.3	0.8					37.4			15.6	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	10.5	21.3	0.8					37.4			15.6	
LOS	B	C	A					D			B	
Approach Delay		19.9						37.4			15.6	
Approach LOS		B						D			B	
90th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
70th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
50th %ile Green (s)	49.4	49.4	49.4					17.0		5.6	28.6	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	46.4	46.4	46.4					17.0		8.6	31.6	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	41.0	41.0	41.0					17.0		14.0	37.0	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	36	1056	2					334			327	
Fuel Used(gal)	1	21	0					7			5	
CO Emissions (g/hr)	58	1491	18					498			382	
NOx Emissions (g/hr)	11	290	3					97			74	
VOC Emissions (g/hr)	13	345	4					115			89	
Dilemma Vehicles (#)	0	66	0					0			0	
Queue Length 50th (ft)	23	329	0					112			106	
Queue Length 95th (ft)	45	412	7					165			m#158	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	783	1966	864					628			782	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.11	0.76	0.08					0.71			0.77	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6.6 (7%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.81
Intersection Signal Delay: 21.8 Intersection LOS: C
Intersection Capacity Utilization 80.8% ICU Level of Service D
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



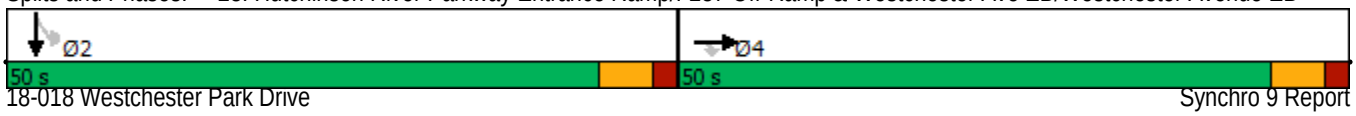
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	750	259	0	0	0	0	0	0	1170	480	0
Future Volume (vph)	0	750	259	0	0	0	0	0	0	1170	480	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			244							106		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1963			449			201			1090	
Travel Time (s)		33.5			10.2			4.6			24.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	12%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	773	267	0	0	0	0	0	0	1206	495	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	773	267	0	0	0	0	0	0	1206	495	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		50.0	50.0							50.0	50.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		44.0	44.0							44.0	44.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		44.0	44.0							44.0	44.0	
Actuated g/C Ratio		0.44	0.44							0.44	0.44	
v/c Ratio		0.99	0.35							1.41	0.60	
Control Delay		58.9	4.4							217.9	25.0	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		58.9	4.4							217.9	25.0	
LOS		E	A							F	C	
Approach Delay		44.9									161.7	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									F	
90th %ile Green (s)		44.0	44.0							44.0	44.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		44.0	44.0							44.0	44.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		44.0	44.0							44.0	44.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		44.0	44.0							44.0	44.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		44.0	44.0							44.0	44.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		636	31							829	356	
Fuel Used(gal)		25	4							66	8	
CO Emissions (g/hr)		1764	279							4642	594	
NOx Emissions (g/hr)		343	54							903	116	
VOC Emissions (g/hr)		409	65							1076	138	
Dilemma Vehicles (#)		35	0							0	0	
Queue Length 50th (ft)		475	8							~1008	234	
Queue Length 95th (ft)		#735	54							#1264	340	
Internal Link Dist (ft)		1883			369			121			1010	
Turn Bay Length (ft)												
Base Capacity (vph)		781	771							853	827	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		0.99	0.35							1.41	0.60	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.41
Intersection Signal Delay: 117.4 Intersection LOS: F
Intersection Capacity Utilization 114.3% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 100
70th %ile Actuated Cycle: 100
50th %ile Actuated Cycle: 100
30th %ile Actuated Cycle: 100
10th %ile Actuated Cycle: 100
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Hutchinson River Parkway Entrance Ramp/I-287 Off-Ramp & Westchester Ave EB/Westchester Avenue EB



Intersection	
Int Delay, s/veh	7.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1513	0	0	220
Future Vol, veh/h	0	0	1513	0	0	220
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	0	0	21
Mvmt Flow	0	0	1645	0	0	239

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	823
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.32
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.51
Pot Cap-1 Maneuver	-	0	0	280
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	280
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	62.6
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	280
HCM Lane V/C Ratio	-	0.854
HCM Control Delay (s)	-	62.6
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	7.3

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 No-Build
Jurisdiction	Harrison	Time Period Analyzed	Peak AM Hour
Project Description	18-018 3 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	683	164
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	15.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.870
Flow Rate (vi),pc/h	817	205
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.18	0.11

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.576
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	47.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	817	Ramp Junction Speed (S), mi/h	47.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	8.6
Level of Service (LOS)	A	Density in Ramp Influence Area (DR), pc/mi/ln	7.7

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	7/10/2019
Agency	PDE	Analysis Year	2019
Jurisdiction	Harrison, NY	Time Period Analyzed	AM Peak
Project Description	18-018 - Westchester Park Drive - 2020 No-Build	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	956	1154	85	277
Peak Hour Factor (PHF)	0.92	0.92	0.92	0.92
Total Trucks, %	3.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1070	1254	92	301
Weaving Flow Rate (v_W), pc/h	1555	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1162	Density-Based Capacity (c_{IWL}), pc/h/ln		1574
Total Flow Rate (v), pc/h	2717	Demand Flow-Based Capacity (c_{IW}), pc/h		4196
Volume Ratio (VR)	0.572	Weaving Segment Capacity (c_W), veh/h		3112
Minimum Lane Change Rate (LC_{MIN}), lc/h	1555	Adjusted Weaving Area Capacity, pc/h		3148
Maximum Weaving Length (L_{MAX}), ft	8680	Volume-to-Capacity Ratio (v/c)		0.86

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	29	Average Weaving Speed (S_W), mi/h	36.9
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	125	Average Non-Weaving Speed (S_{NW}), mi/h	32.3
Weaving Lane Change Rate (LC_W), lc/h	1586	Average Speed (S), mi/h	34.8
Weaving Lane Change Rate (LC_{All}), lc/h	1711	Density (D), pc/mi/ln	39.0
Weaving Intensity Factor (W)	0.597	Level of Service (LOS)	E

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	515	1019	157	227	144	0	0	119	0
Future Volume (vph)	0	0	0	515	1019	157	227	144	0	0	119	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1671	3438	1538	1752	1792	0	0	3343	0
Flt Permitted				0.950			0.673					
Satd. Flow (perm)	0	0	0	1671	3438	1538	1241	1792	0	0	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						165						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	8%	5%	5%	3%	6%	0%	0%	8%	5%
Adj. Flow (vph)	0	0	0	542	1073	165	239	152	0	0	125	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	542	1073	165	239	152	0	0	125	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5		3	8			4	
Permitted Phases				5		5	8					
Detector Phase				5	5	5	3	8			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0			4.0	
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0			10.0	
Total Split (s)				42.0	42.0	42.0	32.0	44.0			12.0	
Total Split (%)				46.7%	46.7%	46.7%	35.6%	48.9%			13.3%	
Maximum Green (s)				36.0	36.0	36.0	26.0	38.0			6.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag				Lead	Lead	Lead	Lag				Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				C-Min	C-Min	C-Min	None	None			None	
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				38.6	38.6	38.6	39.4	39.4			8.5	
Actuated g/C Ratio				0.43	0.43	0.43	0.44	0.44			0.09	
v/c Ratio				0.76	0.73	0.22	0.35	0.19			0.40	
Control Delay				31.3	25.7	3.8	22.5	17.7			41.8	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.6	

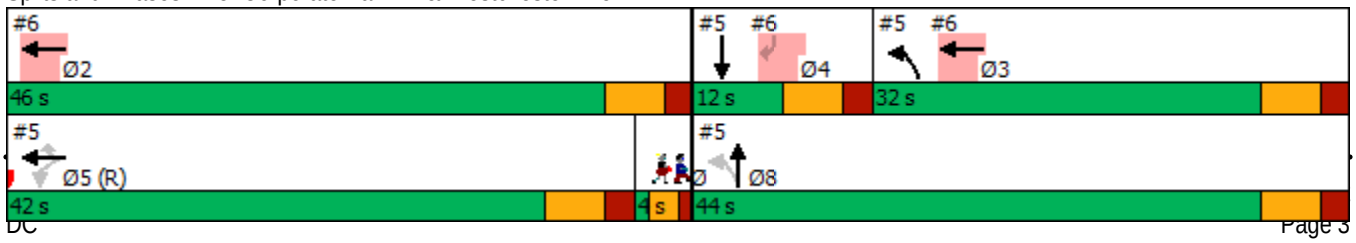
Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	1.0
Minimum Split (s)	16.0	4.0
Total Split (s)	46.0	4.0
Total Split (%)	51%	4%
Maximum Green (s)	40.0	1.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	2.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lag
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				31.3	25.7	3.8	22.5	17.7			42.4	
LOS				C	C	A	C	B			D	
Approach Delay					25.4			20.6			42.4	
Approach LOS					C			C			D	
90th %ile Green (s)				36.0	36.0	36.0	26.0	42.0			10.0	
90th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
70th %ile Green (s)				36.0	36.0	36.0	26.3	42.0			9.7	
70th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
50th %ile Green (s)				36.0	36.0	36.0	27.3	42.0			8.7	
50th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
30th %ile Green (s)				38.4	38.4	38.4	25.9	39.6			7.7	
30th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
10th %ile Green (s)				46.6	46.6	46.6	19.1	31.4			6.3	
10th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
Stops (vph)				419	828	17	195	115			109	
Fuel Used(gal)				10	19	1	3	2			2	
CO Emissions (g/hr)				698	1299	75	192	109			133	
NOx Emissions (g/hr)				136	253	15	37	21			26	
VOC Emissions (g/hr)				162	301	17	45	25			31	
Dilemma Vehicles (#)				0	57	0	0	0			0	
Queue Length 50th (ft)				268	273	0	114	73			35	
Queue Length 95th (ft)				#444	354	37	201	127			62	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				716	1474	753	712	810			315	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			43	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.76	0.73	0.22	0.34	0.19			0.46	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 25.5 Intersection LOS: C
Intersection Capacity Utilization 57.8% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø2	Ø6
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	36.0	0.0
90th %ile Term Code	Coord	Skip
70th %ile Green (s)	36.0	0.0
70th %ile Term Code	Coord	Skip
50th %ile Green (s)	36.0	0.0
50th %ile Term Code	Coord	Skip
30th %ile Green (s)	38.4	0.0
30th %ile Term Code	Coord	Skip
10th %ile Green (s)	46.6	0.0
10th %ile Term Code	Coord	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

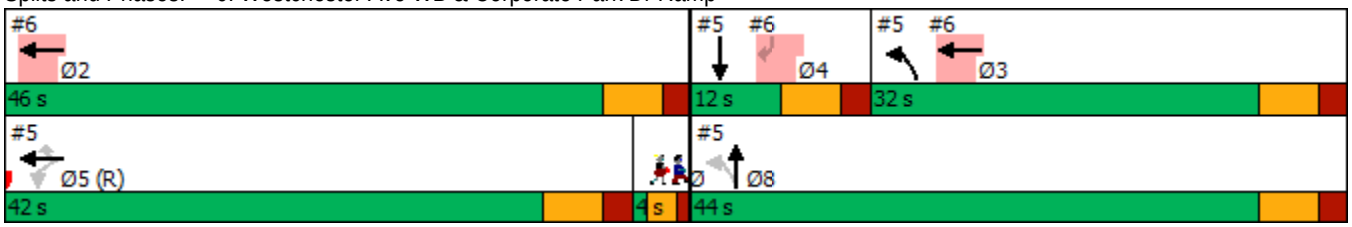
Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Lane Configurations			↑↑			↱↱					
Traffic Volume (vph)	0	0	1246	0	0	161					
Future Volume (vph)	0	0	1246	0	0	161					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88					
Frt						0.850					
Flt Protected											
Satd. Flow (prot)	0	0	3438	0	0	2707					
Flt Permitted											
Satd. Flow (perm)	0	0	3438	0	0	2707					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)						220					
Link Speed (mph)		30	30		30						
Link Distance (ft)		573	376		253						
Travel Time (s)		13.0	8.5		5.8						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95					
Heavy Vehicles (%)	0%	0%	5%	0%	0%	5%					
Adj. Flow (vph)	0	0	1312	0	0	169					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	1312	0	0	169					
Turn Type			NA			Perm					
Protected Phases			2 3				2	3	5	6	8
Permitted Phases						4					
Detector Phase			2 3			4					
Switch Phase											
Minimum Initial (s)						4.0	5.0	1.0	5.0	1.0	5.0
Minimum Split (s)						10.0	16.0	11.0	26.0	4.0	16.0
Total Split (s)						12.0	46.0	32.0	42.0	4.0	44.0
Total Split (%)						13.3%	51%	36%	47%	4%	49%
Maximum Green (s)						6.0	40.0	26.0	36.0	1.0	38.0
Yellow Time (s)						4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)						2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)						0.0					
Total Lost Time (s)						6.0					
Lead/Lag						Lead		Lag	Lead	Lag	
Lead-Lag Optimize?						Yes		Yes	Yes	Yes	
Vehicle Extension (s)						3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode						None	None	None	C-Min	None	None
Walk Time (s)							7.0		7.0	7.0	7.0
Flash Dont Walk (s)							11.0		10.0	11.0	11.0
Pedestrian Calls (#/hr)							0		0	0	0
Act Effct Green (s)			69.5			8.5					
Actuated g/C Ratio			0.77			0.09					
v/c Ratio			0.49			0.37					
Control Delay			3.3			4.7					
Queue Delay			0.2			0.0					
Total Delay			3.5			4.7					
LOS			A			A					
Approach Delay			3.5		4.7						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Approach LOS			A		A						
90th %ile Green (s)						10.0	36.0	26.0	36.0	0.0	42.0
90th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
70th %ile Green (s)						9.7	36.0	26.3	36.0	0.0	42.0
70th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
50th %ile Green (s)						8.7	36.0	27.3	36.0	0.0	42.0
50th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
30th %ile Green (s)						7.7	38.4	25.9	38.4	0.0	39.6
30th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
10th %ile Green (s)						6.3	46.6	19.1	46.6	0.0	31.4
10th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
Stops (vph)			287			10					
Fuel Used(gal)			6			1					
CO Emissions (g/hr)			425			37					
NOx Emissions (g/hr)			83			7					
VOC Emissions (g/hr)			99			9					
Dilemma Vehicles (#)			0			0					
Queue Length 50th (ft)			53			0					
Queue Length 95th (ft)			128			15					
Internal Link Dist (ft)		493	296		173						
Turn Bay Length (ft)											
Base Capacity (vph)			2714			454					
Starvation Cap Reductn			561			0					
Spillback Cap Reductn			0			0					
Storage Cap Reductn			0			0					
Reduced v/c Ratio			0.61			0.37					

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 36 (40%), Referenced to phase 5:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 3.7	Intersection LOS: A
Intersection Capacity Utilization 50.1%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Westchester Ave WB & Corporate Park Dr Ramp



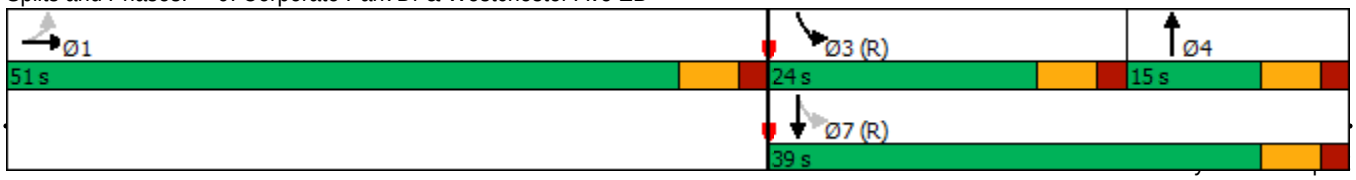
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	363	1074	357	0	0	0	0	8	2	439	196	0
Future Volume (vph)	363	1074	357	0	0	0	0	8	2	439	196	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.963						0.970				
Flt Protected	0.950									0.950	0.981	
Satd. Flow (prot)	1752	3367	0	0	0	0	0	2948	0	1545	1678	0
Flt Permitted	0.950									0.513	0.358	
Satd. Flow (perm)	1752	3367	0	0	0	0	0	2948	0	834	612	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		72						2				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1963			373			359	
Travel Time (s)		34.4			44.6			8.5			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	4%	1%	0%	0%	0%	0%	11%	50%	11%	2%	0%
Adj. Flow (vph)	378	1119	372	0	0	0	0	8	2	457	204	0
Shared Lane Traffic (%)										29%		
Lane Group Flow (vph)	378	1491	0	0	0	0	0	10	0	324	337	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Detector Phase	1	1						4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0						4.0		1.0	4.0	
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	51.0	51.0						15.0		24.0	39.0	
Total Split (%)	56.7%	56.7%						16.7%		26.7%	43.3%	
Maximum Green (s)	45.0	45.0						9.0		18.0	33.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Recall Mode	None	None						None		C-Max	C-Max	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	10.0	10.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	44.2	44.2						6.3		33.8	33.8	
Actuated g/C Ratio	0.49	0.49						0.07		0.38	0.38	
v/c Ratio	0.44	0.88						0.05		0.58	0.57	
Control Delay	20.1	28.5						35.0		39.7	39.0	
Queue Delay	0.0	0.0						0.0		1.7	2.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	20.1	28.5						35.0		41.4	41.0	
LOS	C	C						C		D	D	
Approach Delay		26.8						35.0			41.2	
Approach LOS		C						C			D	
90th %ile Green (s)	45.0	45.0						9.0		18.0	33.0	
90th %ile Term Code	Max	Max						Hold		Coord	Coord	
70th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
70th %ile Term Code	Max	Max						Skip		Coord	Coord	
50th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
50th %ile Term Code	Max	Max						Skip		Coord	Coord	
30th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
30th %ile Term Code	Max	Max						Skip		Coord	Coord	
10th %ile Green (s)	41.2	41.2						0.0		36.8	36.8	
10th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
Stops (vph)	219	913						10		291	296	
Fuel Used(gal)	9	37						0		5	5	
CO Emissions (g/hr)	602	2576						11		349	357	
NOx Emissions (g/hr)	117	501						2		68	70	
VOC Emissions (g/hr)	139	597						3		81	83	
Dilemma Vehicles (#)	0	132						0		0	0	
Queue Length 50th (ft)	128	261						2		213	222	
Queue Length 95th (ft)	m187	378						10		m285	m#305	
Internal Link Dist (ft)		1937			1883			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	876	1719						296		555	594	
Starvation Cap Reductn	0	0						0		107	137	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.43	0.87						0.03		0.72	0.74	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 30.6 Intersection LOS: C
Intersection Capacity Utilization 82.6% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB

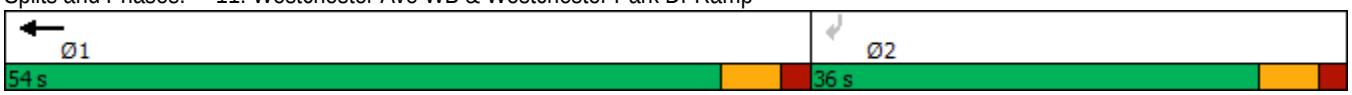


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	967	0	0	320
Future Volume (vph)	0	0	967	0	0	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3374	0	0	2787
Flt Permitted						
Satd. Flow (perm)	0	0	3374	0	0	2787
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						143
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	7%	0%	0%	2%
Adj. Flow (vph)	0	0	1040	0	0	344
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1040	0	0	344
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			25.0			10.0
Total Split (s)			54.0			36.0
Total Split (%)			60.0%			40.0%
Maximum Green (s)			48.0			30.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			29.4			30.2
Actuated g/C Ratio			0.41			0.42
v/c Ratio			0.75			0.27
Control Delay			21.7			9.4
Queue Delay			0.0			0.0
Total Delay			21.7			9.4
LOS			C			A
Approach Delay			21.7		9.4	
Approach LOS			C		A	
90th %ile Green (s)			39.4			30.0
90th %ile Term Code			Gap			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			33.4			30.0
70th %ile Term Code			Gap			MaxR
50th %ile Green (s)			29.3			30.0
50th %ile Term Code			Gap			MaxR
30th %ile Green (s)			25.5			30.0
30th %ile Term Code			Gap			MaxR
10th %ile Green (s)			20.8			30.0
10th %ile Term Code			Gap			MaxR
Stops (vph)			762			116
Fuel Used(gal)			13			2
CO Emissions (g/hr)			897			117
NOx Emissions (g/hr)			175			23
VOC Emissions (g/hr)			208			27
Dilemma Vehicles (#)			51			0
Queue Length 50th (ft)			198			30
Queue Length 95th (ft)			262			71
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			2277			1258
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.46			0.27

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 71.7	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 18.6	Intersection LOS: B
Intersection Capacity Utilization 47.9%	ICU Level of Service A
Analysis Period (min) 15	
90th %ile Actuated Cycle: 81.4	
70th %ile Actuated Cycle: 75.4	
50th %ile Actuated Cycle: 71.3	
30th %ile Actuated Cycle: 67.5	
10th %ile Actuated Cycle: 62.8	

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



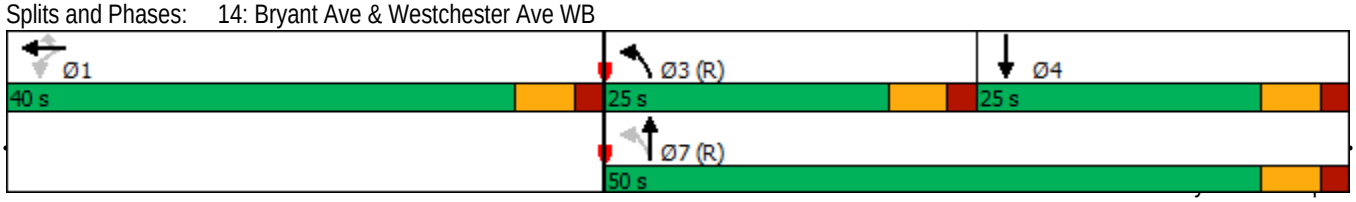
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	574	706	7	149	54	0	0	38	44
Future Volume (vph)	0	0	0	574	706	7	149	54	0	0	38	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.920	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1736	3374	1077	1671	1338	0	0	2633	0
Flt Permitted				0.950			0.500					
Satd. Flow (perm)	0	0	0	1736	3374	1077	880	1338	0	0	2633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109					47	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	4%	7%	50%	8%	42%	0%	0%	16%	35%
Adj. Flow (vph)	0	0	0	617	759	8	160	58	0	0	41	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	617	759	8	160	58	0	0	88	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				40.0	40.0	40.0	25.0	50.0			25.0	
Total Split (%)				44.4%	44.4%	44.4%	27.8%	55.6%			27.8%	
Maximum Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				33.8	33.8	33.8	44.2	44.2			16.3	
Actuated g/C Ratio				0.38	0.38	0.38	0.49	0.49			0.18	
v/c Ratio				0.95	0.60	0.02	0.25	0.09			0.17	
Control Delay				53.2	25.0	0.0	6.0	5.3			16.5	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				53.2	25.0	0.0	6.0	5.3			16.5	
LOS				D	C	A	A	A			B	
Approach Delay					37.4			5.8			16.5	
Approach LOS					D			A			B	
90th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
10th %ile Green (s)				33.1	33.1	33.1	44.9	44.9			0.0	
10th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Skip	
Stops (vph)				489	546	0	26	9			35	
Fuel Used(gal)				14	13	0	1	0			1	
CO Emissions (g/hr)				1011	921	3	59	21			49	
NOx Emissions (g/hr)				197	179	1	11	4			9	
VOC Emissions (g/hr)				234	214	1	14	5			11	
Dilemma Vehicles (#)				0	38	0	0	0			0	
Queue Length 50th (ft)				333	178	0	17	6			10	
Queue Length 95th (ft)				#550	238	0	m26	m11			30	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				655	1274	474	644	657			592	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.94	0.60	0.02	0.25	0.09			0.15	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 32.3 Intersection LOS: C
Intersection Capacity Utilization 56.7% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave WB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	1316	61	0	0	0	0	122	274	251	361	0
Future Volume (vph)	81	1316	61	0	0	0	0	122	274	251	361	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.896				
Flt Protected	0.950										0.980	
Satd. Flow (prot)	1410	3539	1468	0	0	0	0	3112	0	0	3390	0
Flt Permitted	0.950										0.558	
Satd. Flow (perm)	1410	3539	1468	0	0	0	0	3112	0	0	1930	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109					46				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	28%	2%	10%	0%	0%	0%	0%	6%	3%	2%	6%	0%
Adj. Flow (vph)	89	1446	67	0	0	0	0	134	301	276	397	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	1446	67	0	0	0	0	435	0	0	673	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	56.0	56.0	56.0					23.0		11.0	34.0	
Total Split (%)	62.2%	62.2%	62.2%					25.6%		12.2%	37.8%	
Maximum Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	46.7	46.7	46.7					17.0			31.3	
Actuated g/C Ratio	0.52	0.52	0.52					0.19			0.35	
v/c Ratio	0.12	0.79	0.08					0.89dr			0.96dl	
Control Delay	10.6	20.9	0.9					37.1			17.0	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	10.6	20.9	0.9					37.1			17.0	
LOS	B	C	A					D			B	
Approach Delay		19.5						37.1			17.0	
Approach LOS		B						D			B	
90th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
70th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
50th %ile Green (s)	48.4	48.4	48.4					17.0		6.6	29.6	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	45.5	45.5	45.5					17.0		9.5	32.5	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	39.8	39.8	39.8					17.0		15.2	38.2	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	37	1004	2					324			297	
Fuel Used(gal)	1	20	0					7			6	
CO Emissions (g/hr)	59	1421	18					481			412	
NOx Emissions (g/hr)	11	276	3					94			80	
VOC Emissions (g/hr)	14	329	4					112			95	
Dilemma Vehicles (#)	0	64	0					0			0	
Queue Length 50th (ft)	24	318	0					109			93	
Queue Length 95th (ft)	45	387	7					162			m#155	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	783	1966	864					625			804	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.11	0.74	0.08					0.70			0.84	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6.6 (7%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.84
Intersection Signal Delay: 21.7 Intersection LOS: C
Intersection Capacity Utilization 80.9% ICU Level of Service D
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB

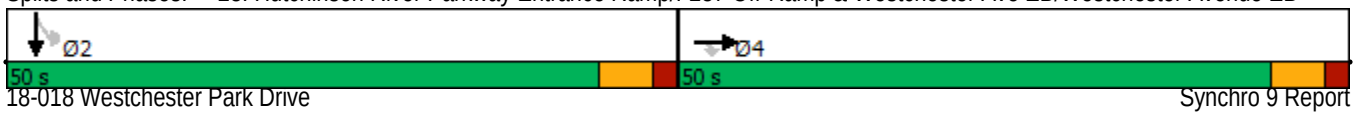
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	766	300	0	0	0	0	0	0	1170	480	0
Future Volume (vph)	0	766	300	0	0	0	0	0	0	1170	480	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			252							101		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1963			449			201			1090	
Travel Time (s)		33.5			10.2			4.6			24.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	12%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	790	309	0	0	0	0	0	0	1206	495	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	790	309	0	0	0	0	0	0	1206	495	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		50.0	50.0							50.0	50.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		44.0	44.0							44.0	44.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		44.0	44.0							44.0	44.0	
Actuated g/C Ratio		0.44	0.44							0.44	0.44	
v/c Ratio		1.01	0.40							1.42	0.60	
Control Delay		64.3	5.7							220.1	25.0	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		64.3	5.7							220.1	25.0	
LOS		E	A							F	C	
Approach Delay		47.9									163.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									F	
90th %ile Green (s)		44.0	44.0							44.0	44.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		44.0	44.0							44.0	44.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		44.0	44.0							44.0	44.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		44.0	44.0							44.0	44.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		44.0	44.0							44.0	44.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		649	47							829	356	
Fuel Used(gal)		27	5							67	8	
CO Emissions (g/hr)		1860	336							4680	594	
NOx Emissions (g/hr)		362	65							911	116	
VOC Emissions (g/hr)		431	78							1085	138	
Dilemma Vehicles (#)		35	0							0	0	
Queue Length 50th (ft)		~504	21							~1012	234	
Queue Length 95th (ft)		#759	75							#1268	340	
Internal Link Dist (ft)		1883			369			121			1010	
Turn Bay Length (ft)												
Base Capacity (vph)		781	775							850	827	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.01	0.40							1.42	0.60	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.42
Intersection Signal Delay: 118.0 Intersection LOS: F
Intersection Capacity Utilization 115.1% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 100
70th %ile Actuated Cycle: 100
50th %ile Actuated Cycle: 100
30th %ile Actuated Cycle: 100
10th %ile Actuated Cycle: 100
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Hutchinson River Parkway Entrance Ramp/I-287 Off-Ramp & Westchester Ave EB/Westchester Avenue EB



Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1471	0	0	218
Future Vol, veh/h	0	0	1471	0	0	218
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	0	0	21
Mvmt Flow	0	0	1599	0	0	237

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	800
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.32
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.51
Pot Cap-1 Maneuver	-	0	0	290
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	290
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	55.4
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	290
HCM Lane V/C Ratio	-	0.817
HCM Control Delay (s)	-	55.4
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	6.7

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 No-Build
Jurisdiction	Harrison	Time Period Analyzed	Peak AM Hour
Project Description	18-018 3 Westchester PArk Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	707	164
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	15.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.870
Flow Rate (vi),pc/h	845	205
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.19	0.11

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.576
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	47.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	845	Ramp Junction Speed (S), mi/h	47.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	8.9
Level of Service (LOS)	A	Density in Ramp Influence Area (DR), pc/mi/ln	7.9

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	7/10/2019
Agency	PDE	Analysis Year	2019
Jurisdiction	Harrison, NY	Time Period Analyzed	AM Peak
Project Description	18-018 - Westchester Park Drive - 2020 Build	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	936	1130	85	277
Peak Hour Factor (PHF)	0.92	0.92	0.92	0.92
Total Trucks, %	3.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1048	1228	92	301
Weaving Flow Rate (v_W), pc/h	1529	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1140	Density-Based Capacity (c_{IWL}), pc/h/ln		1573
Total Flow Rate (v), pc/h	2669	Demand Flow-Based Capacity (c_{IW}), pc/h		4188
Volume Ratio (VR)	0.573	Weaving Segment Capacity (c_W), veh/h		3110
Minimum Lane Change Rate (LC_{MIN}), lc/h	1529	Adjusted Weaving Area Capacity, pc/h		3146
Maximum Weaving Length (L_{MAX}), ft	8692	Volume-to-Capacity Ratio (v/c)		0.85

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	28	Average Weaving Speed (S_W), mi/h	37.0
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	121	Average Non-Weaving Speed (S_{NW}), mi/h	32.6
Weaving Lane Change Rate (LC_W), lc/h	1560	Average Speed (S), mi/h	35.0
Weaving Lane Change Rate (LC_{All}), lc/h	1681	Density (D), pc/mi/ln	38.1
Weaving Intensity Factor (W)	0.588	Level of Service (LOS)	E

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	515	1019	157	227	130	0	0	119	0
Future Volume (vph)	0	0	0	515	1019	157	227	130	0	0	119	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1671	3438	1538	1752	1792	0	0	3343	0
Flt Permitted				0.950			0.673					
Satd. Flow (perm)	0	0	0	1671	3438	1538	1241	1792	0	0	3343	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						165						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Heavy Vehicles (%)	0%	0%	0%	8%	5%	5%	3%	6%	0%	0%	8%	5%
Adj. Flow (vph)	0	0	0	542	1073	165	239	137	0	0	125	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	542	1073	165	239	137	0	0	125	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5		3	8			4	
Permitted Phases				5		5	8					
Detector Phase				5	5	5	3	8			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0			4.0	
Minimum Split (s)				26.0	26.0	26.0	11.0	24.0			10.0	
Total Split (s)				42.0	42.0	42.0	32.0	44.0			12.0	
Total Split (%)				46.7%	46.7%	46.7%	35.6%	48.9%			13.3%	
Maximum Green (s)				36.0	36.0	36.0	26.0	38.0			6.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag				Lead	Lead	Lead	Lag				Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				C-Min	C-Min	C-Min	None	None			None	
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				38.6	38.6	38.6	39.4	39.4			8.5	
Actuated g/C Ratio				0.43	0.43	0.43	0.44	0.44			0.09	
v/c Ratio				0.76	0.73	0.22	0.35	0.17			0.40	
Control Delay				31.2	25.7	3.7	22.7	17.5			41.8	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.6	

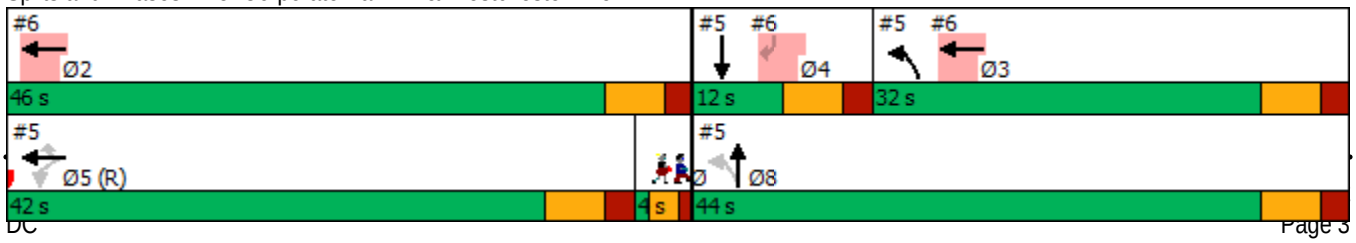
Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	1.0
Minimum Split (s)	24.0	4.0
Total Split (s)	46.0	4.0
Total Split (%)	51%	4%
Maximum Green (s)	40.0	1.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	2.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lag
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				31.2	25.7	3.7	22.7	17.5			42.4	
LOS				C	C	A	C	B			D	
Approach Delay					25.3			20.8			42.4	
Approach LOS					C			C			D	
90th %ile Green (s)				36.0	36.0	36.0	26.0	42.0			10.0	
90th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
70th %ile Green (s)				36.0	36.0	36.0	26.3	42.0			9.7	
70th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
50th %ile Green (s)				36.0	36.0	36.0	27.3	42.0			8.7	
50th %ile Term Code				Coord	Coord	Coord	Max	Hold			Gap	
30th %ile Green (s)				38.5	38.5	38.5	25.8	39.5			7.7	
30th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
10th %ile Green (s)				46.6	46.6	46.6	19.1	31.4			6.3	
10th %ile Term Code				Coord	Coord	Coord	Gap	Hold			Gap	
Stops (vph)				419	828	17	195	102			109	
Fuel Used(gal)				10	19	1	3	1			2	
CO Emissions (g/hr)				698	1299	75	193	97			133	
NOx Emissions (g/hr)				136	253	15	38	19			26	
VOC Emissions (g/hr)				162	301	17	45	23			31	
Dilemma Vehicles (#)				0	57	0	0	0			0	
Queue Length 50th (ft)				268	273	0	114	65			35	
Queue Length 95th (ft)				#444	354	37	201	117			62	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				717	1475	754	712	810			315	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			43	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.76	0.73	0.22	0.34	0.17			0.46	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 36 (40%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.76
Intersection Signal Delay: 25.5 Intersection LOS: C
Intersection Capacity Utilization 57.8% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø2	Ø6
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	36.0	0.0
90th %ile Term Code	Coord	Skip
70th %ile Green (s)	36.0	0.0
70th %ile Term Code	Coord	Skip
50th %ile Green (s)	36.0	0.0
50th %ile Term Code	Coord	Skip
30th %ile Green (s)	38.5	0.0
30th %ile Term Code	Coord	Skip
10th %ile Green (s)	46.6	0.0
10th %ile Term Code	Coord	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

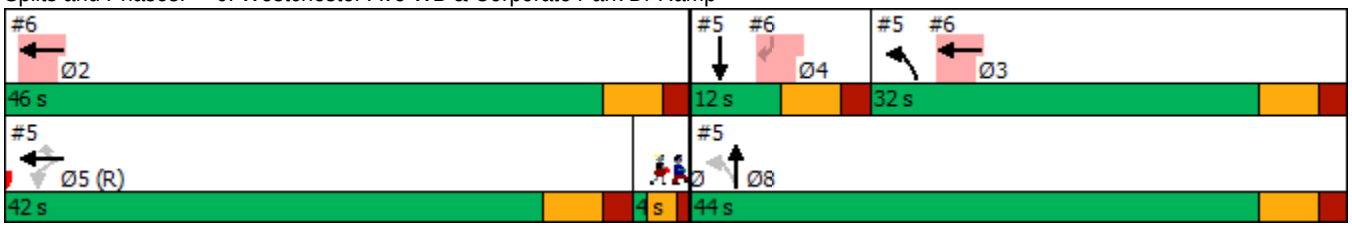
Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Lane Configurations			↑↑			↱↱					
Traffic Volume (vph)	0	0	1241	0	0	154					
Future Volume (vph)	0	0	1241	0	0	154					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88					
Frt						0.850					
Flt Protected											
Satd. Flow (prot)	0	0	3438	0	0	2707					
Flt Permitted											
Satd. Flow (perm)	0	0	3438	0	0	2707					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)						222					
Link Speed (mph)		30	30		30						
Link Distance (ft)		573	376		253						
Travel Time (s)		13.0	8.5		5.8						
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95					
Heavy Vehicles (%)	0%	0%	5%	0%	0%	5%					
Adj. Flow (vph)	0	0	1306	0	0	162					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	1306	0	0	162					
Turn Type			NA			Perm					
Protected Phases			2 3				2	3	5	6	8
Permitted Phases						4					
Detector Phase			2 3			4					
Switch Phase											
Minimum Initial (s)						4.0	5.0	1.0	5.0	1.0	5.0
Minimum Split (s)						10.0	24.0	11.0	26.0	4.0	24.0
Total Split (s)						12.0	46.0	32.0	42.0	4.0	44.0
Total Split (%)						13.3%	51%	36%	47%	4%	49%
Maximum Green (s)						6.0	40.0	26.0	36.0	1.0	38.0
Yellow Time (s)						4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)						2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)						0.0					
Total Lost Time (s)						6.0					
Lead/Lag						Lead		Lag	Lead	Lag	
Lead-Lag Optimize?						Yes		Yes	Yes	Yes	
Vehicle Extension (s)						3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode						None	None	None	C-Min	None	None
Walk Time (s)							7.0		7.0	7.0	7.0
Flash Dont Walk (s)							11.0		10.0	11.0	11.0
Pedestrian Calls (#/hr)							0		0	0	0
Act Effct Green (s)			69.5			8.5					
Actuated g/C Ratio			0.77			0.09					
v/c Ratio			0.49			0.36					
Control Delay			3.3			4.1					
Queue Delay			0.2			0.0					
Total Delay			3.5			4.1					
LOS			A			A					
Approach Delay			3.5		4.1						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Approach LOS			A		A						
90th %ile Green (s)						10.0	36.0	26.0	36.0	0.0	42.0
90th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
70th %ile Green (s)						9.7	36.0	26.3	36.0	0.0	42.0
70th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
50th %ile Green (s)						8.7	36.0	27.3	36.0	0.0	42.0
50th %ile Term Code						Gap	Coord	Max	Coord	Skip	Hold
30th %ile Green (s)						7.7	38.5	25.8	38.5	0.0	39.5
30th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
10th %ile Green (s)						6.3	46.6	19.1	46.6	0.0	31.4
10th %ile Term Code						Gap	Coord	Gap	Coord	Skip	Hold
Stops (vph)			284			8					
Fuel Used(gal)			6			0					
CO Emissions (g/hr)			422			33					
NOx Emissions (g/hr)			82			6					
VOC Emissions (g/hr)			98			8					
Dilemma Vehicles (#)			0			0					
Queue Length 50th (ft)			53			0					
Queue Length 95th (ft)			127			13					
Internal Link Dist (ft)		493	296		173						
Turn Bay Length (ft)											
Base Capacity (vph)			2714			456					
Starvation Cap Reductn			565			0					
Spillback Cap Reductn			0			0					
Storage Cap Reductn			0			0					
Reduced v/c Ratio			0.61			0.36					

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 36 (40%), Referenced to phase 5:WBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.76	
Intersection Signal Delay: 3.6	Intersection LOS: A
Intersection Capacity Utilization 49.7%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 6: Westchester Ave WB & Corporate Park Dr Ramp



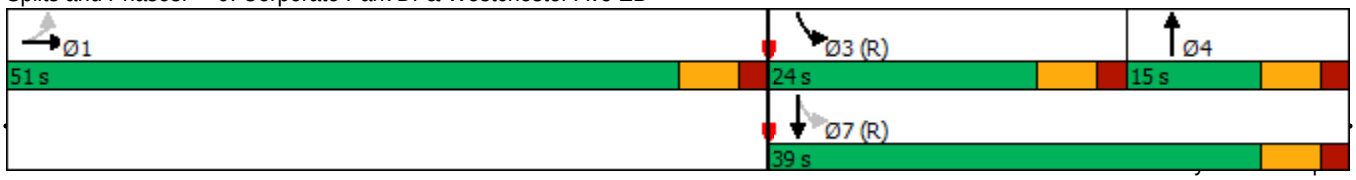
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	349	1074	357	0	0	0	0	8	2	439	196	0
Future Volume (vph)	349	1074	357	0	0	0	0	8	2	439	196	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.963						0.970				
Flt Protected	0.950									0.950	0.981	
Satd. Flow (prot)	1752	3367	0	0	0	0	0	2948	0	1545	1678	0
Flt Permitted	0.950									0.513	0.358	
Satd. Flow (perm)	1752	3367	0	0	0	0	0	2948	0	834	612	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		72						2				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1963			373			359	
Travel Time (s)		34.4			44.6			8.5			8.2	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Heavy Vehicles (%)	3%	4%	1%	0%	0%	0%	0%	11%	50%	11%	2%	0%
Adj. Flow (vph)	364	1119	372	0	0	0	0	8	2	457	204	0
Shared Lane Traffic (%)										29%		
Lane Group Flow (vph)	364	1491	0	0	0	0	0	10	0	324	337	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Detector Phase	1	1						4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0						4.0		1.0	4.0	
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	51.0	51.0						15.0		24.0	39.0	
Total Split (%)	56.7%	56.7%						16.7%		26.7%	43.3%	
Maximum Green (s)	45.0	45.0						9.0		18.0	33.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0						3.0		3.0	3.0	
Recall Mode	None	None						None		C-Max	C-Max	
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	10.0	10.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	44.2	44.2						6.3		33.8	33.8	
Actuated g/C Ratio	0.49	0.49						0.07		0.38	0.38	
v/c Ratio	0.42	0.88						0.05		0.58	0.57	
Control Delay	20.1	28.7						35.0		39.7	39.0	
Queue Delay	0.0	0.0						0.0		1.7	2.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	20.1	28.7						35.0		41.4	41.0	
LOS	C	C						C		D	D	
Approach Delay		27.0						35.0			41.2	
Approach LOS		C						C			D	
90th %ile Green (s)	45.0	45.0						9.0		18.0	33.0	
90th %ile Term Code	Max	Max						Hold		Coord	Coord	
70th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
70th %ile Term Code	Max	Max						Skip		Coord	Coord	
50th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
50th %ile Term Code	Max	Max						Skip		Coord	Coord	
30th %ile Green (s)	45.0	45.0						0.0		33.0	33.0	
30th %ile Term Code	Max	Max						Skip		Coord	Coord	
10th %ile Green (s)	41.2	41.2						0.0		36.8	36.8	
10th %ile Term Code	Gap	Gap						Skip		Coord	Coord	
Stops (vph)	211	915						10		291	296	
Fuel Used(gal)	8	37						0		5	5	
CO Emissions (g/hr)	578	2581						11		349	357	
NOx Emissions (g/hr)	113	502						2		68	70	
VOC Emissions (g/hr)	134	598						3		81	83	
Dilemma Vehicles (#)	0	134						0		0	0	
Queue Length 50th (ft)	124	263						2		213	222	
Queue Length 95th (ft)	m181	379						10		m285	m#305	
Internal Link Dist (ft)		1937			1883			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	876	1719						296		555	594	
Starvation Cap Reductn	0	0						0		107	137	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.42	0.87						0.03		0.72	0.74	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 3 (3%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.88
Intersection Signal Delay: 30.7 Intersection LOS: C
Intersection Capacity Utilization 82.6% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB

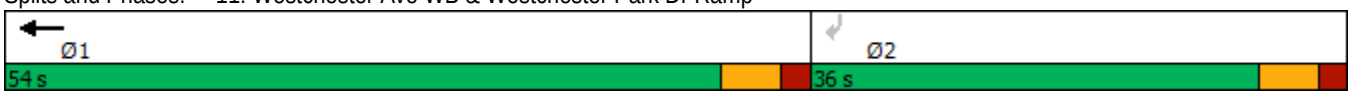


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱↱
Traffic Volume (vph)	0	0	967	0	0	306
Future Volume (vph)	0	0	967	0	0	306
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3374	0	0	2787
Flt Permitted						
Satd. Flow (perm)	0	0	3374	0	0	2787
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						143
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	7%	0%	0%	2%
Adj. Flow (vph)	0	0	1040	0	0	329
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1040	0	0	329
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			25.0			10.0
Total Split (s)			54.0			36.0
Total Split (%)			60.0%			40.0%
Maximum Green (s)			48.0			30.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			29.4			30.2
Actuated g/C Ratio			0.41			0.42
v/c Ratio			0.75			0.26
Control Delay			21.7			9.1
Queue Delay			0.0			0.0
Total Delay			21.7			9.1
LOS			C			A
Approach Delay			21.7		9.1	
Approach LOS			C		A	
90th %ile Green (s)			39.4			30.0
90th %ile Term Code			Gap			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			33.4			30.0
70th %ile Term Code			Gap			MaxR
50th %ile Green (s)			29.3			30.0
50th %ile Term Code			Gap			MaxR
30th %ile Green (s)			25.5			30.0
30th %ile Term Code			Gap			MaxR
10th %ile Green (s)			20.8			30.0
10th %ile Term Code			Gap			MaxR
Stops (vph)			762			107
Fuel Used(gal)			13			2
CO Emissions (g/hr)			897			109
NOx Emissions (g/hr)			175			21
VOC Emissions (g/hr)			208			25
Dilemma Vehicles (#)			51			0
Queue Length 50th (ft)			198			27
Queue Length 95th (ft)			262			67
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			2277			1258
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.46			0.26

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 71.7	
Natural Cycle: 40	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.75	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 47.4%	ICU Level of Service A
Analysis Period (min) 15	
90th %ile Actuated Cycle: 81.4	
70th %ile Actuated Cycle: 75.4	
50th %ile Actuated Cycle: 71.3	
30th %ile Actuated Cycle: 67.5	
10th %ile Actuated Cycle: 62.8	

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



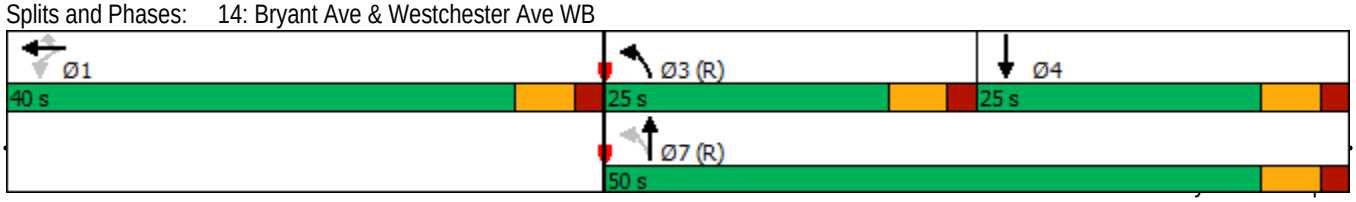
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	560	706	7	149	54	0	0	38	44
Future Volume (vph)	0	0	0	560	706	7	149	54	0	0	38	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.920	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1736	3374	1077	1671	1338	0	0	2633	0
Flt Permitted				0.950			0.500					
Satd. Flow (perm)	0	0	0	1736	3374	1077	880	1338	0	0	2633	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						109					47	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	0%	0%	0%	4%	7%	50%	8%	42%	0%	0%	16%	35%
Adj. Flow (vph)	0	0	0	602	759	8	160	58	0	0	41	47
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	602	759	8	160	58	0	0	88	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				40.0	40.0	40.0	25.0	50.0			25.0	
Total Split (%)				44.4%	44.4%	44.4%	27.8%	55.6%			27.8%	
Maximum Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				33.5	33.5	33.5	44.5	44.5			16.3	
Actuated g/C Ratio				0.37	0.37	0.37	0.49	0.49			0.18	
v/c Ratio				0.93	0.60	0.02	0.25	0.09			0.17	
Control Delay				51.0	25.2	0.0	6.0	5.3			16.5	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				51.0	25.2	0.0	6.0	5.3			16.5	
LOS				D	C	A	A	A			B	
Approach Delay					36.4			5.8			16.5	
Approach LOS					D			A			B	
90th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				34.0	34.0	34.0	19.0	44.0			19.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
10th %ile Green (s)				31.4	31.4	31.4	46.6	46.6			0.0	
10th %ile Term Code				Gap	Gap	Gap	Coord	Coord			Skip	
Stops (vph)				481	549	0	26	9			35	
Fuel Used(gal)				14	13	0	1	0			1	
CO Emissions (g/hr)				971	926	3	59	21			49	
NOx Emissions (g/hr)				189	180	1	11	4			9	
VOC Emissions (g/hr)				225	215	1	14	5			11	
Dilemma Vehicles (#)				0	38	0	0	0			0	
Queue Length 50th (ft)				320	178	0	17	6			10	
Queue Length 95th (ft)				#530	238	0	m26	m11			30	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				655	1274	474	651	662			592	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.92	0.60	0.02	0.25	0.09			0.15	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 24 (27%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 55
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.93
Intersection Signal Delay: 31.4 Intersection LOS: C
Intersection Capacity Utilization 55.9% ICU Level of Service B
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave WB



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	81	1316	61	0	0	0	0	122	274	237	361	0
Future Volume (vph)	81	1316	61	0	0	0	0	122	274	237	361	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.896				
Flt Protected	0.950										0.981	
Satd. Flow (prot)	1410	3539	1468	0	0	0	0	3112	0	0	3392	0
Flt Permitted	0.950										0.559	
Satd. Flow (perm)	1410	3539	1468	0	0	0	0	3112	0	0	1933	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			109					48				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Heavy Vehicles (%)	28%	2%	10%	0%	0%	0%	0%	6%	3%	2%	6%	0%
Adj. Flow (vph)	89	1446	67	0	0	0	0	134	301	260	397	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	89	1446	67	0	0	0	0	435	0	0	657	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	56.0	56.0	56.0					23.0		11.0	34.0	
Total Split (%)	62.2%	62.2%	62.2%					25.6%		12.2%	37.8%	
Maximum Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	46.7	46.7	46.7					17.0			31.3	
Actuated g/C Ratio	0.52	0.52	0.52					0.19			0.35	
v/c Ratio	0.12	0.79	0.08					0.89dr			0.90dl	
Control Delay	10.6	20.9	0.9					36.8			16.2	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	10.6	20.9	0.9					36.8			16.2	
LOS	B	C	A					D			B	
Approach Delay		19.5						36.8			16.2	
Approach LOS		B						D			B	
90th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	50.0	50.0	50.0					17.0		5.0	28.0	
70th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
50th %ile Green (s)	48.4	48.4	48.4					17.0		6.6	29.6	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	45.5	45.5	45.5					17.0		9.5	32.5	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	39.8	39.8	39.8					17.0		15.2	38.2	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	37	1004	2					323			298	
Fuel Used(gal)	1	20	0					7			6	
CO Emissions (g/hr)	59	1421	18					480			399	
NOx Emissions (g/hr)	11	276	3					93			78	
VOC Emissions (g/hr)	14	329	4					111			92	
Dilemma Vehicles (#)	0	64	0					0			0	
Queue Length 50th (ft)	24	318	0					108			93	
Queue Length 95th (ft)	45	387	7					161			m#152	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	783	1966	864					626			805	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.11	0.74	0.08					0.69			0.82	

Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 6.6 (7%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 65
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.82
Intersection Signal Delay: 21.5 Intersection LOS: C
Intersection Capacity Utilization 80.5% ICU Level of Service D
Analysis Period (min) 15

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.
dl Defacto Left Lane. Recode with 1 though lane as a left lane.
dr Defacto Right Lane. Recode with 1 though lane as a right lane.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB

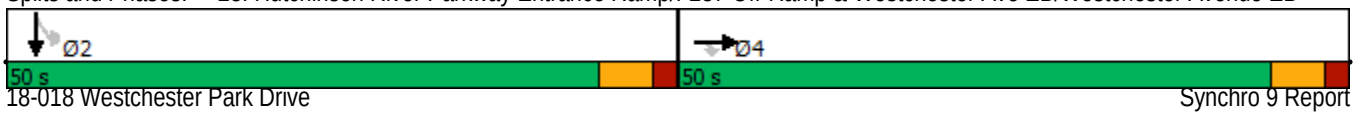
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	766	300	0	0	0	0	0	0	1170	480	0
Future Volume (vph)	0	766	300	0	0	0	0	0	0	1170	480	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1776	1442	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			252							101		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1963			449			201			1090	
Travel Time (s)		33.5			10.2			4.6			24.8	
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Heavy Vehicles (%)	0%	7%	12%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	790	309	0	0	0	0	0	0	1206	495	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	790	309	0	0	0	0	0	0	1206	495	0
Turn Type		NA	Perm							Perm	NA	
Protected Phases		4									2	
Permitted Phases			4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		50.0	50.0							50.0	50.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		44.0	44.0							44.0	44.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		44.0	44.0							44.0	44.0	
Actuated g/C Ratio		0.44	0.44							0.44	0.44	
v/c Ratio		1.01	0.40							1.42	0.60	
Control Delay		64.3	5.7							220.1	25.0	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		64.3	5.7							220.1	25.0	
LOS		E	A							F	C	
Approach Delay		47.9									163.3	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		D									F	
90th %ile Green (s)		44.0	44.0							44.0	44.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		44.0	44.0							44.0	44.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		44.0	44.0							44.0	44.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		44.0	44.0							44.0	44.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		44.0	44.0							44.0	44.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		649	47							829	356	
Fuel Used(gal)		27	5							67	8	
CO Emissions (g/hr)		1860	336							4680	594	
NOx Emissions (g/hr)		362	65							911	116	
VOC Emissions (g/hr)		431	78							1085	138	
Dilemma Vehicles (#)		35	0							0	0	
Queue Length 50th (ft)		~504	21							~1012	234	
Queue Length 95th (ft)		#759	75							#1268	340	
Internal Link Dist (ft)		1883			369			121			1010	
Turn Bay Length (ft)												
Base Capacity (vph)		781	775							850	827	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.01	0.40							1.42	0.60	

Intersection Summary

Area Type: Other
Cycle Length: 100
Actuated Cycle Length: 100
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.42
Intersection Signal Delay: 118.0 Intersection LOS: F
Intersection Capacity Utilization 115.1% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 100
70th %ile Actuated Cycle: 100
50th %ile Actuated Cycle: 100
30th %ile Actuated Cycle: 100
10th %ile Actuated Cycle: 100
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Hutchinson River Parkway Entrance Ramp/I-287 Off-Ramp & Westchester Ave EB/Westchester Avenue EB



Intersection	
Int Delay, s/veh	7.2

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1471	0	0	218
Future Vol, veh/h	0	0	1471	0	0	218
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	92	92	92	92	92	92
Heavy Vehicles, %	0	0	3	0	0	21
Mvmt Flow	0	0	1599	0	0	237

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	800
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	7.32
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.51
Pot Cap-1 Maneuver	-	0	0	290
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	290
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	55.4
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	290
HCM Lane V/C Ratio	-	0.817
HCM Control Delay (s)	-	55.4
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	6.7

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 No-Build
Jurisdiction	Harrison	Time Period Analyzed	Peak AM Hour
Project Description	18-018 3 Westchester PArk Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	707	164
Peak Hour Factor (PHF)	0.92	0.92
Total Trucks, %	10.00	15.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.909	0.870
Flow Rate (vi),pc/h	845	205
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.19	0.11

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.576
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	47.5
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	845	Ramp Junction Speed (S), mi/h	47.5
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	8.9
Level of Service (LOS)	A	Density in Ramp Influence Area (DR), pc/mi/ln	7.9

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	7/10/2019
Agency	PDE	Analysis Year	2019
Jurisdiction	Harrison, NY	Time Period Analyzed	AM Peak
Project Description	18-018 - Westchester Park Drive - 2020 Build with Interconnector Road	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	936	1130	85	277
Peak Hour Factor (PHF)	0.92	0.92	0.92	0.92
Total Trucks, %	3.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.971	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1048	1228	92	301
Weaving Flow Rate (v_W), pc/h	1529	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1140	Density-Based Capacity (c_{IWL}), pc/h/ln		1573
Total Flow Rate (v), pc/h	2669	Demand Flow-Based Capacity (c_{IW}), pc/h		4188
Volume Ratio (VR)	0.573	Weaving Segment Capacity (c_W), veh/h		3110
Minimum Lane Change Rate (LC_{MIN}), lc/h	1529	Adjusted Weaving Area Capacity, pc/h		3146
Maximum Weaving Length (L_{MAX}), ft	8692	Volume-to-Capacity Ratio (v/c)		0.85

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	28	Average Weaving Speed (S_W), mi/h	37.0
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	121	Average Non-Weaving Speed (S_{NW}), mi/h	32.6
Weaving Lane Change Rate (LC_W), lc/h	1560	Average Speed (S), mi/h	35.0
Weaving Lane Change Rate (LC_{All}), lc/h	1681	Density (D), pc/mi/ln	38.1
Weaving Intensity Factor (W)	0.588	Level of Service (LOS)	E

Copyright © 2019 University of Florida. All Rights Reserved.

FEIS SENSITIVITY ANALYSIS

PEAK PM HOUR

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	238	1243	20	586	40	0	0	24	0
Future Volume (vph)	0	0	0	238	1243	20	586	40	0	0	24	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1615	1770	1810	0	0	3610	0
Flt Permitted				0.950			0.553					
Satd. Flow (perm)	0	0	0	1787	3539	1615	1030	1810	0	0	3610	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	2%	5%	0%	0%	0%	4%
Adj. Flow (vph)	0	0	0	274	1429	23	674	46	0	0	28	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	274	1429	23	674	46	0	0	28	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				38.0	38.0	38.0	18.0	42.0			24.0	
Total Split (%)				47.5%	47.5%	47.5%	22.5%	52.5%			30.0%	
Maximum Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			Max	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				32.0	32.0	32.0	36.0	36.0			18.0	
Actuated g/C Ratio				0.40	0.40	0.40	0.45	0.45			0.22	
v/c Ratio				0.38	1.01	0.03	1.17	0.06			0.03	
Control Delay				19.0	51.9	0.1	111.8	4.9			24.5	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				19.0	51.9	0.1	111.8	4.9			24.5	
LOS				B	D	A	F	A			C	
Approach Delay					46.0			105.0			24.5	
Approach LOS					D			F			C	
90th %ile Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
70th %ile Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
50th %ile Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
30th %ile Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
10th %ile Green (s)				32.0	32.0	32.0	12.0	36.0			18.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			MaxR	
Stops (vph)				162	1070	0	443	18			20	
Fuel Used(gal)				4	30	0	17	0			0	
CO Emissions (g/hr)				259	2090	7	1218	18			20	
NOx Emissions (g/hr)				50	407	1	237	3			4	
VOC Emissions (g/hr)				60	484	2	282	4			5	
Dilemma Vehicles (#)				0	72	0	0	0			0	
Queue Length 50th (ft)				94	~374	0	~426	0			5	
Queue Length 95th (ft)				149	#499	0	#603	m16			15	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				714	1415	719	574	814			812	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.38	1.01	0.03	1.17	0.06			0.03	

Intersection Summary

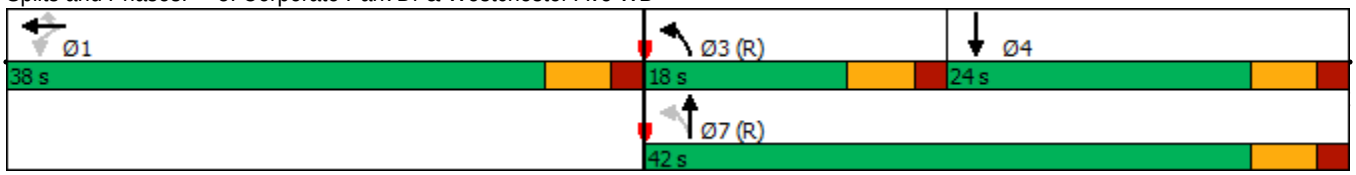
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 68 (85%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.17
Intersection Signal Delay: 62.9 Intersection LOS: E
Intersection Capacity Utilization 73.1% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



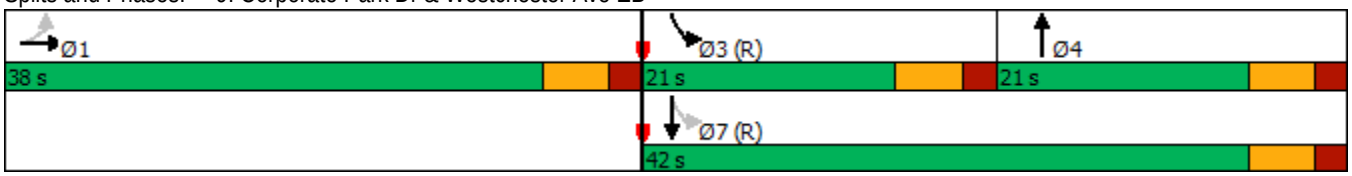
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	270	649	22	0	0	0	0	361	15	245	17	0
Future Volume (vph)	270	649	22	0	0	0	0	361	15	245	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	1.00	1.00	1.00
Frt		0.995						0.994				
Flt Protected	0.950									0.950		
Satd. Flow (prot)	1787	3498	0	0	0	0	0	3521	0	1787	1900	0
Flt Permitted	0.950									0.281		
Satd. Flow (perm)	1787	3498	0	0	0	0	0	3521	0	529	1900	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		5						5				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1900			373			359	
Travel Time (s)		34.4			43.2			8.5			8.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	23%	0%	0%	0%	0%	2%	0%	1%	0%	0%
Adj. Flow (vph)	307	738	25	0	0	0	0	410	17	278	19	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	307	763	0	0	0	0	0	427	0	278	19	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	38.0	38.0						21.0		21.0	42.0	
Total Split (%)	47.5%	47.5%						26.3%		26.3%	52.5%	
Maximum Green (s)	32.0	32.0						15.0		15.0	36.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	32.0	32.0						15.0		36.0	36.0	
Actuated g/C Ratio	0.40	0.40						0.19		0.45	0.45	
v/c Ratio	0.43	0.54						0.64		0.59	0.02	
Control Delay	12.7	13.3						34.8		23.0	4.8	
Queue Delay	0.4	0.0						0.1		0.0	0.0	
Total Delay	13.1	13.3						34.9		23.0	4.8	
LOS	B	B						C		C	A	
Approach Delay		13.2						34.9			21.9	
Approach LOS		B						C			C	
Stops (vph)	155	486						332		162	4	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fuel Used(gal)	6	16						6		3	0	
CO Emissions (g/hr)	413	1102						391		191	6	
NOx Emissions (g/hr)	80	214						76		37	1	
VOC Emissions (g/hr)	96	255						91		44	1	
Dilemma Vehicles (#)	0	11						0		0	0	
Queue Length 50th (ft)	62	80						103		44	2	
Queue Length 95th (ft)	99	128						147		118	m5	
Internal Link Dist (ft)		1937			1820			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	714	1402						664		473	855	
Starvation Cap Reductn	0	0						0		0	0	
Spillback Cap Reductn	120	0						14		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.52	0.54						0.66		0.59	0.02	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 26 (33%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 55
Control Type: Pretimed
Maximum v/c Ratio: 0.64
Intersection Signal Delay: 19.8 Intersection LOS: B
Intersection Capacity Utilization 73.1% ICU Level of Service D
Analysis Period (min) 15
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB

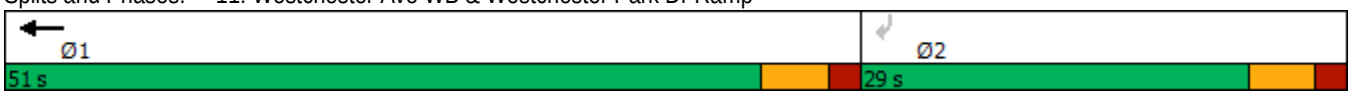


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	1516	0	0	400
Future Volume (vph)	0	0	1516	0	0	400
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	2814
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	2814
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						36
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	0%	0%	1%
Adj. Flow (vph)	0	0	1648	0	0	435
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1648	0	0	435
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			20.0			10.0
Total Split (s)			51.0			29.0
Total Split (%)			63.8%			36.3%
Maximum Green (s)			45.0			23.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			42.0			23.1
Actuated g/C Ratio			0.54			0.30
v/c Ratio			0.86			0.50
Control Delay			20.4			23.4
Queue Delay			0.0			0.0
Total Delay			20.4			23.4
LOS			C			C
Approach Delay			20.4		23.4	
Approach LOS			C		C	
90th %ile Green (s)			45.0			23.0
90th %ile Term Code			Max			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			45.0			23.0
70th %ile Term Code			Max			MaxR
50th %ile Green (s)			45.0			23.0
50th %ile Term Code			Max			MaxR
30th %ile Green (s)			42.3			23.0
30th %ile Term Code			Gap			MaxR
10th %ile Green (s)			33.3			23.0
10th %ile Term Code			Gap			MaxR
Stops (vph)			1207			293
Fuel Used(gal)			20			4
CO Emissions (g/hr)			1386			283
NOx Emissions (g/hr)			270			55
VOC Emissions (g/hr)			321			66
Dilemma Vehicles (#)			89			0
Queue Length 50th (ft)			327			93
Queue Length 95th (ft)			428			142
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			2072			867
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.80			0.50

Intersection Summary	
Area Type: Other	
Cycle Length: 80	
Actuated Cycle Length: 77.1	
Natural Cycle: 55	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 21.0	Intersection LOS: C
Intersection Capacity Utilization 65.9%	ICU Level of Service C
Analysis Period (min) 15	
90th %ile Actuated Cycle: 80	
70th %ile Actuated Cycle: 80	
50th %ile Actuated Cycle: 80	
30th %ile Actuated Cycle: 77.3	
10th %ile Actuated Cycle: 68.3	

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



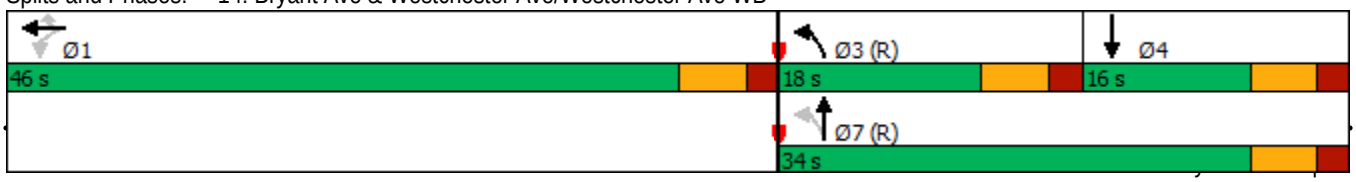
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	628	1289	12	305	24	0	0	23	17
Future Volume (vph)	0	0	0	628	1289	12	305	24	0	0	23	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.936	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1214	1787	1301	0	0	2783	0
Flt Permitted				0.950			0.362					
Satd. Flow (perm)	0	0	0	1787	3539	1214	681	1301	0	0	2783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123					20	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	1%	2%	33%	1%	46%	0%	0%	18%	26%
Adj. Flow (vph)	0	0	0	748	1535	14	363	29	0	0	27	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	748	1535	14	363	29	0	0	47	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				46.0	46.0	46.0	18.0	34.0			16.0	
Total Split (%)				57.5%	57.5%	57.5%	22.5%	42.5%			20.0%	
Maximum Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				40.0	40.0	40.0	28.0	28.0			8.2	
Actuated g/C Ratio				0.50	0.50	0.50	0.35	0.35			0.10	
v/c Ratio				0.84	0.87	0.02	0.74	0.06			0.16	
Control Delay				27.8	24.5	0.1	34.0	12.8			22.3	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				27.8	24.5	0.1	34.0	12.8			22.3	
LOS				C	C	A	C	B			C	
Approach Delay					25.4			32.4			22.3	
Approach LOS					C			C			C	
90th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
10th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
Stops (vph)				503	1058	0	209	10			25	
Fuel Used(gal)				12	25	0	4	0			0	
CO Emissions (g/hr)				857	1715	5	303	14			30	
NOx Emissions (g/hr)				167	334	1	59	3			6	
VOC Emissions (g/hr)				199	397	1	70	3			7	
Dilemma Vehicles (#)				0	80	0	0	0			0	
Queue Length 50th (ft)				304	337	0	151	4			6	
Queue Length 95th (ft)				411	385	0	#228	m14			20	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				893	1769	668	492	455			365	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.84	0.87	0.02	0.74	0.06			0.13	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 24 (30%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 60
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.87
Intersection Signal Delay: 26.4 Intersection LOS: C
Intersection Capacity Utilization 69.2% ICU Level of Service C
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave/Westchester Ave WB



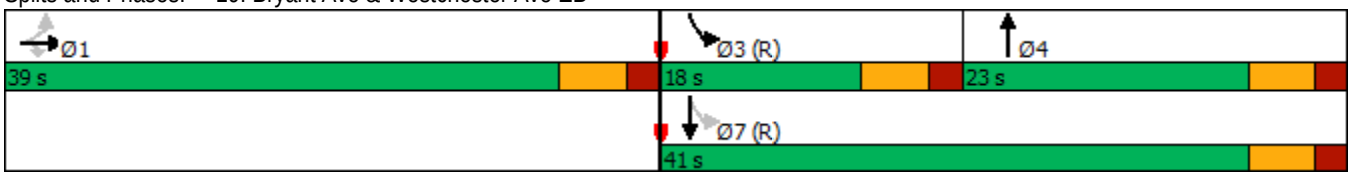
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	153	542	84	0	0	0	0	176	198	142	509	0
Future Volume (vph)	153	542	84	0	0	0	0	176	198	142	509	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.921				
Flt Protected	0.950										0.989	
Satd. Flow (prot)	1687	3505	1599	0	0	0	0	3260	0	0	3527	0
Flt Permitted	0.950										0.636	
Satd. Flow (perm)	1687	3505	1599	0	0	0	0	3260	0	0	2268	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123					213				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	3%	1%	0%	0%	0%	0%	2%	2%	2%	1%	0%
Adj. Flow (vph)	165	583	90	0	0	0	0	189	213	153	547	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	165	583	90	0	0	0	0	402	0	0	700	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	39.0	39.0	39.0					23.0		18.0	41.0	
Total Split (%)	48.8%	48.8%	48.8%					28.8%		22.5%	51.3%	
Maximum Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	20.5	20.5	20.5					17.0			47.5	
Actuated g/C Ratio	0.26	0.26	0.26					0.21			0.59	
v/c Ratio	0.38	0.65	0.18					0.47			0.40	
Control Delay	25.9	29.5	2.8					14.6			0.7	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	25.9	29.5	2.8					14.6			0.7	
LOS	C	C	A					B			A	
Approach Delay		25.9						14.6			0.7	
Approach LOS		C						B			A	
90th %ile Green (s)	27.2	27.2	27.2					17.0		17.8	40.8	
90th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
70th %ile Green (s)	23.1	23.1	23.1					17.0		21.9	44.9	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	20.5	20.5	20.5					17.0		24.5	47.5	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	17.7	17.7	17.7					17.0		27.3	50.3	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	14.0	14.0	14.0					17.0		31.0	54.0	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	118	456	6					150			15	
Fuel Used(gal)	3	10	0					4			2	
CO Emissions (g/hr)	177	681	29					275			171	
NOx Emissions (g/hr)	34	132	6					53			33	
VOC Emissions (g/hr)	41	158	7					64			40	
Dilemma Vehicles (#)	0	26	0					0			0	
Queue Length 50th (ft)	68	136	0					41			4	
Queue Length 95th (ft)	107	167	18					82			m7	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	695	1445	731					860			1732	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.24	0.40	0.12					0.47			0.40	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 3:SBL and 7:SBTL, Start of Green	
Natural Cycle: 45	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.65	
Intersection Signal Delay: 14.5	Intersection LOS: B
Intersection Capacity Utilization 59.4%	ICU Level of Service B
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



