## FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE CATSKILL/DELAWARE UV FACILITY

4.9. TRAFFIC AND TRANSPORTATION ..... 1
4.9.1. Introduction ..... 1
4.9.2. Baseline Conditions ..... 1
4.9.2.1. Existing Conditions ..... 3
4.9.2.1.1. Traffic Conditions and Analysis ..... 6
4.9.2.1.2. Safety ..... 14
4.9.2.1.3. Parking ..... 19
4.9.2.1.4. Transit and Pedestrians ..... 19
4.9.2.2. Future Without the Project ..... 22
4.9.2.2.1. Without Croton Project at Eastview Site ("Pure No Build") ..... 26
4.9.2.2.2. With Croton Project at Eastview Site ..... 37
4.9.3. Potential Impacts. ..... 64
4.9.3.1. Potential Project Impacts ..... 64
4.9.3.1.1. UV Facility Trip-Generation Characteristics ..... 65
4.9.3.1.2. Without Croton Project at Eastview Site . ..... 66
4.9.3.1.3. With Croton Project at Eastview Site ..... 71
4.9.3.2. Potential Construction Impacts ..... 75
4.9.3.2.1. UV Facility Construction-Related Trip-Generation Characteristics. ..... 76
4.9.3.2.2. Without Croton Project at Eastview Site ..... 77
4.9.3.2.3. With Croton Project at Eastview Site ..... 83
FLOWCHART 4.9-1. TRAFFIC AND TRANSPORTATION FRAMEWORK OF ANALYSIS ..... 2
FIGURE 4.9-4. POTENTIAL OFF-SITE CONSTRUCTION WORKER PARKING LOCATIONS ..... 20
FIGURE 4.9-9. CONSTRUCTION WORKER OFF-SITE PARKING OPTION A: AT THE LANDMARK AT EASTVIEW. ..... 39
FIGURE 4.9-10. CONSTRUCTION WORKER OFF-SITE PARKING OPTION D: THE LANDMARK AT EASTVIEW AND HOME DEPOT ..... 40
FIGURE 4.9-11. CONSTRUCTION WORKER OFF-SITE PARKING OPTION B: AT WESTCHESTER COMMUNITY COLLEGE ..... 41
FIGURE 4.9-12. CONSTRUCTION WORKER OFF-SITE PARKING OPTION C: AT THE LANDMARK AT EASTVIEW AND WESTCHESTER COMMUNITY COLLEGE ..... 42
TABLE 4.9-1. EXISTING TRAFFIC CONDITIONS ..... 10
TABLE 4.9-2. ACCIDENT SUMMARY (03/01/99 TO 02/28/02) ..... 15
TABLE 4.9-3. ANNUAL AND AVERAGE WEEKDAY RIDERSHIP OF BEE-LINE BUS ROUTES FROM JANUARY 2003 TO DECEMBER 2003 ..... 21
TABLE 4.9-4. 2008 FUTURE WITHOUT THE PROJECT CONDITIONS ..... 28
TABLE 4.9-5. 2010 FUTURE WITHOUT THE PROJECT CONDITIONS ..... 34
TABLE 4.9-6. 2008 FNB OPTION A/D TRAFFIC CONDITIONS ..... 44
TABLE 4.9-7. 2008 FNB OPTION B TRAFFIC CONDITIONS ..... 50
TABLE 4.9-8. 2008 FNB OPTION C TRAFFIC CONDITIONS ..... 54
TABLE 4.9-9. 2010 FNB (WITH CROTON PROJECT) TRAFFIC CONDITIONS ..... 60

## FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE CATSKILL/DELAWARE UV FACILITY

TABLE 4.9-10. UV FACILITY STAFFING ..... 65
TABLE 4.9-11. UV FACILITY TRUCK DELIVERIES ..... 65
TABLE 4.9-12. VEHICULAR TRIP FORECAST (IN PCES). ..... 65
TABLE 4.9-13. 2010 FNB VS. 2010 BUILD (W/O CROTON) TRAFFIC CONDITIONS ..... 68
TABLE 4.9-14. 2010 FNB (W/CROTON) VS. 2010 BUILD TRAFFIC CONDITIONS ..... 72
TABLE 4.9-15. 2008 UV FACILITY CONSTRUCTION RESOURCE REQUIREMENTS ..... 76
TABLE 4.9-16. 2008 UV FACILITY CONSTRUCTION TRIP GENERATION* ..... 77
TABLE 4.9-17. 2008 FNB VS. 2008 CONSTRUCTION TRAFFIC CONDITIONS ..... 78
TABLE 4.9-18. 2008 FNB OPTION A VS. 2008 CONSTRUCTION OPTION A TRAFFIC CONDITIONS ..... 86
TABLE 4.9-19. 2008 FNB OPTION B VS. 2008 CONSTRUCTION OPTION B TRAFFIC CONDITIONS ..... 93
TABLE 4.9-20. 2008 FNB OPTION C VS. 2008 CONSTRUCTION OPTION C TRAFFIC CONDITIONS ..... 99
TABLE 4.9-21. 2008 FNB OPTION D VS. 2008 CONSTRUCTION OPTION D TRAFFICCONDITIONS106
THE FOLLOWING FIGURES ARE LOCATED AT END OF SECTIONFIGURE 4.9-1. INTERSECTION NUMBERS: TRAFFIC STUDY AREAFIGURE 4.9-2. 2002/2003/2004 EXISTING TRAFFIC VOLUMES - AM PEAK HOURFIGURE 4.9-3. 2002/2003/2004 EXISTING TRAFFIC VOLUMES - PM PEAK HOURFIGURE 4.9-5. 2008 WITHOUT CROTON TRAFFIC VOLUMES - AM PEAK HOURFIGURE 4.9-6. 2008 WITHOUT CROTON TRAFFIC VOLUMES - PM PEAK HOURFIGURE 4.9-7. 2010 NO-BUILD WITHOUT CROTON TRAFFIC VOLUMES - AM PEAKHOURFIGURE 4.9-8. 2010 NO-BUILD WITHOUT CROTON TRAFFIC VOLUMES - PM PEAKHOURFIGURE 4.9-13. 2008 WITH CROTON WORKER PARKING OPTION A/D TRAFFICVOLUMES - AM PEAK HOURFIGURE 4.9-14. 2008 WITH CROTON WORKER PARKING OPTION A/D TRAFFICVOLUMES - PM PEAK HOURFIGURE 4.9-15. 2008 WITH CROTONWORKER PARKING OPTION B TRAFFICVOLUMES - AM PEAK HOURFIGURE 4.9-16. 2008 WITH CROTON WORKER PARKING OPTION B TRAFFICVOLUMES - PM PEAK HOURFIGURE 4.9-17. 2008 WITH CROTON WORKER PARKING OPTION C TRAFFICVOLUMES - AM PEAK HOURFIGURE 4.9-18. 2008 WITH CROTON WORKER PARKING OPTION C TRAFFICVOLUMES - PM PEAK HOUR
FIGURE 4.9-19. 2010 NO BUILD WITH CROTON TRAFFIC VOLUMES - AM PEAK
HOUR
FIGURE 4.9-20. 2010 NO BUILD WITH CROTON TRAFFIC VOLUMES - PM PEAK
HOUR

## FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE CATSKILL/DELAWARE UV FACILITY

FIGURE 4.9-21. 2010 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-22. 2010 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT TRAFFIC VOLUMES - PM PEAK HOUR
FIGURE 4.9-23. 2010 CATSKILL/DELAWARE UV BUILD WITHOUT CROTON TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-24. 2010 CATSKILL/DELAWARE UV BUILD WITHOUT CROTON TRAFFIC VOLUMES - PM PEAK HOUR
FIGURE 4.9-25. 2010 CATSKILL/DELAWARE UV BUILD WITH CROTON TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-26. 2010 CATSKILL/DELAWARE UV BUILD WITH CROTON TRAFFIC VOLUMES - PM PEAK HOUR
FIGURE 4.9-27. 2008 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-28. 2008 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT TRAFFIC VOLUMES - PM PEAK HOUR
FIGURE 4.9-29. 2008 CATSKILL/DELAWARE UV WITHOUT CROTON TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-30. 2008 CATSKILL/DELAWARE UV WITHOUT CROTON TRAFFIC VOLUMES - PM PEAK HOUR
FIGURE 4.9-31. 2008 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT WORKER PARKING OPTION A TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-32. 2008 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT WORKER PARKING OPTION A TRAFFIC VOLUMES - PM PEAK HOUR
FIGURE 4.9-33. 2008 CATSKILL/DELAWARE UV WITH CROTON WORKER PARKING OPTION A TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-34. 2008 CATSKILL/DELAWARE UV WITH CROTON WORKER PARKING OPTION A TRAFFIC VOLUMES - PM PEAK HOUR
FIGURE 4.9-35. 2008 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT WORKER PARKING OPTION B TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-36. 2008 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT WORKER PARKING OPTION B TRAFFIC VOLUMES - PM PEAK HOUR
FIGURE 4.9-37. 2008 CATSKILL/DELAWARE UV WITH CROTON WORKER PARKING OPTION B TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-38. 2008 CATSKILL/DELAWARE UV WITH CROTON WORKER PARKING OPTION B TRAFFIC VOLUMES - PM PEAK HOUR
FIGURE 4.9-39. 2008 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT WORKER PARKING OPTION C TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-40. 2008 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT WORKER PARKING OPTION C TRAFFIC VOLUMES - PM PEAK HOUR
FIGURE 4.9-41. 2008 CATSKILL/DELAWARE UV WITH CROTON WORKER PARKING OPTION C TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-42. 2008 CATSKILL/DELAWARE UV WITH CROTON WORKER PARKING OPTION C TRAFFIC VOLUMES - PM PEAK HOUR

# FINAL ENVIRONMENTAL IMPACT STATEMENT FOR THE CATSKILL/DELAWARE UV FACILITY 

FIGURE 4.9-43. 2008 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT WITH CROTON WORKER PARKING OPTION D TRAFFIC VOLUMES - AM PEAK HOUR FIGURE 4.9-44. 2008 CATSKILL/DELAWARE UV VEHICLE ASSIGNMENT WITH CROTON WORKER PARKING OPTION D TRAFFIC VOLUMES - PM PEAK HOUR FIGURE 4.9-45. 2008 CATSKILL/DELAWARE UV WITH CROTON WORKER PARKING OPTION D TRAFFIC VOLUMES - AM PEAK HOUR
FIGURE 4.9-46. 2008 CATSKILL/DELAWARE UV WITH CROTON WORKER PARKING OPTION D TRAFFIC VOLUMES - PM PEAK HOUR

### 4.9. TRAFFIC AND TRANSPORTATION

### 4.9.1. Introduction

This section examines the potential significant adverse operational and temporary adverse construction impacts on the area's transportation system resulting from trips generated by the proposed Catskill/Delaware Ultraviolet Light Disinfection Facility (UV Facility) at the Eastview Site, by comparing the proposed UV Facility's incremental trips with future conditions without the project. The existing operating conditions of the area's transportation system, including traffic, parking, pedestrian safety and mass transit are also presented in this section. The study area for these traffic and transportation analyses was established based upon anticipated volumes, logical traffic routes, and potentially problematic areas. The methodologies used to prepare these analyses, taken from the Highway Capacity Manual (HCM), are presented in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation.

The analyses presented in this section encompass a variety of scenarios depending on assumptions made for future conditions (e.g., with or without the Croton project, and where construction workers might park). Because the analyses are involved and are often subdivided into different scenarios and options, a chart showing the analysis framework for this section, and where information for the various analysis conditions can be found in the section, is shown in Flowchart 4.9-1.

### 4.9.2. Baseline Conditions

This section identifies the study area and street systems considered in the analyses and describes the operation of the various study area intersections (and their approaches and lane groups) based on their ability to process traffic as calculated using the HCM methodologies, described in Section 3.9 , as noted above. The primary study area comprises the intersections relevant to the study of construction and operational traffic for the UV Facility at the Eastview Site, and is the subject of this chapter.

For this study, "existing" conditions are an amalgamation of traffic volumes established between 2002 and 2004. Since the release of the Croton Water Treatment Plant Final Supplemental Environmental Impact Statement by DEP in June 2004, the traffic network peak hours examined in this document have been updated to better reflect the hours when workers (both operation and construction) would actually travel. Estimates of traffic from background projects have been similarly adjusted. This section also describes future "No Build" conditions without the construction or operation of the proposed UV Facility (i.e., FNB or the Future Without the Project conditions). These FNB conditions serve as a "baseline" for the evaluation of projectrelated impacts. There are two FNB analysis years that are examined in this section; 2008 and 2010. Each of these FNB analyses also takes into consideration conditions with and without the Croton project. 2008 is the year that construction activity for the UV Facility would be at its peak. The 2008 FNB conditions that include the Croton project have four Options, based on where the construction workers for the UV Facility and the Croton project would park. These Options are discussed further under the 2008 construction discussion. Finally, 2010 is the year that the UV Facility is anticipated to first be in operation.


Traffic and Transportation Framework of Analysis

### 4.9.2.1. Existing Conditions

The Eastview Site is located in the Towns of Mount Pleasant and Greenburgh, Westchester County, New York. The study area for this site has been selected to encompass those roadways most likely to be used by the majority of vehicular traffic traveling to and from the Eastview Site. The study area is bounded by Broadway (NYS Route 100/NYS Route 141 to the north, Tarrytown-White Plains Road (NYS Route 119) to the south, the Taconic State and Bronx River Parkways to the east, and the Saw Mill River Parkway to the west. The traffic study area for the site showing the intersections examined, and the intersection numbers (assigned for identification purposes and carried through the LOS summary tables), are presented in Figure 4.9-1. (Note: All 11" x 17" figures are located at the end of the section.)

The street network consists primarily of five north-south arterials connected by four east-west collectors. The collector roadways, Old Saw Mill River Road, Grasslands Road (NYS Route 100C/NYS Route 100), Virginia Road, and Route 119, distribute traffic from the north-south arterials of NYS Route 9A, the Saw Mill River, Bronx River, and Sprain Brook Parkways, and Knollwood Road to the local streets and destinations. Grasslands Road (Route 100C/Route 100) and the local streets, such as Woods Road and Dana Road, provide access to office parks, private residences, and institutions, such as the Westchester County Medical Center and the Westchester County Correctional Complex located on the Grasslands Reservation. The following analyses consider the intersections near the proposed site that are most likely to be affected by projectgenerated traffic. A discussion of the key travel routes follows.

The Sprain Brook Parkway is a major limited-access north-south arterial roadway that begins at the Bronx River Parkway in the City of Yonkers and travels north before ending at its merge with the Taconic State Parkway in the Village of Hawthorne. In the study area, the Sprain Brook Parkway generally consists of three travel lanes in each direction with a grassed center median and wide shoulders. All intersections along this limited-access parkway are grade separated and yield controlled. Because of ongoing construction on the Cross Westchester Expressway (CWE) (Interstate 287), traffic and congestion have increased on the Southbound Sprain Brook Parkway as motorists queue on the mainline of the Parkway because the ramp from the Parkway to the CWE is impacted by the construction activity. The CWE construction has also impacted conditions in the northbound direction of the Parkway, especially at the northbound Parkway ramp to Grasslands Road. Traffic volumes have increased on the ramp since the construction on the CWE. In order to escape the delays on the CWE associated with the construction, motorists have utilized the Grasslands Road/Old Saw Mill River Road/Neperan Road corridor as an alternate route to travel in and out of the Tarrytown and Sleepy Hollow areas. The use of this alternate route has increased traffic on the Parkway, the northbound exit ramp to Grasslands Road, and Grasslands Road. Therefore, the traffic volumes presented in this report for Grasslands Road are conservative and reflect higher volumes than would probably exist at the commencement of construction for this project, since upon completion of the construction activity on the CWE, volumes on Grasslands Road are anticipated to decrease.

Overall, the Sprain Brook Parkway operates acceptably during peak commuter hours. It would be anticipated to handle the majority of the employee-related construction traffic generated by the proposed project, as well as, full-time employees upon completion of the proposed facility.

Truck traffic is not allowed on the Sprain Brook Parkway. The roadway surface and pavement markings along the Sprain Brook Parkway are generally in fair to good condition within the study area.

The Bronx River Parkway (BRP) is a roadway that generally runs in a north-south direction and is under the jurisdiction of the Westchester County Department of Public Works. The BRP runs from the Bronx to Valhalla where it directly connects with the Taconic State Parkway. The BRP generally provides two moving lanes in each direction and varies in width from 43 to59 feet. The BRP has pavement markings, but no median or barrier separating directional traffic within the study area. The roadway surface and pavement markings along the BRP are generally in fair to good condition within the study area, except in the vicinity of its intersection with Virginia Road, where the BRP pavement and surface markings are in poor to fair condition.

Route 9A is a north-south arterial roadway that extends from Manhattan to Ossining, where it merges with Route 9. In the traffic study area, the route generally has two lanes in each direction separated by a double-yellow line. Shoulders generally are very narrow or non-existent. Route 9A contains a mix of unsignalized, signalized, and limited-access, grade-separated intersections. The roadway operates with slight delays at the intersection of Hunter Lane/Executive Boulevard, but delays increase at the southern limit of the study area towards Route 119. Route 9A would accommodate a portion of both construction and full-time employee-related traffic and the majority of the construction truck deliveries for the proposed UV Facility. The roadway surface and pavement markings along Route 9A are generally in fair to good condition within the study area.

Grasslands Road (Route 100C) is an east-west collector roadway that becomes Old Saw Mill River Road between the Saw Mill River Parkway and Saw Mill River Road (Route 9A). To the west of Walker Road and Clearbrook Road, this roadway consists of one travel lane in each direction. Between this intersection and the Woods Road/Taylor Road intersection, Grasslands Road consists of three lanes, one westbound lane and two eastbound lanes. It then widens to four lanes (two travel lanes in each direction) between the Woods Road/Taylor Road and Knollwood Road (Route 100A) intersection. East of Knollwood Road (Route 100A) to Legion Drive, Grasslands Road (then identified as Route 100) generally runs east-west, with one travel lane in each direction. At Legion Drive, Grasslands Road (Route 100) turns southward, and becomes Hillside Avenue, which runs north-south, and also provides one travel lane in each direction. The traffic signals on Grasslands Road between the northbound Sprain Brook Parkway ramp and Bradhurst Avenue (Route 100) are not coordinated/synchronized and do not allow for the efficient movement of traffic through the Grasslands Road corridor. The installation of a lead/protected eastbound Grasslands Road phase at Bradhurst Avenue would significantly improve traffic conditions along the Grasslands Road corridor in this area. The majority of all traffic destined to the proposed UV Facility, during both construction and fulltime operation would use Grasslands Road (Route 100C) via the signalized intersection at Walker Road. The roadway surface and pavement markings along Grasslands Road within the study area are generally in fair to good condition, with some segments that are in poor to fair condition.

Walker Road and Clearbrook Road are two-lane, north-south local roads. Clearbrook Road provides access to the Cross Westchester Executive Park, which abuts the project site to the south. Walker Road, located west of the project site, currently provides access to the Bee-Line Bus facility and would be the primary access point for the proposed project. Formerly known as Bee-Line Boulevard, construction on Walker Road has recently extended this roadway north to connect with Dana Road. The roadway surface and pavement markings along Walker and Clearbrook Roads are generally in good condition within the study area.

Woods and Taylor Roads form a two-lane, north-south local roadway that is signalized at the intersection with Grasslands Road (Route 100C). Taylor Road dead-ends to the south, and carries only residential traffic. Woods Road provides access to the New York Medical College, the Westchester Medical Center, and the Westchester County Correctional Complex, all located on Grasslands Reservation. The roadway surface and pavement markings along Woods and Taylor Roads are generally in good condition within the study area.
| Knollwood Road and Bradhurst Avenue (Routes 100A and 100, respectively) are two-lane, north-south local roadways that are signalized at Grasslands Road (Route 100C) and other major intersections. Knollwood Road is east of, and parallels, Saw Mill River Road (Route 9A) from Tarrytown-White Plains Road (Route 119) in Elmsford to its terminus at Grasslands Road (Route 100C) at the Town of Mount Pleasant border. North of Grasslands Road, Bradhurst Avenue forms an unsignalized "Y"-shaped intersection with Lakeview Avenue. Based on several field visits over various hours of the day, this intersection has been identified as particularly dangerous in the existing conditions, because of sight-line and geometric issues. It may be prudent to investigate the signalization of this location to improve safety at this intersection. The roadway is known as Bradhurst Avenue north of Grasslands Road (Route 100C). The roadway surface and pavement markings along Knollwood Road and Bradhurst Avenue are generally in good condition within the study area.

Knollwood Road (Route 100A) and Grasslands Road (Route 100) both provide access to Westchester Community College (WCC). The WCC Campus East and West Gates are private driveways that are used to access the WCC campus from Grasslands Road (Route 100). These driveways generally provide one moving lane in each direction and vary in width from 24 to 39 feet. The roadway surface and pavement markings along the WCC driveways are generally in good to excellent condition within the study area. Channelized right turn lanes are present at each driveway for exiting and entering the driveways to/from Grasslands Road (Route 100). The intersection of the West Gate with Grasslands Road is unsignalized, while the intersection of Grasslands Road (Route 100) with the East Gate is signalized.

Dana Road is a two-lane, east-west local roadway that forms the westbound approach of a "T" intersection with Saw Mill River Road (Route 9A). The roadway surface and pavement markings along Dana Road are generally in good condition within the study area.

## |

Tarrytown-White Plains Road (Route 119) intersects Saw Mill River Road (Route 9A) just south of I-287 in the Village of Elmsford. This section of Route 119 generally consists of four 11-foot travel lanes and two 8-foot parking lanes. West of Route 9A, between the I-287 overpass and the Saw Mill River Parkway overpass, the number of travel lanes varies from two lanes in the
eastbound direction and three lanes westbound, to three lanes in both directions. There are leftturn lanes at some intersections outside the Village of Elmsford. Interim improvements to the Route 9A/Route 119 intersection created left-turn lanes on Route 119 through the elimination of some parking along the north side of Route 119 between Route 9A and Stone Avenue. The roadway surface and pavement markings along Tarrytown-White Plains Road (Route 119) are generally in good condition within the study area.

Virginia Road is a collector road that generally runs in an east-west direction within the study area, forming intersections with Grasslands Road (unsignalized) and the Bronx River Parkway (signalized) that would be anticipated to carry project-related traffic. Virginia Road is under the jurisdiction of the Westchester County Department of Public Works. Virginia Road generally provides one moving lane in each direction and varies in width from 28 to 32 feet within the study area. The roadway surface and pavement markings along Virginia Road are generally in fair to good condition within the study area.