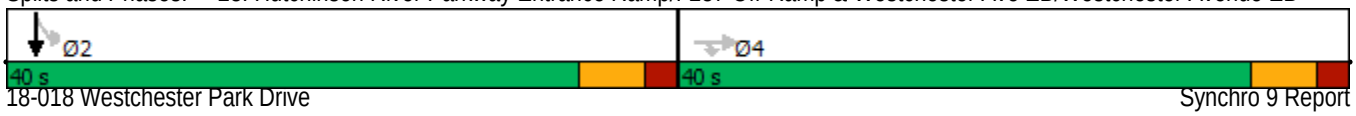
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1023	403	0	0	0	0	0	0	1099	351	0
Future Volume (vph)	0	1023	403	0	0	0	0	0	0	1099	351	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			323							41		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1900			524			276			1153	
Travel Time (s)		32.4			11.9			6.3			26.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	1163	458	0	0	0	0	0	0	1249	399	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1163	458	0	0	0	0	0	0	1249	399	0
Turn Type		NA	custom							Perm	NA	
Protected Phases											2	
Permitted Phases		4	4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		40.0	40.0							40.0	40.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		34.0	34.0							34.0	34.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		34.0	34.0							34.0	34.0	
Actuated g/C Ratio		0.42	0.42							0.42	0.42	
v/c Ratio		1.46	0.53							1.58	0.50	
Control Delay		235.7	7.5							290.2	19.5	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		235.7	7.5							290.2	19.5	
LOS		F	A							F	B	
Approach Delay		171.2									224.6	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F									F	
90th %ile Green (s)		34.0	34.0							34.0	34.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		34.0	34.0							34.0	34.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		34.0	34.0							34.0	34.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		34.0	34.0							34.0	34.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		34.0	34.0							34.0	34.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		784	98							799	246	
Fuel Used(gal)		70	7							79	6	
CO Emissions (g/hr)		4892	474							5537	413	
NOx Emissions (g/hr)		952	92							1077	80	
VOC Emissions (g/hr)		1134	110							1283	96	
Dilemma Vehicles (#)		44	0							0	0	
Queue Length 50th (ft)		~806	41							~901	141	
Queue Length 95th (ft)		#1008	109							#1110	213	
Internal Link Dist (ft)		1820			444			196			1073	
Turn Bay Length (ft)												
Base Capacity (vph)		799	858							790	799	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.46	0.53							1.58	0.50	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.58
Intersection Signal Delay: 198.2 Intersection LOS: F
Intersection Capacity Utilization 124.7% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 80
70th %ile Actuated Cycle: 80
50th %ile Actuated Cycle: 80
30th %ile Actuated Cycle: 80
10th %ile Actuated Cycle: 80
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Hutchinson River Parkway Entrance Ramp/I-287 Off-Ramp & Westchester Ave EB/Westchester Avenue EB



Intersection	
Int Delay, s/veh	10.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	945	0	0	410
Future Vol, veh/h	0	0	945	0	0	410
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	984	0	0	427

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	492
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	525
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	525
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	35.2
HCM LOS		E

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	525
HCM Lane V/C Ratio	-	0.813
HCM Control Delay (s)	-	35.2
HCM Lane LOS	-	E
HCM 95th %tile Q(veh)	-	7.9

Intersection	
Int Delay, s/veh	0.7

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1829	0	0	49
Future Vol, veh/h	0	0	1829	0	0	49
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	Stop
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	87	87	87	87	87	87
Heavy Vehicles, %	0	0	2	0	0	0
Mvmt Flow	0	0	2102	0	0	56

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	1051
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.9
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.3
Pot Cap-1 Maneuver	-	0	0	227
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	227
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	26
HCM LOS		D

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	227
HCM Lane V/C Ratio	-	0.248
HCM Control Delay (s)	-	26
HCM Lane LOS	-	D
HCM 95th %tile Q(veh)	-	0.9

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2018 Existing
Jurisdiction	Harrison	Time Period Analyzed	Peak PM Hour
Project Description	18-018 3 Westchester PArk Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (V_i)	1075	536
Peak Hour Factor (PHF)	0.84	0.84
Total Trucks, %	4.00	0.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (f_{HV})	0.962	1.000
Flow Rate (v_i),pc/h	1330	638
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.30	0.34

Speed and Density

Upstream Equilibrium Distance (L_{EQ}), ft	-	Number of Outer Lanes on Freeway (N_O)	0
Distance to Upstream Ramp (L_{UP}), ft	-	Speed Index (D_S)	0.615
Downstream Equilibrium Distance (L_{EQ}), ft	-	Flow Outer Lanes (v_{OA}), pc/h/ln	-
Distance to Downstream Ramp (L_{DOWN}), ft	-	Off-Ramp Influence Area Speed (S_R), mi/h	47.0
Prop. Freeway Vehicles in Lane 1 and 2 (P_{FD})	1.000	Outer Lanes Freeway Speed (S_O), mi/h	60.3
Flow in Lanes 1 and 2 (v_{12}), pc/h	1330	Ramp Junction Speed (S), mi/h	47.0
Flow Entering Ramp-Infl. Area (v_{R12}), pc/h	-	Average Density (D), pc/mi/ln	14.1
Level of Service (LOS)	B	Density in Ramp Influence Area (D_R), pc/mi/ln	12.1

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	7/10/2019
Agency	PDE	Analysis Year	2019
Jurisdiction	Harrison, NY	Time Period Analyzed	PM Peak
Project Description	18-018 - Westchester Park Drive - 2018 Existing	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	925	585	36	268
Peak Hour Factor (PHF)	0.96	0.96	0.96	0.96
Total Trucks, %	2.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	1.000	1.000	1.000
Flow Rate (v_i), pc/h	983	609	38	279
Weaving Flow Rate (v_W), pc/h	888	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1021	Density-Based Capacity (c_{IWL}), pc/h/ln		1671
Total Flow Rate (v), pc/h	1909	Demand Flow-Based Capacity (c_{IW}), pc/h		5161
Volume Ratio (VR)	0.465	Weaving Segment Capacity (c_W), veh/h		3308
Minimum Lane Change Rate (LC_{MIN}), lc/h	888	Adjusted Weaving Area Capacity, pc/h		3342
Maximum Weaving Length (L_{MAX}), ft	7420	Volume-to-Capacity Ratio (v/c)		0.57

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	26	Average Weaving Speed (S_W), mi/h	40.1
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	96	Average Non-Weaving Speed (S_{NW}), mi/h	39.0
Weaving Lane Change Rate (LC_W), lc/h	919	Average Speed (S), mi/h	39.5
Weaving Lane Change Rate (LC_{All}), lc/h	1015	Density (D), pc/mi/ln	24.2
Weaving Intensity Factor (W)	0.395	Level of Service (LOS)	C

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	276	1311	261	612	255	0	0	251	0
Future Volume (vph)	0	0	0	276	1311	261	612	255	0	0	251	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1615	1770	1810	0	0	3610	0
Flt Permitted				0.950			0.499					
Satd. Flow (perm)	0	0	0	1787	3539	1615	930	1810	0	0	3610	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						300						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	2%	5%	0%	0%	0%	4%
Adj. Flow (vph)	0	0	0	317	1507	300	703	293	0	0	289	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	317	1507	300	703	293	0	0	289	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5		3	8			4	
Permitted Phases				5		5	8					
Detector Phase				5	5	5	3	8			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0			4.0	
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0			10.0	
Total Split (s)				42.0	42.0	42.0	32.0	44.0			12.0	
Total Split (%)				46.7%	46.7%	46.7%	35.6%	48.9%			13.3%	
Maximum Green (s)				36.0	36.0	36.0	26.0	38.0			6.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag				Lead	Lead	Lead	Lag				Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				C-Min	C-Min	C-Min	None	None			None	
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				39.2	39.2	39.2	38.8	38.8			6.8	
Actuated g/C Ratio				0.44	0.44	0.44	0.43	0.43			0.08	
v/c Ratio				0.41	0.98	0.34	1.09	0.38			1.06	
Control Delay				19.2	44.1	3.1	92.7	19.5			114.8	
Queue Delay				0.0	0.0	0.0	3.1	0.9			0.0	

Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	1.0
Minimum Split (s)	16.0	4.0
Total Split (s)	46.0	4.0
Total Split (%)	51%	4%
Maximum Green (s)	40.0	1.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	2.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lag
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)		7.0
Flash Dont Walk (s)		11.0
Pedestrian Calls (#/hr)		0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				19.2	44.1	3.1	95.9	20.4			114.8	
LOS				B	D	A	F	C			F	
Approach Delay					34.6			73.7			114.8	
Approach LOS					C			E			F	
90th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
90th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
70th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
70th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
50th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
50th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
30th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
30th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
10th %ile Green (s)				36.0	36.0	36.0	26.0	42.0			10.0	
10th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
Stops (vph)				182	1149	22	451	169			193	
Fuel Used(gal)				4	30	2	16	3			8	
CO Emissions (g/hr)				297	2072	118	1102	186			526	
NOx Emissions (g/hr)				58	403	23	214	36			102	
VOC Emissions (g/hr)				69	480	27	255	43			122	
Dilemma Vehicles (#)				0	70	0	0	0			0	
Queue Length 50th (ft)				118	422	0	~436	112			~106	
Queue Length 95th (ft)				177	#551	39	#639	170			#178	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				778	1541	872	643	780			272	
Starvation Cap Reductn				0	0	0	0	262			0	
Spillback Cap Reductn				0	0	0	42	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.41	0.98	0.34	1.17	0.57			1.06	

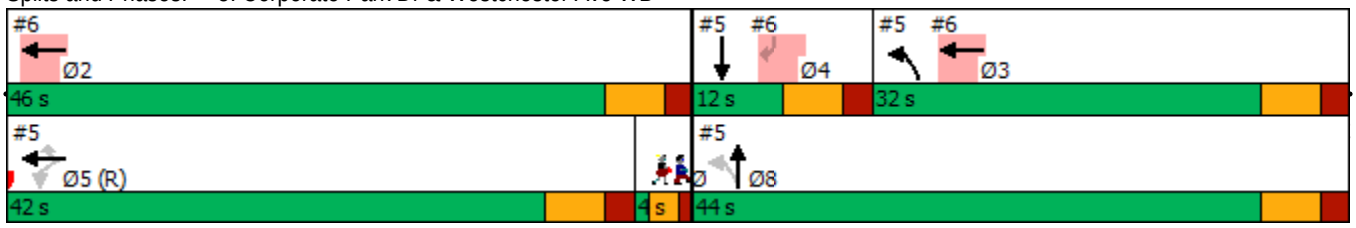
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 120
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.14
Intersection Signal Delay: 52.8 Intersection LOS: D
Intersection Capacity Utilization 92.1% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø2	Ø6
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	40.0	0.0
90th %ile Term Code	Coord	Skip
70th %ile Green (s)	40.0	0.0
70th %ile Term Code	Coord	Skip
50th %ile Green (s)	40.0	0.0
50th %ile Term Code	Coord	Skip
30th %ile Green (s)	40.0	0.0
30th %ile Term Code	Coord	Skip
10th %ile Green (s)	36.0	0.0
10th %ile Term Code	Coord	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Lane Configurations											
Traffic Volume (vph)	0	0	1923	0	0	253					
Future Volume (vph)	0	0	1923	0	0	253					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88					
Frt						0.850					
Flt Protected											
Satd. Flow (prot)	0	0	3539	0	0	2842					
Flt Permitted											
Satd. Flow (perm)	0	0	3539	0	0	2842					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)						45					
Link Speed (mph)		30	30		30						
Link Distance (ft)		573	376		253						
Travel Time (s)		13.0	8.5		5.8						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87					
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%					
Adj. Flow (vph)	0	0	2210	0	0	291					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	2210	0	0	291					
Turn Type			NA			Perm					
Protected Phases			2 3				2	3	5	6	8
Permitted Phases						4					
Detector Phase			2 3			4					
Switch Phase											
Minimum Initial (s)						4.0	5.0	1.0	5.0	1.0	5.0
Minimum Split (s)						10.0	16.0	11.0	26.0	4.0	16.0
Total Split (s)						12.0	46.0	32.0	42.0	4.0	44.0
Total Split (%)						13.3%	51%	36%	47%	4%	49%
Maximum Green (s)						6.0	40.0	26.0	36.0	1.0	38.0
Yellow Time (s)						4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)						2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)						0.0					
Total Lost Time (s)						6.0					
Lead/Lag						Lead		Lag	Lead	Lag	
Lead-Lag Optimize?						Yes		Yes	Yes	Yes	
Vehicle Extension (s)						3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode						None	None	None	C-Min	None	None
Walk Time (s)									7.0	7.0	7.0
Flash Dont Walk (s)									10.0	11.0	11.0
Pedestrian Calls (#/hr)									0	0	0
Act Effct Green (s)			71.2			6.8					
Actuated g/C Ratio			0.79			0.08					
v/c Ratio			0.79			1.14					
Control Delay			4.1			133.5					
Queue Delay			2.8			0.0					
Total Delay			7.0			133.5					
LOS			A			F					
Approach Delay			7.0		133.5						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Approach LOS			A		F						
90th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
90th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
70th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
70th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
50th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
50th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
30th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
30th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
10th %ile Green (s)						10.0	36.0	26.0	36.0	0.0	42.0
10th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
Stops (vph)			496			155					
Fuel Used(gal)			10			8					
CO Emissions (g/hr)			699			575					
NOx Emissions (g/hr)			136			112					
VOC Emissions (g/hr)			162			133					
Dilemma Vehicles (#)			0			0					
Queue Length 50th (ft)			111			~105					
Queue Length 95th (ft)			m133			#185					
Internal Link Dist (ft)		493	296		173						
Turn Bay Length (ft)											
Base Capacity (vph)			2831			256					
Starvation Cap Reductn			494			0					
Spillback Cap Reductn			0			0					
Storage Cap Reductn			0			0					
Reduced v/c Ratio			0.95			1.14					

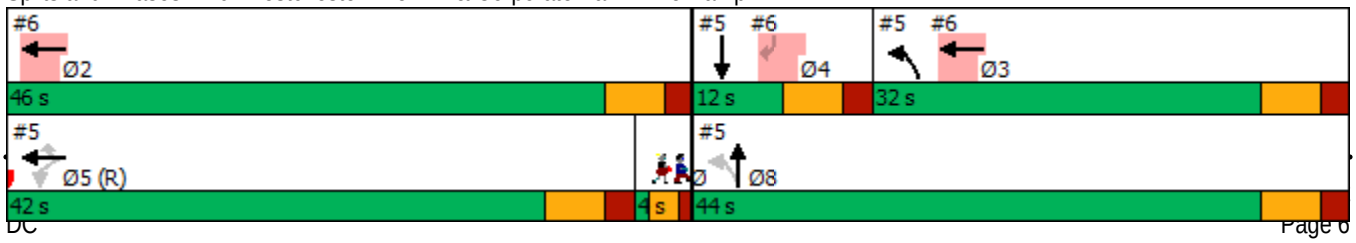
Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 10 (11%), Referenced to phase 5:WBTL, Start of Green	
Natural Cycle: 120	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 21.7	Intersection LOS: C
Intersection Capacity Utilization 72.0%	ICU Level of Service C
Analysis Period (min) 15	

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Westchester Ave WB & Corporate Park Drive Ramp



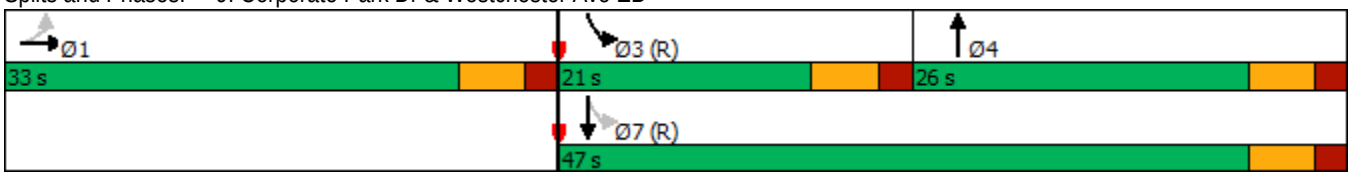
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	503	776	23	0	0	0	0	368	15	510	17	0
Future Volume (vph)	503	776	23	0	0	0	0	368	15	510	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.996						0.994				
Flt Protected	0.950									0.950	0.955	
Satd. Flow (prot)	1787	3504	0	0	0	0	0	3521	0	1698	1708	0
Flt Permitted	0.950									0.331	0.312	
Satd. Flow (perm)	1787	3504	0	0	0	0	0	3521	0	592	558	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4						5				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1900			373			359	
Travel Time (s)		34.4			43.2			8.5			8.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	23%	0%	0%	0%	0%	2%	0%	1%	0%	0%
Adj. Flow (vph)	572	882	26	0	0	0	0	418	17	580	19	0
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	572	908	0	0	0	0	0	435	0	296	303	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	33.0	33.0						26.0		21.0	47.0	
Total Split (%)	41.3%	41.3%						32.5%		26.3%	58.8%	
Maximum Green (s)	27.0	27.0						20.0		15.0	41.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	27.0	27.0						20.0		41.0	41.0	
Actuated g/C Ratio	0.34	0.34						0.25		0.51	0.51	
v/c Ratio	0.95	0.77						0.49		0.58	0.60	
Control Delay	45.2	21.0						27.6		16.6	17.2	
Queue Delay	0.0	0.0						0.0		0.0	0.7	
Total Delay	45.2	21.0						27.6		16.6	17.9	
LOS	D	C						C		B	B	
Approach Delay		30.4						27.6			17.3	
Approach LOS		C						C			B	
Stops (vph)	451	732						313		148	152	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fuel Used(gal)	16	22						5		2	3	
CO Emissions (g/hr)	1115	1506						349		170	176	
NOx Emissions (g/hr)	217	293						68		33	34	
VOC Emissions (g/hr)	258	349						81		39	41	
Dilemma Vehicles (#)	0	18						0		0	0	
Queue Length 50th (ft)	300	235						96		86	89	
Queue Length 95th (ft)	#469	283						137		137	141	
Internal Link Dist (ft)		1937			1820			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	603	1185						884		510	501	
Starvation Cap Reductn	0	0						0		0	46	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.95	0.77						0.49		0.58	0.67	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 26 (33%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.95
Intersection Signal Delay: 26.8 Intersection LOS: C
Intersection Capacity Utilization 88.0% ICU Level of Service E
Analysis Period (min) 15
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB



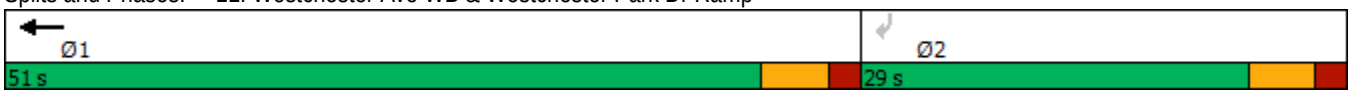
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	1779	0	0	552
Future Volume (vph)	0	0	1779	0	0	552
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	2814
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	2814
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						17
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	0%	0%	1%
Adj. Flow (vph)	0	0	1934	0	0	600
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1934	0	0	600
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			20.0			10.0
Total Split (s)			51.0			29.0
Total Split (%)			63.8%			36.3%
Maximum Green (s)			45.0			23.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			45.0			23.0
Actuated g/C Ratio			0.56			0.29
v/c Ratio			0.97			0.73
Control Delay			32.7			31.1
Queue Delay			0.0			0.0
Total Delay			32.7			31.1
LOS			C			C
Approach Delay			32.7		31.1	
Approach LOS			C		C	
90th %ile Green (s)			45.0			23.0
90th %ile Term Code			Max			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			45.0			23.0
70th %ile Term Code			Max			MaxR
50th %ile Green (s)			45.0			23.0
50th %ile Term Code			Max			MaxR
30th %ile Green (s)			45.0			23.0
30th %ile Term Code			Max			MaxR
10th %ile Green (s)			45.0			23.0
10th %ile Term Code			Max			MaxR
Stops (vph)			1470			471
Fuel Used(gal)			28			7
CO Emissions (g/hr)			1977			477
NOx Emissions (g/hr)			385			93
VOC Emissions (g/hr)			458			110
Dilemma Vehicles (#)			106			0
Queue Length 50th (ft)			452			148
Queue Length 95th (ft)			#656			213
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			1990			821
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.97			0.73

Intersection Summary	
Area Type: Other	
Cycle Length: 80	
Actuated Cycle Length: 80	
Natural Cycle: 70	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 32.4	Intersection LOS: C
Intersection Capacity Utilization 78.5%	ICU Level of Service D
Analysis Period (min) 15	
90th %ile Actuated Cycle: 80	
70th %ile Actuated Cycle: 80	
50th %ile Actuated Cycle: 80	
30th %ile Actuated Cycle: 80	
10th %ile Actuated Cycle: 80	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	838	1494	13	311	24	0	0	23	17
Future Volume (vph)	0	0	0	838	1494	13	311	24	0	0	23	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.936	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1214	1787	1301	0	0	2783	0
Flt Permitted				0.950			0.362					
Satd. Flow (perm)	0	0	0	1787	3539	1214	681	1301	0	0	2783	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123					20	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	1%	2%	33%	1%	46%	0%	0%	18%	26%
Adj. Flow (vph)	0	0	0	998	1779	15	370	29	0	0	27	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	998	1779	15	370	29	0	0	47	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				46.0	46.0	46.0	18.0	34.0			16.0	
Total Split (%)				57.5%	57.5%	57.5%	22.5%	42.5%			20.0%	
Maximum Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				40.0	40.0	40.0	28.0	28.0			8.2	
Actuated g/C Ratio				0.50	0.50	0.50	0.35	0.35			0.10	
v/c Ratio				1.12	1.01	0.02	0.75	0.06			0.16	
Control Delay				90.3	44.3	0.1	32.8	11.4			22.3	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				90.3	44.3	0.1	32.8	11.4			22.3	
LOS				F	D	A	C	B			C	
Approach Delay					60.5			31.3			22.3	
Approach LOS					E			C			C	
90th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				40.0	40.0	40.0	12.0	28.0			10.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
10th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
Stops (vph)				682	1266	0	212	10			25	
Fuel Used(gal)				27	35	0	4	0			0	
CO Emissions (g/hr)				1896	2435	5	303	14			30	
NOx Emissions (g/hr)				369	474	1	59	3			6	
VOC Emissions (g/hr)				439	564	1	70	3			7	
Dilemma Vehicles (#)				0	88	0	0	0			0	
Queue Length 50th (ft)				~582	~450	0	157	4			6	
Queue Length 95th (ft)				#723	#556	0	#221	m12			20	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				893	1769	668	492	455			365	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				1.12	1.01	0.02	0.75	0.06			0.13	

Intersection Summary

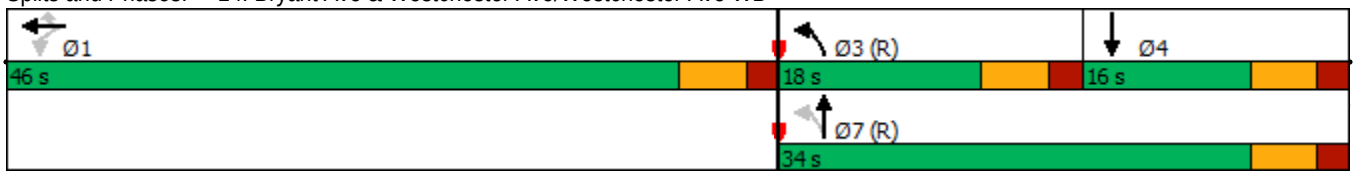
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 24 (30%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.12
Intersection Signal Delay: 56.3 Intersection LOS: E
Intersection Capacity Utilization 80.3% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave/Westchester Ave WB



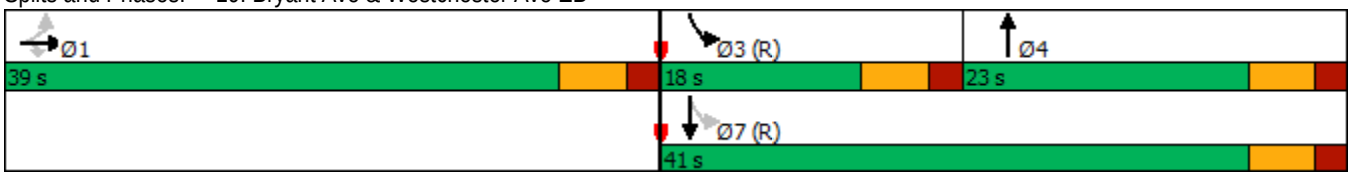
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	764	86	0	0	0	0	180	262	217	578	0
Future Volume (vph)	156	764	86	0	0	0	0	180	262	217	578	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.911				
Flt Protected	0.950										0.987	
Satd. Flow (prot)	1687	3505	1599	0	0	0	0	3224	0	0	3518	0
Flt Permitted	0.950										0.582	
Satd. Flow (perm)	1687	3505	1599	0	0	0	0	3224	0	0	2075	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123					170				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	3%	1%	0%	0%	0%	0%	2%	2%	2%	1%	0%
Adj. Flow (vph)	168	822	92	0	0	0	0	194	282	233	622	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	822	92	0	0	0	0	476	0	0	855	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	39.0	39.0	39.0					23.0		18.0	41.0	
Total Split (%)	48.8%	48.8%	48.8%					28.8%		22.5%	51.3%	
Maximum Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	26.9	26.9	26.9					17.0			41.1	
Actuated g/C Ratio	0.34	0.34	0.34					0.21			0.51	
v/c Ratio	0.30	0.70	0.15					0.58			0.61	
Control Delay	19.8	25.9	2.2					21.1			1.1	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	19.8	25.9	2.2					21.1			1.1	
LOS	B	C	A					C			A	
Approach Delay		23.0						21.1			1.1	
Approach LOS		C						C			A	
90th %ile Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	30.5	30.5	30.5					17.0		14.5	37.5	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	27.2	27.2	27.2					17.0		17.8	40.8	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	24.3	24.3	24.3					17.0		20.7	43.7	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	19.5	19.5	19.5					17.0		25.5	48.5	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	106	624	6					252			82	
Fuel Used(gal)	2	13	0					6			3	
CO Emissions (g/hr)	157	907	29					395			237	
NOx Emissions (g/hr)	31	177	6					77			46	
VOC Emissions (g/hr)	36	210	7					92			55	
Dilemma Vehicles (#)	0	39	0					0			0	
Queue Length 50th (ft)	61	183	0					70			4	
Queue Length 95th (ft)	96	216	16					118			m8	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	695	1445	731					818			1392	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.24	0.57	0.13					0.58			0.61	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 3:SBL and 7:SBTL, Start of Green	
Natural Cycle: 60	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.70	
Intersection Signal Delay: 14.8	Intersection LOS: B
Intersection Capacity Utilization 71.8%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



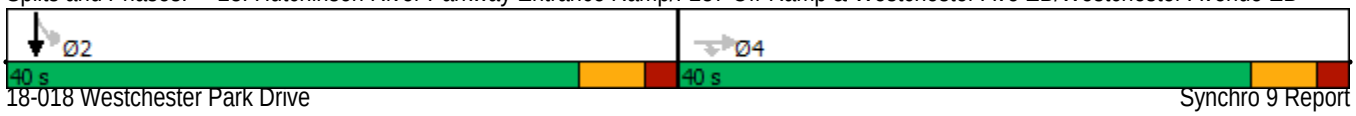
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1338	599	0	0	0	0	0	0	1121	358	0
Future Volume (vph)	0	1338	599	0	0	0	0	0	0	1121	358	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			315							41		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1900			524			276			1153	
Travel Time (s)		32.4			11.9			6.3			26.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	1520	681	0	0	0	0	0	0	1274	407	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1520	681	0	0	0	0	0	0	1274	407	0
Turn Type		NA	custom							Perm	NA	
Protected Phases											2	
Permitted Phases		4	4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		40.0	40.0							40.0	40.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		34.0	34.0							34.0	34.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		34.0	34.0							34.0	34.0	
Actuated g/C Ratio		0.42	0.42							0.42	0.42	
v/c Ratio		1.90	0.80							1.61	0.51	
Control Delay		432.1	19.0							304.1	19.7	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		432.1	19.0							304.1	19.7	
LOS		F	B							F	B	
Approach Delay		304.3									235.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F									F	
90th %ile Green (s)		34.0	34.0							34.0	34.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		34.0	34.0							34.0	34.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		34.0	34.0							34.0	34.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		34.0	34.0							34.0	34.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		34.0	34.0							34.0	34.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		975	302							811	254	
Fuel Used(gal)		145	13							84	6	
CO Emissions (g/hr)		10102	909							5868	423	
NOx Emissions (g/hr)		1965	177							1142	82	
VOC Emissions (g/hr)		2341	211							1360	98	
Dilemma Vehicles (#)		44	0							0	0	
Queue Length 50th (ft)		~1183	156							~928	145	
Queue Length 95th (ft)		#1390	297							#1139	218	
Internal Link Dist (ft)		1820			444			196			1073	
Turn Bay Length (ft)												
Base Capacity (vph)		799	853							790	799	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.90	0.80							1.61	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.90
Intersection Signal Delay: 274.4 Intersection LOS: F
Intersection Capacity Utilization 142.5% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 80
70th %ile Actuated Cycle: 80
50th %ile Actuated Cycle: 80
30th %ile Actuated Cycle: 80
10th %ile Actuated Cycle: 80
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Hutchinson River Parkway Entrance Ramp/I-287 Off-Ramp & Westchester Ave EB/Westchester Avenue EB



Intersection	
Int Delay, s/veh	24.5

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1281	0	0	418
Future Vol, veh/h	0	0	1281	0	0	418
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	1334	0	0	435

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	667
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	~ 404
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	~ 404
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	99.4
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	404
HCM Lane V/C Ratio	-	1.078
HCM Control Delay (s)	-	99.4
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	14.9

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 No-Build
Jurisdiction	Harrison	Time Period Analyzed	Peak PM Hour
Project Description	18-018 3 Westchester PArk Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1180	623
Peak Hour Factor (PHF)	0.84	0.84
Total Trucks, %	4.00	0.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	1.000
Flow Rate (vi),pc/h	1460	742
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.32	0.39

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.625
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	46.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	1460	Ramp Junction Speed (S), mi/h	46.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	15.6
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	13.2

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	7/10/2019
Agency	PDE	Analysis Year	2019
Jurisdiction	Harrison, NY	Time Period Analyzed	PM Peak
Project Description	18-018 - Westchester Park Drive - 2020 No-Build	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	1115	743	37	273
Peak Hour Factor (PHF)	0.96	0.96	0.96	0.96
Total Trucks, %	2.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1185	774	39	284
Weaving Flow Rate (v_W), pc/h	1058	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1224	Density-Based Capacity (c_{IWL}), pc/h/ln		1671
Total Flow Rate (v), pc/h	2282	Demand Flow-Based Capacity (c_{IW}), pc/h		5172
Volume Ratio (VR)	0.464	Weaving Segment Capacity (c_W), veh/h		3307
Minimum Lane Change Rate (LC_{MIN}), lc/h	1058	Adjusted Weaving Area Capacity, pc/h		3342
Maximum Weaving Length (L_{MAX}), ft	7409	Volume-to-Capacity Ratio (v/c)		0.68

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	31	Average Weaving Speed (S_W), mi/h	39.0
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	138	Average Non-Weaving Speed (S_{NW}), mi/h	36.9
Weaving Lane Change Rate (LC_W), lc/h	1089	Average Speed (S), mi/h	37.8
Weaving Lane Change Rate (LC_{All}), lc/h	1227	Density (D), pc/mi/ln	30.2
Weaving Intensity Factor (W)	0.459	Level of Service (LOS)	D

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	276	1379	261	647	254	0	0	251	0
Future Volume (vph)	0	0	0	276	1379	261	647	254	0	0	251	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1615	1770	1810	0	0	3610	0
Flt Permitted				0.950			0.493					
Satd. Flow (perm)	0	0	0	1787	3539	1615	918	1810	0	0	3610	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						300						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	2%	5%	0%	0%	0%	4%
Adj. Flow (vph)	0	0	0	317	1585	300	744	292	0	0	289	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	317	1585	300	744	292	0	0	289	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5		3	8			4	
Permitted Phases				5		5	8					
Detector Phase				5	5	5	3	8			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0			4.0	
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0			10.0	
Total Split (s)				42.0	42.0	42.0	32.0	44.0			12.0	
Total Split (%)				46.7%	46.7%	46.7%	35.6%	48.9%			13.3%	
Maximum Green (s)				36.0	36.0	36.0	26.0	38.0			6.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag				Lead	Lead	Lead	Lag				Lead	
Lead-Lag Optimize?				Yes	Yes	Yes	Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				C-Min	C-Min	C-Min	None	None			None	
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				39.8	39.8	39.8	38.2	38.2			6.2	
Actuated g/C Ratio				0.44	0.44	0.44	0.42	0.42			0.07	
v/c Ratio				0.40	1.01	0.34	1.17	0.38			1.16	
Control Delay				18.9	52.4	3.1	121.7	19.7			147.4	
Queue Delay				0.0	0.0	0.0	0.7	1.0			0.0	

Lane Group	Ø2	Ø6
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Ideal Flow (vphpl)		
Storage Length (ft)		
Storage Lanes		
Taper Length (ft)		
Lane Util. Factor		
Frt		
Flt Protected		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Right Turn on Red		
Satd. Flow (RTOR)		
Link Speed (mph)		
Link Distance (ft)		
Travel Time (s)		
Peak Hour Factor		
Heavy Vehicles (%)		
Adj. Flow (vph)		
Shared Lane Traffic (%)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	2	6
Permitted Phases		
Detector Phase		
Switch Phase		
Minimum Initial (s)	5.0	1.0
Minimum Split (s)	16.0	4.0
Total Split (s)	46.0	4.0
Total Split (%)	51%	4%
Maximum Green (s)	40.0	1.0
Yellow Time (s)	4.0	2.0
All-Red Time (s)	2.0	1.0
Lost Time Adjust (s)		
Total Lost Time (s)		
Lead/Lag		Lag
Lead-Lag Optimize?		Yes
Vehicle Extension (s)	3.0	3.0
Recall Mode	None	None
Walk Time (s)	7.0	7.0
Flash Dont Walk (s)	11.0	11.0
Pedestrian Calls (#/hr)	0	0
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				18.9	52.4	3.1	122.5	20.7			147.4	
LOS				B	D	A	F	C			F	
Approach Delay					40.8			93.8			147.4	
Approach LOS					D			F			F	
90th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
90th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
70th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
70th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
50th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
50th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
30th %ile Green (s)				40.0	40.0	40.0	26.0	38.0			6.0	
30th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
10th %ile Green (s)				38.9	38.9	38.9	26.0	39.1			7.1	
10th %ile Term Code				Coord	Coord	Coord	Max	Hold			Max	
Stops (vph)				180	1199	22	475	169			199	
Fuel Used(gal)				4	33	2	20	3			9	
CO Emissions (g/hr)				295	2336	118	1431	186			645	
NOx Emissions (g/hr)				57	455	23	278	36			125	
VOC Emissions (g/hr)				68	541	27	332	43			149	
Dilemma Vehicles (#)				0	72	0	0	0			0	
Queue Length 50th (ft)				118	~468	0	~511	111			~106	
Queue Length 95th (ft)				177	#598	39	#690	169			#178	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				790	1563	881	635	768			249	
Starvation Cap Reductn				0	0	0	0	262			0	
Spillback Cap Reductn				0	0	0	62	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.40	1.01	0.34	1.30	0.58			1.16	

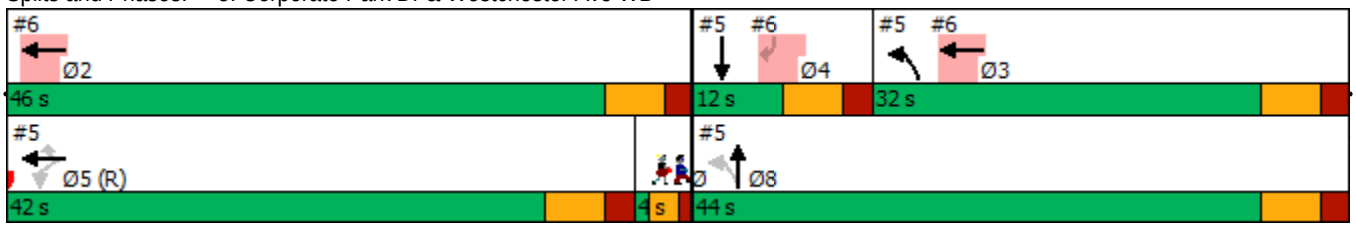
Intersection Summary

Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.27
Intersection Signal Delay: 65.1 Intersection LOS: E
Intersection Capacity Utilization 95.9% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø2	Ø6
Total Delay		
LOS		
Approach Delay		
Approach LOS		
90th %ile Green (s)	40.0	0.0
90th %ile Term Code	Coord	Skip
70th %ile Green (s)	40.0	0.0
70th %ile Term Code	Coord	Skip
50th %ile Green (s)	40.0	0.0
50th %ile Term Code	Coord	Skip
30th %ile Green (s)	40.0	0.0
30th %ile Term Code	Coord	Skip
10th %ile Green (s)	38.9	0.0
10th %ile Term Code	Coord	Skip
Stops (vph)		
Fuel Used(gal)		
CO Emissions (g/hr)		
NOx Emissions (g/hr)		
VOC Emissions (g/hr)		
Dilemma Vehicles (#)		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		

Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Lane Configurations											
Traffic Volume (vph)	0	0	2009	0	0	256					
Future Volume (vph)	0	0	2009	0	0	256					
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900					
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88					
Frt						0.850					
Flt Protected											
Satd. Flow (prot)	0	0	3539	0	0	2842					
Flt Permitted											
Satd. Flow (perm)	0	0	3539	0	0	2842					
Right Turn on Red				Yes		Yes					
Satd. Flow (RTOR)						38					
Link Speed (mph)		30	30		30						
Link Distance (ft)		573	376		253						
Travel Time (s)		13.0	8.5		5.8						
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87					
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%					
Adj. Flow (vph)	0	0	2309	0	0	294					
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	2309	0	0	294					
Turn Type			NA			Perm					
Protected Phases			2 3				2	3	5	6	8
Permitted Phases						4					
Detector Phase			2 3			4					
Switch Phase											
Minimum Initial (s)						4.0	5.0	1.0	5.0	1.0	5.0
Minimum Split (s)						10.0	16.0	11.0	26.0	4.0	16.0
Total Split (s)						12.0	46.0	32.0	42.0	4.0	44.0
Total Split (%)						13.3%	51%	36%	47%	4%	49%
Maximum Green (s)						6.0	40.0	26.0	36.0	1.0	38.0
Yellow Time (s)						4.0	4.0	4.0	4.0	2.0	4.0
All-Red Time (s)						2.0	2.0	2.0	2.0	1.0	2.0
Lost Time Adjust (s)						0.0					
Total Lost Time (s)						6.0					
Lead/Lag						Lead		Lag	Lead	Lag	
Lead-Lag Optimize?						Yes		Yes	Yes	Yes	
Vehicle Extension (s)						3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode						None	None	None	C-Min	None	None
Walk Time (s)							7.0		7.0	7.0	7.0
Flash Dont Walk (s)							11.0		10.0	11.0	11.0
Pedestrian Calls (#/hr)							0		0	0	0
Act Effct Green (s)			71.8			6.2					
Actuated g/C Ratio			0.80			0.07					
v/c Ratio			0.82			1.27					
Control Delay			4.8			184.7					
Queue Delay			7.9			0.0					
Total Delay			12.8			184.7					
LOS			B			F					
Approach Delay			12.8		184.7						

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3	Ø5	Ø6	Ø8
Approach LOS			B		F						
90th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
90th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
70th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
70th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
50th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
50th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
30th %ile Green (s)						6.0	40.0	26.0	40.0	0.0	38.0
30th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
10th %ile Green (s)						7.1	38.9	26.0	38.9	0.0	39.1
10th %ile Term Code						Max	Coord	Max	Coord	Skip	Hold
Stops (vph)			587			165					
Fuel Used(gal)			11			11					
CO Emissions (g/hr)			777			772					
NOx Emissions (g/hr)			151			150					
VOC Emissions (g/hr)			180			179					
Dilemma Vehicles (#)			0			0					
Queue Length 50th (ft)			143			~111					
Queue Length 95th (ft)			m132			#193					
Internal Link Dist (ft)		493	296		173						
Turn Bay Length (ft)											
Base Capacity (vph)			2831			231					
Starvation Cap Reductn			506			0					
Spillback Cap Reductn			0			0					
Storage Cap Reductn			0			0					
Reduced v/c Ratio			0.99			1.27					

Intersection Summary

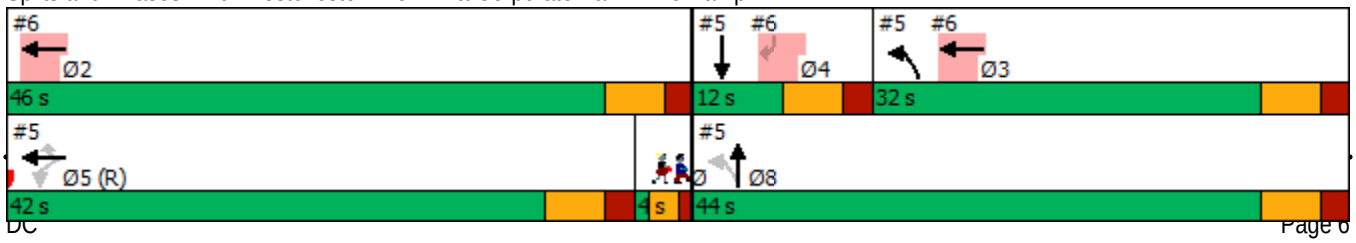
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 140
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.27
Intersection Signal Delay: 32.2 — Intersection LOS: C
Intersection Capacity Utilization 74.5% — ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Westchester Ave WB & Corporate Park Drive Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	536	764	23	0	0	0	0	369	15	510	17	0
Future Volume (vph)	536	764	23	0	0	0	0	369	15	510	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.996						0.994				
Flt Protected	0.950									0.950	0.955	
Satd. Flow (prot)	1787	3504	0	0	0	0	0	3521	0	1698	1708	0
Flt Permitted	0.950									0.331	0.311	
Satd. Flow (perm)	1787	3504	0	0	0	0	0	3521	0	592	556	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4						5				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1900			373			359	
Travel Time (s)		34.4			43.2			8.5			8.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	23%	0%	0%	0%	0%	2%	0%	1%	0%	0%
Adj. Flow (vph)	609	868	26	0	0	0	0	419	17	580	19	0
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	609	894	0	0	0	0	0	436	0	296	303	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	33.0	33.0						26.0		21.0	47.0	
Total Split (%)	41.3%	41.3%						32.5%		26.3%	58.8%	
Maximum Green (s)	27.0	27.0						20.0		15.0	41.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	27.0	27.0						20.0		41.0	41.0	
Actuated g/C Ratio	0.34	0.34						0.25		0.51	0.51	
v/c Ratio	1.01	0.75						0.49		0.58	0.61	
Control Delay	58.4	19.7						27.6		16.6	17.3	
Queue Delay	0.0	0.0						0.0		0.0	0.7	
Total Delay	58.4	19.7						27.6		16.6	18.0	
LOS	E	B						C		B	B	
Approach Delay		35.4						27.6			17.3	
Approach LOS		D						C			B	
Stops (vph)	474	710						314		148	152	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fuel Used(gal)	18	21						5		2	3	
CO Emissions (g/hr)	1284	1461						350		170	177	
NOx Emissions (g/hr)	250	284						68		33	34	
VOC Emissions (g/hr)	298	339						81		39	41	
Dilemma Vehicles (#)	0	18						0		0	0	
Queue Length 50th (ft)	~328	212						96		86	89	
Queue Length 95th (ft)	#511	261						137		137	141	
Internal Link Dist (ft)		1937			1820			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	603	1185						884		510	500	
Starvation Cap Reductn	0	0						0		0	45	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	1.01	0.75						0.49		0.58	0.67	

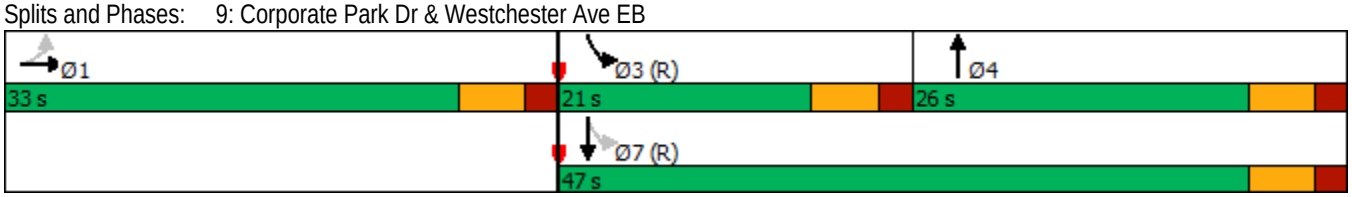
Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 26 (33%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 29.8 Intersection LOS: C
Intersection Capacity Utilization 91.8% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB



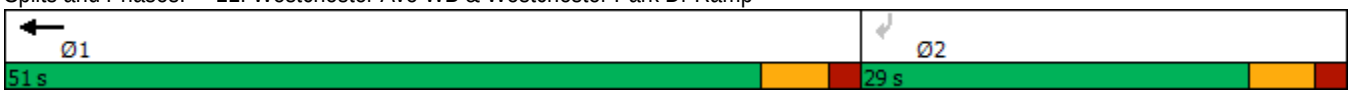
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	1779	0	0	492
Future Volume (vph)	0	0	1779	0	0	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	2814
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	2814
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						17
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	0%	0%	1%
Adj. Flow (vph)	0	0	1934	0	0	535
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1934	0	0	535
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			20.0			10.0
Total Split (s)			51.0			29.0
Total Split (%)			63.8%			36.3%
Maximum Green (s)			45.0			23.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			45.0			23.0
Actuated g/C Ratio			0.56			0.29
v/c Ratio			0.97			0.65
Control Delay			32.7			28.6
Queue Delay			0.0			0.0
Total Delay			32.7			28.6
LOS			C			C
Approach Delay			32.7		28.6	
Approach LOS			C		C	
90th %ile Green (s)			45.0			23.0
90th %ile Term Code			Max			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			45.0			23.0
70th %ile Term Code			Max			MaxR
50th %ile Green (s)			45.0			23.0
50th %ile Term Code			Max			MaxR
30th %ile Green (s)			45.0			23.0
30th %ile Term Code			Max			MaxR
10th %ile Green (s)			45.0			23.0
10th %ile Term Code			Max			MaxR
Stops (vph)			1470			406
Fuel Used(gal)			28			6
CO Emissions (g/hr)			1977			402
NOx Emissions (g/hr)			385			78
VOC Emissions (g/hr)			458			93
Dilemma Vehicles (#)			106			0
Queue Length 50th (ft)			452			128
Queue Length 95th (ft)			#656			186
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			1990			821
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.97			0.65

Intersection Summary	
Area Type: Other	
Cycle Length: 80	
Actuated Cycle Length: 80	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 76.4%	ICU Level of Service D
Analysis Period (min) 15	
90th %ile Actuated Cycle: 80	
70th %ile Actuated Cycle: 80	
50th %ile Actuated Cycle: 80	
30th %ile Actuated Cycle: 80	
10th %ile Actuated Cycle: 80	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	811	1461	13	311	24	0	0	24	17
Future Volume (vph)	0	0	0	811	1461	13	311	24	0	0	24	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.939	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1214	1787	1301	0	0	2795	0
Flt Permitted				0.950			0.445					
Satd. Flow (perm)	0	0	0	1787	3539	1214	837	1301	0	0	2795	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123					20	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	1%	2%	33%	1%	46%	0%	0%	18%	26%
Adj. Flow (vph)	0	0	0	965	1739	15	370	29	0	0	29	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	965	1739	15	370	29	0	0	49	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				41.0	41.0	41.0	17.0	39.0			22.0	
Total Split (%)				51.3%	51.3%	51.3%	21.3%	48.8%			27.5%	
Maximum Green (s)				35.0	35.0	35.0	11.0	33.0			16.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				35.0	35.0	35.0	33.0	33.0			11.8	
Actuated g/C Ratio				0.44	0.44	0.44	0.41	0.41			0.15	
v/c Ratio				1.24	1.12	0.03	0.64	0.05			0.11	
Control Delay				141.3	88.7	0.1	19.4	7.5			18.7	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				141.3	88.7	0.1	19.4	7.5			18.7	
LOS				F	F	A	B	A			B	
Approach Delay					106.9			18.6			18.7	
Approach LOS					F			B			B	
90th %ile Green (s)				35.0	35.0	35.0	11.0	33.0			16.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				35.0	35.0	35.0	11.0	33.0			16.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				35.0	35.0	35.0	11.0	33.0			16.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				35.0	35.0	35.0	33.0	33.0			0.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
10th %ile Green (s)				35.0	35.0	35.0	33.0	33.0			0.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
Stops (vph)				647	1227	0	199	6			23	
Fuel Used(gal)				35	47	0	3	0			0	
CO Emissions (g/hr)				2414	3298	5	239	11			28	
NOx Emissions (g/hr)				470	642	1	46	2			5	
VOC Emissions (g/hr)				559	764	1	55	2			6	
Dilemma Vehicles (#)				0	80	0	0	0			0	
Queue Length 50th (ft)				~606	~536	0	71	4			6	
Queue Length 95th (ft)				#748	#596	0	#185	m8			18	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				781	1548	600	580	536			575	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				1.24	1.12	0.03	0.64	0.05			0.09	

Intersection Summary

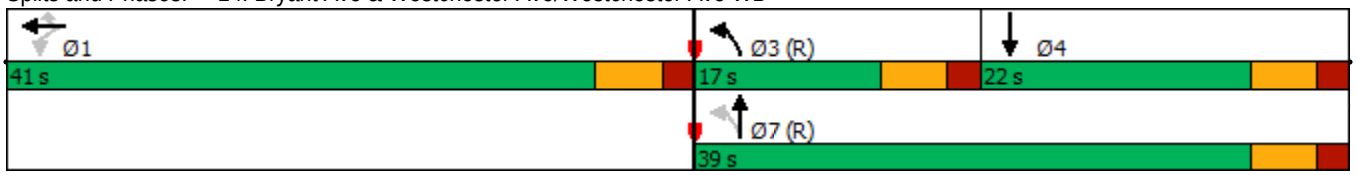
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 24 (30%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.24
Intersection Signal Delay: 94.4 Intersection LOS: F
Intersection Capacity Utilization 78.8% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave/Westchester Ave WB

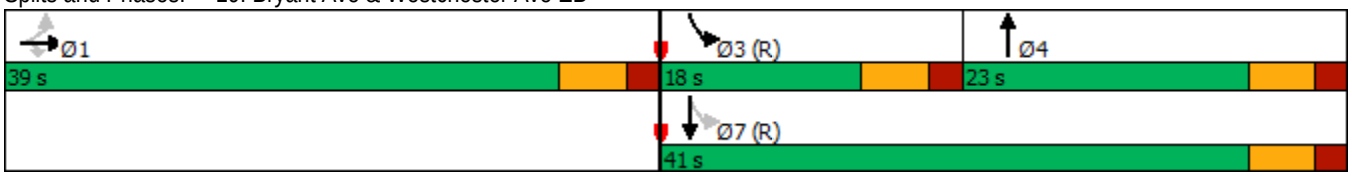


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	793	86	0	0	0	0	180	267	200	569	0
Future Volume (vph)	156	793	86	0	0	0	0	180	267	200	569	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.910				
Flt Protected	0.950										0.987	
Satd. Flow (prot)	1687	3505	1599	0	0	0	0	3221	0	0	3519	0
Flt Permitted	0.950										0.583	
Satd. Flow (perm)	1687	3505	1599	0	0	0	0	3221	0	0	2078	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123					173				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	3%	1%	0%	0%	0%	0%	2%	2%	2%	1%	0%
Adj. Flow (vph)	168	853	92	0	0	0	0	194	287	215	612	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	853	92	0	0	0	0	481	0	0	827	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	39.0	39.0	39.0					23.0		18.0	41.0	
Total Split (%)	48.8%	48.8%	48.8%					28.8%		22.5%	51.3%	
Maximum Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	27.4	27.4	27.4					17.0			40.6	
Actuated g/C Ratio	0.34	0.34	0.34					0.21			0.51	
v/c Ratio	0.29	0.71	0.15					0.59			0.60	
Control Delay	19.4	26.0	2.2					21.1			1.7	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	19.4	26.0	2.2					21.1			1.7	
LOS	B	C	A					C			A	
Approach Delay		23.0						21.1			1.7	
Approach LOS		C						C			A	
90th %ile Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	31.1	31.1	31.1					17.0		13.9	36.9	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	27.8	27.8	27.8					17.0		17.2	40.2	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	24.9	24.9	24.9					17.0		20.1	43.1	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	20.1	20.1	20.1					17.0		24.9	47.9	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	105	650	6					253			60	
Fuel Used(gal)	2	14	0					6			3	
CO Emissions (g/hr)	156	944	29					398			229	
NOx Emissions (g/hr)	30	184	6					78			45	
VOC Emissions (g/hr)	36	219	7					92			53	
Dilemma Vehicles (#)	0	41	0					0			0	
Queue Length 50th (ft)	60	190	0					71			5	
Queue Length 95th (ft)	96	227	16					120			m5	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	695	1445	731					820			1372	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.24	0.59	0.13					0.59			0.60	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 3:SBL and 7:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.4	Intersection LOS: B
Intersection Capacity Utilization 72.0%	ICU Level of Service C
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



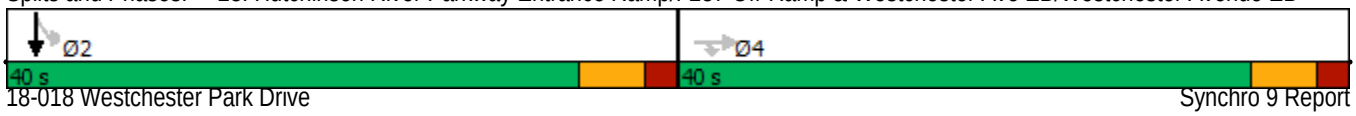
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1326	595	0	0	0	0	0	0	1121	358	0
Future Volume (vph)	0	1326	595	0	0	0	0	0	0	1121	358	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			315							41		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1900			524			276			1153	
Travel Time (s)		32.4			11.9			6.3			26.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	1507	676	0	0	0	0	0	0	1274	407	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1507	676	0	0	0	0	0	0	1274	407	0
Turn Type		NA	custom							Perm	NA	
Protected Phases											2	
Permitted Phases		4	4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		40.0	40.0							40.0	40.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		34.0	34.0							34.0	34.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		34.0	34.0							34.0	34.0	
Actuated g/C Ratio		0.42	0.42							0.42	0.42	
v/c Ratio		1.89	0.79							1.61	0.51	
Control Delay		424.9	18.6							304.1	19.7	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		424.9	18.6							304.1	19.7	
LOS		F	B							F	B	
Approach Delay		299.1									235.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F									F	
90th %ile Green (s)		34.0	34.0							34.0	34.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		34.0	34.0							34.0	34.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		34.0	34.0							34.0	34.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		34.0	34.0							34.0	34.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		34.0	34.0							34.0	34.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		967	298							811	254	
Fuel Used(gal)		141	13							84	6	
CO Emissions (g/hr)		9876	898							5868	423	
NOx Emissions (g/hr)		1922	175							1142	82	
VOC Emissions (g/hr)		2289	208							1360	98	
Dilemma Vehicles (#)		44	0							0	0	
Queue Length 50th (ft)		~1170	153							~928	145	
Queue Length 95th (ft)		#1377	290							#1139	218	
Internal Link Dist (ft)		1820			444			196			1073	
Turn Bay Length (ft)												
Base Capacity (vph)		799	853							790	799	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.89	0.79							1.61	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.89
Intersection Signal Delay: 271.3 Intersection LOS: F
Intersection Capacity Utilization 141.9% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 80
70th %ile Actuated Cycle: 80
50th %ile Actuated Cycle: 80
30th %ile Actuated Cycle: 80
10th %ile Actuated Cycle: 80
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Hutchinson River Parkway Entrance Ramp/I-287 Off-Ramp & Westchester Ave EB/Westchester Avenue EB



Intersection	
Int Delay, s/veh	28.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1347	0	0	419
Future Vol, veh/h	0	0	1347	0	0	419
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	1403	0	0	436

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	702
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	~ 383
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	~ 383
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	122
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	383
HCM Lane V/C Ratio	-	1.14
HCM Control Delay (s)	-	122
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	16.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 Build
Jurisdiction	Harrison	Time Period Analyzed	Peak PM Hour
Project Description	18-018 3 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1181	589
Peak Hour Factor (PHF)	0.84	0.84
Total Trucks, %	4.00	0.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	1.000
Flow Rate (vi),pc/h	1461	701
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.32	0.37

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.621
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	46.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	1461	Ramp Junction Speed (S), mi/h	46.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	15.6
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	13.2

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	7/10/2019
Agency	PDE	Analysis Year	2019
Jurisdiction	Harrison, NY	Time Period Analyzed	PM Peak
Project Description	18-018 - Westchester Park Drive - 2020 Build	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	1133	793	37	273
Peak Hour Factor (PHF)	0.96	0.96	0.96	0.96
Total Trucks, %	2.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1204	826	39	284
Weaving Flow Rate (v_W), pc/h	1110	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1243	Density-Based Capacity (c_{IWL}), pc/h/ln		1664
Total Flow Rate (v), pc/h	2353	Demand Flow-Based Capacity (c_{IW}), pc/h		5085
Volume Ratio (VR)	0.472	Weaving Segment Capacity (c_W), veh/h		3294
Minimum Lane Change Rate (LC_{MIN}), lc/h	1110	Adjusted Weaving Area Capacity, pc/h		3328
Maximum Weaving Length (L_{MAX}), ft	7501	Volume-to-Capacity Ratio (v/c)		0.71

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	31	Average Weaving Speed (S_W), mi/h	38.7
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	142	Average Non-Weaving Speed (S_{NW}), mi/h	36.4
Weaving Lane Change Rate (LC_W), lc/h	1141	Average Speed (S), mi/h	37.4
Weaving Lane Change Rate (LC_{All}), lc/h	1283	Density (D), pc/mi/ln	31.5
Weaving Intensity Factor (W)	0.475	Level of Service (LOS)	D

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	276	1379	261	647	254	0	0	251	0
Future Volume (vph)	0	0	0	276	1379	261	647	254	0	0	251	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1615	1770	1810	0	0	3610	0
Flt Permitted				0.950			0.500					
Satd. Flow (perm)	0	0	0	1787	3539	1615	931	1810	0	0	3610	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						300						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	2%	5%	0%	0%	0%	4%
Adj. Flow (vph)	0	0	0	317	1585	300	744	292	0	0	289	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	317	1585	300	744	292	0	0	289	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5!		3	8			1 4!	
Permitted Phases				5!		5	8					
Detector Phase				5	5	5	3	8			1 4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0				
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0				
Total Split (s)				42.0	42.0	42.0	36.0	44.0				
Total Split (%)				46.7%	46.7%	46.7%	40.0%	48.9%				
Maximum Green (s)				36.0	36.0	36.0	30.0	38.0				
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0				
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0				
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0				
Lead/Lag				Lead	Lead	Lead	Lag					
Lead-Lag Optimize?				Yes	Yes	Yes	Yes					
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0				
Recall Mode				C-Min	C-Min	C-Min	None	None				
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				40.0	40.0	40.0	38.0	38.0			10.0	
Actuated g/C Ratio				0.44	0.44	0.44	0.42	0.42			0.11	
v/c Ratio				0.40	1.01	0.34	1.11	0.38			0.72	
Control Delay				18.8	50.9	3.1	96.5	19.8			49.9	
Queue Delay				0.0	0.0	0.0	1.1	1.0			0.0	

Lane Group	Ø1	Ø2	Ø4	Ø6
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	2	4	6
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	2.0	5.0	4.0	1.0
Minimum Split (s)	4.0	16.0	10.0	4.0
Total Split (s)	4.0	42.0	8.0	4.0
Total Split (%)	4%	47%	9%	4%
Maximum Green (s)	2.0	36.0	2.0	1.0
Yellow Time (s)	2.0	4.0	4.0	2.0
All-Red Time (s)	0.0	2.0	2.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)		7.0		7.0
Flash Dont Walk (s)		11.0		11.0
Pedestrian Calls (#/hr)		0		0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				18.8	50.9	3.1	97.6	20.8			49.9	
LOS				B	D	A	F	C			D	
Approach Delay					39.7			76.0			49.9	
Approach LOS					D			E			D	
90th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
90th %ile Term Code				Coord	Coord	Coord	Max	Hold				
70th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
70th %ile Term Code				Coord	Coord	Coord	Max	Hold				
50th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
50th %ile Term Code				Coord	Coord	Coord	Max	Hold				
30th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
30th %ile Term Code				Coord	Coord	Coord	Max	Hold				
10th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
10th %ile Term Code				Coord	Coord	Coord	Max	Hold				
Stops (vph)				180	1194	22	500	169			233	
Fuel Used(gal)				4	33	2	17	3			4	
CO Emissions (g/hr)				294	2303	118	1208	187			310	
NOx Emissions (g/hr)				57	448	23	235	36			60	
VOC Emissions (g/hr)				68	534	27	280	43			72	
Dilemma Vehicles (#)				0	72	0	0	0			0	
Queue Length 50th (ft)				118	~468	0	~487	111			84	
Queue Length 95th (ft)				177	#598	39	#666	169			#124	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				794	1572	884	672	764			401	
Starvation Cap Reductn				0	0	0	0	262			0	
Spillback Cap Reductn				0	0	0	101	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.40	1.01	0.34	1.30	0.58			0.72	

Intersection Summary

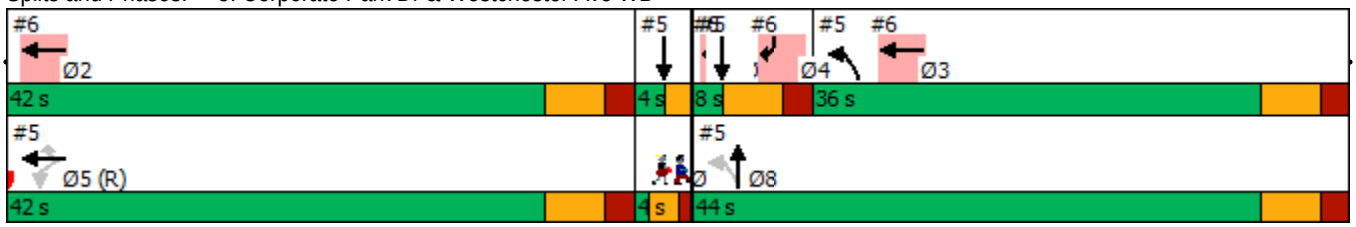
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 51.2 Intersection LOS: D
Intersection Capacity Utilization 94.2% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø1	Ø2	Ø4	Ø6
Total Delay				
LOS				
Approach Delay				
Approach LOS				
90th %ile Green (s)	2.0	36.0	2.0	0.0
90th %ile Term Code	Max	Coord	Max	Skip
70th %ile Green (s)	2.0	36.0	2.0	0.0
70th %ile Term Code	Max	Coord	Max	Skip
50th %ile Green (s)	2.0	36.0	2.0	0.0
50th %ile Term Code	Max	Coord	Max	Skip
30th %ile Green (s)	2.0	36.0	2.0	0.0
30th %ile Term Code	Max	Coord	Max	Skip
10th %ile Green (s)	2.0	36.0	2.0	0.0
10th %ile Term Code	Max	Coord	Max	Skip
Stops (vph)				
Fuel Used(gal)				
CO Emissions (g/hr)				
NOx Emissions (g/hr)				
VOC Emissions (g/hr)				
Dilemma Vehicles (#)				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6
Lane Configurations			↑↑			↱↱						
Traffic Volume (vph)	0	0	2026	0	0	256						
Future Volume (vph)	0	0	2026	0	0	256						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88						
Frt						0.850						
Flt Protected												
Satd. Flow (prot)	0	0	3539	0	0	2842						
Flt Permitted												
Satd. Flow (perm)	0	0	3539	0	0	2842						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)						37						
Link Speed (mph)		30	30		30							
Link Distance (ft)		573	376		253							
Travel Time (s)		13.0	8.5		5.8							
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87						
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%						
Adj. Flow (vph)	0	0	2329	0	0	294						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	2329	0	0	294						
Turn Type			NA			custom						
Protected Phases			2 3			1 4	1	2	3	4	5	6
Permitted Phases												
Detector Phase			2 3			1 4						
Switch Phase												
Minimum Initial (s)							2.0	5.0	1.0	4.0	5.0	1.0
Minimum Split (s)							4.0	16.0	11.0	10.0	26.0	4.0
Total Split (s)							4.0	42.0	36.0	8.0	42.0	4.0
Total Split (%)							4%	47%	40%	9%	47%	4%
Maximum Green (s)							2.0	36.0	30.0	2.0	36.0	1.0
Yellow Time (s)							2.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)							0.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag							Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)							3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode							None	None	None	None	C-Min	None
Walk Time (s)								7.0			7.0	7.0
Flash Dont Walk (s)								11.0			10.0	11.0
Pedestrian Calls (#/hr)								0			0	0
Act Effct Green (s)			72.0			10.0						
Actuated g/C Ratio			0.80			0.11						
v/c Ratio			0.82			0.84						
Control Delay			6.3			57.0						
Queue Delay			19.1			0.0						
Total Delay			25.4			57.0						
LOS			C			E						
Approach Delay			25.4		57.0							

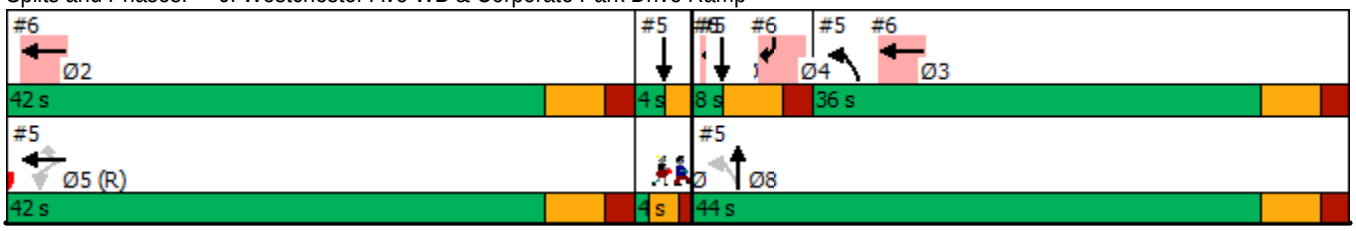
Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	16.0
Total Split (s)	44.0
Total Split (%)	49%
Maximum Green (s)	38.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6
Approach LOS			C		E							
90th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
90th %ile Term Code							Max	Coord	Max	Max	Coord	Skip
70th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
70th %ile Term Code							Max	Coord	Max	Max	Coord	Skip
50th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
50th %ile Term Code							Max	Coord	Max	Max	Coord	Skip
30th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
30th %ile Term Code							Max	Coord	Max	Max	Coord	Skip
10th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
10th %ile Term Code							Max	Coord	Max	Max	Coord	Skip
Stops (vph)			752			201						
Fuel Used(gal)			13			5						
CO Emissions (g/hr)			888			321						
NOx Emissions (g/hr)			173			62						
VOC Emissions (g/hr)			206			74						
Dilemma Vehicles (#)			0			0						
Queue Length 50th (ft)			207			82						
Queue Length 95th (ft)			m186			#150						
Internal Link Dist (ft)		493	296		173							
Turn Bay Length (ft)												
Base Capacity (vph)			2831			348						
Starvation Cap Reductn			574			0						
Spillback Cap Reductn			0			0						
Storage Cap Reductn			0			0						
Reduced v/c Ratio			1.03			0.84						

Intersection Summary	
Area Type:	Other
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 10 (11%), Referenced to phase 5:WBTL, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 28.9	Intersection LOS: C
Intersection Capacity Utilization 73.3%	ICU Level of Service D
Analysis Period (min) 15	

\# 95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Westchester Ave WB & Corporate Park Drive Ramp



Lane Group	Ø8
Approach LOS	
90th %ile Green (s)	38.0
90th %ile Term Code	Hold
70th %ile Green (s)	38.0
70th %ile Term Code	Hold
50th %ile Green (s)	38.0
50th %ile Term Code	Hold
30th %ile Green (s)	38.0
30th %ile Term Code	Hold
10th %ile Green (s)	38.0
10th %ile Term Code	Hold
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

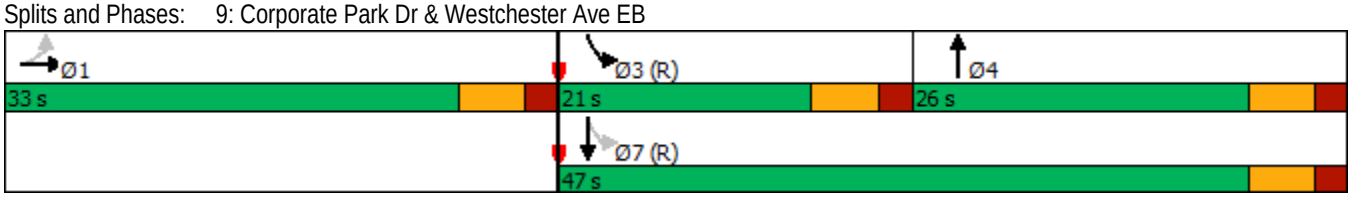
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	536	764	23	0	0	0	0	369	15	510	17	0
Future Volume (vph)	536	764	23	0	0	0	0	369	15	510	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.996						0.994				
Flt Protected	0.950									0.950	0.955	
Satd. Flow (prot)	1787	3504	0	0	0	0	0	3521	0	1698	1708	0
Flt Permitted	0.950									0.331	0.311	
Satd. Flow (perm)	1787	3504	0	0	0	0	0	3521	0	592	556	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4						5				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1900			373			359	
Travel Time (s)		34.4			43.2			8.5			8.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	23%	0%	0%	0%	0%	2%	0%	1%	0%	0%
Adj. Flow (vph)	609	868	26	0	0	0	0	419	17	580	19	0
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	609	894	0	0	0	0	0	436	0	296	303	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	33.0	33.0						26.0		21.0	47.0	
Total Split (%)	41.3%	41.3%						32.5%		26.3%	58.8%	
Maximum Green (s)	27.0	27.0						20.0		15.0	41.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	27.0	27.0						20.0		41.0	41.0	
Actuated g/C Ratio	0.34	0.34						0.25		0.51	0.51	
v/c Ratio	1.01	0.75						0.49		0.58	0.61	
Control Delay	58.7	20.0						27.6		16.6	17.3	
Queue Delay	0.0	0.0						0.0		0.0	0.7	
Total Delay	58.7	20.0						27.6		16.6	18.0	
LOS	E	C						C		B	B	
Approach Delay		35.7						27.6			17.3	
Approach LOS		D						C			B	
Stops (vph)	473	710						314		148	152	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fuel Used(gal)	18	21						5		2	3	
CO Emissions (g/hr)	1285	1465						350		170	177	
NOx Emissions (g/hr)	250	285						68		33	34	
VOC Emissions (g/hr)	298	339						81		39	41	
Dilemma Vehicles (#)	0	19						0		0	0	
Queue Length 50th (ft)	~328	212						96		86	89	
Queue Length 95th (ft)	#511	261						137		137	141	
Internal Link Dist (ft)		1937			1820			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	603	1185						884		510	500	
Starvation Cap Reductn	0	0						0		0	45	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	1.01	0.75						0.49		0.58	0.67	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 26 (33%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 30.0 Intersection LOS: C
Intersection Capacity Utilization 90.1% ICU Level of Service E
Analysis Period (min) 15
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB



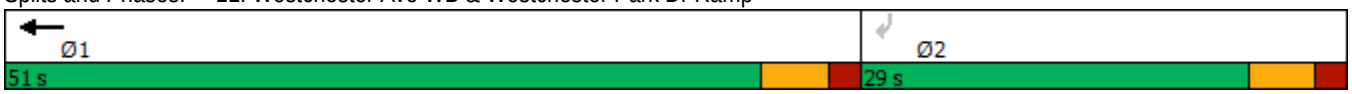
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	1779	0	0	492
Future Volume (vph)	0	0	1779	0	0	492
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	2814
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	2814
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						17
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	0%	0%	1%
Adj. Flow (vph)	0	0	1934	0	0	535
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1934	0	0	535
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			20.0			10.0
Total Split (s)			51.0			29.0
Total Split (%)			63.8%			36.3%
Maximum Green (s)			45.0			23.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			45.0			23.0
Actuated g/C Ratio			0.56			0.29
v/c Ratio			0.97			0.65
Control Delay			32.7			28.6
Queue Delay			0.0			0.0
Total Delay			32.7			28.6
LOS			C			C
Approach Delay			32.7		28.6	
Approach LOS			C		C	
90th %ile Green (s)			45.0			23.0
90th %ile Term Code			Max			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			45.0			23.0
70th %ile Term Code			Max			MaxR
50th %ile Green (s)			45.0			23.0
50th %ile Term Code			Max			MaxR
30th %ile Green (s)			45.0			23.0
30th %ile Term Code			Max			MaxR
10th %ile Green (s)			45.0			23.0
10th %ile Term Code			Max			MaxR
Stops (vph)			1470			406
Fuel Used(gal)			28			6
CO Emissions (g/hr)			1977			402
NOx Emissions (g/hr)			385			78
VOC Emissions (g/hr)			458			93
Dilemma Vehicles (#)			106			0
Queue Length 50th (ft)			452			128
Queue Length 95th (ft)			#656			186
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			1990			821
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.97			0.65

Intersection Summary	
Area Type: Other	
Cycle Length: 80	
Actuated Cycle Length: 80	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 31.8	Intersection LOS: C
Intersection Capacity Utilization 76.4%	ICU Level of Service D
Analysis Period (min) 15	
90th %ile Actuated Cycle: 80	
70th %ile Actuated Cycle: 80	
50th %ile Actuated Cycle: 80	
30th %ile Actuated Cycle: 80	
10th %ile Actuated Cycle: 80	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	811	1461	13	311	24	0	0	24	17
Future Volume (vph)	0	0	0	811	1461	13	311	24	0	0	24	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.939	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1214	1787	1301	0	0	2795	0
Flt Permitted				0.950			0.395					
Satd. Flow (perm)	0	0	0	1787	3539	1214	743	1301	0	0	2795	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123					20	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	1%	2%	33%	1%	46%	0%	0%	18%	26%
Adj. Flow (vph)	0	0	0	965	1739	15	370	29	0	0	29	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	965	1739	15	370	29	0	0	49	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				46.0	46.0	46.0	16.0	34.0			18.0	
Total Split (%)				57.5%	57.5%	57.5%	20.0%	42.5%			22.5%	
Maximum Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				40.0	40.0	40.0	28.0	28.0			9.4	
Actuated g/C Ratio				0.50	0.50	0.50	0.35	0.35			0.12	
v/c Ratio				1.08	0.98	0.02	0.76	0.06			0.14	
Control Delay				76.7	38.8	0.1	33.5	11.5			21.3	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				76.7	38.8	0.1	33.5	11.5			21.3	
LOS				E	D	A	C	B			C	
Approach Delay					52.1			31.9			21.3	
Approach LOS					D			C			C	
90th %ile Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
10th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
Stops (vph)				660	1234	0	201	10			25	
Fuel Used(gal)				24	32	0	4	0			0	
CO Emissions (g/hr)				1678	2265	5	302	14			30	
NOx Emissions (g/hr)				327	441	1	59	3			6	
VOC Emissions (g/hr)				389	525	1	70	3			7	
Dilemma Vehicles (#)				0	87	0	0	0			0	
Queue Length 50th (ft)				~547	424	0	153	4			6	
Queue Length 95th (ft)				#689	#534	0	#258	m12			20	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				893	1769	668	484	455			436	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				1.08	0.98	0.02	0.76	0.06			0.11	

Intersection Summary

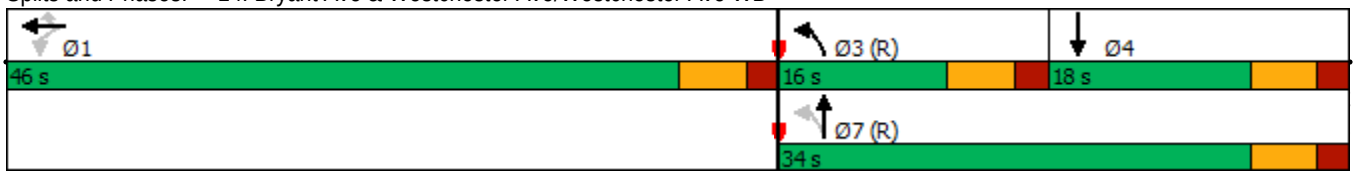
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 24 (30%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.08
Intersection Signal Delay: 49.0 Intersection LOS: D
Intersection Capacity Utilization 78.8% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave/Westchester Ave WB



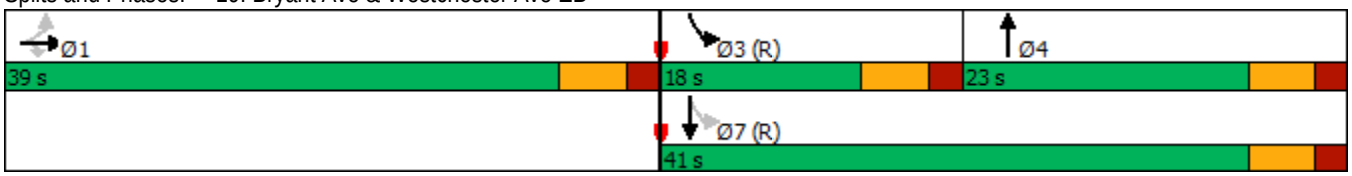
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	793	86	0	0	0	0	180	267	200	569	0
Future Volume (vph)	156	793	86	0	0	0	0	180	267	200	569	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.910				
Flt Protected	0.950										0.987	
Satd. Flow (prot)	1687	3505	1599	0	0	0	0	3221	0	0	3519	0
Flt Permitted	0.950										0.583	
Satd. Flow (perm)	1687	3505	1599	0	0	0	0	3221	0	0	2078	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123					173				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	3%	1%	0%	0%	0%	0%	2%	2%	2%	1%	0%
Adj. Flow (vph)	168	853	92	0	0	0	0	194	287	215	612	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	853	92	0	0	0	0	481	0	0	827	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	39.0	39.0	39.0					23.0		18.0	41.0	
Total Split (%)	48.8%	48.8%	48.8%					28.8%		22.5%	51.3%	
Maximum Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	27.4	27.4	27.4					17.0			40.6	
Actuated g/C Ratio	0.34	0.34	0.34					0.21			0.51	
v/c Ratio	0.29	0.71	0.15					0.59			0.60	
Control Delay	19.4	26.0	2.2					21.1			1.1	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	19.4	26.0	2.2					21.1			1.1	
LOS	B	C	A					C			A	
Approach Delay		23.0						21.1			1.1	
Approach LOS		C						C			A	
90th %ile Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	31.1	31.1	31.1					17.0		13.9	36.9	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	27.8	27.8	27.8					17.0		17.2	40.2	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	24.9	24.9	24.9					17.0		20.1	43.1	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	20.1	20.1	20.1					17.0		24.9	47.9	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	105	650	6					253			79	
Fuel Used(gal)	2	14	0					6			3	
CO Emissions (g/hr)	156	944	29					398			230	
NOx Emissions (g/hr)	30	184	6					78			45	
VOC Emissions (g/hr)	36	219	7					92			53	
Dilemma Vehicles (#)	0	41	0					0			0	
Queue Length 50th (ft)	60	190	0					71			5	
Queue Length 95th (ft)	96	227	16					120			m8	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	695	1445	731					820			1372	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.24	0.59	0.13					0.59			0.60	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 3:SBL and 7:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 72.0%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



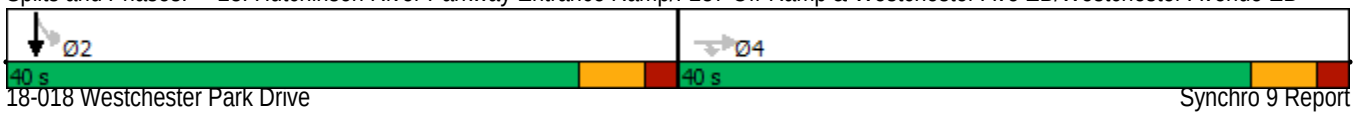
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1326	595	0	0	0	0	0	0	1121	358	0
Future Volume (vph)	0	1326	595	0	0	0	0	0	0	1121	358	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			315							41		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1900			524			276			1153	
Travel Time (s)		32.4			11.9			6.3			26.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	1507	676	0	0	0	0	0	0	1274	407	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1507	676	0	0	0	0	0	0	1274	407	0
Turn Type		NA	custom							Perm	NA	
Protected Phases											2	
Permitted Phases		4	4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		40.0	40.0							40.0	40.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		34.0	34.0							34.0	34.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		34.0	34.0							34.0	34.0	
Actuated g/C Ratio		0.42	0.42							0.42	0.42	
v/c Ratio		1.89	0.79							1.61	0.51	
Control Delay		424.9	18.6							304.1	19.7	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		424.9	18.6							304.1	19.7	
LOS		F	B							F	B	
Approach Delay		299.1									235.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F									F	
90th %ile Green (s)		34.0	34.0							34.0	34.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		34.0	34.0							34.0	34.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		34.0	34.0							34.0	34.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		34.0	34.0							34.0	34.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		34.0	34.0							34.0	34.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		967	298							811	254	
Fuel Used(gal)		141	13							84	6	
CO Emissions (g/hr)		9876	898							5868	423	
NOx Emissions (g/hr)		1922	175							1142	82	
VOC Emissions (g/hr)		2289	208							1360	98	
Dilemma Vehicles (#)		44	0							0	0	
Queue Length 50th (ft)		~1170	153							~928	145	
Queue Length 95th (ft)		#1377	290							#1139	218	
Internal Link Dist (ft)		1820			444			196			1073	
Turn Bay Length (ft)												
Base Capacity (vph)		799	853							790	799	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.89	0.79							1.61	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.89
Intersection Signal Delay: 271.3 Intersection LOS: F
Intersection Capacity Utilization 141.9% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 80
70th %ile Actuated Cycle: 80
50th %ile Actuated Cycle: 80
30th %ile Actuated Cycle: 80
10th %ile Actuated Cycle: 80
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Hutchinson River Parkway Entrance Ramp/I-287 Off-Ramp & Westchester Ave EB/Westchester Avenue EB



Intersection	
Int Delay, s/veh	28.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1347	0	0	419
Future Vol, veh/h	0	0	1347	0	0	419
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	1403	0	0	436

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	702
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	~ 383
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	~ 383
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	122
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	383
HCM Lane V/C Ratio	-	1.14
HCM Control Delay (s)	-	122
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	16.6

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

Intersection	
Int Delay, s/veh	28.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1347	0	0	419
Future Vol, veh/h	0	0	1347	0	0	419
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	1403	0	0	436

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	702
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	~ 383
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	~ 383
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	122
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	383
HCM Lane V/C Ratio	-	1.14
HCM Control Delay (s)	-	122
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	16.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

Intersection	
Int Delay, s/veh	28.3

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1337	0	0	419
Future Vol, veh/h	0	0	1337	0	0	419
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	1393	0	0	436

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	697
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	~ 386
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	~ 386
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	118.6
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	386
HCM Lane V/C Ratio	-	1.131
HCM Control Delay (s)	-	118.6
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	16.3

Notes			
~: Volume exceeds capacity	$: Delay exceeds 300s	+: Computation Not Defined	*: All major volume in platoon

HCS7 Freeway Diverge Report

Project Information

Analyst	DC	Date	7/22/2019
Agency	Provident Design Engineering	Analysis Year	2020 Build
Jurisdiction	Harrison	Time Period Analyzed	Peak PM Hour
Project Description	18-018 3 Westchester Park Drive Development	Unit	United States Customary

Geometric Data

	Freeway	Ramp
Number of Lanes (N), ln	2	1
Free-Flow Speed (FFS), mi/h	55.0	25.0
Segment Length (L) / Deceleration Length (LA),ft	700	400
Terrain Type	Level	Level
Percent Grade, %	-	-
Segment Type / Ramp Side	Freeway	Left

Adjustment Factors

Driver Population	All Familiar	All Familiar
Weather Type	Non-Severe Weather	Non-Severe Weather
Incident Type	No Incident	-
Final Speed Adjustment Factor (SAF)	1.000	1.000
Final Capacity Adjustment Factor (CAF)	1.000	1.000
Demand Adjustment Factor (DAF)	1.000	1.000

Demand and Capacity

Demand Volume (Vi)	1181	589
Peak Hour Factor (PHF)	0.84	0.84
Total Trucks, %	4.00	0.00
Single-Unit Trucks (SUT), %	-	-
Tractor-Trailers (TT), %	-	-
Heavy Vehicle Adjustment Factor (fHV)	0.962	1.000
Flow Rate (vi),pc/h	1461	701
Capacity (c), pc/h	4500	1900
Volume-to-Capacity Ratio (v/c)	0.32	0.37

Speed and Density

Upstream Equilibrium Distance (LEQ), ft	-	Number of Outer Lanes on Freeway (NO)	0
Distance to Upstream Ramp (LUP), ft	-	Speed Index (DS)	0.621
Downstream Equilibrium Distance (LEQ), ft	-	Flow Outer Lanes (vOA), pc/h/ln	-
Distance to Downstream Ramp (LDOWN), ft	-	Off-Ramp Influence Area Speed (SR), mi/h	46.9
Prop. Freeway Vehicles in Lane 1 and 2 (PFD)	1.000	Outer Lanes Freeway Speed (SO), mi/h	60.3
Flow in Lanes 1 and 2 (v12), pc/h	1461	Ramp Junction Speed (S), mi/h	46.9
Flow Entering Ramp-Infl. Area (vR12), pc/h	-	Average Density (D), pc/mi/ln	15.6
Level of Service (LOS)	B	Density in Ramp Influence Area (DR), pc/mi/ln	13.2

Copyright © 2019 University of Florida. All Rights Reserved.

HCS7 Freeway Weaving Report

Project Information

Analyst	BH	Date	7/10/2019
Agency	PDE	Analysis Year	2019
Jurisdiction	Harrison, NY	Time Period Analyzed	PM Peak
Project Description	18-018 - Westchester Park Drive - 2020 Build with Interconnector Road	Unit	United States Customary

Geometric Data

Number of Lanes (N), ln	2	Segment Type	Freeway
Segment Length (L_S), ft	500	Number of Maneuver Lanes (N_{WL}), ln	2
Weaving Configuration	One-Sided	Ramp-to-Freeway Lane Changes (LC_{RF}), lc	1
Terrain Type	Level	Freeway-to-Ramp Lane Changes (LC_{FR}), lc	1
Percent Grade, %	-	Ramp-to-Ramp Lane Changes (LC_{RR}), lc	0
Interchange Density (ID), int/mi	0.50	Cross Weaving Managed Lane	No

Adjustment Factors

Driver Population	All Familiar	Final Speed Adjustment Factor (SAF)	1.000
Weather Type	Non-Severe Weather	Final Capacity Adjustment Factor (CAF)	1.000
Incident Type	No Incident	Demand Adjustment Factor (DAF)	1.000

Demand and Capacity

	FF	RF	RR	FR
Demand Volume (V_i), veh/h	1133	793	37	273
Peak Hour Factor (PHF)	0.96	0.96	0.96	0.96
Total Trucks, %	2.00	0.00	0.00	0.00
Heavy Vehicle Adjustment Factor (f_{HV})	0.980	1.000	1.000	1.000
Flow Rate (v_i), pc/h	1204	826	39	284
Weaving Flow Rate (v_W), pc/h	1110	Freeway Max Capacity (c_{IFL}), pc/h/ln		2200
Non-Weaving Flow Rate (v_{NW}), pc/h	1243	Density-Based Capacity (c_{IWL}), pc/h/ln		1664
Total Flow Rate (v), pc/h	2353	Demand Flow-Based Capacity (c_{IW}), pc/h		5085
Volume Ratio (VR)	0.472	Weaving Segment Capacity (c_W), veh/h		3294
Minimum Lane Change Rate (LC_{MIN}), lc/h	1110	Adjusted Weaving Area Capacity, pc/h		3328
Maximum Weaving Length (L_{MAX}), ft	7501	Volume-to-Capacity Ratio (v/c)		0.71

Speed and Density

Non-Weaving Vehicle Index (I_{NW})	31	Average Weaving Speed (S_W), mi/h	38.7
Non-Weaving Lane Change Rate (LC_{NW}), lc/h	142	Average Non-Weaving Speed (S_{NW}), mi/h	36.4
Weaving Lane Change Rate (LC_W), lc/h	1141	Average Speed (S), mi/h	37.4
Weaving Lane Change Rate (LC_{All}), lc/h	1283	Density (D), pc/mi/ln	31.5
Weaving Intensity Factor (W)	0.475	Level of Service (LOS)	D

Copyright © 2019 University of Florida. All Rights Reserved.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	276	1379	261	647	201	0	0	251	0
Future Volume (vph)	0	0	0	276	1379	261	647	201	0	0	251	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	325		300	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			150			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	1.00
Frt						0.850						
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1615	1770	1810	0	0	3610	0
Flt Permitted				0.950			0.500					
Satd. Flow (perm)	0	0	0	1787	3539	1615	931	1810	0	0	3610	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						300						
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		376			741			359			81	
Travel Time (s)		8.5			12.6			8.2			1.8	
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Heavy Vehicles (%)	0%	0%	0%	1%	2%	0%	2%	5%	0%	0%	0%	4%
Adj. Flow (vph)	0	0	0	317	1585	300	744	231	0	0	289	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	317	1585	300	744	231	0	0	289	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					5!		3	8			1 4!	
Permitted Phases				5!		5	8					
Detector Phase				5	5	5	3	8			1 4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	5.0				
Minimum Split (s)				26.0	26.0	26.0	11.0	16.0				
Total Split (s)				42.0	42.0	42.0	36.0	44.0				
Total Split (%)				46.7%	46.7%	46.7%	40.0%	48.9%				
Maximum Green (s)				36.0	36.0	36.0	30.0	38.0				
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0				
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0				
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0				
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0				
Lead/Lag				Lead	Lead	Lead	Lag					
Lead-Lag Optimize?				Yes	Yes	Yes	Yes					
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0				
Recall Mode				C-Min	C-Min	C-Min	None	None				
Walk Time (s)				7.0	7.0	7.0		7.0				
Flash Dont Walk (s)				10.0	10.0	10.0		11.0				
Pedestrian Calls (#/hr)				0	0	0		0				
Act Effct Green (s)				40.0	40.0	40.0	38.0	38.0			10.0	
Actuated g/C Ratio				0.44	0.44	0.44	0.42	0.42			0.11	
v/c Ratio				0.40	1.01	0.34	1.11	0.30			0.72	
Control Delay				18.8	50.9	3.1	96.5	18.6			49.9	
Queue Delay				0.0	0.0	0.0	1.1	0.0			0.0	

Lane Group	Ø1	Ø2	Ø4	Ø6
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Ideal Flow (vphpl)				
Storage Length (ft)				
Storage Lanes				
Taper Length (ft)				
Lane Util. Factor				
Frt				
Flt Protected				
Satd. Flow (prot)				
Flt Permitted				
Satd. Flow (perm)				
Right Turn on Red				
Satd. Flow (RTOR)				
Link Speed (mph)				
Link Distance (ft)				
Travel Time (s)				
Peak Hour Factor				
Heavy Vehicles (%)				
Adj. Flow (vph)				
Shared Lane Traffic (%)				
Lane Group Flow (vph)				
Turn Type				
Protected Phases	1	2	4	6
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	2.0	5.0	4.0	1.0
Minimum Split (s)	4.0	16.0	10.0	4.0
Total Split (s)	4.0	42.0	8.0	4.0
Total Split (%)	4%	47%	9%	4%
Maximum Green (s)	2.0	36.0	2.0	1.0
Yellow Time (s)	2.0	4.0	4.0	2.0
All-Red Time (s)	0.0	2.0	2.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag	Lag	Lead	Lead	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes
Vehicle Extension (s)	3.0	3.0	3.0	3.0
Recall Mode	None	None	None	None
Walk Time (s)		7.0		7.0
Flash Dont Walk (s)		11.0		11.0
Pedestrian Calls (#/hr)		0		0
Act Effct Green (s)				
Actuated g/C Ratio				
v/c Ratio				
Control Delay				
Queue Delay				

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				18.8	50.9	3.1	97.6	18.6			49.9	
LOS				B	D	A	F	B			D	
Approach Delay					39.7			78.9			49.9	
Approach LOS					D			E			D	
90th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
90th %ile Term Code				Coord	Coord	Coord	Max	Hold				
70th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
70th %ile Term Code				Coord	Coord	Coord	Max	Hold				
50th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
50th %ile Term Code				Coord	Coord	Coord	Max	Hold				
30th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
30th %ile Term Code				Coord	Coord	Coord	Max	Hold				
10th %ile Green (s)				40.0	40.0	40.0	30.0	38.0				
10th %ile Term Code				Coord	Coord	Coord	Max	Hold				
Stops (vph)				180	1194	22	500	129			233	
Fuel Used(gal)				4	33	2	17	2			4	
CO Emissions (g/hr)				294	2303	118	1208	142			310	
NOx Emissions (g/hr)				57	448	23	235	28			60	
VOC Emissions (g/hr)				68	534	27	280	33			72	
Dilemma Vehicles (#)				0	72	0	0	0			0	
Queue Length 50th (ft)				118	~468	0	~487	85			84	
Queue Length 95th (ft)				177	#598	39	#666	133			#124	
Internal Link Dist (ft)		296			661			279			1	
Turn Bay Length (ft)				325		300						
Base Capacity (vph)				794	1572	884	672	764			401	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	101	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				0.40	1.01	0.34	1.30	0.30			0.72	

Intersection Summary

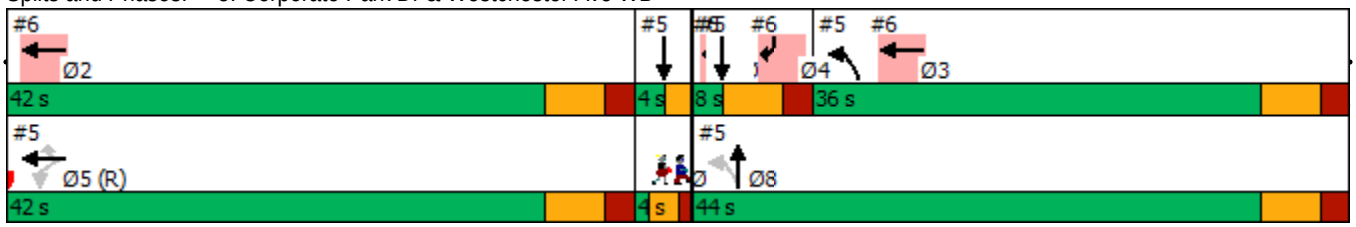
Area Type: Other
Cycle Length: 90
Actuated Cycle Length: 90
Offset: 10 (11%), Referenced to phase 5:WBTL, Start of Green
Natural Cycle: 130
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.11
Intersection Signal Delay: 51.6 Intersection LOS: D
Intersection Capacity Utilization 94.2% ICU Level of Service F
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 5: Corporate Park Dr & Westchester Ave WB



Lane Group	Ø1	Ø2	Ø4	Ø6
Total Delay				
LOS				
Approach Delay				
Approach LOS				
90th %ile Green (s)	2.0	36.0	2.0	0.0
90th %ile Term Code	Max	Coord	Max	Skip
70th %ile Green (s)	2.0	36.0	2.0	0.0
70th %ile Term Code	Max	Coord	Max	Skip
50th %ile Green (s)	2.0	36.0	2.0	0.0
50th %ile Term Code	Max	Coord	Max	Skip
30th %ile Green (s)	2.0	36.0	2.0	0.0
30th %ile Term Code	Max	Coord	Max	Skip
10th %ile Green (s)	2.0	36.0	2.0	0.0
10th %ile Term Code	Max	Coord	Max	Skip
Stops (vph)				
Fuel Used(gal)				
CO Emissions (g/hr)				
NOx Emissions (g/hr)				
VOC Emissions (g/hr)				
Dilemma Vehicles (#)				
Queue Length 50th (ft)				
Queue Length 95th (ft)				
Internal Link Dist (ft)				
Turn Bay Length (ft)				
Base Capacity (vph)				
Starvation Cap Reductn				
Spillback Cap Reductn				
Storage Cap Reductn				
Reduced v/c Ratio				

Intersection Summary

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6
Lane Configurations			↑↑			↱↱						
Traffic Volume (vph)	0	0	2026	0	0	198						
Future Volume (vph)	0	0	2026	0	0	198						
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900						
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88						
Frt						0.850						
Flt Protected												
Satd. Flow (prot)	0	0	3539	0	0	2842						
Flt Permitted												
Satd. Flow (perm)	0	0	3539	0	0	2842						
Right Turn on Red				Yes		Yes						
Satd. Flow (RTOR)						37						
Link Speed (mph)		30	30		30							
Link Distance (ft)		573	376		253							
Travel Time (s)		13.0	8.5		5.8							
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87						
Heavy Vehicles (%)	0%	0%	2%	0%	0%	0%						
Adj. Flow (vph)	0	0	2329	0	0	228						
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	2329	0	0	228						
Turn Type			NA			custom						
Protected Phases			2 3			1 4	1	2	3	4	5	6
Permitted Phases												
Detector Phase			2 3			1 4						
Switch Phase												
Minimum Initial (s)							2.0	5.0	1.0	4.0	5.0	1.0
Minimum Split (s)							4.0	16.0	11.0	10.0	26.0	4.0
Total Split (s)							4.0	42.0	36.0	8.0	42.0	4.0
Total Split (%)							4%	47%	40%	9%	47%	4%
Maximum Green (s)							2.0	36.0	30.0	2.0	36.0	1.0
Yellow Time (s)							2.0	4.0	4.0	4.0	4.0	2.0
All-Red Time (s)							0.0	2.0	2.0	2.0	2.0	1.0
Lost Time Adjust (s)												
Total Lost Time (s)												
Lead/Lag							Lag	Lead	Lag	Lead	Lead	Lag
Lead-Lag Optimize?							Yes	Yes	Yes	Yes	Yes	Yes
Vehicle Extension (s)							3.0	3.0	3.0	3.0	3.0	3.0
Recall Mode							None	None	None	None	C-Min	None
Walk Time (s)								7.0			7.0	7.0
Flash Dont Walk (s)								11.0			10.0	11.0
Pedestrian Calls (#/hr)								0			0	0
Act Effct Green (s)			72.0			10.0						
Actuated g/C Ratio			0.80			0.11						
v/c Ratio			0.82			0.66						
Control Delay			6.3			41.7						
Queue Delay			19.1			0.0						
Total Delay			25.4			41.7						
LOS			C			D						
Approach Delay			25.4		41.7							

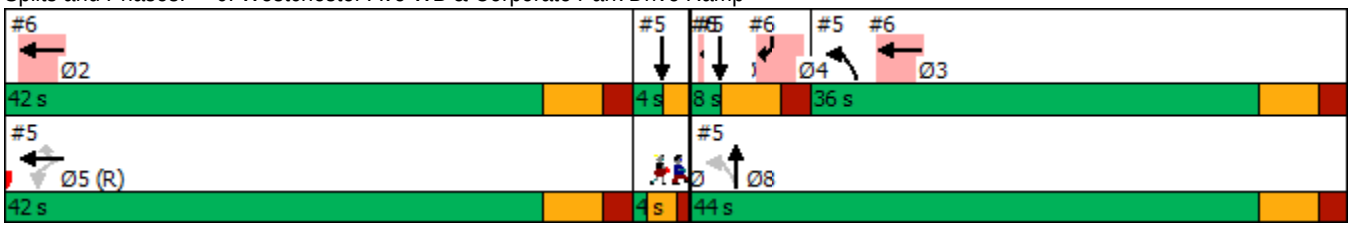
Lane Group	Ø8
Lane Configurations	
Traffic Volume (vph)	
Future Volume (vph)	
Ideal Flow (vphpl)	
Lane Util. Factor	
Frt	
Flt Protected	
Satd. Flow (prot)	
Flt Permitted	
Satd. Flow (perm)	
Right Turn on Red	
Satd. Flow (RTOR)	
Link Speed (mph)	
Link Distance (ft)	
Travel Time (s)	
Peak Hour Factor	
Heavy Vehicles (%)	
Adj. Flow (vph)	
Shared Lane Traffic (%)	
Lane Group Flow (vph)	
Turn Type	
Protected Phases	8
Permitted Phases	
Detector Phase	
Switch Phase	
Minimum Initial (s)	5.0
Minimum Split (s)	16.0
Total Split (s)	44.0
Total Split (%)	49%
Maximum Green (s)	38.0
Yellow Time (s)	4.0
All-Red Time (s)	2.0
Lost Time Adjust (s)	
Total Lost Time (s)	
Lead/Lag	
Lead-Lag Optimize?	
Vehicle Extension (s)	3.0
Recall Mode	None
Walk Time (s)	7.0
Flash Dont Walk (s)	11.0
Pedestrian Calls (#/hr)	0
Act Effct Green (s)	
Actuated g/C Ratio	
v/c Ratio	
Control Delay	
Queue Delay	
Total Delay	
LOS	
Approach Delay	

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø1	Ø2	Ø3	Ø4	Ø5	Ø6
Approach LOS			C		D							
90th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
90th %ile Term Code							Max	Coord	Max	Max	Coord	Skip
70th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
70th %ile Term Code							Max	Coord	Max	Max	Coord	Skip
50th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
50th %ile Term Code							Max	Coord	Max	Max	Coord	Skip
30th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
30th %ile Term Code							Max	Coord	Max	Max	Coord	Skip
10th %ile Green (s)							2.0	36.0	30.0	2.0	40.0	0.0
10th %ile Term Code							Max	Coord	Max	Max	Coord	Skip
Stops (vph)			752			156						
Fuel Used(gal)			13			3						
CO Emissions (g/hr)			888			205						
NOx Emissions (g/hr)			173			40						
VOC Emissions (g/hr)			206			48						
Dilemma Vehicles (#)			0			0						
Queue Length 50th (ft)			207			59						
Queue Length 95th (ft)			m186			97						
Internal Link Dist (ft)		493	296		173							
Turn Bay Length (ft)												
Base Capacity (vph)			2831			348						
Starvation Cap Reductn			574			0						
Spillback Cap Reductn			0			0						
Storage Cap Reductn			0			0						
Reduced v/c Ratio			1.03			0.66						

Intersection Summary	
Area Type: Other	
Cycle Length: 90	
Actuated Cycle Length: 90	
Offset: 10 (11%), Referenced to phase 5:WBTL, Start of Green	
Natural Cycle: 130	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 26.8	Intersection LOS: C
Intersection Capacity Utilization 71.3%	ICU Level of Service C
Analysis Period (min) 15	

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 6: Westchester Ave WB & Corporate Park Drive Ramp



Lane Group	Ø8
Approach LOS	
90th %ile Green (s)	38.0
90th %ile Term Code	Hold
70th %ile Green (s)	38.0
70th %ile Term Code	Hold
50th %ile Green (s)	38.0
50th %ile Term Code	Hold
30th %ile Green (s)	38.0
30th %ile Term Code	Hold
10th %ile Green (s)	38.0
10th %ile Term Code	Hold
Stops (vph)	
Fuel Used(gal)	
CO Emissions (g/hr)	
NOx Emissions (g/hr)	
VOC Emissions (g/hr)	
Dilemma Vehicles (#)	
Queue Length 50th (ft)	
Queue Length 95th (ft)	
Internal Link Dist (ft)	
Turn Bay Length (ft)	
Base Capacity (vph)	
Starvation Cap Reductn	
Spillback Cap Reductn	
Storage Cap Reductn	
Reduced v/c Ratio	

Intersection Summary

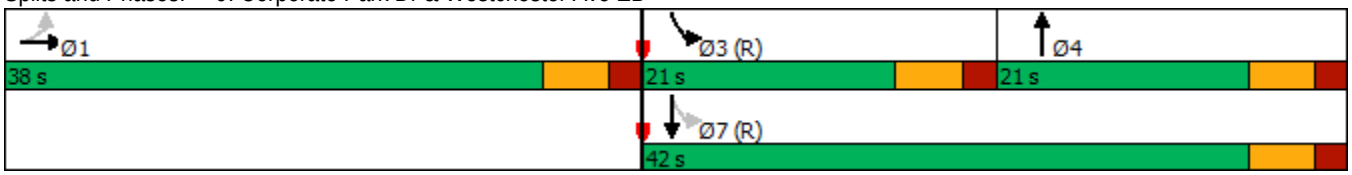
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	483	764	23	0	0	0	0	369	15	510	17	0
Future Volume (vph)	483	764	23	0	0	0	0	369	15	510	17	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	800		0	0		0	0		0	0		0
Storage Lanes	1		0	0		0	0		0	1		0
Taper Length (ft)	150			25			25			25		
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt		0.996						0.994				
Flt Protected	0.950									0.950	0.955	
Satd. Flow (prot)	1787	3504	0	0	0	0	0	3521	0	1698	1708	0
Flt Permitted	0.950									0.273	0.257	
Satd. Flow (perm)	1787	3504	0	0	0	0	0	3521	0	488	460	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4						4				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		2017			1900			373			359	
Travel Time (s)		34.4			43.2			8.5			8.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	1%	2%	23%	0%	0%	0%	0%	2%	0%	1%	0%	0%
Adj. Flow (vph)	549	868	26	0	0	0	0	419	17	580	19	0
Shared Lane Traffic (%)										49%		
Lane Group Flow (vph)	549	894	0	0	0	0	0	436	0	296	303	0
Turn Type	Perm	NA						NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1									7		
Minimum Split (s)	25.0	25.0						10.0		7.0	10.0	
Total Split (s)	38.0	38.0						21.0		21.0	42.0	
Total Split (%)	47.5%	47.5%						26.3%		26.3%	52.5%	
Maximum Green (s)	32.0	32.0						15.0		15.0	36.0	
Yellow Time (s)	4.0	4.0						4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0						2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0						0.0		0.0	0.0	
Total Lost Time (s)	6.0	6.0						6.0		6.0	6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Walk Time (s)	7.0	7.0										
Flash Dont Walk (s)	11.0	11.0										
Pedestrian Calls (#/hr)	0	0										
Act Effct Green (s)	32.0	32.0						15.0		36.0	36.0	
Actuated g/C Ratio	0.40	0.40						0.19		0.45	0.45	
v/c Ratio	0.77	0.64						0.66		0.66	0.69	
Control Delay	19.9	12.4						35.2		22.7	23.9	
Queue Delay	0.0	0.0						0.0		0.0	0.0	
Total Delay	19.9	12.4						35.2		22.7	23.9	
LOS	B	B						D		C	C	
Approach Delay		15.3						35.2			23.3	
Approach LOS		B						D			C	
Stops (vph)	389	495						343		168	171	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fuel Used(gal)	12	18						6		3	3	
CO Emissions (g/hr)	866	1232						403		200	209	
NOx Emissions (g/hr)	169	240						78		39	41	
VOC Emissions (g/hr)	201	286						93		46	48	
Dilemma Vehicles (#)	0	20						0		0	0	
Queue Length 50th (ft)	154	87						106		100	102	
Queue Length 95th (ft)	362	147						150		158	163	
Internal Link Dist (ft)		1937			1820			293			279	
Turn Bay Length (ft)	800											
Base Capacity (vph)	714	1404						663		446	441	
Starvation Cap Reductn	0	0						0		0	0	
Spillback Cap Reductn	0	0						0		0	0	
Storage Cap Reductn	0	0						0		0	0	
Reduced v/c Ratio	0.77	0.64						0.66		0.66	0.69	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 26 (33%), Referenced to phase 3:SBL and 7:SBTL, Start of Green
Natural Cycle: 60
Control Type: Pretimed
Maximum v/c Ratio: 0.77
Intersection Signal Delay: 20.7 Intersection LOS: C
Intersection Capacity Utilization 87.2% ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 9: Corporate Park Dr & Westchester Ave EB



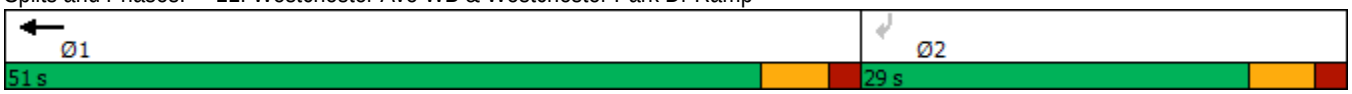
Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Traffic Volume (vph)	0	0	1779	0	0	439
Future Volume (vph)	0	0	1779	0	0	439
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	0	3539	0	0	2814
Flt Permitted						
Satd. Flow (perm)	0	0	3539	0	0	2814
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						17
Link Speed (mph)		30	40		30	
Link Distance (ft)		882	164		167	
Travel Time (s)		20.0	2.8		3.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Heavy Vehicles (%)	0%	0%	2%	0%	0%	1%
Adj. Flow (vph)	0	0	1934	0	0	477
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	1934	0	0	477
Turn Type			NA			Perm
Protected Phases			1			
Permitted Phases						2
Detector Phase			1			2
Switch Phase						
Minimum Initial (s)			5.0			4.0
Minimum Split (s)			20.0			10.0
Total Split (s)			51.0			29.0
Total Split (%)			63.8%			36.3%
Maximum Green (s)			45.0			23.0
Yellow Time (s)			4.0			4.0
All-Red Time (s)			2.0			2.0
Lost Time Adjust (s)			0.0			0.0
Total Lost Time (s)			6.0			6.0
Lead/Lag			Lead			Lag
Lead-Lag Optimize?			Yes			Yes
Vehicle Extension (s)			3.0			3.0
Recall Mode			None			Max
Act Effct Green (s)			45.0			23.0
Actuated g/C Ratio			0.56			0.29
v/c Ratio			0.97			0.58
Control Delay			32.7			26.8
Queue Delay			0.0			0.0
Total Delay			32.7			26.8
LOS			C			C
Approach Delay			32.7		26.8	
Approach LOS			C		C	
90th %ile Green (s)			45.0			23.0
90th %ile Term Code			Max			MaxR

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
70th %ile Green (s)			45.0			23.0
70th %ile Term Code			Max			MaxR
50th %ile Green (s)			45.0			23.0
50th %ile Term Code			Max			MaxR
30th %ile Green (s)			45.0			23.0
30th %ile Term Code			Max			MaxR
10th %ile Green (s)			45.0			23.0
10th %ile Term Code			Max			MaxR
Stops (vph)			1470			351
Fuel Used(gal)			28			5
CO Emissions (g/hr)			1977			343
NOx Emissions (g/hr)			385			67
VOC Emissions (g/hr)			458			80
Dilemma Vehicles (#)			106			0
Queue Length 50th (ft)			452			111
Queue Length 95th (ft)			#656			163
Internal Link Dist (ft)		802	84		87	
Turn Bay Length (ft)						
Base Capacity (vph)			1990			821
Starvation Cap Reductn			0			0
Spillback Cap Reductn			0			0
Storage Cap Reductn			0			0
Reduced v/c Ratio			0.97			0.58

Intersection Summary	
Area Type: Other	
Cycle Length: 80	
Actuated Cycle Length: 80	
Natural Cycle: 60	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 31.6	Intersection LOS: C
Intersection Capacity Utilization 74.5%	ICU Level of Service D
Analysis Period (min) 15	
90th %ile Actuated Cycle: 80	
70th %ile Actuated Cycle: 80	
50th %ile Actuated Cycle: 80	
30th %ile Actuated Cycle: 80	
10th %ile Actuated Cycle: 80	

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 11: Westchester Ave WB & Westchester Park Dr Ramp



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	0	0	758	1461	13	311	24	0	0	24	17
Future Volume (vph)	0	0	0	758	1461	13	311	24	0	0	24	17
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	400		400	0		0	0		0
Storage Lanes	0		0	1		1	1		0	0		0
Taper Length (ft)	25			100			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95
Frt						0.850					0.939	
Flt Protected				0.950			0.950					
Satd. Flow (prot)	0	0	0	1787	3539	1214	1787	1301	0	0	2795	0
Flt Permitted				0.950			0.395					
Satd. Flow (perm)	0	0	0	1787	3539	1214	743	1301	0	0	2795	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)						123					20	
Link Speed (mph)		30			40			30			30	
Link Distance (ft)		162			882			447			357	
Travel Time (s)		3.7			15.0			10.2			8.1	
Peak Hour Factor	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Heavy Vehicles (%)	0%	0%	0%	1%	2%	33%	1%	46%	0%	0%	18%	26%
Adj. Flow (vph)	0	0	0	902	1739	15	370	29	0	0	29	20
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	902	1739	15	370	29	0	0	49	0
Turn Type				Perm	NA	Perm	pm+pt	NA			NA	
Protected Phases					1		3	7			4	
Permitted Phases				1		1	7					
Detector Phase				1	1	1	3	7			4	
Switch Phase												
Minimum Initial (s)				5.0	5.0	5.0	1.0	4.0			4.0	
Minimum Split (s)				20.0	20.0	20.0	7.0	10.0			10.0	
Total Split (s)				46.0	46.0	46.0	16.0	34.0			18.0	
Total Split (%)				57.5%	57.5%	57.5%	20.0%	42.5%			22.5%	
Maximum Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
Yellow Time (s)				4.0	4.0	4.0	4.0	4.0			4.0	
All-Red Time (s)				2.0	2.0	2.0	2.0	2.0			2.0	
Lost Time Adjust (s)				0.0	0.0	0.0	0.0	0.0			0.0	
Total Lost Time (s)				6.0	6.0	6.0	6.0	6.0			6.0	
Lead/Lag							Lead				Lag	
Lead-Lag Optimize?							Yes				Yes	
Vehicle Extension (s)				3.0	3.0	3.0	3.0	3.0			3.0	
Recall Mode				None	None	None	C-Max	C-Max			None	
Walk Time (s)				7.0	7.0	7.0						
Flash Dont Walk (s)				10.0	10.0	10.0						
Pedestrian Calls (#/hr)				0	0	0						
Act Effct Green (s)				40.0	40.0	40.0	28.0	28.0			9.4	
Actuated g/C Ratio				0.50	0.50	0.50	0.35	0.35			0.12	
v/c Ratio				1.01	0.98	0.02	0.76	0.06			0.14	
Control Delay				54.9	38.8	0.1	34.3	12.0			21.3	
Queue Delay				0.0	0.0	0.0	0.0	0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay				54.9	38.8	0.1	34.3	12.0			21.3	
LOS				D	D	A	C	B			C	
Approach Delay					44.0			32.6			21.3	
Approach LOS					D			C			C	
90th %ile Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
90th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
70th %ile Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
70th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
50th %ile Green (s)				40.0	40.0	40.0	10.0	28.0			12.0	
50th %ile Term Code				Max	Max	Max	Coord	Coord			Hold	
30th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
30th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
10th %ile Green (s)				40.0	40.0	40.0	28.0	28.0			0.0	
10th %ile Term Code				Max	Max	Max	Coord	Coord			Skip	
Stops (vph)				623	1234	0	204	10			25	
Fuel Used(gal)				19	32	0	4	0			0	
CO Emissions (g/hr)				1337	2265	5	306	14			30	
NOx Emissions (g/hr)				260	441	1	60	3			6	
VOC Emissions (g/hr)				310	525	1	71	3			7	
Dilemma Vehicles (#)				0	87	0	0	0			0	
Queue Length 50th (ft)				~439	424	0	153	5			6	
Queue Length 95th (ft)				#622	#534	0	#256	m12			20	
Internal Link Dist (ft)		82			802			367			277	
Turn Bay Length (ft)				400		400						
Base Capacity (vph)				893	1769	668	484	455			436	
Starvation Cap Reductn				0	0	0	0	0			0	
Spillback Cap Reductn				0	0	0	0	0			0	
Storage Cap Reductn				0	0	0	0	0			0	
Reduced v/c Ratio				1.01	0.98	0.02	0.76	0.06			0.11	

Intersection Summary

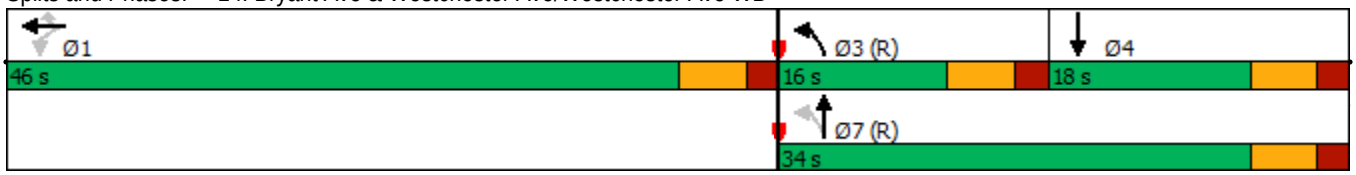
Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Offset: 24 (30%), Referenced to phase 3:NBL and 7:NBTL, Start of Green
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 1.01
Intersection Signal Delay: 42.2 Intersection LOS: D
Intersection Capacity Utilization 75.9% ICU Level of Service D
Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 14: Bryant Ave & Westchester Ave/Westchester Ave WB

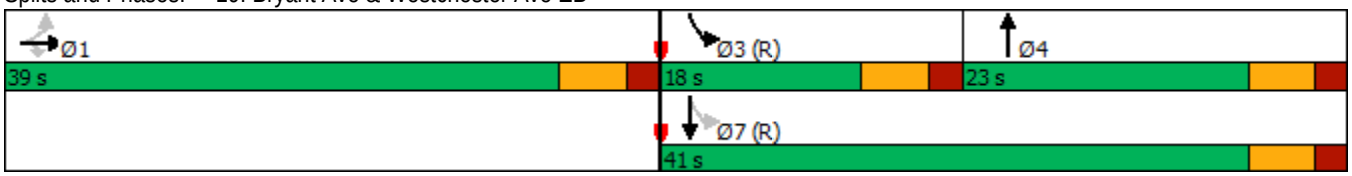


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	156	793	86	0	0	0	0	180	267	147	569	0
Future Volume (vph)	156	793	86	0	0	0	0	180	267	147	569	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	360		195	0		0	0		0	0		0
Storage Lanes	1		1	0		0	0		0	0		0
Taper Length (ft)	100			25			25			25		
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	1.00
Frt			0.850					0.910				
Flt Protected	0.950										0.990	
Satd. Flow (prot)	1687	3505	1599	0	0	0	0	3221	0	0	3531	0
Flt Permitted	0.950										0.600	
Satd. Flow (perm)	1687	3505	1599	0	0	0	0	3221	0	0	2140	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			123					206				
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		544			2017			683			447	
Travel Time (s)		9.3			45.8			15.5			10.2	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Heavy Vehicles (%)	7%	3%	1%	0%	0%	0%	0%	2%	2%	2%	1%	0%
Adj. Flow (vph)	168	853	92	0	0	0	0	194	287	158	612	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	168	853	92	0	0	0	0	481	0	0	770	0
Turn Type	Perm	NA	Perm					NA		pm+pt	NA	
Protected Phases		1						4		3	7	
Permitted Phases	1		1							7		
Detector Phase	1	1	1					4		3	7	
Switch Phase												
Minimum Initial (s)	5.0	5.0	5.0					4.0		1.0	4.0	
Minimum Split (s)	20.0	20.0	20.0					10.0		7.0	10.0	
Total Split (s)	39.0	39.0	39.0					23.0		18.0	41.0	
Total Split (%)	48.8%	48.8%	48.8%					28.8%		22.5%	51.3%	
Maximum Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
Yellow Time (s)	4.0	4.0	4.0					4.0		4.0	4.0	
All-Red Time (s)	2.0	2.0	2.0					2.0		2.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0					0.0			0.0	
Total Lost Time (s)	6.0	6.0	6.0					6.0			6.0	
Lead/Lag								Lag		Lead		
Lead-Lag Optimize?								Yes		Yes		
Vehicle Extension (s)	3.0	3.0	3.0					3.0		3.0	3.0	
Recall Mode	None	None	None					Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0	7.0									
Flash Dont Walk (s)	10.0	10.0	10.0									
Pedestrian Calls (#/hr)	0	0	0									
Act Effct Green (s)	27.4	27.4	27.4					17.0			40.6	
Actuated g/C Ratio	0.34	0.34	0.34					0.21			0.51	
v/c Ratio	0.29	0.71	0.15					0.57			0.55	
Control Delay	19.4	26.0	2.2					18.7			1.3	
Queue Delay	0.0	0.0	0.0					0.0			0.0	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Total Delay	19.4	26.0	2.2					18.7			1.3	
LOS	B	C	A					B			A	
Approach Delay		23.0						18.7			1.3	
Approach LOS		C						B			A	
90th %ile Green (s)	33.0	33.0	33.0					17.0		12.0	35.0	
90th %ile Term Code	Max	Max	Max					MaxR		Coord	Coord	
70th %ile Green (s)	31.1	31.1	31.1					17.0		13.9	36.9	
70th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
50th %ile Green (s)	27.8	27.8	27.8					17.0		17.2	40.2	
50th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
30th %ile Green (s)	24.9	24.9	24.9					17.0		20.1	43.1	
30th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
10th %ile Green (s)	20.1	20.1	20.1					17.0		24.9	47.9	
10th %ile Term Code	Gap	Gap	Gap					MaxR		Coord	Coord	
Stops (vph)	105	650	6					225			68	
Fuel Used(gal)	2	14	0					5			3	
CO Emissions (g/hr)	156	944	29					373			214	
NOx Emissions (g/hr)	30	184	6					72			42	
VOC Emissions (g/hr)	36	219	7					86			50	
Dilemma Vehicles (#)	0	41	0					0			0	
Queue Length 50th (ft)	60	190	0					62			5	
Queue Length 95th (ft)	96	227	16					110			m9	
Internal Link Dist (ft)		464			1937			603			367	
Turn Bay Length (ft)	360		195									
Base Capacity (vph)	695	1445	731					846			1392	
Starvation Cap Reductn	0	0	0					0			0	
Spillback Cap Reductn	0	0	0					0			0	
Storage Cap Reductn	0	0	0					0			0	
Reduced v/c Ratio	0.24	0.59	0.13					0.57			0.55	

Intersection Summary	
Area Type:	Other
Cycle Length: 80	
Actuated Cycle Length: 80	
Offset: 74 (93%), Referenced to phase 3:SBL and 7:SBTL, Start of Green	
Natural Cycle: 55	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 70.5%	ICU Level of Service C
Analysis Period (min) 15	
m Volume for 95th percentile queue is metered by upstream signal.	

Splits and Phases: 19: Bryant Ave & Westchester Ave EB



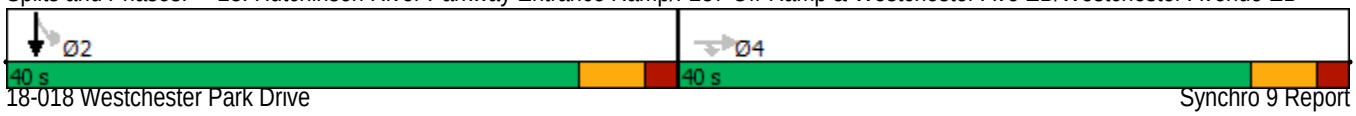
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	1326	595	0	0	0	0	0	0	1121	358	0
Future Volume (vph)	0	1326	595	0	0	0	0	0	0	1121	358	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									
Flt Protected										0.950		
Satd. Flow (prot)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Flt Permitted										0.950		
Satd. Flow (perm)	0	1881	1583	0	0	0	0	0	0	1805	1881	0
Right Turn on Red			Yes			Yes			Yes	Yes		Yes
Satd. Flow (RTOR)			315							41		
Link Speed (mph)		40			30			30			30	
Link Distance (ft)		1900			524			276			1153	
Travel Time (s)		32.4			11.9			6.3			26.2	
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Heavy Vehicles (%)	0%	1%	2%	0%	0%	0%	0%	0%	0%	0%	1%	0%
Adj. Flow (vph)	0	1507	676	0	0	0	0	0	0	1274	407	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1507	676	0	0	0	0	0	0	1274	407	0
Turn Type		NA	custom							Perm	NA	
Protected Phases											2	
Permitted Phases		4	4							2		
Detector Phase		4	4							2	2	
Switch Phase												
Minimum Initial (s)		20.0	20.0							10.0	10.0	
Minimum Split (s)		26.0	26.0							16.0	16.0	
Total Split (s)		40.0	40.0							40.0	40.0	
Total Split (%)		50.0%	50.0%							50.0%	50.0%	
Maximum Green (s)		34.0	34.0							34.0	34.0	
Yellow Time (s)		4.0	4.0							4.0	4.0	
All-Red Time (s)		2.0	2.0							2.0	2.0	
Lost Time Adjust (s)		0.0	0.0							0.0	0.0	
Total Lost Time (s)		6.0	6.0							6.0	6.0	
Lead/Lag												
Lead-Lag Optimize?												
Vehicle Extension (s)		3.0	3.0							3.0	3.0	
Recall Mode		None	None							Max	Max	
Walk Time (s)		7.0	7.0							7.0	7.0	
Flash Dont Walk (s)		11.0	11.0							11.0	11.0	
Pedestrian Calls (#/hr)		0	0							0	0	
Act Effct Green (s)		34.0	34.0							34.0	34.0	
Actuated g/C Ratio		0.42	0.42							0.42	0.42	
v/c Ratio		1.89	0.79							1.61	0.51	
Control Delay		424.9	18.6							304.1	19.7	
Queue Delay		0.0	0.0							0.0	0.0	
Total Delay		424.9	18.6							304.1	19.7	
LOS		F	B							F	B	
Approach Delay		299.1									235.2	

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F									F	
90th %ile Green (s)		34.0	34.0							34.0	34.0	
90th %ile Term Code		Max	Max							MaxR	MaxR	
70th %ile Green (s)		34.0	34.0							34.0	34.0	
70th %ile Term Code		Max	Max							MaxR	MaxR	
50th %ile Green (s)		34.0	34.0							34.0	34.0	
50th %ile Term Code		Max	Max							MaxR	MaxR	
30th %ile Green (s)		34.0	34.0							34.0	34.0	
30th %ile Term Code		Max	Max							MaxR	MaxR	
10th %ile Green (s)		34.0	34.0							34.0	34.0	
10th %ile Term Code		Max	Max							MaxR	MaxR	
Stops (vph)		967	298							811	254	
Fuel Used(gal)		141	13							84	6	
CO Emissions (g/hr)		9876	898							5868	423	
NOx Emissions (g/hr)		1922	175							1142	82	
VOC Emissions (g/hr)		2289	208							1360	98	
Dilemma Vehicles (#)		44	0							0	0	
Queue Length 50th (ft)		~1170	153							~928	145	
Queue Length 95th (ft)		#1377	290							#1139	218	
Internal Link Dist (ft)		1820			444			196			1073	
Turn Bay Length (ft)												
Base Capacity (vph)		799	853							790	799	
Starvation Cap Reductn		0	0							0	0	
Spillback Cap Reductn		0	0							0	0	
Storage Cap Reductn		0	0							0	0	
Reduced v/c Ratio		1.89	0.79							1.61	0.51	

Intersection Summary

Area Type: Other
Cycle Length: 80
Actuated Cycle Length: 80
Natural Cycle: 150
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 1.89
Intersection Signal Delay: 271.3 Intersection LOS: F
Intersection Capacity Utilization 141.9% ICU Level of Service H
Analysis Period (min) 15
90th %ile Actuated Cycle: 80
70th %ile Actuated Cycle: 80
50th %ile Actuated Cycle: 80
30th %ile Actuated Cycle: 80
10th %ile Actuated Cycle: 80
~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.
95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

Splits and Phases: 23: Hutchinson River Parkway Entrance Ramp/I-287 Off-Ramp & Westchester Ave EB/Westchester Avenue EB



Intersection	
Int Delay, s/veh	28.9

Movement	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑↑			↱
Traffic Vol, veh/h	0	0	1347	0	0	419
Future Vol, veh/h	0	0	1347	0	0	419
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	-	0
Veh in Median Storage, #	-	-	0	-	0	-
Grade, %	-	0	0	-	0	-
Peak Hour Factor	96	96	96	96	96	96
Heavy Vehicles, %	0	0	2	0	0	1
Mvmt Flow	0	0	1403	0	0	436

Major/Minor	Major2		Minor2	
Conflicting Flow All	-	0	-	702
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	-	-	-	6.92
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	-	-	-	3.31
Pot Cap-1 Maneuver	-	0	0	~ 383
Stage 1	-	0	0	-
Stage 2	-	0	0	-
Platoon blocked, %	-			
Mov Cap-1 Maneuver	-	-	-	~ 383
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	WB	SB
HCM Control Delay, s	0	122
HCM LOS		F

Minor Lane/Major Mvmt	WBT	SBLn1
Capacity (veh/h)	-	383
HCM Lane V/C Ratio	-	1.14
HCM Control Delay (s)	-	122
HCM Lane LOS	-	F
HCM 95th %tile Q(veh)	-	16.6

Notes

~: Volume exceeds capacity $: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

APPENDIX F

NCHRP REPORT 684 TRIP CAPTURE

ESTIAMTION WORKSHEETS

Internal Trip Summary Table - AM Peak Hour						
Origin/Destination	3 Westchester Park Drive	Lifetime Fitness	2-4 Westchester Park Drive	Carraway	104 Corporate Park Drive	Wegmans
3 Westchester Park Drive				2	2	8
Lifetime Fitness				0	0	0
2-4 Westchester Park Drive				2	0	1
Carraway	1	0	5			
104 Corporate Park Drive	0	0	0			
Wegmans	1	0	5			

Internal Trip Summary Table - PM Peak Hour						
Origin/Destination	3 Westchester Park Drive	Lifetime Fitness	2-4 Westchester Park Drive	Carraway	104 Corporate Park Drive	Wegmans
3 Westchester Park Drive				5	2	23
Lifetime Fitness				18	5	13
2-4 Westchester Park Drive				5	0	25
Carraway	9	2	4			
104 Corporate Park Drive	3	0	0			
Wegmans	40	12	6			

Note: Results calculated using NCHRP Report 684 which is recommended by the ITE Trip Generation Manual, 10th Edition.

Note: Highlighted numbers were the only internal trips considered for the FEIS Analysis. The DEIS Analysis considers all internal trips.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	104 CPD			260	203	57
Retail	Wegmans			200	120	80
Restaurant	Carraway			6	4	2
Cinema/Entertainment				0		
Residential	3 WPD			112	29	83
Hotel				0		
All Other Land Uses[2]				0		
				578	356	222

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		16	1	0	0	0
Retail	8		2	0	1	0
Restaurant	1	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	1	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	578	356	222
Internal Capture Percentage	11%	9%	15%
External Vehicle-Trips[5]	512	323	189
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	5%	30%
Retail	14%	14%
Restaurant	100%	50%
Cinema/Entertainment	N/A	N/A
Residential	3%	5%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	203	203	1.00	57	57
Retail	1.00	120	120	1.00	80	80
Restaurant	1.00	4	4	1.00	2	2
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	29	29	1.00	83	83
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		16	36	0	1	0
Retail	23		10	0	11	0
Restaurant	1	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	17	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		38	1	0	0	0
Retail	8		2	0	1	0
Restaurant	28	10		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	6	20	1	0		0
Hotel	6	5	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	11	192	203	192	0	0
Retail	17	103	120	103	0	0
Restaurant	4	0	4	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	28	29	28	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	17	40	57	40	0	0
Retail	11	69	80	69	0	0
Restaurant	1	1	2	1	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	4	79	83	79	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	104 CPD			410	115	295
Retail	Wegmans			621	316	305
Restaurant	Carraway			21	13	8
Cinema/Entertainment				0		
Residential	3 WPD			141	86	55
Hotel				0		
All Other Land Uses[2]				0		
				1,193	530	663

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		25	0	0	3	0
Retail	6		4	0	40	0
Restaurant	0	3		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	23	2	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,193	530	663
Internal Capture Percentage	18%	21%	16%
External Vehicle-Trips[5]	975	421	554
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	7%	9%
Retail	16%	16%
Restaurant	46%	50%
Cinema/Entertainment	N/A	N/A
Residential	51%	49%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	115	115	1.00	295	295
Retail	1.00	316	316	1.00	305	305
Restaurant	1.00	13	13	1.00	8	8
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	86	86	1.00	55	55
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		59	12	0	6	0
Retail	6		88	12	79	15
Restaurant	0	3		1	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	2	23	12	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		25	0	0	3	0
Retail	36		4	0	40	0
Restaurant	35	158		0	14	0
Cinema/Entertainment	7	13	0		3	0
Residential	66	32	2	0		0
Hotel	0	6	1	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	8	107	115	107	0	0
Retail	51	265	316	265	0	0
Restaurant	6	7	13	7	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	44	42	86	42	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	28	267	295	267	0	0
Retail	50	255	305	255	0	0
Restaurant	4	4	8	4	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	27	28	55	28	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	Carraway			19	12	7
Restaurant				0		
Cinema/Entertainment				0		
Residential	3 WPD			112	29	83
Hotel				0		
All Other Land Uses[2]				0		
				131	41	90

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	1	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	131	41	90
Internal Capture Percentage	3%	5%	2%
External Vehicle-Trips[5]	127	39	88
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	8%	14%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	3%	1%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	12	12	1.00	7	7
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	29	29	1.00	83	83
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	2		1	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	17	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	0	0
Retail	0		0	0	1	0
Restaurant	0	1		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	2	0	0		0
Hotel	0	0	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	11	12	11	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	28	29	28	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	1	6	7	6	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	82	83	82	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				0		
Retail	Carraway			62	30	32
Restaurant				0		
Cinema/Entertainment				0		
Residential	3 WPD			141	86	55
Hotel				0		
All Other Land Uses[2]				0		
				203	116	87

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	0		0	0	8	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	3	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	203	116	87
Internal Capture Percentage	11%	9%	13%
External Vehicle-Trips[5]	181	105	76
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	N/A	N/A
Retail	10%	25%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	9%	5%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	0	0	1.00	0	0
Retail	1.00	30	30	1.00	32	32
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	86	86	1.00	55	55
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		0	0	0	0	0
Retail	1		9	1	8	2
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	23	12	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		2	0	0	3	0
Retail	0		0	0	40	0
Restaurant	0	15		0	14	0
Cinema/Entertainment	0	1	0		3	0
Residential	0	3	0	0		0
Hotel	0	1	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	3	27	30	27	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	8	78	86	78	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	0	0	0	0	0	0
Retail	8	24	32	24	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	3	52	55	52	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	2-4 WPD			130	127	3
Retail	Wegmans			200	120	80
Restaurant	Carraway			6	4	2
Cinema/Entertainment				0		
Residential	Carraway			142	44	98
Hotel				0		
All Other Land Uses[2]				0		
				478	295	183

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	1	0	0	0
Retail	5		2	0	1	0
Restaurant	1	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	1	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	478	295	183
Internal Capture Percentage	6%	5%	8%
External Vehicle-Trips[5]	448	280	168
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	6%	67%
Retail	2%	10%
Restaurant	100%	50%
Cinema/Entertainment	N/A	N/A
Residential	2%	4%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	127	127	1.00	3	3
Retail	1.00	120	120	1.00	80	80
Restaurant	1.00	4	4	1.00	2	2
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	44	44	1.00	98	98
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	2	0	0	0
Retail	23		10	0	11	0
Restaurant	1	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	20	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		38	1	0	0	0
Retail	5		2	0	1	0
Restaurant	18	10		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	4	20	1	0		0
Hotel	4	5	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	8	119	127	119	0	0
Retail	2	118	120	118	0	0
Restaurant	4	0	4	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	1	43	44	43	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	2	1	3	1	0	0
Retail	8	72	80	72	0	0
Restaurant	1	1	2	1	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	4	94	98	94	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	2-4 WPD			197	46	151
Retail	Wegmans			621	316	305
Restaurant	Carraway			21	13	8
Cinema/Entertainment				0		
Residential	Carraway			173	101	72
Hotel				0		
All Other Land Uses[2]				0		
				1,012	476	536

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		25	0	0	3	0
Retail	6		4	0	46	0
Restaurant	0	3		0	1	0
Cinema/Entertainment	0	0	0		0	0
Residential	3	30	2	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,012	476	536
Internal Capture Percentage	24%	26%	23%
External Vehicle-Trips[5]	766	353	413
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	20%	19%
Retail	18%	18%
Restaurant	46%	50%
Cinema/Entertainment	N/A	N/A
Residential	50%	49%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	46	46	1.00	151	151
Retail	1.00	316	316	1.00	305	305
Restaurant	1.00	13	13	1.00	8	8
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	101	101	1.00	72	72
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		30	6	0	3	0
Retail	6		88	12	79	15
Restaurant	0	3		1	1	1
Cinema/Entertainment	0	0	0		0	0
Residential	3	30	15	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		25	0	0	4	0
Retail	14		4	0	46	0
Restaurant	14	158		0	16	0
Cinema/Entertainment	3	13	0		4	0
Residential	26	32	2	0		0
Hotel	0	6	1	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	9	37	46	37	0	0
Retail	58	258	316	258	0	0
Restaurant	6	7	13	7	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	50	51	101	51	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	28	123	151	123	0	0
Retail	56	249	305	249	0	0
Restaurant	4	4	8	4	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	35	37	72	37	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	2-4 WPD			130	127	3
Retail	Carraway			19	12	7
Restaurant				0		
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses[2]				0		
				149	139	10

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	0	0	0	0
Retail	2		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	149	139	10
Internal Capture Percentage	4%	2%	30%
External Vehicle-Trips[5]	143	136	7
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	2%	33%
Retail	8%	29%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	127	127	1.00	3	3
Retail	1.00	12	12	1.00	7	7
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	0	0	1.00	0	0
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		1	2	0	0	0
Retail	2		1	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	0	0
Retail	5		0	0	0	0
Restaurant	18	1		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	4	2	0	0		0
Hotel	4	0	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	2	125	127	125	0	0
Retail	1	11	12	11	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	1	2	3	2	0	0
Retail	2	5	7	5	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	2-4 WPD			196	45	151
Retail	Carraway			62	30	32
Restaurant				0		
Cinema/Entertainment				0		
Residential				0		
Hotel				0		
All Other Land Uses[2]				0		
				258	75	183

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		2	0	0	0	0
Retail	1		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	258	75	183
Internal Capture Percentage	2%	4%	2%
External Vehicle-Trips[5]	252	72	180
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	2%	1%
Retail	7%	3%
Restaurant	N/A	N/A
Cinema/Entertainment	N/A	N/A
Residential	N/A	N/A
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	45	45	1.00	151	151
Retail	1.00	30	30	1.00	32	32
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	0	0	1.00	0	0
Residential	1.00	0	0	1.00	0	0
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		30	6	0	3	0
Retail	1		9	1	8	2
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		2	0	0	0	0
Retail	14		0	0	0	0
Restaurant	14	15		0	0	0
Cinema/Entertainment	3	1	0		0	0
Residential	26	3	0	0		0
Hotel	0	1	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	1	44	45	44	0	0
Retail	2	28	30	28	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	2	149	151	149	0	0
Retail	1	31	32	31	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	0	0	0	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	104 CPD			260	203	57
Retail	Wegmans			200	120	80
Restaurant	Carraway			6	4	2
Cinema/Entertainment	Lifetime			463	263	200
Residential	Carraway			142	44	98
Hotel				0		
All Other Land Uses[2]				0		
				1,071	634	437

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		16	1	0	0	0
Retail	8		2	0	1	0
Restaurant	1	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	1	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,071	634	437
Internal Capture Percentage	6%	5%	8%
External Vehicle-Trips[5]	1,005	601	404
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	5%	30%
Retail	14%	14%
Restaurant	100%	50%
Cinema/Entertainment	0%	0%
Residential	2%	4%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	203	203	1.00	57	57
Retail	1.00	120	120	1.00	80	80
Restaurant	1.00	4	4	1.00	2	2
Cinema/Entertainment	1.00	263	263	1.00	200	200
Residential	1.00	44	44	1.00	98	98
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		16	36	0	1	0
Retail	23		10	0	11	0
Restaurant	1	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	2	1	20	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		38	1	0	0	0
Retail	8		2	0	1	0
Restaurant	28	10		0	2	0
Cinema/Entertainment	0	0	0		0	0
Residential	6	20	1	0		0
Hotel	6	5	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	11	192	203	192	0	0
Retail	17	103	120	103	0	0
Restaurant	4	0	4	0	0	0
Cinema/Entertainment	0	263	263	263	0	0
Residential	1	43	44	43	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	17	40	57	40	0	0
Retail	11	69	80	69	0	0
Restaurant	1	1	2	1	0	0
Cinema/Entertainment	0	200	200	200	0	0
Residential	4	94	98	94	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	104 CPD			410	115	295
Retail	Wegmans			621	316	305
Restaurant	Carraway			21	13	8
Cinema/Entertainment	Lifetime			559	315	244
Residential	Carraway			173	101	72
Hotel				0		
All Other Land Uses[2]				0		
				1,784	860	924

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		25	0	0	4	0
Retail	6		4	12	46	0
Restaurant	0	3		1	1	0
Cinema/Entertainment	5	13	0		4	0
Residential	3	30	2	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,784	860	924
Internal Capture Percentage	18%	18%	17%
External Vehicle-Trips[5]	1,466	701	765
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	12%	10%
Retail	22%	22%
Restaurant	46%	63%
Cinema/Entertainment	4%	9%
Residential	54%	49%
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	115	115	1.00	295	295
Retail	1.00	316	316	1.00	305	305
Restaurant	1.00	13	13	1.00	8	8
Cinema/Entertainment	1.00	315	315	1.00	244	244
Residential	1.00	101	101	1.00	72	72
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		59	12	0	6	0
Retail	6		88	12	79	15
Restaurant	0	3		1	1	1
Cinema/Entertainment	5	51	76		20	5
Residential	3	30	15	0		2
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		25	0	3	4	0
Retail	36		4	82	46	0
Restaurant	35	158		101	16	0
Cinema/Entertainment	7	13	0		4	0
Residential	66	32	2	0		0
Hotel	0	6	1	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	14	101	115	101	0	0
Retail	71	245	316	245	0	0
Restaurant	6	7	13	7	0	0
Cinema/Entertainment	13	302	315	302	0	0
Residential	55	46	101	46	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	29	266	295	266	0	0
Retail	68	237	305	237	0	0
Restaurant	5	3	8	3	0	0
Cinema/Entertainment	22	222	244	222	0	0
Residential	35	37	72	37	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**AM Street Peak Hour**	**Date:**	

Table 1-A: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office				260	203	57
Retail	Carraway			19	12	7
Restaurant				0		
Cinema/Entertainment	Lifetime			463	263	200
Residential				0		
Hotel				0		
All Other Land Uses[2]				0		
				742	478	264

Table 2-A: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-A: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-A: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	0	0
Retail	2		0	0	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-A: Computations Summary

	Total	Entering	Exiting
All Person-Trips	742	478	264
Internal Capture Percentage	2%	1%	2%
External Vehicle-Trips[5]	730	472	258
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-A: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	1%	7%
Retail	33%	29%
Restaurant	N/A	N/A
Cinema/Entertainment	0%	0%
Residential	N/A	N/A
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-A vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be made to Tables 5-A, 9-A (O and D). Enter transit, non-motorized percentages that will result with proposed mixed-use project complete.