Legion Drive is a collector road that generally runs in a north-south direction within the study area. Legion Drive is under the jurisdiction of Westchester County Department of Public Works. Legion Drive generally provides one moving lane in each direction and varies in width from 24 to 48 feet within the study area. The roadway surface and pavement markings along Legion Drive are generally in fair to good condition within the study area.

Broadway (NYS Route 100/Route 141) is a two-way local roadway that generally runs in an east-west direction in the study area. Broadway generally provides on moving lane in each direction in the study area. The roadway surface and pavement markings along Broadway are generally in fair condition within the study area.

Beverly Road, Stevens Avenue, Helvelyne Road, and Hunter Lane are all local two-lane roadways that generally run in an east-west direction and provide one moving lane in each direction. Stevens Avenue intersects with Saw Mill River Road (Route 9A) at two locations; a northern leg and a southern leg.

### 4.9.2.1.1. Traffic Conditions and Analysis

Traffic counts for the primary study area were collected during school periods in June 2002, September/October 2002, September 2003, and March 2004. The counts taken in March 2004 were conducted to incorporate the completion of Walker Road into the traffic analyses. The counts documented traffic conditions on key study area roadways and intersections. The data collection included manual turning movement counts (TMC), automatic traffic recorders (ATR), vehicle classification counts, and travel speed runs along principal corridors. The following list indicates the intersections where turning movement counts were performed for the primary study area:

- Sprain Brook Parkway Southbound On-Ramps and Broadway (Route 141)
- Saw Mill River Road (Route 9A) and Beverly Road
- Saw Mill River Road (Route 9A) and Stevens Avenue (North)
- Saw Mill River Road (Route 9A) and Stevens Avenue (South)
- Saw Mill River Road (Route 9A) and Saw Mill River Parkway Ramps to Mid-Westchester Executive Park
- Bradhurst Avenue (Route 100) and Lakeview Avenue
- Bradhurst Avenue (Route 100) and Grasslands Road (Route 100C)/Knollwood Road (Route 100A)
- Knollwood Road (Route 100A) and Hevelyne Road
- Knollwood Road (Route 100A) and Cross Westchester Expressway (I-287) Westbound Ramps
- Knollwood Road (Route 100A) and Cross Westchester Expressway (I-287) Eastbound Ramps
- Knollwood Road (Route 100A) and Tarrytown-White Plains Road Westbound Ramps
- Knollwood Road (Route 100A) and Tarrytown-White Plains Road (Route 119) Eastbound Ramps
- Saw Mill River Road (Route 9A)/North Central Avenue and Cross Westchester Expressway (I287) Westbound Ramps
- Saw Mill River Road (Route 9A)/Cross Westchester Expressway (I-287) Eastbound Ramps
- Saw Mill River Road (Route 9A)/North Central Avenue and Tarrytown-White Plains Road
- Saw Mill River Road (Route 9A) and Hunter Lane
- Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza Entrance
- Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C)/Old Saw Mill River Road
- Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) Northbound Ramps
- Saw Mill River Road (Route 9A) and Dana Road
- Old Saw Mill River Road and Saw Mill River Parkway Southbound Ramps
- Old Saw Mill River Road and Saw Mill River Parkway Northbound Ramps
- Grasslands Road (Route 100C) and Clearbrook Road/Walker Road
- Grasslands Road (Route 100C) and Woods Drive/Taylor Road
- Grasslands Road (Route 100C) and Sprain Brook Parkway Southbound Ramps
- Grasslands Road (Route 100C) and Sprain Brook Parkway Northbound Ramps
- Dana Road and Walker Road (formerly known as Bee-Line Boulevard)

Seven additional intersections were added to the study area, primarily to enable the evaluation of impacts associated with construction worker parking options if both the proposed UV Facility and the Croton project were under construction at the same time. For these seven intersections, an additional counting program was undertaken in March 2004, similar to that performed for the other intersections listed above in the primary study area. It included TMCs, vehicle classification counts, and speed runs. The following list indicates the locations where TMCs were performed for these seven additional intersections:

- Old Saw Mill River Road and the Landmark at Eastview West Driveway
- Old Saw Mill River Road and the Landmark at Eastview East Driveway
- Grasslands Road (Route 100) and the Westchester Community College (WCC) Campus West Entrance
- Grasslands Road (Route 100) and the WCC Campus East Entrance
- Grasslands Road (Route 100) and Legion Drive
- Grasslands Road (Route 100) and Virginia Road
- Virginia Road and Bronx River Parkway
| The TMCs at all 34 of the above listed intersections were conducted on mid-weekdays (Tuesday to Thursday) from 7AM to 10AM and from 2PM to 6PM to capture the AM and PM peak hours.
| Based on the ATR data, the TMC data was adjusted to create the construction (and operational) AM peak hour of 6:30 AM to 7:30 AM used for the primary study area existing condition analyses.

In addition to TMCs, ATR counts have been performed for 24-hour periods for seven days at the following locations:

- Saw Mill River Road (Route 9A) - North of Fieldcrest Drive
- Old Saw Mill River Road - East of Saw Mill River Parkway
- Saw Mill River Road (Route 9A) - South of Dana Road
- Grasslands Road (Route 100C) - West of Sprain Brook Parkway
- Saw Mill River Road (Route 9A) - North of Belmont Road

The vehicle classification counts were performed from 7AM to 10 AM and 2 PM to 6 PM (adjusted to reflect the 6:30 AM to 7:30 AM peak hour). These hours, as well as the hours for
| which the turning movement counts were performed, were chosen as being representative of the periods of heaviest traffic volumes during the potential construction period and plant operation. It has been assumed that construction would typically commence at 7 AM (with workers arriving between 6:30 and 7 AM) and finish no later than 4:30 PM.

To develop the existing condition traffic volumes for the study intersections, the traffic volumes from the TMCs were factored utilizing adjacent roadway ATR counts. The resultant intersection turning movement volumes represent an average mid-weekday volume. Since the study intersections represent only a portion of the roadways in the study area, the turning movement volumes of adjacent intersections may not balance (i.e., the traffic exiting one study intersection may not equal the traffic entering the adjacent study intersection.). This is due to several possible factors including other intersecting roads and residential and commercial entrances between study intersections, different count days, and counts performed in spring versus fall.

The existing condition traffic volumes for the AM and PM peak hours are illustrated in Figures 4.9-2 and 4.9-3, respectively. A review of the manual count data and the 24-hour ATR data indicated that traffic in the area exhibits typical commuter characteristics. Traffic volumes along both directions of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) increase from the early morning hours and peak between 8AM and 9AM. Traffic decreases in the midday periods until the evening peak between 5 PM and 6 PM . For the primary study area, the peak hours analyzed for both the construction and operational phases of the project are 6:30 AM to 7:30 AM (AM peak hour) and 3:30 PM to 4:30 PM (PM peak hour). The volumes presented below are for these hours, which are earlier than the traditional commuter peak hours of 8:00 AM to 9:00 AM and 5:00 PM to 6:00 PM.

Traffic volumes along Grasslands Road (Route 100C) at the project site range between 425 and 720 vehicles per hour (vph) in each direction in the AM peak hour. During the PM peak hour,
traffic volumes increase slightly, ranging between 550 and 900 vph in each direction on Grasslands Road.

In the AM peak hour, traffic volumes along Route 9A north of Grasslands Road (Route 100C) range between 350 and 570 vph in each direction. On Route 9A just south of Grasslands Road during the peak AM hour, traffic volumes range between 600 and 650 vph in each direction. During the PM peak hour, traffic volumes increase slightly, ranging between 880 and 920 vehicles in each direction. Northbound and southbound volumes are nearly balanced.

As noted above, each study area intersection was analyzed in terms of its capacity to accommodate existing traffic volumes and its resulting Level of Service (LOS) using the Highway Capacity Manual (HCM) procedures. A summary of the results of the HCM analyses is presented in Table 4.9-1 with the key findings and congested locations identified and discussed below. See Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, for the procedural details.

Under existing conditions, 19 of the 20 signalized intersections in the study area operate acceptably, with overall LOS below mid-LOS D (delay is less than 45.0 seconds), during both peak hours. The one exception occurs at the following location:

- The Virginia Road/Bronx River Parkway intersection, which operates at an overall LOS worse than mid-LOS D during both peak hours (AM overall delay, 46.9 seconds; PM overall delay, 46.1 seconds).

This signalized location is operating unacceptably at an overall LOS above mid-LOS D (overall intersection delays of greater than 45.0 seconds), with some movements operating particularly poorly in the LOS F range. Measures or modifications to improve or optimize the traffic processing capabilities of this intersection (e.g., signal timing or phasing changes, or lane utilization modifications) could be investigated by the appropriate agency responsible for maintaining the traffic signals at these locations, to improve operations.

Table 4.9-1. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS 2002/2003/2004 EXISTING CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Group } \end{array}$ | 2002/03/04 Existing Conditions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | AM Peak Hour |  |  | PM Peak Hour |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c} \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{array}$ | LOS |
| Saw Mill River Road (Rt.9A) (N-S) @ Saw Mill River Pkwy Ramp | 4 | Eastbound | L | 0.59 | 30.0 | C | 0.48 | 28.6 | C |
|  |  |  | LTR | 0.11 | 24.8 | C | 0.07 | 25.3 | C |
|  |  | Westbound | L | 0.13 | 32.3 | C | 0.13 | 34.1 | C |
|  |  |  | LT | 0.09 | 32.0 | C | 0.08 | 33.8 | C |
|  |  |  | R | 0.02 | 31.6 | C | 0.04 | 33.5 | C |
|  |  | Northbound | L | 0.12 | 13.5 | B | 0.58 | 16.8 | B |
|  |  |  | TR | 0.27 | 14.5 | B | 0.47 | 14.4 | B |
|  |  | Southbound | L | 0.04 | 12.9 | B | 0.10 | 21.1 | C |
|  |  |  | TR | 0.48 | 16.3 | B | 0.83 | 33.7 | C |
|  |  | Intersection |  |  | 18.9 | B |  | 24.0 | C |
| Grasslands Road (Rt. 100C) (E-W) @ Bradhurst Avenue (Rt. 100) | 6 | Eastbound | L | 0.60 | 30.8 | C | 1.01 | 113.0 | F |
|  |  |  | T | 0.93 | 52.5 | D | 0.52 | 21.0 | C |
|  |  |  | R | 0.31 | 15.9 | B | 0.24 | 11.8 | B |
|  |  | Westbound | L | 0.62 | 45.7 | D | 0.18 | 17.5 | B |
|  |  |  | TR | 0.38 | 25.2 | C | 0.88 | 37.1 | D |
|  |  | Northbound | L | 0.20 | 21.9 | C | 0.72 | 41.9 | D |
|  |  |  | TR | 0.31 | 25.5 | C | 0.18 | 16.2 | B |
|  |  | Southbound | L | 0.44 | 38.1 | D | 0.27 | 24.7 | C |
|  |  |  | TR | 0.62 | 46.7 | D | 1.01 | 76.1 | E |
|  |  | Intersection |  |  | 36.5 | D |  | 42.6 | D |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) WB Ramp | 8 | Westbound <br> Northbound <br> Southbound | LT | 0.42 | 27.2 | C | 0.72 | 34.8 | C |
|  |  |  | R | 0.21 | 25.2 | C | 0.41 | 27.1 | C |
|  |  |  | L | 0.45 | 9.4 | A | 0.83 | 30.9 | C |
|  |  |  | T | 0.46 | 9.8 | A | 0.47 | 9.9 | A |
|  |  |  | T | 0.28 | 13.2 | B | 0.40 | 14.4 | B |
|  |  |  | R | 0.12 | 12.0 | B | 0.20 | 12.7 | B |
|  |  | Intersection |  |  | 14.0 | B |  | 21.3 | C |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (l-287) EB Ramp | 9 | Eastbound | L | 0.62 | 30.8 | C | 0.44 | 23.9 | C |
|  |  |  | TR | 0.01 | 23.6 | C | 0.00 | 20.0 | C |
|  |  |  | R | 0.52 | 28.6 | C | 0.70 | 30.3 | C |
|  |  | Northbound | T | 0.44 | 14.8 | B | 0.78 | 26.0 | C |
|  |  |  | R | 0.47 | 15.1 | B | 0.56 | 19.5 | B |
|  |  | Southbound | L | 0.34 | 9.3 | A | 0.67 | 19.5 | B |
|  |  |  | T | 0.26 | 8.2 | A | 0.59 | 14.2 | B |
|  |  | Intersection |  |  | 17.8 | B |  | 22.1 | C |
| Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ <br> Knollwood Road (Rt.100A) | 10 | Westbound <br> Northbound Southbound | LT | 0.13 | 24.5 | C | 0.32 | 26.2 | C |
|  |  |  | R | 0.46 | 27.6 | C | 0.87 | 47.1 | D |
|  |  |  | LT | 0.36 | 9.8 | A | 0.52 | 11.4 | B |
|  |  |  | T | 0.18 | 15.2 | B | 0.40 | 17.0 | B |
|  |  |  | R | 0.17 | 15.1 | B | 0.42 | 17.5 | B |
|  |  | Intersection |  |  | 15.2 | B |  | 21.4 | C |
| Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A) | $\begin{aligned} & \hline 11 \\ & 12 \end{aligned}$ | Eastbound <br> Northbound Southbound | LT | 0.64 | 31.6 | C | 0.70 | 33.9 | C |
|  |  |  | R | 0.13 | 24.5 | C | 0.30 | 26.0 | C |
|  |  |  | TR | 0.36 | 19.8 | B | 0.37 | 19.8 | B |
|  |  |  | Def | 0.27 | 10.9 | B | 0.41 | 12.8 | B |
|  |  |  | T | 0.25 | 9.1 | A | 0.49 | 11.1 | B |
|  |  | Intersection |  |  | 19.4 | B |  | 19.5 | B |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) WB Ramp | 13 | Westbound <br> Northbound <br> Southbound | L | 0.87 | 45.5 | D | 0.51 | 31.2 | C |
|  |  |  | R | 0.74 | 35.7 | D | 0.93 | 60.0 | E |
|  |  |  | LTR | 0.31 | 8.5 | A | 0.55 | 19.5 | B |
|  |  |  | TR | 0.41 | 9.3 | A | 0.75 | 18.2 | B |
|  |  | Intersection |  |  | 22.0 | C |  | 26.9 | C |

Table 4.9-1. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS 2002/2003/2004 EXISTING CONDITIONS

|  |  |  |  |  | 02/03/04 | 4 Exis | ting Co | ndition |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | AM | Peak H | our | PM P | Peak H | our |
| Intersection | No. | Approach | Lane Group | $\left\lvert\, \begin{array}{c\|} \hline \text { v/c } \\ \text { Ratio } \end{array}\right.$ | $\begin{gathered} \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | v/c <br> Ratio | Delay (sec) | LOS |
| Saw Mill River Road (Rt.9A) @ | 14 | Northbound | TR | 0.27 | 12.0 | B | 0.78 | 28.4 | C |
| Cross Westchester Expy (I-287) EB Ramp |  | Southbound | Def | 0.43 | 1.0 | A | 0.63 | 17.0 | B |
|  |  |  | LT | 0.22 | 0.2 | A | 0.68 | 1.5 | A |
|  |  | Intersectio |  |  | 4.8 | A |  | 14.9 | B |
| Saw Mill River Road (Rt.9A) @ | 15 | Eastbound | L | 0.88 | 48.1 | D | 0.92 | 76.7 | E |
| Tarrytown/White Plains Road (Rt.119) |  |  | TR | 0.36 | 16.3 | B | 0.45 | 26.0 | C |
|  |  | Westbound | L | 0.14 | 22.0 | C | 0.50 | 41.5 | D |
|  |  |  | TR | 0.26 | 23.0 | C | 0.82 | 49.2 | D |
|  |  | Northbound | L | 0.26 | 30.4 | C | 0.23 | 26.0 | C |
|  |  |  | TR | 0.50 | 34.2 | C | 0.73 | 38.2 | D |
|  |  | Southbound | L | 0.20 | 32.6 | C | 0.33 | 27.0 | C |
|  |  |  | T | 0.38 | 34.4 | C | 0.21 | 21.9 | C |
|  |  |  | R | 0.25 | 24.8 | C | 0.55 | 19.4 | B |
|  |  | Intersectio |  |  | 28.4 | C |  | 37.8 | D |
| Saw Mill River Road (Rt.9A) @ | 16 | Eastbound | LTR | 0.01 | 29.1 | C | 0.01 | 32.9 | C |
| Hunter Lane |  | Westbound | LT | 0.28 | 32.0 | C | 0.73 | 48.9 | D |
|  |  |  | R | 0.01 | 18.7 | B | 0.07 | 22.9 | C |
|  |  | Northbound | LTR | 0.56 | 19.7 | B | 0.60 | 17.5 | B |
|  |  | Southbound | LTR | 0.57 | 12.4 | B | 0.59 | 10.3 | B |
|  |  | Intersectio |  |  | 16.8 | B |  | 17.3 | B |
| Saw Mill River Road (Rt.9A) @ | 20 | Westbound | LR | 0.31 | 34.7 | C | 0.70 | 34.5 | C |
| Dana Road |  | Northbound | TR | 0.29 | 2.9 | A | 0.46 | 7.4 | A |
|  |  | Southbound | LT | 0.42 | 3.4 | A | 0.49 | 7.7 | A |
|  |  | Intersectio |  |  | 4.4 | A |  | 11.3 | B |
| Old Saw Mill River Road @ | 21 | Eastbound | LT | 0.77 | 20.8 | C | 0.73 | 19.4 | B |
| Saw Mill River Pkwy SB Off Ramp |  | Westbound | TR | 0.20 | 4.2 | A | 0.29 | 4.6 | A |
|  |  | Southbound | LR | 0.58 | 33.0 | C | 0.56 | 32.5 | C |
|  |  | Intersectio |  |  | 16.7 | B |  | 14.1 | B |
| Old Saw Mill River Road @ | 22 | Eastbound | T | 0.40 | 16.7 | B | 0.34 | 12.7 | B |
| Saw Mill River Pkwy NB Off Ramp |  | Westbound | T | 0.17 | 7.6 | A | 0.23 | 4.0 | A |
|  |  | Northbound | L | 0.06 | 21.4 | C | 0.29 | 30.0 | C |
|  |  |  | R | 0.66 | 29.7 | C | 0.45 | 31.6 | C |
|  |  | Intersectio |  |  | 17.1 | B |  | 11.8 | B |
| Grassland Road (Rt.100C) @ | 24 | Eastbound | L | 0.01 | 2.6 | A | 0.03 | 9.1 | A |
| Clearbrook Road/Walker Road |  |  | TR | 0.33 | 3.6 | A | 0.61 | 14.3 | B |
|  |  | Westbound | L | 0.32 | 3.7 | A | 0.82 | 34.3 | C |
|  |  |  | TR | 0.34 | 3.6 | A | 0.60 | 14.2 | B |
|  |  | Northbound | LT | 0.20 | 33.6 | C | 0.18 | 19.8 | B |
|  |  | Southbound | LT | 0.19 | 33.7 | C | 0.21 | 20.1 | C |
|  |  |  | R | 0.00 | 32.2 | C | 0.01 | 18.5 | B |
|  |  | Intersectio |  |  | 5.2 | A |  | 17.4 | B |
| Grassland Road (Rt.100C) @ | 25 | Eastbound | L | 0.24 | 6.5 | A | 0.25 | 11.7 | B |
| Woods Drive/Taylor Road |  |  | TR | 0.23 | 5.1 | A | 0.48 | 11.4 | B |
|  |  | Westbound | L | 0.00 | 9.3 | A | 0.00 | 12.5 | B |
|  |  |  | TR | 0.50 | 13.1 | B | 0.63 | 19.1 | B |
|  |  | Northbound | LTR | 0.01 | 32.9 | C | 0.01 | 24.6 | C |
|  |  | Southbound | LT | 0.50 | 37.9 | D | 0.72 | 37.0 | D |
|  |  |  | R | 0.08 | 21.1 | C | 0.10 | 17.1 | B |
|  |  | Intersectio |  |  | 12.1 | B |  | 17.8 | B |
| Grassland Road (Rt.100C) @ | 26 | Eastbound | TR | 0.24 | 7.3 | A | 0.57 | 10.1 | B |
| Sprain Brook Pkwy SB Ramp |  | Westbound | T | 0.28 | 7.6 | A | 0.46 | 8.9 | A |
|  |  | Southbound | L | 0.50 | 33.0 | C | 0.16 | 29.5 | C |
|  |  |  | R | 0.27 | 30.6 | C | 0.10 | 29.0 | C |
|  |  | Intersectio |  |  | 12.8 | B |  | 10.4 | B |

Table 4.9-1. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS 2002/2003/2004 EXISTING CONDITIONS

| Intersection | No. | Approach | Lane <br> Group | 2002/03/04 Existing Conditions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | AM Peak Hour |  |  | PM Peak Hour |  |  |
|  |  |  |  | $\begin{array}{\|c} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{array}{\|c} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{array}{\|c} \hline \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{array}$ | LOS |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy NB Ramp | $\begin{aligned} & 27 \\ & 30 \end{aligned}$ | Eastbound <br> Westbound Northbound | L | 0.06 | 14.4 | B | 0.43 | 14.4 | B |
|  |  |  | T | 0.45 | 17.4 | B | 0.28 | 8.7 | A |
|  |  |  | TR | 0.42 | 24.0 | C | 0.95 | 39.6 | D |
|  |  |  | LT | 0.88 | 43.7 | D | 0.58 | 26.1 | C |
|  |  |  | R | 0.92 | 50.6 | D | 0.32 | 22.8 | C |
|  |  | Intersection |  |  | 32.3 | C |  | 27.9 | C |
| Virginia Road @ Bronx River Pkwy | 31 | Eastbound <br> Westbound Northbound <br> Southbound | LT | 1.03 | 98.9 | F | 1.05 | 103.3 | F |
|  |  |  | R | 0.20 | 19.5 | B | 0.36 | 34.2 | C |
|  |  |  | LTR | 0.36 | 34.2 | C | 1.05 | 107.4 | F |
|  |  |  | L | 0.04 | 46.2 | D | 0.04 | 10.5 | B |
|  |  |  | TR | 0.25 | 19.9 | B | 0.58 | 24.6 | C |
|  |  |  | L | 1.04 | 121.7 | F | 0.12 | 11.2 | B |
|  |  |  | T | 0.66 | 26.3 | C | 0.55 | 24.0 | C |
|  |  | Intersection |  |  | 46.9 | D |  | 46.1 | D |
| Grassland Road (Rt.100) @ WCC East Gate | 34 | Eastbound Westbound <br> Northbound | T | 0.38 | 7.5 | A | 0.66 | 15.0 | B |
|  |  |  | L | 0.23 | 4.8 | A | 0.19 | 10.3 | B |
|  |  |  | T | 0.22 | 3.1 | A | 0.53 | 7.4 | A |
|  |  |  | L | 0.06 | 45.7 | D | 0.58 | 29.5 | C |
|  |  | Intersection |  |  | 6.1 | A |  | 13.5 | B |
| Old Saw Mill River Road @ Landmark West Driveway | 46 | Eastbound | LTR | 0.63 | 6.6 | A | 0.48 | 5.2 | A |
|  |  | Westbound | LTR | 0.22 | 4.0 | A | 0.39 | 4.7 | A |
|  |  | Northbound | LTR | 0.02 | 21.0 | C | 0.07 | 21.2 | C |
|  |  | Southbound | LTR | 0.04 | 21.0 | C | 0.03 | 21.0 | C |
|  |  | Intersectio |  |  | 6.1 | A |  | 5.3 | A |

## Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service.