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**AM Street Peak Hour**

Table 7-A: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-A (D): Entering Trips			Table 7-A (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	203	203	1.00	57	57
Retail	1.00	12	12	1.00	7	7
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	263	263	1.00	200	200
Residential	1.00	0	0	1.00	0	0
Hotel	1.00	0	0	1.00	0	0

Table 8-A (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		16	36	0	1	0
Retail	2		1	0	1	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 8-A (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		4	0	0	0	0
Retail	8		0	0	0	0
Restaurant	28	1		0	0	0
Cinema/Entertainment	0	0	0		0	0
Residential	6	2	0	0		0
Hotel	6	0	0	0	0	

Table 9-A (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	2	201	203	201	0	0
Retail	4	8	12	8	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	263	263	263	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-A (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	4	53	57	53	0	0
Retail	2	5	7	5	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	0	200	200	200	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-A

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

NCHRP 684 Internal Trip Capture Estimation Tool			
Project Name:	18-018 Westchester Park Drive	**Organization:**	Provident Design Engineering
Project Location:	Harrison, NY	**Performed By:**	DC
Scenario Description:		**Date:**	1/17/2019
Analysis Year:	2019	**Checked By:**	
Analysis Period:	**PM Street Peak Hour**	**Date:**	

Table 1-P: Base Vehicle-Trip Generation Estimates (Single-Use Site Estimate)

Land Use	Development Data (*For Information Only*)			Estimated Vehicle-Trips[3]		
	ITE LUCs[1]	Quantity	Units	Total	Entering	Exiting
Office	104 CPD			410	115	295
Retail	Carraway			62	30	32
Restaurant				0		
Cinema/Entertainment	Lifetime			559	315	244
Residential				0		
Hotel				0		
All Other Land Uses[2]				0		
				1,031	460	571

Table 2-P: Mode Split and Vehicle Occupancy Estimates

Land Use	Entering Trips			Exiting Trips		
	Veh. Occ.[4]	% Transit	% Non-Motorized	Veh. Occ.[4]	% Transit	% Non-Motorized
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						
All Other Land Uses[2]						

Table 3-P: Average Land Use Interchange Distances (Feet Walking Distance)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office						
Retail						
Restaurant						
Cinema/Entertainment						
Residential						
Hotel						

Table 4-P: Internal Person-Trip Origin-Destination Matrix*

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		2	0	0	0	0
Retail	1		0	1	0	0
Restaurant	0	0		0	0	0
Cinema/Entertainment	5	1	0		0	0
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 5-P: Computations Summary

	Total	Entering	Exiting
All Person-Trips	1,031	460	571
Internal Capture Percentage	2%	2%	2%
External Vehicle-Trips[5]	1,011	450	561
External Transit-Trips[6]	0	0	0
External Non-Motorized Trips[6]	0	0	0

Table 6-P: Internal Trip Capture Percentages by Land Use

Land Use	Entering Trips	Exiting Trips
Office	5%	1%
Retail	10%	6%
Restaurant	N/A	N/A
Cinema/Entertainment	0%	2%
Residential	N/A	N/A
Hotel	N/A	N/A

[1]Land Use Codes (LUCs) from *Trip Generation Manual*, published by the Institute of Transportation Engineers.

[2]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator.

[3]Enter trips assuming no transit or non-motorized trips (as assumed in ITE *Trip Generation Manual*).

[4]Enter vehicle occupancy assumed in Table 1-P vehicle trips. If vehicle occupancy changes for proposed mixed-use project, manual adjustments must be

[5]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P.

[6]Person-Trips

*Indicates computation that has been rounded to the nearest whole number.

Estimation Tool Developed by the Texas A&M Transportation Institute - Version 2013.1

Project Name:	18-018 Westchester Park Drive
Analysis Period:	**PM Street Peak Hour**

Table 7-P: Conversion of Vehicle-Trip Ends to Person-Trip Ends

Land Use	Table 7-P (D): Entering Trips			Table 7-P (O): Exiting Trips		
	Veh. Occ.	Vehicle-Trips	Person-Trips*	Veh. Occ.	Vehicle-Trips	Person-Trips*
Office	1.00	115	115	1.00	295	295
Retail	1.00	30	30	1.00	32	32
Restaurant	1.00	0	0	1.00	0	0
Cinema/Entertainment	1.00	315	315	1.00	244	244
Residential	1.00	0	0	1.00	0	0
Hotel	1.00	0	0	1.00	0	0

Table 8-P (O): Internal Person-Trip Origin-Destination Matrix (Computed at Origin)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		59	12	0	6	0
Retail	1		9	1	8	2
Restaurant	0	0		0	0	0
Cinema/Entertainment	5	51	76		20	5
Residential	0	0	0	0		0
Hotel	0	0	0	0	0	

Table 8-P (D): Internal Person-Trip Origin-Destination Matrix (Computed at Destination)

Origin (From)	Destination (To)					
	Office	Retail	Restaurant	Cinema/Entertainment	Residential	Hotel
Office		2	0	3	0	0
Retail	36		0	82	0	0
Restaurant	35	15		101	0	0
Cinema/Entertainment	7	1	0		0	0
Residential	66	3	0	0		0
Hotel	0	1	0	0	0	

Table 9-P (D): Internal and External Trips Summary (Entering Trips)

Destination Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	6	109	115	109	0	0
Retail	3	27	30	27	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	1	314	315	314	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

Table 9-P (O): Internal and External Trips Summary (Exiting Trips)

Origin Land Use	Person-Trip Estimates			External Trips by Mode*		
	Internal	External	Total	Vehicles[1]	Transit[2]	Non-Motorized[2]
Office	2	293	295	293	0	0
Retail	2	30	32	30	0	0
Restaurant	0	0	0	0	0	0
Cinema/Entertainment	6	238	244	238	0	0
Residential	0	0	0	0	0	0
Hotel	0	0	0	0	0	0
All Other Land Uses[3]	0	0	0	0	0	0

[1]Vehicle-trips computed using the mode split and vehicle occupancy values provided in Table 2-P

[2]Person-Trips

[3]Total estimate for all other land uses at mixed-use development site is not subject to internal trip capture computations in this estimator

*Indicates computation that has been rounded to the nearest whole number.

APPENDIX G

ITE PARKING GENERATION EXCERPTS

Parking Generation Manual

5th Edition

JANUARY 2019

INSTITUTE OF TRANSPORTATION ENGINEERS

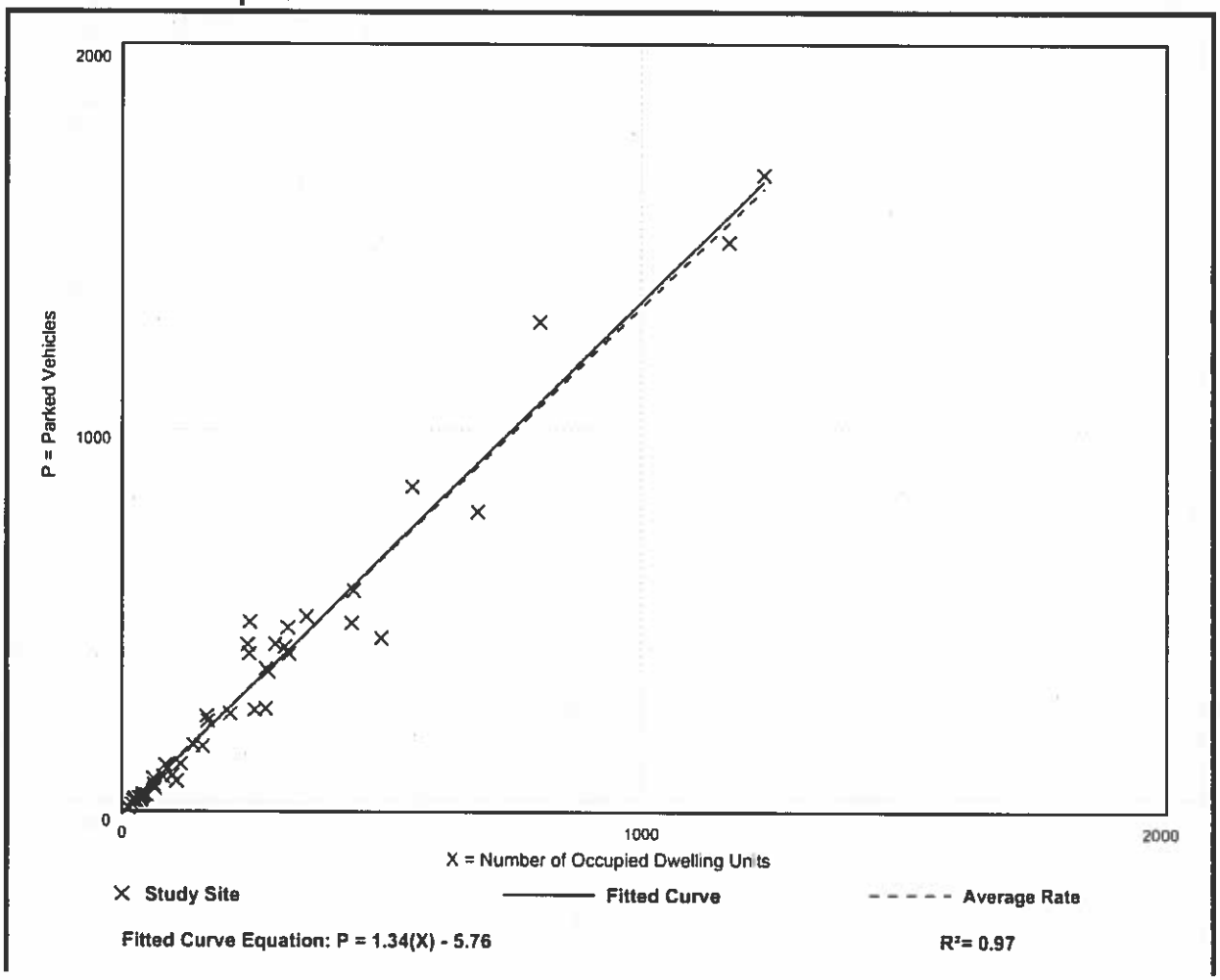
Multifamily Housing (Mid-Rise)
(221)

Peak Period Parking Demand vs: Occupied Dwelling Units
On a: Weekday (Monday - Friday)
Setting/Location: General Urban/Suburban (no nearby rail transit)
Peak Period of Parking Demand: 10:00 p.m. - 5:00 a.m.
Number of Studies: 48
Avg. Num. of Occupied Dwelling Units: 234

Peak Period Parking Demand per Occupied Dwelling Unit

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
1.32	0.75 - 2.03	1.04 / 1.51	1.25 - 1.39	0.24 (18%)

Data Plot and Equation



Shopping Center - Non-December (820)

Peak Period Parking Demand vs: 1000 Sq. Ft. GLA

On a: Saturday

Setting/Location: General Urban/Suburban

Peak Period of Parking Demand: 11:00 a.m. - 5:00 p.m.

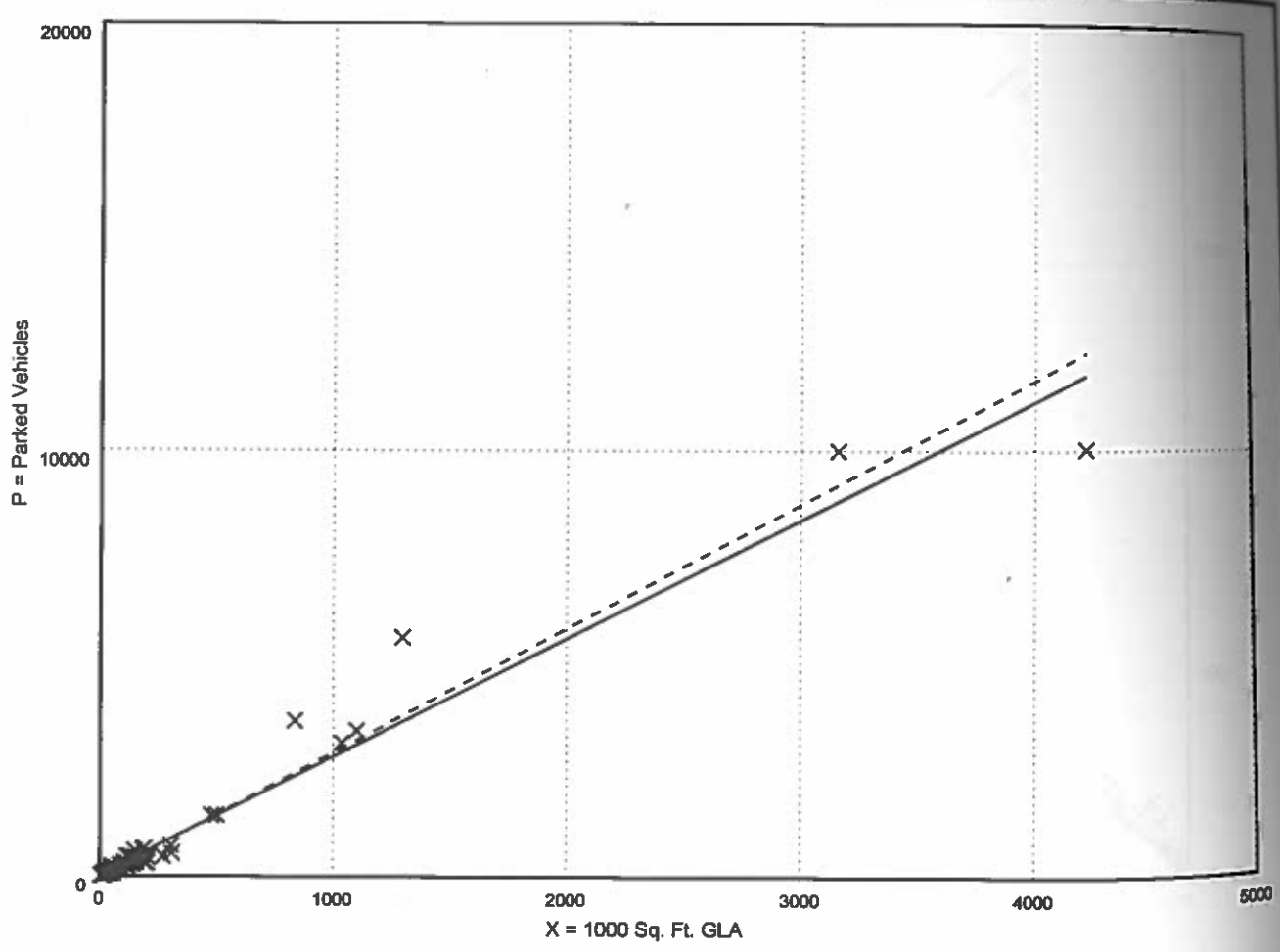
Number of Studies: 58

Avg. 1000 Sq. Ft. GLA: 313

Peak Period Parking Demand per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	33rd / 85th Percentile	95% Confidence Interval	Standard Deviation (Coeff. of Variation)
2.91	1.15 - 4.72	2.27 / 3.74	2.72 - 3.10	0.74 (25%)

Data Plot and Equation



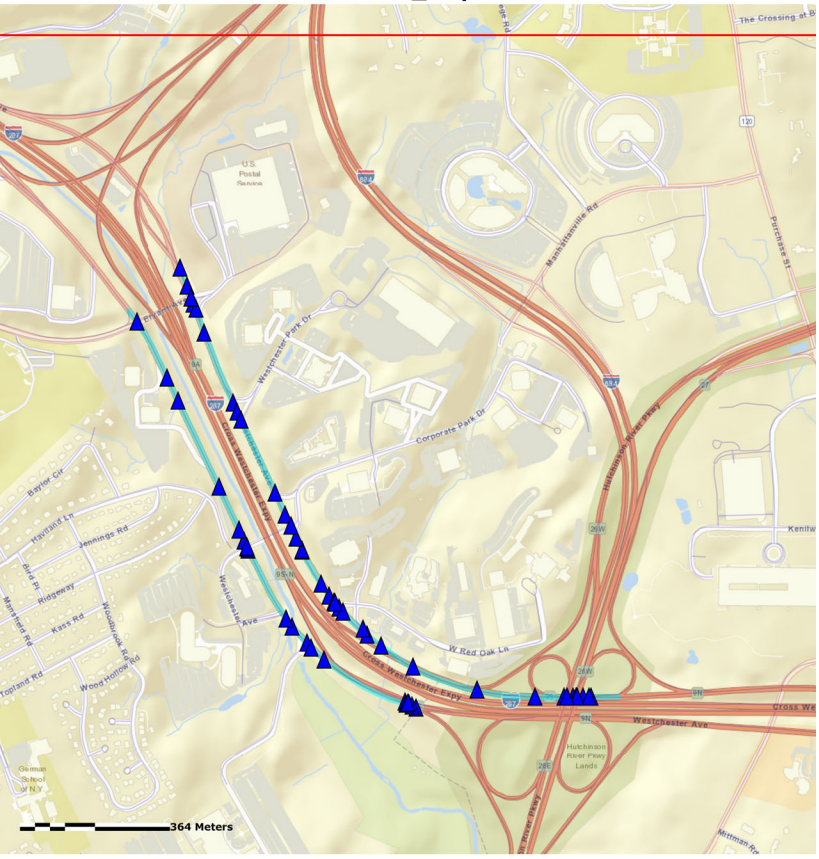
× Study Site ——— Fitted Curve - - - - - Average Rate

Fitted Curve Equation: P = 2.78(X) + 39.26 **R^2= 0.95**

APPENDIX H

ACCIDENT DATA

16074_map



Legend

Railroad

Accident Location Information System(ALIS)

Date: 6/10/2019
10:55:59 AM

Accident Verbal Description

16074_VDR

Date in this report covers the period - 1/1/2016-12/31/2018

Complete Accident data from NYSDMV is only available thru 12/31/2018 12:00:00 AM

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY

1/2/2016 Sat 17:24 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36035194**
Accident Class: NON-REPORTABLE Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 72 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: BRYANT AVE
AT INTERSECTION WITH WESTCHESTER AVE

1/4/2016 Mon 18:54 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36036837**
Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration: NY
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, UNSAFE LANE CHANGE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3162 State of Registration: NY
Num of Occupants: 1 Driver's Age: 27 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
47 Meters East of Ramp

1/6/2016 Wed 17:20 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36041208**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3702 State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3455 State of Registration: NY
Num of Occupants: 3 Driver's Age: 45 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: GANNETT DR
AT INTERSECTION WITH WESTCHESTER AVE

1/18/2016 Mon 19:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36077009**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 17 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: NOT APPLICABLE, BACKING UNSAFELY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH CORPORATE PARK DR
1/30/2016 Sat 15:26 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36078609**
Accident Class: INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3710 State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 4 Driver's Age: 70 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: TURNING IMPROPER, UNSAFE LANE CHANGE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH W RED OAK LN
2/5/2016 Fri 17:11 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36083538**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: WET Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 51 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 2 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
2/16/2016 Tue 02:04 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36097390**
Accident Class: NON-REPORTABLE Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 1
Type Of Accident: COLLISION WITH SIGN POST Traffic Control: NONE

Manner of Collision: OTHER Weather: SLEET/HAIL/FREEZING RAIN
Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 37 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNSAFE SPEED, DRIVER INEXPERIENCE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
2/19/2016 Fri 08:22 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36101621**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 37 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: GLARE, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 59 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
15 Meters North of CORPORATE PARK DR
2/24/2016 Wed 12:34 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36107956**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, PAVEMENT SLIPPERY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 73 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
2/28/2016 Sun 09:17 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36118019**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 5 Driver's Age: 34 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 4 Driver's Age: 39 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
2/28/2016 Sun 10:45 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36118020**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 48 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
2/26/2016 Fri 14:15 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36121646**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 6 Driver's Age: 45 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :1 BUS Registered Weight: State of Registration: NY
Num of Occupants: 3 Driver's Age: 52 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
15 Meters West of W RED OAK LN
3/11/2016 Fri 12:54 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36136918**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 22 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 3 Driver's Age: 35 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, REACTION TO OTHER UNINVOLVED VEHICL

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE

3/4/2016 Fri 16:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36140665**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 1
Type Of Accident: COLLISION WITH CURBING Traffic Control: UNKNOWN
Manner of Collision: OTHER Weather: UNKNOWN
Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3060 State of Registration: NY
Num of Occupants: 1 Driver's Age: 56 Sex: M Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: OTHER
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE

3/30/2016 Wed 17:18 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36156466**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 48 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 22 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
30 Meters North of CORPORATE PARK DR

4/1/2016 Fri 18:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36156765**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 63 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
4/10/2016 Sun 20:38 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36166774**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: WHITE PLAINS CITY PD Num of Veh: 1
Type Of Accident: COLLISION WITH GUIDERAIL - END Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4631 State of Registration: NY
Num of Occupants: 1 Driver's Age: 64 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
4/2/2016 Sat 21:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36179359**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: UNKNOWN
Manner of Collision: REAR END Weather: UNKNOWN
Road Surface Condition: UNKNOWN Road Char.: UNKNOWN Light Condition: UNKNOWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4743 State of Registration: NY
Num of Occupants: 2 Driver's Age: 29 Sex: M Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 OTHER Registered Weight: State of Registration: NY
Num of Occupants: 4 Driver's Age: 39 Sex: M Citation Issued: N
Direction of Travel: UNKNOWN Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: UNKNOWN
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH Ramp
4/29/2016 Fri 08:27 AM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2016-36188113**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3362 State of Registration: NY
Num of Occupants: 1 Driver's Age: 36 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: USING ON BOARD NAVIGATION DEVICE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3266 State of Registration: NY
Num of Occupants: 1 Driver's Age: 41 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
30 Meters South of RED OAK LN
5/18/2016 Wed 12:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36213683**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: PA
Num of Occupants: 1 Driver's Age: 39 Sex: M Citation Issued: Y
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: UNSAFE LANE CHANGE, TRAFFIC CONTROL DEVICES DISREGARDED

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: DE
Num of Occupants: 1 Driver's Age: 76 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH RED OAK LN
5/31/2016 Tue 17:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36233983**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3115 State of Registration: NY
Num of Occupants: 1 Driver's Age: 24 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: CHANGING LANES
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2799 State of Registration: NY
Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH RED OAK LN
5/31/2016 Tue 18:25 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: AC **Case: 2016-36233985**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4101 State of Registration: NY
Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3640 State of Registration: NY
Num of Occupants: 1 Driver's Age: 91 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNSAFE SPEED, FOLLOWING TOO CLOSELY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: RAMP
14 Meters West of Westchester Ave
5/30/2016 Mon 21:09 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36238776**
Accident Class: INJURY Police Agency: NYSP THRUWAY TARRYTOWN Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 4 Driver's Age: 46 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: MA

Num of Occupants: 2 Driver's Age: 24 Sex: M Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE

6/3/2016 Fri 14:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36242294**

Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: CLOUDY

Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3842 State of Registration: NY

Num of Occupants: 1 Driver's Age: 28 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3195 State of Registration: NY

Num of Occupants: 2 Driver's Age: 18 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: CHANGING LANES

Apparent Factors: DRIVER INEXPERIENCE, UNSAFE LANE CHANGE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE

6/7/2016 Tue 17:45 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36246180**

Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: MA

Num of Occupants: 3 Driver's Age: 30 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: TX
Num of Occupants: 2 Driver's Age: 30 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
6/24/2016 Fri 14:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36272952**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 25 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: CHANGING LANES
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
6/28/2016 Tue 12:30 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36277980**
Accident Class: INJURY Police Agency: HARRISON TOWN PD Num of Veh: 1
Type Of Accident: OVERTURNED Traffic Control: YIELD SIGN
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: GA
Num of Occupants: 2 Driver's Age: 32 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: UNSAFE SPEED, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY
15 Meters South of Ramp
7/7/2016 Thu 19:46 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36287791**
Accident Class: PROPERTY DAMAGE Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 1
Type Of Accident: COLLISION WITH GUIDE RAIL Traffic Control: NONE
Manner of Collision: OTHER Weather: CLOUDY

Road Surface Condition: WET Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2687 State of Registration: NY
Num of Occupants: 1 Driver's Age: 18 Sex: F Citation Issued: Y
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNSAFE SPEED, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
8/3/2016 Wed 13:37 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36327406**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 20 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
8/8/2016 Mon 17:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36335515**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 59 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 56 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
15 Meters South of W RED OAK LN

10/11/2016 Tue 21:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36420508**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4365 State of Registration: NY
Num of Occupants: 2 Driver's Age: 17 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: CHANGING LANES
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3390 State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY
32 Meters South of Ramp

9/26/2016 Mon 16:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36421500**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: UNKNOWN Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2747 State of Registration: NY
Num of Occupants: 1 Driver's Age: 88 Sex: F Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 OTHER Registered Weight: State of Registration: -3
Num of Occupants: 0 Driver's Age: Sex: Citation Issued:
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
10/16/2016 Sun 11:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36425348**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3877 State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 3 Driver's Age: 47 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: CHANGING LANES
Apparent Factors: UNSAFE LANE CHANGE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
20 Meters West of Ramp
10/20/2016 Thu 09:25 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36435973**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: UNKNOWN Action of Ped/Bicycle: UNKNOWN

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 46 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: Y
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INEXPERIENCE, FAILURE TO YIELD RIGHT OF WAY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH CORPORATE PARK DR
10/21/2016 Fri 18:15 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36435977**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE
Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END
Weather: CLOUDY
Road Surface Condition: WET
Road Char.: STRAIGHT AND LEVEL
Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE
Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP
Registered Weight: 2348
State of Registration: NY
Num of Occupants: 1
Driver's Age: 40
Sex: M
Citation Issued: N
Direction of Travel: WEST
Public Property Damage: OTHER
School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP
Registered Weight: 2752
State of Registration: NY
Num of Occupants: 1
Driver's Age: 24
Sex: M
Citation Issued: N
Direction of Travel: WEST
Public Property Damage: OTHER
School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY
32 Meters South of Ramp

10/24/2016 Mon 05:20 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36441421**
Accident Class: PROPERTY DAMAGE
Police Agency: PD WESTCHESTER COUNTY DPS
Num of Veh: 1
Type Of Accident: COLL. W/EARTH ELE./ROCK CUT/DITCH
Traffic Control: NONE
Manner of Collision: OTHER
Weather: CLOUDY
Road Surface Condition: WET
Road Char.: CURVE AND LEVEL
Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE
Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP
Registered Weight: 2657
State of Registration: NY
Num of Occupants: 1
Driver's Age: 33
Sex: M
Citation Issued: N
Direction of Travel: SOUTH-WEST
Public Property Damage: OTHER
School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, UNSAFE SPEED

County: Westchester Muni: Harrison(V) Ref. Marker: Street: CORPORATE PARK DR
AT INTERSECTION WITH WESTCHESTER AVE

11/17/2016 Thu 13:41 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36477110**
Accident Class: NON-REPORTABLE
Police Agency: HARRISON TOWN PD
Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE
Traffic Control: TRAFFIC SIGNAL
Manner of Collision: SIDESWIPE
Weather: CLEAR
Road Surface Condition: DRY
Road Char.: STRAIGHT AND LEVEL
Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE
Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP
Registered Weight:
State of Registration: NY
Num of Occupants: 3
Driver's Age: 31
Sex: M
Citation Issued: N
Direction of Travel: SOUTH
Public Property Damage: OTHER
School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 37 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
11/22/2016 Tue 18:02 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36486368**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 55 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 45 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
12/5/2016 Mon 11:19 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36507619**
Accident Class: PROPERTY DAMAGE Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 1
Type Of Accident: COLL. W/LIGHT SUPPORT/UTILITY POLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3481 State of Registration: NY
Num of Occupants: 1 Driver's Age: 88 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: TURNING IMPROPER, PAVEMENT SLIPPERY

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY
32 Meters South of Ramp
11/19/2016 Sat 16:10 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36516023**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3250 State of Registration: NY
Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2950 State of Registration: NY
Num of Occupants: 1 Driver's Age: 18 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, GLARE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
12/8/2016 Thu 10:15 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36522297**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 2 Driver's Age: 34 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
40 Meters South of Ramp
12/20/2016 Tue 15:56 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36534163**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2693 State of Registration: NY
Num of Occupants: 1 Driver's Age: 63 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NH
Num of Occupants: 1 Driver's Age: 20 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
159 Meters North of Westchester Ln
12/21/2016 Wed 20:34 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2016-36534165**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4191 State of Registration: NY
Num of Occupants: 1 Driver's Age: 51 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2795 State of Registration: NY
Num of Occupants: 1 Driver's Age: 63 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
30 Meters South of RED OAK LN
12/14/2016 Wed 07:56 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36534167**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 59 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: CHANGING LANES

Apparent Factors: NOT APPLICABLE, UNSAFE LANE CHANGE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
215 Meters South of Bryant Ave

11/16/2016 Wed 01:54 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2016-36561129**

Accident Class: NON-REPORTABLE Police Agency: Num of Veh: 1

Type Of Accident: NOT ENTERED Traffic Control: NOT ENTERED

Manner of Collision: NOT ENTERED Weather: NOT ENTERED

Road Surface Condition: NOT ENTERED Road Char.: NOT ENTERED Light Condition: NOT ENTERED

Loc. of Ped/Bicycle: NOT ENTERED Action of Ped/Bicycle: NOT ENTERED

Veh :1 OTHER Registered Weight: State of Registration:

Num of Occupants: 0 Driver's Age: Sex: Citation Issued:

Direction of Travel: NOT ENTERED Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: NOT ENTERED

Apparent Factors: UNKNOWN, UNKNOWN

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH Westchester Ave

1/3/2017 Tue 10:10 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36563347**

Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: REAR END Weather: RAIN

Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 20 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: PAVEMENT SLIPPERY, REACTION TO OTHER UNINVOLVED VEHICL

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT

Num of Occupants: 1 Driver's Age: 19 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE

1/17/2017 Tue 09:25 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36576404**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 3 Driver's Age: 49 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: CHANGING LANES
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, PASSING OR LANE USAGE IMPROPERLY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
15 Meters South of BRYANT AVE

1/25/2017 Wed 23:47 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2017-36595987**
Accident Class: INJURY Police Agency: HARRISON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH PEDESTRIAN Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: PED/BICYCLIST NOT AT INTERSECTION Action of Ped/Bicycle: CROSSING/ NO SIGNAL OR CROSSWALK

Veh :1 CAR/VAN/PICKUP Registered Weight: 3325 State of Registration: NY
Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :2 PEDESTRIAN Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: N
Direction of Travel: NOT APPLICABLE Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: NOT APPLICABLE
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE

2/8/2017 Wed 06:43 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36598389**
Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: OTHER
Manner of Collision: RIGHT ANGLE Weather: CLOUDY

Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAWN
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4238 State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, TRAFFIC CONTROL DEVICES DISREGARDED

Veh :2 CAR/VAN/PICKUP Registered Weight: 4860 State of Registration: NY
Num of Occupants: 1 Driver's Age: 36 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
30 Meters South of BRYANT AVE
2/20/2017 Mon 09:00 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2017-36612598**
Accident Class: INJURY Police Agency: HARRISON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH GUIDE RAIL Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 47 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
3/9/2017 Thu 07:15 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36637145**
Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4588 State of Registration: NY
Num of Occupants: 1 Driver's Age: 50 Sex: F Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2683 State of Registration: NY

Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE

3/3/2017 Fri 08:20 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36637777**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 BUS Registered Weight: 20 State of Registration: NY

Num of Occupants: 7 Driver's Age: 42 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 BUS Registered Weight: State of Registration: NY

Num of Occupants: 2 Driver's Age: 28 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MERGING

Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE

3/8/2017 Wed 17:57 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36652688**

Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DUSK

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 22 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MERGING

Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: BRYANT AVE
AT INTERSECTION WITH WESTCHESTER AVE
3/20/2017 Mon 08:50 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36655734**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3768 State of Registration: NY
Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :2 CAR/VAN/PICKUP Registered Weight: 3640 State of Registration: NY
Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT ENTERED, DRIVER INATTENTION

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
4/20/2017 Thu 17:11 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36694371**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: BACKING UNSAFELY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 39 Sex: F Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH CORPORATE PARK DR
4/28/2017 Fri 12:44 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36706304**

Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4997 State of Registration: NY
Num of Occupants: 1 Driver's Age: 44 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3452 State of Registration: NY
Num of Occupants: 3 Driver's Age: 41 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: CORPORATE PARK DR
AT INTERSECTION WITH WESTCHESTER AVE
4/28/2017 Fri 19:25 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: B **Case: 2017-36706306**
Accident Class: INJURY Police Agency: WHITE PLAINS CITY PD Num of Veh: 1
Type Of Accident: COLLISION WITH GUIDE RAIL Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3801 State of Registration: NY
Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: UNKNOWN, OUTSIDE CAR DISTRACTION

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
4/3/2017 Mon 17:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36709567**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 41 Sex: F Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
4/26/2017 Wed 12:03 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36709577**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: HEAD ON Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4317 State of Registration: NY
Num of Occupants: 1 Driver's Age: 42 Sex: F Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: TURNING IMPROPER, OUTSIDE CAR DISTRACTION

Veh :2 CAR/VAN/PICKUP Registered Weight: 3418 State of Registration: NY
Num of Occupants: 1 Driver's Age: 56 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
4/24/2017 Mon 15:35 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36709579**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 BUS Registered Weight: State of Registration: NY
Num of Occupants: 5 Driver's Age: 52 Sex: M Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3165 State of Registration: NY
Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: Y
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street:
5/4/2017 Thu 09:45 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36712476**
Accident Class: PROPERTY DAMAGE Police Agency: NYSP THRUWAY TARRYTOWN Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4871 State of Registration: NY
Num of Occupants: 1 Driver's Age: 43 Sex: F Citation Issued: Y
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 47 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
21 Meters North of Gannett Dr
5/5/2017 Fri 17:30 PM Persons Killed: 0 Persons Injured: 4 Extent of Injuries: BCCC **Case: 2017-36720850**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4850 State of Registration: NY
Num of Occupants: 4 Driver's Age: 45 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2820 State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH CORPORATE PARK DR

5/8/2017 Mon 07:52 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36726979**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 48 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: CHANGING LANES
Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE

5/20/2017 Sat 19:57 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36739700**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 5 Driver's Age: 19 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH Westchester Ln

6/1/2017 Thu 17:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36752106**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 25 Sex: F Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 52 Sex: M Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: CHANGING LANES
Apparent Factors: NOT APPLICABLE, PASSING OR LANE USAGE IMPROPERLY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
6/2/2017 Fri 21:53 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2017-36752107**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: 4438 State of Registration: NY
Num of Occupants: 1 Driver's Age: 49 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
29 Meters East of W Red Oak Ln
5/22/2017 Mon 14:13 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36755164**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 1
Type Of Accident: RAN OFF ROAD ONLY Traffic Control: NONE
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 28 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
39 Meters East of Ramp

6/1/2017 Thu 10:25 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36756155**
Accident Class: INJURY Police Agency: HARRISON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH OTHER BARRIER Traffic Control: YIELD SIGN
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 MOTORCYCLE Registered Weight: 465 State of Registration: NY
Num of Occupants: 1 Driver's Age: 28 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: OBSTRUCTION/DEBRIS, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
30 Meters South of CORPORATE PARK DR

6/8/2017 Thu 17:15 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36761115**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 55 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE

6/13/2017 Tue 17:20 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36772769**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3452 State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: F Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4743 State of Registration: NY
Num of Occupants: 5 Driver's Age: 48 Sex: F Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH WESTCHESTER LN
6/14/2017 Wed 09:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36772777**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4372 State of Registration: NY
Num of Occupants: 1 Driver's Age: 69 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2985 State of Registration: NY
Num of Occupants: 1 Driver's Age: 53 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
46 Meters North of WESTCHESTER LN
6/22/2017 Thu 18:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36780942**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 70 Sex: M Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STARTING IN TRAFFIC

Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: BRYANT AVE
AT INTERSECTION WITH WESTCHESTER AVE

7/6/2017 Thu 08:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36796455**

Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLOUDY

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4160 State of Registration: NY

Num of Occupants: 1 Driver's Age: 61 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING LEFT TURN

Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, NOT APPLICABLE

Veh :1 TRUCK Registered Weight: 25995 State of Registration: NY

Num of Occupants: 1 Driver's Age: 22 Sex: M Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
63 Meters West of Ramp

6/26/2017 Mon 23:31 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36796584**

Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 1

Type Of Accident: COLLISION WITH TREE Traffic Control: NONE

Manner of Collision: OTHER Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2374 State of Registration: NY

Num of Occupants: 2 Driver's Age: 22 Sex: M Citation Issued: N

Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING RIGHT TURN

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: RAMP
AT INTERSECTION WITH Westchester Ave
7/9/2017 Sun 18:06 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36806812**
Accident Class: PROPERTY DAMAGE Police Agency: NYSP THRUWAY TARRYTOWN Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3501 State of Registration: NY
Num of Occupants: 5 Driver's Age: 42 Sex: F Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2290 State of Registration: NY
Num of Occupants: 1 Driver's Age: 81 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: CORPORATE PARK DR
AT INTERSECTION WITH WESTCHESTER AVE
7/20/2017 Thu 14:22 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36816195**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 33 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 32 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH N WESTCHESTER AVE
7/16/2017 Sun 23:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36816312**

Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 8 Driver's Age: 79 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: DRIVER INEXPERIENCE, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: Y
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: DRIVER INEXPERIENCE, FOLLOWING TOO CLOSELY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
28 Meters South of Ramp
8/14/2017 Mon 17:23 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36851088**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: Sex: U Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
30 Meters South of BRYANT AVE
9/15/2017 Fri 13:47 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36896461**
Accident Class: INJURY Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3706 State of Registration: NY
Num of Occupants: 1 Driver's Age: 54 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4123 State of Registration: NY
Num of Occupants: 1 Driver's Age: 78 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, FAILURE TO YIELD RIGHT OF WAY

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
152 Meters South of BRYANT AVE
9/20/2017 Wed 03:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36898893**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 TRUCK Registered Weight: State of Registration: IN
Num of Occupants: 2 Driver's Age: Sex: Citation Issued:
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: PARKED
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 TRUCK Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 61 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, REACTION TO OTHER UNINVOLVED VEHICL

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
9/27/2017 Wed 08:32 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36907499**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 2 Driver's Age: 63 Sex: M Citation Issued: N

Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MERGING

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N

Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: RAMP
25 Meters West of Westchester Ave

10/20/2017 Fri 11:45 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-36949640**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: NYSP THRUWAY TARRYTOWN Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5429 State of Registration: NY

Num of Occupants: 1 Driver's Age: 59 Sex: M Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ

Num of Occupants: 1 Driver's Age: 37 Sex: F Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE

10/25/2017 Wed 07:34 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36950166**

Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: RIGHT ANGLE Weather: CLEAR

Road Surface Condition: WET Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4357 State of Registration: NY

Num of Occupants: 1 Driver's Age: 48 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: TRAFFIC CONTROL DEVICES DISREGARDED, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 51 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
11/13/2017 Mon 15:41 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36980629**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4042 State of Registration: NY
Num of Occupants: 2 Driver's Age: 78 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: 7093 State of Registration: NY
Num of Occupants: 7 Driver's Age: 66 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
19 Meters West of Ramp
11/21/2017 Tue 17:31 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-36993844**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 59 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 TRUCK Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FAILURE TO YIELD RIGHT OF WAY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
30 Meters North of BRYANT AVE

11/21/2017 Tue 15:55 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-37011252**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 50 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :3 CAR/VAN/PICKUP Registered Weight: 5351 State of Registration: NY
Num of Occupants: 1 Driver's Age: 39 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 22 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE

12/7/2017 Thu 08:24 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-37020290**
Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3698 State of Registration: NY
Num of Occupants: 2 Driver's Age: 42 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2998 State of Registration: NY

Num of Occupants: 1 Driver's Age: 48 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MAKING RIGHT TURN ON RED

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: BRYANT AVE
AT INTERSECTION WITH WESTCHESTER AVE

12/9/2017 Sat 10:38 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-37026548**

Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: SNOW

Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 2747 State of Registration: NY

Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: PAVEMENT SLIPPERY, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3537 State of Registration: NY

Num of Occupants: 2 Driver's Age: 52 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: UNKNOWN, UNKNOWN

County: Westchester Muni: White Plains(C) Ref. Marker: Street: BRYANT AVE
AT INTERSECTION WITH WESTCHESTER AVE

12/9/2017 Sat 14:06 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2017-37026551**

Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: WHITE PLAINS CITY PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: REAR END Weather: SNOW

Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 17 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4060 State of Registration: NY

Num of Occupants: 1 Driver's Age: 28 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
23 Meters North of RED OAK LN
12/1/2017 Fri 17:40 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-37028533**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NH
Num of Occupants: 1 Driver's Age: 20 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4076 State of Registration: NY
Num of Occupants: 1 Driver's Age: 41 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: BRYANT AVE
AT INTERSECTION WITH WESTCHESTER AVE
12/15/2017 Fri 16:22 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-37039178**
Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: SNOW
Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3408 State of Registration: NY
Num of Occupants: 4 Driver's Age: 39 Sex: F Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4099 State of Registration: NY
Num of Occupants: 2 Driver's Age: 17 Sex: F Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: PAVEMENT SLIPPERY, UNKNOWN

County: Westchester Muni: White Plains(C) Ref. Marker: Street: BRYANT AVE
AT INTERSECTION WITH WESTCHESTER AVE

12/15/2017 Fri 17:22 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-37039181**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: SNOW
Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 5840 State of Registration: NY
Num of Occupants: 1 Driver's Age: 49 Sex: F Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3381 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: BRYANT AVE
AT INTERSECTION WITH WESTCHESTER AVE

12/15/2017 Fri 17:50 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-37039182**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: SNOW
Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 24 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 22 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH CORPORATE PARK DR

12/20/2017 Wed 19:46 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-37057257**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: LEFT TURN (WITH OTHER CAR) Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4120 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 40 Sex: F Citation Issued: N
Direction of Travel: SOUTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: VIEW OBSTRUCTED/LIMITED, TURNING IMPROPER

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
12/21/2017 Thu 14:32 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2017-37057265**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT TURN (WITH OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 71 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: TURNING IMPROPER, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NC
Num of Occupants: 1 Driver's Age: 41 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
1/10/2018 Wed 11:58 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37082290**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY

Num of Occupants: 1 Driver's Age: 46 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
1/11/2018 Thu 11:28 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37083518**
Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 9200 State of Registration: NY
Num of Occupants: 1 Driver's Age: 44 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :2 CAR/VAN/PICKUP Registered Weight: 3275 State of Registration: NY
Num of Occupants: 1 Driver's Age: 74 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
1/16/2018 Tue 18:01 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37092036**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 2 Driver's Age: 43 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
1/9/2018 Tue 09:55 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37105623**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3402 State of Registration: NY
Num of Occupants: 1 Driver's Age: 30 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, GLARE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3515 State of Registration: NY
Num of Occupants: 1 Driver's Age: 64 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT ENTERED, UNKNOWN

County: Westchester Muni: Harrison(V) Ref. Marker: Street: BRYANT AVE
AT INTERSECTION WITH WESTCHESTER AVE
1/15/2018 Mon 18:33 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37108366**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: HEAD ON Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 65 Sex: M Citation Issued: Y
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 52 Sex: F Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
1 Meters South of Ramp

1/25/2018 Thu 17:50 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37110104**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 53 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE

1/27/2018 Sat 02:45 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37113123**
Accident Class: NON-REPORTABLE Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 23 Sex: F Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 OTHER Registered Weight: State of Registration:
Num of Occupants: 1 Driver's Age: Sex: U Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
2 Meters North of Ramp
1/28/2018 Sun 10:30 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37113283**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 1
Type Of Accident: COLL. W/EARTH ELE./ROCK CUT/DITCH Traffic Control: YIELD SIGN
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: PAVEMENT SLIPPERY, TIRE FAILURE/INADEQUATE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
1/22/2018 Mon 19:12 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37115428**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 TRUCK Registered Weight: 25950 State of Registration: NY
Num of Occupants: 1 Driver's Age: 30 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3162 State of Registration: NY
Num of Occupants: 3 Driver's Age: 44 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
1/18/2018 Thu 08:35 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37120044**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AT HILLCREST Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3382 State of Registration: NY
Num of Occupants: 1 Driver's Age: 42 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: GLARE, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: 3920 State of Registration: NY
Num of Occupants: 2 Driver's Age: 55 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
1/30/2018 Tue 13:50 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37128781**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NM
Num of Occupants: 1 Driver's Age: 52 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Westchester Muni: White Plains(C) Ref. Marker: Street: EAGLE CT
AT INTERSECTION WITH WESTCHESTER AVE
2/9/2018 Fri 11:07 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37141032**
Accident Class: INJURY Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4217 State of Registration: NY
Num of Occupants: 2 Driver's Age: 43 Sex: M Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3284 State of Registration: NY
Num of Occupants: 1 Driver's Age: 44 Sex: M Citation Issued: N

Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
30 Meters North of WESTCHESTER AVE

2/16/2018 Fri 04:33 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37147045**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH OTHER FIXED OBJECT Traffic Control: NONE
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AT HILLCREST Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 TRUCK Registered Weight: State of Registration: IN
Num of Occupants: 1 Driver's Age: 36 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: UNKNOWN, DRIVER INATTENTION

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE

2/8/2018 Thu 16:55 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37160815**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 54 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3498 State of Registration: NY
Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE

2/27/2018 Tue 08:21 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37169698**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 42 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, VIEW OBSTRUCTED/LIMITED

Veh :1 BUS Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 73 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY
32 Meters South of Ramp
3/14/2018 Wed 12:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37187344**
Accident Class: PROPERTY DAMAGE Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT/ GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 47 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, UNKNOWN

Veh :2 CAR/VAN/PICKUP Registered Weight: 3845 State of Registration: NY
Num of Occupants: 1 Driver's Age: 20 Sex: M Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, UNKNOWN

County: Westchester Muni: White Plains(C) Ref. Marker: Street: CORPORATE PARK DR
AT INTERSECTION WITH WESTCHESTER AVE
3/4/2018 Sun 16:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37190062**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 34 Sex: M Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 46 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: BACKING UNSAFELY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
3/9/2018 Fri 14:55 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2018-37197628**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 BUS Registered Weight: State of Registration: CT
Num of Occupants: 23 Driver's Age: 59 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 3 Driver's Age: 37 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
3/19/2018 Mon 18:45 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37200280**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 60 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: GLARE, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 61 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
7 Meters East of Ramp
3/10/2018 Sat 22:05 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37201088**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3649 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: CHANGING LANES
Apparent Factors: UNSAFE LANE CHANGE, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: 4616 State of Registration: NY
Num of Occupants: 1 Driver's Age: 30 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :3 CAR/VAN/PICKUP Registered Weight: 3404 State of Registration: NY
Num of Occupants: 1 Driver's Age: 51 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street:
3/8/2018 Thu 10:42 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37207355**
Accident Class: PROPERTY DAMAGE Police Agency: NYSP THRUWAY TARRYTOWN Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 21 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: CHANGING LANES

Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: PA

Num of Occupants: 2 Driver's Age: 32 Sex: M Citation Issued: N

Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE

4/12/2018 Thu 15:20 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37238067**

Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN

Manner of Collision: REAR END Weather: CLOUDY

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT

Num of Occupants: 1 Driver's Age: 50 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STARTING IN TRAFFIC

Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :2 BUS Registered Weight: State of Registration: NY

Num of Occupants: 4 Driver's Age: 73 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE

4/13/2018 Fri 17:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37256033**

Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT

Num of Occupants: 1 Driver's Age: 22 Sex: F Citation Issued: N

Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ

Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: UNKNOWN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
29 Meters East of W Red Oak Ln
5/17/2018 Thu 10:00 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37300437**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 1
Type Of Accident: COLL. W/EARTH ELE./ROCK CUT/DITCH Traffic Control: YIELD SIGN
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: NOT APPLICABLE, PAVEMENT SLIPPERY

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY
15 Meters South of Ramp
6/1/2018 Fri 03:35 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37314963**
Accident Class: PROPERTY DAMAGE Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: RIGHT ANGLE Weather: RAIN
Road Surface Condition: WET Road Char.: CURVE AND GRADE Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: AZ
Num of Occupants: 1 Driver's Age: 31 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNSAFE SPEED, PAVEMENT SLIPPERY

Veh :2 CAR/VAN/PICKUP Registered Weight: 3880 State of Registration: NY
Num of Occupants: 2 Driver's Age: 59 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
12 Meters South of Unnamed Street
6/11/2018 Mon 10:26 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37328135**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: CLOUDY

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 30 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 OTHER Registered Weight: State of Registration: OK
Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: BACKING
Apparent Factors: BACKING UNSAFELY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
30 Meters South of RED OAK LN
6/25/2018 Mon 18:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37352990**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 1 Driver's Age: 52 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, OTHER (VEHICLE)

Veh :1 CAR/VAN/PICKUP Registered Weight: 3486 State of Registration: NY
Num of Occupants: 1 Driver's Age: 64 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
7/24/2018 Tue 12:26 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37419927**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT

Num of Occupants: 2 Driver's Age: 51 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: 4142 State of Registration: NY
Num of Occupants: 3 Driver's Age: 38 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MERGING
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
8/17/2018 Fri 12:38 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37440239**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 4
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :3 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :4 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 83 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 83 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE

8/20/2018 Mon 13:05 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37441999**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 4
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: RIGHT ANGLE Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: Y
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRUGS (ILLEGAL), NOT APPLICABLE

Veh :4 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: Y
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRUGS (ILLEGAL), NOT APPLICABLE

Veh :3 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
18 Meters South of Ramp

8/24/2018 Fri 16:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37454130**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 2 Driver's Age: 50 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: MERGING

Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NC
Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE
8/30/2018 Thu 15:13 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37459072**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 42 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FAILURE TO YIELD RIGHT OF WAY, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 53 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
5 Meters West of Ramp
9/12/2018 Wed 20:25 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37480706**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLOUDY
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: -3
Num of Occupants: 1 Driver's Age: Sex: Citation Issued:
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: CHANGING LANES
Apparent Factors: PASSING OR LANE USAGE IMPROPERLY, UNSAFE LANE CHANGE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3532 State of Registration: NY

Num of Occupants: 1 Driver's Age: 29 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY
9/22/2018 Sat 16:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37495829**
Accident Class: PROPERTY DAMAGE Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 3
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OTHER Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, REACTION TO OTHER UNINVOLVED VEHICL

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 27 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, UNKNOWN

Veh :3 CAR/VAN/PICKUP Registered Weight: State of Registration: FL
Num of Occupants: 1 Driver's Age: 59 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, UNKNOWN

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH Ramp
9/23/2018 Sun 20:57 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37496345**
Accident Class: PROPERTY DAMAGE Police Agency: NYSP THRUWAY TARRYTOWN Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2910 State of Registration: NY
Num of Occupants: 1 Driver's Age: 54 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: MA
Num of Occupants: 2 Driver's Age: 25 Sex: M Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, UNSAFE SPEED

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH Gannett Dr
9/14/2018 Fri 12:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37498696**
Accident Class: PROPERTY DAMAGE Police Agency: Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: WET Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4023 State of Registration: NY
Num of Occupants: 1 Driver's Age: 47 Sex: F Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN ON RED
Apparent Factors: NOT ENTERED, NOT ENTERED

Veh :1 CAR/VAN/PICKUP Registered Weight: 4098 State of Registration: NY
Num of Occupants: 1 Driver's Age: 38 Sex: F Citation Issued: N
Direction of Travel: NORTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN ON RED
Apparent Factors: NOT ENTERED, NOT ENTERED

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
23 Meters West of Ramp
10/12/2018 Fri 09:31 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37526434**
Accident Class: PROPERTY DAMAGE Police Agency: NYSP THRUWAY TARRYTOWN Num of Veh: 4
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OTHER Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND GRADE Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :3 CAR/VAN/PICKUP Registered Weight: 4548 State of Registration: NY
Num of Occupants: 1 Driver's Age: 34 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3272 State of Registration: NY
Num of Occupants: 1 Driver's Age: 20 Sex: F Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STARTING IN TRAFFIC

Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :4 CAR/VAN/PICKUP Registered Weight: 4545 State of Registration: NY
Num of Occupants: 1 Driver's Age: 58 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3355 State of Registration: NY
Num of Occupants: 1 Driver's Age: 53 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: RAMP
18 Meters West of Westchester Ave
10/16/2018 Tue 08:49 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37536531**
Accident Class: PROPERTY DAMAGE Police Agency: NYSP THRUWAY TARRYTOWN Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2952 State of Registration: NY
Num of Occupants: 1 Driver's Age: 68 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 3 Driver's Age: 46 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
4 Meters South of Westchester Ln
10/17/2018 Wed 09:45 AM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37537397**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: LEFT TURN (AGAINST OTHER CAR) Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: MD

Num of Occupants: 1 Driver's Age: 23 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 51 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH CORPORATE PARK DR
10/16/2018 Tue 17:06 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37537411**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 69 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: UNKNOWN, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
Direction of Travel: SOUTH-EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: DRIVER INATTENTION, UNKNOWN

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY
32 Meters South of Ramp
10/11/2018 Thu 21:02 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37537531**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 1
Type Of Accident: COLLISION WITH TREE Traffic Control: OTHER
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: CURVE AND LEVEL Light Condition: DARK-ROAD UNLIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4475 State of Registration: NY
Num of Occupants: 1 Driver's Age: 21 Sex: F Citation Issued: Y
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, UNSAFE SPEED

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
16 Meters East of Eagle Ct
10/17/2018 Wed 08:21 AM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37540211**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: SP THRUWAY NEW ROCHELLE Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 38 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3281 State of Registration: NY
Num of Occupants: 1 Driver's Age: 25 Sex: M Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: BRYANT AVE
AT INTERSECTION WITH WESTCHESTER AVE
10/23/2018 Tue 17:11 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37545105**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 29 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 40 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: REACTION TO OTHER UNINVOLVED VEHICL, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE

10/23/2018 Tue 17:43 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37549135**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: STOP SIGN
Manner of Collision: REAR END Weather: CLOUDY
Road Surface Condition: DRY Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3477 State of Registration: NY
Num of Occupants: 1 Driver's Age: 62 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, DRIVER INATTENTION

Veh :2 CAR/VAN/PICKUP Registered Weight: 3349 State of Registration: NY
Num of Occupants: 1 Driver's Age: 34 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
30 Meters South of CORPORATE PARK DR

10/29/2018 Mon 17:30 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37553617**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: YIELD SIGN
Manner of Collision: REAR END Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 55 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 54 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STARTING IN TRAFFIC
Apparent Factors: FOLLOWING TOO CLOSELY, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH W RED OAK LN

11/5/2018 Mon 17:31 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37569716**
Accident Class: NON-REPORTABLE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: OVERTAKING Weather: RAIN

Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 44 Sex: M Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING RIGHT TURN
Apparent Factors: TURNING IMPROPER, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 26 Sex: F Citation Issued: N
Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY
32 Meters South of Ramp
11/6/2018 Tue 14:11 PM Persons Killed: 0 Persons Injured: 2 Extent of Injuries: CC **Case: 2018-37571590**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 1
Type Of Accident: COLLISION WITH MEDIAN/BARRIER Traffic Control: YIELD SIGN
Manner of Collision: OTHER Weather: RAIN
Road Surface Condition: WET Road Char.: CURVE AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4335 State of Registration: NY
Num of Occupants: 3 Driver's Age: 30 Sex: F Citation Issued: Y
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: STEERING FAILURE, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH BRYANT AVE
11/8/2018 Thu 19:03 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37581356**
Accident Class: PROPERTY DAMAGE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OVERTAKING Weather: CLEAR
Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 45 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3795 State of Registration: NY

Num of Occupants: 1 Driver's Age: 22 Sex: M Citation Issued: N

Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, PASSING OR LANE USAGE IMPROPERLY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH CORPORATE PARK DR

11/15/2018 Thu 19:03 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37588671**

Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL

Manner of Collision: RIGHT ANGLE Weather: SNOW

Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD LIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2985 State of Registration: NY

Num of Occupants: 1 Driver's Age: 56 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: PAVEMENT SLIPPERY, DRIVER INATTENTION

Veh :1 CAR/VAN/PICKUP Registered Weight: 3496 State of Registration: NY

Num of Occupants: 1 Driver's Age: 35 Sex: F Citation Issued: N

Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: DRIVER INATTENTION, PAVEMENT SLIPPERY

County: Westchester Muni: Harrison(V) Ref. Marker: Street: WESTCHESTER AVE
58 Meters North of W RED OAK LN

11/20/2018 Tue 17:43 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37598867**

Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2

Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE

Manner of Collision: REAR END Weather: CLEAR

Road Surface Condition: DRY Road Char.: STRAIGHT AND LEVEL Light Condition: DARK-ROAD UNLIGHTED

Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 2825 State of Registration: NY

Num of Occupants: 1 Driver's Age: 27 Sex: F Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: STOPPED IN TRAFFIC

Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 3830 State of Registration: NY

Num of Occupants: 1 Driver's Age: 61 Sex: M Citation Issued: N

Direction of Travel: WEST Public Property Damage: OTHER School Bus Involved: OTHER

Pre-Accd Action: GOING STRAIGHT AHEAD

Apparent Factors: NOT APPLICABLE, FOLLOWING TOO CLOSELY

County: Westchester Muni: Harrison(V) Ref. Marker: 907W87025012 Street: HUTCHINSON RIVER PKWY
15 Meters South of Ramp

11/15/2018 Thu 16:00 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37607145**
Accident Class: PROPERTY DAMAGE Police Agency: PD WESTCHESTER COUNTY DPS Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: REAR END Weather: SLEET/HAIL/FREEZING RAIN
Road Surface Condition: SNOW/ICE Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 3640 State of Registration: NY
Num of Occupants: 1 Driver's Age: 31 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: PAVEMENT SLIPPERY, FOLLOWING TOO CLOSELY

Veh :1 CAR/VAN/PICKUP Registered Weight: 2998 State of Registration: NY
Num of Occupants: 1 Driver's Age: 37 Sex: F Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: SLOWED OR STOPPING
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: W RED OAK LN
AT INTERSECTION WITH WESTCHESTER AVE

11/26/2018 Mon 16:11 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37613312**
Accident Class: PROPERTY DAMAGE Police Agency: HARRISON TOWN PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: REAR END Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DUSK
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: CT
Num of Occupants: 1 Driver's Age: 22 Sex: F Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: FOLLOWING TOO CLOSELY, PAVEMENT SLIPPERY

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NJ
Num of Occupants: 2 Driver's Age: 62 Sex: M Citation Issued: N
Direction of Travel: NORTH-WEST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: STOPPED IN TRAFFIC
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

County: Westchester Muni: Harrison(V) Ref. Marker: Street: CORPORATE PARK DR
AT INTERSECTION WITH WESTCHESTER AVE

12/13/2018 Thu 12:46 PM Persons Killed: 0 Persons Injured: 1 Extent of Injuries: C **Case: 2018-37638554**
Accident Class: PROPERTY DAMAGE AND INJURY Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: NONE
Manner of Collision: HEAD ON Weather: SNOW
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: 4137 State of Registration: NY
Num of Occupants: 1 Driver's Age: 61 Sex: M Citation Issued: N
Direction of Travel: SOUTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: 4978 State of Registration: NY
Num of Occupants: 1 Driver's Age: 35 Sex: F Citation Issued: N
Direction of Travel: NORTH Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: MAKING LEFT TURN
Apparent Factors: PAVEMENT SLIPPERY, NOT APPLICABLE

County: Westchester Muni: White Plains(C) Ref. Marker: Street: WESTCHESTER AVE
AT INTERSECTION WITH CORPORATE PARK DR

12/31/2018 Mon 14:24 PM Persons Killed: 0 Persons Injured: 0 Extent of Injuries: **Case: 2018-37668816**
Accident Class: NON-REPORTABLE Police Agency: WHITE PLAINS CITY PD Num of Veh: 2
Type Of Accident: COLLISION WITH MOTOR VEHICLE Traffic Control: TRAFFIC SIGNAL
Manner of Collision: OVERTAKING Weather: RAIN
Road Surface Condition: WET Road Char.: STRAIGHT AND LEVEL Light Condition: DAYLIGHT
Loc. of Ped/Bicycle: NOT APPLICABLE Action of Ped/Bicycle: NOT APPLICABLE

Veh :2 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 1 Driver's Age: 35 Sex: M Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: GOING STRAIGHT AHEAD
Apparent Factors: NOT APPLICABLE, NOT APPLICABLE

Veh :1 CAR/VAN/PICKUP Registered Weight: State of Registration: NY
Num of Occupants: 3 Driver's Age: 41 Sex: F Citation Issued: N
Direction of Travel: EAST Public Property Damage: OTHER School Bus Involved: OTHER
Pre-Accd Action: CHANGING LANES
Apparent Factors: NOT APPLICABLE, VIEW OBSTRUCTED/LIMITED

APPENDIX I

NYSDOT CO MICROSCALE SCREENING PROGRAM "NEEDS ANALYSIS"

Section 9. Projects Needing Air Quality Analysis

The National Environmental Policy Act (NEPA) and the State Environmental Quality Review Act (SEQR) are the Federal and State acts, respectively, that require environmental review of actions that may affect the environment. NYSDOT projects are subject to these environmental review requirements. The NEPA requirements for Federal-Aid highway projects are codified in the Federal Highway Administration regulations 23 CFR Part 771. SEQR regulations are codified in 6NYCRR Part 617 and 17NYCRR Part 15.

Projects that require air quality analysis are often based on the environmental class of the project. Projects that are classified as categorically excluded, by their nature, are more likely not to require an air quality analysis. Projects that are classified as requiring environmental assessments or environmental impact statements often require an air quality analysis.

If the project does not meet any of the criteria below, either for a microscale or a mesoscale analysis, then a quantitative air quality analysis is not required. In this case, the air quality section of environmental document should include the following statement: **An air quality analysis is not necessary since this project will not increase traffic volumes, reduce source-receptor distances or change other existing conditions to such a degree as to jeopardize attainment of the National Ambient Air Quality Standards**.

The actual determination of whether a project requires an air quality analysis is based on the project's potential to significantly affect air quality.

A. Criteria For Determining Which Projects Require An Air Quality Analysis.

This section lists the specific criteria (and the assumptions used to determine the criteria) in determining the need for conducting an air quality analysis. The criteria are divided between microscale and mesoscale analyses.

i. Criteria for Projects Needing A Microscale Air Quality Analysis

Carbon Monoxide (CO) impacts are local; high concentrations are generally limited to within a relatively short distance of heavily traveled roadways. Consequently, it is appropriate to predict concentrations of CO on a localized or microscale basis.

Depending on the nature of the proposed project, a microscale air quality analysis may be required. The need for an analysis should be evaluated on any of the roadways in the project area or any other roadways affected by the project. Consultation with EAB is encouraged if departure from any of these criteria might be necessary to address project specific conditions.

The determination for a required microscale analysis is based on the consideration of various criteria. The outcome of the consideration of the criteria will establish the need for a microscale air quality analysis. The criteria are described below.

I-1. Level of Service (LOS) Screening

Intersections impacted by a project, with a build Estimated Time of Completion (ETC), ETC+10, and ETC+20 LOS of only A, B, or C, are generally excluded from microscale air quality analysis. The LOS levels are as defined by the Highway Capacity Manual (HCM). Regardless of the LOS, if there are potentially sensitive receptors, i.e. schools, hospitals, retirement communities, etc., the REC/RELM (Regional Environmental Contact/Regional Environmental-Landscape Manager) or EAB staff should be contacted to determine if a microscale analysis may be appropriate.

If there is no documented LOS information for an intersection or it can not be calculated due to over capacity traffic volumes, the intersection will be deemed to have a LOS of D or worse.

I-2. Capture Criteria Screening

Intersections and roadways impacted by the project and exhibiting ETC, ETC+10, or ETC+20 build LOS D, E, or F will be screened by the criteria below:

1) a 10 % or more reduction in the source-receptor distance (that is, the straight line distance between the edge of the travel lane closest to the receptor and that point of the receptor closest to the roadway);

2) a 10 % or more increase in traffic volume on affected roadways for ETC, ETC+10 or ETC+20;

3) a 10% or more increase in vehicle emissions for ETC, ETC+10 or ETC+20; Increases in vehicle emissions can be due to speed changes, changes in operating conditions (hot/cold starts), changes in vehicle mix, etc. Use the appropriate vehicle emission factor table provided in Attachment 1.1-E. to determine if this criterion is met. The emission factors for the project conditions associated with the no-build and build alternatives can be read from the table. To calculate the emission percentage change, the following formula should be used:

$$\%\ Change = \frac{EF_{build} - EF_{no\text{-}build}}{EF_{no\text{-}build}} \times 100,$$

where EF_{build} and $EF_{no\text{-}build}$ are the emission factors for the build and no-build conditions, respectively.

4) any increase in the number of queued lanes for ETC, ETC+10 or ETC+20; This criterion applies to intersections. Typical projects that may result in an increase in the number of queued lanes include intersection channelization projects and projects that install turn lanes at intersections. It is not expected that intersections in a build alternative controlled by stop signs will require an air quality analysis. If a particular stop sign situation may be appropriate for analysis, consultation with EAB is encouraged.

5) a 20% reduction in speed, when build estimated average speed is at 30 mph or less.

If the impacted intersection or roadway meets any one of the applicable criteria above, the use of the volume and emission factor chart is needed to do the volume threshold screening. If none of the criteria is met, the project does not need a microscale air quality analysis.

~~When a SIP intersection (an intersection analyzed in the CO SIP attainment demonstration) is located within ½ mile of the project, then a different set of criteria apply to those intersections. These criteria are:~~

~~1) a 5% or more reduction in the source-receptor distance (that is, the straight line distance between the edge of the travel lane closest to the receptor and that point of the receptor closest to the roadway);~~

~~2) a 5% or more increase in traffic volume on affected roadways for ETC, ETC+10 or ETC+20;~~

~~3) a 5% or more increase in vehicle emissions for ETC, ETC+10 or ETC+20; Increases in vehicle emissions can be due to speed changes, changes in operating conditions (hot/cold starts), changes in vehicle mix, etc. Use the appropriate vehicle emission factor table provided in Attachment 1.1-E to determine if this criteria is met. The emission factors for the project conditions associated with the no-build and build alternatives can be read from the table. To calculate the emission percentage change, the following formula should be used:~~

$$\cancel{\%\ Change = \frac{EF_{build} - EF_{no\text{-}build}}{EF_{no\text{-}build}} \times 100,}$$

~~where EF_{build} and $EF_{no\text{-}build}$ are the emission factors for the build and no-build conditions, respectively.~~

~~4) any increase in the number of queued lanes for ETC, ETC+10 or ETC+20; This criterion applies to intersections. Typical projects that may result in an increase in the number of queued lanes include intersection channelization projects and projects that install turn lanes at intersections. It is not expected that intersections in a build alternative controlled by stop signs will require an air quality analysis. If a particular stop sign situation may be appropriate for analysis, consultation with EAB is encouraged.~~

~~5) a 10% reduction in speed, when build estimated average speed is at 30 mph or less.~~

~~Intersections evaluated in the SIPs are listed in Table 2. Intersections within ½ mile of a SIP intersection are not subject to the volume threshold screening.~~

~~If the project does not meet any of the above criteria, a microscale air quality analysis is not required.~~

I-3. Volume Threshold Screening

If any of the criteria listed above are realized, then a traffic volume threshold should be considered to further determine the need for a microscale air quality analysis ~~(except for SIP intersections)~~. The vehicle threshold tables (Table 3a, Table 3b, Table 3c) tie the volume threshold with emission factors. The advantage of this approach is that emission factors determined by project area specific vehicle speed, thermal states, and emission control strategies are used in the determination of vehicle thresholds. A wind speed of 1 m/s and an atmospheric stability of E are assumed in the development of the tables. The thresholds establish traffic volumes below which a violation of the NAAQS for carbon monoxide is extremely unlikely. Therefore, projects whose ETC, ETC+10, and ETC+20 peak hour volume, or if unavailable, design hour volumes (see discussion in Section 10.C.iii.) are equal to or less than the applicable threshold do not need a microscale air quality analysis.

Table 3a applies to one-way free flow traffic conditions with no traffic signal involved. To find the volume threshold, the user should determine emission factors for the specific free flow site. The highest emission factor should be used for the site in finding the corresponding vehicle volume threshold. Since the emission factors given in the table are in 2.5 g/mi interval, the user should always use the upper bound value when the emission factor falls in between two emission factors. No microscale air quality analysis is necessary when the peak hour volume is under the threshold. The highest vehicle volume threshold given in the table is 8000 vph. When the peak hour traffic volume exceeds 8000 vph, analysis should be performed.

~~Table 2~~ ~~INTERSECTIONS ANALYZED IN CO SIP ATTAINMENT DEMONSTRATION~~

~~County~~	~~Intersection~~
~~Onondaga~~	~~1) East Adams Street and Almond Street~~ ~~2) Route 5, Route 92, and Lyndon Drive~~ ~~3) John Glenn Boulevard and Route 370~~ ~~4) Buckley Road and 7th North Street~~
~~New York~~	~~1) 9A & W57th St.~~ ~~2) 9A & 42nd St.~~ ~~3) Delancy & Allen Sts.~~ ~~4) 8th Ave. & 42nd St.~~ ~~5) 3rd Ave. & 57th St.~~ ~~6) 2nd Ave. & 36th St.~~ ~~7) 1st Ave. & 57th St.~~ ~~8) 10th Ave. & 57th St.~~ ~~9) Lincoln Center~~ ~~10) Herald Square~~ ~~11) 7th Ave. / Broadway & 45th St.~~ ~~12) Columbus Circle~~ ~~13) Third Ave. & 125th St.~~ ~~14) Alexander's Monitor - 59th Street between 3rd & Lexington Aves.~~ ~~15) Broadway Transit Monitor between Tillary & Johnson~~
~~Queens~~	~~1) Jackson & 49th Ave. / 11th St.~~ ~~2) Queens Blvd. & Crescent St.~~ ~~3) Queens Blvd. & Jackson Ave.~~ ~~4) Queens Blvd. & Van Dam / Thompson Sts.~~ ~~5) Hillside Ave. & Van Wyck~~ ~~6) Woodhaven Blvd. & Rockaway / Liberty Aves.~~
~~Kings~~	~~1) Flatbush Ave & Tillary St./and Johnson~~ ~~2) Flatbush, Atlantic & Fourth Aves.~~ ~~3) Adams & Tillary~~ ~~4) Linden Blvd. & Pennsylvania Ave.~~
~~Richmond~~	~~1) Hyland Blvd. & New Dorp Lane~~ ~~2) Victory Blvd. & Richmond Ave.~~
~~Bronx~~	~~1) Grand Concourse & 161st St.~~ ~~2) Bruckner Blvd. & Hunts Pt. Ave.~~
~~Nassau~~	~~1) Old Country Rd @ So. Oyster Bay Rd & Plainview Rd.~~ ~~2) Sunrise Hwy (Rt. 27) @ Central Ave. & Mill Rd.~~ ~~3) Old Country Rd @ Glen Cove Rd. & Clinton Rd.~~ ~~4) Hempstead Tpke (Rt 24) @ New Hyde Park Rd. & Franklin Ave.~~
~~Westchester~~	~~1) Central Park Ave. & Palmer Road/ Sprain Brook Parkway Ramps - Yonkers~~ ~~2) Route 1 (Huguenot St) and North Ave. - New Rochelle~~ ~~3) Ashburton Ave. & Yonkers Ave.~~ ~~4) Route 119 & Route 100A - White Plains~~

Similar to Table 3a, Table 3b applies to two-way free flow sites with no traffic signal involved. Vehicle volume thresholds in the table are volumes in any single direction. They are determined the same way as for one-way free flow sites. No microscale air quality analysis is needed for a peak hour directional traffic volume under the volume threshold. When the peak hour directional traffic volume exceeds 8000 vph, analysis should be performed.

Table 3c applies to signalized intersections. It requires both free-flow and queue link emission factors to determine volume thresholds. The volumes in the table represent the total number of vehicles of any single approach to the intersections. Similar to the instruction above, the user should first determine free flow and queue emission factors for each approach at the intersection. The highest free flow and queue emission factors should be used to determine the vehicle volume threshold. When the emission factors fall in between an interval, the upper bound emission factor should be used.

If the project does not meet the applicable volume threshold, no microscale air quality analysis is necessary even if any of the other criteria are met. In this case, the standard statement listed at the beginning of this Section will suffice to address the microscale air quality concerns.

I-4. Ranking and Selection of Sites to be Modeled

If, as a result of evaluation by these criteria, a large number of intersections are identified as potentially requiring analyses, the intersections should be ranked and prioritized. Only those most likely to experience an air quality impact need to be analyzed. To accomplish this prioritization: 1)analyze ~~all intersections related to SIP intersections as identified in Table 2; and 2) of~~ the intersections identified by any of the other criteria, identify and analyze the intersections with the three highest level of service and the three highest traffic volumes. If none of these intersections exhibit an exceedance of the CO standards, then a sufficient number of intersections have been analyzed. If an intersection experiences an exceedance of a CO standard after Level 2 analysis described in Section 10, then the next three highest level of service intersections and the next three intersections with the highest traffic volumes should be identified and analyzed. This iterative process should continue until the analysis shows no more exceedances with the newly analyzed intersections.

For free flow sites, the same ranking methodology applies.

This guidance determines the minimum number of intersections to be analyzed. The analysis should be representative of the project area. In addition to the guidance offered above, the analysis should ensure adequate geographic coverage.

Table 3a. Peak hour traffic volume thresholds for one-way free flow sites.

Emission Factor (g/mi)	Vehicle/Hour	Emission Factor (g/mi)	Vehicle/Hour
2.5	>8000	102.5	822
5.0	>8000	105.0	809
7.5	>8000	107.5	784
10.0	>8000	110.0	771
12.5	6745	112.5	746
15.0	5645	115.0	733
17.5	4845	117.5	720
20.0	4245	120.0	707
22.5	3745	122.5	688
25.0	3395	125.0	675
27.5	3095	127.5	662
30.0	2820	130.0	649
32.5	2620	132.5	636
35.0	2420	135.0	629
37.5	2270	137.5	616
40.0	2120	140.0	603
42.5	1995	142.5	590
45.0	1870	145.0	583
47.5	1782	147.5	570
50.0	1694	150.0	563
52.5	1619	152.5	550
55.0	1544	155.0	543
57.5	1469	157.5	536
60.0	1419	160.0	529
62.5	1356	162.5	522
65.0	1306	165.0	515
67.5	1256	167.5	502
70.0	1206	170.0	495
72.5	1168	172.5	488
75.0	1130	175.0	481
77.5	1092	177.5	474
80.0	1054	180.0	470
82.5	1029	182.5	463
85.0	991	185.0	456
87.5	966	187.5	449
90.0	941	190.0	445
92.5	916	192.5	438
95.0	891	195.0	434
97.5	866	197.5	427
100.0	847	200.0	423

Table 3b. Peak hour directional traffic volume thresholds for two-way free flow sites.

Emission Factor (g/mi)	Vehicle Volume	Emission Factor (g/mi)	Vehicle Volume
2.5	>8000	102.5	567
5.0	>8000	105.0	554
7.5	7795	107.5	541
10.0	5845	110.0	531
12.5	4670	112.5	518
15.0	3895	115.0	508
17.5	3345	117.5	495
20.0	2920	120.0	488
22.5	2595	122.5	475
25.0	2345	125.0	468
27.5	2120	127.5	455
30.0	1945	130.0	448
32.5	1795	132.5	438
35.0	1670	135.0	431
37.5	1557	137.5	424
40.0	1457	140.0	417
42.5	1369	142.5	410
45.0	1294	145.0	403
47.5	1231	147.5	396
50.0	1168	150.0	389
52.5	1111	152.5	382
55.0	1061	155.0	378
57.5	1017	157.5	371
60.0	973	160.0	364
62.5	935	162.5	357
65.0	897	165.0	353
67.5	865	167.5	349
70.0	833	170.0	343
72.5	808	172.5	337
75.0	776	175.0	333
77.5	751	177.5	329
80.0	732	180.0	325
82.5	707	182.5	318
85.0	688	185.0	316
87.5	669	187.5	310
90.0	650	190.0	308
92.5	631	192.5	302
95.0	615	195.0	300
97.5	599	197.5	296
100.0	586	200.0	292

Table 3C. PEAK HOUR TRAFFIC VOLUME THRESHOLDS AT ANY APPROACH FOR SIGNALIZED INTERSECTIONS

QUEUE EMISSION FACTOR (GRAMS/HOUR)

FREE FLOW EMISSION FACTOR GRAMS/MILE	100	110	120	130	140	150	160	170	180	190	200	210	220	230	240	250	260	270	280	290
2.5	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	3405
5.0	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	4000	3930	3670	3333	3157	2769	2593	2272	2042
7.5	4000	4000	4000	4000	4000	4000	3828	3742	3454	3298	3040	2900	2730	2570	2333	2182	1969	1893	1784	1642
10.0	3800	3727	3481	3379	3202	3101	2878	2845	2654	2498	2390	2250	2111	1970	1933	1832	1637	1543	1484	1442
12.5	3075	2927	2856	2679	2602	2501	2378	2279	2179	2048	2015	1850	1804	1720	1633	1557	1474	1418	1384	1329
15.0	2562	2427	2381	2279	2202	2094	2028	1929	1841	1773	1740	1675	1604	1507	1483	1410	1361	1318	1309	1291
17.5	2199	2142	2031	1979	1914	1869	1796	1729	1666	1623	1540	1500	1454	1407	1358	1310	1292	1280	1271	1253
20.0	1927	1892	1815	1754	1689	1669	1621	1604	1528	1498	1415	1371	1354	1322	1292	1285	1254	1248	1221	1178
22.5	1727	1710	1665	1613	1589	1556	1521	1454	1403	1373	1340	1296	1285	1272	1242	1216	1163	1148	1146	1084
25.0	1627	1585	1542	1513	1454	1431	1396	1366	1328	1298	1283	1258	1210	1172	1167	1097	1063	1041	1039	1009
27.5		1481	1429	1402	1354	1331	1296	1266	1228	1210	1183	1158	1110	1072	1067	1047	1000	953	951	934
30.0			1329	1302	1279	1256	1211	1166	1153	1116	1083	1070	1060	997	979	972	921	903	876	865
32.5				1202	1186	1181	1117	1116	1053	1041	1033	995	981	937	929	900	871	846	826	805
35.0					1101	1081	1067	1016	1003	966	958	945	912	887	869	843	833	789	785	755
37.5						1028	992	969	940	916	908	882	862	849	819	805	776	739	735	730
40.0							942	908	886	866	851	838	810	797	794	755	738	721	710	686
42.5								854	836	816	813	788	772	753	750	730	697	683	681	651
45.0									798	778	763	750	734	715	709	680	672	658	643	626
47.5										740	738	712	702	680	677	670	634	620	618	601
50.0											700	687	670	655	645	638	609	595	593	582
52.5												662	645	630	620	607	584	570	568	557
55.0													620	608	595	582	577	551	543	538
57.5														583	579	557	555	538	524	513
60.0															557	544	531	513	511	497
62.5																519	518	500	486	484
65.0																	493	490	486	459
67.5																		472	473	452
70.0																			455	452
72.5																				427
75.0																				
77.5																				
80.0																				
82.5																				
85.0																				
87.5																				
90.0																				
92.5																				
95.0																				
97.5																				
100.0																				
102.5																				
105.0																				
107.5																				
110.0																				
112.5																				
115.0																				
117.5																				
120.0																				
122.5																				
125.0																				
127.5																				
130.0																				
132.5																				
135.0																				
137.5																				
140.0																				
142.5																				
145.0																				
147.5																				
150.0																				
152.5																				
155.0																				
157.5																				
160.0																				
162.5																				
165.0																				
167.5																				
170.0																				
172.5																				
175.0																				
177.5																				
180.0																				
182.5																				
185.0																				
187.5																				
190.0																				
192.5																				
195.0																				
197.5																				
200.0																				

(Table 3c continued)

QUEUE EMISSION FACTOR (GRAMS/HOUR)

FREE FLOW EMISSIONS FACTOR GRAMS/MILE	300	310	320	330	340	350	360	370	380	390	400	410	420	430	440	450	460	470	480	490
2.5	2777	2400	1983	1770	1607	1492	1421	1387	1334	1308	1294	1274	1266	1254	1243	1227	1199	1149	1131	1092
5.0	1777	1721	1533	1470	1419	1367	1333	1312	1290	1276	1269	1255	1247	1229	1193	1177	1136	1111	1081	1042
7.5	1477	1421	1383	1357	1344	1310	1289	1274	1265	1251	1244	1205	1172	1154	1118	1077	1036	1023	981	942
10.0	1377	1346	1333	1307	1294	1272	1260	1249	1227	1201	1181	1130	1097	1079	1018	995	962	923	831	817
12.5	1311	1308	1283	1263	1250	1234	1210	1174	1152	1101	1081	1030	997	929	893	871	865	823	781	767
15.0	1273	1258	1245	1231	1225	1184	1135	1111	1052	1001	943	939	922	854	818	802	765	729	706	692
17.5	1235	1208	1151	1131	1075	1059	1035	986	952	926	880	839	809	797	768	727	715	679	656	629
20.0	1153	1108	1063	1031	1000	959	935	929	852	851	823	789	759	722	705	702	665	629	606	607
22.5	1028	1026	1013	931	900	890	885	832	827	776	755	751	734	690	655	639	627	616	581	569
25.0	953	925	925	881	850	815	800	782	748	726	705	688	671	652	630	614	577	566	556	550
27.5	903	875	841	837	800	765	750	728	698	679	676	650	621	616	598	589	564	541	518	512
30.0	853	815	791	771	762	727	700	678	667	629	624	618	589	578	564	551	539	518	493	487
32.5	796	765	766	721	708	702	675	653	617	616	599	580	564	553	526	524	514	493	478	474
35.0	746	740	716	689	661	658	650	615	604	578	567	555	535	531	501	499	485	480	453	449
37.5	699	696	691	664	636	616	615	590	566	553	534	534	510	499	488	470	460	453	446	440
40.0	661	652	653	626	611	584	578	577	541	528	509	509	497	474	467	445	447	428	425	421
42.5	636	615	615	601	586	559	553	544	534	509	493	484	471	461	441	440	434	415	400	400
45.0	611	590	581	576	567	546	528	514	512	509	468	471	446	445	441	427	415	402	387	387
47.5	579	565	556	549	542	521	509	489	487	480	455	452	439	423	416	414	394	392	374	374
50.0	554	547	531	524	520	507	496	476	462	461	455	439	426	410	400	401	381	374	367	361
52.5	529	522	524	505	495	488	471	469	449	440	436	426	407	398	387	381	374	361	354	354
55.0	525	503	499	480	476	470	464	456	436	420	420	419	407	385	374	368	364	361	340	340
57.5	506	490	480	467	455	451	451	440	423	407	402	400	382	372	364	355	348	342	327	325
60.0	487	465	480	457	442	435	432	427	410	394	385	385	382	359	351	351	335	334	327	318
62.5	474	462	455	439	429	419	419	414	397	387	372	370	369	359	338	338	322	320	314	318
65.0	455	449	444	426	416	403	403	401	390	380	372	357	354	346	331	328	322	313	307	305
67.5	439	430	431	426	406	390	388	385	377	367	347	357	342	342	331	328	315	300	297	297
70.0	426	420	418	401	393	390	375	374	370	360	347	344	330	329	318	315	302	296	287	286
72.5	413	407	405	394	379	377	375	361	360	353	340	337	323	319	314	315	298	289	287	279
75.0	400	394	392	387	379	367	362	349	347	340	327	337	323	308	307	306	298	282	274	279
77.5		383	379	374	366	354	355	342	337	333	320	324	310	298	297	297	285	275	267	266
80.0			370	361	353	344	343	342	327	326	318	314	304	291	289	287	285	271	263	260
82.5				357	349	334	333	329	317	316	311	310	297	291	280	280	278	271	256	256
85.0					342	334	325	322	309	306	304	303	297	278	272	272	271	258	249	249
87.5						321	325	314	309	299	294	290	284	278	265	264	264	258	245	242
90.0							312	305	296	291	290	286	280	272	265	260	257	251	245	239
92.5								297	296	283	281	282	276	272	252	260	250	247	245	239
95.0									283	276	274	275	269	259	252	247	243	243	232	232
97.5										269	267	266	262	259	245	247	237	236	232	232
100.0											262	261	258	252	244	240	233	230	225	225
102.5												254	252	248	240	238	233	224	223	221
105.0													248	244	240	238	226	220	219	217
107.5														237	227	231	226	214	213	210
110.0															227	224	213	210	209	210
112.5																224	213	206	204	204
115.0																	212	206	201	200
117.5																		206	196	196
120.0																			192	192
122.5																				188
125.0																				
127.5																				
130.0																				
132.5																				
135.0																				
137.5																				
140.0																				
142.5																				
145.0																				
147.5																				
150.0																				
152.5																				
155.0																				
157.5																				
160.0																				
162.5																				
165.0																				
167.5																				
170.0																				
172.5																				
175.0																				
177.5																				
180.0																				
182.5																				
185.0																				
187.5																				
190.0																				
192.5																				
195.0																				
197.5																				
200.0																				

(Table 3c continued)

QUEUE EMISSION FACTOR (GRAMS/HOUR)

FREE FLOW EMISSION FACTOR GRAMS/MILE	500	510	520	530	540	550	560	570	580	590	600	610	620	630	640	650	660	670	680	690
2.5	1053	1044	1000	969	859	796	747	693	640	549	483	456	422	370	343	316	288	259	257	248
5.0	1003	919	850	844	809	721	647	593	490	436	408	406	379	357	318	291	275	259	257	248
7.5	878	819	750	744	709	671	597	536	490	436	383	368	341	307	293	278	262	253	250	244
10.0	778	769	725	694	659	596	547	486	440	411	383	368	341	307	293	265	249	246	237	232
12.5	728	669	625	623	609	533	509	461	440	411	370	343	316	307	293	265	249	246	237	232
15.0	678	644	612	598	559	483	452	436	415	380	370	343	316	282	268	258	249	246	237	232
17.5	622	594	574	548	534	483	452	386	377	367	345	318	316	282	268	251	247	240	235	228
20.0	572	544	536	523	484	470	452	386	352	335	323	305	291	282	268	251	247	240	235	228
22.5	547	519	486	485	459	426	417	386	352	310	301	292	287	275	255	251	247	240	235	228
25.0	522	494	479	472	434	426	382	376	352	310	301	279	268	259	255	249	247	240	235	228
27.5	504	469	454	447	434	394	382	347	342	310	301	279	255	252	248	242	238	236	228	227
30.0	472	465	441	422	405	394	357	347	316	310	301	279	255	252	241	235	231	229	224	220
32.5	447	440	428	409	405	369	332	328	303	291	288	279	255	252	241	235	231	227	221	217
35.0	434	415	403	396	376	356	332	315	303	278	270	266	255	252	241	235	231	227	221	217
37.5	421	402	384	380	363	343	325	315	290	278	266	253	248	245	241	235	231	227	221	217
40.0	408	389	384	367	350	336	325	302	290	271	266	253	248	245	237	233	229	227	221	217
42.5	395	376	365	354	337	336	312	289	277	271	253	252	246	241	237	233	229	223	221	217
45.0	378	369	365	354	330	323	299	289	270	264	253	248	242	239	237	231	229	223	221	217
47.5	359	356	346	341	317	310	299	280	270	264	249	244	242	239	233	227	222	219	217	210
50.0	346	340	333	334	317	297	292	280	264	264	249	237	235	232	231	227	222	219	213	210
52.5	339	327	323	321	304	290	285	267	260	252	249	237	235	228	223	214	215	212	206	203
55.0	332	314	309	309	304	290	272	267	260	252	249	237	235	228	223	214	215	205	199	199
57.5	322	314	302	297	294	277	265	260	253	250	245	237	235	228	218	212	210	205	194	192
60.0	312	307	289	284	283	277	265	253	250	243	238	233	231	228	211	205	203	198	187	186
62.5	299	297	289	284	273	270	261	253	246	243	229	226	224	221	211	198	196	193	187	179
65.0	292	288	282	284	266	262	261	253	246	236	229	219	217	212	211	194	194	193	180	173
67.5	292	277	275	274	259	252	248	243	239	232	229	212	210	208	204	194	194	180	176	173
70.0	279	268	266	265	259	245	243	239	237	232	216	205	206	201	200	194	194	178	174	173
72.5	275	268	258	258	252	245	234	232	230	219	214	205	206	194	193	187	181	174	170	160
75.0	267	255	249	249	248	245	228	226	223	219	210	205	206	190	186	185	181	174	163	160
77.5	258	255	242	241	239	232	228	219	219	215	210	198	193	186	182	181	168	174	162	158
80.0	251	249	242	241	234	232	228	212	212	208	203	195	193	186	178	174	168	167	158	154
82.5	251	243	242	241	227	225	215	207	205	204	199	195	189	186	172	170	166	165	158	147
85.0	238	235	229	228	220	218	215	207	201	200	195	188	189	179	170	166	162	160	158	147
87.5	238	231	228	228	216	214	211	207	201	194	191	188	182	175	170	162	160	156	151	145
90.0	234	231	222	222	216	208	207	194	201	189	184	181	182	171	170	158	156	152	151	145
92.5	227	218	216	216	216	202	201	194	188	184	182	179	175	171	157	154	152	150	149	145
95.0	223	218	211	210	203	197	195	194	188	180	178	175	171	164	157	152	148	146	145	138
97.5	216	214	207	204	203	197	192	189	188	180	174	171	169	164	157	152	148	146	141	138
100.0	215	210	207	200	199	197	187	186	185	180	170	167	165	164	155	152	148	139	137	137
102.5	215	206	200	194	194	184	181	180	181	173	165	163	161	160	155	145	148	139	135	134
105.0	215	202	193	190	190	184	178	177	177	173	165	161	157	157	155	145	141	135	133	132
107.5	202	195	193	185	185	184	174	173	172	169	165	157	155	153	148	138	141	133	131	130
110.0	202	195	190	185	182	180	174	170	169	168	165	153	153	151	148	138	141	133	131	130
112.5	202	191	186	185	178	177	174	165	165	164	152	150	149	147	141	137	137	133	131	126
115.0	198	191	186	178	178	174	167	162	162	162	152	148	148	145	141	137	135	133	131	124
117.5	194	191	179	171	171	169	167	158	158	158	152	145	144	143	140	137	135	126	131	120
120.0	190	184	175	171	171	167	160	156	156	155	152	145	142	141	138	137	135	126	124	119
122.5	186	177	171	169	164	163	160	154	153	151	150	145	142	137	136	135	128	126	124	119
125.0	182	177	171	167	164	161	159	154	153	149	149	145	142	136	134	133	128	125	124	119
127.5		175	169	167	163	161	156	154	153	146	145	141	142	133	132	130	128	125	120	119
130.0			169	163	163	161	154	147	153	144	143	141	142	131	130	128	124	125	118	119
132.5				159	159	154	150	147	146	140	140	139	129	128	128	126	124	121	117	116
135.0					159	154	148	147	146	138	138	138	129	127	126	124	123	121	117	115
137.5						147	145	144	139	135	135	135	129	127	124	122	122	119	117	115
140.0							143	143	139	133	133	133	129	127	124	121	120	119	117	115
142.5								140	139	133	131	130	129	127	124	119	118	117	117	115
145.0									137	133	131	129	127	127	124	119	117	117	115	113
147.5										133	131	126	126	125	124	119	115	115	113	111
150.0											131	124	124	124	120	119	113	113	113	111
152.5												122	122	121	120	119	113	111	110	109
155.0													120	120	118	119	113	109	109	109
157.5														118	117	115	113	107	107	107
160.0															116	115	113	107	106	106
162.5																113	113	107	105	104
165.0																	109	107	105	103
167.5																		107	105	101
170.0																			105	101
172.5																				101
175.0																				
177.5																				
180.0																				
182.5																				
185.0																				
187.5																				
190.0																				
192.5																				
195.0																				
197.5																				
200.0																				

(Table 3c continued)

QUEUE EMISSION FACTOR (GRAMS/HOUR)

	700	710	720	730	740	750	760	770	780	790	800	810	820	830	840	850	860	870	880	890	900
2.5	242	236	230	228	223	218	216	210	206	205	201	200	196	195	191	189	187	185	182	179	164
5.0	242	236	230	228	223	218	216	210	206	205	201	200	196	195	191	189	187	178	175	166	151
7.5	238	232	226	221	216	214	209	206	202	201	197	196	192	191	189	187	180	165	162	153	146
10.0	229	225	222	219	214	210	207	206	202	201	197	196	192	191	189	187	167	158	155	153	139
12.5	229	223	219	217	212	208	207	202	198	197	195	192	188	184	182	177	167	158	155	140	137
15.0	229	223	219	217	212	208	207	202	198	197	195	192	188	184	182	177	154	151	148	140	137
17.5	225	223	219	217	212	208	207	202	198	197	195	192	188	184	182	177	154	151	148	133	130
20.0	225	223	219	210	208	204	200	198	196	195	195	186	184	171	169	165	154	151	148	133	130
22.5	225	223	219	210	208	204	200	198	196	195	188	179	171	165	165	158	147	147	141	133	130
25.0	225	223	219	210	208	204	200	198	196	195	181	179	171	152	152	149	147	140	134	132	130
27.5	225	223	219	210	208	204	200	198	189	188	181	172	164	152	152	136	137	135	134	128	123
30.0	217	216	212	208	207	204	200	185	182	175	174	165	157	149	145	136	137	126	127	124	123
32.5	213	210	208	204	203	200	198	185	175	175	167	158	150	149	141	136	137	126	127	117	115
35.0	213	209	206	202	199	197	191	185	175	175	160	151	146	147	141	132	130	126	127	117	115
37.5	213	209	206	202	199	197	191	178	175	168	160	147	146	140	134	132	126	124	120	117	115
40.0	213	209	206	202	192	192	191	178	165	161	160	147	139	136	130	129	126	124	116	115	115
42.5	213	209	206	191	185	185	181	171	165	157	153	147	139	132	129	129	122	120	116	113	111
45.0	213	209	199	191	178	178	171	171	165	157	146	140	139	132	129	122	122	117	115	113	111
47.5	213	205	199	191	174	172	171	161	155	157	146	140	135	132	129	120	116	117	115	113	109
50.0	199	198	192	178	174	172	158	155	153	150	146	136	133	128	129	120	116	117	111	110	109
F 52.5	199	191	185	178	174	172	156	155	146	143	139	136	133	126	122	120	116	117	111	106	105
R 55.0	186	191	180	174	167	172	156	148	141	139	139	136	133	122	120	120	116	117	111	106	105
E 57.5	186	184	173	170	167	162	156	142	141	139	134	132	133	122	119	116	115	113	111	106	105
E 60.0	182	180	173	164	161	158	156	142	141	132	129	128	126	122	119	116	115	111	111	106	105
62.5	175	173	166	160	157	158	149	142	134	128	129	124	123	122	119	116	115	111	107	106	105
F 65.0	171	169	166	160	150	151	145	142	134	126	125	124	123	118	118	116	115	111	107	104	102
L 67.5	165	165	162	153	148	144	143	135	134	126	125	120	116	116	114	114	111	111	107	104	101
O 70.0	159	159	155	153	148	144	139	135	134	126	125	118	116	116	111	110	110	107	107	104	101
W 72.5	155	155	151	149	148	144	135	133	130	126	125	118	114	112	111	107	106	106	105	104	101
75.0	155	155	149	145	143	137	132	132	128	126	125	118	114	110	109	107	105	104	103	102	101
E 77.5	155	155	144	141	143	137	130	128	126	124	118	118	114	110	109	107	105	104	103	100	99
M 80.0	148	142	139	138	136	134	130	128	123	122	118	118	114	110	109	107	105	102	101	100	97
I 82.5	147	142	139	135	135	132	130	128	123	118	117	114	114	110	109	107	105	102	99	98	97
S 85.0	147	142	139	135	131	128	128	121	123	116	115	113	112	110	109	107	105	102	99	96	95
S 87.5	143	140	132	135	127	126	124	121	123	115	113	113	111	110	109	107	105	102	99	96	95
I 90.0	143	136	132	128	124	124	120	119	116	115	113	111	110	108	107	105	105	102	99	96	95
O 92.5	143	136	130	128	122	121	120	119	116	115	113	111	108	106	107	104	103	102	99	96	95
N 95.0	136	129	128	124	122	121	117	117	114	114	113	111	108	105	104	102	101	100	99	96	95
97.5	136	129	128	124	122	121	117	114	112	112	111	109	108	105	102	101	101	99	98	96	95
F 100.0	136	127	125	122	121	121	117	112	111	110	109	107	106	105	102	101	99	99	97	96	95
A 102.5	132	127	125	122	121	117	117	112	109	108	107	107	105	103	102	101	97	96	96	94	93
C 105.0	130	127	125	119	117	115	113	112	109	106	106	105	105	102	102	101	97	95	95	94	93
T 107.5	129	127	125	119	115	115	112	112	109	104	103	103	101	100	99	99	97	95	95	92	91
O 110.0	127	125	125	119	114	111	111	108	109	104	101	101	101	100	99	98	97	95	95	92	91
R 112.5	123	123	118	119	112	111	111	107	105	104	101	99	99	98	97	96	95	95	95	91	90
115.0	123	121	118	119	112	109	107	107	105	104	101	99	99	97	97	95	94	93	92	91	89
117.5	121	119	117	115	112	109	106	106	103	103	101	99	99	97	95	95	93	93	92	91	89
G 120.0	119	117	117	115	112	109	105	105	103	103	101	99	99	97	95	95	93	93	91	90	89
R 122.5	116	115	113	112	112	109	105	105	103	102	101	99	98	97	95	95	93	90	91	89	88
A 125.0	115	114	112	111	110	109	105	105	103	101	100	99	97	96	95	95	93	90	88	89	87
M 127.5	115	112	111	109	109	108	105	105	103	101	99	98	97	95	94	92	93	90	88	86	87
S 130.0	115	112	111	109	108	107	105	105	103	101	99	97	96	95	93	92	93	90	88	86	87
/ 132.5	115	112	111	107	106	105	105	104	103	101	99	97	95	94	93	91	90	90	88	86	87
M 135.0	115	112	111	107	106	105	103	103	101	101	99	97	95	93	93	91	89	89	88	86	87
I 137.5	113	112	111	107	103	103	101	101	100	99	99	97	95	93	91	91	89	89	87	86	87
L 140.0	113	110	111	107	103	102	101	100	99	99	99	97	95	93	91	89	89	89	87	86	84
E 142.5	113	109	107	107	103	101	99	99	98	97	97	97	95	93	91	89	87	86	87	85	84
145.0	113	109	107	107	103	101	98	98	97	97	95	94	95	93	91	89	87	86	86	85	84
147.5	109	109	105	103	103	101	97	96	96	95	95	93	92	93	91	89	87	85	85	84	83
150.0	109	109	105	103	103	101	97	95	94	95	93	93	92	90	91	89	87	85	85	83	83
152.5	108	105	105	101	101	101	97	95	93	92	93	91	91	90	90	89	87	85	85	83	82
155.0	107	105	105	101	100	99	97	95	93	92	91	91	90	89	89	89	87	85	85	83	81
157.5	107	104	103	101	99	98	97	95	93	91	90	90	89	89	89	87	87	85	85	83	81
160.0	105	103	103	101	99	97	97	95	93	91	89	89	89	87	87	87	86	85	85	83	81
162.5	104	103	101	101	99	97	95	95	93	91	89	89	87	87	87	86	85	85	85	83	81
165.0	103	101	101	99	99	97	95	94	93	91	89	89	87	86	86	85	85	84	84	83	81
167.5	101	100	99	98	97	97	95	93	92	91	89	89	87	85	85	85	83	83	83	82	81
170.0	100	99	99	97	97	97	95	93	91	91	89	89	87	85	85	84	83	83	82	81	81
172.5	99	99	98	97	95	94	95	93	91	89	89	89	87	85	85	83	83	82	81	81	81
175.0	99	99	97	97	95	94	94	93	91	89	89	88	87	85	85	83	83	81	81	81	80
177.5		99	97	95	95	93	93	92	91	89	89	87	87	85	85	83	83	81	81	81	79
180.0			97	95	94	93	93	91	91	89	89	87	87	85	85	83	83	81	80	80	79
182.5				95	93	93	92	91	91	89	89	87	87	85	85	83	83	81	79	78	79
185.0					93	92	91	91	91	89	89	87	87	85	85	83	83	81	79	78	78
187.5						91	90	90	89	89	87	87	87	85	84	83	80	81	79	77	77
190.0							89	89	89	89	87	86	84	85	83	83	80	81	79	77	77
192.5								88	88	87	87	85	84	85	83	82	80	81	79	77	77
195.0									87	87	87	85	84	82	83	81	80	81	79	77	77
197.5										86	85	85	84	82	83	81	80	80	79	77	77
200.0											85	84	83	82	83	81	79	79	79	77	77

NOTE: vehicle volumes for the blank areas are not calculated since such combinations of emission factors for free flow and queue links are not likely according to MOBIlE5b emission model. If any of such combinations is found, the Environmental Analysis Bureau of NYSDOT should be contacted.

ii. Criteria For Projects Requiring A Mesoscale Analysis

If the project would significantly affect traffic conditions over a large area, it is also appropriate to consider regional air quality effects of the project by way of a mesoscale analysis.

In addition to regional CO concerns, VOC and NOx emissions from motor vehicles are of concern primarily because of their role as precursors in the formation of ozone which results from a series of complex reactions in the presence of sunlight. The reactions are slow and occur as pollutants are being transported downwind from the source of the precursor pollutants. Since the high ozone concentrations can occur many miles from the source, the effects of VOC and NOx emissions are considered a regional issue with a regional or "mesoscale" analysis the appropriate method of determining their impact. Thus, a mesoscale analysis considers the regional effects for all three air pollutants (CO, VOC, NOx).

Projects with build alternatives that could have a significant impact on emissions on a regional basis should have a mesoscale analysis performed. Examples of these types of projects include:

- HOV lanes vs general use lanes,
- new or significant modifications to interchanges on access-controlled facilities,
- large-scale signal coordination projects,
- in attainment area, projects having alternatives (including the no-build) with significantly different (10%) VMT,
- in nonattainment and maintenance areas and included in the regional emissions analysis supporting the conformity determination for the TIP and Plan, projects having build alternatives with significant different (10%) VMT. (For projects not included in the regional emissions analysis supporting the conformity determination for the TIP and Plan, see the discussion on projects not from a conforming Plan and TIP in Section 13),
- widening to provide additional travel lanes more than a mile in length

If the project does not meet any of the above criteria, then a quantitative mesoscale air quality analysis is not required.

If the project does not meet any of the criteria contained in this Section (i.e. either microscale or mesoscale), then an air quality analysis is not required. The air quality section of environmental document should include the statement found at the beginning of the Section.

Air Quality - Speed Analysis		
Updated DEIS Analysis - Peak AM Hour	**No-Build**	**Build with Improvement**
Arterial	**Avg Speed (mph)**	**Avg Speed (mph)**
Bryant Avenue	11	11
Corporate Park Drive	7	7
Corporate Park Drive Ramp	12	16
West Red Oak Lane	30	30
Westchester Avenue Eastbound	19	19
Westchester Avenue Westbound	17	18
Westchester Park Drive	30	30
Westchester Park Drive Ramp	10	9
Updated DEIS Analysis - Peak PM Hour	**No-Build**	**Build with Improvement**
Arterial	**Avg Speed (mph)**	**Avg Speed (mph)**
Bryant Avenue	14	14
Corporate Park Drive	5	5
Corporate Park Drive Ramp	1	3
West Red Oak Lane	30	30
Westchester Avenue Eastbound	6	6
Westchester Avenue Westbound	12	13
Westchester Park Drive	30	30
Westchester Park Drive Ramp	3	4
FEIS Sensitivity Analysis - Peak AM Hour	**No-Build**	**Build with Improvement**
Arterial	**Avg Speed (mph)**	**Avg Speed (mph)**
Bryant Avenue	11	11
Corporate Park Drive	7	7
Corporate Park Drive Ramp	12	17
West Red Oak Lane	30	30
Westchester Avenue Eastbound	19	19
Westchester Avenue Westbound	22	21
Westchester Park Drive	30	30
Westchester Park Drive Ramp	10	9
FEIS Sensitivity Analysis - Peak PM Hour	**No-Build**	**Build with Improvement**
Arterial	**Avg Speed (mph)**	**Avg Speed (mph)**
Bryant Avenue	14	14
Corporate Park Drive	5	5
Corporate Park Drive Ramp	1	3
West Red Oak Lane	30	30
Westchester Avenue Eastbound	6	6
Westchester Avenue Westbound	15	15
Westchester Park Drive	30	30
Westchester Park Drive Ramp	3	4

Air Quality - Volume Analysis			
Updated DEIS Analysis - Peak AM Hour	**No-Build**	**Build with Improvement**	**Percent Change**
Intersection	**Volume (vph)**	**Volume (vph)**	**(%)**
Westchester Park Drive & Westchester Avenue Westbound	1747	1682	-4%
Westchester Avenue Westbound & Bryant Avenue	1485	1541	4%
Westchester Avenue Eastbound & Bryant Avenue	2464	2439	-1%
Westchester Avenue Westbound & Corporate Park Drive	2450	2327	-5%
Westchester Avenue Eastbound & Corporate Park Drive	2437	2412	-1%
West Red Oak Lane & Westchester Avenue Westbound	2242	2190	-2%
Westchester Avenue & I-684 On-Ramp	847	862	2%
Westchester Avenue Westbound & Hutchinson River Parkway	2472	2422	-2%
Westchester Avenue Eastbound/I-287 Exit Ramp & Hutchinson River Parkway	2659	2697	1%
Updated DEIS Analysis - Peak PM Hour	**No-Build**	**Build with Improvement**	**Percent Change**
Intersection	**Volume (vph)**	**Volume (vph)**	**(%)**
Westchester Park Drive & Westchester Avenue Westbound	2727	2697	-1%
Westchester Avenue Westbound & Bryant Avenue	2720	2633	-3%
Westchester Avenue Eastbound & Bryant Avenue	2243	2214	-1%
Westchester Avenue Westbound & Corporate Park Drive	3219	3277	2%
Westchester Avenue Eastbound & Corporate Park Drive	2212	2197	-1%
West Red Oak Lane & Westchester Avenue Westbound	1849	1889	2%
Westchester Avenue & I-684 On-Ramp	1803	1761	-2%
Westchester Avenue Westbound & Hutchinson River Parkway	2168	2208	2%
Westchester Avenue Eastbound/I-287 Exit Ramp & Hutchinson River Parkway	3416	3383	-1%
FEIS Sensitivity Analysis - Peak AM Hour	**No-Build**	**Build with Improvement**	**Percent Change**
Intersection	**Volume (vph)**	**Volume (vph)**	**(%)**
Westchester Park Drive & Westchester Avenue Westbound	1747	1720	-2%
Westchester Avenue Westbound & Bryant Avenue	1485	1569	6%
Westchester Avenue Eastbound & Bryant Avenue	2464	2463	0%
Westchester Avenue Westbound & Corporate Park Drive	2450	2337	-5%
Westchester Avenue Eastbound & Corporate Park Drive	2437	2435	0%
West Red Oak Lane & Westchester Avenue Westbound	2242	2196	-2%
Westchester Avenue & I-684 On-Ramp	847	871	3%
Westchester Avenue Westbound & Hutchinson River Parkway	2472	2428	-2%
Westchester Avenue Eastbound/I-287 Exit Ramp & Hutchinson River Parkway	2659	2714	2%
FEIS Sensitivity Analysis - Peak PM Hour	**No-Build**	**Build with Improvement**	**Percent Change**
Intersection	**Volume (vph)**	**Volume (vph)**	**(%)**
Westchester Park Drive & Westchester Avenue Westbound	2727	2744	1%
Westchester Avenue Westbound & Bryant Avenue	2720	2650	-3%
Westchester Avenue Eastbound & Bryant Avenue	2243	2238	0%
Westchester Avenue Westbound & Corporate Park Drive	3219	3305	3%
Westchester Avenue Eastbound & Corporate Park Drive	2212	2219	0%
West Red Oak Lane & Westchester Avenue Westbound	1849	1906	3%
Westchester Avenue & I-684 On-Ramp	1803	1767	-2%
Westchester Avenue Westbound & Hutchinson River Parkway	2168	2225	3%
Westchester Avenue Eastbound/I-287 Exit Ramp & Hutchinson River Parkway	3416	3394	-1%

APPENDIX J

NYSDOT/OTHER STUDY HISTORICAL

COUNT DATA

STATION: **872179**

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #: **CR CR62** ROAD NAME: **WESTCHESTER EB** FROM: **ANDERSON HILL RD** TO: **HUTCH PKWY BR** COUNTY: **Westchester**
DIRECTION: Southbound FACTOR GROUP: 30 REC. SERIAL #: JT31 FUNC. CLASS: 16 CITY:
STATE DIR CODE: 5 WK OF YR: 42 PLACEMENT: 700' S of Bryant Ave NHS: no LION#:
DATE OF COUNT: 10/11/2016 @ REF MARKER: JURIS: Village BIN: 3358540
NOTES LANE 1: SB travel lane ADDL DATA: CC Stn: RR CROSSING:
NOTES LANE 2: SB Passing lane COUNT TYPE: VEHICLES BATCH ID: DOT-R08C42aTST5195 HPMS SAMPLE:
COUNT TAKEN BY: ORG CODE: TST INITIALS: MJD PROCESSED BY: ORG CODE: DOT INITIALS: JS

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	S																											
2	S																											
3	M																											
4	T																											
5	W																											
6	T																											
7	F																											
8	S																											
9	S																											
10	M																											
11	T																**631**	**633**	**678**	**564**	**399**	**288**	**181**	**136**	**79**			
12	W	**62**	**31**	**35**	**37**	**39**	**148**	**276**	**648**	**1399**	**912**	**536**	**533**	**555**	**589**	**574**	**538**	**632**	**598**	**520**	**328**	**236**	**198**	**115**	**60**	9599	1399	8
13	T	**61**	**25**	**24**	**35**	**48**	**182**	**279**	**720**	**1533**	**1265**	**653**	**896**	**557**	**632**	**740**	**732**	**713**	**717**	**555**	**470**	**299**	**219**	**128**	**79**	11562	1533	8
14	F	**94**	**33**	**29**	**22**	**51**	**145**	**254**	**717**	**1429**	**1098**																	
15	S																											
16	S																											
17	M																											
18	T																											
19	W																											
20	T																											
21	F																											
22	S																											
23	S																											
24	M																											
25	T																											
26	W																											
27	T																											
28	F																											
29	S																											
30	S																											
31	M																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
72	**30**	**29**	**31**	**46**	**158**	**270**	**695**	**1454**	**1092**	**594**	**714**	**556**	**610**	**657**	**634**	**659**	**664**	**546**	**399**	**274**	**199**	**126**	**73**	**10582**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
4	67	4	67	1454	14%	1.000	1.074	**AADT 9853**

STATION: **873252**

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **RAMP** ROAD NAME: **I287 EXIT 9A**
DIRECTION: Westbound FACTOR GROUP: 30
STATE DIR CODE: 3 WK OF YR: 31
DATE OF COUNT: 08/01/2011
NOTES LANE 1: WW 32

COUNT TAKEN BY: ORG CODE: DOT INITIALS: DJ

FROM: **WESTCHESTER AVE(OFF)**
REC. SERIAL #: 1416
PLACEMENT: .1 mile N of I287
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS: jl

TO: **I684 NB (ON)**
FUNC. CLASS: 01
NHS: no
JURIS: NYSDOT
CC Stn:
BATCH ID: DOT-r8WW32

COUNTY: **Westchester**
TOWN: **HARRISON**
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	M	**41**	**21**	**16**	**27**	**58**	**22**	**94**	**168**	**246**	**194**	**156**	**150**	**210**	**190**	**179**	**341**	**435**	**678**	**580**	**302**	**95**	**99**	**72**	**49**	4423	678	17
2	T	**54**	**14**	**23**	**45**	**48**	**52**	**92**	**161**	**240**	**200**	**151**	**183**	**130**	**146**	**211**	**360**	**458**	**758**	**345**	**216**	**103**	**74**	**68**	**47**	4179	758	17
3	W	**52**	**23**	**43**	**32**	**62**	**42**	**95**	**153**	**245**	**219**	**142**	**199**	**198**	**183**	**222**	**346**	**580**	**712**	**365**	**196**	**103**	**104**	**47**	**47**	4410	712	17
4	T	**51**	**27**	**31**	**36**	**55**	**48**	**98**	**142**	**242**	**190**	**166**	**167**	**240**	**237**													
5	F																											
6	S																											
7	S																											
8	M																											
9	T																											
10	W																											
11	T																											
12	F																											
13	S																											
14	S																											
15	M																											
16	T																											
17	W																											
18	T																											
19	F																											
20	S																											
21	S																											
22	M																											
23	T																											
24	W																											
25	T																											
26	F																											
27	S																											
28	S																											
29	M																											
30	T																											
31	W																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	ADT
41	**17**	**25**	**30**	**44**	**37**	**75**	**124**	**193**	**160**	**122**	**139**	**154**	**150**	**162**	**277**	**390**	**569**	**341**	**189**	**79**	**73**	**49**	**38**	**3478**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
4	86	3	80	569	16%	0.794	1.098

ESTIMATED

AADT
3168

STATION: **873318**

New York State Department of Transportation

Traffic Count Hourly Report

ROUTE #: **RAMP** ROAD NAME: **I287 EXIT9**
DIRECTION: Eastbound FACTOR GROUP: 30
STATE DIR CODE: 3 WK OF YR: 31
DATE OF COUNT: 08/01/2011
NOTES LANE 1: WW 32

COUNT TAKEN BY: ORG CODE: DOT INITIALS: DJ

FROM: **I287 EB (OFF)**
REC. SERIAL #: 1317
PLACEMENT: .1 mile W of RT 907W
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: DOT INITIALS: jl

TO: **907W SB (ON)**
FUNC. CLASS: 01
NHS: no
JURIS: NYSDOT
CC Stn:
BATCH ID: DOT-r8WW32

COUNTY: **Westchester**
VILLAGE: **HARRISON**
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	M	**105**	**41**	**25**	**26**	**75**	**129**	**308**	**564**	**627**	**593**	**512**	**503**	**533**	**495**	**581**	**661**	**613**	**570**	**303**	**423**	**347**	**308**	**192**	**150**	8684	661	15
2	T	**111**	**32**	**16**	**22**	**72**	**147**	**299**	**586**	**659**	**599**	**559**	**522**	**567**	**520**	**569**	**703**	**617**	**620**	**513**	**443**	**380**	**317**	**224**	**171**	9268	703	15
3	W	**116**	**28**	**14**	**25**	**75**	**159**	**297**	**586**	**676**	**582**	**518**	**520**	**521**	**505**	**558**	**685**	**686**	**636**	**514**	**432**	**321**	**300**	**193**	**142**	9089	686	16
4	T	**111**	**33**	**24**	**25**	**53**	**137**	**299**	**597**	**659**	**616**	**515**	**535**	**548**														
5	F																											
6	S																											
7	S																											
8	M																											
9	T																											
10	W																											
11	T																											
12	F																											
13	S																											
14	S																											
15	M																											
16	T																											
17	W																											
18	T																											
19	F																											
20	S																											
21	S																											
22	M																											
23	T																											
24	W																											
25	T																											
26	F																											
27	S																											
28	S																											
29	M																											
30	T																											
31	W																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

90	25	14	19	53	118	239	463	520	475	418	413	430	403	452	542	507	484	352	344	277	245	161	122

ADT 7166

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor
4	85	3	79	542	8%	0.794	1.098

ESTIMATED

AADT
6526

STATION: **873318**

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #: ROAD NAME: **I287 Exit 9N at**
DIRECTION: Southbound FACTOR GROUP: 30
STATE DIR CODE: 3 WK OF YR: 27
DATE OF COUNT: 06/28/2016
NOTES LANE 1: SB travel lane

COUNT TAKEN BY: ORG CODE: TST INITIALS: MJD

FROM: **I287 EB (OFF)**
REC. SERIAL #: FX33
PLACEMENT: 90' S of Westchester Ave
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: R08 INITIALS: CL

TO: **907W SB (ON)**
FUNC. CLASS: 11
NHS: no
JURIS: City
CC Stn:
BATCH ID: DOT-DOTR08V27aTST1996

COUNTY: **Westchester**
VILLAGE:
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
28	T														**637**	**649**	**592**	**571**	**594**	**569**	**570**	**430**	**351**	**248**	**148**			
29	W	**101**	**37**	**29**	**33**	**57**	**171**	**382**	**635**	**671**	**662**	**668**	**656**	**718**	**693**	**660**	**621**	**593**	**596**	**510**	**579**	**433**	**414**	**251**	**200**	10370	718	12
30	T	**129**	**51**	**36**	**47**	**62**	**179**	**376**	**591**	**723**	**634**	**629**	**588**	**645**	**627**	**634**	**610**	**496**	**421**	**423**	**546**	**466**	**372**	**289**	**225**	9799	723	8
1	F	**121**	**81**	**92**	**36**	**61**	**159**	**364**	**599**	**687**																		

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
99	**47**	**44**	**33**	**51**	**143**	**315**	**512**	**584**	**546**	**546**	**524**	**574**	**549**	**546**	**512**	**466**	**452**	**422**	**476**	**373**	**319**	**221**	**161**	**8515**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
4	68	4	68	584	7%	0.842	1.106	**AADT 7699**

STATION: **873323**

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #:
ROAD NAME: **I287 Exit 9N at**
DIRECTION: Southbound
FACTOR GROUP: 30
STATE DIR CODE: 3
WK OF YR: 30
DATE OF COUNT: 07/19/2016
NOTES LANE 1: SB travel lane

COUNT TAKEN BY: ORG CODE: TST INITIALS: MJD

FROM: **907W NB (OFF)**
REC. SERIAL #: AP28
PLACEMENT: 300' N of Westchester Ave
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: R08 INITIALS: CL

TO: **I287 WB (ON)**
FUNC. CLASS: 11
NHS: no
JURIS: City
CC Stn:
BATCH ID: DOT-DOTR08V30aTST1996

COUNTY: **Westchester**
VILLAGE:
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1 AM	1 TO 2 AM	2 TO 3 AM	3 TO 4 AM	4 TO 5 AM	5 TO 6 AM	6 TO 7 AM	7 TO 8 AM	8 TO 9 AM	9 TO 10 AM	10 TO 11 AM	11 TO 12 AM	12 TO 1 PM	1 TO 2 PM	2 TO 3 PM	3 TO 4 PM	4 TO 5 PM	5 TO 6 PM	6 TO 7 PM	7 TO 8 PM	8 TO 9 PM	9 TO 10 PM	10 TO 11 PM	11 TO 12 PM	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
1	F																											
2	S																											
3	S																											
4	M																											
5	T																											
6	W																											
7	T																											
8	F																											
9	S																											
10	S																											
11	M																											
12	T																											
13	W																											
14	T																											
15	F																											
16	S																											
17	S																											
18	M																											
19	T											**551**	**508**	**660**	**599**	**607**	**578**	**595**	**671**	**568**	**465**	**436**	**332**	**201**	**154**			
20	W	**63**	**30**	**14**	**17**	**46**	**156**	**390**	**762**	**1211**	**854**	**696**	**706**	**668**	**738**	**593**	**574**	**629**	**671**	**533**	**453**	**387**	**349**	**231**	**189**	10960	1211	8
21	T	**65**	**37**	**15**	**13**	**37**	**136**	**356**	**752**	**1177**	**931**	**695**	**648**	**642**	**637**	**643**	**679**	**607**	**579**	**484**	**398**	**430**	**374**	**266**	**195**	10796	1177	8
22	F	**87**	**31**	**19**	**21**	**24**	**144**	**368**	**672**	**1085**																		
23	S																											
24	S																											
25	M																											
26	T																											
27	W																											
28	T																											
29	F																											
30	S																											
31	S																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

61	28	13	14	30	122	312	614	975	751	545	523	553	554	517	514	514	539	445	370	352	296	196	151	**ADT** 8989

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
4	71	4	71	975	11%	0.842	1.093	**AADT 8224**

ROAD #:
STATION: **873323**
ROAD NAME: **I287 Exit 9N at**
STATE DIR CODE: **3**
FROM: **907W NB (OFF)**
PLACEMENT: **300' N of Westchester Ave**
TO: **I287 WB (ON)**
COUNTY: **Westchester**
DATE OF COUNT: 07/19/2016

STATION: **873324**

New York State Department of Transportation

Traffic Count Hourly Report

ROAD #:
ROAD NAME: **I287 Exit 9N at**
DIRECTION: Northbound
FACTOR GROUP: 30
STATE DIR CODE: 3
WK OF YR: 30
DATE OF COUNT: 07/19/2016
NOTES LANE 1: NB travel lane

COUNT TAKEN BY: ORG CODE: TST INITIALS: MJD

FROM: **Ramp Begins**
REC. SERIAL #: CG52
PLACEMENT: 300' N of Westchester Ave
@ REF MARKER:
ADDL DATA:
COUNT TYPE: AXLE PAIRS
PROCESSED BY: ORG CODE: R08 INITIALS: CL

TO: **Ramp Ends**
FUNC. CLASS: 12
NHS: no
JURIS: City
CC Stn:
BATCH ID: DOT-DOTR08V30aTST1996

COUNTY: **Westchester**
VILLAGE:
LION#:
BIN:
RR CROSSING:
HPMS SAMPLE:

DATE	DAY	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	12 TO 1	1 TO 2	2 TO 3	3 TO 4	4 TO 5	5 TO 6	6 TO 7	7 TO 8	8 TO 9	9 TO 10	10 TO 11	11 TO 12	DAILY TOTAL	DAILY HIGH COUNT	DAILY HIGH HOUR
		AM												PM														
1	F																											
2	S																											
3	S																											
4	M																											
5	T																											
6	W																											
7	T																											
8	F																											
9	S																											
10	S																											
11	M																											
12	T																											
13	W																											
14	T																											
15	F																											
16	S																											
17	S																											
18	M																											
19	T											**417**	**526**	**651**	**580**	**528**	**371**	**355**	**302**	**412**	**495**	**478**	**339**	**286**	**210**			
20	W	**74**	**42**	**16**	**26**	**38**	**140**	**320**	**343**	**499**	**390**	**412**	**518**	**541**	**602**	**516**	**357**	**378**	**323**	**326**	**474**	**495**	**280**	**284**	**199**	7593	602	13
21	T	**133**	**58**	**21**	**22**	**60**				**441**	**362**	**370**	**467**	**572**	**574**	**457**	**371**	**365**	**330**	**335**								
22	F	**165**	**97**	**31**	**29**	**61**	**224**	**272**	**347**	**390**																		
23	S																											
24	S																											
25	M																											
26	T																											
27	W																											
28	T																											
29	F																											
30	S																											
31	S																											

AVERAGE WEEKDAY HOURS (Axle Factored, Mon 6AM to Fri Noon)

																									ADT
121	**64**	**22**	**25**	**52**	**177**	**288**	**336**	**431**	**366**	**389**	**490**	**572**	**569**	**486**	**356**	**356**	**309**	**348**	**471**	**473**	**302**	**277**	**198**	**7478**

DAYS Counted	HOURS Counted	WEEKDAYS Counted	WEEKDAY Hours	AVERAGE WEEKDAY High Hour	AVERAGE WEEKDAY % of day	Axle Adj. Factor	Seasonal/Weekday Adjustment Factor	ESTIMATED
4	63	4	63	572	8%	0.973	1.093	**AADT 6842**