TABLE 4.9-1. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS 2002/2003/2004 EXISTING CONDITIONS

| Intersection | No. | Approach | Lane Group | 2002/03/04 Existing Conditions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | AM Peak Hour |  |  | PM Peak Hour |  |  |
|  |  |  |  | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | v/c Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.10 | 10.2 | B | 0.17 | 9.2 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ | 2 | Northbound | LT | 0.01 | 9.8 | A | 0.02 | 11.9 | B |
| Beverly Road |  | Eastbound | LR | 0.05 | 18.2 | C | 0.03 | 22.8 | C |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3 N | Northbound | LT | 0.02 | 10.3 | B | 0.01 | 9.3 | A |
|  |  | Southbound | LT | 0.03 | 8.9 | A | 0.02 | 9.8 | A |
|  |  | Eastbound | LTR | 0.02 | 27.5 | D | 0.09 | 18.6 | C |
|  |  | Westbound | LTR | 0.03 | 15.5 | C | 0.05 | 13.9 | B |
| Saw Mill River Road (Rt.9A) @ | 3S | Southbound | LT | 0.00 | 8.5 | A | 0.00 | 9.8 | A |
| Stevens Avenue South |  | Westbound | LR | 0.03 | 18.6 | C | 0.10 | 25.2 | D |
| Bradhurst Avenue (Rt. 100) @ | 5 | Southbound | LT | 0.02 | 8.1 | A | 0.01 | 8.0 | A |
| Lakeview Avenue |  | Westbound | LR | 0.22 | 14.0 | B | 0.38 | 16.4 | C |
| Knollwood Road (Rt.100A) @ | 7 | Northbound | LT | 0.01 | 8.2 | A | 0.00 | 7.9 | A |
| Hevelyne Road |  | Eastbound | LR | 0.03 | 12.5 | B | 0.01 | 10.5 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound Southbound Eastbound <br> Westbound | L | 0.07 | 9.5 | A | 0.12 | 9.6 | A |
|  |  |  | LT | 0.01 | 8.5 | A | 0.01 | 9.0 | A |
|  |  |  | L | 0.01 | 25.7 | D | 0.01 | 35.5 | E |
|  |  |  | T | 0.01 | 29.2 | D | 0.05 | 53.6 | F |
|  |  |  | LT | 0.07 | 26.0 | D | 0.07 | 39.3 | E |
|  |  |  | TR | 0.01 | 10.3 | B | 0.02 | 14.9 | B |
| Dana Road @ | 18 | Northbound | LR | 0.08 | 10.4 | B | 0.04 | 10.3 | B |
| Walker Road |  | Westbound | LT | 0.00 | 8.2 | A | 0.01 | 7.7 | A |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound <br> Westbound | L | 0.56 | 47.4 | E | 0.67 | 61.2 | F |
|  |  |  | R | 0.14 | 14.6 | B | 0.13 | 12.5 | B |
|  |  |  | L | 0.12 | 10.7 | B | 0.14 | 10.2 | B |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | LT | 0.04 | 21.4 | C | 0.03 | 18.5 | C |
|  |  |  | TR | 0.06 | 12.9 | B | 0.13 | 12.5 | B |
|  |  |  | L | 0.16 | 9.5 | A | 0.09 | 9.5 | A |
| Grasslands Road (Rt. 100) @ | 32 | Southbound | LT | 0.21 | 8.2 | A | 0.33 | 9.9 | A |
| Virginia Road |  | Westbound | LR | 0.49 | 15.0 | B | 1.04 | 84.6 | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound <br> Eastbound | L | 0.36 | 25.5 | D | 1.04 | 123.1 | F |
|  |  |  | R | 0.18 | 11.7 | B | 0.41 | 17.4 | C |
|  |  |  | LT | 0.06 | 8.4 | A | 0.21 | 10.3 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound <br> Westbound | L | 0.05 | 19.0 | C | 0.21 | 40.5 | E |
|  |  |  | R | 0.01 | 13.1 | B | 0.44 | 16.4 | C |
|  |  |  | LT | 0.00 | 9.7 | A | 0.11 | 8.9 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.06 | 15.0 | B | 0.08 | 23.3 | C |
|  |  | Southbound | LTR | 0.01 | 9.9 | A | 0.06 | 15.4 | C |
|  |  | Eastbound | LTR | 0.01 | 7.9 | A | 0.00 | 8.5 | A |
|  |  | Westbound | LTR | 0.01 | 9.5 | A | 0.01 | 8.7 | A |

Notes:
$\mathrm{L}=$ Left Turn, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn; LOS = Level of Service.

The analyses for existing conditions show that for the 14 unsignalized intersections examined in the study area, the majority of these intersections have approaches or lane groups that would operate acceptably, below mid-LOS D, during both peak hours. The exceptions are as follows:

- The westbound and eastbound approaches at the intersection of Saw Mill River Road (Route 9A) and the Ramada Inn/Broadway Plaza operate at LOS E and F, respectively during the PM peak hour.
- The northbound approach at the intersection Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) operates at LOS E and F during the AM and PM peak hours, respectively.
- The westbound approach at the intersection of Grasslands Road (Route 100) and Virginia Road operates at LOS F during the PM peak hour.
- The southbound left-turn movement at the intersection of Grasslands Road (Route 100) and Legion Drive operates at LOS F during the PM peak hour.
- The northbound left-turn movement at the intersection of Grasslands Road (Route 100) and the Westchester Community College (WCC) Campus West Gate operates at LOS E during the PM peak hour.

These unsignalized intersections all have lane groups or approach movements that are operating above mid-LOS D (with delays in excess of 30.0 seconds), with some movements operating particularly poorly in the LOS F range. The agencies responsible for these roadways could potentially improve the operation of these locations, by investigating the installation of traffic signals at these intersections, accompanied by signal warrant studies, as appropriate.

### 4.9.2.1.2. Safety

This section provides an assessment of existing accidents at key intersections in the study area. The New York State Department of Transportation (NYSDOT) provided the accident data for the most recent 3-year period available from March 1, 1999 through February 28, 2002 for a total of 26 intersections and 3 corridors within a network bound by the Saw Mill Parkway to the north and west, Columbus Avenue and the Bronx River Parkway to the east and Cross Westchester Expressway to the south. Table 4.9-2 presents the number of accidents at each intersection over the 3 -year period and also provides a comparison between the rates of actual accidents per million entering vehicles (Actual Accidents/MEV) at each intersection versus the average statewide rate for similar types of intersections. As shown in Table 4.9-2, 19 of the 26 intersections and all 3 corridors have accident rates greater than the statewide average rates.

Table 4.9-2 also shows the breakdown of accidents that resulted in fatalities or personal injury. Of the accidents occurring at intersection locations within the study area, an average of 0.1 percent resulted in fatalities, and 51.5 percent resulted in personal injury. Accidents occurring along the three corridors examined (all above average statewide accident rates) had an average of 0.2 percent that resulted in fatalities and 42.1 percent that resulted in personal injury.

TABLE 4.9-2. STUDY AREA ACCIDENT SUMMARY; ACCIDENT RATES AND MILLION ENTERING VEHICES (MEV)


TABLE 4.9-2. STUDY AREA ACCIDENT SUMMARY; ACCIDENT RATES AND MILLION ENTERING VEHICES (MEV)


TABLE 4.9-2. STUDY AREA ACCIDENT SUMMARY; ACCIDENT RATES AND MILLION ENTERING VEHICLES (MEV)

| Intersection Location | Number of Accidents (All Types) | Accident Rate (Per Year) | \% of Accidents with Fatalities (Per Year) | \% of Accidents with Personal Injury (Per Year) | Corridor <br> Distance ( Miles) | Million Entering Vehilces (MEV) | Actual Accidents Per MEV | Average <br> Statewide Rate Per MEV | Actual vs Statewide |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tarrytown Road (NYS 119) and Saw Mill River Road (NYS 9A) | 43.00 | 14.33 | 0.0\% | 18.6\% | N/A | 7.986 | 1.795 | 0.34 | 5.28 |
| Lakeview Ave and Bradhurst (NYS 100) | 35.00 | 11.67 | 0.0\% | 42.9\% | N/A | 1.878 | 6.213 | 0.16 | 38.83 |
| Knollwood Rd (NYS 100A) and Helvelyne Rd | 7.00 | 2.33 | 0.0\% | 28.6\% | N/A | 2.123 | 1.099 | 0.16 | 6.87 |
| Saw Mill River Rd and Dana Road | 5.00 | 1.67 | 0.0\% | 80.0\% | N/A | 6.172 | 0.270 | 0.29 | 0.93 |
| Lakeview Ave and Taconic State Parkway | 6.00 | 2.00 | 0.0\% | 33.3\% | N/A | 11.593 | 0.173 | 0.34 | 0.51 |
| Lakeview Ave and Commerce St | 4.00 | 1.33 | 0.0\% | 50.0\% | N/A | 1.508 | 0.884 | 0.22 | 4.02 |
| Commerce St and Taconic State Parkway | 4.00 | 1.33 | 0.0\% | 50.0\% | N/A | 10.799 | 0.123 | 0.34 | 0.36 |
| Stevens Ave and Commerce St | 6.00 | 2.00 | 0.0\% | 33.3\% | N/A | 3.136 | 0.638 | 0.6 | 1.06 |
| Stevens Ave and Taconic State Parkway | 7.00 | 2.33 | 0.0\% | 57.1\% | N/A | 11.094 | 0.210 | 0.34 | 0.62 |
| Virginia Rd and Bronx River Parkway | 39.00 | 13.00 | 2.6\% | 25.6\% | N/A | 12.800 | 1.016 | 0.46 | 2.21 |
| Legion Dr and Commerce St | 4.00 | 1.33 | 0.0\% | 0.0\% | N/A | 2.447 | 0.545 | 0.22 | 2.48 |
| Knollwood Road (NYS 100A) <br> and Cross Westchester <br> Expressway Ramps | 34.00 | 11.30 | 0.0\% | 32.4\% | N/A | 6.233 | 1.813 | 0.46 | 3.94 |
| Tarrytown Road (NYS 119) and Knollwood Road (NYS 100A) | 44.00 | 14.67 | 0.0\% | 22.7\% | N/A | 6.274 | 2.338 | 0.46 | 5.08 |
| On and Off Ramps at Exit 2 of Cross Westchester Expressway | 20.00 | 6.67 | 0.0\% | 15.0\% | N/A | 6.714 | 0.993 | 0.34 | 2.92 |
| Lakeview Ave and Columbus/34 Columbus Ave and WestlakeCongested link | 17.00 | 5.67 | 0.0\% | 64.7\% | N/A | 5.519 | 1.027 | 0.34 | 3.02 |
| Virginia Rd and Grasslands Rd | 32.00 | 10.67 | 0.0\% | 40.6\% | N/A | 5.725 | 1.863 | 0.16 | 11.64 |
| Legion Dr and Grasslands Rd | 9.00 | 3.00 | 0.0\% | 66.7\% | N/A | 5.478 | 0.548 | 0.16 | 3.42 |
| Stevens Ave and Saw Mill River Rd (NYS 9A) | 1.00 | 0.33 | 0.0\% | 0.0\% | N/A | 6.026 | 0.055 | 0.34 | 0.16 |

TABLE 4.9-2. STUDY AREA ACCIDENT SUMMARY; ACCIDENT RATES AND MILLION ENTERING VEHICLES (MEV)

| Intersection Location | Number of Accidents (All Types) | Accident Rate (Per Year) | \% of Accidents with Fatalities (Per Year) | \% of Accidents with Personal Injury (Per Year) | Corridor Distance (Miles) | Million Entering Vehilces (MEV) | Actual Accidents Per MEV | Average <br> Statewide Rate Per MEV | Actual vs Statewide |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Westchester College Entrances and Grasslands Rd | 4.00 | 1.33 | 0.0\% | 75.0\% | N/A | 6.230 | 0.214 | 0.34 | 0.63 |
| Knollwood Rd (NYS 100A) and Grasslands Rd (NYS 100C) | 18.00 | 6.00 | 0.0\% | 50.0\% | N/A | 8.402 | 0.714 | 0.34 | 2.10 |
| Hunter Executive Blvd and Saw Mill River Rd (NYS 9A) | 8.00 | 2.67 | 0.0\% | 75.0\% | N/A | 6.112 | 0.436 | 0.35 | 1.25 |
| Hunters La and Saw Mill River Rd (NYS 9A) | 15.00 | 5.00 | 0.0\% | 60.0\% | N/A | 6.935 | 0.721 | 0.35 | 2.06 |
| Saw Mill River Rd (NYS 9A) and Grasslands Rd (NYS 100C) | 7.00 | 2.33 | 0.0\% | 28.6\% | N/A | 4.701 | 0.496 | 0.34 | 1.46 |
| Saw Mill River Parkway and Saw Mill River Road (NYS 9A) | 15.00 | 5.00 | 0.0\% | 40.0\% | N/A | 5.959 | 0.839 | 0.34 | 2.47 |
| Beverly Rd and NYS 9A | 1.00 | 0.33 | 0.0\% | 0.0\% | N/A | 8.521 | 0.039 | 0.35 | 0.11 |
| Old Saw Mill River Rd and Grasslands Rd (NYS 100C) | 7.00 | 2.33 | 0.0\% | 100.0\% | N/A | 4.270 | 0.546 | 0.34 | 1.61 |
| TOTAL | 409.00 | 136.33 | 0.1\% | 51.5\% | - | - | - | - | - |
| Corridor Location |  |  |  |  |  |  |  |  |  |
| NYS Route 9A From Hunter Lane to Beverly Road | 169.00 | 56.33 | 0.0\% | 54.4\% | 2.700 | 15.349 | 3.670 | 2.11 | 1.74 |
| NYS Route 100 From Virginia Rd to NYS 100A | 135.00 | 45.00 | 0.7\% | 38.5\% | 1.590 | 5.887 | 7.644 | 2.11 | 3.62 |
| NYS Route 100C From NYS Route 9A to NYS 100 | 72.00 | 24.00 | 0.0\% | 33.3\% | 1.030 | 3.772 | 6.363 | 2.11 | 3.02 |
| TOTAL | 401.00 | 133.67 | 0.2\% | 42.1\% | - | - | - | - | - |
| GRAND TOTAL | 810.00 | 270.00 | 0.1\% | 50.7\% | - | - | - | - | - |

### 4.9.2.1.3. Parking

The study area has a wide variety of land uses and generally, most of the parking demand in the study area is met with off-street parking facilities so the demand for on-street parking is relatively low. Off-street lots provide parking for all of the offices and municipal buildings with ample parking space supplied for employees and visitors.

Three off-site parking locations have been identified for potential construction worker parking if both the Croton project and the UV Facility are under construction at the same time. The locations were determined based on their being the closest available facilities that would have available capacity. These sites are shown in Figure 4.9-4. The property owners of these locations have been contacted and have indicated that their parking lots may have available capacity for construction worker's vehicles. Although the Eastview Site was one of three sites that were considered and evaluated by NYCDEP for the Croton Water Treatment Plant (Croton project), since the Draft EIS was published for the proposed UV Facility, NYCDEP formally selected the Mosholu Site in the Bronx as its preferred site. Nonetheless, this Final EIS for the proposed UV Facility considers the possibility of the Croton Project being located on the Eastview Site since the Eastview Site must be considered as a potential site until all legal issues surrounding the Mosholu Site are resolved. Since the Croton project is not currently anticipated to be constructed at the Eastview Site, no additional analyses have been conducted to establish the exact number of spaces available at the three off-site locations that could be used for construction worker parking. However, the parking available to accommodate construction worker vehicles at these sites appears adequate, based on field observations. As the project moves forward, in the event that the Croton project shifts to the Eastview Site, or if it is anticipated that off-site construction worker parking is needed at any time, the exact number of spaces available would be determined.

### 4.9.2.1.4. Transit and Pedestrians

The area is served by 12 Westchester County Bee-Line bus lines ( 8 local and 4 express) that operate along Executive Boulevard, Grasslands Road, Dana Road, Clearbrook Road, Tarrytown-White Plains Road, Knollwood Road, Woods Road, Route 9A, and Bradhurst Avenue. These bus routes, a mix of local and express service, provide transit to locations as far north as Peekskill and south to Yonkers, Mount Vernon, and the Bronx.

Local bus service in the area is provided by eight lines. The No.1C bus provides service between the IRT Nos. 1 and 9 Subway station at $242^{\text {nd }}$ Street in the Bronx and Westchester Medical Center in the Town of Mount Pleasant. The No. 1W bus also provides service from the IRT Nos. 1 and 9 Subway station at $242^{\text {nd }}$ Street in the Bronx, and into White Plains. Headways for these lines are long, typically about one (1) hour between buses when service is in operation between the early morning and late afternoon periods. The No. 5 bus travels between Yonkers, White Plains, and Harrison, with headways of roughly 30 minutes on weekdays, 1 hour on Saturdays and 2 hours on Sundays, during the hours between 6AM and 7PM. The No. 13/13B buses operate between Ossining/Tarrytown and White Plains/Port Chester, with headways ranging from between 25 minutes and 1 hour on weekdays, and about 1 hour on weekends. The


## Potential Off-Site Construction Worker Parking Locations

Figure 4.9-4

Eastview Nos. 14 and 15 buses travel between Peekskill and White Plains, with headways ranging between 60 minutes (Monday through Saturday) and two (2) hours (Sundays). Both buses make stops into major developments and institutions in the area. The No. 40 bus runs from Mount Vernon to the Westchester Medical Center with 30-minute headways on weekdays.

Express service within the study area is provided by four bus lines, typically operating only during the weekday AM and PM peak hours with $30-$ to $60-$ minute headways. The No. 11 bus provides express service between the Croton Railroad Station, Elmsford, and downtown White Plains on weekdays only, with two White Plains-bound buses in the AM and two Croton-bound buses in the PM. The No. 17 bus provides express service between Peekskill and downtown White Plains weekdays only, with three White Plains-bound buses in the AM and three Peekskill-bound buses in the PM; headways are 35 to 40 minutes. The No. 27 bus travels from White Plains to Elmsford, with 60 -minute headways on weekdays. The No. 41 bus follows the No. 40 bus route between the Bronx and Westchester, with headways ranging between 12 and 30 minutes in the AM and PM peak hours, respectively. Table 4.9-3, below, shows the annual and average weekday ridership of the Bee-Line bus routes that serve the study area.

TABLE 4.9-3. ANNUAL AND AVERAGE WEEKDAY RIDERSHIP OF BEE-LINE BUS ROUTES FROM JANUARY 2003 TO DECEMBER 2003

| BUS ROUTE <br> NO. | AVERAGE <br> WEEKDAY <br> RIDERSHIP* | ANNUAL <br> RIDERSHIP |
| :---: | :---: | :---: |
| $1 \mathrm{C} / 1 \mathrm{~W}$ | 1,659 | $1,612,627$ |
| 5 | $2,560^{* *}$ | $1,081,295$ |
| 11 | $47^{* *}$ | 20,035 |
| $13 / 13 \mathrm{~B}$ | $3,140^{* *}$ | $1,326,245$ |
| 14 | 2,071 | 659,549 |
| 15 | 533 | 151,141 |
| 17 | $89^{* *}$ | 37,654 |
| 27 | 248 | 82,408 |
| 40 | 5,885 | $1,869,072$ |
| 41 | 828 | 216,354 |

Source: Westchester County Department of Transportation
Notes: $\quad *=$ Calculated based on previous average ridership information for 1998.
** = Calculated based on total average ridership information for 1998 and 2003 annual ridership data.

There is a Westchester County Bee-Line Bus Depot located just north of Grasslands Road, on Walker Road (a.k.a., Bee-Line Boulevard/Clearbrook Road) on the west side of the street (across from the Eastview Site). At the bus and employee entrances to the depot, a center lane is provided on Walker Road for left turns into the depot's driveways. It was observed that at the bus depot, the street widths on Walker Road are wide enough to accommodate bus maneuvers, and no safety issues were observed in the field.

Based on bus counts conducted in May 2004, approximately 25 bus trips exit the bus depot weekdays between 6:30AM and 7:30AM (the morning peak hour analyzed for this study).

During the rest of the morning peak period (7:30 AM to 9:30 AM) there are only 1 to 2 bus trips per hour entering and leaving the bus depot. During the PM peak period (4:30 PM to 5:30 PM) there are approximately 20 buses entering and 5 buses exiting the bus depot; during the 3:30 PM to 4:30 PM (the afternoon peak examined in this study), and 5:30 PM to 6:30 PM hours, there are approximately 5 exiting and 1 entering buses per hour.

Observations of pedestrian conditions in the study area during peak commuter periods indicate that pedestrian volumes are generally low. The highest concentration of pedestrians was observed at the intersection of Tarrytown-White Plains Road (Route 119) and Saw Mill River Road (Route 9A). At this location, sidewalks and crosswalks are present. Most of the other study area roadsides do not have sidewalks and pedestrians are forced to walk on paved or grassed shoulders. At these locations, only a few people walk along and cross the streets each hour.

### 4.9.2.2. Future Without the Project

There are two Future Without the Project, or Future No Build (FNB) analysis years considered in the traffic analyses for this project. 2008 FNB conditions represent the anticipated peak year of construction activities (workers and trucks combined) for the UV Facility. 2010 FNB conditions are representative of the anticipated first full year of operation of the proposed UV Facility. In addition, each of the FNB analyses consider scenarios with and without the proposed Croton project, as outlined below:

- A FNB condition that incorporates the growth factor (as discussed below) and traffic from four proposed developments (also discussed below), but does not include traffic from the Croton Water Treatment Plant (Croton project). This FNB condition is also referred to as the "Pure No Build" condition.
- A FNB condition that is exactly the same scenario as describe above, but that also includes the traffic generated by the Croton project, during either construction (2008) or operation (2010), depending on the analysis year being examined.