APPENDIX K

ATR DATA

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
1	**Westchester Park Drive Northbound**																																
2	File Name: C:\Users\dcuya\Desktop\3 WPD NB - 08.08.19 - 08.16.19 - Speed.tf2																																
3	Start Date: 8/8/2019																																
4	Start Time: 12:00:00 PM																																
5																																	**Total**
6		**Average**	520	69	216	387.5	805	1677	3418.5	8037	18334.5	37317.5	65136	92641.5	96949	84490	55837.5	33377.5	17679	7960.5	5187	2280	1435.5	721	695.5	166.5	115	59.5	61.5	0	131	34.5	**32.6591**
7		**Total Volume**	52	6	16	25	46	86	159	342	719	1357	2208	2941	2894	2380	1489	845	426	183	114	48	29	14	13	3	2	1	1	0	2	3	**16404**
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
9	8/8/2019	12:00 PM	0	0	0	0	0	0	0	2	0	2	10	16	13	9	5	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
10	8/8/2019	12:15 PM	0	0	0	0	0	0	0	1	2	3	5	14	11	9	4	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
11	8/8/2019	12:30 PM	0	0	0	2	0	0	1	3	3	7	5	5	8	6	6	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	
12	8/8/2019	12:45 PM	0	0	1	0	0	0	2	2	3	2	11	10	11	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
13	8/8/2019	01:00 PM	0	0	0	0	1	0	0	0	0	6	10	6	12	4	9	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
14	8/8/2019	01:15 PM	0	0	0	0	0	0	0	1	0	0	6	14	6	9	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	8/8/2019	01:30 PM	0	0	0	0	0	0	0	0	1	4	10	6	5	3	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	8/8/2019	01:45 PM	0	0	0	0	0	0	0	3	3	1	15	6	14	8	4	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	
17	8/8/2019	02:00 PM	0	0	0	0	0	0	0	1	1	5	10	4	6	12	5	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	8/8/2019	02:15 PM	0	0	0	0	0	0	0	0	3	6	12	15	8	15	8	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
19	8/8/2019	02:30 PM	0	0	0	0	0	2	1	1	1	4	7	14	12	10	9	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	8/8/2019	02:45 PM	0	0	0	0	0	0	0	2	2	5	6	12	6	13	4	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
21	8/8/2019	03:00 PM	0	0	0	0	0	0	0	4	3	5	9	20	13	8	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
22	8/8/2019	03:15 PM	0	0	0	0	0	1	0	1	1	3	6	8	13	3	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	8/8/2019	03:30 PM	1	0	0	0	0	0	0	2	4	3	9	12	9	9	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	8/8/2019	03:45 PM	0	0	0	0	0	0	1	1	1	4	6	16	14	3	1	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
25	8/8/2019	04:00 PM	0	0	0	0	0	1	0	1	4	3	9	5	9	4	8	3	3	3	2	1	1	0	0	0	0	0	0	0	0	0	
26	8/8/2019	04:15 PM	0	0	0	0	0	0	1	1	2	2	11	16	11	12	7	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
27	8/8/2019	04:30 PM	0	0	1	1	0	7	2	1	3	3	11	7	14	10	3	4	1	0	0	1	0	0	1	0	0	0	0	0	0	0	
28	8/8/2019	04:45 PM	0	0	0	0	0	0	1	0	1	5	14	12	5	8	8	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
29	8/8/2019	05:00 PM	0	0	0	1	2	0	0	0	3	3	8	8	15	12	9	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	8/8/2019	05:15 PM	0	0	0	0	0	1	1	2	5	13	9	14	14	11	5	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
31	8/8/2019	05:30 PM	0	0	0	0	0	0	1	15	7	13	19	15	8	8	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	8/8/2019	05:45 PM	2	0	0	1	1	2	4	4	5	4	21	21	11	11	5	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	8/8/2019	06:00 PM	0	0	0	0	0	0	0	0	3	12	15	19	14	13	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	8/8/2019	06:15 PM	1	0	0	0	1	0	0	2	2	6	12	14	7	6	3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
35	8/8/2019	06:30 PM	0	0	0	0	0	2	0	1	0	10	10	9	7	6	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
36	8/8/2019	06:45 PM	0	0	0	0	0	1	0	0	3	6	10	17	19	13	3	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	
37	8/8/2019	07:00 PM	0	0	0	0	0	0	0	1	5	13	13	10	10	11	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
38	8/8/2019	07:15 PM	0	0	0	0	1	0	0	0	0	7	9	8	6	3	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	
39	8/8/2019	07:30 PM	0	0	0	0	2	1	0	5	2	0	7	5	7	9	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	8/8/2019	07:45 PM	0	0	0	0	0	0	1	0	4	2	5	5	4	4	2	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	8/8/2019	08:00 PM	0	0	0	0	0	0	0	2	3	1	2	3	4	1	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	8/8/2019	08:15 PM	0	0	0	0	0	0	0	2	1	4	8	4	4	2	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
43	8/8/2019	08:30 PM	0	0	0	0	0	0	1	1	0	0	6	2	6	4	3	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	
44	8/8/2019	08:45 PM	0	0	0	0	0	0	0	1	3	3	6	3	4	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	8/8/2019	09:00 PM	0	0	0	0	0	0	0	0	2	5	1	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	8/8/2019	09:15 PM	0	0	0	0	0	0	0	0	0	1	2	3	3	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	8/8/2019	09:30 PM	0	0	0	0	0	0	0	1	2	2	0	0	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	8/8/2019	09:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	3	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
49	8/8/2019	10:00 PM	0	0	0	0	0	0	1	0	0	1	2	4	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	8/8/2019	10:15 PM	0	0	0	0	0	0	0	0	0	2	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
51	8/8/2019	10:30 PM	2	0	0	0	0	0	0	1	0	1	3	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	8/8/2019	10:45 PM	0	0	0	0	0	0	1	1	0	1	1	1	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	8/8/2019	11:00 PM	0	0	0	0	0	0	0	0	1	1	0	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
54	8/8/2019	11:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
55	8/8/2019	11:30 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
56	8/8/2019	11:45 PM	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
57	8/9/2019	12:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
58	8/9/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
59	8/9/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
60	8/9/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
61	8/9/2019	01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
62	8/9/2019	01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
63	8/9/2019	01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
64	8/9/2019	01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
65	8/9/2019	02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
66	8/9/2019	02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
67	8/9/2019	02:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
68	8/9/2019	02:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
69	8/9/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
70	8/9/2019	03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
71	8/9/2019	03:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
72	8/9/2019	03:45 AM	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
73	8/9/2019	04:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	2	2	1	1	1	0	0	0	3	0	0	1	0	0	0	0	0	0	
74	8/9/2019	04:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	2	0	1	1	0	0	0	0	0	0	0	1	0	1	0	0	0	0	
75	8/9/2019	04:30 AM	0	0	0	0	0	1	0	1	0	0	4	1	2	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
76	8/9/2019	04:45 AM	0	0	0	0	0	0	1	1	1	2	1	6	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
77	8/9/2019	05:00 AM	0	0	0	0	0	0	0	3	1	1	3	2	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
78	8/9/2019	05:15 AM	0	0	0	0	0	0	1	1	4	2	1	5	1	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
79	8/9/2019	05:30 AM	0	0	0	0	0	0	0	1	2	3	3	11	5	6	5	1	5	2	0	0	0	0	0	0	0	0	0	0	0	0	
80	8/9/2019	05:45 AM	0	0	0	0	0	0	0	0	2	0	2	2	4	2	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
81	8/9/2019	06:00 AM	0	0	0	0	0	0	1	0	2	3	11	8	10	11	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
82	8/9/2019	06:15 AM	0	0	0	0	0	0	0	4	5	3	6	7	7	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
83	8/9/2019	06:30 AM	0	0	0	0	0	1	0	2	1	2	4	6	4	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
84	8/9/2019	06:45 AM	0	0	0	0	0	0	0	3	5	8	11	3	8	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
85	8/9/2019	07:00 AM	0	0	0	0	2	2	0	4	11	15	15	13	10	6	6	0	3	1	1	1	0	0	0	0	0	0	0	0	0	0	
86	8/9/2019	07:15 AM	0	0	0	0	0	0	0	1	1	2	6	4	9	5	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
87	8/9/2019	07:30 AM	0	0	0	0	0	3	1	0	0	5	5	7	4	6	6	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
88	8/9/2019	07:45 AM	0	0	0	1	0	1	2	4	0	4	3	5	12	6	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
89	8/9/2019	08:00 AM	0	0	0	0	0	0	0	2	2	5	9	18	12	10	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
90	8/9/2019	08:15 AM	0	0	0	0	0	0	0	0	9	16	18	23	13	11	10	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
91	8/9/2019	08:30 AM	0	0	0	0	0	0	0	4	2	4	12	33	19	24	10	3	4	1	1	0	0	0	0	0	0	0	0	0	0	0	
92	8/9/2019	08:45 AM	0	0	0	0	0	0	0	1	6	6	14	37	24	13	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
93	8/9/2019	09:00 AM	0	0	0	0	0	3	4	1	11	21	22	35	34	23	7	8	2	1	1	0	0	0	0	0	0	0	0	0	0	0	
94	8/9/2019	09:15 AM	0	0	0	0	0	0	1	2	5	24	31	34	24	17	8	1	1	2	1	1	1	0	0	0	0	0	0	0	0	0	
95	8/9/2019	09:30 AM	0	0	0	0	0	0	2	0	7	19	11	22	18	18	10	7	2	2	0	1	0	0	0	0	0	0	0	0	0	0	
96	8/9/2019	09:45 AM	0	0	0	0	0	0	0	1	0	3	16	26	23	14	12	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
97	8/9/2019	10:00 AM	0	0	0	0	0	0	0	1	5	7	11	9	12	9	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
98	8/9/2019	10:15 AM	0	0	0	0	0	1	0	0	2	2	4	5	8	15	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
99	8/9/2019	10:30 AM	0	0	0	0	0	0	4	2	1	9	19	7	9	7	4	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
100	8/9/2019	10:45 AM	0	0	0	0	0	0	0	2	0	4	13	15	11	11	9	8	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
101	8/9/2019	11:00 AM	0	0	0	0	0	0	0	3	3	14	13	9	6	5	4	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
102	8/9/2019	11:15 AM	0	0	0	0	0	0	2	3	1	10	7	13	3	1	2	2	2	0	0	0	0	0	1	0	0	0	0	0	0	0	
103	8/9/2019	11:30 AM	0	0	0	1	0	0	3	3	6	9	9	15	6	11	3	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
104	8/9/2019	11:45 AM	0	0	0	0	0	0	0	2	0	3	9	12	14	5	7	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
105	8/9/2019	12:00 PM	1	0	0	0	0	0	0	0	2	9	12	13	13	8	4	5	0	1	1	1	0	0	0	0	0	0	0	0	0	0	
106	8/9/2019	12:15 PM	0	0	0	0	0	0	0	1	5	5	5	19	14	13	6	4	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
107	8/9/2019	12:30 PM	0	0	0	0	0	0	0	0	3	4	7	7	10	10	1	2	3	3	0	0	0	1	0	0	0	0	0	0	0	0	
108	8/9/2019	12:45 PM	0	0	1	1	0	1	0	1	3	4	10	5	11	6	1	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
109	8/9/2019	01:00 PM	0	0	0	1	0	1	3	1	2	1	11	11	5	6	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
110	8/9/2019	01:15 PM	0	0	0	0	0	0	0	1	2	7	6	9	7	7	7	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
111	8/9/2019	01:30 PM	0	0	0	0	0	0	0	1	1	5	5	6	6	4	5	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
112	8/9/2019	01:45 PM	0	0	0	1	0	2	0	0	5	10	8	12	6	8	5	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
113	8/9/2019	02:00 PM	0	0	0	0	0	0	0	2	3	8	7	13	9	5	5	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
114	8/9/2019	02:15 PM	0	0	0	0	0	1	1	0	3	1	7	14	4	9	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
115	8/9/2019	02:30 PM	0	0	0	0	1	0	1	1	2	5	8	6	11	2	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
116	8/9/2019	02:45 PM	0	0	0	0	0	0	0	2	1	3	7	5	10	6	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
117	8/9/2019	03:00 PM	0	0	0	0	0	0	0	0	4	4	4	7	10	12	11	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
118	8/9/2019	03:15 PM	0	0	0	0	0	1	1	0	2	6	9	8	3	6	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
119	8/9/2019	03:30 PM	0	0	0	0	0	0	1	0	2	3	6	10	14	9	5	3	1	1	2	0	0	0	0	0	0	0	0	0	0	0	
120	8/9/2019	03:45 PM	0	0	0	0	0	1	1	0	1	3	3	12	10	9	5	5	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
121	8/9/2019	04:00 PM	0	0	0	0	1	1	1	7	9	3	10	9	5	4	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
122	8/9/2019	04:15 PM	0	0	1	0	0	3	2	2	6	7	7	10	11	14	7	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
123	8/9/2019	04:30 PM	0	0	0	0	0	1	1	0	5	4	4	19	23	6	10	7	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
124	8/9/2019	04:45 PM	0	0	0	0	0	0	2	1	4	6	12	7	6	7	3	4	1	2	0	0	0	1	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
125	8/9/2019	05:00 PM	0	0	0	0	0	1	0	0	0	4	3	7	9	8	5	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
126	8/9/2019	05:15 PM	0	0	0	0	1	1	1	4	1	6	6	7	7	5	7	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
127	8/9/2019	05:30 PM	0	0	0	0	0	1	0	2	2	6	6	8	12	7	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
128	8/9/2019	05:45 PM	0	0	0	1	1	3	3	0	1	2	2	6	5	8	1	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
129	8/9/2019	06:00 PM	2	0	0	0	0	0	2	1	1	4	9	5	7	14	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
130	8/9/2019	06:15 PM	0	0	0	0	0	0	1	2	3	1	3	4	8	3	4	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
131	8/9/2019	06:30 PM	0	0	0	0	2	1	0	1	3	1	3	3	11	10	1	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	
132	8/9/2019	06:45 PM	0	0	0	0	0	1	0	0	2	5	5	4	3	5	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
133	8/9/2019	07:00 PM	0	0	0	0	0	0	0	2	0	1	4	5	4	3	2	3	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
134	8/9/2019	07:15 PM	0	0	0	0	0	1	0	0	1	4	0	3	2	2	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
135	8/9/2019	07:30 PM	0	0	0	0	0	0	1	0	0	2	2	0	8	3	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
136	8/9/2019	07:45 PM	0	0	0	0	0	0	0	3	0	2	0	4	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
137	8/9/2019	08:00 PM	0	0	0	0	0	0	0	1	1	0	2	3	4	6	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
138	8/9/2019	08:15 PM	0	0	0	0	0	0	0	0	2	1	0	2	4	1	0	1	1	2	0	0	1	0	0	0	0	0	0	0	0	0	
139	8/9/2019	08:30 PM	0	0	0	0	0	0	0	0	0	2	3	2	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
140	8/9/2019	08:45 PM	0	0	0	0	0	0	0	0	0	0	1	4	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
141	8/9/2019	09:00 PM	0	0	0	0	0	0	0	0	1	1	2	1	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
142	8/9/2019	09:15 PM	0	0	0	0	0	0	0	0	0	0	2	0	3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
143	8/9/2019	09:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
144	8/9/2019	09:45 PM	0	0	0	0	0	0	0	0	0	2	6	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
145	8/9/2019	10:00 PM	0	0	0	0	0	1	0	0	0	3	2	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
146	8/9/2019	10:15 PM	0	0	0	0	0	0	0	0	1	0	2	0	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
147	8/9/2019	10:30 PM	0	0	0	0	0	0	0	0	2	1	0	0	2	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
148	8/9/2019	10:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
149	8/9/2019	11:00 PM	0	0	0	0	0	0	0	1	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
150	8/9/2019	11:15 PM	0	0	0	0	0	0	0	0	0	1	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
151	8/9/2019	11:30 PM	0	0	0	0	0	0	0	0	0	1	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
152	8/9/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
153	8/10/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
154	8/10/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
155	8/10/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
156	8/10/2019	12:45 AM	0	0	0	0	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
157	8/10/2019	01:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
158	8/10/2019	01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
159	8/10/2019	01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
160	8/10/2019	01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
161	8/10/2019	02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
162	8/10/2019	02:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
163	8/10/2019	02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
164	8/10/2019	02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
165	8/10/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
166	8/10/2019	03:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
167	8/10/2019	03:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
168	8/10/2019	03:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
169	8/10/2019	04:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
170	8/10/2019	04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
171	8/10/2019	04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
172	8/10/2019	04:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
173	8/10/2019	05:00 AM	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
174	8/10/2019	05:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
175	8/10/2019	05:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
176	8/10/2019	05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
177	8/10/2019	06:00 AM	0	0	0	0	0	0	0	0	1	1	0	3	1	0	3	2	3	0	1	1	0	0	0	0	0	0	0	0	0	0	
178	8/10/2019	06:15 AM	0	0	0	0	0	0	0	0	0	0	0	3	4	2	1	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
179	8/10/2019	06:30 AM	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	2	0	0	2	1	0	1	0	0	0	0	0	0	0	0	
180	8/10/2019	06:45 AM	0	0	0	0	0	0	0	0	1	0	1	2	2	4	3	0	1	1	2	0	1	0	0	0	0	0	0	0	0	0	
181	8/10/2019	07:00 AM	0	0	0	0	0	0	0	1	3	4	4	5	8	9	6	5	3	0	0	0	0	1	0	0	0	0	0	0	0	0	
182	8/10/2019	07:15 AM	0	0	0	0	1	0	0	0	0	0	1	6	7	0	7	1	4	2	3	1	0	0	0	0	0	0	0	0	0	0	
183	8/10/2019	07:30 AM	0	0	0	0	0	0	0	0	0	1	0	4	2	2	2	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
184	8/10/2019	07:45 AM	0	0	0	0	0	0	0	0	0	1	11	3	7	3	4	2	2	0	0	1	0	1	0	0	0	0	0	0	0	0	
185	8/10/2019	08:00 AM	0	0	0	0	1	0	0	0	4	3	18	15	17	16	4	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
186	8/10/2019	08:15 AM	0	0	0	0	1	0	0	0	0	4	11	16	9	11	6	11	3	1	2	0	0	1	0	0	0	0	0	0	0	0	
187	8/10/2019	08:30 AM	0	0	1	1	0	0	0	0	0	1	5	10	3	10	3	5	2	1	3	0	0	0	0	0	0	0	0	0	0	0	
188	8/10/2019	08:45 AM	0	0	0	0	0	0	0	2	0	1	3	9	8	17	3	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
189	8/10/2019	09:00 AM	0	0	0	0	0	0	0	0	2	6	9	14	15	12	10	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
190	8/10/2019	09:15 AM	0	0	0	0	0	0	1	2	5	10	6	18	23	27	18	3	2	1	2	0	0	0	0	0	0	0	0	0	0	0	
191	8/10/2019	09:30 AM	0	0	0	0	0	0	0	1	4	5	10	12	19	24	15	8	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
192	8/10/2019	09:45 AM	0	0	0	0	0	0	0	1	1	3	6	13	10	15	5	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
193	8/10/2019	10:00 AM	0	0	0	0	0	0	1	1	4	3	5	24	15	10	8	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	
194	8/10/2019	10:15 AM	0	0	0	0	0	0	1	1	2	2	12	12	15	11	11	3	3	0	0	1	0	1	0	0	0	0	0	0	0	0	
195	8/10/2019	10:30 AM	0	0	0	0	0	0	0	0	2	10	22	23	12	7	8	5	2	3	0	0	1	1	0	0	0	0	0	0	0	0	
196	8/10/2019	10:45 AM	0	0	0	0	0	0	1	0	0	10	7	15	19	15	4	4	6	0	0	0	0	0	0	0	0	0	0	0	0	0	
197	8/10/2019	11:00 AM	0	0	0	0	0	0	0	2	3	2	6	8	17	13	4	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	
198	8/10/2019	11:15 AM	0	0	0	0	0	0	0	1	1	3	6	11	10	5	6	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
199	8/10/2019	11:30 AM	0	0	0	0	0	0	0	1	0	1	5	8	16	10	3	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
200	8/10/2019	11:45 AM	0	0	0	0	0	0	0	0	2	1	5	9	14	9	7	1	3	3	1	0	0	0	0	0	0	0	0	0	0	0	
201	8/10/2019	12:00 PM	0	0	0	0	0	0	0	1	6	10	8	8	7	8	5	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
202	8/10/2019	12:15 PM	0	0	0	0	0	0	2	0	1	2	2	11	7	9	5	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	
203	8/10/2019	12:30 PM	0	0	0	0	0	0	0	0	4	4	4	6	6	8	6	2	2	0	0	0	0	0	1	0	0	0	0	0	0	0	
204	8/10/2019	12:45 PM	0	0	0	0	0	0	0	1	1	3	6	12	10	5	6	4	2	1	0	1	0	0	0	0	0	0	0	0	0	0	
205	8/10/2019	01:00 PM	0	0	0	0	0	0	0	0	4	8	10	10	10	6	4	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
206	8/10/2019	01:15 PM	0	0	0	0	0	1	1	2	5	6	6	2	12	11	6	5	0	1	0	0	1	0	0	0	0	0	0	0	0	0	
207	8/10/2019	01:30 PM	0	0	0	0	0	0	0	0	3	3	7	11	11	12	8	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
208	8/10/2019	01:45 PM	0	0	1	0	1	0	2	2	3	3	5	10	7	8	4	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
209	8/10/2019	02:00 PM	0	0	0	0	0	0	0	0	1	2	4	12	11	5	5	3	2	2	0	1	0	0	0	0	0	0	0	0	0	0	
210	8/10/2019	02:15 PM	0	0	0	0	0	0	0	2	0	4	7	9	5	1	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
211	8/10/2019	02:30 PM	0	0	0	0	0	0	0	0	1	4	6	3	8	5	3	5	1	2	1	0	0	0	0	0	0	0	0	0	0	0	
212	8/10/2019	02:45 PM	0	0	0	0	0	0	0	0	0	0	4	12	9	6	6	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
213	8/10/2019	03:00 PM	0	0	0	0	0	0	0	0	0	1	8	5	13	9	2	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
214	8/10/2019	03:15 PM	0	0	0	0	0	0	0	0	1	0	10	6	8	7	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
215	8/10/2019	03:30 PM	0	0	1	0	0	0	0	0	3	2	4	4	5	3	1	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	
216	8/10/2019	03:45 PM	0	0	0	0	0	0	0	0	0	3	4	8	2	8	3	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
217	8/10/2019	04:00 PM	0	0	0	0	0	0	1	1	1	4	2	6	4	0	4	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
218	8/10/2019	04:15 PM	0	0	0	0	0	0	0	0	2	1	5	5	9	7	6	2	1	0	2	1	0	0	0	0	0	0	0	0	0	0	
219	8/10/2019	04:30 PM	0	0	0	0	0	0	2	0	2	0	2	2	3	10	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
220	8/10/2019	04:45 PM	0	0	0	0	0	0	0	1	2	1	4	3	0	4	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
221	8/10/2019	05:00 PM	0	0	0	0	0	0	0	0	3	2	3	1	1	1	2	0	1	0	2	0	1	0	0	0	0	0	0	0	0	0	
222	8/10/2019	05:15 PM	0	0	0	0	0	0	0	0	0	1	3	1	3	2	1	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	
223	8/10/2019	05:30 PM	0	0	0	0	0	1	0	0	2	0	0	0	2	0	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
224	8/10/2019	05:45 PM	0	0	0	0	0	0	0	1	0	1	4	1	5	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
225	8/10/2019	06:00 PM	0	0	0	0	0	0	0	1	1	2	0	5	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
226	8/10/2019	06:15 PM	0	0	0	0	0	0	0	0	2	1	3	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
227	8/10/2019	06:30 PM	0	0	0	0	0	0	0	0	0	1	1	0	3	3	2	2	1	1	2	0	0	0	0	0	0	0	0	0	0	0	
228	8/10/2019	06:45 PM	0	0	0	0	0	0	1	0	0	3	2	4	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
229	8/10/2019	07:00 PM	2	0	0	0	0	0	1	0	1	3	1	1	2	3	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	
230	8/10/2019	07:15 PM	0	0	0	1	0	0	0	1	0	0	1	0	2	2	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
231	8/10/2019	07:30 PM	0	0	0	0	0	0	1	0	0	1	1	0	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
232	8/10/2019	07:45 PM	0	0	0	0	0	0	0	0	0	0	2	1	2	1	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
233	8/10/2019	08:00 PM	0	0	0	0	0	0	0	1	0	1	1	0	1	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
234	8/10/2019	08:15 PM	0	0	0	0	0	0	1	0	1	3	1	4	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
235	8/10/2019	08:30 PM	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
236	8/10/2019	08:45 PM	0	0	0	0	0	0	0	0	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
237	8/10/2019	09:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
238	8/10/2019	09:15 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
239	8/10/2019	09:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
240	8/10/2019	09:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
241	8/10/2019	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	
242	8/10/2019	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
243	8/10/2019	10:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
244	8/10/2019	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
245	8/10/2019	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
246	8/10/2019	11:15 PM	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
247	8/10/2019	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
248	8/10/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
249	8/11/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
250	8/11/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
251	8/11/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
252	8/11/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
253	8/11/2019	01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
254	8/11/2019	01:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
255	8/11/2019	01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
256	8/11/2019	01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
257	8/11/2019	02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
258	8/11/2019	02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
259	8/11/2019	02:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
260	8/11/2019	02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
261	8/11/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
262	8/11/2019	03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
263	8/11/2019	03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
264	8/11/2019	03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
265	8/11/2019	04:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
266	8/11/2019	04:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
267	8/11/2019	04:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
268	8/11/2019	04:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
269	8/11/2019	05:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
270	8/11/2019	05:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
271	8/11/2019	05:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
272	8/11/2019	05:45 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
273	8/11/2019	06:00 AM	0	0	0	0	0	0	0	0	0	0	4	2	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
274	8/11/2019	06:15 AM	0	0	0	0	0	0	0	0	1	0	0	2	0	2	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
275	8/11/2019	06:30 AM	0	0	0	0	0	0	0	0	0	0	1	1	3	2	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
276	8/11/2019	06:45 AM	0	0	0	0	0	0	0	0	0	1	2	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
277	8/11/2019	07:00 AM	0	0	0	0	0	0	0	0	1	1	2	1	2	3	2	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
278	8/11/2019	07:15 AM	0	0	0	0	0	0	1	0	0	1	0	5	3	1	2	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	
279	8/11/2019	07:30 AM	0	0	0	0	0	0	0	0	1	0	1	4	7	6	2	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	
280	8/11/2019	07:45 AM	0	0	0	0	0	0	1	1	0	0	2	6	7	7	1	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	
281	8/11/2019	08:00 AM	0	0	0	0	0	0	0	0	0	1	3	9	7	6	10	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	
282	8/11/2019	08:15 AM	1	0	0	0	0	0	0	1	0	6	7	11	10	11	4	4	3	2	4	0	0	0	0	0	0	0	0	0	0	0	
283	8/11/2019	08:30 AM	0	0	0	0	0	0	0	0	0	2	4	3	3	10	8	4	4	2	0	0	0	0	1	0	0	0	0	0	0	0	
284	8/11/2019	08:45 AM	0	0	0	0	0	0	0	1	2	2	6	3	4	2	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
285	8/11/2019	09:00 AM	0	0	0	1	0	0	0	0	1	2	7	10	8	15	10	8	5	0	1	0	0	0	0	0	0	0	0	0	0	0	
286	8/11/2019	09:15 AM	0	0	0	0	0	0	0	0	3	0	8	19	22	25	9	4	1	0	0	1	1	0	0	0	0	0	0	0	0	0	
287	8/11/2019	09:30 AM	0	0	0	0	0	0	2	1	3	0	7	9	19	16	9	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
288	8/11/2019	09:45 AM	0	0	0	0	0	0	0	0	0	9	2	10	13	5	4	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
289	8/11/2019	10:00 AM	0	0	0	0	0	0	0	1	2	2	4	6	13	8	7	7	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
290	8/11/2019	10:15 AM	0	0	0	0	0	0	0	0	0	2	10	9	10	11	10	2	1	1	0	0	0	0	1	0	0	0	0	0	0	0	
291	8/11/2019	10:30 AM	0	0	0	0	0	0	0	2	3	6	11	14	17	8	7	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
292	8/11/2019	10:45 AM	0	0	0	0	0	0	0	0	2	5	8	14	9	17	10	3	1	1	0	0	0	1	0	0	0	0	0	0	0	0	
293	8/11/2019	11:00 AM	0	0	0	0	0	0	0	0	1	5	12	13	14	7	4	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
294	8/11/2019	11:15 AM	0	0	0	0	0	0	1	0	0	3	11	10	15	9	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
295	8/11/2019	11:30 AM	0	0	0	0	0	0	0	0	1	7	7	8	8	5	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
296	8/11/2019	11:45 AM	0	0	0	0	0	0	0	0	0	2	1	8	14	15	6	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
297	8/11/2019	12:00 PM	0	0	0	0	0	0	0	0	0	4	7	11	7	7	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
298	8/11/2019	12:15 PM	0	0	0	0	0	0	0	1	3	1	2	6	10	7	1	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	
299	8/11/2019	12:30 PM	0	0	0	0	0	0	0	0	5	2	3	11	10	3	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
300	8/11/2019	12:45 PM	0	0	0	1	0	0	2	0	1	5	6	7	7	7	5	2	1	1	1	0	0	0	0	0	0	0	0	0	1	0	
301	8/11/2019	01:00 PM	0	0	0	0	0	0	0	1	1	2	3	8	8	6	3	0	2	1	0	0	1	0	0	0	0	0	0	0	0	0	
302	8/11/2019	01:15 PM	0	0	0	1	0	0	0	0	1	1	3	6	8	7	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
303	8/11/2019	01:30 PM	0	0	0	0	0	0	0	0	2	0	7	8	8	5	9	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
304	8/11/2019	01:45 PM	0	0	0	0	0	0	0	0	2	3	3	11	8	11	4	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	
305	8/11/2019	02:00 PM	0	0	0	0	0	0	0	2	1	1	4	7	8	7	5	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	
306	8/11/2019	02:15 PM	0	0	0	0	0	0	1	1	5	3	9	3	6	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
307	8/11/2019	02:30 PM	0	0	0	1	0	0	0	0	1	1	3	3	3	8	10	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
308	8/11/2019	02:45 PM	0	0	0	0	0	0	0	0	0	1	1	5	6	9	4	3	2	0	0	0	0	2	0	0	0	0	0	0	0	0	
309	8/11/2019	03:00 PM	0	0	0	0	0	0	0	1	2	2	3	8	5	3	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
310	8/11/2019	03:15 PM	0	0	0	0	0	0	0	0	1	4	1	7	9	5	1	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	
311	8/11/2019	03:30 PM	1	0	1	0	0	0	0	0	4	0	1	4	9	1	3	3	1	2	2	0	0	0	0	0	0	0	0	0	0	0	
312	8/11/2019	03:45 PM	0	0	0	0	0	0	0	1	0	1	2	6	9	7	0	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
313	8/11/2019	04:00 PM	0	0	0	0	0	0	0	0	2	2	1	6	12	8	1	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
314	8/11/2019	04:15 PM	0	0	0	0	0	0	0	0	1	6	2	5	7	8	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
315	8/11/2019	04:30 PM	0	0	0	0	0	1	1	4	4	1	3	4	5	5	2	3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	
316	8/11/2019	04:45 PM	1	0	0	0	0	0	0	0	0	1	3	4	12	2	4	3	1	0	0	0	1	0	0	0	0	0	0	0	0	0	
317	8/11/2019	05:00 PM	0	0	0	0	0	0	0	1	1	0	5	4	5	1	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
318	8/11/2019	05:15 PM	0	0	0	0	0	0	0	0	0	2	2	7	8	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
319	8/11/2019	05:30 PM	0	0	0	0	0	0	0	0	0	0	3	2	2	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
320	8/11/2019	05:45 PM	0	0	0	0	0	0	0	0	1	1	0	5	3	4	1	2	3	0	0	0	1	0	0	0	0	0	0	0	0	0	
321	8/11/2019	06:00 PM	0	0	0	0	0	0	1	0	0	2	2	3	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
322	8/11/2019	06:15 PM	0	0	0	0	0	0	2	0	3	3	1	2	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
323	8/11/2019	06:30 PM	0	0	0	0	0	0	0	0	1	1	1	6	1	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
324	8/11/2019	06:45 PM	0	0	0	0	0	0	0	0	0	1	0	2	0	2	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
325	8/11/2019	07:00 PM	0	0	0	0	0	0	0	0	1	0	0	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
326	8/11/2019	07:15 PM	0	0	0	0	0	0	0	1	1	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
327	8/11/2019	07:30 PM	0	0	0	0	0	0	0	0	0	0	3	0	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
328	8/11/2019	07:45 PM	0	0	0	0	0	0	1	0	0	0	0	1	2	2	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
329	8/11/2019	08:00 PM	0	2	0	0	0	0	0	0	2	0	2	1	2	2	0	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
330	8/11/2019	08:15 PM	0	0	0	0	0	0	0	0	0	3	3	1	0	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
331	8/11/2019	08:30 PM	0	0	0	0	0	0	0	0	1	3	1	2	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
332	8/11/2019	08:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	
333	8/11/2019	09:00 PM	0	0	0	0	0	0	0	0	0	0	3	1	2	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
334	8/11/2019	09:15 PM	0	0	0	0	0	0	0	1	1	0	0	3	1	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
335	8/11/2019	09:30 PM	0	0	0	0	0	0	0	0	0	1	0	5	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
336	8/11/2019	09:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
337	8/11/2019	10:00 PM	0	0	0	0	0	0	0	0	0	0	1	2	1	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
338	8/11/2019	10:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
339	8/11/2019	10:30 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
340	8/11/2019	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
341	8/11/2019	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	
342	8/11/2019	11:15 PM	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
343	8/11/2019	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
344	8/11/2019	11:45 PM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
345	8/12/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
346	8/12/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
347	8/12/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
348	8/12/2019	12:45 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
349	8/12/2019	01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
350	8/12/2019	01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
351	8/12/2019	01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
352	8/12/2019	01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
353	8/12/2019	02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
354	8/12/2019	02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
355	8/12/2019	02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
356	8/12/2019	02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
357	8/12/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
358	8/12/2019	03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
359	8/12/2019	03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
360	8/12/2019	03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
361	8/12/2019	04:00 AM	0	0	0	0	0	0	0	1	0	0	2	2	4	3	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	
362	8/12/2019	04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	3	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
363	8/12/2019	04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
364	8/12/2019	04:45 AM	0	0	0	0	0	0	0	0	0	1	1	3	1	4	3	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	
365	8/12/2019	05:00 AM	0	0	0	0	0	0	0	0	0	3	0	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
366	8/12/2019	05:15 AM	0	0	0	0	0	0	0	0	1	0	2	3	6	9	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
367	8/12/2019	05:30 AM	0	0	0	0	0	0	0	0	0	2	4	6	10	10	7	4	3	0	1	0	0	0	0	0	0	0	0	0	0	0	
368	8/12/2019	05:45 AM	0	0	0	0	0	0	0	0	0	1	2	3	3	7	14	2	1	0	0	0	0	1	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
369	8/12/2019	06:00 AM	0	0	0	0	0	0	0	0	0	2	4	10	9	10	5	2	4	2	0	0	0	0	0	0	0	0	0	0	0	0	
370	8/12/2019	06:15 AM	0	0	0	0	0	0	0	0	0	0	2	6	10	7	3	1	3	0	2	0	0	0	0	0	0	0	0	0	0	0	
371	8/12/2019	06:30 AM	0	0	0	0	0	0	0	0	0	0	0	9	6	3	5	3	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
372	8/12/2019	06:45 AM	0	0	1	0	0	0	0	0	0	2	5	13	11	8	4	3	0	2	1	0	0	0	0	0	0	0	0	0	0	0	
373	8/12/2019	07:00 AM	0	0	0	0	0	0	0	0	4	5	9	10	18	11	8	3	6	0	5	0	0	0	0	0	0	0	0	0	0	0	
374	8/12/2019	07:15 AM	0	0	0	0	0	0	0	0	1	7	4	6	6	2	4	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
375	8/12/2019	07:30 AM	0	0	0	0	1	0	1	2	3	2	9	11	10	6	6	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
376	8/12/2019	07:45 AM	0	0	0	0	0	0	2	0	0	7	11	5	8	4	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
377	8/12/2019	08:00 AM	0	0	0	0	0	0	0	0	2	4	12	15	16	16	7	5	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
378	8/12/2019	08:15 AM	1	0	0	0	0	0	0	1	3	16	18	15	13	8	8	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
379	8/12/2019	08:30 AM	0	0	0	0	0	0	0	0	4	4	21	23	18	20	4	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
380	8/12/2019	08:45 AM	0	0	0	0	0	0	0	5	6	16	19	21	21	11	5	8	0	1	1	0	0	0	1	0	0	0	0	0	0	0	
381	8/12/2019	09:00 AM	0	0	0	0	1	2	2	2	5	15	28	31	30	19	6	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
382	8/12/2019	09:15 AM	0	0	0	0	0	0	0	2	3	11	19	33	30	14	12	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
383	8/12/2019	09:30 AM	0	0	0	0	0	0	0	0	7	10	24	25	20	21	16	6	5	0	0	0	0	0	0	0	0	0	0	0	0	0	
384	8/12/2019	09:45 AM	0	0	0	0	0	0	0	1	4	11	14	15	18	9	7	2	4	3	1	0	0	0	0	0	0	0	0	0	0	0	
385	8/12/2019	10:00 AM	0	0	0	2	0	0	2	3	2	4	12	15	8	6	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
386	8/12/2019	10:15 AM	0	0	1	0	0	0	1	0	1	5	4	8	10	3	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
387	8/12/2019	10:30 AM	0	0	0	0	1	1	0	3	1	4	4	11	10	7	7	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
388	8/12/2019	10:45 AM	0	0	0	0	0	0	0	1	6	5	8	12	21	15	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
389	8/12/2019	11:00 AM	2	0	1	0	3	0	2	3	10	10	6	12	11	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
390	8/12/2019	11:15 AM	1	0	0	0	0	1	0	2	7	5	6	17	7	13	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
391	8/12/2019	11:30 AM	0	0	0	0	0	0	3	1	2	2	7	10	10	7	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
392	8/12/2019	11:45 AM	0	0	0	0	0	0	1	2	4	1	7	9	10	10	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
393	8/12/2019	12:00 PM	0	0	0	0	0	0	2	1	5	9	16	16	14	6	10	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
394	8/12/2019	12:15 PM	0	0	0	0	0	0	0	0	4	9	9	17	10	8	6	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
395	8/12/2019	12:30 PM	0	0	0	0	0	0	1	1	5	9	8	10	6	6	5	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
396	8/12/2019	12:45 PM	0	0	0	1	0	0	0	1	6	6	4	7	8	8	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
397	8/12/2019	01:00 PM	0	0	2	0	0	2	1	4	6	4	17	11	6	8	2	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	
398	8/12/2019	01:15 PM	0	0	0	0	0	0	1	2	5	4	12	14	6	6	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
399	8/12/2019	01:30 PM	0	0	0	0	0	0	0	2	3	1	5	10	9	9	7	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
400	8/12/2019	01:45 PM	0	0	0	0	1	0	2	0	4	9	4	4	9	10	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
401	8/12/2019	02:00 PM	0	0	0	0	0	5	4	2	2	3	1	5	17	8	8	4	1	3	0	0	0	0	0	0	0	0	0	0	0	0	
402	8/12/2019	02:15 PM	0	0	0	0	1	0	0	0	1	6	2	12	11	9	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
403	8/12/2019	02:30 PM	0	0	0	0	0	1	1	3	1	5	6	9	9	4	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
404	8/12/2019	02:45 PM	0	0	1	0	0	0	1	0	1	2	9	11	6	5	2	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
405	8/12/2019	03:00 PM	0	0	0	0	1	0	2	0	5	7	6	11	9	2	5	5	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
406	8/12/2019	03:15 PM	0	0	0	0	0	0	0	1	4	3	3	7	12	7	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
407	8/12/2019	03:30 PM	0	0	0	0	1	4	3	3	2	12	4	12	5	7	6	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	
408	8/12/2019	03:45 PM	0	0	0	1	0	0	0	3	2	5	6	12	17	11	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
409	8/12/2019	04:00 PM	2	0	0	0	0	2	2	4	3	4	5	9	14	7	6	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
410	8/12/2019	04:15 PM	0	0	0	0	1	1	2	2	4	4	14	19	6	6	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
411	8/12/2019	04:30 PM	0	0	0	0	0	0	0	0	1	7	11	9	12	4	9	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
412	8/12/2019	04:45 PM	2	0	0	0	0	0	0	3	4	5	6	11	20	15	8	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
413	8/12/2019	05:00 PM	0	0	0	0	0	0	0	1	5	6	7	11	10	7	6	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
414	8/12/2019	05:15 PM	0	0	0	0	2	2	1	2	7	8	11	13	16	6	8	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
415	8/12/2019	05:30 PM	1	0	0	0	0	1	4	4	10	15	14	15	16	6	5	1	2	0	0	0	1	0	0	0	0	0	0	0	0	0	
416	8/12/2019	05:45 PM	2	0	0	0	0	0	0	1	2	6	18	13	15	12	8	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	
417	8/12/2019	06:00 PM	0	0	0	0	1	1	1	3	4	4	19	23	20	17	8	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
418	8/12/2019	06:15 PM	0	0	0	0	0	0	0	2	4	5	8	12	10	14	8	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
419	8/12/2019	06:30 PM	1	0	0	0	0	0	2	0	1	6	6	14	7	7	4	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
420	8/12/2019	06:45 PM	2	0	0	0	0	0	0	1	3	5	6	3	11	5	3	4	3	0	1	1	0	0	0	0	0	0	0	0	0	0	
421	8/12/2019	07:00 PM	0	0	0	0	0	0	0	1	1	4	7	8	10	13	4	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
422	8/12/2019	07:15 PM	0	0	0	0	0	0	2	0	1	4	7	11	7	11	7	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	
423	8/12/2019	07:30 PM	0	0	0	0	0	0	0	1	1	2	6	8	2	7	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
424	8/12/2019	07:45 PM	0	0	0	0	0	0	0	0	0	2	5	4	7	4	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
425	8/12/2019	08:00 PM	0	0	0	0	1	0	0	0	1	4	6	8	10	3	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
426	8/12/2019	08:15 PM	0	0	0	0	0	0	0	0	1	3	6	5	9	4	1	5	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
427	8/12/2019	08:30 PM	2	0	0	0	0	0	0	0	0	1	2	3	4	3	1	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
428	8/12/2019	08:45 PM	0	0	0	0	0	0	0	0	0	2	1	3	4	6	7	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
429	8/12/2019	09:00 PM	0	0	0	0	0	0	0	0	0	0	1	6	4	1	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
430	8/12/2019	09:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	3	6	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
431	8/12/2019	09:30 PM	0	1	0	0	0	0	0	1	2	1	2	0	4	3	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	1	
432	8/12/2019	09:45 PM	0	0	0	0	0	0	0	0	2	0	3	0	3	0	2	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
433	8/12/2019	10:00 PM	0	0	0	0	0	0	0	2	3	0	2	1	3	2	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
434	8/12/2019	10:15 PM	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
435	8/12/2019	10:30 PM	0	0	0	0	0	0	0	0	1	1	0	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
436	8/12/2019	10:45 PM	0	0	0	0	0	1	0	0	1	0	0	1	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
437	8/12/2019	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
438	8/12/2019	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
439	8/12/2019	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
440	8/12/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
441	8/13/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
442	8/13/2019	12:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
443	8/13/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
444	8/13/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
445	8/13/2019	01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
446	8/13/2019	01:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
447	8/13/2019	01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
448	8/13/2019	01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
449	8/13/2019	02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
450	8/13/2019	02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
451	8/13/2019	02:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
452	8/13/2019	02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
453	8/13/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
454	8/13/2019	03:15 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
455	8/13/2019	03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
456	8/13/2019	03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
457	8/13/2019	04:00 AM	0	0	0	0	0	0	0	0	0	1	2	1	2	0	1	1	0	1	1	1	1	0	0	0	0	0	0	0	0	0	
458	8/13/2019	04:15 AM	2	0	0	0	0	1	0	0	0	1	0	1	2	0	2	1	1	0	2	0	1	0	0	0	0	0	0	0	0	0	
459	8/13/2019	04:30 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
460	8/13/2019	04:45 AM	0	0	0	0	0	0	0	0	0	0	1	2	6	5	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
461	8/13/2019	05:00 AM	0	0	0	0	0	0	0	0	0	1	1	1	1	2	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
462	8/13/2019	05:15 AM	0	0	0	0	0	0	0	2	0	1	1	2	2	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
463	8/13/2019	05:30 AM	0	0	0	0	0	0	0	0	1	2	2	5	7	12	11	5	4	1	1	0	0	0	0	0	0	0	0	0	0	0	
464	8/13/2019	05:45 AM	0	0	0	0	0	0	0	0	3	0	1	12	5	6	3	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
465	8/13/2019	06:00 AM	0	0	0	0	0	0	0	1	1	0	8	4	10	9	6	6	3	3	0	0	0	0	0	0	0	0	0	0	0	0	
466	8/13/2019	06:15 AM	0	0	0	0	0	0	0	1	0	0	5	4	9	5	4	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
467	8/13/2019	06:30 AM	0	0	0	0	0	0	1	2	1	3	6	7	9	5	10	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
468	8/13/2019	06:45 AM	0	0	0	0	0	0	0	0	2	5	7	11	10	14	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
469	8/13/2019	07:00 AM	0	0	0	0	0	0	0	1	1	4	6	9	12	14	8	5	2	3	0	0	0	0	0	0	0	0	0	0	0	0	
470	8/13/2019	07:15 AM	0	1	0	0	0	0	0	3	2	8	1	11	6	3	6	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
471	8/13/2019	07:30 AM	0	0	0	0	0	0	1	0	3	7	4	6	7	9	1	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
472	8/13/2019	07:45 AM	0	0	0	0	0	0	0	1	4	5	10	8	8	9	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
473	8/13/2019	08:00 AM	0	0	0	0	0	0	0	2	1	3	12	23	17	8	5	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
474	8/13/2019	08:15 AM	0	0	0	0	1	0	2	1	3	8	23	20	15	10	9	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
475	8/13/2019	08:30 AM	0	0	0	0	0	0	0	0	3	11	16	20	17	16	12	5	2	3	0	0	1	0	0	0	0	0	0	0	0	0	
476	8/13/2019	08:45 AM	0	0	0	0	0	0	0	7	10	8	20	23	21	18	4	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
477	8/13/2019	09:00 AM	0	1	0	0	1	1	0	4	9	17	12	21	23	13	13	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
478	8/13/2019	09:15 AM	0	0	1	0	1	1	3	0	2	20	24	26	26	16	9	10	7	1	1	0	0	0	0	0	0	0	0	0	0	0	
479	8/13/2019	09:30 AM	0	0	0	1	2	0	3	13	17	17	23	25	19	14	8	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	
480	8/13/2019	09:45 AM	1	0	1	2	0	1	4	4	6	8	4	11	15	8	3	3	4	3	0	0	0	0	0	0	0	0	0	0	0	0	
481	8/13/2019	10:00 AM	0	0	0	0	0	1	1	0	1	2	14	11	6	6	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
482	8/13/2019	10:15 AM	0	0	0	0	0	0	0	1	2	8	9	5	7	10	4	3	0	1	0	0	0	0	0	0	1	0	0	0	0	0	
483	8/13/2019	10:30 AM	0	0	0	0	0	0	0	1	4	8	14	10	10	10	9	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
484	8/13/2019	10:45 AM	0	0	0	0	0	0	2	3	2	13	4	17	5	9	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
485	8/13/2019	11:00 AM	0	0	0	0	0	1	2	4	5	10	8	11	9	6	3	3	1	1	1	0	1	0	0	0	0	0	0	0	0	0	
486	8/13/2019	11:15 AM	0	0	0	0	0	0	0	2	3	6	6	9	7	9	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
487	8/13/2019	11:30 AM	0	0	0	0	0	0	0	1	1	8	14	10	6	6	3	3	1	1	0	0	0	0	1	0	0	0	0	0	0	0	
488	8/13/2019	11:45 AM	0	0	0	0	3	1	2	0	4	4	7	16	12	13	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
489	8/13/2019	12:00 PM	1	0	0	0	0	0	0	0	1	3	7	7	13	9	5	9	2	6	3	5	0	0	0	0	0	0	0	0	0	0	
490	8/13/2019	12:15 PM	4	0	0	0	0	0	0	0	0	0	1	3	3	1	4	4	4	0	2	1	0	0	2	1	0	0	0	0	1	1	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
491	8/13/2019	12:30 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
492	8/13/2019	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
493	8/13/2019	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
494	8/13/2019	01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
495	8/13/2019	01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
496	8/13/2019	01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
497	8/13/2019	02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
498	8/13/2019	02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
499	8/13/2019	02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
500	8/13/2019	02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
501	8/13/2019	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
502	8/13/2019	03:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
503	8/13/2019	03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
504	8/13/2019	03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
505	8/13/2019	04:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
506	8/13/2019	04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
507	8/13/2019	04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
508	8/13/2019	04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
509	8/13/2019	05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
510	8/13/2019	05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
511	8/13/2019	05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
512	8/13/2019	05:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
513	8/13/2019	06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
514	8/13/2019	06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
515	8/13/2019	06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
516	8/13/2019	06:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
517	8/13/2019	07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
518	8/13/2019	07:15 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
519	8/13/2019	07:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
520	8/13/2019	07:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
521	8/13/2019	08:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
522	8/13/2019	08:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
523	8/13/2019	08:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
524	8/13/2019	08:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
525	8/13/2019	09:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
526	8/13/2019	09:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
527	8/13/2019	09:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
528	8/13/2019	09:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
529	8/13/2019	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
530	8/13/2019	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
531	8/13/2019	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
532	8/13/2019	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
533	8/13/2019	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
534	8/13/2019	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
535	8/13/2019	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
536	8/13/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
537	8/14/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
538	8/14/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
539	8/14/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
540	8/14/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
541	8/14/2019	01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
542	8/14/2019	01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
543	8/14/2019	01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
544	8/14/2019	01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
545	8/14/2019	02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
546	8/14/2019	02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
547	8/14/2019	02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
548	8/14/2019	02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
549	8/14/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
550	8/14/2019	03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
551	8/14/2019	03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
552	8/14/2019	03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
553	8/14/2019	04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
554	8/14/2019	04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
555	8/14/2019	04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
556	8/14/2019	04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
557	8/14/2019	05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
558	8/14/2019	05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
559	8/14/2019	05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
560	8/14/2019	05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
561	8/14/2019	06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
562	8/14/2019	06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
563	8/14/2019	06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
564	8/14/2019	06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
565	8/14/2019	07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
566	8/14/2019	07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
567	8/14/2019	07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
568	8/14/2019	07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
569	8/14/2019	08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
570	8/14/2019	08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
571	8/14/2019	08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
572	8/14/2019	08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
573	8/14/2019	09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
574	8/14/2019	09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
575	8/14/2019	09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
576	8/14/2019	09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
577	8/14/2019	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
578	8/14/2019	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
579	8/14/2019	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
580	8/14/2019	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
581	8/14/2019	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
582	8/14/2019	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
583	8/14/2019	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
584	8/14/2019	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
585	8/14/2019	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
586	8/14/2019	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
587	8/14/2019	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
588	8/14/2019	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
589	8/14/2019	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
590	8/14/2019	01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
591	8/14/2019	01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
592	8/14/2019	01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
593	8/14/2019	02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
594	8/14/2019	02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
595	8/14/2019	02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
596	8/14/2019	02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
597	8/14/2019	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
598	8/14/2019	03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
599	8/14/2019	03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
600	8/14/2019	03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
601	8/14/2019	04:00 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
602	8/14/2019	04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
603	8/14/2019	04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
604	8/14/2019	04:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
605	8/14/2019	05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
606	8/14/2019	05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
607	8/14/2019	05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
608	8/14/2019	05:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
609	8/14/2019	06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
610	8/14/2019	06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
611	8/14/2019	06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
612	8/14/2019	06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
613	8/14/2019	07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
614	8/14/2019	07:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
615	8/14/2019	07:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
616	8/14/2019	07:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
617	8/14/2019	08:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
618	8/14/2019	08:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
619	8/14/2019	08:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
620	8/14/2019	08:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
621	8/14/2019	09:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
622	8/14/2019	09:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
623	8/14/2019	09:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
624	8/14/2019	09:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
625	8/14/2019	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
626	8/14/2019	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
627	8/14/2019	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
628	8/14/2019	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
629	8/14/2019	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
630	8/14/2019	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
631	8/14/2019	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
632	8/14/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
633	8/15/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
634	8/15/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
635	8/15/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
636	8/15/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
637	8/15/2019	01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
638	8/15/2019	01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
639	8/15/2019	01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
640	8/15/2019	01:45 AM	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
641	8/15/2019	02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
642	8/15/2019	02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
643	8/15/2019	02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
644	8/15/2019	02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
645	8/15/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
646	8/15/2019	03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
647	8/15/2019	03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
648	8/15/2019	03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
649	8/15/2019	04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
650	8/15/2019	04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
651	8/15/2019	04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
652	8/15/2019	04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
653	8/15/2019	05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
654	8/15/2019	05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
655	8/15/2019	05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
656	8/15/2019	05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
657	8/15/2019	06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
658	8/15/2019	06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
659	8/15/2019	06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
660	8/15/2019	06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
661	8/15/2019	07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
662	8/15/2019	07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
663	8/15/2019	07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
664	8/15/2019	07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
665	8/15/2019	08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
666	8/15/2019	08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
667	8/15/2019	08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
668	8/15/2019	08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
669	8/15/2019	09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
670	8/15/2019	09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
671	8/15/2019	09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
672	8/15/2019	09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
673	8/15/2019	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
674	8/15/2019	10:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
675	8/15/2019	10:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
676	8/15/2019	10:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
677	8/15/2019	11:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
678	8/15/2019	11:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
679	8/15/2019	11:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
680	8/15/2019	11:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
681	8/15/2019	12:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
682	8/15/2019	12:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
683	8/15/2019	12:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
684	8/15/2019	12:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
685	8/15/2019	01:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
686	8/15/2019	01:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
687	8/15/2019	01:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
688	8/15/2019	01:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
689	8/15/2019	02:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
690	8/15/2019	02:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
691	8/15/2019	02:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
692	8/15/2019	02:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
693	8/15/2019	03:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
694	8/15/2019	03:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
695	8/15/2019	03:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
696	8/15/2019	03:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
697	8/15/2019	04:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
698	8/15/2019	04:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
699	8/15/2019	04:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
700	8/15/2019	04:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
701	8/15/2019	05:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
702	8/15/2019	05:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
703	8/15/2019	05:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
704	8/15/2019	05:45 PM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
705	8/15/2019	06:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
706	8/15/2019	06:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
707	8/15/2019	06:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
708	8/15/2019	06:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
709	8/15/2019	07:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
710	8/15/2019	07:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
711	8/15/2019	07:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
712	8/15/2019	07:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
713	8/15/2019	08:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
714	8/15/2019	08:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
715	8/15/2019	08:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
716	8/15/2019	08:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
717	8/15/2019	09:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
718	8/15/2019	09:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
719	8/15/2019	09:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
720	8/15/2019	09:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
721	8/15/2019	10:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
722	8/15/2019	10:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
723	8/15/2019	10:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
724	8/15/2019	10:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
725	8/15/2019	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
726	8/15/2019	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
727	8/15/2019	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
728	8/15/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
729	8/16/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
730	8/16/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
731	8/16/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
732	8/16/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
733	8/16/2019	01:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
734	8/16/2019	01:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
735	8/16/2019	01:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
736	8/16/2019	01:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
737	8/16/2019	02:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
738	8/16/2019	02:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
739	8/16/2019	02:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
740	8/16/2019	02:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
741	8/16/2019	03:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
742	8/16/2019	03:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
743	8/16/2019	03:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
744	8/16/2019	03:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
745	8/16/2019	04:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
746	8/16/2019	04:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
747	8/16/2019	04:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
748	8/16/2019	04:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
749	8/16/2019	05:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
750	8/16/2019	05:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
751	8/16/2019	05:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
752	8/16/2019	05:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
753	8/16/2019	06:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
754	8/16/2019	06:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
755	8/16/2019	06:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
756	8/16/2019	06:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
757	8/16/2019	07:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
758	8/16/2019	07:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
759	8/16/2019	07:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
760	8/16/2019	07:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
761	8/16/2019	08:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
762	8/16/2019	08:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
763	8/16/2019	08:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
764	8/16/2019	08:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
765	8/16/2019	09:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
766	8/16/2019	09:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
767	8/16/2019	09:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
768	8/16/2019	09:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
769	8/16/2019	10:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
1	**Westchester Park Drive Southbound**																																
2	File Name: C:\Users\dcuya\Desktop\3 WPD - 08.08.19 - 08.16.19 - Speed.tf2																																
3	Start Date: 8/8/2019																																
4	Start Time: 11:30:00 AM																																
5																																	**Total**
6		**Average**	380	69	175.5	325.5	700	2476.5	5224.5	13606.5	29095.5	53350	82069	99540	97183.5	70396.5	43162.5	23265.5	11661.5	5307	2275	1330	495	257.5	214	222	57.5	0	61.5	0	65.5	0	**31.5293**
7		**Total Volume**	38	6	13	21	40	127	243	579	1141	1940	2782	3160	2901	1983	1151	589	281	122	50	28	10	5	4	4	1	0	1	0	1	0	**17221**
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
9	8/8/2019	11:30 AM	0	0	0	0	0	1	0	6	6	7	11	10	11	8	5	3	1	0	0	0	0	0	0	1	0	0	0	0	0	0	
10	8/8/2019	11:45 AM	0	0	0	0	1	0	0	2	12	10	11	11	9	2	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
11	8/8/2019	12:00 PM	0	0	0	0	1	0	2	5	6	8	12	12	5	6	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
12	8/8/2019	12:15 PM	0	0	0	0	0	0	0	2	6	7	7	8	5	2	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
13	8/8/2019	12:30 PM	0	0	0	0	0	0	1	1	1	8	12	9	10	1	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
14	8/8/2019	12:45 PM	0	0	0	0	0	0	1	2	6	8	10	7	9	6	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
15	8/8/2019	1:00 PM	0	0	0	0	0	0	1	5	9	13	10	9	8	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
16	8/8/2019	1:15 PM	0	0	0	0	0	0	1	5	14	11	6	7	6	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
17	8/8/2019	1:30 PM	0	0	0	0	0	1	2	4	14	6	12	19	7	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
18	8/8/2019	1:45 PM	0	0	0	0	0	0	0	2	7	5	14	11	7	8	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
19	8/8/2019	2:00 PM	0	0	0	0	1	0	0	2	5	6	9	10	9	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
20	8/8/2019	2:15 PM	0	0	0	0	0	1	0	6	12	5	14	13	10	4	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
21	8/8/2019	2:30 PM	0	0	0	0	1	3	2	7	8	13	11	11	12	2	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
22	8/8/2019	2:45 PM	0	0	3	0	0	1	0	6	6	13	10	13	3	2	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
23	8/8/2019	3:00 PM	0	0	0	0	0	0	0	2	2	8	12	11	9	8	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
24	8/8/2019	3:15 PM	0	0	0	0	1	0	0	2	4	6	12	14	12	10	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
25	8/8/2019	3:30 PM	0	0	0	0	1	2	3	2	18	11	14	16	4	7	4	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	
26	8/8/2019	3:45 PM	2	0	0	2	0	0	1	1	5	5	9	8	10	4	2	2	0	2	0	0	0	0	0	0	1	0	0	0	0	0	
27	8/8/2019	4:00 PM	0	0	0	0	0	1	3	3	10	7	12	19	8	4	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
28	8/8/2019	4:15 PM	0	0	0	0	0	1	2	1	5	10	10	12	11	7	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
29	8/8/2019	4:30 PM	0	0	0	0	0	6	6	8	16	26	26	22	24	5	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
30	8/8/2019	4:45 PM	0	0	0	0	0	3	3	6	12	6	18	19	5	6	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
31	8/8/2019	5:00 PM	0	0	0	0	0	1	4	7	25	17	14	8	12	4	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
32	8/8/2019	5:15 PM	0	0	0	0	0	0	1	5	7	13	17	22	12	7	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
33	8/8/2019	5:30 PM	0	0	0	0	0	0	0	5	8	6	23	12	15	7	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
34	8/8/2019	5:45 PM	0	0	0	0	0	0	0	2	7	8	15	15	6	10	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
35	8/8/2019	6:00 PM	0	0	0	0	0	0	2	2	9	12	20	14	10	5	0	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
36	8/8/2019	6:15 PM	0	0	0	0	0	1	2	4	4	14	14	15	18	9	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
37	8/8/2019	6:30 PM	0	0	0	0	0	0	0	1	2	12	18	21	22	7	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
38	8/8/2019	6:45 PM	0	0	0	0	1	1	1	10	4	9	15	14	15	10	4	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
39	8/8/2019	7:00 PM	0	0	0	0	0	0	3	0	5	15	13	22	9	9	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
40	8/8/2019	7:15 PM	0	0	0	0	0	0	0	1	6	12	21	14	17	8	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
41	8/8/2019	7:30 PM	0	0	0	0	0	1	1	2	10	31	18	17	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
42	8/8/2019	7:45 PM	0	0	0	0	0	0	0	2	8	7	11	11	10	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
43	8/8/2019	8:00 PM	0	0	0	0	0	0	0	2	6	16	13	7	4	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
44	8/8/2019	8:15 PM	0	0	0	0	5	0	0	4	5	7	6	8	5	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
45	8/8/2019	8:30 PM	0	0	0	0	0	0	3	2	2	2	13	6	8	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
46	8/8/2019	8:45 PM	0	0	0	0	0	0	0	3	3	1	3	1	4	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
47	8/8/2019	9:00 PM	0	1	0	0	0	0	1	2	5	4	8	9	3	6	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
48	8/8/2019	9:15 PM	0	0	0	0	0	0	1	1	3	2	5	6	8	2	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
49	8/8/2019	9:30 PM	0	0	0	0	0	0	2	0	3	2	7	2	5	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
50	8/8/2019	9:45 PM	1	0	0	0	0	0	0	0	5	4	4	4	3	0	1	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
51	8/8/2019	10:00 PM	0	0	0	0	0	0	1	1	1	2	2	3	3	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
52	8/8/2019	10:15 PM	0	0	0	0	0	0	0	3	0	2	2	3	3	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
53	8/8/2019	10:30 PM	0	0	0	0	0	1	1	1	5	2	1	6	2	4	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	
54	8/8/2019	10:45 PM	0	0	0	0	0	0	0	0	1	2	1	1	2	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
55	8/8/2019	11:00 PM	1	0	0	0	0	0	0	0	1	0	1	3	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
56	8/8/2019	11:15 PM	0	0	0	0	0	0	1	0	2	1	2	3	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
57	8/8/2019	11:30 PM	0	0	0	0	0	0	0	1	0	2	2	2	3	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
58	8/8/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
59	8/9/2019	12:00 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
60	8/9/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
61	8/9/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
62	8/9/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
63	8/9/2019	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
64	8/9/2019	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
65	8/9/2019	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
66	8/9/2019	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
67	8/9/2019	2:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
68	8/9/2019	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
69	8/9/2019	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
70	8/9/2019	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
71	8/9/2019	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
72	8/9/2019	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
73	8/9/2019	3:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
74	8/9/2019	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
75	8/9/2019	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
76	8/9/2019	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	
77	8/9/2019	4:30 AM	0	0	0	0	0	0	0	0	0	2	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
78	8/9/2019	4:45 AM	0	0	0	0	0	0	0	0	2	1	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
79	8/9/2019	5:00 AM	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
80	8/9/2019	5:15 AM	0	0	0	0	0	0	0	0	1	0	0	1	0	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
81	8/9/2019	5:30 AM	0	0	0	0	0	0	0	1	2	1	1	2	2	2	3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
82	8/9/2019	5:45 AM	0	0	0	0	0	0	1	2	0	2	3	4	1	5	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
83	8/9/2019	6:00 AM	0	0	0	0	0	0	0	0	0	1	3	1	6	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
84	8/9/2019	6:15 AM	1	0	0	0	0	0	0	0	2	3	3	5	7	8	3	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
85	8/9/2019	6:30 AM	0	0	0	0	0	1	0	0	3	3	1	5	2	4	4	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
86	8/9/2019	6:45 AM	0	0	0	1	0	1	2	0	0	0	3	5	6	3	5	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
87	8/9/2019	7:00 AM	0	0	0	0	0	1	0	1	0	3	3	5	12	4	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
88	8/9/2019	7:15 AM	0	0	0	0	0	0	0	0	1	4	8	7	12	6	10	4	2	0	3	0	0	0	0	0	0	0	0	0	0	0	
89	8/9/2019	7:30 AM	0	0	0	0	0	0	0	0	3	4	5	2	8	7	9	6	0	2	0	1	0	0	0	0	0	0	0	0	0	0	
90	8/9/2019	7:45 AM	0	0	0	0	0	0	0	0	1	1	6	11	8	10	8	5	3	0	1	0	0	0	0	0	0	0	0	0	0	0	
91	8/9/2019	8:00 AM	0	0	0	0	0	0	0	3	4	2	9	9	14	4	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
92	8/9/2019	8:15 AM	0	0	0	0	0	0	0	1	3	2	10	9	8	14	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
93	8/9/2019	8:30 AM	0	0	0	0	0	0	1	1	1	4	8	9	14	12	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
94	8/9/2019	8:45 AM	0	0	0	0	0	0	0	2	1	1	5	11	12	12	4	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
95	8/9/2019	9:00 AM	0	0	0	0	0	0	0	1	1	8	12	16	15	9	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
96	8/9/2019	9:15 AM	0	0	0	0	0	1	0	2	3	7	6	7	12	8	4	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
97	8/9/2019	9:30 AM	0	0	0	0	0	0	1	0	1	4	6	10	11	8	10	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
98	8/9/2019	9:45 AM	0	0	0	0	0	0	0	0	0	4	5	10	15	10	8	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
99	8/9/2019	10:00 AM	0	0	0	0	0	0	1	0	3	8	18	13	14	11	7	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
100	8/9/2019	10:15 AM	0	0	0	0	0	0	0	2	2	10	16	17	22	7	4	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
101	8/9/2019	10:30 AM	0	0	0	1	0	0	1	3	4	2	14	11	14	9	10	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
102	8/9/2019	10:45 AM	0	0	0	0	0	0	0	2	3	4	8	7	8	8	2	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
103	8/9/2019	11:00 AM	0	0	0	0	0	0	0	3	5	7	7	14	6	5	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
104	8/9/2019	11:15 AM	0	0	0	0	0	0	2	1	1	3	9	4	14	3	9	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
105	8/9/2019	11:30 AM	0	0	0	0	0	0	2	8	10	13	25	10	19	4	2	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
106	8/9/2019	11:45 AM	0	0	0	0	1	1	2	6	7	8	12	12	14	1	6	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
107	8/9/2019	12:00 PM	1	0	0	0	1	2	2	1	8	6	7	6	6	5	7	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0	
108	8/9/2019	12:15 PM	0	0	0	0	0	2	3	3	0	6	8	12	13	3	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
109	8/9/2019	12:30 PM	1	0	0	0	1	4	2	4	6	14	9	10	4	8	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
110	8/9/2019	12:45 PM	0	0	0	0	1	0	0	1	5	9	11	8	11	5	4	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	
111	8/9/2019	1:00 PM	0	0	0	0	0	1	3	2	7	5	14	14	13	7	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
112	8/9/2019	1:15 PM	0	0	0	0	0	1	1	4	4	3	8	8	13	4	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
113	8/9/2019	1:30 PM	0	0	0	0	0	0	0	4	1	12	11	12	20	11	6	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
114	8/9/2019	1:45 PM	0	0	0	1	0	0	1	3	4	9	9	10	4	7	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
115	8/9/2019	2:00 PM	0	0	1	2	0	1	1	2	4	10	8	13	5	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
116	8/9/2019	2:15 PM	0	0	0	0	0	2	0	3	4	7	18	10	7	6	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
117	8/9/2019	2:30 PM	0	0	0	0	0	1	2	3	3	5	24	16	10	12	6	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
118	8/9/2019	2:45 PM	0	0	0	0	0	0	1	2	2	7	13	16	10	9	6	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	
119	8/9/2019	3:00 PM	0	0	0	1	0	0	1	4	4	13	12	11	10	6	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
120	8/9/2019	3:15 PM	0	0	0	0	1	1	2	3	3	9	15	7	7	6	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
121	8/9/2019	3:30 PM	0	0	0	0	0	1	2	7	8	13	16	20	12	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
122	8/9/2019	3:45 PM	0	0	0	0	0	0	0	1	5	10	15	10	11	13	7	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
123	8/9/2019	4:00 PM	2	0	0	0	0	0	1	2	4	2	11	16	10	8	5	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
124	8/9/2019	4:15 PM	0	0	1	0	1	0	5	2	1	6	11	10	11	5	4	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	
125	8/9/2019	4:30 PM	0	0	0	0	0	1	3	9	7	23	16	26	18	10	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
126	8/9/2019	4:45 PM	0	0	0	0	0	1	2	2	7	16	11	13	14	7	0	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
127	8/9/2019	5:00 PM	0	0	0	0	0	3	0	1	3	8	10	10	12	7	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
128	8/9/2019	5:15 PM	0	0	0	0	0	0	0	3	4	7	10	12	16	8	2	3	5	2	0	0	0	0	0	0	0	0	0	0	0	0	
129	8/9/2019	5:30 PM	0	0	0	0	0	0	0	5	8	3	9	15	7	3	3	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
130	8/9/2019	5:45 PM	0	0	0	0	0	0	1	0	1	4	6	7	15	7	5	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
131	8/9/2019	6:00 PM	0	0	1	0	0	1	1	2	2	2	4	10	7	6	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
132	8/9/2019	6:15 PM	0	0	0	0	1	1	0	0	2	5	7	5	11	7	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
133	8/9/2019	6:30 PM	0	0	0	0	0	0	0	1	5	11	6	9	13	10	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
134	8/9/2019	6:45 PM	0	0	0	0	0	0	2	0	4	6	5	7	13	2	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
135	8/9/2019	7:00 PM	0	0	0	0	0	1	0	1	2	6	8	8	12	9	7	5	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
136	8/9/2019	7:15 PM	0	0	0	0	0	1	0	2	5	6	11	8	7	7	3	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	
137	8/9/2019	7:30 PM	0	0	0	0	0	0	2	1	2	5	8	9	9	7	6	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
138	8/9/2019	7:45 PM	0	0	0	0	0	0	0	0	1	7	6	10	6	2	1	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	
139	8/9/2019	8:00 PM	0	0	0	0	0	0	1	0	3	3	6	1	6	2	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
140	8/9/2019	8:15 PM	0	0	0	0	0	0	0	1	1	6	5	7	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
141	8/9/2019	8:30 PM	0	0	0	0	0	1	0	1	0	1	2	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
142	8/9/2019	8:45 PM	0	0	0	0	0	0	0	0	2	2	1	1	2	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
143	8/9/2019	9:00 PM	0	0	0	0	0	0	0	0	1	3	2	1	2	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
144	8/9/2019	9:15 PM	0	0	0	0	0	0	1	1	3	2	4	5	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
145	8/9/2019	9:30 PM	0	0	0	0	0	0	0	2	1	2	6	2	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
146	8/9/2019	9:45 PM	0	0	0	0	0	0	0	1	0	0	1	1	3	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
147	8/9/2019	10:00 PM	0	0	0	0	0	0	0	0	0	0	1	3	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
148	8/9/2019	10:15 PM	0	0	0	0	0	0	0	2	1	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
149	8/9/2019	10:30 PM	0	0	0	0	0	0	0	1	1	2	1	2	3	3	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	
150	8/9/2019	10:45 PM	0	0	0	0	0	1	1	1	1	4	0	3	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
151	8/9/2019	11:00 PM	0	0	0	0	0	0	0	1	1	0	1	1	1	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
152	8/9/2019	11:15 PM	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
153	8/9/2019	11:30 PM	0	0	0	0	0	0	0	0	0	1	0	1	4	4	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
154	8/9/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
155	8/10/2019	12:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
156	8/10/2019	12:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
157	8/10/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
158	8/10/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
159	8/10/2019	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
160	8/10/2019	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
161	8/10/2019	1:30 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
162	8/10/2019	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
163	8/10/2019	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
164	8/10/2019	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
165	8/10/2019	2:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
166	8/10/2019	2:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
167	8/10/2019	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
168	8/10/2019	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
169	8/10/2019	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
170	8/10/2019	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
171	8/10/2019	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
172	8/10/2019	4:15 AM	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
173	8/10/2019	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
174	8/10/2019	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
175	8/10/2019	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
176	8/10/2019	5:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
177	8/10/2019	5:30 AM	0	0	0	0	0	0	0	0	0	1	1	1	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
178	8/10/2019	5:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
179	8/10/2019	6:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
180	8/10/2019	6:15 AM	0	0	0	0	0	0	0	0	0	2	0	1	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
181	8/10/2019	6:30 AM	0	0	0	0	0	0	0	0	0	1	0	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
182	8/10/2019	6:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	2	4	2	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	
183	8/10/2019	7:00 AM	0	0	0	0	0	0	0	0	0	1	0	1	0	2	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	
184	8/10/2019	7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	2	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
185	8/10/2019	7:30 AM	1	0	0	0	0	0	0	0	1	1	2	6	5	4	5	4	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
186	8/10/2019	7:45 AM	0	0	0	0	1	0	0	0	0	0	2	1	6	5	2	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	
187	8/10/2019	8:00 AM	0	0	0	0	0	0	0	0	0	0	2	5	6	2	1	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
188	8/10/2019	8:15 AM	1	0	0	0	0	0	0	0	2	3	0	7	7	6	4	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
189	8/10/2019	8:30 AM	0	0	0	0	0	0	0	1	4	5	4	8	7	3	7	4	1	1	0	0	0	0	0	1	0	0	0	0	0	0	
190	8/10/2019	8:45 AM	1	0	0	0	0	1	3	0	2	4	8	15	17	5	7	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
191	8/10/2019	9:00 AM	0	0	0	0	0	0	1	0	2	4	9	10	4	8	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
192	8/10/2019	9:15 AM	1	0	0	0	0	0	0	0	1	2	4	6	5	10	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
193	8/10/2019	9:30 AM	0	0	0	0	0	0	0	0	1	0	4	6	6	8	6	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
194	8/10/2019	9:45 AM	0	0	0	0	0	1	0	0	1	0	10	20	16	16	3	3	1	3	1	0	0	0	0	0	0	0	0	0	0	0	
195	8/10/2019	10:00 AM	0	0	0	0	0	4	3	1	2	5	4	12	11	7	6	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
196	8/10/2019	10:15 AM	0	0	0	0	0	1	0	2	0	2	11	9	8	9	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
197	8/10/2019	10:30 AM	0	0	0	0	0	0	0	0	3	6	8	13	12	6	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
198	8/10/2019	10:45 AM	0	0	0	0	0	0	0	0	0	0	9	12	11	12	9	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
199	8/10/2019	11:00 AM	0	0	0	0	0	0	1	1	4	4	7	10	14	14	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
200	8/10/2019	11:15 AM	0	0	0	0	0	0	0	0	4	4	11	16	9	13	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
201	8/10/2019	11:30 AM	0	0	0	0	0	0	1	1	4	11	10	14	11	11	2	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
202	8/10/2019	11:45 AM	0	0	0	0	0	0	0	2	3	9	11	13	11	12	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
203	8/10/2019	12:00 PM	0	0	0	0	0	0	0	0	2	5	11	16	10	9	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
204	8/10/2019	12:15 PM	0	0	0	0	0	1	0	1	5	9	12	7	7	8	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
205	8/10/2019	12:30 PM	0	0	0	0	0	0	0	3	13	11	14	9	11	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
206	8/10/2019	12:45 PM	0	0	0	0	0	0	0	2	3	5	8	18	12	5	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
207	8/10/2019	1:00 PM	0	0	0	1	1	1	3	4	6	7	18	6	9	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
208	8/10/2019	1:15 PM	0	0	0	0	0	0	3	7	7	8	7	7	8	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
209	8/10/2019	1:30 PM	0	0	0	0	0	2	2	0	2	10	9	13	9	9	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
210	8/10/2019	1:45 PM	0	0	0	0	1	0	0	1	1	5	10	15	14	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
211	8/10/2019	2:00 PM	0	0	0	0	0	0	3	2	4	3	6	1	6	7	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
212	8/10/2019	2:15 PM	0	0	0	0	0	1	1	0	3	0	5	6	5	9	4	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
213	8/10/2019	2:30 PM	0	0	0	0	0	0	0	2	4	4	6	7	10	2	3	2	0	2	0	0	1	0	0	0	0	0	0	0	0	0	
214	8/10/2019	2:45 PM	0	0	0	0	0	0	0	1	2	2	4	6	9	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
215	8/10/2019	3:00 PM	0	0	0	0	0	0	1	2	1	3	8	12	7	6	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
216	8/10/2019	3:15 PM	0	0	0	0	0	0	1	1	2	5	7	8	12	3	2	2	4	1	1	0	0	0	0	0	0	0	0	0	0	0	
217	8/10/2019	3:30 PM	0	0	0	0	0	0	0	1	3	6	12	11	14	6	2	4	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
218	8/10/2019	3:45 PM	0	0	0	0	0	0	0	1	2	4	4	6	16	12	6	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
219	8/10/2019	4:00 PM	0	0	0	0	0	0	2	5	4	4	14	17	9	9	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
220	8/10/2019	4:15 PM	0	0	1	0	0	0	0	2	1	2	8	14	9	7	1	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
221	8/10/2019	4:30 PM	0	0	0	0	0	1	1	2	0	4	13	15	9	9	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
222	8/10/2019	4:45 PM	0	0	0	1	0	0	0	0	1	6	8	12	14	6	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
223	8/10/2019	5:00 PM	0	0	0	0	0	0	1	1	1	5	2	5	7	8	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
224	8/10/2019	5:15 PM	0	0	0	0	0	0	0	1	3	4	6	7	7	2	5	5	1	0	2	0	0	1	0	0	0	0	0	0	0	0	
225	8/10/2019	5:30 PM	0	0	0	0	0	0	0	2	5	7	5	12	10	6	2	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
226	8/10/2019	5:45 PM	0	0	0	0	0	0	2	0	1	3	6	10	5	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
227	8/10/2019	6:00 PM	0	0	0	0	0	0	0	0	1	5	6	7	2	3	2	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
228	8/10/2019	6:15 PM	0	0	2	0	0	1	0	1	3	1	3	7	3	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
229	8/10/2019	6:30 PM	0	0	0	0	0	0	0	2	1	2	6	3	4	4	6	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
230	8/10/2019	6:45 PM	0	0	0	0	0	1	1	0	5	2	2	3	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
231	8/10/2019	7:00 PM	0	0	0	0	0	0	0	0	1	1	9	4	4	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
232	8/10/2019	7:15 PM	0	0	0	1	1	0	0	1	1	5	3	3	9	4	3	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
233	8/10/2019	7:30 PM	0	0	0	0	0	0	0	1	0	3	4	1	2	5	4	1	0	2	0	0	0	0	0	0	0	0	1	0	0	0	
234	8/10/2019	7:45 PM	0	0	0	0	0	1	0	1	0	4	4	4	5	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
235	8/10/2019	8:00 PM	0	0	0	0	0	0	0	0	0	1	0	5	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
236	8/10/2019	8:15 PM	0	0	0	0	0	0	0	1	0	0	0	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
237	8/10/2019	8:30 PM	0	0	0	0	0	1	0	0	0	1	3	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
238	8/10/2019	8:45 PM	0	0	0	0	0	0	0	0	0	2	0	0	2	3	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
239	8/10/2019	9:00 PM	0	0	0	0	0	0	0	0	0	2	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
240	8/10/2019	9:15 PM	0	0	0	0	0	0	0	0	0	0	1	0	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
241	8/10/2019	9:30 PM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
242	8/10/2019	9:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
243	8/10/2019	10:00 PM	0	0	0	0	0	0	0	1	0	1	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
244	8/10/2019	10:15 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
245	8/10/2019	10:30 PM	0	0	0	0	0	0	0	1	1	2	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
246	8/10/2019	10:45 PM	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
247	8/10/2019	11:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
248	8/10/2019	11:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
249	8/10/2019	11:30 PM	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
250	8/10/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
251	8/11/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
252	8/11/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
253	8/11/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
254	8/11/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
255	8/11/2019	1:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
256	8/11/2019	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
257	8/11/2019	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
258	8/11/2019	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
259	8/11/2019	2:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
260	8/11/2019	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
261	8/11/2019	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
262	8/11/2019	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
263	8/11/2019	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
264	8/11/2019	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
265	8/11/2019	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
266	8/11/2019	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
267	8/11/2019	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
268	8/11/2019	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
269	8/11/2019	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
270	8/11/2019	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
271	8/11/2019	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
272	8/11/2019	5:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
273	8/11/2019	5:30 AM	0	0	0	0	0	0	0	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
274	8/11/2019	5:45 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
275	8/11/2019	6:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
276	8/11/2019	6:15 AM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
277	8/11/2019	6:30 AM	0	0	0	0	0	1	0	0	0	1	1	1	0	0	1	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0	
278	8/11/2019	6:45 AM	0	0	0	0	0	0	0	0	0	0	1	2	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
279	8/11/2019	7:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	1	3	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
280	8/11/2019	7:15 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
281	8/11/2019	7:30 AM	0	0	0	0	0	0	0	0	1	1	1	1	2	3	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
282	8/11/2019	7:45 AM	0	0	0	0	0	0	0	0	0	1	0	2	4	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
283	8/11/2019	8:00 AM	0	0	0	0	0	0	0	0	0	0	1	4	4	4	3	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
284	8/11/2019	8:15 AM	0	0	0	0	0	0	0	1	0	3	2	1	2	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
285	8/11/2019	8:30 AM	0	0	0	0	0	0	0	0	0	1	5	2	8	9	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
286	8/11/2019	8:45 AM	0	0	0	0	0	0	0	0	1	3	4	5	4	5	5	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
287	8/11/2019	9:00 AM	0	0	0	0	0	0	0	2	1	0	3	9	10	8	5	5	3	1	0	1	0	0	0	0	0	0	0	0	0	0	
288	8/11/2019	9:15 AM	0	0	0	0	0	0	0	0	0	0	3	6	8	4	2	3	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
289	8/11/2019	9:30 AM	0	0	0	0	0	0	0	0	0	0	4	6	5	5	9	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
290	8/11/2019	9:45 AM	0	0	0	0	0	0	0	0	2	2	5	10	4	10	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
291	8/11/2019	10:00 AM	0	0	0	0	0	0	0	1	2	8	3	12	13	10	6	2	1	0	0	1	1	0	0	0	0	0	0	0	0	0	
292	8/11/2019	10:15 AM	0	0	0	0	0	0	0	0	0	2	4	5	7	12	3	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
293	8/11/2019	10:30 AM	1	0	0	0	0	0	1	0	1	4	9	9	15	4	4	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
294	8/11/2019	10:45 AM	0	0	0	0	0	0	0	0	0	1	12	3	7	9	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
295	8/11/2019	11:00 AM	0	0	0	0	0	0	0	1	2	6	4	15	11	5	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
296	8/11/2019	11:15 AM	0	0	0	0	0	0	0	1	5	6	7	16	21	8	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
297	8/11/2019	11:30 AM	0	0	0	0	0	0	0	2	3	5	8	14	15	5	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
298	8/11/2019	11:45 AM	0	0	0	0	0	0	0	1	1	3	7	9	4	7	4	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
299	8/11/2019	12:00 PM	0	0	0	0	0	0	0	1	2	2	9	9	5	7	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
300	8/11/2019	12:15 PM	0	0	0	0	0	0	0	0	4	8	10	5	8	7	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
301	8/11/2019	12:30 PM	0	0	0	0	0	0	0	1	2	4	9	8	9	5	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
302	8/11/2019	12:45 PM	0	0	0	0	0	0	0	0	6	8	2	2	8	7	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
303	8/11/2019	1:00 PM	0	0	0	0	0	0	0	2	5	5	5	11	6	2	2	0	3	0	0	1	0	0	0	0	0	0	0	0	0	0	
304	8/11/2019	1:15 PM	0	0	0	0	0	1	1	3	2	7	8	12	9	2	8	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
305	8/11/2019	1:30 PM	0	0	0	0	1	1	0	3	0	4	10	10	8	7	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
306	8/11/2019	1:45 PM	0	0	0	0	0	0	1	1	2	5	7	11	8	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
307	8/11/2019	2:00 PM	0	0	0	0	0	0	0	0	5	6	8	9	7	6	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
308	8/11/2019	2:15 PM	0	0	0	0	0	0	0	0	4	2	4	7	2	4	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
309	8/11/2019	2:30 PM	0	0	0	0	0	2	0	1	0	6	7	5	10	3	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
310	8/11/2019	2:45 PM	0	0	0	0	0	1	1	3	4	5	8	10	7	4	2	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
311	8/11/2019	3:00 PM	0	0	0	0	0	0	0	0	2	2	7	9	3	4	5	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
312	8/11/2019	3:15 PM	0	0	0	0	0	0	0	1	1	4	6	11	10	5	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
313	8/11/2019	3:30 PM	0	0	0	0	0	0	0	4	4	5	4	7	7	6	5	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
314	8/11/2019	3:45 PM	0	0	0	0	0	1	0	2	3	4	7	8	12	2	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
315	8/11/2019	4:00 PM	0	0	0	0	0	0	0	1	3	2	6	10	8	6	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
316	8/11/2019	4:15 PM	0	0	0	0	0	0	0	0	2	4	5	4	6	4	0	0	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
317	8/11/2019	4:30 PM	0	0	0	0	0	1	1	2	2	6	7	9	13	4	1	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
318	8/11/2019	4:45 PM	0	0	0	0	0	0	1	1	0	4	11	11	11	8	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
319	8/11/2019	5:00 PM	0	0	0	0	0	1	3	2	1	3	7	11	14	5	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
320	8/11/2019	5:15 PM	0	0	0	0	0	0	0	0	2	7	11	8	10	9	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
321	8/11/2019	5:30 PM	0	0	0	0	0	3	1	4	0	5	4	6	9	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
322	8/11/2019	5:45 PM	0	0	0	1	0	0	0	1	2	3	13	8	6	5	1	0	2	0	0	2	0	0	0	0	0	0	0	0	1	0	
323	8/11/2019	6:00 PM	0	0	0	0	0	0	0	0	2	3	9	3	7	5	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
324	8/11/2019	6:15 PM	0	0	0	0	0	0	0	1	3	1	4	4	3	4	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
325	8/11/2019	6:30 PM	0	0	0	0	0	1	0	1	2	3	7	10	2	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
326	8/11/2019	6:45 PM	0	0	0	0	0	0	1	0	3	2	2	3	2	0	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
327	8/11/2019	7:00 PM	0	1	0	0	0	0	2	1	2	3	1	2	5	2	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
328	8/11/2019	7:15 PM	0	0	0	0	0	0	2	1	3	6	4	7	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
329	8/11/2019	7:30 PM	0	0	0	0	0	0	0	2	1	1	1	5	4	1	0	1	0	1	0	1	0	0	0	0	0	0	0	0	0	0	
330	8/11/2019	7:45 PM	0	0	0	0	0	0	0	0	1	1	1	1	1	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
331	8/11/2019	8:00 PM	0	0	0	0	0	0	0	0	1	1	1	4	4	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
332	8/11/2019	8:15 PM	0	0	0	0	0	0	1	0	0	1	2	0	2	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
333	8/11/2019	8:30 PM	0	0	0	0	0	0	0	2	0	0	2	1	0	1	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
334	8/11/2019	8:45 PM	0	0	0	0	0	0	0	0	0	3	2	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
335	8/11/2019	9:00 PM	0	0	0	0	0	0	0	0	0	0	0	2	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
336	8/11/2019	9:15 PM	0	0	0	0	0	0	0	0	0	1	1	0	3	1	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
337	8/11/2019	9:30 PM	0	0	0	0	0	0	0	0	1	0	2	1	2	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
338	8/11/2019	9:45 PM	0	0	0	0	0	0	0	0	0	2	0	2	1	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
339	8/11/2019	10:00 PM	0	0	0	0	0	0	0	0	0	1	0	1	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
340	8/11/2019	10:15 PM	0	0	0	0	0	0	0	0	0	1	1	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
341	8/11/2019	10:30 PM	0	0	0	0	0	0	0	0	0	0	1	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
342	8/11/2019	10:45 PM	0	0	0	0	0	0	0	0	1	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
343	8/11/2019	11:00 PM	1	0	0	0	0	0	0	0	0	0	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
344	8/11/2019	11:15 PM	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
345	8/11/2019	11:30 PM	0	0	0	0	0	1	0	0	0	1	0	0	3	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
346	8/11/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
347	8/12/2019	12:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
348	8/12/2019	12:15 AM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
349	8/12/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
350	8/12/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
351	8/12/2019	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
352	8/12/2019	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
353	8/12/2019	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
354	8/12/2019	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
355	8/12/2019	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
356	8/12/2019	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
357	8/12/2019	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
358	8/12/2019	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
359	8/12/2019	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
360	8/12/2019	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
361	8/12/2019	3:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
362	8/12/2019	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
363	8/12/2019	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
364	8/12/2019	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
365	8/12/2019	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
366	8/12/2019	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	2	0	1	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
367	8/12/2019	5:00 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
368	8/12/2019	5:15 AM	0	0	0	0	0	0	0	0	0	0	2	1	1	1	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
369	8/12/2019	5:30 AM	0	0	0	0	0	0	0	0	0	2	0	6	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
370	8/12/2019	5:45 AM	0	0	0	0	0	0	0	1	1	0	5	7	2	3	3	4	3	0	1	0	0	0	0	0	0	0	0	0	0	0	
371	8/12/2019	6:00 AM	0	0	0	0	0	0	0	0	1	3	2	5	4	5	5	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
372	8/12/2019	6:15 AM	0	0	0	0	0	0	0	0	2	3	2	6	5	1	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
373	8/12/2019	6:30 AM	0	0	0	0	0	0	0	1	4	1	2	4	5	5	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
374	8/12/2019	6:45 AM	0	0	0	0	0	0	0	0	0	6	1	9	3	8	3	2	4	1	0	0	0	0	0	0	0	0	0	0	0	0	
375	8/12/2019	7:00 AM	0	0	0	0	0	0	1	0	1	2	6	2	10	3	4	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
376	8/12/2019	7:15 AM	0	0	0	0	0	0	0	0	0	1	7	3	11	8	5	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
377	8/12/2019	7:30 AM	0	0	0	0	0	0	0	0	1	1	4	10	11	11	6	7	3	0	1	0	0	0	0	0	0	0	0	0	0	0	
378	8/12/2019	7:45 AM	2	0	0	0	0	0	0	0	3	1	8	17	14	6	6	8	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
379	8/12/2019	8:00 AM	0	0	0	0	0	0	0	1	2	6	3	11	14	5	5	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
380	8/12/2019	8:15 AM	0	0	0	0	0	0	1	0	3	5	7	12	17	10	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
381	8/12/2019	8:30 AM	2	0	0	0	0	0	0	2	3	3	6	4	13	11	7	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
382	8/12/2019	8:45 AM	0	0	0	0	0	0	0	1	3	5	11	10	1	6	3	6	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
383	8/12/2019	9:00 AM	0	0	0	0	0	0	0	2	3	10	11	13	16	15	6	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
384	8/12/2019	9:15 AM	0	0	0	0	0	0	0	3	3	2	10	13	14	7	4	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	
385	8/12/2019	9:30 AM	4	0	0	0	0	0	0	5	3	7	10	7	7	7	5	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
386	8/12/2019	9:45 AM	0	0	0	0	0	0	0	1	1	4	6	7	8	6	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
387	8/12/2019	10:00 AM	1	0	1	1	1	0	0	2	3	6	12	14	17	12	7	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
388	8/12/2019	10:15 AM	1	0	1	0	0	1	0	2	8	8	20	16	5	4	8	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
389	8/12/2019	10:30 AM	0	0	0	0	0	1	1	1	4	10	15	14	12	3	6	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
390	8/12/2019	10:45 AM	3	0	0	0	0	0	1	2	2	4	8	9	9	8	4	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
391	8/12/2019	11:00 AM	0	0	0	0	0	0	0	0	4	2	6	4	6	10	2	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
392	8/12/2019	11:15 AM	0	0	0	0	0	0	3	1	1	4	4	13	9	13	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
393	8/12/2019	11:30 AM	0	0	0	0	0	0	2	0	6	10	14	16	16	9	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
394	8/12/2019	11:45 AM	0	0	0	0	0	0	1	0	4	7	8	17	3	7	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
395	8/12/2019	12:00 PM	0	0	0	0	0	2	1	1	1	5	9	12	9	4	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
396	8/12/2019	12:15 PM	0	0	0	1	0	0	0	4	5	7	12	6	5	7	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
397	8/12/2019	12:30 PM	0	0	0	0	1	0	2	3	6	11	12	19	11	12	7	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
398	8/12/2019	12:45 PM	0	0	0	0	2	5	4	1	4	8	10	11	11	5	1	3	0	2	1	0	0	0	0	0	0	0	0	0	0	0	
399	8/12/2019	1:00 PM	0	1	0	0	0	0	1	2	5	5	5	9	8	4	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
400	8/12/2019	1:15 PM	0	0	0	0	0	1	1	4	4	11	7	10	14	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
401	8/12/2019	1:30 PM	0	0	0	1	0	0	0	4	2	7	7	9	8	6	6	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
402	8/12/2019	1:45 PM	0	0	0	0	0	2	1	2	6	10	6	13	7	5	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
403	8/12/2019	2:00 PM	0	0	0	0	0	0	1	1	2	5	8	11	10	3	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
404	8/12/2019	2:15 PM	0	0	0	0	0	3	0	3	6	6	9	8	9	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
405	8/12/2019	2:30 PM	1	0	2	0	0	0	5	4	3	11	11	20	11	9	4	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	
406	8/12/2019	2:45 PM	0	0	0	0	0	3	1	3	7	11	13	7	11	4	4	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
407	8/12/2019	3:00 PM	0	0	0	0	0	0	1	3	3	8	14	8	10	11	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
408	8/12/2019	3:15 PM	0	0	0	0	1	2	1	2	7	9	12	11	11	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
409	8/12/2019	3:30 PM	0	0	0	0	0	1	2	7	2	13	19	14	14	8	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
410	8/12/2019	3:45 PM	0	0	0	0	0	0	0	0	1	7	7	11	11	10	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
411	8/12/2019	4:00 PM	0	0	0	0	0	0	6	5	3	5	8	11	7	7	6	2	2	0	0	0	0	0	2	0	0	0	0	0	0	0	
412	8/12/2019	4:15 PM	0	0	0	0	0	0	2	2	6	8	14	7	12	6	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
413	8/12/2019	4:30 PM	0	0	0	2	0	3	1	18	15	18	22	27	17	13	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
414	8/12/2019	4:45 PM	0	0	0	0	0	0	3	4	15	18	11	10	6	8	8	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
415	8/12/2019	5:00 PM	0	0	0	0	0	1	4	3	1	16	20	15	17	6	1	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
416	8/12/2019	5:15 PM	0	0	0	0	0	0	1	4	7	13	19	14	11	9	4	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
417	8/12/2019	5:30 PM	0	0	0	0	1	1	1	1	4	10	12	18	14	10	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
418	8/12/2019	5:45 PM	0	0	0	0	0	0	1	4	6	12	9	20	14	9	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
419	8/12/2019	6:00 PM	0	0	0	1	1	0	2	2	2	10	11	17	11	5	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
420	8/12/2019	6:15 PM	0	0	0	0	0	0	0	2	5	6	13	13	8	7	2	5	1	2	1	0	0	0	0	0	0	0	0	0	0	0	
421	8/12/2019	6:30 PM	1	0	0	0	0	0	0	2	6	10	14	24	18	14	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
422	8/12/2019	6:45 PM	0	0	0	0	0	0	1	6	11	10	13	23	11	11	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
423	8/12/2019	7:00 PM	0	0	0	0	0	0	2	2	5	4	19	22	11	12	8	4	1	1	0	1	0	0	0	0	0	0	0	0	0	0	
424	8/12/2019	7:15 PM	0	1	0	1	1	2	2	4	4	10	14	10	12	11	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
425	8/12/2019	7:30 PM	0	0	0	0	0	0	0	2	5	11	16	20	10	8	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
426	8/12/2019	7:45 PM	1	0	0	0	0	0	2	0	2	9	11	13	17	4	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
427	8/12/2019	8:00 PM	0	0	0	0	0	0	0	0	4	8	14	12	9	10	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
428	8/12/2019	8:15 PM	0	0	0	0	0	1	0	3	1	2	12	8	7	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
429	8/12/2019	8:30 PM	0	0	0	0	0	0	0	0	3	0	10	6	11	5	2	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
430	8/12/2019	8:45 PM	0	0	0	0	0	0	0	0	2	6	5	10	4	5	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
431	8/12/2019	9:00 PM	0	0	0	0	0	0	1	4	1	3	1	9	3	9	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
432	8/12/2019	9:15 PM	0	0	0	0	0	0	1	1	2	4	2	3	2	2	6	4	0	1	0	1	0	0	0	0	0	0	0	0	0	0	
433	8/12/2019	9:30 PM	0	0	0	0	0	0	0	0	1	4	2	5	5	2	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
434	8/12/2019	9:45 PM	0	0	0	0	0	0	0	0	4	4	5	3	3	4	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
435	8/12/2019	10:00 PM	0	0	0	0	0	0	0	1	0	2	3	8	7	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
436	8/12/2019	10:15 PM	0	0	0	0	0	0	1	0	2	3	4	2	3	1	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	
437	8/12/2019	10:30 PM	0	0	0	0	0	0	1	1	0	7	3	6	4	3	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
438	8/12/2019	10:45 PM	0	0	0	0	0	0	0	1	0	2	4	2	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
439	8/12/2019	11:00 PM	0	0	0	0	0	0	0	0	0	1	1	2	4	1	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
440	8/12/2019	11:15 PM	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
441	8/12/2019	11:30 PM	0	0	0	0	0	0	0	0	1	1	1	1	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
442	8/12/2019	11:45 PM	0	0	0	0	0	0	0	0	0	1	1	0	1	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
443	8/13/2019	12:00 AM	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
444	8/13/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
445	8/13/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
446	8/13/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
447	8/13/2019	1:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
448	8/13/2019	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
449	8/13/2019	1:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
450	8/13/2019	1:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
451	8/13/2019	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
452	8/13/2019	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
453	8/13/2019	2:30 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
454	8/13/2019	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
455	8/13/2019	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
456	8/13/2019	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
457	8/13/2019	3:30 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
458	8/13/2019	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
459	8/13/2019	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
460	8/13/2019	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
461	8/13/2019	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
462	8/13/2019	4:45 AM	0	0	0	0	0	0	0	0	1	2	2	1	0	0	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
463	8/13/2019	5:00 AM	0	0	0	0	0	0	0	1	0	2	0	1	1	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
464	8/13/2019	5:15 AM	0	0	0	0	0	0	0	1	0	1	0	4	0	1	1	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
465	8/13/2019	5:30 AM	0	0	0	0	0	0	0	0	0	1	0	5	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
466	8/13/2019	5:45 AM	0	0	0	0	0	0	0	0	0	0	0	4	4	0	3	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
467	8/13/2019	6:00 AM	0	0	0	0	0	0	0	0	0	2	5	10	3	7	5	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
468	8/13/2019	6:15 AM	0	0	0	0	0	0	0	0	0	0	4	4	9	5	6	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
469	8/13/2019	6:30 AM	0	0	0	0	0	0	1	0	0	2	3	6	5	7	2	1	2	1	0	1	0	0	0	0	0	0	0	0	0	0	
470	8/13/2019	6:45 AM	0	0	0	0	0	0	1	0	4	3	4	5	6	1	4	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	
471	8/13/2019	7:00 AM	3	0	0	1	0	0	0	1	2	4	5	8	9	0	7	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
472	8/13/2019	7:15 AM	0	0	0	0	0	0	0	1	2	2	10	15	10	8	4	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
473	8/13/2019	7:30 AM	0	0	0	0	0	0	0	1	4	3	6	12	15	8	6	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
474	8/13/2019	7:45 AM	0	0	0	0	0	0	0	2	3	2	11	10	8	10	2	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	
475	8/13/2019	8:00 AM	0	0	0	0	0	0	0	1	0	11	13	7	14	7	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
476	8/13/2019	8:15 AM	0	0	0	0	0	0	0	2	3	7	14	11	7	2	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
477	8/13/2019	8:30 AM	3	1	0	0	0	0	0	1	2	4	9	4	6	6	8	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
478	8/13/2019	8:45 AM	0	0	0	0	0	0	0	0	1	6	12	8	17	11	5	3	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
479	8/13/2019	9:00 AM	0	0	0	0	0	0	1	1	2	8	16	14	14	8	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
480	8/13/2019	9:15 AM	0	0	0	0	0	1	0	0	0	3	3	12	10	11	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
481	8/13/2019	9:30 AM	0	0	0	0	0	2	1	1	3	6	9	8	11	9	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
482	8/13/2019	9:45 AM	0	0	0	0	2	0	0	0	4	5	8	7	3	7	4	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
483	8/13/2019	10:00 AM	0	0	0	0	0	0	0	2	8	15	16	18	16	6	7	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
484	8/13/2019	10:15 AM	0	0	0	0	0	0	1	2	5	13	22	11	9	8	5	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
485	8/13/2019	10:30 AM	0	0	0	0	0	0	1	2	2	7	13	8	12	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
486	8/13/2019	10:45 AM	0	0	0	0	0	1	0	4	6	12	10	10	12	4	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
487	8/13/2019	11:00 AM	0	0	0	0	1	2	3	2	10	7	9	15	13	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
488	8/13/2019	11:15 AM	0	0	0	0	0	0	1	2	5	9	11	12	12	5	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
489	8/13/2019	11:30 AM	0	0	0	0	0	0	0	0	5	12	13	23	17	7	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
490	8/13/2019	11:45 AM	0	0	0	0	0	1	2	0	10	7	14	14	9	4	3	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
491	8/13/2019	12:00 PM	0	0	0	0	0	1	5	3	7	8	2	11	5	1	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
492	8/13/2019	12:15 PM	0	0	0	0	0	0	0	2	0	7	8	8	8	6	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
493	8/13/2019	12:30 PM	0	0	0	0	0	0	1	7	4	10	11	16	11	9	8	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
494	8/13/2019	12:45 PM	0	0	0	0	0	0	2	0	9	9	11	9	9	8	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
495	8/13/2019	1:00 PM	0	0	0	0	0	0	2	1	2	10	7	17	7	5	3	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
496	8/13/2019	1:15 PM	0	0	0	0	0	1	0	2	3	7	11	9	11	6	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
497	8/13/2019	1:30 PM	0	0	0	0	0	0	0	6	3	5	10	10	8	13	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
498	8/13/2019	1:45 PM	0	0	0	0	1	0	1	1	7	9	4	3	4	4	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
499	8/13/2019	2:00 PM	0	1	0	0	0	0	0	2	5	4	4	9	11	3	2	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	
500	8/13/2019	2:15 PM	0	0	0	0	1	0	1	2	12	14	12	5	4	0	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
501	8/13/2019	2:30 PM	0	0	0	0	0	1	2	1	1	10	11	15	12	4	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
502	8/13/2019	2:45 PM	0	0	0	1	0	0	0	2	4	4	13	5	7	2	1	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
503	8/13/2019	3:00 PM	0	0	0	0	0	0	3	5	9	7	8	9	6	9	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
504	8/13/2019	3:15 PM	0	0	0	0	0	0	2	0	3	10	13	12	6	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
505	8/13/2019	3:30 PM	0	0	0	0	0	3	2	11	14	6	8	16	4	4	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
506	8/13/2019	3:45 PM	0	0	0	0	2	3	1	4	7	14	11	13	5	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
507	8/13/2019	4:00 PM	1	0	0	0	2	0	1	4	5	11	9	12	10	6	3	1	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
508	8/13/2019	4:15 PM	0	0	0	0	0	1	5	3	4	9	6	16	10	7	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
509	8/13/2019	4:30 PM	0	0	0	0	1	0	2	5	13	21	22	25	12	13	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
510	8/13/2019	4:45 PM	0	0	0	0	0	0	0	1	6	11	7	15	10	12	5	2	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
511	8/13/2019	5:00 PM	0	0	0	0	0	3	4	6	14	16	18	17	9	7	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
512	8/13/2019	5:15 PM	0	0	0	0	0	0	2	5	9	14	13	21	13	11	5	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
513	8/13/2019	5:30 PM	0	0	0	0	0	0	1	4	7	14	20	23	19	10	5	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
514	8/13/2019	5:45 PM	0	0	0	0	0	0	0	1	8	5	20	17	11	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
515	8/13/2019	6:00 PM	1	0	0	0	0	1	3	4	6	10	14	12	7	8	5	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
516	8/13/2019	6:15 PM	0	0	0	0	1	1	0	1	3	11	12	17	11	6	6	2	2	0	1	1	0	0	0	0	0	0	0	0	0	0	
517	8/13/2019	6:30 PM	0	0	0	0	0	0	1	2	6	12	10	19	14	16	5	6	0	0	1	0	0	1	0	0	0	0	0	0	0	0	
518	8/13/2019	6:45 PM	0	0	0	0	0	0	1	2	2	5	13	16	23	11	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
519	8/13/2019	7:00 PM	0	0	0	0	0	0	0	1	7	6	15	16	12	9	5	2	0	0	1	0	0	0	1	0	0	0	0	0	0	0	
520	8/13/2019	7:15 PM	0	0	0	0	0	0	0	1	5	8	8	11	5	4	6	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
521	8/13/2019	7:30 PM	0	1	0	0	0	2	5	4	14	6	15	14	6	7	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
522	8/13/2019	7:45 PM	0	0	0	2	1	3	0	6	7	8	4	9	4	4	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
523	8/13/2019	8:00 PM	2	0	0	1	1	5	5	8	5	3	8	6	7	5	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
524	8/13/2019	8:15 PM	0	0	2	0	2	2	3	5	4	8	11	5	4	3	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
525	8/13/2019	8:30 PM	0	0	0	0	1	1	5	4	5	12	11	12	4	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
526	8/13/2019	8:45 PM	0	0	0	0	0	0	0	0	4	5	13	9	7	2	4	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	
527	8/13/2019	9:00 PM	0	0	0	0	0	0	0	1	0	4	5	7	8	2	3	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
528	8/13/2019	9:15 PM	0	0	0	0	0	0	0	0	1	5	5	6	4	1	3	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
529	8/13/2019	9:30 PM	0	0	0	0	0	0	1	0	2	2	6	10	9	2	2	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
530	8/13/2019	9:45 PM	0	0	0	0	0	1	0	2	1	1	5	4	2	1	3	5	1	0	0	0	0	0	0	1	0	0	0	0	0	0	
531	8/13/2019	10:00 PM	0	0	0	0	0	0	0	2	1	3	0	1	5	2	3	1	0	0	2	0	1	0	1	0	0	0	0	0	0	0	
532	8/13/2019	10:15 PM	0	0	0	0	0	0	0	0	1	0	1	0	1	3	4	0	1	0	0	2	0	1	0	0	0	0	0	0	0	0	
533	8/13/2019	10:30 PM	0	0	0	0	0	0	0	0	0	2	0	4	5	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
534	8/13/2019	10:45 PM	0	0	0	0	0	0	0	1	0	1	1	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
535	8/13/2019	11:00 PM	0	0	0	0	0	0	0	0	1	0	1	1	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	
536	8/13/2019	11:15 PM	0	0	0	0	0	0	0	0	1	0	1	0	3	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
537	8/13/2019	11:30 PM	0	0	0	1	0	0	0	0	0	1	2	1	3	0	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
538	8/13/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
539	8/14/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
540	8/14/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
541	8/14/2019	12:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
542	8/14/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
543	8/14/2019	1:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
544	8/14/2019	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
545	8/14/2019	1:30 AM	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
546	8/14/2019	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
547	8/14/2019	2:00 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
548	8/14/2019	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
549	8/14/2019	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
550	8/14/2019	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
551	8/14/2019	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
552	8/14/2019	3:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
553	8/14/2019	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
554	8/14/2019	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
555	8/14/2019	4:00 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
556	8/14/2019	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
557	8/14/2019	4:30 AM	0	0	0	0	0	0	0	0	0	0	2	1	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
558	8/14/2019	4:45 AM	0	0	0	0	0	0	0	0	0	0	0	2	1	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	
559	8/14/2019	5:00 AM	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
560	8/14/2019	5:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
561	8/14/2019	5:30 AM	0	0	0	0	0	0	0	1	1	0	1	0	1	4	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
562	8/14/2019	5:45 AM	0	0	0	0	0	0	0	0	2	1	3	2	5	1	0	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
563	8/14/2019	6:00 AM	0	0	0	0	0	0	1	0	1	1	4	8	6	5	6	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
564	8/14/2019	6:15 AM	0	0	0	0	0	0	0	0	1	5	5	5	2	9	4	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
565	8/14/2019	6:30 AM	0	0	0	0	0	0	0	0	0	6	5	8	9	6	4	3	3	3	0	0	0	0	0	0	0	0	0	0	0	0	
566	8/14/2019	6:45 AM	0	0	0	0	0	0	0	0	1	2	2	4	8	1	1	4	1	0	0	1	0	0	0	0	0	0	0	0	0	0	
567	8/14/2019	7:00 AM	0	0	0	0	0	0	0	1	0	3	2	8	11	7	1	1	2	0	0	1	0	0	0	0	0	0	0	0	0	0	
568	8/14/2019	7:15 AM	0	0	0	0	0	0	0	0	1	3	6	11	16	6	8	6	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
569	8/14/2019	7:30 AM	0	0	0	0	0	0	1	0	2	5	7	8	13	13	6	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
570	8/14/2019	7:45 AM	0	0	0	0	0	0	0	1	1	5	4	5	16	11	3	4	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
571	8/14/2019	8:00 AM	0	0	0	0	0	0	0	0	2	5	7	14	5	10	8	0	2	3	0	0	0	0	0	0	0	0	0	0	0	0	
572	8/14/2019	8:15 AM	2	0	0	0	0	1	0	2	4	11	10	14	17	8	4	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
573	8/14/2019	8:30 AM	0	0	0	0	1	1	2	1	5	2	4	2	14	5	7	9	0	0	1	1	0	0	0	0	0	0	0	0	0	0	
574	8/14/2019	8:45 AM	0	0	0	0	1	1	0	0	3	4	14	14	10	2	7	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	
575	8/14/2019	9:00 AM	0	1	0	0	0	0	0	1	4	4	10	16	7	5	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
576	8/14/2019	9:15 AM	0	0	0	0	0	2	2	2	3	6	4	10	7	7	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
577	8/14/2019	9:30 AM	0	0	0	0	0	0	0	1	6	5	9	14	13	8	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
578	8/14/2019	9:45 AM	0	1	0	0	1	0	1	2	6	12	6	10	8	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
579	8/14/2019	10:00 AM	0	2	0	0	0	1	0	2	4	8	19	18	10	13	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
580	8/14/2019	10:15 AM	0	0	0	0	0	0	0	1	5	3	17	25	11	5	6	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
581	8/14/2019	10:30 AM	0	0	0	0	0	1	2	4	7	7	15	13	7	6	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
582	8/14/2019	10:45 AM	0	0	0	0	0	0	0	2	1	10	9	9	5	7	4	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
583	8/14/2019	11:00 AM	3	2	0	0	0	2	0	3	8	11	9	6	7	7	0	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
584	8/14/2019	11:15 AM	0	0	0	0	1	0	1	2	5	8	11	12	9	5	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
585	8/14/2019	11:30 AM	0	0	0	0	0	1	2	2	0	12	9	13	14	4	1	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
586	8/14/2019	11:45 AM	0	0	0	0	0	1	1	3	4	7	11	10	5	4	5	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
587	8/14/2019	12:00 PM	0	0	0	0	0	1	2	7	9	7	10	8	4	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
588	8/14/2019	12:15 PM	0	0	0	0	0	0	0	1	4	6	7	12	6	6	5	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	
589	8/14/2019	12:30 PM	0	0	0	0	0	0	2	5	4	13	13	12	13	6	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
590	8/14/2019	12:45 PM	2	0	0	0	0	2	0	7	8	7	12	13	3	6	0	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
591	8/14/2019	1:00 PM	0	0	0	0	0	0	2	3	3	8	8	14	7	6	0	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
592	8/14/2019	1:15 PM	0	0	0	0	0	1	0	2	3	4	7	8	13	7	7	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
593	8/14/2019	1:30 PM	0	0	0	0	0	0	0	2	4	12	15	19	6	6	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
594	8/14/2019	1:45 PM	0	0	0	0	1	0	1	1	3	3	6	8	4	5	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
595	8/14/2019	2:00 PM	0	0	0	0	0	0	2	3	5	7	11	12	10	2	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
596	8/14/2019	2:15 PM	0	0	0	0	0	0	1	2	3	6	8	3	7	7	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
597	8/14/2019	2:30 PM	0	0	0	0	0	1	2	6	1	11	11	10	9	3	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
598	8/14/2019	2:45 PM	0	0	0	0	0	0	1	1	4	8	10	6	9	2	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
599	8/14/2019	3:00 PM	0	0	0	0	0	4	0	2	5	6	5	7	10	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
600	8/14/2019	3:15 PM	0	0	0	0	0	1	1	0	2	9	5	8	8	2	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
601	8/14/2019	3:30 PM	0	0	0	0	0	0	0	5	2	12	17	15	11	8	4	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
602	8/14/2019	3:45 PM	0	0	0	0	0	0	1	7	6	4	7	9	4	4	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
603	8/14/2019	4:00 PM	0	0	0	0	1	1	4	2	4	6	15	16	10	11	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
604	8/14/2019	4:15 PM	0	0	0	0	0	0	0	2	8	14	8	15	7	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
605	8/14/2019	4:30 PM	0	0	0	0	0	0	4	2	16	18	19	23	21	9	7	2	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
606	8/14/2019	4:45 PM	0	0	0	0	0	0	1	5	5	14	8	21	13	6	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
607	8/14/2019	5:00 PM	1	0	0	0	0	0	1	2	3	9	17	17	13	16	3	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
608	8/14/2019	5:15 PM	0	0	0	0	0	0	0	2	4	6	8	12	9	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
609	8/14/2019	5:30 PM	0	0	0	0	0	0	2	4	10	3	14	20	10	13	2	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
610	8/14/2019	5:45 PM	0	0	0	0	0	0	0	1	3	9	6	6	10	8	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
611	8/14/2019	6:00 PM	0	0	0	0	0	1	2	0	1	3	8	18	14	6	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
612	8/14/2019	6:15 PM	0	0	0	0	0	0	1	2	1	13	9	14	18	13	6	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
613	8/14/2019	6:30 PM	0	0	0	0	0	0	0	1	5	7	11	19	13	12	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
614	8/14/2019	6:45 PM	0	0	0	0	0	0	0	1	1	6	14	14	4	11	12	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
615	8/14/2019	7:00 PM	0	0	0	0	0	0	0	0	3	8	11	11	8	6	4	5	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
616	8/14/2019	7:15 PM	1	0	0	0	0	2	0	0	3	7	9	11	8	7	4	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
617	8/14/2019	7:30 PM	0	0	0	0	0	0	0	4	3	7	18	17	17	12	7	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
618	8/14/2019	7:45 PM	0	0	0	0	0	0	1	0	1	4	11	11	10	6	4	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	
619	8/14/2019	8:00 PM	0	0	0	0	0	0	1	2	4	9	9	17	11	8	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
620	8/14/2019	8:15 PM	0	0	0	0	0	0	2	0	8	3	5	9	6	1	5	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
621	8/14/2019	8:30 PM	0	0	0	0	0	1	0	1	3	1	5	6	6	2	4	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0	
622	8/14/2019	8:45 PM	0	0	0	0	0	1	0	0	0	1	7	6	8	5	2	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
623	8/14/2019	9:00 PM	0	0	0	0	1	0	0	1	1	2	2	7	3	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
624	8/14/2019	9:15 PM	0	0	0	0	0	0	0	1	1	2	5	6	6	0	4	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
625	8/14/2019	9:30 PM	0	0	0	0	0	0	1	2	1	9	8	3	5	2	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
626	8/14/2019	9:45 PM	0	0	0	0	0	0	0	0	1	1	1	3	3	3	5	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
627	8/14/2019	10:00 PM	0	0	0	0	0	0	0	1	0	0	5	6	3	3	2	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
628	8/14/2019	10:15 PM	0	0	0	0	0	0	1	1	0	1	1	6	4	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
629	8/14/2019	10:30 PM	0	0	0	0	0	0	0	0	2	1	1	4	3	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
630	8/14/2019	10:45 PM	0	0	0	0	0	0	0	1	2	2	3	1	4	4	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
631	8/14/2019	11:00 PM	0	0	0	0	0	0	0	0	0	1	0	0	1	4	0	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
632	8/14/2019	11:15 PM	0	0	0	0	0	0	0	0	1	1	2	1	0	1	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
633	8/14/2019	11:30 PM	0	0	0	0	0	0	0	0	2	0	0	1	2	1	0	0	2	0	2	0	1	0	0	0	0	0	0	0	0	0	
634	8/14/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
635	8/15/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
636	8/15/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
637	8/15/2019	12:30 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
638	8/15/2019	12:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
639	8/15/2019	1:00 AM	3	0	0	0	0	0	0	0	0	0	0	0	0	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
640	8/15/2019	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
641	8/15/2019	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
642	8/15/2019	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
643	8/15/2019	2:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
644	8/15/2019	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
645	8/15/2019	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
646	8/15/2019	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
647	8/15/2019	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
648	8/15/2019	3:15 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
649	8/15/2019	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
650	8/15/2019	3:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
651	8/15/2019	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
652	8/15/2019	4:15 AM	0	0	0	0	0	0	0	0	1	0	0	0	1	1	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
653	8/15/2019	4:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
654	8/15/2019	4:45 AM	0	0	0	0	0	0	0	0	0	0	1	0	1	1	1	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	
655	8/15/2019	5:00 AM	0	0	0	0	0	0	0	1	0	1	0	1	1	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
656	8/15/2019	5:15 AM	0	0	0	0	0	0	0	1	0	0	1	0	1	3	3	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
657	8/15/2019	5:30 AM	0	0	0	0	0	0	0	0	0	3	1	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
658	8/15/2019	5:45 AM	0	0	0	0	0	0	0	0	0	1	1	1	3	2	1	2	1	2	0	0	0	0	0	0	0	0	0	0	0	0	
659	8/15/2019	6:00 AM	0	0	0	0	0	0	0	0	1	0	2	5	11	7	3	1	2	1	2	0	0	0	0	0	0	0	0	0	0	0	
660	8/15/2019	6:15 AM	1	0	0	0	0	0	0	0	0	2	4	4	3	9	5	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
661	8/15/2019	6:30 AM	0	0	0	0	0	0	0	1	0	4	3	7	3	2	7	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
662	8/15/2019	6:45 AM	0	0	0	0	0	0	0	0	1	2	3	7	6	8	3	4	1	0	1	0	0	0	0	0	0	0	0	0	0	0	
663	8/15/2019	7:00 AM	0	0	0	0	0	0	0	1	0	0	6	10	4	6	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
664	8/15/2019	7:15 AM	0	0	0	0	0	0	0	0	0	0	5	13	10	15	7	2	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
665	8/15/2019	7:30 AM	0	0	0	0	0	0	0	0	0	3	3	9	12	12	10	2	3	2	0	0	0	0	0	0	0	0	0	0	0	0	
666	8/15/2019	7:45 AM	0	0	0	0	0	0	0	1	1	2	7	6	5	10	6	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
667	8/15/2019	8:00 AM	0	0	0	0	0	0	0	2	2	6	5	8	14	14	9	2	0	1	1	0	1	0	0	0	0	0	0	0	0	0	
668	8/15/2019	8:15 AM	0	0	0	0	0	0	1	1	8	5	10	15	14	16	5	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
669	8/15/2019	8:30 AM	0	0	0	0	0	0	0	2	1	4	1	9	15	5	1	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
670	8/15/2019	8:45 AM	0	0	0	0	0	0	0	1	1	2	6	5	10	13	5	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
671	8/15/2019	9:00 AM	0	0	0	0	0	0	0	3	3	3	7	18	6	5	10	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	
672	8/15/2019	9:15 AM	0	0	0	0	0	0	0	2	0	4	3	5	6	10	10	4	2	2	0	1	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
673	8/15/2019	9:30 AM	0	0	0	0	1	0	3	2	1	2	5	9	9	9	6	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
674	8/15/2019	9:45 AM	2	0	0	0	0	0	0	0	0	4	8	10	13	9	5	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
675	8/15/2019	10:00 AM	0	0	0	0	0	0	0	0	3	5	11	14	16	15	8	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	
676	8/15/2019	10:15 AM	0	0	0	0	0	0	1	1	5	6	8	18	7	4	4	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
677	8/15/2019	10:30 AM	0	0	0	0	0	0	1	0	5	6	12	11	9	6	6	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
678	8/15/2019	10:45 AM	0	0	0	0	0	0	0	1	2	5	10	11	10	8	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
679	8/15/2019	11:00 AM	0	0	0	0	0	0	1	5	0	5	8	10	9	5	3	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
680	8/15/2019	11:15 AM	0	0	0	0	0	1	1	3	2	8	13	14	6	3	6	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
681	8/15/2019	11:30 AM	0	0	0	0	0	1	0	2	5	7	13	16	2	8	6	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
682	8/15/2019	11:45 AM	0	0	0	0	0	0	0	0	1	7	7	16	15	10	4	0	1	1	1	1	0	0	0	0	0	0	0	0	0	0	
683	8/15/2019	12:00 PM	0	0	0	0	0	0	0	2	4	5	8	11	11	10	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
684	8/15/2019	12:15 PM	0	0	0	0	0	0	0	3	3	3	10	8	14	7	2	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
685	8/15/2019	12:30 PM	0	0	0	0	0	0	0	2	4	9	14	11	13	12	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
686	8/15/2019	12:45 PM	0	0	0	0	0	0	4	7	8	12	17	13	3	4	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
687	8/15/2019	1:00 PM	0	0	0	0	0	1	1	4	3	7	6	7	3	3	4	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
688	8/15/2019	1:15 PM	0	0	0	0	2	1	3	9	3	7	10	13	3	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
689	8/15/2019	1:30 PM	0	0	0	0	0	0	1	5	2	8	9	12	14	9	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
690	8/15/2019	1:45 PM	0	0	0	0	0	0	2	1	8	10	7	3	9	4	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
691	8/15/2019	2:00 PM	0	0	0	0	0	2	2	3	4	8	7	3	10	4	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
692	8/15/2019	2:15 PM	0	0	0	0	0	0	3	3	4	7	11	9	9	6	1	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
693	8/15/2019	2:30 PM	0	0	0	0	0	1	2	8	4	8	12	12	10	8	5	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
694	8/15/2019	2:45 PM	0	0	0	0	0	0	0	0	2	4	9	7	11	4	5	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
695	8/15/2019	3:00 PM	0	2	0	0	1	2	1	2	5	4	8	12	4	9	3	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
696	8/15/2019	3:15 PM	0	0	0	0	0	0	4	0	7	6	12	16	12	7	6	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
697	8/15/2019	3:30 PM	0	0	0	0	0	0	2	4	7	9	6	11	10	6	8	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
698	8/15/2019	3:45 PM	0	0	0	0	0	3	2	4	5	9	12	11	10	9	4	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	
699	8/15/2019	4:00 PM	0	0	0	0	0	1	4	3	6	12	12	17	9	9	5	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
700	8/15/2019	4:15 PM	0	1	0	1	0	1	1	3	4	6	9	10	10	8	3	2	1	1	1	0	0	0	0	0	0	0	0	0	0	0	
701	8/15/2019	4:30 PM	0	0	0	0	0	0	2	13	27	19	24	23	14	7	6	2	2	1	0	0	0	0	0	0	0	0	0	0	0	0	
702	8/15/2019	4:45 PM	0	0	0	0	0	1	0	8	8	15	18	17	10	7	3	2	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
703	8/15/2019	5:00 PM	3	1	1	0	0	3	2	3	6	18	11	22	15	8	3	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
704	8/15/2019	5:15 PM	0	0	0	0	1	0	1	2	3	15	16	15	6	15	5	2	2	0	0	0	0	0	1	0	0	0	0	0	0	0	
705	8/15/2019	5:30 PM	0	0	0	0	0	0	4	3	5	10	22	25	12	7	8	1	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
706	8/15/2019	5:45 PM	0	0	0	0	0	0	0	1	6	8	12	10	14	10	4	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
707	8/15/2019	6:00 PM	0	1	0	0	1	1	3	3	0	6	8	10	9	10	3	4	2	0	1	0	0	0	0	0	0	0	0	0	0	0	
708	8/15/2019	6:15 PM	0	0	0	0	0	1	0	3	2	5	10	13	10	5	7	2	0	1	0	1	0	0	0	0	0	0	0	0	0	0	
709	8/15/2019	6:30 PM	0	0	0	0	0	0	0	2	3	5	14	21	19	10	4	2	4	0	0	0	0	0	0	0	0	0	0	0	0	0	
710	8/15/2019	6:45 PM	0	0	0	0	0	0	0	4	7	11	17	18	14	10	6	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
711	8/15/2019	7:00 PM	0	0	0	0	1	0	0	2	7	15	15	18	17	9	5	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
712	8/15/2019	7:15 PM	0	0	0	0	0	0	1	0	3	3	15	16	12	14	5	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
713	8/15/2019	7:30 PM	0	0	1	1	2	0	2	2	4	15	9	12	10	6	3	3	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
714	8/15/2019	7:45 PM	0	0	0	0	0	0	1	1	2	10	12	15	5	7	1	4	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
715	8/15/2019	8:00 PM	0	0	0	0	0	0	2	0	1	3	14	4	8	6	6	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
716	8/15/2019	8:15 PM	0	0	0	0	0	0	1	2	5	5	12	7	5	11	4	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
717	8/15/2019	8:30 PM	0	0	0	0	0	0	0	1	7	7	6	10	6	6	2	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
718	8/15/2019	8:45 PM	0	0	0	0	0	0	0	0	2	4	5	6	4	4	1	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	
719	8/15/2019	9:00 PM	0	0	0	0	0	0	0	0	2	5	6	7	6	8	1	1	2	0	0	0	0	0	0	0	0	0	0	0	0	0	
720	8/15/2019	9:15 PM	0	0	0	0	0	0	1	1	0	5	4	3	3	4	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
721	8/15/2019	9:30 PM	0	0	0	0	0	0	1	1	1	2	2	5	5	2	1	4	2	1	2	0	0	0	0	0	0	0	0	0	0	0	
722	8/15/2019	9:45 PM	0	0	0	0	0	0	0	0	0	0	5	1	2	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
723	8/15/2019	10:00 PM	0	0	0	0	0	0	1	0	5	3	2	2	7	2	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
724	8/15/2019	10:15 PM	0	0	0	0	0	0	0	0	1	3	2	11	7	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	
725	8/15/2019	10:30 PM	0	0	0	0	0	0	0	0	1	0	2	2	2	1	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
726	8/15/2019	10:45 PM	0	0	0	0	0	0	0	0	1	1	0	2	2	3	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
727	8/15/2019	11:00 PM	0	0	0	0	0	0	0	0	1	1	0	1	2	1	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
728	8/15/2019	11:15 PM	0	0	0	0	0	0	0	0	0	0	1	1	1	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
729	8/15/2019	11:30 PM	0	0	0	0	0	0	1	0	0	0	2	1	2	0	2	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
730	8/15/2019	11:45 PM	0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
731	8/16/2019	12:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
732	8/16/2019	12:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
733	8/16/2019	12:30 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG
8	Date	Time	1-10	11-12	13-14	15-16	17-18	19-20	21-22	23-24	25-26	27-28	29-30	31-32	33-34	35-36	37-38	39-40	41-42	43-44	45-46	47-48	49-50	51-52	53-54	55-56	57-58	59-60	61-62	63-64	65-66	67-999	
734	8/16/2019	12:45 AM	0	0	0	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
735	8/16/2019	1:00 AM	0	0	0	0	0	0	0	1	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
736	8/16/2019	1:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
737	8/16/2019	1:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
738	8/16/2019	1:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
739	8/16/2019	2:00 AM	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
740	8/16/2019	2:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
741	8/16/2019	2:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
742	8/16/2019	2:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
743	8/16/2019	3:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
744	8/16/2019	3:15 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
745	8/16/2019	3:30 AM	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
746	8/16/2019	3:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
747	8/16/2019	4:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
748	8/16/2019	4:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
749	8/16/2019	4:30 AM	0	0	0	0	0	0	0	0	0	1	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
750	8/16/2019	4:45 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
751	8/16/2019	5:00 AM	0	0	0	0	0	0	0	0	0	0	0	2	1	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
752	8/16/2019	5:15 AM	0	0	0	0	0	0	0	0	0	2	0	2	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
753	8/16/2019	5:30 AM	0	0	0	0	0	0	0	0	0	1	1	1	2	5	2	2	1	1	0	1	0	0	0	0	0	0	0	0	0	0	
754	8/16/2019	5:45 AM	0	0	0	0	0	0	0	1	1	0	1	1	2	3	5	1	1	1	0	1	0	0	0	0	0	0	0	0	0	0	
755	8/16/2019	6:00 AM	0	0	0	0	0	0	0	0	0	2	2	5	7	5	3	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
756	8/16/2019	6:15 AM	0	0	0	0	0	0	0	0	1	0	2	3	3	5	4	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
757	8/16/2019	6:30 AM	0	0	0	0	0	0	0	0	1	1	1	6	7	2	4	1	2	1	1	0	0	0	0	0	0	0	0	0	0	0	
758	8/16/2019	6:45 AM	0	0	0	0	0	0	0	2	3	5	2	4	6	1	4	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
759	8/16/2019	7:00 AM	0	0	0	0	0	0	0	0	1	4	4	5	9	6	5	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	
760	8/16/2019	7:15 AM	0	0	0	0	0	0	0	0	0	1	4	9	7	7	9	5	4	0	1	0	0	0	0	0	0	0	0	0	0	0	
761	8/16/2019	7:30 AM	0	0	2	0	0	0	0	0	2	6	4	9	11	9	7	2	3	1	0	0	0	0	0	0	0	0	0	0	0	0	
762	8/16/2019	7:45 AM	0	0	0	0	0	0	0	0	0	5	4	9	17	13	7	6	0	1	1	0	0	0	0	0	0	0	0	0	0	0	
763	8/16/2019	8:00 AM	0	1	0	0	0	0	0	1	0	3	6	14	7	11	6	3	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
764	8/16/2019	8:15 AM	0	0	0	0	0	4	1	1	4	6	4	19	12	7	3	3	1	1	0	0	0	0	0	0	0	0	0	0	0	0	
765	8/16/2019	8:30 AM	0	0	0	0	0	0	0	1	3	4	9	8	11	9	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
766	8/16/2019	8:45 AM	0	0	0	0	0	0	0	1	0	7	4	12	11	6	6	4	4	2	0	0	0	0	0	0	0	0	0	0	0	0	
767	8/16/2019	9:00 AM	0	0	0	0	0	0	0	3	6	5	10	17	13	11	2	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	
768	8/16/2019	9:15 AM	0	0	0	0	0	0	0	2	3	3	6	7	11	4	5	2	0	0	1	0	0	0	0	0	0	0	0	0	0	0	
769	8/16/2019	9:30 AM	0	0	0	0	0	0	0	1	5	2	4	14	11	9	6	1	0	1	0	0	0	0	0	0	0	0	0	0	0	0	