In addition, for the 2008 FNB scenario with the Croton project under construction, a number of different construction worker parking Options are considered. This is because if both the Croton project and the proposed UV Facility were to be under construction at the Eastview Site at the same time, there would not be enough space on-site for all of the workers for both projects to park. The various construction worker parking Options, and how they integrate into the 2008 FNB construction analyses, are discussed in more detail in Section 4.9.2.2.2, Future With the Project, With Croton Project at Eastview Site, below.

As described above, the FNB traffic analyses include the anticipated year of peak construction activities (2008) and the first full year of operation (2010) for the proposed UV Facility. The traffic growth would arise from anticipated known site developments, as well as from general background traffic growth in the study area. To account for potential general traffic increases in Westchester County, an annual growth rate of 1.5 percent per year was applied to the Existing condition traffic volumes (e.g., 2002 existing volumes were grown by a total of 9 percent to
reflect 2008 conditions, and a total of 12 percent to reflect 2010 conditions.) The use of a 1.5 percent per year growth factor is appropriate for this study because the future traffic projections are for distant analysis years (more than 5 years beyond 2002 existing conditions), and the future traffic projections also include discreet assignments for large known No Build projects, in addition to the background growth factors applied. Trips generated by each of the known "No Build projects" were developed based on information provided in approved studies, supplemented by studies performed for DEP. A complete discussion of the various projects being considered in the area is presented in Section 4.2, Land Use, Zoning and Public Policy.

## No Build Projects.

NYCDEP Police Precinct: A NYCDEP Police Precinct has been approved by the Town of Mount Pleasant and would be constructed at the Eastview Site with a projected construction completion of 2006. The construction would have a total of approximately 700 truck trips over a 2-3 month period (10/day). Depending on when construction of this project commences, it may or may not overlap with the initial stages of construction for the proposed UV Facility. The operation of the Precinct is anticipated to have a low trip generation. This trip generation alone would not create a significant adverse impact within the study area. This project would be a relatively small generator of traffic and has been accounted for in the general background growth factor.

Avalon Green: This proposed residential development would be located on the south side of Route 119 just east of I-287. This development project would include 794 residential rental units, a daycare center, 200,000 square feet of office space, and 30,000 square feet of retail space. A build year has not been established for this project, but for the purposes of these analyses, it is anticipated that it would be completed by 2006. The estimated vehicle trips for this project were assigned to the various study area analysis locations; thus increasing the overall No Build volumes in addition to the general background growth projections.

Landmark at Eastview: This proposed development would be located south of Old Saw Mill River Road and west of Route 9A. This development project would include a $320,000-$ square-foot laboratory addition. A build year has not been established for this project, but for the purposes of these analyses, it is anticipated that it would be completed by 2008. The estimated vehicle trips for this project were assigned to the various study area analysis locations; thus increasing the overall No Build volumes in addition to the general background growth projections.

Home Depot: This proposed retail store would be located to the west of Saw Mill River Road (Route 9A) at Dana Road. The development would be an 117,000 -square-foot Home Depot store home improvement retail store. It is anticipated that this project would be completed and open by the end of 2005 or early 2006. The estimated vehicle trips for this project were assigned to the various study area analysis locations; thus increasing the overall No Build volumes in addition to the general background growth projections.

Grasslands Biotech Center: A Biotech Center is currently being proposed on the Grasslands Reservation. This project is in the planning stages and could require rezoning from
the Town of Mount Pleasant. The project is anticipated to be a 600,000 square-foot facility completed in 2010. The implementation of this project would create a significant new traffic generator that would be anticipated to utilize Woods Drive, Dana Road, Cottage Road, and Walker Road as access routes. An operational estimate of traffic volumes associated with the anticipated completion of this project by 2010 has been incorporated into the 2010 Future Without the Project background traffic volumes. However, traffic volumes resulting from the operation of this project have not been included in the 2008 background analyses because it would not be operational by that time. Therefore, while the 2010 analyses of the proposed UV Facility do include this project in the background volumes, the 2008 construction analyses do not. In addition, while construction of this Biotech Center project would overlap with the construction of the proposed UV Facility, since no engineering information is available to make an estimate for the construction traffic for this project, no construction traffic projections have been developed for the Biotech Center. Therefore, no additional construction-related volumes have been added to the 2008 background conditions for the UV Facility construction condition analyses. However, it should be noted that this construction traffic could overlap with the proposed UV Facility construction traffic and could potentially cause additional impacts. With Dana Road as a primary access for the proposed UV Facility, this additional construction traffic generation could cause additional temporary adverse impacts to this location.

The development and planning for the Biotech Center would require it to mitigate its own traffic impacts on the roadway network (this is the case for all the No Build projects). However, at this point in time no specific mitigation measures have been prepared for this project. It is anticipated that mitigation for the Biotech Center could include components of the Route 9A Bypass project that this project would accelerate. Discussions would take place with the involved agencies to coordinate all the No Build traffic enhancements with mitigation measures for the planned NYCDEP projects at the Eastview Site.

Route 9A Bypass: The Route 9A Reconstruction project is in the early stages of design. A wide range of preliminary alternatives has been developed, some resulting from suggestions from the local community. The alternatives that are considered feasible and are recommended for further consideration are discussed below. At present, Alternative 7 is the preferred alternative, because it has been deemed the most reasonable and cost effective alternative for achieving the State's goal.

- No Action/Null Alternative - This alternative would include only routine maintenance to Route 9A, without any structural modifications.
- Alternative 1 - Widen and Reconstruct Route 9A. This alternative would widen and reconstruct Route 9A on its existing alignment. The Grasslands Road/Route 100C overpass across Route 9A would also be reconstructed as part of this alternative.
- Alternative 1A - Widen and Reconstruct Route 9A and Provide Eastbound Route I-287 Off-Ramp Directly to Route 9A. This is the same as Alternative 1 with the addition of a new off-ramp from eastbound Route I- 287 directly to Route 9A. The ramp would be located along the south side of Route I-287.
- Alternative 6 - Widen and Reconstruct Route 9A and Provide Closed Loop Access Road. This alternative proposes to widen and reconstruct Route 9A to provide a continuous leftturn lane/median and two through lanes in each direction. A new eastbound Route I-287 off-ramp with direct access to Route 9A (along south side of Route I-287) would also be included. Finally, a loop road servicing the commercial/industrial areas of Warehouse Lane and Fairview Park Drive would be created. This loop would begin at the intersection of Vreeland Avenue and the eastbound off-ramp and proceed northerly along the former railroad right-of-way, crossing then running parallel to the proposed Millennium Pipeline route. The roadway would loop around the northerly-most business on Fairview Park Drive and then proceed southerly along the rights-of-way for Fairview Park Drive and Hayes Street back to its point of origin on Vreeland Avenue.
- Alternative 7 - Widen and Reconstruct Route 9A and Provide Bypass with New Route 119 Intersection. There are three sub-alternatives to Alternative 7. Under all three subalternatives, the bypass would proceed northerly crossing over the Saw Mill River Parkway and under the Route I-287 viaduct while paralleling the Saw Mill River. It would then follow the rights-of-way of Vreeland Avenue, Hayes Street, and Fairview Park Drive (through the Landmark at Eastview Site), and the former Putnam Division of the New York Central Railroad, to an intersection on Route 9A opposite Dana Road. An off-ramp from eastbound Route I-287 to the bypass would be included.
- Under the first sub-alternative, Alternative 7A, the bypass would begin with a new intersection on Route 119 opposite Undercliff Avenue. Alternative 7B would include a bypass intersection with Route 119 opposite the Nob Hill entrance drive, and would include an eastbound Route 119 exit ramp and fly over to connect to the northbound direction of the bypass, thereby eliminating the left-turn lane on Route 119. Alternative 7C would include construction of a new southbound Saw Mill River Parkway on and off ramp. Alternative 7 would result in the largest divergence of traffic from existing Route 9A. The Route 9A Bypass project is still in the planning stage and probably would not be constructed until after the proposed UV Facility would be in operation; therefore, it was not included in the analysis.

Because of the size of these developments, there would be increased congestion in the vicinity along Route 119 and Route 9A. Assuming that the developments would be finished by the peak construction year (2008) of the proposed UV Facility, mitigation measures recommended within these development plans would be implemented as part of the FNB conditions. Mitigation measures have been proposed by No Build project sponsors at the following locations:

- Saw Mill River Road (Route 9A)/Cross Westchester Expressway (I-287) Westbound Ramps. Add a second right turn lane to the westbound exit ramp. This improvement is to be completed by the NYSDOT.
- Saw Mill River Road (Route 9A) and Cross Westchester Expressway (I-287) Eastbound Ramps. Widen the eastbound service road and entrance ramp to accommodate two lanes of traffic. This improvement is to be completed by the NYSDOT.
- Saw Mill River Road (Route 9A)/Tarrytown White Plains Road (Route 119). Add exclusive left turn lane on each approach and add an additional southbound right turn lane. The Avalon Green site development project would incorporate this improvement.
- Saw Mill River Road (Route 9A)/Dana Road. Implement a four-way signalized intersection to accommodate a new eastbound approach, the Home Depot Store entrance. Add an additional westbound egress lane on Dana Road, and an exclusive left-turn lane in the northbound and southbound approaches. The developer of the Home Depot store would implement these intersection improvements.
- Old Saw Mill River Road (Route 9A)/Saw Mill River Parkway Southbound Off Ramp. Widen the off-ramp to provide an additional lane creating separate left and shared left/right turn lane; widen Old Saw Mill River Road where practicable to receive the dual left turns. Revise traffic signal timing to provide additional westbound green time; and restripe Old Saw Mill River Road eastbound to delineate a two-lane approach. The Landmark at Eastview project would incorporate these improvements.
- Old Saw Mill River Road/Saw Mill River Parkway Northbound Off Ramp. Modify existing left turn lane to provide shared right turns in addition to the existing right turn lane along the ramp; widen Old Saw Mill River Road to receive dual right turns. Revise traffic signal timing to provide up to 25 seconds of northbound green time. These improvements would be completed as part of the Landmark at Eastview development project.
- Sprain Brook Parkway Northbound Ramps/Grasslands Road (Route 100C). Modify traffic signal timing to provide up to 42 seconds of green time for parkway off-ramp. This signal timing was proposed as part of The Landmark at Eastview project.

The traffic volumes resulting from these proposed site developments, taken together with the projected background growth, would result in increased congestion throughout the project area in both 2008 and 2010. The results of each of these FNB analyses are discussed below.

### 4.9.2.2.1. Without Croton Project at Eastview Site ("Pure No Build")

Figures 4.9-5 and 4.9-6 and show the resulting 2008 FNB turning movement volumes anticipated for the study intersections with the addition of background growth and volumes assigned from specific No Build projects, for the AM and PM peak hours, respectively. Figures 4.9-7 and 4.9-8 show the resulting 2010 FNB turning movement volumes anticipated for the study intersections with the addition of background growth and volumes assigned from specific No Build projects, for the AM and PM peak hours, respectively.

2008 FNB Traffic Conditions. Table 4.9-4 presents a comparison of the results of the HCM analyses between existing conditions and 2008 FNB conditions, for the signalized and unsignalized intersections examined in the study area. In the 2008 FNB analysis year, there are two signalized intersections that would experience unacceptable overall LOS conditions (mid-

LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.9-4. These signalized intersections are as follows:

## Signalized Intersections With Unacceptable Overall LOS.

- Grasslands Road (Route 100C) and Bradhurst Avenue (Route 100) (AM and PM peak)
- Virginia Road and Bronx River Parkway (AM and PM peaks)

These signalized locations are all projected to be operating unacceptably at overall LOS above mid-LOS D (overall intersection delays of greater than 45.0 seconds), with some movements operating particularly poorly in the LOS F range. Measures or modifications to improve or optimize the traffic processing capabilities of these intersections (e.g., signal timing or phasing changes, or lane utilization modifications) could be investigated by the appropriate agency responsible for maintaining the traffic signals at these locations, to improve operations.

In addition, there are eight unsignalized intersections in the 2008 FNB analysis year that would have approaches or lane groups that would experience unacceptable level of service conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.9-4. These unsignalized intersections are as follows:

## Unsignalized Intersections Having Approaches With Unacceptable LOS.

- Saw Mill River Road (Route 9A) and Stevens Avenue North (AM peak)
- Saw Mill River Road (Route 9A) and Stevens Avenue South (PM peak)
- Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza Entrance (AM and PM peaks)
- Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) (AM and PM peaks)
- Grasslands Road (Route 100) and Virginia Road (PM peak)
- Grasslands Road (Route 100) and Legion Drive (PM peak)
- Grasslands Road (Route 100) and WCC Campus West Gate (PM peak)
- Old Saw Mill River Road and Landmark at Eastview East Driveway (PM peak)

These unsignalized intersections all have lane groups or approach movements that are projected to be operating above mid-LOS D (with delays in excess of 30.0 seconds), with some movements operating particularly poorly in the LOS F range. The agencies responsible for these roadways could potentially improve the operation of these locations, by investigating the installation of traffic signals at these intersections, accompanied by signal warrant studies, as appropriate.

TABLE 4.9-4. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 PURE NO BUILD CONDITIONS

| Intersection | No. | Approach | AM Peak Hour |  |  |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2002/03/04 Existing |  |  |  | 2008 Pure No Build |  |  |  | 2002/03/04 Existing |  |  |  | 2008 Pure No Build |  |  |  |
|  |  |  | Lane Group | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | Lane Group | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | Lane Group | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | Lane Group | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS |
| Saw Mill River Road (Rt.9A) (N-S) @ Saw Mill River Pkwy Ramp | 4 | Eastbound | L | 0.59 | 30.0 | C | L | 0.64 | 31.6 | C | L | 0.48 | 28.6 | C | L | 0.52 | 29.3 | C |
|  |  |  | LTR | 0.11 | 24.8 | C | LTR | 0.14 | 25.0 | C | LTR | 0.07 | 25.3 | C | LTR | 0.14 | 25.8 | C |
|  |  | Westbound | L | 0.13 | 32.3 | C | L | 0.14 | 32.4 | C | L | 0.13 | 34.1 | C | L | 0.14 | 34.1 | C |
|  |  |  | LT | 0.09 | 32.0 | C | LT | 0.10 | 32.1 | C | LT | 0.08 | 33.8 | C | LT | 0.09 | 33.8 | C |
|  |  |  | R | 0.02 | 31.6 | C | R | 0.02 | 31.6 | C | R | 0.04 | 33.5 | C | R | 0.04 | 33.6 | C |
|  |  | Northbound | L | 0.12 | 13.5 | B | L | 0.18 | 14.1 | B | L | 0.58 | 16.8 | B | L | 0.81 | 31.5 | C |
|  |  |  | TR | 0.27 | 14.5 | B | TR | 0.31 | 14.8 | B | TR | 0.47 | 14.4 | B | TR | 0.55 | 15.4 | B |
|  |  | Southbound | L | 0.04 | 12.9 | B | L | 0.05 | 13.0 | B | L | 0.10 | 21.1 | C | L | 0.13 | 21.4 | C |
|  |  |  | TR | 0.48 | 16.3 | B | TR | 0.54 | 17.1 | B | TR | 0.83 | 33.7 | C | TR | 0.98 | 54.3 | D |
|  |  | Intersection |  |  | 18.9 | B |  |  | 19.5 | B |  |  | 24.0 | C |  |  | 33.7 | C |
| Grasslands Road (Rt. 100C) (E-W) @ Bradhurst Avenue (Rt. 100) | 6 | Eastbound | L | 0.60 | 30.8 | C | L | 0.71 | 36.6 | D | L | 1.01 | 113.0 | F | L | * | ** | F |
|  |  |  | T | 0.93 | 52.5 | D | T | 1.03 | 75.1 | E | T | 0.52 | 21.0 | C | T | 0.59 | 22.3 | C |
|  |  |  | R | 0.31 | 15.9 | B | R | 0.35 | 16.3 | B | R | 0.24 | 11.8 | B | R | 0.27 | 12.1 | B |
|  |  | Westbound | L | 0.62 | 45.7 | D | L | 0.68 | 56.6 | E | L | 0.18 | 17.5 | B | L | 0.22 | 18.0 | B |
|  |  |  | TR | 0.38 | 25.2 | C | TR | 0.43 | 25.8 | C | TR | 0.88 | 37.1 | D | TR | 0.98 | 55.5 | E |
|  |  | Northbound | L | 0.20 | 21.9 | C | L | 0.23 | 23.3 | C | L | 0.72 | 41.9 | D | L | 0.87 | 58.7 | E |
|  |  |  | TR | 0.31 | 25.5 | C | TR | 0.34 | 25.9 | C | TR | 0.18 | 16.2 | B | TR | 0.20 | 16.3 | B |
|  |  | Southbound | L | 0.44 | 38.1 | D | L | 0.50 | 40.1 | D | L | 0.27 | 24.7 | C | L | 0.30 | 25.1 | C |
|  |  |  | TR | 0.62 | 46.7 | D | TR | 0.68 | 49.7 | D | TR | 1.01 | 76.1 | E | TR | 1.12 | 109.2 | F |
|  |  | Intersection |  |  | 36.5 | D |  |  | 45.2 | D |  |  | 42.6 | D |  |  | 70.0 | E |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) WB Ramp | 8 | Westbound | LT | 0.42 | 27.2 | C | LT | 0.46 | 27.6 | C | LT | 0.72 | 34.8 | C | LT | 0.79 | 39.0 | D |
|  |  |  | R | 0.21 | 25.2 | C | R | 0.24 | 25.4 | C | R | 0.41 | 27.1 | C | R | 0.45 | 27.6 | C |
|  |  | Northbound | L | 0.45 | 9.4 | A | L | 0.50 | 9.8 | A | L | 0.83 | 30.9 | C | L | 0.95 | 52.6 | D |
|  |  |  | T | 0.46 | 9.8 | A | T | 0.51 | 10.3 | B | T | 0.47 | 9.9 | A | T | 0.52 | 10.5 | B |
|  |  | Southbound | T | 0.28 | 13.2 | B | T | 0.30 | 13.4 | B | T | 0.40 | 14.4 | B | T | 0.44 | 14.8 | B |
|  |  |  | R | 0.12 | 12.0 | B | R | 0.13 | 12.1 | B | R | 0.20 | 12.7 | B | R | 0.23 | 12.8 | B |
|  |  | Intersection |  |  | 14.0 | B |  |  | 14.4 | B |  |  | 21.3 | C |  |  | 26.7 | C |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) EB Ramp | 9 | Eastbound | L | 0.62 | 30.8 | C | L | 0.67 | 32.7 | C | L | 0.44 | 23.9 | C | L | 0.48 | 24.4 | C |
|  |  |  | TR | 0.01 | 23.6 | C | TR | 0.01 | 23.6 | C | TR | 0.00 | 20.0 | C | TR | 0.00 | 20.0 | C |
|  |  |  | R | 0.52 | 28.6 | C | R | 0.58 | 30.0 | C | R | 0.70 | 30.3 | C | R | 0.77 | 34.2 | C |
|  |  | Northbound | T | 0.44 | 14.8 | B | T | 0.49 | 15.3 | B | T | 0.78 | 26.0 | C | T | 0.86 | 31.6 | C |
|  |  |  | R | 0.47 | 15.1 | B | R | 0.52 | 15.9 | B | R | 0.56 | 19.5 | B | R | 0.62 | 20.9 | C |
|  |  | Southbound | L | 0.34 | 9.3 | A | L | 0.39 | 9.8 | A | L | 0.67 | 19.5 | B | L | 0.79 | 29.3 | C |
|  |  |  | T | 0.26 | 8.2 | A | T | 0.29 | 8.4 | A | T | 0.59 | 14.2 | B | T | 0.65 | 15.4 | B |
|  |  | Intersection |  |  | 17.8 | B |  |  | 18.6 | B |  |  | 22.1 | C |  |  | 25.6 | C |
| $\begin{array}{\|l} \hline \text { Tarrytown/White Plains Road (Rt. 119) } \\ \text { WB Ramp (E-W) @ } \\ \text { Knollwood Road (Rt.100A) } \end{array}$ | 10 | Westbound <br> Northbound Southbound | LT | 0.13 | 24.5 | C | LT | 0.14 | 24.6 | C | LT | 0.32 | 26.2 | C | LT | 0.35 | 26.4 | C |
|  |  |  | R | 0.46 | 27.6 | C | R | 0.51 | 28.3 | C | R | 0.87 | 47.1 | D | R | 0.96 | 64.3 | E |
|  |  |  | LT | 0.36 | 9.8 | A | LT | 0.40 | 10.1 | B | LT | 0.52 | 11.4 | B | LT | 0.60 | 12.6 | B |
|  |  |  | T | 0.18 | 15.2 | B | T | 0.20 | 15.3 | B | T | 0.40 | 17.0 | B | T | 0.43 | 17.4 | B |
|  |  |  | R | 0.17 | 15.1 | B | R | 0.19 | 15.3 | B | R | 0.42 | 17.5 | B | R | 0.47 | 18.0 | B |
|  |  | Intersection |  |  | 15.2 | B |  |  | 15.5 | B |  |  | 21.4 | C |  |  | 25.0 | C |
| $\begin{array}{\|l} \hline \text { Tarrytown/White Plains Road (Rt. 119) } \\ \text { WB Ramp (E-W) @ } \\ \text { Knollwood Road (Rt.100A) } \end{array}$ | $\begin{aligned} & \hline 11 \\ & 12 \end{aligned}$ | Eastbound <br> Northbound Southbound | LT | 0.64 | 31.6 | C | LT | 0.71 | 34.2 | C | LT | 0.70 | 33.9 | C | LT | 0.78 | 38.4 | D |
|  |  |  | R | 0.13 | 24.5 | C | R | 0.16 | 24.8 | C | R | 0.30 | 26.0 | C | R | 0.35 | 26.5 | C |
|  |  |  | TR | 0.36 | 19.8 | B | TR | 0.40 | 20.1 | C | TR | 0.37 | 19.8 | B | TR | 0.41 | 20.3 | C |
|  |  |  | Def | 0.27 | 10.9 | B | Def | 0.31 | 11.9 | B | Def | 0.41 | 12.8 | B | Def | 0.47 | 14.7 | B |
|  |  |  | T | 0.25 | 9.1 | A | T | 0.28 | 9.2 | A | T | 0.49 | 11.1 | B | T | 0.54 | 11.8 | B |
|  |  | Intersection |  |  | 19.4 | B |  |  | 20.4 | C |  |  | 19.5 | B |  |  | 21.1 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) WB Ramp | 13 | Westbound <br> Northbound <br> Southbound | L | 0.87 | 45.5 | D | L | 1.09 | 97.9 | F | L | 0.51 | 31.2 | C | L | 0.74 | 38.2 | D |
|  |  |  | R | 0.74 | 35.7 | D | R | 0.48 | 27.5 | C | R | 0.93 | 60.0 | E | R | 0.42 | 20.4 | C |
|  |  |  | LTR | 0.31 | 8.5 | A | LTR | 0.36 | 8.9 | A | LTR | 0.55 | 19.5 | B | LTR | 0.69 | 22.8 | C |
|  |  |  | TR | 0.41 | 9.3 | A | TR | 0.47 | 9.7 | A | TR | 0.75 | 18.2 | B | TR | 0.85 | 22.5 | C |
|  |  | Intersection |  |  | 22.0 | C |  |  | 34.3 | C |  |  | 26.9 | C |  |  | 24.4 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (1-287) EB Ramp | 14 | Northbound Southbound | TR | 0.27 | 12.0 | B | TR | 0.31 | 12.3 | B | TR | 0.78 | 28.4 | C | TR | 0.89 | 34.7 | C |
|  |  |  | Def | 0.43 | 1.0 | A | L | 0.50 | 1.7 | A | Def | 0.63 | 17.0 | B | L | 0.74 | 23.2 | C |
|  |  |  | LT | 0.22 | 0.2 | A | LT | 0.16 | 0.2 | A | LT | 0.68 | 1.5 | A | LT | 0.53 | 0.5 | A |
|  |  | Intersection |  |  | 4.8 | A |  |  | 5.0 | A |  |  | 14.9 | B |  |  | 17.5 | B |
| Saw Mill River Road (Rt.9A) @ Tarrytown/White Plains Road (Rt.119) | 15 | Eastbound |  | 0.88 | 48.1 | D |  | 0.97 | 66.8 | E | L | 0.92 | 76.7 | E | L | 0.99 | 76.6 | E |
|  |  |  | TR | 0.36 | 16.3 | B | TR | 0.38 | 14.5 | B | TR | 0.45 | 26.0 | C | TR | 0.46 | 20.2 | C |
|  |  | Westbound | L | 0.14 | 22.0 | C | L | 0.17 | 22.3 | C | L | 0.50 | 41.5 | D | L | 0.42 | 34.4 | C |
|  |  |  | TR | 0.26 | 23.0 | C | TR | 0.30 | 23.5 | C | TR | 0.82 | 49.2 | D | TR | 0.88 | 48.6 | D |
|  |  | Northbound | L | 0.26 | 30.4 | C | L | 0.38 | 34.2 | C | L | 0.23 | 26.0 | C | L | 0.30 | 25.0 | C |
|  |  |  | TR | 0.50 | 34.2 | C | TR | 0.62 | 40.3 | D | TR | 0.73 | 38.2 | D | TR | 0.82 | 41.0 | D |
|  |  | Southbound | L | 0.20 | 32.6 | C | L | 0.24 | 33.9 | C | L | 0.33 | 27.0 | C | L | 0.54 | 35.0 | C |
|  |  |  | T | 0.38 | 34.4 | C | T | 0.42 | 34.9 | C | T | 0.21 | 21.9 | C | T | 0.26 | 22.8 | C |
|  |  |  | R | 0.25 | 24.8 | C | R | 0.23 | 22.1 | C | R | 0.55 | 19.4 | B | R | 0.39 | 11.0 | B |
|  |  | Intersection |  |  | 28.4 | C |  |  | 31.8 | C |  |  | 37.8 | D |  |  | 35.0 | C |
| Saw Mill River Road (Rt.9A) @ Hunter Lane | 16 | EastboundWestbound | LTR | 0.01 | 29.1 | C | LTR | 0.01 | 29.1 | C | LTR | 0.01 | 32.9 | C | LTR | 0.01 | 32.9 | C |
|  |  |  | LT | 0.28 | 32.0 | C | LT | 0.31 | 32.4 | C | LT | 0.73 | 48.9 | D | LT | 0.81 | 56.6 | E |
|  |  |  | R | 0.01 | 18.7 | B | R | 0.01 | 18.7 | B | R | 0.07 | 22.9 | C | R | 0.07 | 22.9 | C |
|  |  | Northbound | LTR | 0.56 | 19.7 | B | LTR | 0.64 | 21.3 | C | LTR | 0.60 | 17.5 | B | LTR | 0.69 | 19.4 | B |
|  |  | Southbound | LTR | 0.57 | 12.4 | B | LTR | 0.67 | 14.5 | B | LTR | 0.59 | 10.3 | B | LTR | 0.73 | 13.3 | B |
|  |  | Intersection |  |  | 16.8 | B |  |  | 18.6 | B |  |  | 17.3 | B |  |  | 20.1 | C |