APPENDIX L

TRIP GENERATION TABLE

PROPOSED DEVELOPMENT								
			AM Peak Hour			PM Peak Hour		
Type of Development	**Size**	**Unit**	**Enter**	**Exit**	**Total**	**Enter**	**Exit**	**Total**
Residential (LU - 221)	450	DU	39	111	150	115	73	188
Shopping Center (LU - 820)[2]	7,800	SF	5	3	8	18	11	29
Mass Transit Factor[1] - 25%			10	28	38	29	18	47
TOTAL (with Mass Transit Factor)			**29**	**83**	**113**	**86**	**55**	**141**
SENSITIVITY ANALYSIS TOTAL (No Mass Transit Factor)			**44**	**114**	**158**	**133**	**84**	**217**

1. Mass Transit Factor based on US Census Data for Harrison, NY and White Plains, NY

2. The Average Rate of the Peak Hour of Adjacent Street Traffic was used for LU-820 (Shopping Center) Trip Generation

Provident
design engineering

III.4. RENTAL APARTMENT MARKET STUDY RESPONSE

RCLCO
REAL ESTATE ADVISORS

RENTAL APARTMENT MARKET STUDY RESPONSE TO FEIS COMMENTS

3 WESTCHESTER PARK DR.
WHITE PLAINS, NEW YORK

Prepared for Marcus Partners
July 30, 2019

ABOUT RCLCO

Since 1967, RCLCO has been the "first call" for real estate developers, investors, the public sector, and non-real estate companies and organizations seeking strategic and tactical advice regarding property investment, planning, and development.

RCLCO leverages quantitative analytics and a strategic planning framework to provide end-to-end business planning and implementation solutions at an entity, portfolio, or project level. With the insights and experience gained over 50 years and thousands of projects–touching over $5B of real estate activity each year–RCLCO brings success to all product types across the United States and around the world.

Learn more about RCLCO at www.RCLCO.com.

REPORT AUTHORS

Project Director:

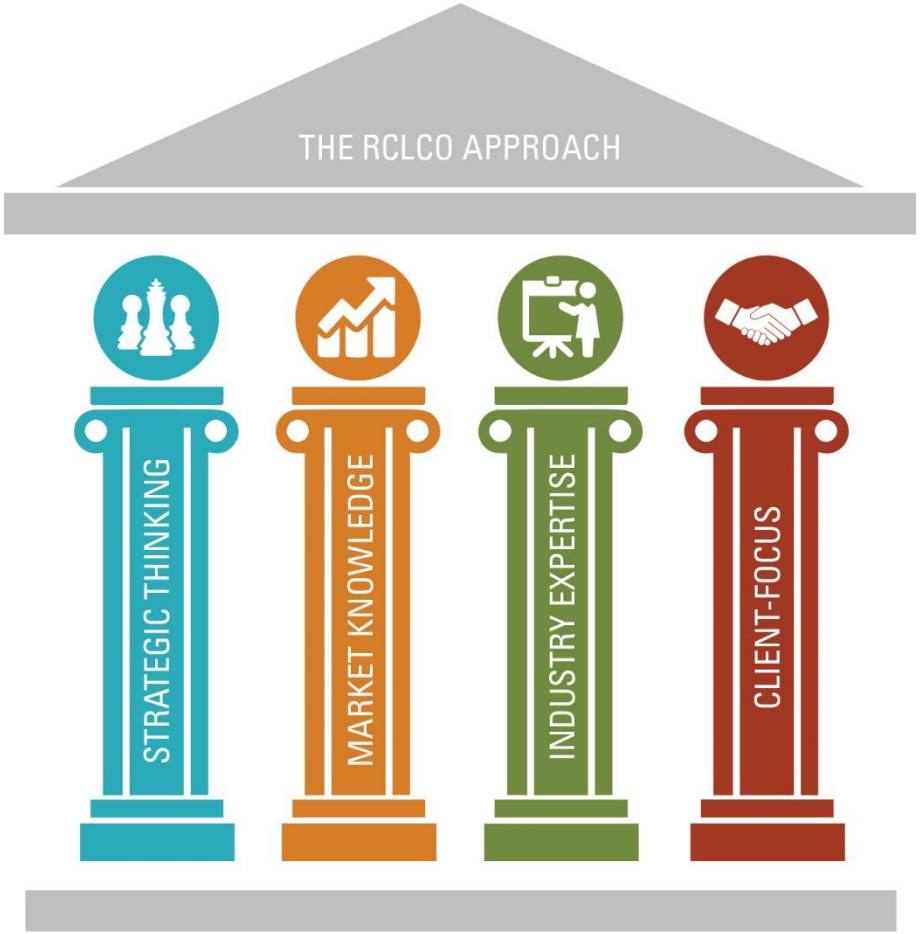
Adam Ducker, Senior Managing Director

- P: (240) 644-0980 | E: ADUCKER@RCLCO.COM

Project Manager:

Philip Carney, Senior Associate

- P: (240) 669-5635 | E: PCARNEY@RCLCO.COM



RCLCO
REAL ESTATE ADVISORS

KEY FINDINGS AND SUPPORTING DATA

KEY FINDINGS

RCLCO
REAL ESTATE ADVISORS

THE SUBJECT SITE OFFERS A COMPELLING OPPORTUNITY TO DEVELOP RENTAL APARTMENTS, WITH STRONG MARKET FUNDAMENTALS AND PROJECTED DEMAND

- The rental apartment market within the primary market area ("PMA") continues to display very strong fundamentals, with high average occupancies, strong recent rent growth, and fast absorption of newly delivered buildings. Given the slow pace of deliveries in the PMA since the end of the recession, RCLCO believes the market is undersupplied with new rental apartments.

DEMOGRAPHIC DATA AND DEMAND MODELING SUGGESTS DEMAND FOR NEW APARTMENTS IN THE MARKET WILL MATCH NEW SUPPLY OVER THE NEXT FIVE YEARS

- RCLCO's demand model, based on detailed demographic data collected by the U.S. Census Bureau and other secondary sources, forecasts annual demand for at least 775 new rental apartments each year over the next five years.
- This estimate aligns with the existing pipeline in the market, suggesting future supply/demand balance, even before considering the pent up demand in the market due to a historical undersupply of rental apartments.

RCLCO'S MARKET STUDY UTILIZED A VARIETY OF PRIMARY AND SECONDARY SOURCES TO CONFIRM MARKET TRENDS AND CALCULATE PROJECTIONS

- The market study produced by RCLCO utilized numerous primary and secondary data sources tracking the economics, demographics, and real estate trends in Westchester County and, more specifically, in the market surrounding the subject site.
- agents with local market experience, data from the U.S. Census Bureau, and data from The Bureau of Labor Statistics. Data utilized was cross-referenced across multiple sources to verify accuracy.
- RCLCO's real estate economics and market research services are backed by more than 50 years of experience analyzing demographic, economic, lifestyle, and real estate market trends in markets across the United States and internationally.

AS WITH ANY DEVELOPMENT PROJECT, RISKS EXIST, BUT THE SUBJECT SITE OFFERS MANY MITIGATING FACTORS TO LIMIT THE EXTENT OF THESE RISKS

- Based on the market research conducted, RCLCO believes the proposed development at 3 Westchester Park Drive will produce favorable returns and will be met with success, with sufficient mitigating factors to overcome the apparent risks of the project.
- Though located outside of the core of Downtown White Plains, the subject site offers residents nearby local amenities, excellent vehicular access to employment, a quieter setting compared to Downtown, and a lower price point per square foot compared to the newest properties in Downtown White Plains.
- The success of *The Apex @ 290* highlights the potential for generating significant rental apartment demand in a suburban location, with even fewer local amenities than those present near the subject site.
- The suburban location of the subject site and orientation toward younger working professionals and empty nesters by offering larger units on average will serve to differentiate the subject site from most of the new apartment buildings in the market, which tend to offer smaller units in denser urban environments, such as Downtown White Plains.

METHODOLOGY AND DATA SOURCES

RCLCO
REAL ESTATE ADVISORS

METHODOLOGY

RCLCO's real estate economics and market research services are backed by more than 50 years of experience analyzing demographic, economic, lifestyle, and real estate market trends in markets across the United States and internationally. RCLCO has created the industry's best kit of analytical tools to model where value growth will occur, which markets are undersupplied, what product niches are emerging, and how real estate assets can be enhanced and de-risked at every point in the economic cycle.

In creating the market study measuring the opportunity for rental apartments at 3 Westchester Park Drive, RCLCO utilized primary data collected from leasing agents, competitive properties in the market, and other key players in the area. In addition, RCLCO utilized numerous secondary data sources to collect real estate market data, demographic data, and economic forecasts, including data from The U.S. Census Bureau, The U.S. Bureau of Labor Statistics, Esri, Axiometrics, and CoStar.

This data was used to measure the current health of the rental apartment market surrounding the subject site, the performance of the most comparable recently delivered rental apartment buildings to the proposed development at the subject site, demographic trends and forecasts likely to impact the rental apartment market moving forward, and the forecasted supply and demand balance over the next five years. When combined with qualitative analysis of the site and comparisons to developments at similar sites locally and through the country, these analyses provide a dynamic and broad look at the potential for success of the subject site, as well as potential risks. These outputs allow RCLCO to provide various recommendations and forecasts for development, including optimal pricing, level of finishes, unit mix, customer segment targeting, amenity programing, and expected absorption pace of units.

More specific detail and supporting data pertaining to the analyses performed is included in the following pages.

KEY DATA SOURCES UTILIZED

- Primary Data Sources
  - Interviews with leasing agents at competitive properties in the market verifying leasing pace, pricing, occupancy rates, rental demographics, and gathering other general market insights
  - In-person visual analysis of the subject site, traffic patterns leading to and from the site, nearby amenities, and surrounding neighborhoods
  - Interviews with developers and other individuals located within and familiar with the local market and its dynamics
- Secondary Data Sources
  - U.S. Census Bureau
    - The Census Bureau's American Community Survey provides demographic and housing characteristic data updated annually. This allows for detailed analysis of housing types, income levels, rental propensity, and other key statistics available at small geographies (census tracts).
  - U.S. Bureau of Labor Statistics
    - The BLS tacks employment and other labor statistics across the United States and is pivotal in analyzing key historical trends as well as forecasting future trends in employment and wages.
- Additional Demographic, Real Estate Market, and Other Sources Utilized
  - Moody's Analytics
  - ESRI
  - Axiometrics
  - Costar
  - Real Capital Analytics

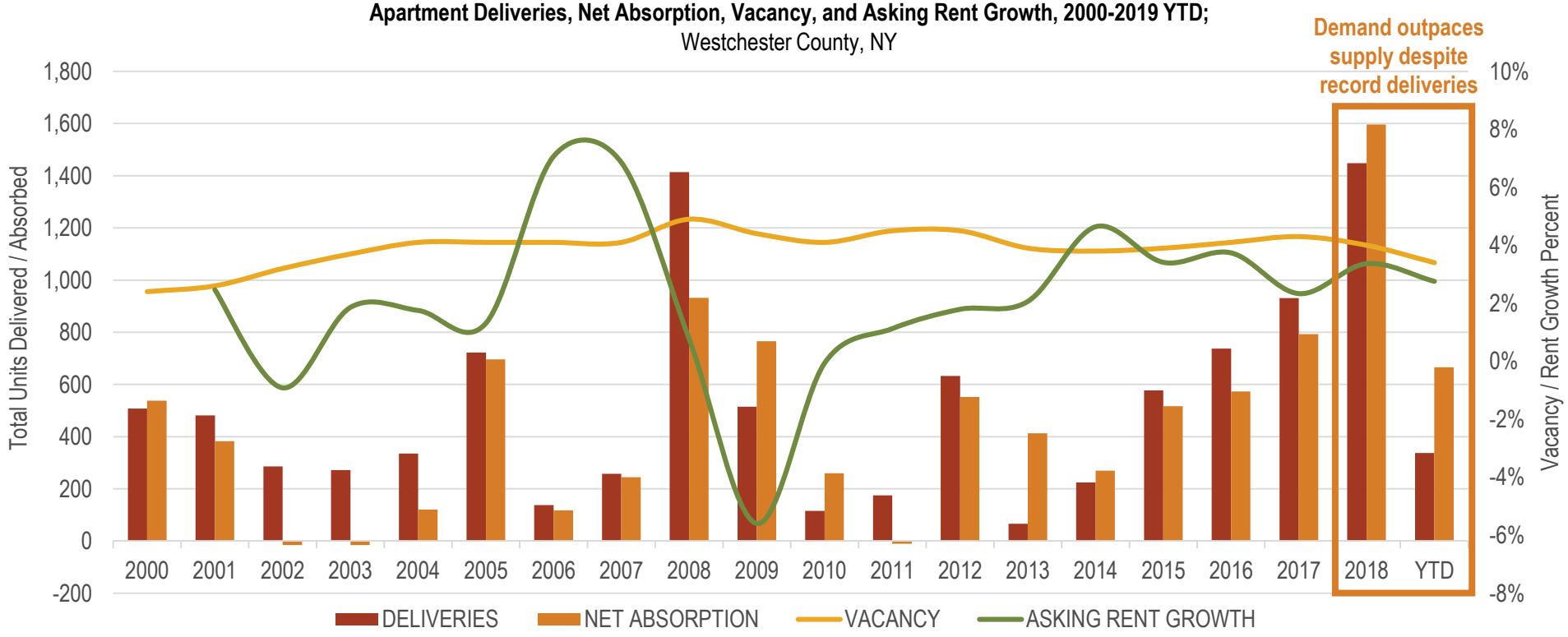
COUNTY APARTMENT MARKET DATA

RCLCO REAL ESTATE ADVISORS

The data shown below tracks the performance of market rate rental apartment buildings in Westchester County between 2000 and July 2019. Data is collected and updated monthly and has been cross-referenced by RCLCO with multiple primary and secondary sources to verify accuracy. From this data, the following key takeaways can be assumed regarding the performance of rental apartments in Westchester County:

- Rental apartment deliveries have increased steadily since the end of the Great Recession
- Despite these increases, vacancy rates have remained at or below 5%, the typical standard in a well performing apartment market
- Currently, the average apartment vacancy rate sits at just 3.4%, indicating the market may be undersupplied with new product
- Despite considerable increases in new supply, asking rent growth has remained strong, averaging 2.8% annual growth since 2010, a further indication that the market is likely supply constrained

Apartment Deliveries, Net Absorption, Vacancy, and Asking Rent Growth, 2000-2019 YTD;
Westchester County, NY



Source: CoStar; Axiometrics; RCLCO

LOCAL APARTMENT MARKET DATA

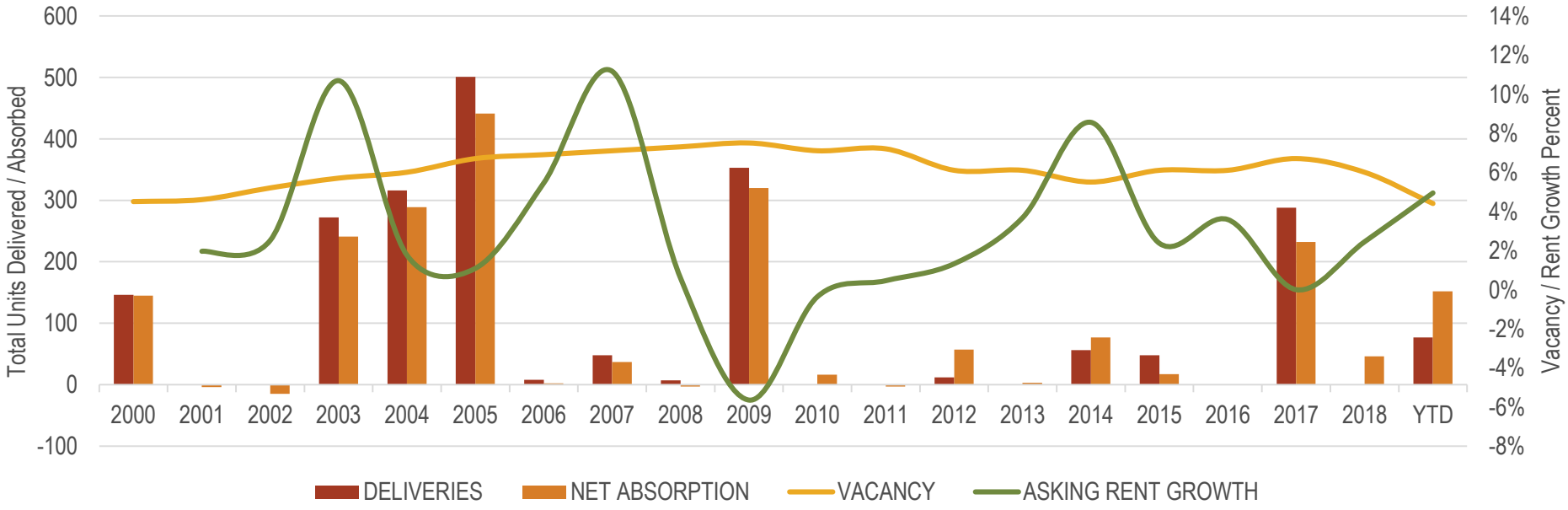
RCLCO REAL ESTATE ADVISORS

The data shown below tracks the same rental performance metrics shown on the previous page, this time limited only to market rate rental apartment buildings specifically within the boundaries of White Plains, NY. Analyzing a local geography provides the following takeaways:

- The substantial apartment development activity occurring in Westchester County since the end of the Great Recession has generally not occurred within White Plains
- Vacancy rates have remained at or below 6% in White Plains since 2010, indicating a very healthy rental apartment market despite the lack of new apartment buildings
- White Plains' average vacancy rate currently sits at just 4%, even with older rental product in the area
- While inconsistent at times, annual rent growth in White Plains has averaged 3.0% since 2010 and 3.6% since 2013, suggesting significant supply constraint

Coupled with qualitative local experience and analysis of similar markets throughout the country, the vast potential for rental apartment development in and surrounding White Plains seems apparent given the success of rental development in Westchester County, more broadly, but the lack of recent apartment development in the White Plains area. Increases in apartment development activity are expected within White Plains over the next five years and are expected to be met with considerable demand, due to the supply constraint experienced during the current economic cycle.

Apartment Deliveries, Net Absorption, Vacancy, and Asking Rent Growth, 2000-2019 YTD;
White Plains, NY and Surrounding Areas



Source: CoStar; Axiometrics; RCLCO

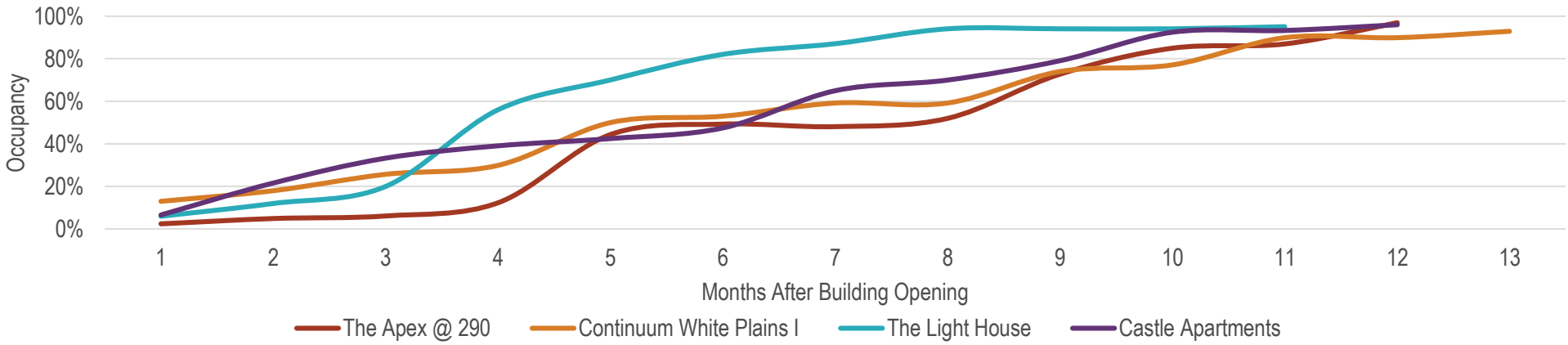
SUCCESS OF RECENT COMPARABLE RENTAL APARTMENT DEVELOPMENTS

RCLCO REAL ESTATE ADVISORS

To supplement market data, RCLCO also analyzed more detailed property specific data collected from secondary sources and from the properties themselves, focusing on recently built properties in the area most comparable to the planned development at 3 Westchester Park Drive in terms of quality, product, and location. Based on this criteria, seven properties were selected for analysis, with key performance data (updated in July 2019) shown in the table below. The selected properties are currently occupied at an average of 97%, indicating that the properties are operating at or near full occupancy (100% less some structural vacancy due to unit turnover and the associated downtime). This data further supports the strong performance of rental apartments in and surrounding White Plains, and suggests that newer buildings are performing above the market average.

The graph below displays the lease-up pace of the four buildings for which historical occupancy data was available. Impressively, each building surveyed reached stabilized occupancy in 13 months or fewer. While most of these buildings are located in more urban locations, *The Apex @ 290* is located in a similar location compared to the subject site, with excellent highway access approximately two miles from Downtown White Plains. This indicates that the success of rental apartments in the area is not tied exclusively to train access or an urban downtown location.

Historical Lease-Up Pace and Key Metrics of Comparable Apartment Developments, July 2019;
Southern Westchester County, NY



MAP KEY	COMMUNITY NAME	YEAR BUILT	MARKET RATE UNITS	OCC. RATE	AVERAGE SIZE (SF)	AVERAGE ASKING RENT	AVERAGE ASKING $/SF
1	The Apex @ 290	2016	137	95%	1,169	$3,151	$2.70
2	Continuum White Plains I	2017	231	96%	789	$3,033	$3.84
3	Avalon White Plains	2009	407	98%	705	$2,424	$3.44
4	One City Place	2004	295	96%	777	$2,872	$3.70
5	The Light House	2016	100	96%	852	$2,599	$3.05
6	Castle Apartments	2016	172	98%	744	$2,509	$3.37
7	Mariner	2012	162	99%	1,014	$3,123	$3.08

Source: Property Websites; Leasing Agent Interviews; Axiometrics

DEMOGRAPHIC DATA

RCLCO REAL ESTATE ADVISORS

Various demographic data points were also collected to provide insight about the expected renters at the subject site and the depth of market for rental apartments. The data reveals that nearly a quarter of the existing households in White Plains earn between $50,000 and $100,000 per year, a key demographic for new rental apartment buildings. In addition, the household age distribution skews on the older side, but with many younger households as well. 64.4% of households within White Plains are 55 or older, while 18% are under 35 years old. This demographic data, coupled with more detailed housing data from the American Community Survey, has driven the site's recommended pricing and unit mix. Additional details regarding this analysis can be found on the following pages.

Existing Households by Age and Income, 2018;
White Plains, NY

	UNDER 25		25-34		35-44		45-54		55-64		65-74		75+		TOTAL	
INCOME RANGE	TOTAL	PCT	TOTAL	PCT	TOTAL	PCT	TOTAL	PCT	TOTAL	PCT	TOTAL	PCT	TOTAL	PCT	TOTAL	PCT
Less than $15,000	72	13%	269	7%	260	6%	265	6%	366	8%	350	10%	461	16%	2,043	9%
$15,000 - $24,999	45	8%	183	5%	156	4%	136	3%	211	5%	281	8%	359	12%	1,371	6%
$25,000 - $34,999	50	9%	241	7%	223	5%	201	5%	239	5%	312	9%	278	9%	1,544	7%
$35,000 - $49,999	90	16%	386	10%	358	9%	358	8%	359	8%	369	10%	359	12%	2,279	10%
$50,000 - $74,999	123	22%	495	13%	502	12%	474	11%	498	11%	432	12%	471	16%	2,995	13%
$75,000 - $99,999	72	13%	551	15%	499	12%	410	10%	452	10%	379	11%	295	10%	2,658	11%
$100,000 - $149,999	53	10%	821	22%	740	18%	740	18%	694	16%	559	16%	265	9%	3,872	16%
$150,000 - $199,999	18	3%	354	10%	464	11%	527	13%	509	12%	312	9%	197	7%	2,381	10%
$200,000 and above	32	6%	393	11%	905	22%	1,101	26%	1,065	24%	597	17%	287	10%	4,380	19%
TOTAL	**555**	**100%**	**3,693**	**100%**	**4,107**	**100%**	**4,212**	**100%**	**4,393**	**100%**	**3,591**	**100%**	**2,972**	**100%**	**23,523**	**100%**

Source: American Community Survey; ESRI

DATA FUELING APARTMENT DEMAND PROJECTIONS

RCLCO REAL ESTATE ADVISORS

Using local demographic and housing data collected from the Census Bureau's American Community Survey, RCLCO created a statistical demand model measuring the total annual demand expected for new rental apartment units over the next five years in the White Plains primary market area ("PMA"; map included on the following page). The flow chart below summarizes the demand model, with all data points listed emanating from the U.S. Census Bureau and applied to RCLCO's statistical forecast.

Based on this analysis, RCLCO forecasts demand for approximately 776 new apartment units each year over the next five years. This estimate exceeds average net absorption over the next five years, providing further statistical evidence that the rental apartment market in and surrounding White Plains is currently undersupplied and likely has significant pent up demand.

Statistical Demand Model Summary;
Annual Demand in Primary Market Area, 2018-2023;

41,113 Households In Primary Market Area

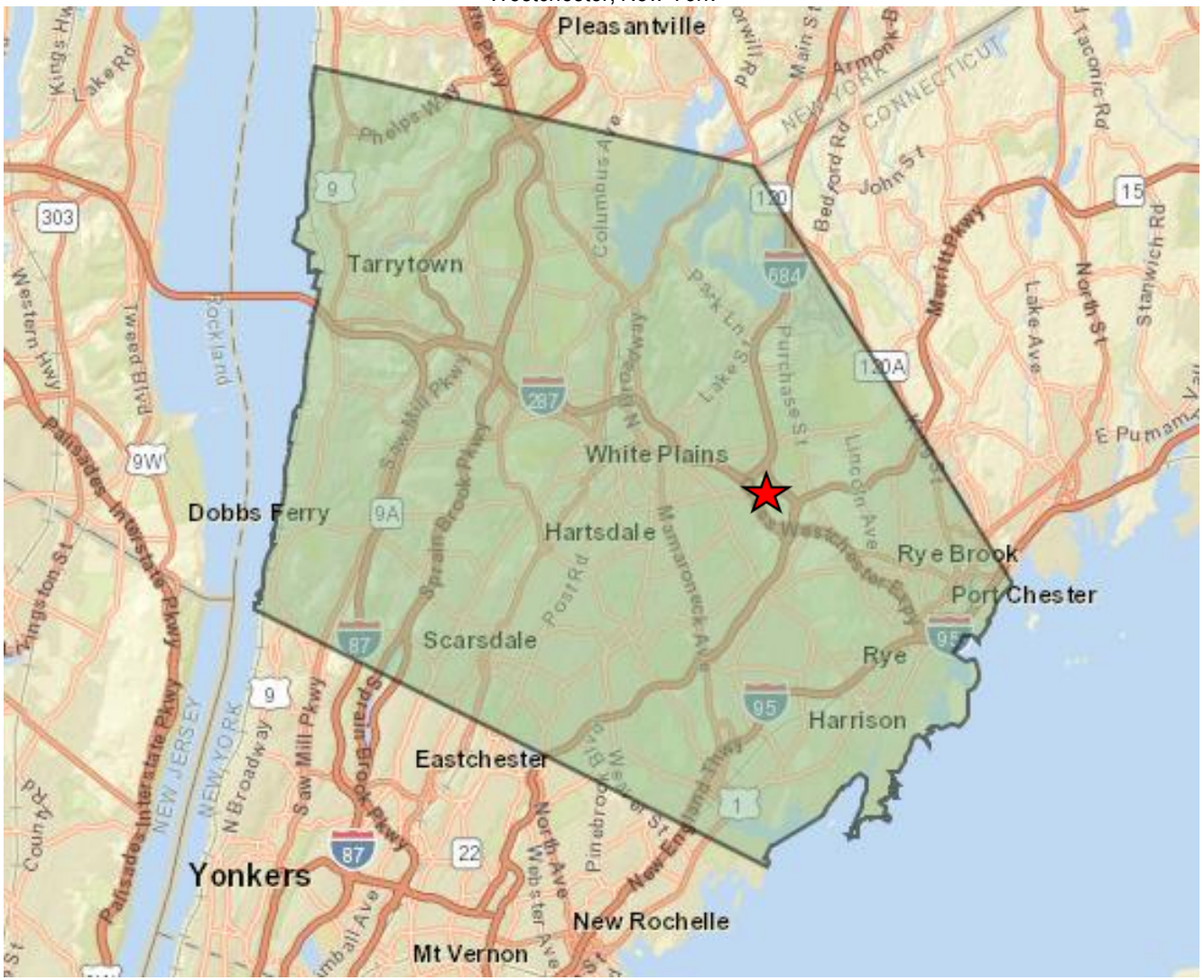
	Under 25	25 - 34	35 - 54	55 - 64	65+	TOTAL DEMAND
Total Households	1.6%	10.7%	37.0%	20.8%	29.9%	
	1,824	12,387	42,881	24,165	34,790	116,047
% Rent	99.9%	69.6%	39.4%	25.5%	24.1%	36.1%
Total Renters	1,806	8,621	16,913	6,163	8,397	41,899
Move Each Year	1,199	3,175	3,488	1,178	763	9,802
+	+	+	+	+	+	+
Net Tenure Switch	(9)	(156)	(101)	52	62	(152)
+	+	+	+	+	+	+
New Household Growth	245	788	391	(12)	(419)	993
=	=	=	=	=	=	=
Rental Demand	1,435	3,807	3,779	1,218	406	10,644
Multifamily Demand	**1,242** MF Demand	**2,607** MF Demand	**1,848** MF Demand	**606** MF Demand	**271** MF Demand	**6,574** MF Demand
	10%	11%	11%	19%	19%	12%
	123 Choose New	**288** Choose New	**200** Choose New	**113** Choose New	**52** Choose New	**776** Choose New

Source: U.S. Census Bureau; ESRI; Moody's Analytics; RCLCO

PRIMARY MARKET AREA FOR ANALYSIS

RCLCO
REAL ESTATE ADVISORS

Map of Primary Market Area, 2019;
Westchester, New York



CITIES, VILLAGES, AND CDPs INCLUDED IN THE PMA	
Fully	**Partially**
Ardsley	East Chester
Dobbs Ferry	Hastings-on-Hudson
Elmsford	Mamaroneck
Fairview	New Rochelle
Greenville	Yonkers
Harrison	
Hawthorne	
Irvington	
Port Chester	
Rye Brook	
Rye City	
Scarsdale	
Sleepy Hollow	
Tarrytown	
Valhalla	
White Plains	

Source: ESRI; RCLCO

RENTAL DEMAND SEGMENTATION

RCLCO REAL ESTATE ADVISORS

The American Community Survey data utilized in RCLCO's demand model on page 10 also provides useful demographic data about households, and specifically renter households, in the PMA. This allows RCLCO to project the demographics of renters expected in the PMA and at the subject site. The table below summarizes the expected ages and life stages of households seeking new multifamily units within the PMA each year over the next five years.

As is the case in nearly all rental markets across the country, renter households in the PMA tend to be younger than the general population. While this trend holds within the PMA, with 38% of all demand for new units expected to emanate from young professional households (typically aged 25 to 34), a majority of demand for new rental units within the PMA is expected from older households, especially from mature professionals and empty nesters.

This demographic data and analysis provides useful insight about how best to position the subject site, in terms of rents, unit mix, and targeting. However, it is also important to utilize qualitative research of the site and similar developments throughout the country to determine which demographic segments are likely to be drawn to the location of the site. Based on historical experience and consumer preference research conducted by RCLCO across the country, it is believed the subject site will be especially attractive to older renters, in particular mature professionals and empty nesters, due to its more suburban location, access to nearby daily amenities including Lifetime Fitness and Wegmans, and the excellent access to employment throughout Westchester County by car from the site. Coupled with the large presence of older renters already expected in the market over the next five years, RCLCO believes orienting the site toward older renters will allow the site to capitalize on demand in the market, while also differentiating the site from competition in the market, most of which is occurring in Downtown White Plains with smaller unit sizes targeted toward younger renters. Although we recommend orienting the site toward older renters with larger unit sizes and a high level of finishes and amenities, offering a subset of smaller units to appeal to younger renters is still advisable to fully capitalize on the broader demographic of the market as a whole. The positioning of the subject site maximizes the opportunity for success of the development based on the existing and forecasted demographics in the area.

Annual Demand Potential for New Multifamily Units by Economic Segment and Life Stage, 2018-2023;
Primary Market Area

	LIFESTAGE					
ECONOMIC SEGMENT	POST-GRAD	YOUNG PROFESSIONAL	FAMILY	MATURE PROFESSIONAL	EMPTY NESTER	TOTAL
AFFORDABLE	12 2%	8 1%	45 6%	11 1%	5 1%	**80** **10%**
WORKFORCE	12 2%	11 1%	0 0%	8 1%	3 0%	**35** **4%**
MARKET RATE	21 3%	110 14%	60 8%	51 7%	20 3%	**262** **34%**
LUXURY	0 0%	165 21%	54 7%	67 9%	113 15%	**399** **51%**
TOTAL	**46** **6%**	**293** **38%**	**158** **20%**	**138** **18%**	**141** **18%**	**776** **100%**

Source: U.S. Census Bureau; ESRI; Moody's Analytics; RCLCO

PIPELINE DATA AND ESTIMATED ABSORPTION

RCLCO REAL ESTATE ADVISORS

In addition to producing a demand forecast, RCLCO also utilized multiple market data sources to estimate apartment deliveries over the next five years in the PMA. While the current pipeline within the primary market area is deep, it primarily consists of longer term urban projects concentrated in Downtown White Plains. The subject site will be contrasted with many of these properties because its location and planned larger unit sizes will be more attractive to working professionals seeking more space at a better value compared to Downtown and to empty nesters downsizing from home ownership in the area. In addition, many of the projects are in initial planning stages, and it is unlikely all of the projects will be delivered on schedule, or even delivered at all. Furthermore, the largest pipeline developments are phased developments, meaning only a small subset of the total unit count will be competitive at any given time. The pipeline suggest deliveries will average 795 units per year over the next four years, nearly matching estimated demand in the market before even considering possible delays and the differentiation of the subject site compared to much of the market. This analysis suggests a balanced market moving forward, with potential for excess demand due to historical undersupply.

Apartment Development Pipeline; March 2019; Southern Westchester County, NY

MAP KEY	PROJECT NAME	ADDRESS	CITY	DEVELOPER	STATUS	EST. OPENING	TOTAL UNITS	2019	2020	2021	2022	2023+
	UNDER CONSTRUCTION											
1	One Dekalb	1 Dekalb Ave	White Plains	Lighthouse Living	Construction	2019	76	76				
2	Carraway	103 Corporate Park Dr	West Harrison	Toll Brothers	Construction	2020	421		421			
3	Harrison Playhouse Lofts	227-239 Harrison Ave	Harrison	Verco Properties	Construction	2020	36		36			
							533	**76**	**457**	**-**	**-**	**-**
	PLANNED/PROPOSED											
4	Edge on Hudson I	50 River St	Sleepy Hollow	Toll Brothers	Planned	2021	188			188		
5	Edge on Hudson Future Phases	50 River St	Sleepy Hollow	Toll Brothers	Planned	Not Available	871					877
6	Westmoreland Lofts	158 Westmoreland Ave	White Plains	HayMax Capital	Planned	2020	62		62			
7	Continuum White Plains II	55 Bank St	White Plains	LCOR	Planned	2021	309			309		
8	Hamilton Green	200 Hamilton Ave	White Plains	Street-Works Development	Planned	2022	860				500	360
9	Former Lady of Good Counsel	52 N Broadway	White Plains	WP Development NB, Inc.	Planned	Not Available	400					400
10	Former AT&T Building	440 Hamilton Ave	White Plains	Rose Associates	Planned	2022	472				472	
11	Broadstone White Plains	131 Mamaroneck Ave	White Plains	Lennar	Planned	2021	434			434		
12	Former Westchester Pavilion	60 S Broadway	White Plains	Lennar	Planned	2021	707			407		407
13	Hale Avenue & Maple Avenue	Hale Ave & Maple Ave	White Plains	Saber Real Estate Advisors LLC	Planned	Not Available	127					127
14	The Collection	80 Westchester Ave	White Plains	Saber Real Estate Advisors LLC	Planned	2021	276			276		
15	Avalon Harrison	Harrison & Halstead Rd	Harrison	AvalonBay Communities	Planned	Not Available	143					143
16	1 North Main Street	1 N Main St	Port Chester	G&S Port Chester	Planned	Not Available	79					79
17	Webb Ave Residential Dev.	2975 Westchester Ave	Purchase	RPW Group	Proposed	2023+	150					150
18	1133 Westchester Ave	1133 Westchester Ave	White Plains	RPW Group	Proposed	2023+	303					303
							5,494	**-**	**62**	**1,614**	**972**	**2,846**

Source: Axiometrics; CoStar: RCLCO

PRICE POINT AND DEMOGRAPHICS

RCLCO
REAL ESTATE ADVISORS

The primary factors influencing the expected market audience at the subject site are the surrounding demographics in the market, the unit mix of the property, and the location of the development. RCLCO believes the development will be able to achieve the recommended pricing at the site, and even if the property were met with slower demand requiring a change in price point, the relative change would not likely produce a noticeably different demographic at the site. While pricing could shift, the property would still be able to achieve pricing near the top of the market, perhaps only at a discount to properties located directly downtown, thus would still be considerably more expensive than existing lower-quality rentals in the market. Furthermore, this situation is more likely to warrant temporary rent concessions (e.g. 1 month free rent during the first 12 months) to boost initial leasing velocity as opposed to long-term changes in price positioning at the site. Downside risk is also limited by the relatively strong historical performance or rental apartments during recessionary periods. For example, during the Great Recession in 2008 and 2009, effective rents declined by only $122 per unit on average in Westchester County.

Recommended Unit Mix, Unit Sizes, and Rent Ranges (2019 $);
Subject Site

UNIT TYPE	UNITS	MIX	AVG. UNIT SIZE (SF)	AVG. RENT	AVG. $/SF
Studio	33	7.3%	558	$1,920	$3.44
1BR	152	33.8%	710	$2,385	$3.36
2BR	254	56.4%	1,089	$3,440	$3.16
3BR	11	2.4%	1,784	$5,465	$3.06
TOTAL/AVG.	**450**	**100.0%**	**939**	**$3,020**	**$3.22**

Average Effective Rent Per Unit, 2000-2019;
Westchester County, New York

NEARBY AMENITIES AND ACCESS

RCLCO
REAL ESTATE ADVISORS

At the time of the initial market study, RCLCO was not made aware of the potential for a connector road linking Westchester Park Drive and Corporate Park Drive, thus analysis assumed residents at the site would need to use Westchester Ave. to access the Wegmans grocery store (as shown in the map below). While the current road configuration does require a longer drive when traveling from the subject site to the Wegmans grocery, the longer route required only adds a total of approximately three minutes and is only required in one direction. Residents stopping at the grocery store on their way home from work or elsewhere will not be impacted, and residents traveling to the grocery store on weekends will benefit from significantly less traffic in the area. In addition, the site is set up for grocery delivery services, which are increasing in popularity.

RCLCO does not believe the one-way configuration of Westchester Ave. will serve as a significant hindrance for residents of the site or limit the positive impact of the site's location near Wegmans. While the addition of a connector road could marginally add to the appeal of the site, the close proximity of the site to Wegmans still serves as a sizeable advantage.

Map of Subject Site Road Configuration, 2019;
White Plains, NY

Source: Google Maps

RISKS AND MITIGATING FACTORS

RCLCO REAL ESTATE ADVISORS

RISK #1: OVERSUPPLY RISK

- Oversupply is perhaps the largest risk facing the subject site development, as is often the case with rental developments in desirable submarkets

MITIGATING FACTORS:

- RCLCO focused its market study heavily on the supply and demand balance existing in the market currently and the projected supply and demand balance in the market over the next five years, concluding that annual demand is expected to match annual new deliveries in the market over the next five years, before even considering other mitigating factors related to demand
- Market fundamentals are strong currently, with multiple factors pointing to significant pent up demand within the market due to years of undersupply
- The subject site will limit competition risk, differentiating itself from a majority of the current development pipeline in the market by orienting development toward younger professionals seeking a value alternative to Downtown White Plains with larger units and toward empty nesters downsizing from homeownership and requiring larger units compared to most new conventional rentals in the area.

RISK #2: CHANGES IN DEMAND PROJECTIONS AND OTHER MARKET FORECASTS

- Fluctuations in the broader economy, as well as changing demographics, have the potential to change the trajectory of market trends and forecasts

MITIGATING FACTORS:

- RCLCO's demand projections are based upon data collected from the U.S. Census Bureau and Bureau of Labor Statistics and are supported by comprehensive economic forecasts from multiple secondary sources. While it is impossible to forecast demographic and economic trends with 100% accuracy, RCLCO has established a proven track record of accuracy by utilizing the best available data and methodologies to produce its forecasts and recommendations.
- Housing data research conduct by RCLCO shows that the percentage of rental households in White Plains and across the United States is increasing, and will add to demand moving forward. This is particularly true of empty nester households, which are expected to be a key demographic at the subject development. In addition, the 2017 tax law has the potential to increase this trend, adding more rental households to the market and boosting demand.

RISK #3: LACK OF WALKABILITY / LOCATION OUTSIDE OF THE DOWNTOWN CORE

- The subject site is located approximately two miles from Downtown White Plains and lacks the walkability available to residents of some of the buildings located directly Downtown

MITIGATING FACTORS:

- Despite locations closer to or within Downtown White Plains, many existing and planned rental apartments are not located in walkable areas and are located upwards of a 20 minute walk from the White Plains Train Station.
- Despite its location outside of the Downtown White Plains core, the subject site still benefits from close proximity to many of the same neighborhood amenities coveted by renters, including the Wegmans grocery store and Lifetime Fitness.
- Location in an urban core is not desirable to all renters. In particular, many older renters and mature professionals prefer a quieter urban setting with local amenities, such as the subject site.
- The success of *Apex @ 290* provides further evidence of demand for rental apartments in more suburban locations, even a location with fewer local amenities than those surrounding the subject site.

SOURCE: Esri, RCLCO

RCLCO REAL ESTATE ADVISORS

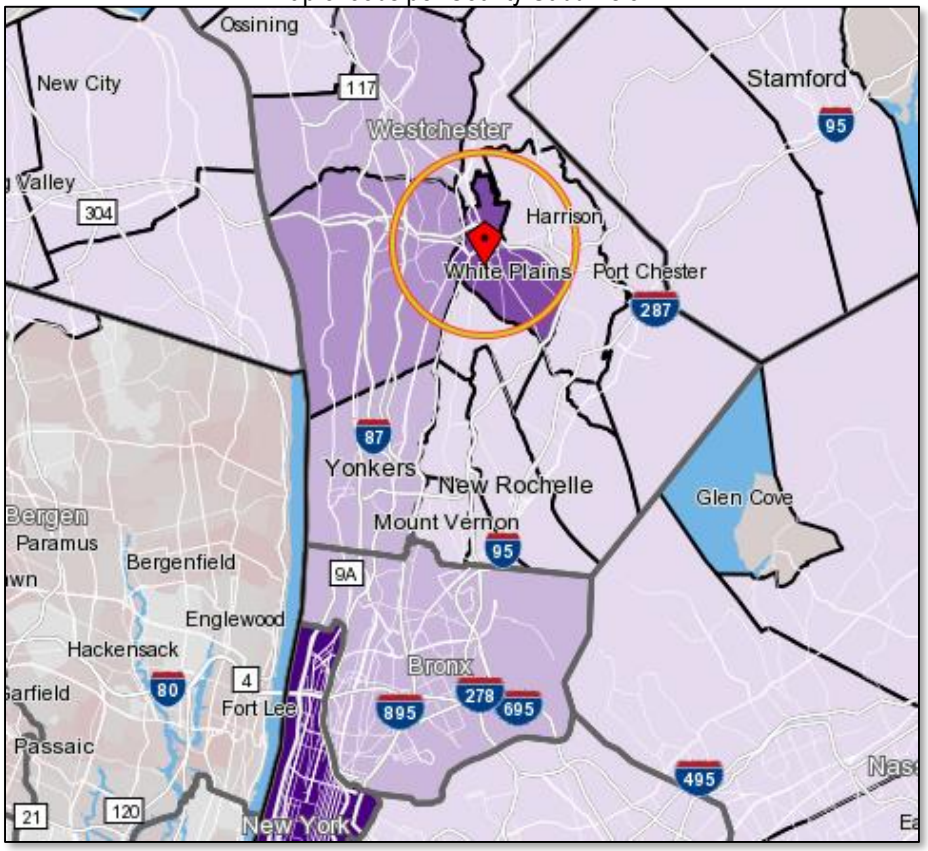
RISK #4: LACK OF WALKABILITY TO METRO-NORTH

- The subject site is located approximately two miles from the White Plains train station, while some existing and planned projects in Downtown White Plains are located within walking distance of the station.

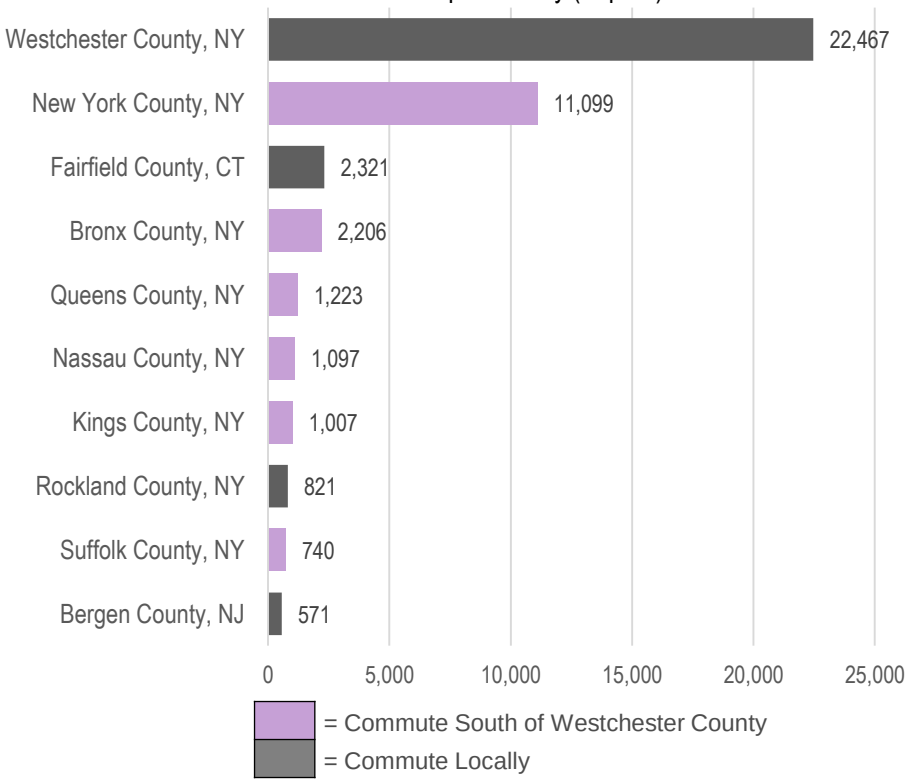
MITIGATING FACTORS:

- Despite their locations within or closer to Downtown White Plains, many existing and planned apartments in White Plains are still not located in walkable areas and are not located within a short walk to the White Plains Train Station, essentially negating any locational advantage over the subject site from a walkability or transit perspective.
- The subject site has excellent highway access, allowing for a short drive to local employment or to local train stations if desired
- As shown in the graphics below, most residents in and surrounding White Plains are employed locally, thus do not rely on mass transit for their daily commutes.

Employment Locations of Residents within 3-Mile Radius of White Plains, 2015;
Map of Jobs per County Subdivision



Employment Locations of Residents within 3-Mile Radius of White Plains, 2015;
Number of Jobs per County (Top 10)



Source: U.S. Census Bureau "Census on the Map"; RCLCO

CASE STUDY: MONARCH AT RIDGE HILL

RCLCO REAL ESTATE ADVISORS

Monarch at Ridge Hill is a luxury condominium development located in the suburban Ridge Hill retail development in Yonkers, NY. RCLCO has not analyzed the condominium market in the area, as condominiums sales are impacted by different market variables compared to rental apartments. However, due to a multitude of development failures, the property has transitioned in part to rental apartments, which are currently 98.4% occupied and achieving rents averaging $3,161 per unit per month. The success of the development as rental apartments despite numerous failures during and following development, including unfinished amenities, highlights the strong market for suburban rental apartments in Westchester County.

The relative failure of the development as condominiums can likely be attributed to failures of the development team, which included highly publicized disagreements and lawsuits pertaining to the development among investment partners prior to, during, and after construction of the project in 2012. Not only does the negative publicity of potential bankruptcy proceedings on a development hinder its reputation and appeal, pending litigation involving a condominium development can make it nearly impossible for potential buyers to secure financing. RCLCO believes this development is an outlier in the market, and a similar development marred in litigation and controversy would likely be met with failure in any market or location in the United States.

Monarch at Ridge Hill Fitness Center
Yonkers, NY

Source: Property Website; CoStar; RCLCO

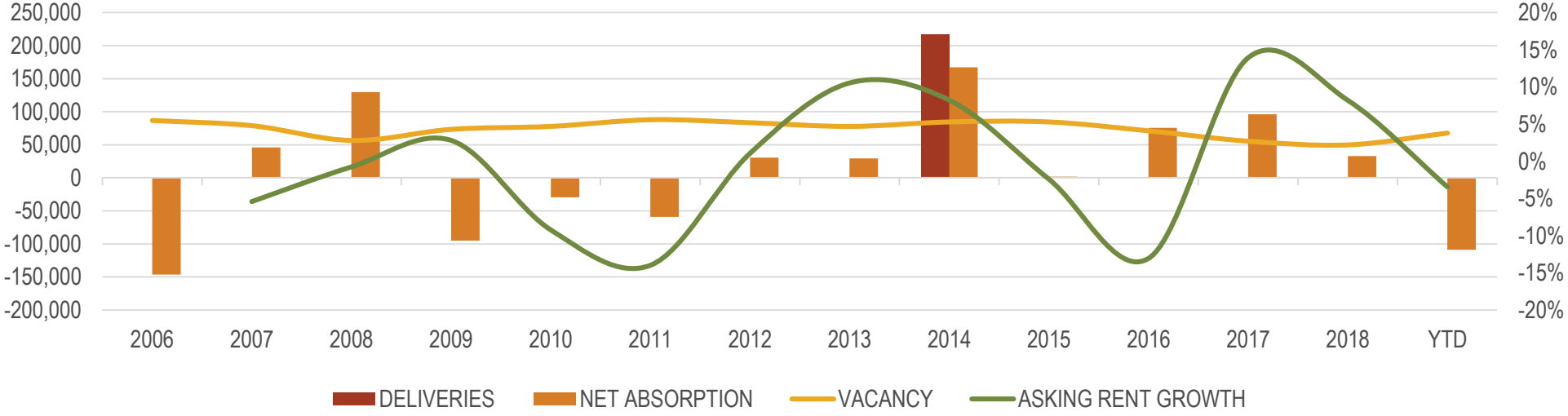
RETAIL OPPORTUNITY

RCLCO
REAL ESTATE ADVISORS

The chart below displays retail fundamentals in White Plains between 2016 and July 2019. Very little retail development activity has occurred over the past decade, and rent growth has been inconsistent, averaging a decline of -0.27% each year. While vacancy rates currently remain low, absorption has also been inconsistent.

The primary barrier to the success of retail at the subject site is the site's visibility and lack of traffic flow. Although the site borders Westchester Ave. to the west, it does so at considerable grade and with very limited frontage due to the configuration of the site, blocking visibility of the site from the road. Visibility is a significant component for retail developers and retail tenants, and the site will only be able to achieve significant visibility along the much lesser trafficked Westchester Park Drive. While residents and visitors within the teardrop area may generate demand at the site, it will be at a very limited scale, making retail development at the subject site challenging. This is especially true due to the poor visibility of the site, which would deter potential retail tenants. Based on this analysis, RCLCO does not believe the subject site offers a compelling retail opportunity, and would be better served as amenity or residential space.

Retail Deliveries, Net Absorption, Vacancy, and Asking Rent Growth, 2006-2019 YTD;
White Plains, NY



Source: Google Maps; ESRI; CoStar: RCLCO

RCLCO
REAL ESTATE ADVISORS

DISCLAIMERS

CRITICAL ASSUMPTIONS

RCLCO REAL ESTATE ADVISORS

Our conclusions are based on our analysis of the information available from our own sources and from the client as of the date of this report. We assume that the information is correct, complete, and reliable.

We made certain assumptions about the future performance of the global, national, and local economy and real estate market, and on other factors similarly outside either our control or that of the client. We analyzed trends and the information available to us in drawing these conclusions. However, given the fluid and dynamic nature of the economy and real estate markets, as well as the uncertainty surrounding particularly the near-term future, it is critical to monitor the economy and markets continuously and to revisit the aforementioned conclusions periodically to ensure that they are reflective of changing market conditions.

We assume that the economy and real estate markets will grow at a stable and moderate rate to 2020 and beyond. However, stable and moderate growth patterns are historically not sustainable over extended periods of time, the economy is cyclical, and real estate markets are typically highly sensitive to business cycles. Further, it is very difficult to predict when an economic and real estate upturn will end.

With the above in mind, we assume that the long-term average absorption rates and price changes will be as projected, realizing that most of the time performance will be either above or below said average rates.

Our analysis does not consider the potential impact of future economic shocks on the national and/or local economy, and does not consider the potential benefits from major "booms" that may occur. Similarly, the analysis does not reflect the residual impact on the real estate market and the competitive environment of such a shock or boom. Also, it is important to note that it is difficult to predict changing consumer and market psychology.

As such, we recommend the close monitoring of the economy and the marketplace, and updating this analysis as appropriate.

Further, the project and investment economics should be “stress tested” to ensure that potential fluctuations in revenue and cost assumptions resulting from alternative scenarios regarding the economy and real estate market conditions will not cause failure.

In addition, we assume that the following will occur in accordance with current expectations:

- Economic, employment, and household growth
- Other forecasts of trends and demographic and economic patterns, including consumer confidence levels
- The cost of development and construction
- Tax laws (i.e., property and income tax rates, deductibility of mortgage interest, and so forth)
- Availability and cost of capital and mortgage financing for real estate developers, owners and buyers
- Competitive projects will be developed as planned (active and future) and that a reasonable stream of supply offerings will satisfy real estate demand
- Major public works projects occur and are completed as planned

Should any of the above change, this analysis should be updated, with the conclusions reviewed accordingly (and possibly revised).

GENERAL LIMITING CONDITIONS

RCLCO
REAL ESTATE ADVISORS

Reasonable efforts have been made to ensure that the data contained in this study reflect accurate and timely information and are believed to be reliable. This study is based on estimates, assumptions, and other information developed by RCLCO from its independent research effort, general knowledge of the industry, and consultations with the client and its representatives. No responsibility is assumed for inaccuracies in reporting by the client, its agent, and representatives or in any other data source used in preparing or presenting this study. This report is based on information that to our knowledge was current as of the date of this report, and RCLCO has not undertaken any update of its research effort since such date.

Our report may contain prospective financial information, estimates, or opinions that represent our view of reasonable expectations at a particular time, but such information, estimates, or opinions are not offered as predictions or assurances that a particular level of income or profit will be achieved, that particular events will occur, or that a particular price will be offered or accepted. Actual results achieved during the period covered by our prospective financial analysis may vary from those described in our report, and the variations may be material. Therefore, no warranty or representation is made by RCLCO that any of the projected values or results contained in this study will be achieved.

Possession of this study does not carry with it the right of publication thereof or to use the name of "Robert Charles Lesser & Co." or "RCLCO" in any manner without first obtaining the prior written consent of RCLCO. No abstracting, excerpting, or summarization of this study may be made without first obtaining the prior written consent of RCLCO. This report is not to be used in conjunction with any public or private offering of securities or other similar purpose where it may be relied upon to any degree by any person other than the client without first obtaining the prior written consent of RCLCO. This study may not be used for any purpose other than that for which it is prepared or for which prior written consent has first been obtained from RCLCO.

RCLCO

REAL ESTATE ADVISORS

AUSTIN

221 West 6th Street, Suite 2030
Austin, TX 78701

LOS ANGELES

11601 Wilshire Boulevard, Suite 1650
Los Angeles, CA 90025

ORLANDO

964 Lake Baldwin Lane, Suite 100
Orlando, FL 32814

WASHINGTON, DC

7200 Wisconsin Avenue, Suite 1110
Bethesda, MD 20814

III.5. RETAIL FEASIBILITY STUDY

COMPASS

ARS Abrams Retail Strategies

3 Westchester Park Drive

Retail/Commercial Feasibility Study

Prepared by:

ARS Abrams Retail Strategies

COMPASS

July 31, 2019

Introduction

Abrams Retail Strategies ("ARS") at Compass was retained by Marcus Partners to form an educated opinion regarding whether retail space should be incorporated as part of the planned residential development for the site at 3 Westchester Park Drive ("3WPD") in Harrison, New York.

ARS toured the site, as well as the immediate market area, inclusive of the existing Lifetime Fitness, Hyatt Hotel, and sites for the future Wegmans and Montefiore Medical Center. ARS toured and studied additional retail, service and food uses on the streets and in the malls. Drive times from 3 WPD to the various destinations were noted for all, and checked with google maps. Bike and walk times were noted as well, where applicable, based on likelihood for one to bike or walk to a given destination from 3WPD, determined based on assumptions due to distance.

In order to make an assessment, ARS studied various factors, which are detailed in this report.

Summary

The following is an outline of what is presented in the report, based on our research and findings:

I. OVERVIEW OF THE 3 WESTCHESTER PARK DRIVE PLANNED DEVELOPMENT

II. STUDY OF RETAIL VIABILITY FOR 3 WESTCHESTER PARK DRIVE

A. POPULATION AND TRAFFIC REQUIREMENTS

ARS assessed the potential viability of the 3WPD site in terms of demand, and forecast the ability to lease the space to a retail tenant. Based on a sample of prospective retailers' publicly stated and formally available requirements for population and traffic, ARS determined that food related tenants would not be able to meet their requirements for population and/or traffic at the site, and therefore would not consider it for their use. Section A outlines the requirements for population, and the requirements for traffic, and then clearly shows that most food tenant candidates checked in a random sample would not meet their requirements and therefore would not consider a lease of space at the 3WPD site. Further, ARS checked with local real estate brokers that represent tenants to lease space in Westchester, and these brokers reported that their tenants would not consider leasing retail space for their use, if it were available at 3 WPD. Retail tenants need to be visible on a main corridor, accessible to certain minimum population.

Introduction (cont'd)

B. RETAIL MARKET IN TRANSITION

ARS studied the retail market in general, exploring the uses that were expanding and might consider leasing retail space at the 3WPD site. Research shows that Food, Fitness and Medical/Wellness are the categories that are actively leasing space. ARS determined that those uses would not consider the site, as there are already retailers who meet the need for the prospective residents at 3WPD as well as the surrounding population, both commercial and residential. One retail broker said that Wegmans would "suck the air out" of other potential retail at 3WPD, as Wegmans is a one stop shop offering a multitude of product/services. Between Wegmans, Lifetime Fitness, and Montefiore Medical Center, the community's need for food, fitness and medical/wellness are well met. Fashion and entertainment uses look for and are located in the downtown area where there is more retail density, and co-tenancy which draws the customer.

C. CHALLENGES FOR BRICK AND MORTAR

ARS looked at statistics for available retail space and considered the vacancy factor, as more and more new development is occurring in the vicinity of 3WPD. Most of the new retail consists of a significant amount of square footage that allows for multiple synergistic uses to support one another and draw destination traffic. And the rest of it is to be located in downtown White Plains or downtown Harrison, where there is retail density and co-tenancy, as well as transit, drawing the customer. More and more retailers are shuttering stores as it has become more challenging to compete with ecommerce sales. One can order from Amazon and have your product the next day, so there is little need for many traditional uses that might have located at the base of a residential building to provide convenience retail.

III. SURROUNDING MARKET AREA/RETAIL

ARS carefully vetted the services and products offered by Lifetime Fitness, Wegmans and Montefiore Medical Center and determined that those three tenants provided most of the services and products the community might need: a club like environment with activities and lounge areas, fitness classes, kids activities/day care, hair salon/spa services, café, groceries, prepared foods, health and beauty aides, wine/beer, restaurant, urgent care, medical lab, etc. Additionally, there are a number of restaurant options a short drive away in downtown White Plains or Harrison, and a multitude of shopping options are available there as well, including The Westchester Mall, which is considered one of the top malls in the country.

Introduction (cont'd)

IV. CONCLUSION

Based on the research ARS has done, we recommend that the residential development at 3WPD does not allocate space for retail use. Such space would be difficult to lease based on tenant requirements, as well as a growing supply of retail space with limited demand. The community has all of their retail/commercial needs met in close proximity.

V. ABOUT ABRAMS RETAIL STRATEGIES/ROBIN ABRAMS

Our group has been doing retail consulting and leasing for 4 decades. ARS has worked to develop successful RFP's, conceptualize and lease multi-tenanted retail projects, do portfolio reviews with mitigation as needed, do Fair Market Valuations, and serve as retail expert or as arbitrator in multiple arbitration and litigation cases.

Research/Sources

-- Tour of the site and the surrounding retail, including White Plains and Harrison.
-- Meetings with Lifetime Fitness and Wegmans to fully understand their operation and product/services offered. Research on Montefiore Medical Center planned nearby.
-- Direct conversations with local real estate brokers.
-- Direct conversations with real estate contacts for prospective tenants.
-- Websites for various national and regional retailers.
-- Websites for various mixed use and retail developments.
-- Property Shark
-- CoStar
-- Google Maps
-- The U.S. Census Bureau
-- F.M. Friedland Q2 Retail Market Report for Westchester County
-- Publications including Westchester Magazine, the Yonkers Times, Fox Business, Business Insider, USA Today (citing studies by Coresight Research and UBS), The Balances Small Business and Forbes

3 Westchester Park Drive

INDEX

I. 3 Westchester Park Drive Overview

II. Study of Retail Viability for 3 Westchester Park Drive

A. Misc. Food Tenant's Requirements for Retail Population and Traffic

B. Retail Market in Transition

C. Challenges for Brick and Mortar Stores

III. Surrounding Market Area/Retail

A. Lifetime Fitness

B. Wegmans

C. Montefiore Medical Center

D. Downtown White Plains

- The Westchester Mall

E. Downtown Harrison

- AvalonBay Development

IV. Conclusion

V. Abrams Retail Strategies

COMPASS

I. 3 Westchester Park Drive

ARS Abrams Retail Strategies

- Located on Platinum Mile
- Upscale luxury 450 unit apartment complex
- Within close proximity: Lifetime Fitness, Wegmans, Montefiore Medical Center, the Hyatt House Hotel, the Westchester Mall, White Plains downtown/train station, and Harrison downtown/train station

About...

3 Westchester Park Drive (“3WPD”) will be a full-service luxury apartment complex of 450 units spread over two 5 and 6 story buildings with separate parking lots and a central street running between them, creating a “sense of place.” Large windows fronting the ground floor amenity space in the center of the building “mimics a village style retail storefront” where services and events will cater to residents. 3WPD will feature a Coffee Bar and complimentary coffee will be available in the lobby for 3WPD residents. Based upon resident demand, amenity programming may include a shuttle to the White Plains station, a residents’ lounge/business area to convene and socialize (billiards, ping pong, multiple TVs, arcade games, etc... sports bar type feel), grilling and al fresco dining for residents/guests, DIY classes hosted by local establishments, dry cleaning pick up and drop off lockers, tax return prep and on-site notary, massage and beauty room, pet spa, art shows, podcast studio, ride-share pick up lounge (Uber, Lyft, etc), and resort style pools. There is also a Lifetime Fitness flagship within walking distance from the complex which can partner with 3WPD to offer on-site fitness classes and salon/spa services. Upscale grocery market Wegmans is opening in 2020, and is a 3-5 minute drive, or short walk from 3WPD on a proposed connection through the adjacent Carraway site, subject to an agreement under negotiation with the neighboring Carraway site property owner. There are numerous banks in the area, a daycare/pre-school, a Hyatt House Hotel which has a convenience store and the Renaissance Hotel which has a large bar/social space.

II. Study of Retail Viability for 3 Westchester Park Drive

COMPASS

A. Misc. Food Tenants' Requirements for Retail Population & Traffic

ARS Abrams Retail Strategies

ARS gathered a list of national and regional food chains ranging from fast food/fast serve to sit down restaurants, and also included convenient store retailer 7-11.

Step 1 - We quantified the residential populations within a 1 mile radius, a 2 mile radius, a 3 mile radius, and a 5 mile radius of 3WPD, respectively.

Step 2 - We quantified the estimated average daily vehicular counts on Westchester Avenue (Route 119), which is the only primary access road to 3WPD.

Step 3 - We researched and recorded the selected food tenants' minimum residential population requirements and minimum traffic requirements.

Step 4 - We compared the residential populations surrounding 3WPD and the vehicular counts on Westchester Avenue (Route 119) with the national and regional fast food and restaurant chains' minimum residential population requirements and minimum traffic requirements to determine if 3WPD would qualify as a location for these food chains.

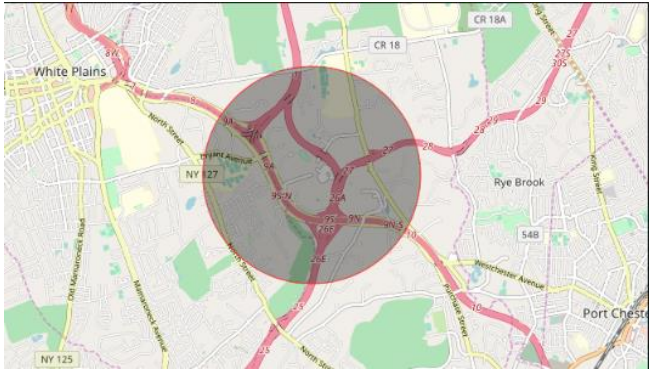
Step 5 – We noted all on the attached chart labeled "Requirements for Population/Traffic". A requirement was colored in green if 3WPD met the requirement, yellow if it was questionable whether 3WPD met the requirement, and red if 3WPD failed to meet the requirement.

Conclusion – We found that 3WPD would not qualify as a viable retail site for almost all of these food tenants, and there are stronger, more compelling retail locations available for the few where 3WPD would qualify as viable.

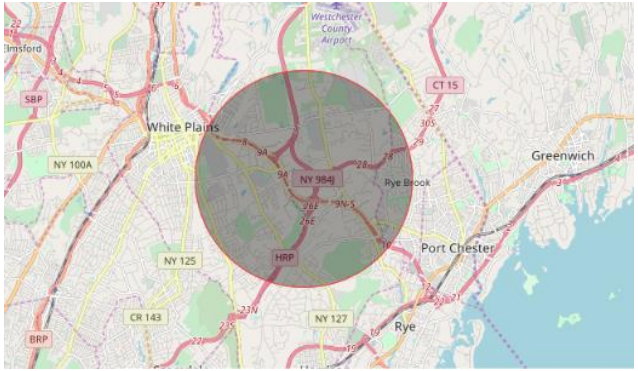
COMPASS

Residential Population Surrounding 3WPD

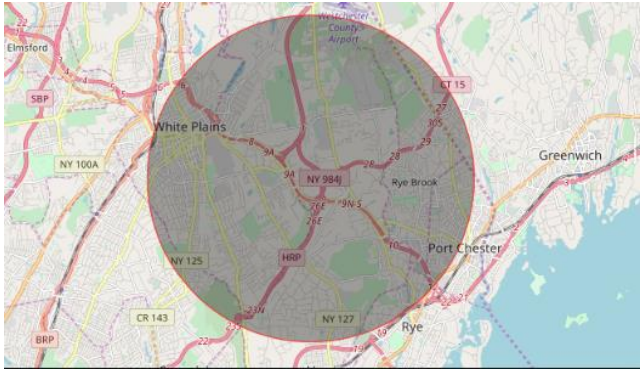
Abrams Retail Strategies



1 Mile
8,099 people



2 Mile
27,025 people



3 Mile
127,071 people

5 Mile
211,816 people

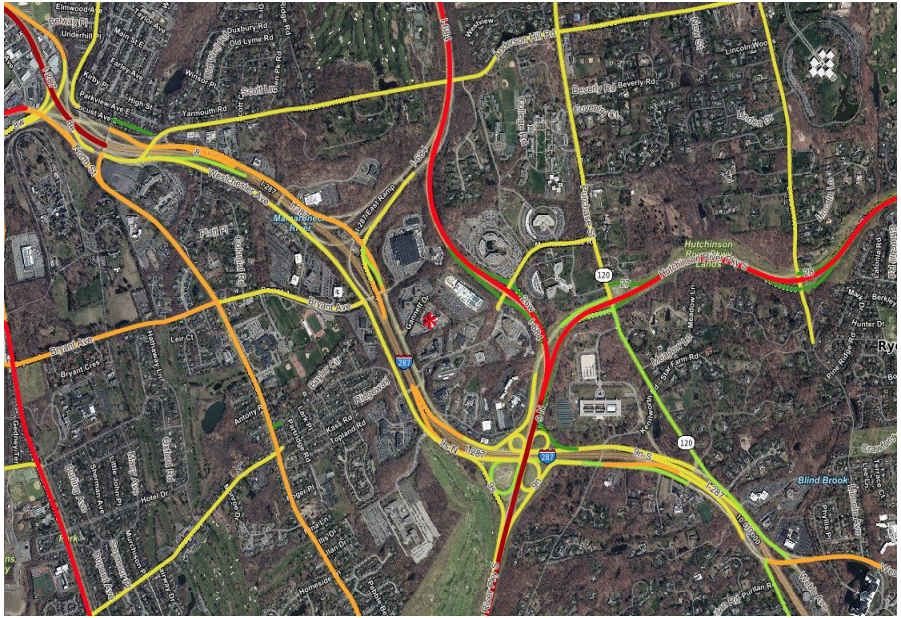
Source: Google Maps API, PHP, Ajax

Note: CoStar shows 2019 population counts of 1 mile: 4,225 people, 3 miles: 91,176, and 5 miles: 234,789

COMPASS

Traffic Counts

Abrams Retail Strategies



Source: Property Shark

* **3 Westchester Park Drive**

Estimated average daily traffic volume on a route segment at a particular count location, measured from 3WPD.

Average daily traffic

75,001-300,000	Hutchinson River Parkway (South of I287)
25,001-75,000	Hutchinson River Parkway / Interstate 684
10,001-25,000	Interstate 287
4,001-10,000	Westchester Avenue (Route 119)
1,501-4,000	Route 120
1-1,500	(Misc.)

Westchester Park Drive has an average total of approximately 7,800 vehicle trips on weekdays, approximately 3,900 in and out. On weekends, there is an average total of approximately 4,600 vehicle trips, approximately 2,300 in and out of Westchester Park Drive.

Source: Automated Traffic Recorder (ATR) counts conducted by Provident Design Engineering from August 9th, 2019 to August 15th, 2019,

COMPASS

Requirements for Population & Traffic

ARS Abrams Retail Strategies

Name	Type	Minimum Residential Population Requirement	Minimum Traffic Requirements	Qualification Status
Bar-B-Cutie Smokehouse	American Restaurant	30,000 within a 2 mile radius	25,000 cars per day with direct access	No
Boston's Pizza	Pizza Restaurant and Sports Bar	50,000 within a 3 mile radius	20,000 cars per day with direct access	No
Hooters	American Restaurant	100,000 within trade area	N/A	Questionable
IHOP	Breakfast Restaurant	25,000 within a 3 mile radius and 80,000 within a 5 mile radius	28,000 cars per day with direct access	No
Pie Five Pizza	Fast Casual Restaurant	50,000 within a 3 mile radius	30,000 cars per day with direct access	No
PizzaRev	Pizza Restaurant	15,000 within a 1 mile radius	N/A	No
Taziki's Mediterranean Café	Fast Casual Mediterranean Restaurant	30,000 within a 2 mile radius	N/A	No
Twin Peaks	American Restaurant	150,000 within a 5 mile radius	30,000 cars per day with direct access	No
Urban Bricks Pizza	Pizza Restaurant	20,000 within a 1 mile radius, 50,000 within a 2 mile radius, and 250,000 within a 3 mile radius	N/A	No
Arby's	Fast Food Restaurant	20,000 within trade area	25,000 cars per day with direct access	No
Del Taco	Fast Food Restaurant	35,000 within trade area	25,000 cars per day with direct access	No
Fat Burger	Fast Food Restaurant	20,000 within a 1 mile radius and 40,000 within a 2 mile radius	N/A	No
Jersey Mike's Subs	Fast Food Sandwich Restaurant	45,000 within trade area	N/A	Questionable
Jimmy John's	Fast Food Restaurant	25,000 within trade area and 20,000 within a 5	N/A	Questionable
Lenny's Grill & Subs	Fast Sandwhich Shop	20,000 within a 2 mile radius	N/A	Yes
Popeyes	Fast Food Restaurant	45,000 within a 2 mile radius	N/A	No
Saladworks	Fast Salad Restaurant	30,000 within a 2 mile radius	N/A	No
7-Eleven	Convience Store	N/A	25,000 cars per day with direct access	No

B. Retail Market in Transition

In the Westchester Magazine, Dave Donelson dissects the different aspects of the Westchester County real estate market throughout his article "Development Boom Strengthens Commercial Real Estate Market." He mentions how industrial/flex, office space, and multifamily mixed-used development are all heating up and flourishing. However, he also discusses how the retail market has not been following the same pattern as the other markets. According to the article, the absorption rate for the retail market has remained flat, which indicates that stores are closing at the same pace as stores are opening. One of the biggest contributors to this problem is that Amazon and other similar websites are attracting more customers to shop online for cheaper products and convenient next day delivery. Because of this, brick and mortar stores are closing their doors because they are losing sales and cannot afford rent. Also in this article Donelson quotes Jones-Maturo by saying "demand is driven by the five 'Fs': food, fitness, fun, family, and fashion discounters." These categories are able to thrive because they do not face competition from online websites. Lastly, Donelson displays a graph (see next page) in which he shows the availability and asking rents for the submarkets of Westchester County; 3WPD is nestled between the White Plains and River Town submarkets. The average asking rent is approximately $34 per square foot for space in those areas. General standards dictate that rent should not be more than 10% of sales, at most. Therefore, a retailer would need to achieve sales, minimally, in excess of $340 per square foot which translates to tenant's sales requirements in order for a store to be successful of: approximately $2 million in annual sales for 6,000 square feet of space and half a million in annual sales for 1,500 square feet of space.

The retailers we spoke to were not confident they could achieve those sales based on the positioning of the potential retail. One local retail broker, familiar with the site, said that Wegman's "sucks the air out" of retailers' potential at 3WPD, as Wegman's offers their destination customers a "one stop" shopping experience to accommodate most needs – groceries, prepared foods, wine and beer, health and beauty aids, etc. – as well as offering a sit down restaurant.

He said the tenants he represented would not consider the site at 3WPD.

B. Retail Market in Transition

3WPD is nestled between the White Plains and River Towns market areas. Those areas combined have almost 10,000,000 square feet of existing retail with more retail being developed.

SUBMARKET	TOTAL MARKET (SF)	AVAILABLE (%)	ASKING RENT ($/SF/YR)
Central Westchester	1,251,738	2.3	35.93
Port Chester	3,379,355	4.5	35.58
Route 22 Corridor	3,707,963	7.4	37.17
White Plains	7,036,553	5.2	34.18
Northern Westchester	9,213,745	7.3	33.62
River Towns	2,586,056	6.9	33.83
Sound Shore	5,409,733	7.4	32.28
Southern Westchester	14,241,981	4.9	31.22
Total Westchester	46,827,124	5.9	33.38

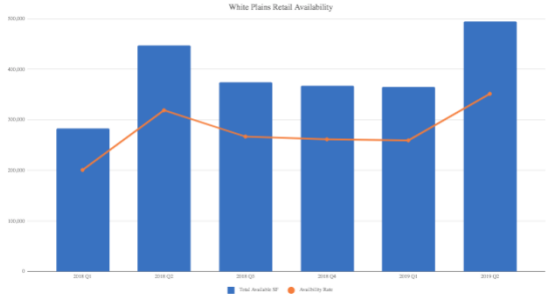
Source: Westchester Magazine / RM Friedland Q4 Market Report 2018
http://www.westchestermagazine.com/914-INC/Q2-2019/Westchester-Development-Boom-Signals-Health-Commercial-Real-Estate-Market/

COMPASS

Increased Available Retail Space

Abrams Retail Strategies

RM Friedland's Q2 Market Report for 2019 covering Westchester County shows that there is almost half a million SF of available retail space, leading to increased availability rates.



Quarter	Total Available SF	Availability Rate
2018 Q1	282,558	4.02%
2018 Q2	447,407	6.38%
2018 Q3	374,795	5.34%
2018 Q4	367,189	5.23%
2019 Q1	365,460	5.19%
2019 Q2	494,714	7.03%

Source: RM Friedland Q2 Retail Market Report – Westchester County

Approved projects in the nearby area provide for an additional 438,700 SF of retail. Most of the space accommodates a number of retail uses creating synergy and co-tenancy in walkable projects.

Name	Address	Retail Square Feet	Rental Residential Units
The Boulevard	West Post Road & Maple Avenue	220,000	12
The Collection	81-100 Westchester Avenue	25,000	276
The Norden Lofts	121 Westmoreland Avenue		65
Westmoreland Lofts	136 Westmoreland Avenue	4,300	62
One Dekalb	1 Dekalb Avenue	50,000	77
The Esplanade	95 South Broadway	9,000	212
Rose Development	440 Hamilton Avenue	34,000	468
Brookfield Commons (Phase II)	141 South Lexington Avenue		129
Mount Hope Plaza	65 Lake Street		56
Hamilton Green	200 Hamilton Avenue	85,400	860
Broadstone White Plains	Mamaroneck Avenue & Post Road	8,000	434
Continuum White Plains (Phase I)	55 Bank Street	3,000	288

Source: Westchester Magazine

C. Challenges for Brick & Mortar Stores

We are constantly bombarded by news articles messaging about the challenges for brick & mortar retail. A number of retail chains are closing stores, provoked by increased internet/online sales captured by Amazon and e-commerce retailers.
The below shows only a small sample of some articles exploring this issue.

Sears Closed Landmark Cross County Locale, Yonkers Times, July 17th, 2019

"Should Commercial Development Be Halted In Westchester?"

"The Amazon effect can be seen in most Westchester towns, villages and cities where all know of retail property that has remained unoccupied for some time, and we wait months, sometimes years for another store to move in."

"This could be a glut of commercial and retail properties, which sit empty as development in the country continues with mostly residential but some additional retail continuing to be constructed. Should local government zoning boards stop approving additional retail development projects?"

Retail Apocalypse: These Big Retailers Closing Stores, Filing for Bankruptcy, Fox Business, May 29th, 2019

"Some of the United States most prominent retailers are shuttering their stores or declaring bankruptcy in recent months amid sagging sales in the troubled sector."

"The rise of ecommerce outlets like Amazon has made it harder for traditional retailers to attract customers to their stores and forced companies to change their sales strategies. Many companies have turned to sales promotions and increased digital efforts to lure shoppers while shutting down brick and mortar locations."

The Retail Apocalypse has Claimed 6,000 US Stores in 2019 So Far, More Than the Number That Shut Down in all of 2018, Business Insider, April 17th, 2019

"One report predicted that 75,000 stores would close across North America by 2026 as reliance on e-commerce rises."

C. Challenges for Brick & Mortar Stores

More Store Closings Coming: An Estimated 12,000 Shops Could Close By the End of 2019, USA Today, July 3rd 2019

"The retail apocalypse isn't showing any signs of slowing down."

"More than seven months into 2019, there have already been 27% more stores closings announced than in all of 2018, according to a new report from global marketing research firm Coresight Research (https://coresight.com/r)

" The pain is expected to continue into future years, according to an April report from UBS Securities. (https://www.ubs.com/us/en.html). UBS analysts said 75,000 more stores would need to be shuttered by 2026 if e-commerce penetration rises to 25% from its current level of 16%.

Why are Retail Chain Stores being closed?, Online Choice and Competition on Price, Choice and Convenience. The Balances Small Business, September 27th, 2018

"It's the age of the super sized e-tailer (e.g., Amazon), and brick and mortar retailers are having trouble competing. The dominance of these mega online outlets is based on lower prices, many more options and convenience factor.

50 Retail Innovation Stats That Prove the Power of Customer Experience, Forbes, May 21, 2019

"How we shop has changed drastically in just the past few decades. Instead of window shopping in the mall, many customers now rely on AI product recommendations and shop via mobile without setting foot in a store."

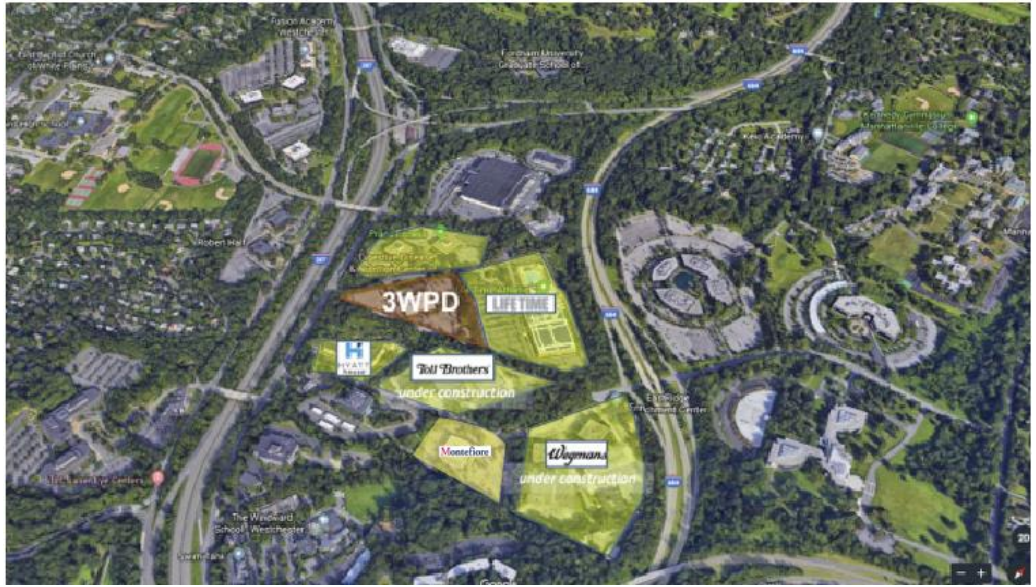
"In 2018, 51% of e-commerce brands offered same-day delivery, up from 16% in 2017. Experts predict that within the next two years, 65% of retailers will offer same-day delivery." -BRP Consulting

"87% of consumers begin their shopping journey with digital, a jump from 71% in 2017."

COMPASS

III. Surrounding Market Area/Retail

Abrams Retail Strategies



- A. Lifetime Fitness
- B. Wegmans
- C. Montefiore Medical Center
- D. Downtown White Plains
- E. Downtown Harrison

COMPASS

A. Lifetime Fitness

ARS Abrams Retail Strategies

- 1 Westchester Park Drive, West Harrison NY
- 207,000 square feet
- Built in 2014
- 4AM -12AM Monday-Sunday
- 1 minute drive / 2 minute bike ride / 5 minute walk

A. Lifetime Fitness

About...

The 207,000 square foot Lifetime Fitness, located adjacent to 3WPD, provides everyday walkable amenities that the residents can embrace to balance their work and personal life. From early risers to late night workers, 3WPD residents will have access to Lifetime's café and lounge. Lifetime is a state of the art athletic facility that includes a gym, tennis and squash courts, yoga/pilates studios, and outdoor/indoor pools, as well as a luxury spa. There will also be opportunities for Lifetime Fitness instructors to host classes and events for 3WPD residents inside the luxury apartment complex. Residents of 3WPD may receive exclusive membership deals. If residents want to go shopping, there is a high-end apparel store that has options for men and women of all ages with popular brands such as Lululemon. Lastly, Lifetime Fitness caters to families, providing to the needs of children with their Kids Academy program. They offer childcare sessions throughout the day as well as numerous fitness classes, special events, and sports camps for children in order to keep them happy and healthy. The cafe, salon/spa and retail store at Lifetime Fitness are open to the public and do not require a membership for access. All 3WPD residents can utilize these nearby services and amenities.

COMPASS

Amenities Accessible to the Public

ARS Abrams Retail Strategies

Cafe and Lounge

- Cafe serving light snacks/beverages and chef prepared meals
- Coworking/private space with wifi

Health Spa

- Manicure, pedicure, haircuts, massage, and health products available
- Co-branding opportunities with 3 Westchester Park Drive (i.e salon to host private events or offer services at 3WPD)

Apparel Store

- Athleisure related apparel/accessories available for men and women of all ages

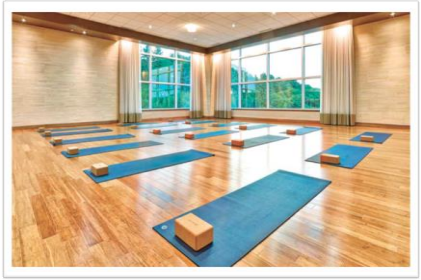
Fitness

- Potential to co-brand with fitness classes provided by Lifetime at 3WPD for their residents.

COMPASS

Amenities Accessible with Membership

Abrams Retail Strategies



Indoor/Outdoor Pools

- Water slides / diving boards
- Relaxing poolside beds
- Cafe with food and beverage

Athletic Facilities

- Weight room, locker room, and steam room
- Pilates, yoga, and spin classes with co-branding opportunity
- Tennis, basketball, and squash courts

Kids Academy

- Fitness classes
- Sports camps
- Special events
- Daycare

B. Wegmans

Source: RCLCO Real Estate Advisors 3WPD Market Study (7/19/2019)

- 105-110 Corporate Park Drive
- 133,000 square-foot upscale grocery market to open in 2020
- Approx. 2-5 minute drive/5 minute bike ride/15 minute walk from 3 Westchester Park Drive

B. Wegmans

About...

Wegman's is a 133,000 square foot upscale grocery market being developed just a short walk, drive, and bike 3 Westchester Park Drive. This large market supports a wide array of consumer needs. Wegman's is famous for being a one stop shop as the gourmet supermarket features an artisanal bake shop, craft beer shop, wines and spirits, all grocery needs with a wide selection of each product (50-70,000 products offered), floral/garden shop with a professional staff for garden keeping advice, health foods, international products from all over the world, prepared foods (Custom Burger Bar, International buffet, build your own pizza bar and a custom sushi bar), cooked to order dishes, home and entertainment, beauty supplies, pet supplies and much more. Additionally, Wegmans incorporates a café and a full service sit down restaurant. Wegmans is a revered grocer as the business is number 2 on the Fortune 100 best companies list. It is also ranked among one of the best shopping experiences in the country.

COMPASS

Wegmans Features

Abrams Retail Strategies

- Craft Beer Shop
- Nature's Marketplace (Organic Goods and health Foods)
- Flower and Gardening Center
- Full Service Gourmet Restaurant
- Wines and Spirits
- Renowned Candy Shop
- Health and Wellness Section
- Home Essentials

COMPASS

An Inside Look

Abrams Retail Strategies

- International Buffet
- Free Samples
- Gourmet Catering
- Custom Sushi Bar
- Build your own Burger Bar
- International Cheese Shop (Over 700 Cheeses)
- Gourmet Butcher
- Gourmet Pizza Bar

COMPASS

C. Montefiore Medical Center

ARS Abrams Retail Strategies

- 104 Corporate Park Drive
- 118,000 SF 4 story building with 200 car parking garage
- Featuring Urgent Care, Sports Medicine, Behavioral Health, Maternal Fetal
- Medicine, Pediatric Care & Wellness Services (infusions, etc.)
- 3 minute drive / 5 minute bike ride / walkable from 3WPD

C. Montefiore Medical Center

About...

The most recent redevelopment trend, which is repurposing obsolete office space, is construction geared toward medical/healthcare. In keeping with that, Montefiore is developing a 118,000 square foot Medical Center in close proximity to 3WPD which will be a short two-minute drive, five-minute bike ride or short walk away for the residents. Montefiore is recognized nationally for their commitment to excellence and U.S News and the World Report ranks them amongst the top hospitals in the United States. This medical care facility will provide a broad range of health and wellness services including walk-in urgent care, behavioral health, maternal fetal medicine, sports medicine, infusions, children's evaluation and rehabilitation, an MRI imaging suite, and lab facilities. The health center will also offer a cancer center that will be operated by White Plains Hospital. From basic necessities such as over-the counter-drugs to more pressing health matters, Montefiore is conveniently and easily accessible to serve the residential population of 3 WPD as well as the surrounding community.

COMPASS

ARS Abrams Retail Strategies

D. Retail Surrounding White Plains Downtown/Train Station

(from Park Avenue to Martine Avenue, and from Church Street to Harding Avenue)

Ritz-Carlton White Plains

White Plains Downtown Skyline

Street View on Mamaroneck Avenue

D. Downtown White Plains

About...

In the area surrounding the White Plains Train Station from Park Avenue to Maritime Avenue and from Church Street to Harding Avenue. This area hosts a wide variety of retail with substantial food, hospitality, medical, and retail options. In addition, the Westchester Mall, located in the heart of downtown White Plains, is only a few minute drive from 3WPD. The Westchester Mall consists of 827,000 square feet of retail and restaurant space and has a wide variety of apparel, accessories and shoe stores, ranging from moderately priced product to luxury goods. The mall also has electronic and technology stores, children's stores and play areas, as well as a number of fast-food dining spots and upscale restaurants. Additionally, Hamilton Green, a mixed-use community, is targeted to be developed in the White Plains Transit District. The project will feature retail that incorporates traditional uses as well as a food hall and restaurants.

COMPASS

Existing Streetfront Retail White Plains

Abrams Retail Strategies

Food & Dining

- Bravo Peru
- McDonald's
- The Original Pancake House
- Aberdeen Seafood & Dim Sum
- Gyu-Kaku Japanese BBQ
- Hastings Tea & Coffee
- Shiki Sushi & Yakitori
- BLT Steak
- La Bocca (Italian restaurant)
- Buffalo Wild Wings
- Pantojarse Restaurant & Bakery (Latin American restaurant)
- Cold Stone Creamery
- The Melting Pot (fondue restaurant)
- Blockheads (bar and grill)
- Camille's Sidewalk Cafe
- The Dog Den (American restaurant)
- Starbucks
- Dunkin'

Clothing, Shoes, & Accessories

- Nordstrom Rack White Plains
- Mary Jane Denzer
- Aéropostale
- Jimmy Jazz
- Kids Foot Locker
- Hot Topic
- Aldo
- The Children's Place
- Macy’s
- Chic Boutique
- Urban X
- Champs Sports
- Claire's
- Kay Jewelers
- H&M
- Ramee
- Taskali
- Forever 21

Cell Phone & Electronic Services

- Gedney Electric LLC
- T-Mobile
- Phone Center
- Boost Mobile
- One Rate Wireless
- Imagework Technologies Corporation

Auto Services

- White Plains Auto Clinic
- Pepe Cadillac
- Gulf
- Zipcar
- Sears Auto Center
- Electrical Auto Repairs & Programming

COMPASS

Existing Streetfront Retail White Plains (cont'd.)

ARS Abrams Retail Strategies

Beauty

- Sola Salon Studios
- CreaCions Salon & Day Spa
- Crown Beauty Supply
- Borod Spa
- Krishma Eyebrow Threading
- The Hair Designers
- Bath & Body Works
- Sears Hair Studio
- Igor M Salon
- Salon Americas Inc

Banks & Financial Institutions

- The Westchester Bank
- Wells Fargo ATM
- Argus Information and Advisory Services, LLC
- Money Center
- People's United Bank
- Westchester Financial Center
- Wells Fargo Private Bank
- Manpower
- Northwestern Mutual
- Chase Home Finance

Health & Fitness

- Concepts of Independent Choice
- Lady of America
- CVS
- Blink Fitness
- GNC
- Exer Fix Inc
- CrossFit Westchester

Miscellaneous

- Residence Inn by Marriott White Plains Westchester County
- The Ritz-Carlton New York, Westchester
- ADT (general store)
- ArtsWestchester
- 7-Eleven
- Cash For Gold
- Eastern Arts (furniture store)
- Barnes and Noble

COMPASS

Retail in The Westchester Mall

White Plains

ARS Abrams Retail Strategies

Apple Store

Street View

Second Floor View

COMPASS

Notable Existing Retail in The Westchester Mall

Abrams Retail Strategies

Clothing, Shoes, & Accessories

- Abercrombie
- American Eagle
- Banana Republic
- Boss
- Brooks Brothers
- Burberry
- Coach
- Cole Haan
- Foot Locker
- Gap
- Gucci
- J.Crew
- Louis Vuitton
- Lululemon
- Michael Kors
- Neiman Marcus
- Nordstrom
- Salvatore Ferragamo
- Steve Madden
- The North Face
- Theory
- Tumi
- UGG
- Under Armour
- Urban Outfitters
- Victoria’s Secret
- Vince

Food & Dining

- Auntie Anne’s Pretzels
- Haagen-Dazs
- Juice Generation
- Food Court
- Mariposa
- Mighty Quinn’s Barbeque
- Starbucks Coffee
- The Little Beet
- Williams-Sonoma

Miscellaneous

- Apple
- AT&T
- Bath & Body Works
- Build-A-Bear Workshop
- LEGO Store
- Microsoft
- Papyrus
- Pottery Barn
- Tesla
- Verizon Wireless

COMPASS

ARS Abrams Retail Strategies

E. Retail Surrounding Harrison Downtown/Train Station

(from Truxton Street to Broadway, and Park Avenue to Calvert Street)

Street View of Existing Retail

Proposed Avalon-Bay Development

E. Downtown Harrison

About...

Harrison was ranked 6th in the list of the top ten places to live in New York State. In downtown Harrison, about an 11 minute drive from 3 Westchester Park Drive, there is an existing mix of retail and restaurants focused on Halstead and Harrison Avenues. Additionally, there will be a new mixed use development developed by Avalon Bay. This project is going to be completed by 2021-2022, and consists of 143 luxury rental units with 27,000 square feet of retail space at the base. The Westchester Country Club, Willow Ridge Country Club, and Apawamis Golf Club are all located in greater Harrison, providing further amenities to the surrounding residential base.

COMPASS

Existing Streetfront Retail Harrison

Abrams Retail Strategies

Food & Dining

- New York Pizza Station
- Pizza 2000
- Trattoria Vivolo (Italian diner)
- Carvel Ice Cream
- Uncle Henry’s (sports bar)
- T&M Deli & Grocery
- 273 Kitchen (Mediterranean restaurant)
- Dunkin’
- Hajime (sushi restaurant)
- Momiji Japanese Restaurant
- Halstead Ave Taqueria (Mexican restaurant)
- Sofia’s Pizza & Restaurant
- Emilio’s (Italian restaurant)
- Porta Napoli Restaurant Pizzeria and Bar
- Harrison’s Pizza
- Oishinbo (Japanese grocery store)
- The Harrison Market (supermarket)
- Murray’s Ice Cream
- Casa D’Italia (Italian sandwich shop)
- Harrison Wine Vault
- Taku Chen's (Chinese restaurant)
- Aria (sushi restaurant)
- Hal’s Deli
- New China III

Beauty

- Joli Salon and Spa
- New York Hair Creations
- City Cuts
- Cindy Nail Salon
- Hair Studio Naka
- Bob Hair Salon
- Mapri Hair Salon
- Town Barber Shop
- Spa Party Sisters "We Bring The Spa To You"
- Blush ‘n Blow
- RM & JV Cosmetics
- Sue's Salon

COMPASS

Existing Streetfront Retail Harrison (cont'd.)

ARS Abrams Retail Strategies

Auto Services

- Intercontinental Towing Harrison
- Adelphi Auto Works
- Sunoco Gas Station
- Rjb Service
- Action Auto Mart, Inc
- Shell

Banks & Financial Institutions

- Wells Fargo Bank
- M&T Bank
- Chase Bank
- ATM Express
- Harrison Capital Group

Miscellaneous

- Casa Blanca Tile & Stone Inc. (stone supplier)
- AT&T Store
- Harrison Funeral Home
- Aw Yeah Comics NY
- Riemer Kitchens & Fine Cabinetry
- Room To Create (art gallery)
- Clip 'n Cuddle (pet supply store)
- Harrison Paint Supply
- Harrison Soap and Suds (laundromat)
- Masterpiece (picture frame store)
- Verizon Authorized Retailer - Wireless Zone
- Wireless World (cell phone store)
- Harrison Strength & Fitness
- Gym Mini Kickit
- CVS

COMPASS

AvalonBay Development - Harrison

Abrams Retail Strategies

- Projected to be finished by 2021-2022
- 143 Apartments (76 1/br, 59 2 br, 8 3/br)
- 27,000 SF of Retail Space
- Surrounded by other retail and apartment buildings
- High volume of foot traffic due to Harrison Train Station and easy accessibility

Proposed AvalonBay Development

Conclusion

Retail/Services in close proximity to 3 WPD

3 Westchester Park Drive is in the immediate vicinity of neighboring developments that provide a host of amenities fulfilling 3WPD's residential populations' need for retail/restaurants. Substantial retail already exists in the surrounding area. This provides both the residential and commercial office workers in the community with food, fitness, fashion and services. More retail/commercial space is currently being developed, which further challenges the absorption of available space.

- Lifetime Fitness is only a 1 minute drive, 2 minute bike ride, or a 5 minute walk.
- Wegmans is only a 2-5 minute drive, 5 minute bike ride, or a 15 minute walk.
- Montefiore Medical Center is a 3 minute drive, 5 minute bike ride, and a short walk.
- Downtown White Plains is a 5-6 minute drive, or short bike ride.
- Downtown Harrison is an 11 minute drive.

Conclusion (cont'd.)

The community's needs are already fulfilled with existing amenities/retail/restaurants, eliminating the need for those users to occupy space at the base of 3 WPD:

- Coffee provided in 3WPD lobby, and available at Lifetime cafe, Wegmans cafe, Hyatt hotel

- Convenience food/grocery items and prepared foods available at Lifetime and Wegmans

- Bakery at Wegmans

- Florist/garden shop available at Wegmans

- Dry cleaning service pick/up drop off in the lobby at 3WPD

- Hair Salon, manicure/pedicure, and spa services available at Lifetime

- Pilates, Spin and one on one work outs available at Lifetime as well as potentially at 3WPD, eliminating need for a retailer to open a private studio at the site

- Liquor store with sale of beer and wine available at Wegmans

- Sit down restaurant and bar/lounge available at Wegmans, and Lifetime, as well as a short drive away at the Hyatt and in White Plains and Harrison

- Urgent care, medical lab, pharmacy, etc. available at Montefiore Medical Center

- Children's daycare/pre-school/activities available at nearby East Ridge Enrichment Center, as well as at Lifetime Fitness

Conclusion (cont'd.)

Our research has shown us that there is little likelihood that 3 Westchester Park Drive could support retail or restaurant use based on the residential population in the immediate vicinity. Additionally, the traffic counts on Westchester Park Drive do not support virtually all retailers' requirements. Nor are most of those retail uses necessary, as the services and products they provide are already being met by the neighboring tenants.

Please note that nearby Wegmans had initially planned for a standalone retail space of approx. 8,000 square feet in addition to their main building of 125,000 square feet. Ultimately they eliminated that plan. Wegmans cited that their reason for eliminating the separate building was based on their fear that the initially planned 8,000 sf retail would possibly remain empty adjacent to their brand new building. Wegmans felt they could not guarantee the timeline to fill that separate retail space, particularly if a liquor license, which restaurants would require, could not easily be obtained. Wegmans has several locations in upstate New York, where they have vacant retail space that they have been unable to lease.

We checked with local brokers that represent various quick serve food/coffee concepts, as that is the most logical use of potential retail at 3WPD. The site did not meet their tenants' criteria. We also spoke with some local retailers, such as The Granola Bar. While local tenants may not have specific criteria for population/traffic, they generally will scope out a potential location to see if it meets their criteria. They will study the general traffic flow, the co-tenants bringing people to the area or site, and whether there is traffic during all dayparts (morning/afternoon/evening) 7 days a week or if it is limited in term of hours or days. In keeping with the norm, we were told by a contact at The Granola Bar that their sites are generally on main corridors, near train stations, or in shopping centers.

Today's challenging retail environment, coupled with plans for additional retail space planned for White Plains and Harrison, further leads to the conclusion that 3WPD should not incorporate commercial/retail space at the base of the building. Our study has shown that the community's needs are already being met, and that prospective retail at 3WPD would be difficult to impossible to lease.

About Abrams Retail Strategies

Abrams Retail Strategies is comprised of “best in class”, senior level, real estate professionals. Robin Abrams, previously a principal and Vice Chair at Eastern Consolidated and The Lansco Corporation, successfully built a thriving and creative retail advisory and brokerage business.

Abrams Retail Strategies operates with a hands on, project oriented approach to achieve optimum results for their clients, for what is often a complex and challenging process.

Our services for tenants, landlords, and developers include:

- Advising landlords on how to position and increase the value of their asset, often times in conjunction with securing best in class tenants for their properties
- Preparing comprehensive analysis and comparative data for tenants and landlords to represent them for fair market valuations
- Representing clients in the capacity of retail expert, appraiser, or arbitrator
- Representing tenants to define goals and develop a strategic plan for expansion
- Presenting, analyzing, and securing extensive real estate opportunities throughout the United States, for domestic and international brands
- Working with tenants on the disposition of under performing sites, by negotiating a sublet assignment or lease termination
- Partner sourcing, and/or site selection in Europe, Latin America and MENA

COMPASS

About Robin Abrams

ARS Abrams Retail Strategies

Consistently named among the leaders in commercial real estate, Robin Abrams offers unparalleled expertise and a sought-after consultative approach. She was recently named among Crain's New York Business' 45 Notable Women in Real Estate. She has also ranked among Bisnow's 50 most powerful women in NYC commercial real estate and was noted as one of the top 45 women in the industry by the Real Estate Forum. Robin won REBNY's Retail Deal of the Year award in 2010 and has been a candidate seven times total.

Throughout her career, Robin has worked with major retail brands and Fortune 500 companies. She collaborates with retailers to develop strategic plans and to secure sites, as well as to mitigate for underperforming real estate. She also represents landlords and is the exclusive leasing agent for numerous marquee properties. Before joining Compass, Robin was Vice Chairman-Retail and Principal at Eastern Consolidated where she led the Abrams Retail Strategies Group. Prior to that, she was Vice Chairman of The Lansco Corporation.

Robin is frequently enlisted by major media outlets and trade organizations for her expertise, she does extensive consulting work and provides expert testimony for litigation and arbitration cases. Robin sits on the board of REBNY's commercial division, served as chair of the retail leasing committee and received the organization's prestigious Louis Smadbeck award. She served on the advisory board of NYU's Schack Institute of Real Estate and is a member of the International Council of Shopping Centers (ICSC) and Women Executives in Real Estate (WX).

Robin came to New York City with a BFA in Dance, and she performed professionally prior to her career in commercial real estate. She has travelled extensively, lives in New York City with her husband and has two children.

Disclaimer

All information supplied is from sources deemed reliable and is furnished subject to errors, omissions, and modifications. Reasonable efforts have been made to ensure that the data contained in this study reflects accurate and timely information and is believed to be reliable. This study is based on estimates, assumptions, and other information developed by Abrams Retail Strategies at Compass from its independent research, general knowledge of the industry and current trends, and consultations with the client and its representatives. No responsibility is assumed for inaccuracies in reporting by the client, its agent, and representatives or in other data sources used in preparing or presenting this study. This report is based on information that to our knowledge was current as of the date of this report.