TABLE 4.9-4. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 PURE NO BUILD CONDITIONS

| Intersection | No. | Approach | LaneGroup | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2002/03/04 Existing |  |  | 2008 Pure No Build |  |  | 2002/03/04 Existing |  |  | 2008 Pure No Build |  |  |
|  |  |  |  | $\begin{array}{\|l\|} \hline \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | $\|c\| c$ <br> vatio | $\begin{array}{\|c\|} \hline \hline \begin{array}{c} \text { Delay } \\ (\text { sec }) \end{array} \\ \hline \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \text { Delay } \\ (\mathrm{sec}) \end{gathered}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.10 | 10.2 | B | 0.12 | 10.6 | B | 0.17 | 9.2 | A | 0.19 | 9.5 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ Beverly Road | 2 | Northbound Eastbound | $\begin{aligned} & \hline \mathrm{LT} \\ & \mathrm{LR} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.01 \\ 0.05 \\ \hline \end{array}$ | 9.8 18.2 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{C} \end{aligned}$ | 0.01 <br> 0.07 <br> 0.02 | $\begin{aligned} & 10.3 \\ & 21.1 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{C} \end{aligned}$ | 0.02 <br> 0.03 | $\begin{aligned} & 11.9 \\ & 22.8 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{C} \end{aligned}$ | 0.03 <br> 0.05 <br> 0 | $\begin{aligned} & 13.1 \\ & 29.7 \end{aligned}$ | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{D} \end{aligned}$ |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3N | Northbound Southbound Eastbound Westbound | $\begin{aligned} & \text { LT } \\ & \text { LT } \\ & \text { LTR } \\ & \text { LTR } \end{aligned}$ | 0.02 <br> 0.03 <br> 0.02 <br> 0.03 | $\begin{array}{r} 10.3 \\ 8.9 \\ 27.5 \\ 15.5 \end{array}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{D} \\ & \mathrm{C} \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.02 \\ & 0.03 \\ & 0.02 \\ & 0.03 \end{aligned}$ | $\begin{array}{r} 10.9 \\ 9.2 \\ 35.0 \\ 16.7 \end{array}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{D} \\ & \mathrm{C} \end{aligned}$ | $\begin{aligned} & 0.01 \\ & 0.02 \\ & 0.09 \\ & 0.05 \end{aligned}$ | $\begin{array}{r} 9.3 \\ 9.8 \\ 18.6 \\ 13.9 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~A} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 0.01 \\ & 0.02 \\ & 0.13 \\ & 0.07 \end{aligned}$ | $\begin{array}{r} 9.8 \\ 10.5 \\ 24.1 \\ 15.7 \end{array}$ | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~B} \\ & \mathrm{C} \\ & \mathrm{C} \end{aligned}$ |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue South | 3S | Southbound Westbound | $\begin{aligned} & \hline \mathrm{LT} \\ & \mathrm{LR} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.00 \\ 0.03 \\ \hline \end{array}$ | 8.5 18.6 | A | 0.00 0.03 | $\begin{array}{r} 8.8 \\ 21.4 \\ \hline \end{array}$ | A | 0.00 0.10 | 9.8 25.2 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{D} \end{aligned}$ | $\begin{aligned} & \hline 0.00 \\ & 0.14 \\ & \hline \end{aligned}$ | $\begin{aligned} & 10.4 \\ & 34.0 \end{aligned}$ | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{D} \end{aligned}$ |
| Bradhurst Avenue (Rt. 100) @ <br> Lakeview Avenue | 5 | Southbound Westbound | $\begin{aligned} & \hline \text { LT } \\ & \text { LR } \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.02 \\ 0.22 \\ \hline \end{array}$ | 8.1 14.0 | $\begin{aligned} & \hline \mathrm{A} \\ & \mathrm{~B} \end{aligned}$ | 0.02 <br> 0.26 | 8.2 15.1 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{C} \end{aligned}$ | 0.01 <br> 0.38 | 8.0 16.4 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{C} \end{aligned}$ | $\begin{aligned} & \hline 0.01 \\ & 0.45 \end{aligned}$ | 8.1 18.8 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{C} \end{aligned}$ |
| Knollwood Road (Rt.100A) @ Hevelyne Road | 7 | Northbound Eastbound | $\begin{aligned} & \hline \mathrm{LT} \\ & \mathrm{LR} \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.01 \\ 0.03 \\ \hline \end{array}$ | $\begin{array}{r} 8.2 \\ 12.5 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ | 0.01 <br> 0.03 <br> 0.09 | 8.3 13.1 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~B} \end{aligned}$ | 0.00 <br> 0.01 <br> 0.12 | 7.9 10.5 | $\begin{aligned} & \text { A } \\ & \text { B } \end{aligned}$ | $\begin{aligned} & 0.00 \\ & 0.01 \\ & \hline \end{aligned}$ | 8.0 10.9 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound Southbound Eastbound <br> Westbound | $\begin{gathered} \mathrm{L} \\ \mathrm{LT} \\ \mathrm{~L} \\ \mathrm{~T} \\ \mathrm{LT} \\ \mathrm{TR} \end{gathered}$ | 0.03 <br> 0.01 <br> 0.01 <br> 0.01 <br> 0.07 <br> 0.01 | $\begin{array}{r} 9.5 \\ 8.5 \\ 25.7 \\ 29.2 \\ 26.0 \\ 10.3 \end{array}$ | $\begin{aligned} & \hline \mathrm{A} \\ & \mathrm{~A} \\ & \mathrm{D} \\ & \mathrm{D} \\ & \mathrm{D} \\ & \mathrm{~B} \end{aligned}$ | 0.09 0.01 0.01 0.02 0.10 0.01 | $\begin{array}{r} 10.0 \\ 8.7 \\ 31.9 \\ 36.9 \\ 33.1 \\ 10.6 \end{array}$ | $\begin{aligned} & \hline \mathrm{A} \\ & \mathrm{~A} \\ & \mathrm{D} \\ & \mathrm{E} \\ & \mathrm{D} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 0.12 \\ & 0.01 \\ & 0.01 \\ & 0.05 \\ & 0.07 \\ & 0.02 \end{aligned}$ | $\begin{array}{r} 9.6 \\ 9.0 \\ 35.5 \\ 53.6 \\ 39.3 \\ 14.9 \end{array}$ | $\begin{aligned} & \hline \mathrm{A} \\ & \mathrm{~A} \\ & \mathrm{E} \\ & \mathrm{~F} \\ & \mathrm{E} \\ & \mathrm{~B} \end{aligned}$ | 0.01 0.15 0.01 0.01 0.08 0.11 0.03 | $\begin{array}{r} 10.3 \\ 9.4 \\ 48.4 \\ 79.9 \\ 56.3 \\ 17.0 \end{array}$ | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{E} \\ & \mathrm{~F} \\ & \mathrm{~F} \\ & \mathrm{C} \\ & \hline \end{aligned}$ |
| Dana Road @ Walker Road | 18 | Northbound Westbound | $\begin{aligned} & \hline \mathrm{LR} \\ & \mathrm{LT} \end{aligned}$ | 0.08 <br> 0.00 <br> 0.56 | 10.4 8.2 | B | 0.09 <br> 0.00 <br> 0.78 | 10.5 8.3 | B | 0.04 0.01 | 10.3 7.7 | B | 0.04 0.01 | 10.5 7.8 | B |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound <br> Westbound | $\begin{aligned} & \mathrm{L} \\ & \mathrm{R} \\ & \mathrm{~L} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.56 \\ 0.14 \\ 0.12 \\ \hline \end{array}$ | $\begin{aligned} & 47.4 \\ & 14.6 \\ & 10.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{E} \\ & \mathrm{~B} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 0.78 \\ & 0.20 \\ & 0.15 \\ & \hline \end{aligned}$ | $\begin{aligned} & 85.3 \\ & 16.3 \\ & 11.3 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 0.67 \\ & 0.13 \\ & 0.14 \\ & \hline \end{aligned}$ | $\begin{aligned} & 61.2 \\ & 12.5 \\ & 10.2 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~B} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.99 \\ & 0.28 \\ & 0.17 \\ & \hline \end{aligned}$ | $\begin{array}{r} 145.4 \\ 15.7 \\ 11.2 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | $\begin{gathered} \hline \text { LT } \\ \text { TR } \\ \text { L } \end{gathered}$ | $\begin{array}{\|l\|} \hline 0.04 \\ 0.06 \\ 0.16 \\ \hline \end{array}$ | $\begin{array}{r} 21.4 \\ 12.9 \\ 9.5 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{C} \\ & \mathrm{~B} \\ & \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 0.06 \\ & 0.07 \\ & 0.21 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 25.7 \\ & 13.7 \\ & 10.1 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{D} \\ & \mathrm{~B} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.03 \\ & 0.13 \\ & 0.09 \\ & \hline \end{aligned}$ | $\begin{array}{r} 18.5 \\ 12.5 \\ 9.5 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{C} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.05 \\ & 0.16 \\ & 0.17 \\ & \hline \end{aligned}$ | $\begin{aligned} & 25.0 \\ & 14.2 \\ & 10.5 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{C} \\ & \mathrm{~B} \\ & \mathrm{~B} \end{aligned}$ |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound Westbound | $\begin{aligned} & \hline \text { LT } \\ & \text { LR } \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.21 \\ 0.49 \\ \hline \end{array}$ | 8.2 15.0 | A | 0.23 <br> 0.55 | 8.3 16.6 | A | 0.33 1.04 | 9.9 84.6 | A | 0.36 1.23 | $\begin{array}{r} 10.3 \\ 155.8 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{~F} \end{aligned}$ |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | $\qquad$ | $\begin{gathered} \hline \mathrm{L} \\ \mathrm{R} \\ \mathrm{LT} \\ \hline \end{gathered}$ | $\begin{array}{\|l\|} \hline 0.36 \\ 0.18 \\ 0.06 \\ \hline \end{array}$ | $\begin{array}{r} 25.5 \\ 11.7 \\ 8.4 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{D} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.42 \\ & 0.20 \\ & 0.07 \\ & \hline \end{aligned}$ | $\begin{array}{r} 29.8 \\ 12.1 \\ 8.5 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{D} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.04 \\ & 0.41 \\ & 0.21 \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline 123.1 \\ 17.4 \\ 10.3 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 1.27 \\ & 0.47 \\ & 0.24 \\ & \hline \end{aligned}$ | $\begin{array}{r} 210.8 \\ 19.7 \\ 10.7 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound <br> Westbound | $\begin{gathered} \hline \mathrm{L} \\ \mathrm{R} \\ \mathrm{LT} \\ \hline \end{gathered}$ | $\begin{array}{\|l\|} \hline 0.05 \\ 0.01 \\ 0.00 \\ \hline \end{array}$ | $\begin{array}{r} 19.0 \\ 13.1 \\ 9.7 \end{array}$ | $\begin{aligned} & \hline \mathrm{C} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.06 \\ & 0.01 \\ & 0.00 \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline 20.5 \\ 13.7 \\ 9.9 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{C} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.21 \\ & 0.44 \\ & 0.11 \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline 40.5 \\ 16.4 \\ 8.9 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{E} \\ & \mathrm{C} \\ & \mathrm{~A} \end{aligned}$ | $\begin{aligned} & \hline 0.26 \\ & 0.49 \\ & 0.12 \\ & \hline \end{aligned}$ | $\begin{array}{r} \hline 50.2 \\ 18.4 \\ 9.1 \end{array}$ | $\begin{aligned} & \hline \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~A} \end{aligned}$ |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound Southbound Eastbound Westbound | $\begin{aligned} & \hline \text { LTR } \\ & \text { LTR } \\ & \text { LTR } \\ & \text { LTR } \\ & \hline \end{aligned}$ | 0.06 <br> 0.01 <br> 0.01 <br> 0.01 | $\begin{array}{r} 15.0 \\ 9.9 \\ 7.9 \\ 9.5 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{~A} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.07 \\ & 0.01 \\ & 0.01 \\ & 0.02 \\ & \hline \end{aligned}$ | $\begin{array}{r} 17.5 \\ 10.3 \\ 8.1 \\ 10.2 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & \hline 0.08 \\ & 0.06 \\ & 0.00 \\ & 0.01 \\ & \hline \end{aligned}$ | $\begin{array}{r} 23.3 \\ 15.4 \\ 8.5 \\ 8.7 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{C} \\ & \mathrm{~A} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.11 \\ & 0.07 \\ & 0.01 \\ & 0.01 \\ & \hline \end{aligned}$ | $\begin{array}{r} 30.0 \\ 17.4 \\ 8.7 \\ 9.2 \end{array}$ | $\begin{aligned} & \mathrm{D} \\ & \mathrm{C} \\ & \mathrm{~A} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ |

Notes:
$\mathrm{L}=$ Left Turn, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn; LOS = Level of Service.
| Under these 2008 FNB conditions ("Pure No Build"), there would be several intersections that would experience a degradation in their overall LOS compared to existing conditions - the overall LOS would fall one or more levels (e.g., the existing LOS would drop from LOS B to 2008 FNB LOS C). However, not all of these degradations would result in unacceptable service conditions. There would be eight signalized intersections that would experience a degradation in their overall LOS compared to existing conditions, during the AM and/or PM peak hours. There would be one signalized intersection (Saw Mill River Road/Tarrytown-White Plains Road) that would experience an improvement in its overall level of service during the PM peak hour, compared with existing conditions (this improvement in LOS would occur as a result of a traffic mitigation measure instituted for another project, as described above). Under 2008 FNB conditions, there would also be 10 unsignalized intersections that would have approaches or lane groups that would experience a degradation in level of service during the AM and/or PM peak hours.

Of the eight signalized intersections that would experience degradations in their overall LOS, only three intersections would experience notable degradations (the LOS would drop to midLOS D, or worse) in their overall level of service during the AM and/or PM peak hours. These locations are as follows:

- The intersection of Grasslands Road (Route 100C) and Bradhurst Avenue, where level of service would drop from below mid-LOS D (existing conditions) to above mid-LOS D ( 2008 FNB conditions) during the AM peak hour, and drop from LOS D (existing conditions) to LOS E (2008 FNB conditions) during the PM peak hour.
- The intersection of Grasslands Road (Route 100C) and Clearbrook Road/Walker Road (Bee-Line Boulevard), where the level of service would drop from LOS B (existing conditions) to LOS D (2008 FNB conditions) during the PM peak hour.
- The intersection of Virginia Road and the Bronx River Parkway, where the level of service would drop from LOS D (existing conditions) to LOS E (2008 FNB conditions) during the PM peak hour.

Of the 10 unsignalized intersections that would have approach movements that would experience degradations in their LOS, eight intersections would have approach movements that would experience notable degradations (the LOS would drop to mid-LOS D, or worse), during the AM and/or PM peak hours. As shown in Table 4.9-4, these include the following intersections:

- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue North during the AM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue South during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and the Ramada Inn/Broadway Plaza during the AM and PM peak hours.
- The intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100) and Virginia Road during the PM peak hour.
- The intersection of Grasslands Road (Route 100) and Legion Drive during the PM peak hour.
- The intersection of Grasslands Road (Route 100) and the WCC Campus West Gate during the PM peak hour.
- The intersection of Old Saw Mill River Road and the Landmark at Eastview East Driveway during the PM peak hour.


## 2010 FNB Traffic Conditions ("Pure No Build").

A comparison of the HCM analysis results for existing conditions versus the 2010 FNB conditions are presented in Table 4.9-5, for the signalized and unsignalized intersections examined in the study area. In the 2010 FNB analysis year, there are five signalized intersections that would experience unacceptable overall LOS conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.9-5. These signalized intersections are as follows:

## $\underline{\text { Signalized Intersections With Unacceptable Overall LOS. }}$

- Saw Mill River Road (Route 9A) and Saw Mill River Parkway Ramps (PM peak hour)
- Grasslands Road (Route 100C) and Bradhurst Avenue (Route 100) (AM and PM peak hours)
- Grasslands Road (Route 100C) and Clearbrook Road/Walker Road (PM peak hour)
- Grasslands Road (Route 100C) and Sprain Brook Parkway Northbound Ramp (AM and PM peak hours)
- Virginia Road and Bronx River Parkway (AM and PM peak hours)

These signalized locations are all projected to be operating unacceptably at overall LOS above mid-LOS D (overall intersection delays of greater than 45.0 seconds), with some movements operating particularly poorly in the LOS F range. Measures or modifications to improve or optimize the traffic processing capabilities of these intersections (e.g., signal timing or phasing changes, or lane utilization modifications) could be investigated by the appropriate agency responsible for maintaining the traffic signals at these locations, to improve operations.
| In addition, there are nine unsignalized intersections in the 2010 FNB analysis year that would have approaches or lane groups that would experience unacceptable level of service conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.9-5. These unsignalized intersections are as follows:

## Unsignalized Intersections Having Approaches With Unacceptable LOS.

- Saw Mill River Road (Route 9A) and Beverly Road (PM peak hour)
- Saw Mill River Road (Route 9A) and Stevens Avenue North (AM peak hour)
- Saw Mill River Road (Route 9A) and Stevens Avenue South (PM peak hour)
- Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza (AM and PM peak hours)
- Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) (AM and PM peak hours)
- Grasslands Road (Route 100) and Virginia Road (PM peak hour)
- Grasslands Road (Route 100) and Legion Drive (AM and PM peak hours)
- Grasslands Road (Route 100)and WCC Campus West Gate (PM peak hour)
- Old Saw Mill River Road at the Landmark at Eastview East Driveway (PM peak hour)

These unsignalized intersections all have lane groups or approach movements that are projected to be operating above mid-LOS D (with delays in excess of 30.0 seconds), with some movements operating particularly poorly in the LOS F range. The agencies responsible for these roadways could potentially improve the operation of these locations, by investigating the installation of traffic signals at these intersections, accompanied by signal warrant studies, as appropriate.

Under 2010 FNB conditions, there would be 11 signalized intersections that would experience a degradation in their overall LOS from existing conditions during the AM and/or PM peak hours. Under 2010 FNB conditions, there would also be 11 unsignalized intersections that would have approaches that would experience a degradation in level of service during the AM and/or PM peak hours.

Of the 11 signalized intersections that would experience degradations in their overall LOS, only 4 intersections would experience notable degradations (the LOS would drop to mid-LOS D, or worse) in their overall level of service during the AM and/or PM peak hours. These locations are as follows:

- The intersection of Grasslands Road (Route 100C) and Bradhurst Avenue (Route 100), where the level of service would drop from below mid-LOS D (existing conditions) to above mid-LOS D ( 2010 FNB conditions) during the AM peak hour, and drop from LOS D (existing conditions) to LOS E (2010 FNB conditions) during the PM peak hour.
- The intersection of Grasslands Road (Route 100C) and the Clearbrook Road/Walker Road, where the level of service would drop from LOS B (existing conditions) to past mid-LOS D (2010 FNB conditions) during the PM peak hour.
- The intersection of Grasslands Road (Route 100C) and the Sprain Brook Parkway Northbound Ramps, where the level of service would drop from LOS C (existing conditions) to past mid-LOS D (2010 FNB conditions) during both the AM and PM peak hours.
- The intersection of Virginia Road and the Bronx River Parkway, where the level of service would drop from LOS D (existing conditions) to LOS E (2010 FNB conditions) during both the AM and PM peak hours.

TABLE 4.9-5. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2010 PURE NO BUILD CONDITIONS


TABLE 4.9-5. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2010 PURE NO BUILD CONDITIONS

| Intersection | No. | Approach | AM Peak Hour |  |  |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | 2002/03/04 Existing |  |  |  | 2010 Pure No Build |  |  |  | 2002/03/04 Existing |  |  |  | 2010 Pure No Build |  |  |  |
|  |  |  | $\begin{aligned} & \hline \text { Lane } \\ & \text { Group } \end{aligned}$ | $\begin{gathered} \text { v/c } \\ \text { Ratio } \end{gathered}$ | $\begin{array}{\|c} \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{array}$ | LOS | Lane Group | v/c Ratio | $\begin{array}{\|c} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Group } \end{array}$ | v/c <br> Ratio | $\begin{array}{\|c} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Group } \end{array}$ | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS |
| Old Saw Mill River Road @ Saw Mill River Pkwy SB Off Ramp | 21 | Eastbound | LT | 0.77 | 20.8 | C | LT | 0.92 | 34.2 | C | LT | 0.73 | 19.4 | B | LT | 1.10 | 92.7 | F |
|  |  | Westbound | TR | 0.20 | 4.2 | A | TR | 0.25 | 4.8 | A | TR | 0.29 | 4.6 | A | TR | 0.50 | 9.8 | A |
|  |  | Southbound | LR | 0.58 | 33.0 | C | L | 0.70 | 37.9 | D | LR | 0.56 | 32.5 | C | L | 0.29 | 23.2 | C |
|  |  |  |  |  |  |  | LR | 0.17 | 28.3 | C |  |  |  |  | LR | 0.22 | 22.6 | C |
|  |  | Intersection |  |  | 16.7 | B |  |  | 24.1 | C |  |  | 14.1 | B |  |  | 40.8 | D |
| Old Saw Mill River Road @ Saw Mill River Pkwy NB Off Ramp | 22 | Eastbound | T | 0.40 | 16.7 | B | T | 0.50 | 17.7 | B | T | 0.34 | 12.7 | B | T | 0.42 | 13.4 | B |
|  |  | Westbound | T | 0.17 | 7.6 | A | T | 0.21 | 7.8 | A | T | 0.23 | 4.0 | A | T | 0.33 | 4.4 | A |
|  |  | Northbound | L | 0.06 | 21.4 | C | LR | 0.54 | 26.1 | C | L | 0.29 | 30.0 | C | LR | 0.48 | 31.8 | C |
|  |  |  | R | 0.66 | 29.7 | C | R | 0.51 | 25.5 | C | R | 0.45 | 31.6 | C | R | 0.46 | 31.7 | C |
|  |  | Intersection |  |  | 17.1 | B |  |  | 17.3 | B |  |  | 11.8 | B |  |  | 11.9 | B |
| Grassland Road (Rt.100C) @ Clearbrook Road/Walker Road | 24 | Eastbound <br> Westbound <br> Northbound Southbound | L | 0.01 | 2.6 | A | L | 0.16 | 3.1 | A | L | 0.03 | 9.1 | A | L | 0.16 | 10.3 | B |
|  |  |  | TR | 0.33 | 3.6 | A | TR | 0.38 | 3.8 | A | TR | 0.61 | 14.3 | B | TR | 0.75 | 17.9 | B |
|  |  |  | L | 0.32 | 3.7 | A | L | 0.39 | 4.1 | A | L | 0.82 | 34.3 | C | L | * | ** | F |
|  |  |  | TR | 0.34 | 3.6 | A | TR | 0.40 | 3.9 | A | TR | 0.60 | 14.2 | B | TR | 0.72 | 17.2 | B |
|  |  |  | LT | 0.20 | 33.6 | C | LT | 0.22 | 33.8 | C | LT | 0.18 | 19.8 | B | LT | 0.21 | 20.1 | C |
|  |  |  | LT | 0.19 | 33.7 | C | LT | 0.21 | 33.8 | C | LT | 0.21 | 20.1 | C | LT | 0.24 | 20.4 | C |
|  |  |  | R | 0.00 | 32.2 | C | R | 0.08 | 32.7 | C | R | 0.01 | 18.5 | B | R | 0.19 | 19.9 | B |
|  |  | Intersection |  |  | 5.2 | A |  |  | 5.5 | A |  |  | 17.4 | B |  |  | 50.5 | D |
| Grassland Road (Rt.100C) @ Woods Drive/Taylor Road | 25 | Eastbound <br> Westbound <br> Northbound Southbound | L | 0.24 | 6.5 | A | L | 0.30 | 7.9 | A | L | 0.25 | 11.7 | B | L | 0.35 | 14.5 | B |
|  |  |  | TR | 0.23 | 5.1 | A | TR | 0.27 | 5.3 | A | TR | 0.48 | 11.4 | B | TR | 0.58 | 12.7 | B |
|  |  |  | L | 0.00 | 9.3 | A | L | 0.00 | 9.3 | A | L | 0.00 | 12.5 | B | L | 0.01 | 12.6 | B |
|  |  |  | TR | 0.50 | 13.1 | B | TR | 0.59 | 14.4 | B | TR | 0.63 | 19.1 | B | TR | 0.75 | 21.9 | C |
|  |  |  | LTR | 0.01 | 32.9 | C | LTR | 0.01 | 32.9 | C | LTR | 0.01 | 24.6 | C | LTR | 0.01 | 24.6 | C |
|  |  |  | LT | 0.50 | 37.9 | D | LT | 0.56 | 39.7 | D | LT | 0.72 | 37.0 | D | LT | 0.81 | 43.5 | D |
|  |  |  | R | 0.08 | 21.1 | C | R | 0.09 | 21.2 | C | R | 0.10 | 17.1 | B | R | 0.12 | 17.2 | B |
|  |  | Intersection |  |  | 12.1 | B |  |  | 13.0 | B |  |  | 17.8 | B |  |  | 20.2 | C |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy SB Ramp | 26 | Eastbound | TR | 0.24 | 7.3 | A | TR | 0.28 | 7.6 | A | TR | 0.57 | 10.1 | B | TR | 0.69 | 12.0 | B |
|  |  | Westbound | T | 0.28 | 7.6 | A | T | 0.33 | 7.9 | A | T | 0.46 | 8.9 | A | T | 0.54 | 9.7 | A |
|  |  | Southbound | L | 0.50 | 33.0 | C | L | 0.56 | 34.4 | C | L | 0.16 | 29.5 | C | L | 0.18 | 29.7 | C |
|  |  |  | R | 0.27 | 30.6 | C | R | 0.34 | 31.2 | C | R | 0.10 | 29.0 | C | R | 0.13 | 29.2 | C |
|  |  | Intersection |  |  | 12.8 | B |  |  | 13.2 | B |  |  | 10.4 | B |  |  | 11.8 | B |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy NB Ramp | $\begin{aligned} & 27 \\ & 30 \end{aligned}$ | Eastbound <br> Westbound Northbound | L | 0.06 | 14.4 | B | L | 0.09 | 14.8 | B | L | 0.43 | 14.4 | B | L | 0.51 | 15.6 | B |
|  |  |  | T | 0.45 | 17.4 | B | T | 0.51 | 18.2 | B | T | 0.28 | 8.7 | A | T | 0.33 | 9.0 | A |
|  |  |  | TR | 0.42 | 24.0 | C | TR | 0.48 | 24.8 | C | TR | 0.95 | 39.6 | D | TR | 1.09 | 79.6 | E |
|  |  |  | LT | 0.88 | 43.7 | D | LT | 1.03 | 76.4 | E | LT | 0.58 | 26.1 | C | LT | 0.71 | 30.2 | C |
|  |  |  | R | 0.92 | 50.6 | D | R | 1.05 | 84.7 | F | R | 0.32 | 22.8 | C | R | 0.37 | 23.2 | C |
|  |  | Intersection |  |  | 32.3 | C |  |  | 48.2 | D |  |  | 27.9 | C |  |  | 48.7 | D |
| Virginia Road @ Bronx River Pkwy | 31 | Eastbound <br> Westbound Northbound <br> Southbound | LT | 1.03 | 98.9 | F | LT | 1.17 | 145.3 | F | LT | 1.05 | 103.3 | F | LT | 1.21 | 162.4 | F |
|  |  |  | R | 0.20 | 19.5 | B | R | 0.22 | 19.7 | B | R | 0.36 | 34.2 | C | R | 0.41 | 34.8 | C |
|  |  |  | LTR | 0.36 | 34.2 | C | LTR | 0.43 | 35.1 | D | LTR | 1.05 | 107.4 | F | LTR | 1.40 | ** | F |
|  |  |  | L | 0.04 | 46.2 | D | L | 0.06 | 46.4 | D | L | 0.04 | 10.5 | B | L | 0.06 | 11.1 | B |
|  |  |  | TR | 0.25 | 19.9 | B | TR | 0.27 | 20.2 | C | TR | 0.58 | 24.6 | C | TR | 0.64 | 25.8 | C |
|  |  |  | L | 1.04 | 121.7 | F | L | 1.14 | 153.1 | F | L | 0.12 | 11.2 | B | L | 0.14 | 12.0 | B |
|  |  |  | T | 0.66 | 26.3 | C | T | 0.72 | 27.9 | C | T | 0.55 | 24.0 | C | T | 0.61 | 25.1 | C |
|  |  | Intersection |  |  | 46.9 | D |  |  | 58.3 | E |  |  | 46.1 | D |  |  | 72.6 | E |
| Grassland Road (Rt.100) @ WCC East Gate | 34 | Eastbound | T | 0.38 | 7.5 | A | T | 0.42 | 7.8 | A | T | 0.66 | 15.0 | B | T | 0.75 | 17.9 | B |
|  |  | Westbound | L | 0.23 | 4.8 | A | L | 0.27 | 5.3 | A | L | 0.19 | 10.3 | B | L | 0.22 | 11.6 | B |
|  |  |  | T | 0.22 | 3.1 | A | T | 0.25 | 3.2 | A | T | 0.53 | 7.4 | A | T | 0.59 | 8.2 | A |
|  |  | Northbound | L | 0.06 | 45.7 | D | L | 0.07 | 45.8 | D | L | 0.58 | 29.5 | C | L | 0.64 | 31.3 | C |
|  |  | Intersection |  |  | 6.1 | A |  |  | 6.4 | A |  |  | 13.5 | B |  |  | 15.2 | B |
| Old Saw Mill River Road @ Landmark West Driveway | 46 | Eastbound | LTR | 0.63 | 6.6 | A | LTR | 0.81 | 11.1 | B | LTR | 0.48 | 5.2 | A | LTR | 0.60 | 6.4 | A |
|  |  | Westbound | LTR | 0.22 | 4.0 | A | LTR | 0.27 | 4.2 | A | LTR | 0.39 | 4.7 | A | LTR | 0.51 | 5.4 | A |
|  |  | Northbound | LTR | 0.02 | 21.0 | C | LTR | 0.02 | 21.0 | C | LTR | 0.07 | 21.2 | C | LTR | 0.08 | 21.2 | C |
|  |  | Southbound | LTR | 0.04 | 21.0 | C | LTR | 0.04 | 21.1 | C | LTR | 0.03 | 21.0 | C | LTR | 0.03 | 21.0 | C |
|  |  | Intersection |  |  | 6.1 | A |  |  | 9.5 | A |  |  | 5.3 | A |  |  | 6.2 | A |

Notes:
L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.9-5. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2010 PURE NO BUILD CONDITIONS

| Intersection <br> Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2002/03/04 Existing |  |  | 2010 Pure No Build |  |  | 2002/03/04 Existing |  |  | 2010 Pure No Build |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | v/c <br> Ratio | $\begin{array}{\|c} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS |
|  | 1 | Westbound | LT | 0.10 | 10.2 | B | 0.12 | 10.8 | B | 0.17 | 9.2 | A | 0.20 | 9.6 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ | 2 | Northboun | LT | 0.01 | 9.8 | A | 0.01 | 10.4 | B | 0.02 | 11.9 | B | 0.03 | 13.3 | B |
| Beverly Road |  | Eastbound | LR | 0.05 | 18.2 | C | 0.07 | 21.9 | C | 0.03 | 22.8 | C | 0.06 | 31.5 | D |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3N | Northbound | LT | 0.02 | 10.3 | B | 0.02 | 11.0 | B | 0.01 | 9.3 | A | 0.01 | 9.9 | A |
|  |  | Southbound | LT | 0.03 | 8.9 | A | 0.03 | 9.2 | A | 0.02 | 9.8 | A | 0.02 | 10.6 | B |
|  |  | Eastbound | LTR | 0.02 | 27.5 | D | 0.03 | 37.1 | E | 0.09 | 18.6 | C | 0.14 | 25.2 | D |
|  |  | Westbound | LTR | 0.03 | 15.5 | C | 0.04 | 17.1 | C | 0.05 | 13.9 | B | 0.08 | 16.1 | C |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue South | 3S | Southbound | LT | 0.00 | 8.5 | A | 0.00 | 8.8 | A | 0.00 | 9.8 | A | 0.00 | 10.5 | B |
|  |  | Westbound | LR | 0.03 | 18.6 | C | 0.04 | 22.6 | C | 0.10 | 25.2 | D | 0.16 | 36.2 | E |
| Bradhurst Avenue (Rt. 100) @ Lakeview Avenue | 5 | Southbound | LT | 0.02 | 8.1 | A | 0.02 | 8.3 | A | 0.01 | 8.0 | A | 0.01 | 8.1 | A |
|  |  | Westbound | LR | 0.22 | 14.0 | B | 0.28 | 15.8 | C | 0.38 | 16.4 | C | 0.48 | 20.2 | C |
| Knollwood Road (Rt.100A) @ Hevelyne Road | 7 | Northbound | LT | 0.01 | 8.2 | A | 0.01 | 8.3 | A | 0.00 | 7.9 | A | 0.00 | 8.0 | A |
|  |  | Eastbound | LR | 0.03 | 12.5 | B | 0.04 | 13.4 | B | 0.01 | 10.5 | B | 0.01 | 10.9 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound | L | 0.07 | 9.5 | A | 0.10 | 10.2 | B | 0.12 | 9.6 | A | 0.17 | 10.8 | B |
|  |  | Southbound | LT | 0.01 | 8.5 | A | 0.01 | 9.0 | A | 0.01 | 9.0 | A | 0.01 | 9.6 | A |
|  |  | Eastbound | L | 0.01 | 25.7 | D | 0.02 | 36.0 | E | 0.01 | 35.5 | E | 0.01 | 59.5 | F |
|  |  |  | T | 0.01 | 29.2 | D | 0.02 | 42.9 | E | 0.05 | 53.6 | F | 0.12 | 102.0 | F |
|  |  | Westbound | LT | 0.07 | 26.0 | D | 0.12 | 38.9 | E | 0.07 | 39.3 | E | 0.14 | 69.1 | F |
|  |  |  | TR | 0.01 | 10.3 | B | 0.01 | 10.9 | B | 0.02 | 14.9 | B | 0.03 | 18.7 | C |
| Dana Road @ Walker Road | 18 | Northbound | LR | 0.08 | 10.4 | B | 0.23 | 12.1 | B | 0.04 | 10.3 | B | 0.09 | 11.7 | B |
|  |  | Westbound | LT | 0.00 | 8.2 | A | 0.02 | 8.7 | A | 0.01 | 7.7 | A | 0.11 | 8.1 | A |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound | L | 0.56 | 47.4 | E | 1.00 | 152.7 | F | 0.67 | 61.2 | F | 1.31 | ** | F |
|  |  |  | R | 0.14 | 14.6 | B | 0.24 | 18.6 | C | 0.13 | 12.5 | B | 0.30 | 16.5 | C |
|  |  | Westbound | L | 0.12 | 10.7 | B | 0.17 | 12.2 | B | 0.14 | 10.2 | B | 0.19 | 11.6 | B |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | LT | 0.04 | 21.4 | C | 0.07 | 29.2 | D | 0.03 | 18.5 | C | 0.06 | 28.8 | D |
|  |  |  | TR | 0.06 | 12.9 | B | 0.08 | 15.1 | C | 0.13 | 12.5 | B | 0.18 | 14.7 | B |
|  |  |  | L | 0.16 | 9.5 | A | 0.22 | 10.3 | B | 0.09 | 9.5 | A | 0.19 | 11.3 | B |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound | LT | 0.21 | 8.2 | A | 0.24 | 8.4 | A | 0.33 | 9.9 | A | 0.39 | 10.6 | B |
|  |  | Westbound | LR | 0.49 | 15.0 | B | 0.58 | 17.8 | C | 1.04 | 84.6 | F | 1.35 | 203.0 | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound | L | 0.36 | 25.5 | D | 0.46 | 32.9 | D | 1.04 | 123.1 | F | 1.42 | ** | F |
|  |  |  | R | 0.18 | 11.7 | B | 0.21 | 12.4 | B | 0.41 | 17.4 | C | 0.49 | 20.9 | C |
|  |  | Eastbound | LT | 0.06 | 8.4 | A | 0.07 | 8.6 | A | 0.21 | 10.3 | B | 0.25 | 10.9 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound | L | 0.05 | 19.0 | C | 0.06 | 21.4 | C | 0.21 | 40.5 | E | 0.31 | 57.9 | F |
|  |  |  | R | 0.01 | 13.1 | B | 0.01 | 13.9 | B | 0.44 | 16.4 | C | 0.53 | 19.9 | C |
|  |  | Westbound | LT | 0.00 | 9.7 | A | 0.00 | 10.1 | B | 0.11 | 8.9 | A | 0.13 | 9.2 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.06 | 15.0 | B | 0.09 | 19.6 | C | 0.08 | 23.3 | C | 0.13 | 37.7 | E |
|  |  | Southbound | LTR | 0.01 | 9.9 | A | 0.01 | 10.5 | B | 0.06 | 15.4 | C | 0.09 | 20.5 | C |
|  |  | Eastbound | LTR | 0.01 | 7.9 | A | 0.01 | 8.1 | A | 0.00 | 8.5 | A | 0.01 | 9.0 | A |
|  |  | Westbound | LTR | 0.01 | 9.5 | A | 0.02 | 10.7 | B | 0.01 | 8.7 | A | 0.01 | 9.3 | A |

Notes:
L = Left Turn, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn; LOS = Level of Service.
" * " indicates a v/c ratio greater than 1.50 ; " ** " indicates a calculated delay greater than 240 seconds.

Of the 11 unsignalized intersections that would have approach movements that would experience degradations in their LOS, 9 intersections would have approach movements that would experience notable degradations (the LOS would drop to mid-LOS D, or worse), during the AM and/or PM peak hours. As shown in Table 4.9-5, these include the following intersections:

- The intersection of Saw Mill River Road (Route 9A) and Beverly Road during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue North during the AM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue South during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza during the AM and PM peak hours.
- The intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100) and Virginia Road during the PM peak hour.
- The intersection of Grasslands Road (Route 100) and Legion Drive during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100C) and the WCC Campus West Gate during the PM peak hour.
- The intersection of Old Saw Mill River Road and the Landmark at Eastview East Driveway during the PM peak hour.


### 4.9.2.2.2. With Croton Project at Eastview Site

The traffic volumes resulting from the completion and operation of the four proposed No Build site developments (as described above), the No Build background growth, and the Croton project, would collectively be anticipated to increase traffic congestion in the project area for both 2008 FNB and 2010 FNB conditions.

For the 2008 FNB conditions which include the Croton project under construction, different construction worker parking Options are considered. This is because if both the Croton project and the proposed UV Facility were to be under construction at the Eastview Site at the same time, there would not be enough space on-site for all of the workers for both projects to park, as most of the available land area would be under construction. (While sufficient space for construction worker parking would be available on-site if only the Croton project or the UV Facility were to be built alone, the FNB conditions described in this section allow for an assessment of the incremental impact associated with the UV Facility's construction.) These construction worker parking Options have been selected for analysis purposes, as representative of the types of routings that worker vehicles would use for off-site parking. Each of the four construction worker parking Options also includes an additional assignment for shuttle buses that would transport the workers between the Eastview Site and the parking areas. These four construction worker parking options are described below:

- Option $A / D$ : All of the construction workers for the Croton project would park at the Landmark at Eastview, west of the project site, and would be shuttled to the construction site in buses or vans. Figure 4.9-9 illustrates the portion of the route that is unique to this parking Option, and the intersections that would be affected by instituting Option A. Parking Option D is identical to Option A for 2008 FNB Conditions; the only difference between these Options occurring for 2008 Construction Option D Conditions, where the UV Facility workers would park at the new Home Depot being constructed off Dana Road. Figure 4.9-10 illustrates the portion of the route that is unique to this parking Option, and the intersections that would be affected by instituting Option D.
- Option B: All of the construction workers for the Croton project would park at the Westchester Community College (WCC) Campus, east of the project site, and would be shuttled to the construction site in buses or vans. Figure 4.9-11 illustrates the portion of the route that is unique to this parking Option, and the intersections that would be affected by instituting Option B.
- Option C: Parking for all of the construction workers for the Croton project would be split evenly between the Landmark at Eastview and WCC, and would be shuttled to the construction site in buses or vans. Figure 4.9-12 illustrates the portion of the route that is unique to this parking Option, and the intersections that would be affected by instituting Option C.

The following discussions describe the anticipated 2008 FNB conditions (under each of the construction worker parking Options), as well as the anticipated 2010 FNB conditions with the traffic from the No Build projects, background growth, and the Croton WTP, all added to the existing traffic at the study area's signalized and unsignalized intersections under examination in this study.

## 2008 FNB Option A/D Traffic Conditions.

Figures 4.9-13 and 4.9-14 show the turning movement volumes anticipated for the study intersections under 2008 FNB Option A/D conditions for the AM and PM peak hours, respectively. Table 4.9-6 presents a comparison of the results of the HCM analyses between existing conditions and 2008 FNB Option A/D conditions, for the signalized and unsignalized intersections examined in the study area. In the 2008 FNB Option A/D analyses, there are four signalized intersections that would experience unacceptable overall LOS conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.9-6. These signalized intersections are as follows:

## Signalized Intersections With Unacceptable Overall LOS.

- Grasslands Road (Route 100C) and Bradhurst Avenue (Route 100) (AM and PM peak hours)
- Grasslands Road (Route 100C) and Clearbrook Road/Walker Road (PM peak hour)
- Grasslands Road (Route 100C) and Sprain Brook Parkway Northbound Ramp (AM peak hour)


Construction Worker Off-Site Parking
Option A: at The Landmark at Eastview

Figure 4.9-9



Construction Worker Off-Site Parking Option B: at Westchester Community College


Construction Worker Off-Site Parking Option C: at The Landmark at Eastview and Westchester Community College

- Virginia Road and Bronx River Parkway (AM and PM peak hours)

These signalized locations are all projected to be operating unacceptably at overall LOS above mid-LOS D (overall intersection delays of greater than 45.0 seconds), with some movements operating particularly poorly in the LOS F range. Measures or modifications to improve or optimize the traffic processing capabilities of these intersections (e.g., signal timing or phasing changes, or lane utilization modifications) could be investigated by the appropriate agency responsible for maintaining the traffic signals at these locations, to improve operations.

In addition, there are 10 unsignalized intersections in the 2008 FNB Option A/D analyses that would have approaches or lane groups that would experience unacceptable level of service conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.96. These unsignalized intersections are as follows:

## Unsignalized Intersections Having Approaches With Unacceptable LOS.

- Saw Mill River Road (Route 9A) and Beverly Road (PM peak hour)
- Saw Mill River Road (Route 9A) and Stevens Avenue North (AM peak hour)
- Saw Mill River Road (Route 9A) and Stevens Avenue South (PM peak hour)
- Saw Mill River Road (Route 9A)and Ramada Inn/Broadway Plaza (AM and PM peak hours)
- Grasslands Road (Route 100C) and Saw Mill River Road (AM and PM peak hours)
- Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) Northbound Ramp (AM and PM peak hours)
- Grasslands Road (Route 100) and Virginia Road (PM peak hour)
- Grasslands Road (Route 100) and Legion Drive (AM and PM peak hours)
- Grasslands Road (Route 100)and WCC Campus West Gate (PM peak hour)
- Old Saw Mill River Road and the Landmark at Eastview East Driveway (AM and PM peak hours)

These unsignalized intersections all have lane groups or approach movements that are projected to be operating above mid-LOS D (with delays in excess of 30.0 seconds), with some movements operating particularly poorly in the LOS F range. The agencies responsible for these roadways could potentially improve the operation of these locations, by investigating the installation of traffic signals at these intersections, accompanied by signal warrant studies, as appropriate.

Under 2008 FNB Option A/D conditions, there would be 10 signalized intersections that would experience a degradation (i.e., the LOS dropping from one level to a worse level) in their overall LOS from existing conditions during the AM and/or PM peak hours. Under 2008 FNB Option A/D conditions, there would also be 11 unsignalized intersections that would have approaches that would experience a degradation in LOS during the AM and/or PM peak hours.

TABLE 4.9-6. WORKER PARKING AT THE LANDMARK LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 NO BUILD (OPTION A/D) CONDITIONS


TABLE 4.9-6. WORKER PARKING AT THE LANDMARK LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 NO BUILD (OPTION A/D) CONDITIONS

$\mathrm{L}=$ Left Turn, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn, Def = Defacto Left Turn; LOS = Level of Service.
$" *$ " indicates a v/c ratio greater than $1.50 ; "$ **" indicates a calculated delay greater than 240 seconds.

TABLE 4.9-6. WORKER PARKING AT THE LANDMARK LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 NO BUILD (OPTION A/D) CONDITIONS

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2002/03/04 Existing |  |  | 2008 No Build |  |  | 2002/03/04 Existing |  |  | 2008 No Build |  |  |
|  |  |  |  | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | $\begin{array}{\|\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | v/c <br> Ratio | $\left.\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}\right)$ | LOS | v/c <br> Ratio | $\begin{gathered} \hline \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{gathered}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.10 | 10.2 | B | 0.12 | 10.7 | B | 0.17 | 9.2 | A | 0.20 | 9.8 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ | 2 | Northbound | LT | 0.01 | 9.8 | A | 0.01 | 10.5 | B | 0.02 | 11.9 | B | 0.03 | 13.2 | B |
| Beverly Road |  | Eastbound | LR | 0.05 | 18.2 | C | 0.07 | 22.1 | C | 0.03 | 22.8 | C | 0.05 | 31.1 | D |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3N | Northbound | LT | 0.02 | 10.3 | B | 0.02 | 11.1 | B | 0.01 | 9.3 | A | 0.01 | 9.8 | A |
|  |  | Southbound | LT | 0.03 | 8.9 | A | 0.03 | 9.3 | A | 0.02 | 9.8 | A | 0.02 | 10.7 | B |
|  |  | Eastbound | LTR | 0.02 | 27.5 | D | 0.03 | 38.0 | E | 0.09 | 18.6 | C | 0.14 | 25.3 | D |
|  |  | Westbound | LTR | 0.03 | 15.5 | C | 0.04 | 17.4 | C | 0.05 | 13.9 | B | 0.08 | 16.4 | C |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue South | 3 S | Southbound | LT | 0.00 | 8.5 | A | 0.00 | 8.8 | A | 0.00 | 9.8 | A | 0.00 | 10.7 | B |
|  |  | Westbound | LR | 0.03 | 18.6 | C | 0.03 | 22.6 | C | 0.10 | 25.2 | D | 0.16 | 36.8 | E |
| Bradhurst Avenue (Rt. 100) @ Lakeview Avenue | 5 | Southbound | LT | 0.02 | 8.1 | A | 0.02 | 8.2 | A | 0.01 | 8.0 | A | 0.01 | 8.1 | A |
|  |  | Westbound | LR | 0.22 | 14.0 | B | 0.26 | 15.1 | C | 0.38 | 16.4 | C | 0.45 | 18.8 | C |
| Knollwood Road (Rt.100A) @ Hevelyne Road | 7 | Northbound | LT | 0.01 | 8.2 | A | 0.01 | 8.3 | A | 0.00 | 7.9 | A | 0.00 | 8.0 | A |
|  |  | Eastbound | LR | 0.03 | 12.5 | B | 0.03 | 13.2 | B | 0.01 | 10.5 | B | 0.01 | 10.9 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound | L | 0.07 | 9.5 | A | 0.16 | 10.5 | B | 0.12 | 9.6 | A | 0.16 | 10.4 | B |
|  |  | Southbound | LT | 0.01 | 8.5 | A | 0.01 | 9.0 | A | 0.01 | 9.0 | A | 0.01 | 9.5 | A |
|  |  | Eastbound | L | 0.01 | 25.7 | D | 0.02 | 43.3 | E | 0.01 | 35.5 | E | 0.01 | 51.8 | F |
|  |  |  | T | 0.01 | 29.2 | D | 0.03 | 51.8 | F | 0.05 | 53.6 | F | 0.08 | 84.9 | F |
|  |  | Westbound | LT | 0.07 | 26.0 | D | 0.14 | 48.3 | E | 0.07 | 39.3 | E | 0.12 | 60.3 | F |
|  |  |  | TR | 0.01 | 10.3 | B | 0.01 | 10.9 | B | 0.02 | 14.9 | B | 0.03 | 17.5 | C |
| Dana Road @ Walker Road | 18 | Northbound | LR | 0.08 | 10.4 | B | 0.17 | 11.3 | B | 0.04 | 10.3 | B | 0.09 | 11.3 | B |
|  |  | Westbound | LT | 0.00 | 8.2 | A | 0.00 | 8.4 | A | 0.01 | 7.7 | A | 0.01 | 7.8 | A |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound <br> Westbound | L | 0.56 | 47.4 | E | * | ** | F | 0.67 | 61.2 | F | ${ }^{*}$ | ** | F |
|  |  |  | R | 0.14 | 14.6 | B | 0.22 | 17.2 | C | 0.13 | 12.5 | B | 0.48 | 29.8 | D |
|  |  |  | L | 0.12 | 10.7 | B | 0.15 | 11.7 | B | 0.14 | 10.2 | B | 0.28 | 16.5 | C |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | LT | 0.04 | 21.4 | C | 0.60 | 73.7 | F | 0.03 | 18.5 | C | 0.10 | 39.6 | E |
|  |  |  | TR | 0.06 | 12.9 | B | 0.07 | 14.3 | B | 0.13 | 12.5 | B | 0.26 | 21.2 | C |
|  |  |  | L | 0.16 | 9.5 | A | 0.29 | 12.9 | B | 0.09 | 9.5 | A | 0.24 | 11.2 | B |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound | LT | 0.21 | 8.2 | A | 0.23 | 8.4 | A | 0.33 | 9.9 | A | 0.37 | 10.4 | B |
|  |  | Westbound | LR | 0.49 | 15.0 | B | 0.56 | 16.9 | C | 1.04 | 84.6 | F | 1.25 | 162.4 | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound | L | 0.36 | 25.5 | D | 0.43 | 30.6 | D | 1.04 | 123.1 | F | 1.29 | 220.5 | F |
|  |  |  | R | 0.18 | 11.7 | B | 0.20 | 12.3 | B | 0.41 | 17.4 | C | 0.47 | 19.7 | C |
|  |  | Eastbound | LT | 0.06 | 8.4 | A | 0.07 | 8.6 | A | 0.21 | 10.3 | B | 0.24 | 10.7 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound | L | 0.05 | 19.0 | C | 0.06 | 20.8 | C | 0.21 | 40.5 | E | 0.27 | 51.3 | F |
|  |  |  | R | 0.01 | 13.1 | B | 0.01 | 13.7 | B | 0.44 | 16.4 | C | 0.50 | 18.9 | C |
|  |  | Westbound | LT | 0.00 | 9.7 | A | 0.00 | 9.9 | A | 0.11 | 8.9 | A | 0.12 | 9.2 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.06 | 15.0 | B | 0.16 | 18.7 | C | 0.08 | 23.3 | C | 0.69 | 33.7 | D |
|  |  | Southbound | LTR | 0.01 | 9.9 | A | 0.96 | ** | F | 0.06 | 15.4 | C | * |  | F |
|  |  | Eastbound | LTR | 0.01 | 7.9 | A | 0.02 | 8.7 | A | 0.00 | 8.5 | A | 0.01 | 8.7 | A |
|  |  | Westbound | LTR | 0.01 | 9.5 | A | 0.34 | 12.7 | B | 0.01 | 8.7 | A | 0.04 | 9.3 | A |

Notes:
L = Left Turn, $\mathrm{T}=$ Through, R = Right Turn; LOS = Level of Service.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

Of the 10 signalized intersections that would experience degradations in their overall LOS, only 4 intersections would experience notable degradations (the LOS would drop to mid-LOS D, or worse) in their overall level of service during the AM and/or PM peak hours. These locations are as follows:

- The intersection of Grasslands Road (Route 100C) and Bradhurst Avenue where level of service would drop from below mid-LOS D (existing conditions) to above mid-LOS D ( 2008 FNB Option A/D conditions) during the AM peak hour, and drop from LOS D (existing conditions) to LOS E (2008 FNB Option A/D conditions) during the PM peak hour.
- The intersection of Grasslands Road (Route 100C) and Clearbrook Road/Walker Road would drop from LOS B (existing conditions) to LOS F (2008 FNB Option A/D conditions) during the PM peak hour.
- The intersection of Grasslands Road (Route 100C) and the Sprain Brook Parkway Northbound Ramp would drop from LOS C (existing conditions) to LOS F (2008 FNB Option A/D conditions) during the AM peak hour.
- The intersection of Virginia Road and the Bronx River Parkway would continue above mid-LOS D with a substantial increase in delay (from existing to 2008 FNB Option A/D conditions) during the AM peak hour, and would drop from LOS D (existing conditions) to LOS E (2008 FNB Option A/D conditions) during the PM peak hour.

Of the 11 unsignalized intersections that would have approach movements that would experience degradations in their LOS, 10 would have approach movements that would experience notable degradations (the LOS would drop to mid-LOS D, or worse), during the AM and/or PM peak hours. As shown in Table 4.9-6, these include the following intersections:

- The intersection of Saw Mill River Road (Route 9A) and Beverly Road during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue North during the AM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue South during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and the Ramada Inn/Broadway Plaza during the AM and PM peak hours.
- The intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100C) and the Saw Mill River Road (Route 9A) Northbound Ramps during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100) and Virginia Road during the PM peak hour.
- The intersection of Grasslands Road (Route 100) and Legion Drive during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100) and the WCC Campus West Gate during the PM peak hour.
- The intersection of Old Saw Mill River Road and the Landmark at Eastview East Driveway during the AM and PM peak hours.


## 2008 FNB Option B Traffic Conditions.

Figures 4.9-15 and 4.9-16 show the turning movement volumes anticipated for the study intersections under 2008 FNB Option B conditions. Table 4.9-7 presents a comparison of the results of the HCM analyses between existing conditions and 2008 FNB Option B conditions, for the signalized and unsignalized intersections examined in the study area. In the 2008 FNB Option B analyses, there are five signalized intersections that would experience unacceptable overall LOS conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.9-7. These signalized intersections are as follows:

## Signalized Intersections With Unacceptable Overall LOS.

- Grasslands Road (Route 100C) and Bradhurst Avenue (AM and PM peak hours)
- Grasslands Road (Route 100C) and Clearbrook Road/Walker Road (PM peak hour)
- Grasslands Road (Route 100C) and Sprain Brook Parkway Northbound Ramp (AM and PM peak hours)
- Virginia Road and Bronx River Parkway (AM and PM peak hours)
- Grasslands Road (Route 100) and the WCC Campus East Gate (PM peak hour)

These signalized locations are all projected to be operating unacceptably at overall LOS above mid-LOS D (overall intersection delays of greater than 45.0 seconds), with some movements operating particularly poorly in the LOS F range. Measures or modifications to improve or optimize the traffic processing capabilities of these intersections (e.g., signal timing or phasing changes, or lane utilization modifications) could be investigated by the appropriate agency responsible for maintaining the traffic signals at these locations, to improve operations.

In addition, there are 10 unsignalized intersections in the 2008 FNB Option B analyses that would have approaches or lane groups that would experience unacceptable level of service conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.97. These unsignalized intersections are as follows:

## Unsignalized Intersections Having Approaches With Unacceptable LOS.

- Saw Mill River Road (Route 9A) and Beverly Road (PM peak hour)
- Saw Mill River Road (Route 9A) and Stevens Avenue North (AM peak hour)
- Saw Mill River Road (Route 9A) and Stevens Avenue South (PM peak hour)
- Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza Entrance (AM and PM peak hours)
- Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) (AM and PM peak hours)
- Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) Northbound Ramp (PM peak hour)
- Grasslands Road (Route 100) and Virginia Road (PM peak hour)
- Grasslands Road (Route 100) and Legion Drive (AM and PM peak hours)
- Grasslands Road (Route 100) and WCC Campus West Gate (AM and PM peak hours)
- Old Saw Mill River Road and the Landmark at Eastview East Driveway (PM peak hour)

These unsignalized intersections all have lane groups or approach movements that are projected to be operating above mid-LOS D (with delays in excess of 30.0 seconds), with some movements operating particularly poorly in the LOS F range. The agencies responsible for these roadways could potentially improve the operation of these locations, by investigating the installation of traffic signals at these intersections, accompanied by signal warrant studies, as appropriate.

Under 2008 FNB Option B conditions, there would be 11 signalized intersections that would experience a degradation (i.e., the LOS dropping from one level to a worse level) in their overall LOS from existing conditions during the AM and/or PM peak hours. Under 2008 FNB Option B conditions, there would also be 11 unsignalized intersections that would have approaches that would experience a degradation in level of service during the AM and/or PM peak hours.

Of the 11 signalized intersections that would experience degradations in their overall LOS, only 5 intersections would experience notable degradations (the LOS would drop to mid-LOS D, or worse) in their overall level of service during the AM and/or PM peak hours. These locations are as follows:

- The intersection of Grasslands Road (Route 100C) and Bradhurst Avenue where level of service would drop from below mid-LOS D (existing conditions) to LOS F (2008 FNB Option B conditions) during both the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100C) and Clearbrook Road/Walker Road would drop from LOS B (existing conditions) to LOS D (2008 FNB Option B conditions) during the PM peak hour.
- The intersection of Grasslands Road (Route 100C) and the Sprain Brook Parkway Northbound Ramp would drop from LOS C (existing conditions) to LOS E (2008 FNB Option B conditions) during the AM peak hour, and the intersection would drop from LOS C (existing conditions) to LOS F (2008 FNB Option B conditions) during the PM peak hour.
- The intersection of Virginia Road and the Bronx River Parkway would drop from LOS D (existing conditions) to LOS E (2008 FNB Option B conditions) during the AM peak hour, and the intersection would drop from LOS D (existing conditions) to LOS F (2008 FNB Option B conditions) during the PM peak hour.
- The intersection of Grasslands Road (Route 100) and the WCC Campus East Gate would drop from LOS B (existing conditions) to LOS F (2008 FNB Option B conditions) during the PM peak hour.

TABLE 4.9-7. WORKER PARKING AT WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 NO BUILD (OPTION B) CONDITIONS


TABLE 4.9-7. WORKER PARKING AT WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 NO BUILD (OPTION B) CONDITIONS


## Notes:

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.9-7. WORKER PARKING AT WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 NO BUILD (OPTION B)

CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Group } \\ \hline \end{array}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2002/03/04 Existing |  |  | 2008 No Build |  |  | 2002/03/04 Existing |  |  | 2008 No Build |  |  |
|  |  |  |  | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | v/c <br> Ratio | $\begin{array}{\|c} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.10 | 10.2 | B | 0.12 | 10.7 | B | 0.17 | 9.2 | A | 0.20 | 9.7 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ Beverly Road | 2 | Northbound Eastbound | $\begin{aligned} & \hline \mathrm{LT} \\ & \mathrm{LR} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.01 \\ 0.05 \\ \hline \end{array}$ | $\begin{array}{r} 9.8 \\ 18.2 \end{array}$ | $\begin{aligned} & \mathrm{A} \\ & \mathrm{C} \end{aligned}$ | 0.01 <br> 0.07 <br> 0.02 | 10.5 22.1 | $\begin{aligned} & \mathrm{B} \\ & \mathrm{C} \end{aligned}$ | 0.02 0.03 | $\begin{aligned} & 11.9 \\ & 22.8 \end{aligned}$ | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{C} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.03 \\ 0.05 \\ \hline \end{array}$ | $\begin{aligned} & 13.2 \\ & 30.9 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{D} \end{aligned}$ |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3N | Northbound Southbound Eastbound Westbound | $\begin{gathered} \text { LT } \\ \text { LT } \\ \text { LTR } \\ \text { LTR } \end{gathered}$ | $\begin{array}{\|l\|l} \hline 0.02 \\ 0.03 \\ 0.02 \\ 0.03 \end{array}$ | $\begin{array}{r} 10.3 \\ 8.9 \\ 27.5 \\ 15.5 \end{array}$ | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{D} \\ & \mathrm{C} \end{aligned}$ | $\begin{aligned} & 0.02 \\ & 0.03 \\ & 0.03 \\ & 0.04 \end{aligned}$ | $\begin{array}{r} 11.1 \\ 9.3 \\ 38.0 \\ 17.4 \end{array}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{E} \\ & \mathrm{C} \end{aligned}$ | $\begin{aligned} & \hline 0.01 \\ & 0.02 \\ & 0.09 \\ & 0.05 \end{aligned}$ | $\begin{array}{r} 9.3 \\ 9.8 \\ 18.6 \\ 13.9 \end{array}$ | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~A} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ | 0.01 <br> 0.02 <br> 0.14 <br> 0.08 | $\begin{array}{r} 9.8 \\ 10.7 \\ 25.1 \\ 16.2 \end{array}$ | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~B} \\ & \mathrm{D} \\ & \mathrm{C} \end{aligned}$ |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue South | 3S | Southbound Westbound | $\begin{aligned} & \mathrm{LT} \\ & \mathrm{LR} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.00 \\ 0.03 \\ \hline \end{array}$ | 8.5 18.6 | $\begin{aligned} & \text { A } \\ & \text { C } \end{aligned}$ | 0.00 0.03 | 8.8 22.6 | $\begin{aligned} & \text { A } \\ & \text { C } \end{aligned}$ | $\begin{aligned} & 0.00 \\ & 0.10 \\ & \hline \end{aligned}$ | $\begin{array}{r} 9.8 \\ 25.2 \end{array}$ | $\begin{aligned} & \text { A } \\ & \text { D } \end{aligned}$ | $\begin{aligned} & \hline 0.00 \\ & 0.15 \end{aligned}$ | $\begin{aligned} & 10.6 \\ & 36.0 \end{aligned}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{E} \end{aligned}$ |
| Bradhurst Avenue (Rt. 100) @ Lakeview Avenue | 5 | Southbound Westbound | $\begin{aligned} & \hline \mathrm{LT} \\ & \mathrm{LR} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.02 \\ 0.22 \\ \hline \end{array}$ | 8.1 14.0 | A | 0.02 <br> 0.26 <br> 0.01 | 8.2 15.1 | A | 0.01 <br> 0.38 | 8.0 16.4 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{C} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.01 \\ 0.45 \\ \hline \end{array}$ | 8.1 18.8 | A C A |
| Knollwood Road (Rt.100A) @ Hevelyne Road | 7 | Northbound Eastbound | $\begin{aligned} & \mathrm{LT} \\ & \mathrm{LR} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.01 \\ 0.03 \\ \hline \end{array}$ | 8.2 12.5 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~B} \end{aligned}$ | 0.01 <br> 0.03 <br> 0.09 | 8.3 13.2 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~B} \end{aligned}$ | 0.00 <br> 0.01 <br> 0.12 | 7.9 10.5 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~B} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.00 \\ 0.01 \\ \hline \end{array}$ | $\begin{array}{r} 8.0 \\ 10.9 \\ \hline \end{array}$ | $\begin{aligned} & \text { A } \\ & \text { B } \end{aligned}$ |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound Southbound Eastbound <br> Westbound | $\begin{gathered} \mathrm{L} \\ \mathrm{LT} \\ \mathrm{~L} \\ \mathrm{~T} \\ \mathrm{LT} \\ \mathrm{TR} \\ \hline \end{gathered}$ | 0.07 <br> 0.01 <br> 0.01 <br> 0.01 <br> 0.07 <br> 0.01 | 9.5 8.5 25.7 29.2 26.0 10.3 | $\begin{aligned} & \mathrm{A} \\ & \mathrm{~A} \\ & \mathrm{D} \\ & \mathrm{D} \\ & \mathrm{D} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ | 0.09 0.01 0.02 0.02 0.13 0.01 | $\begin{array}{r} 10.1 \\ 9.1 \\ 36.9 \\ 45.0 \\ 41.7 \\ 11.1 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{E} \\ & \mathrm{E} \\ & \mathrm{E} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 0.12 \\ & 0.01 \\ & 0.01 \\ & 0.05 \\ & 0.07 \\ & 0.02 \\ & \hline \end{aligned}$ | 9.6 9.0 35.5 53.6 39.3 14.9 | $\begin{aligned} & \hline \mathrm{A} \\ & \mathrm{~A} \\ & \mathrm{E} \\ & \mathrm{~F} \\ & \mathrm{E} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ | 0.16 <br> 0.16 <br> 0.01 <br> 0.01 <br> 0.08 <br> 0.12 <br> 0.03 | 10.4 9.5 51.2 84.9 60.3 17.5 | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{~F} \\ & \mathrm{~F} \\ & \mathrm{~F} \\ & \mathrm{C} \end{aligned}$ |
| Dana Road @ Walker Road | 18 | Northbound Westbound | $\begin{aligned} & \text { LR } \\ & \mathrm{LT} \end{aligned}$ | 0.08 <br> 0.00 <br> 0.56 | 10.4 8.2 | B | 0.18 <br> 0.00 <br> 0.97 | 11.5 | B | 0.04 0.01 | 10.3 7.7 | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 0.09 \\ & 0.01 \\ & \hline \end{aligned}$ | 11.3 7.8 | B |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound <br> Westbound | $\begin{aligned} & \mathrm{L} \\ & \mathrm{R} \\ & \mathrm{~L} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.56 \\ 0.14 \\ 0.12 \\ \hline \end{array}$ | $\begin{aligned} & \hline 47.4 \\ & 14.6 \\ & 10.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{E} \\ & \mathrm{~B} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 0.97 \\ & 0.23 \\ & 0.17 \\ & \hline \end{aligned}$ | $\begin{array}{r} 142.0 \\ 18.6 \\ 12.2 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 0.67 \\ & 0.13 \\ & 0.14 \\ & \hline \end{aligned}$ | $\begin{aligned} & 61.2 \\ & 12.5 \\ & 10.2 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{~B} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 0.28 \\ & 0.33 \end{aligned}$ | $\begin{aligned} & 15.8 \\ & 12.7 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | $\begin{gathered} \text { LT } \\ \text { TR } \\ \text { L } \end{gathered}$ | $\begin{array}{\|l\|} \hline 0.04 \\ 0.06 \\ 0.16 \\ \hline \end{array}$ | $\begin{array}{r} 21.4 \\ 12.9 \\ 9.5 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.07 \\ & 0.38 \\ & 0.21 \\ & \hline \end{aligned}$ | $\begin{aligned} & 28.5 \\ & 20.1 \\ & 10.1 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{D} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & \hline 0.03 \\ & 0.13 \\ & 0.09 \\ & \hline \end{aligned}$ | $\begin{array}{r} 18.5 \\ 12.5 \\ 9.5 \end{array}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.06 \\ 0.18 \\ 0.21 \\ \hline \end{array}$ | $\begin{aligned} & 31.3 \\ & 14.4 \\ & 12.1 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline \mathrm{D} \\ & \mathrm{~B} \\ & \mathrm{~B} \end{aligned}$ |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound Westbound | $\begin{aligned} & \hline \text { LT } \\ & \text { LR } \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.21 \\ 0.49 \\ \hline \end{array}$ | 8.2 15.0 | A | 0.24 <br> 0.70 <br> 0.51 | 8.4 21.1 | A | $\begin{aligned} & \hline 0.33 \\ & 1.04 \end{aligned}$ | 9.9 84.6 | A | $\underset{*}{0.49} \begin{gathered} * \\ \hline \end{gathered}$ | 11.6 $* *$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~F} \end{aligned}$ |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound <br> Eastbound | $\begin{gathered} \mathrm{L} \\ \mathrm{R} \\ \mathrm{LT} \end{gathered}$ | $\begin{array}{\|l\|} \hline 0.36 \\ 0.18 \\ 0.06 \\ \hline \end{array}$ | $\begin{array}{r} 25.5 \\ 11.7 \\ 8.4 \\ \hline \end{array}$ | $\begin{aligned} & \text { D } \\ & \text { B } \\ & \text { A } \end{aligned}$ | $\begin{aligned} & 0.51 \\ & 0.24 \\ & 0.08 \\ & \hline \end{aligned}$ | $\begin{array}{r} 40.3 \\ 13.9 \\ 9.0 \end{array}$ | $\begin{aligned} & \mathrm{E} \\ & \mathrm{~B} \\ & \mathrm{~A} \end{aligned}$ | $\begin{aligned} & 1.04 \\ & 0.41 \\ & 0.21 \\ & \hline \end{aligned}$ | $\begin{array}{r} 123.1 \\ 17.4 \\ 10.3 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ | $\begin{array}{\|l\|} \hline 1.48 \\ 0.47 \\ 0.24 \\ \hline \end{array}$ | $\begin{array}{r} * * \\ 19.9 \\ 10.8 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound <br> Westbound | $\begin{gathered} \mathrm{L} \\ \mathrm{R} \\ \mathrm{LT} \end{gathered}$ | $\begin{array}{\|l\|} \hline 0.05 \\ 0.01 \\ 0.00 \\ \hline \end{array}$ | $\begin{array}{r} 19.0 \\ 13.1 \\ 9.7 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.13 \\ & 0.03 \\ & 0.01 \\ & \hline \end{aligned}$ | $\begin{aligned} & 44.5 \\ & 23.5 \\ & 13.1 \\ & \hline \end{aligned}$ | $\begin{aligned} & \mathrm{E} \\ & \mathrm{C} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 0.21 \\ & 0.44 \\ & 0.11 \\ & \hline \end{aligned}$ | $\begin{array}{r} 40.5 \\ 16.4 \\ 8.9 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{E} \\ & \mathrm{C} \\ & \mathrm{~A} \end{aligned}$ | $\begin{array}{\|l\|} \hline 0.61 \\ 0.53 \\ 0.13 \\ \hline \end{array}$ | $\begin{array}{r} 166.1 \\ 20.5 \\ 9.3 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{F} \\ & \mathrm{C} \\ & \mathrm{~A} \end{aligned}$ |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound Southbound Eastbound Westbound | $\begin{aligned} & \text { LTR } \\ & \text { LTR } \\ & \text { LTR } \\ & \text { LTR } \end{aligned}$ | 0.06 0.01 0.01 0.01 | $\begin{array}{r} 15.0 \\ 9.9 \\ 7.9 \\ 9.5 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{~A} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.08 \\ & 0.01 \\ & 0.01 \\ & 0.02 \\ & \hline \end{aligned}$ | $\begin{array}{r} 19.5 \\ 10.3 \\ 8.1 \\ 10.7 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{~B} \\ & \mathrm{~A} \\ & \mathrm{~B} \end{aligned}$ | $\begin{aligned} & 0.08 \\ & 0.06 \\ & 0.00 \\ & 0.01 \\ & \hline \end{aligned}$ | $\begin{array}{r} 23.3 \\ 15.4 \\ 8.5 \\ 8.7 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{C} \\ & \mathrm{C} \\ & \mathrm{~A} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | 0.13 <br> 0.08 <br> 0.01 <br> 0.01 | $\begin{array}{r} 35.2 \\ 19.7 \\ 9.0 \\ 9.2 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{E} \\ & \mathrm{C} \\ & \mathrm{~A} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ |

Notes:
L = Left Turn, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn; LOS = Level of Service.
" *" indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

Of the 11 unsignalized intersections that would have approach movements that would experience degradations in their LOS, 10 intersections would have approach movements that would experience notable degradations (the LOS would drop to mid-LOS D, or worse), during the AM and/or PM peak hours. As shown in Table 4.9-7, these include the following intersections:

- The intersection of Saw Mill River Road (Route 9A) and Beverly Road during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue North during the AM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue South during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and the Ramada Inn/Broadway Plaza during the AM and PM peak hours.
- The intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100C) and the Saw Mill River Road (Route 9A) Northbound Ramps during the PM peak hour.
- The intersection of Grasslands Road (Route 100) and Virginia Road during the PM peak hour.
- The intersection of Grasslands Road (Route 100) and Legion Drive during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100) and the WCC Campus West Gate during the AM and PM peak hours.
- The intersection of Old Saw Mill River Road and the Landmark at Eastview East Driveway during the PM peak hour.


## 2008 FNB Option C Traffic Conditions.

Figures 4.9-17 and 4.9-18 show the turning movement volumes anticipated for the study intersections under 2008 FNB Option C conditions. Table 4.9-8 presents a comparison of the results of the HCM analyses between existing conditions and 2008 FNB Option C conditions, for the signalized and unsignalized intersections examined in the study area. In the 2008 FNB Option C analyses, there are five signalized intersections that would experience unacceptable overall LOS conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.9-8. These signalized intersections are as follows:

## Signalized Intersections With Unacceptable Overall LOS.

- Grasslands Road (Route 100C) and Bradhurst Avenue (AM and PM peak hours)
- Grasslands Road (Route 100C) and Clearbrook Road/Walker Road (PM peak hour)
- Grasslands Road (Route 100C) and Sprain Brook Parkway Northbound Ramp (AM and PM peak hours)
- Virginia Road and Bronx River Parkway (AM and PM peak hours)
- Grasslands Road (Route 100) and WCC Campus East Gate (PM peak hour)

TABLE 4.9-8. WORKER PARKING AT THE LANDMARK AND WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 NO BUILD (OPTION C) CONDITIONS


TABLE 4.9-8. WORKER PARKING AT THE LANDMARK AND WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 NO BUILD (OPTION C) CONDITIONS


## Notes:

L = Left Turn, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn, Def = Defacto Left Turn; LOS = Level of Service.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.9-8. WORKER PARKING AT THE LANDMARK AND WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2008 NO BUILD (OPTION C) CONDITIONS

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2002/03/04 Existing |  |  | 2008 No Build |  |  | 2002/03/04 Existing |  |  | 2008 No Build |  |  |
|  |  |  |  | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\text { sec }) \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | $\begin{array}{lll}0.10 & 10.2 & \text { B }\end{array}$ |  |  | 0.12 10.7 B |  |  | $\begin{array}{lll}0.17 & 9.2 & \text { A }\end{array}$ |  |  | 0.20 | 9.7 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ | 2 | Northbound Eastbound | LT | $\begin{array}{\|rrr\|} \hline 0.01 & 9.8 & \mathrm{~A} \\ 0.05 & 18.2 & \mathrm{C} \\ \hline \end{array}$ |  |  | $\begin{array}{\|lll\|} \hline 0.01 & 10.5 & \mathrm{~B} \\ 0.07 & 22.1 & \mathrm{C} \\ \hline \end{array}$ |  |  | $\begin{array}{\|lll\|\|} \hline 0.02 & 11.9 & \mathrm{~B} \\ 0.03 & 22.8 & \mathrm{C} \\ \hline \end{array}$ |  |  | $\begin{array}{\|l\|} \hline 0.03 \\ 0.05 \\ \hline \end{array}$ | $\begin{aligned} & 13.2 \\ & 31.1 \\ & \hline \end{aligned}$ | B |
| Beverly Road |  |  | LR |  |  |  |  |  |  |  |  |  |  |  |  |
| Saw Mill River Road (Rt.9A) | 3N | NorthboundSouthboundEastboundWestbound | LT | 0.02 <br> 0.03 <br> 0.02 <br> 0.03 <br> 0.00 | $\begin{array}{r} 10.3 \\ 8.9 \\ 27.5 \\ 15.5 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{D} \\ & \mathrm{C} \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.02 \\ & 0.03 \\ & 0.03 \\ & 0.04 \end{aligned}$ | $\begin{array}{r} 11.1 \\ 9.3 \\ 38.0 \\ 17.4 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{E} \\ & \mathrm{C} \end{aligned}$ | $\begin{aligned} & 0.01 \\ & 0.02 \\ & 0.09 \\ & 0.05 \\ & \hline \end{aligned}$ | 9.3 | A | 0.01 | 9.8 | A |
| Stevens Avenue North |  |  | LT |  |  |  |  |  |  |  | 9.8 | A | 0.02 | 10.7 | B |
|  |  |  | LTR |  |  |  |  |  |  |  | 18.6 | C | 0.14 | 25.2 | D |
|  |  |  | LTR |  |  |  |  |  |  |  | 13.9 | B | 0.08 | 16.3 | C |
| Saw Mill River Road (Rt.9A) @ | 3 S | Southbound Westbound | LT | 0.00 | 8.5 | A | 0.00 | 8.8 | A | 0.00 | 9.8 | A | 0.00 | 10.6 | B |
| Stevens Avenue South |  |  | LR | 0.03 | 18.6 | C | 0.03 | 22.6 | C | 0.10 | 25.2 | D | 0.15 | 36.2 | E |
| Bradhurst Avenue (Rt. 100) @ | 5 | Southbound Westbound | LT | 0.02 | 8.1 | A | 0.02 | 8.2 | A | 0.01 | 8.0 | A | 0.01 | 8.1 | A |
| Lakeview Avenue |  |  | LR | 0.22 | 14.0 | B | 0.26 | 15.1 | C | 0.38 | 16.4 | C | 0.45 | 18.8 | C |
| Knollwood Road (Rt.100A) @ | 7 | Northbound <br> Eastbound | LT | 0.01 | 8.2 | A | 0.01 | 8.3 | A | 0.00 | 7.9 | A | 0.00 | 8.0 | A |
| Hevelyne Road |  |  | LR | 0.03 | 12.5 | B | 0.03 | 13.3 | B | 0.01 | 10.5 | B | 0.01 | 11.0 | B |
| Saw Mill River Road (Rt.9A) @ | 17 | NorthboundSouthboundEastboundWestbound | LT  <br> L  <br> T  <br> LT  <br> TR  | 0.07 <br> 0.01 <br> 0.01 <br> 0.01 <br> 0.07 <br> 0.01 | 9.58.525.729.226.010.3 | A <br> A <br> D <br> D <br> D <br> B | 10.13 <br> 0.01 <br> 0.02 <br> 0.02 <br> 0.14 <br> 0.01 <br> 0.18 | 10.3 | B | 0.12 | 9.6 | A | 0.16 | 10.4 | B |
| Ramada Inn/Broadway Plaza |  |  |  |  |  |  |  | 9.0 | A | 0.01 | 9.0 | A | 0.01 | 9.5 | A |
|  |  |  |  |  |  |  |  | 40.0 | E | 0.01 | 35.5 | E | 0.01 | 51.2 | F |
|  |  |  |  |  |  |  |  | 47.9 | E | 0.05 | 53.6 | F | 0.08 | 84.9 | F |
|  |  |  |  |  |  |  |  | 45.4 | E | 0.07 | 39.3 | E | 0.12 | 60.3 | F |
|  |  |  |  |  |  |  |  | 11.0 | B | 0.02 | 14.9 | B | 0.03 | 11.3 | C |
| Dana Road @ | 18 | NorthboundWestbound | LR | 0.08 | $\begin{array}{r} 10.4 \\ 8.2 \end{array}$ | B | $\begin{aligned} & \hline 0.18 \\ & 0.00 \end{aligned}$ | $\begin{array}{r} 11.4 \\ 8.4 \end{array}$ | B | 0.04 <br> 0.01 <br> 0.67 | $\begin{array}{r} 10.3 \\ 7.7 \end{array}$ | B | 0.09 |  |  |
| Walker Road |  |  | LT | 0.00 |  |  |  |  |  |  |  |  | 0.01 | 7.8 |  |
| Saw Mill River Road (Rt. 9A) @ | 19A | Northbound <br> Westbound | L | 0.56 | 8.2 | E | 1.43 | *** | F | $\begin{aligned} & 0.67 \\ & 0.13 \\ & 0.14 \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 61.2 \\ & 12.5 \\ & 10.2 \\ & \hline \end{aligned}$ | FBB | $0.37$ | 20.8 | F |
| Grasslands Road (Rt.100C) |  |  | R | 0.14 | 14.6 | B | 0.22 |  | C |  |  |  |  |  | F |
|  |  |  | L | 0.12 | 10.7 | B | 0.16 | 11.9 | B |  |  |  | 0.32 | 14.5 |  |
| Grasslands Road (Rt. 100C) (E-W) @ | 19B | Northbound <br> Eastbound | LT <br> R <br> L | $\begin{array}{\|l\|} \hline 0.04 \\ 0.06 \\ 0.16 \\ \hline \end{array}$ | $\begin{array}{r} 21.4 \\ 12.9 \\ 9.5 \\ \hline \end{array}$ | C | 0.29 | 40.3 | E | $\begin{aligned} & 0.03 \\ & 0.13 \\ & 0.09 \end{aligned}$ | $\begin{array}{r} 18.5 \\ 12.5 \\ 9.5 \end{array}$ | C | $\begin{array}{\|\|l\|} \hline 0.08 \\ 0.21 \\ 0.23 \\ \hline \end{array}$ | 34.7 | D |
| Saw Mill River Road NB Ramp (N-S) |  |  |  |  |  |  | 0.22 | 16.5 | C |  |  |  |  | 17.2 | C |
|  |  |  |  |  |  |  | 0.25 | 11.3 | B |  |  |  |  | 11.7 | B |
| Grasslands Road (Rt. 100) @ | 32 | Southbound Westbound | LT | 0.16 | 8.215.0 | A | $\begin{array}{\|l} \hline 0.23 \\ 0.63 \\ \hline \end{array}$ | $\begin{array}{r} 8.4 \\ 18.6 \end{array}$ | A | 0.33 <br> 1.04 <br> 1.0 | $\begin{array}{r} 9.9 \\ 84.6 \end{array}$ | A | $\begin{array}{\|l\|} \hline 0.43 \\ 1.42 \\ \hline \end{array}$ | $\begin{array}{r} 11.0 \\ 236.2 \end{array}$ | B |
| Virginia Road |  |  | LR | 0.49 |  |  |  |  |  |  |  |  |  |  |  |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound <br> Eastbound | L | 0.36 | 25.5 | $\begin{array}{l\|\|} \hline \mathrm{D} \\ \mathrm{~B} \\ \mathrm{~A} \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 0.47 \\ 0.22 \\ 0.07 \\ \hline \end{array}$ | $\begin{array}{r} \hline 35.2 \\ 13.0 \\ 8.8 \end{array}$ | $\begin{array}{l\|} \hline \mathrm{E} \\ \mathrm{~B} \\ \mathrm{~A} \\ \hline \end{array}$ | $\begin{array}{\|l\|} \hline 1.04 \\ 0.41 \\ 0.21 \\ \hline \end{array}$ | $\begin{array}{r} 123.1 \\ 17.4 \\ 10.3 \\ \hline \end{array}$ | F | $\begin{array}{\|l} 1.38 \\ 0.47 \\ 0.24 \\ \hline \end{array}$ | $* *$ F <br> 19.8 C <br> 10.7 B |  |
|  |  |  | R | 0.18 | 11.7 |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  | LT | 0.06 | 8.4 |  |  |  |  |  |  |  |  |  |  |  |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound <br> Westbound | RLT | $\begin{aligned} & \hline 0.05 \\ & 0.01 \\ & 0.00 \end{aligned}$ | $\begin{array}{r} 19.0 \\ 13.1 \\ 9.7 \end{array}$ | $\begin{array}{l\|\|} \hline \mathrm{C} \\ \mathrm{~B} \\ \mathrm{~A} \end{array}$ | $\begin{array}{\|l\|} \hline 0.09 \\ 0.02 \\ 0.01 \\ \hline \end{array}$ | $\begin{aligned} & 29.6 \\ & 17.6 \\ & 11.3 \end{aligned}$ | D <br> C <br> B | 0.21 <br> 0.44 <br> 0.11 <br> 0.08 | $\begin{array}{r} 40.5 \\ 16.4 \\ 8.9 \\ \hline \end{array}$ | $\begin{aligned} & \mathrm{E} \\ & \mathrm{C} \\ & \mathrm{~A} \end{aligned}$ | 0.24 | 87.2 F |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 0.52 | 19.7 | F <br> C <br> A |
|  |  |  |  |  |  |  |  |  |  |  |  |  | 0.12 | 9.2 |  |
| Old Saw Mill River Road @ | 47 | Northbound <br> Southbound <br> Eastbound <br> Westbound | LTR | 0.06 <br> 0.01 <br> 0.01 <br> 0.01 | $\begin{array}{r} \hline 15.0 \\ 9.9 \\ 7.9 \\ 9.5 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{B} \\ & \mathrm{~A} \\ & \mathrm{~A} \\ & \mathrm{~A} \\ & \hline \end{aligned}$ | $\begin{array}{\|l} \hline 0.12 \\ 0.22 \\ 0.02 \\ 0.18 \\ \hline \end{array}$ | $\begin{array}{r} 18.0 \\ 67.7 \\ 8.4 \\ 11.2 \\ \hline \end{array}$ | $\begin{aligned} & \hline \mathrm{C} \\ & \mathrm{~F} \\ & \mathrm{~A} \\ & \mathrm{~B} \\ & \hline \end{aligned}$ | 0.08 <br> 0.06 <br> 0.00 <br> 0.01 | 23.3 | C | $\begin{gathered} \hline 0.40 \\ \star \\ 0.01 \\ 0.02 \\ \hline \hline \end{gathered}$ | 22.1 C |  |
| Landmark East Driveway |  |  | LTR |  |  |  |  |  |  |  | 15.4 | C |  | $* *$ F <br> 8.7 A <br> 9.2 A |  |
|  |  |  | LTR |  |  |  |  |  |  |  | 8.5 | A |  |  |  |  |
|  |  |  | LTR |  |  |  |  |  |  |  | 8.7 | A |  |  |  |  |

Notes:
L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service.
"*" indicates a v/c ratio greater than 1.50 ; " **" indicates a calculated delay greater than 240 seconds.

These signalized locations are all projected to be operating unacceptably at overall LOS above mid-LOS D (overall intersection delays of greater than 45.0 seconds), with some movements operating particularly poorly in the LOS F range. Measures or modifications to improve or optimize the traffic processing capabilities of these intersections (e.g., signal timing or phasing changes, or lane utilization modifications) could be investigated by the appropriate agency responsible for maintaining the traffic signals at these locations, to improve operations.

In addition, there are 10 unsignalized intersections in the 2008 FNB Option C analyses that would have approaches or lane groups that would experience unacceptable level of service conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.98. These unsignalized intersections are as follows:

## Unsignalized Intersections Having Approaches With Unacceptable LOS.

- Saw Mill River Road (Route 9A) and Beverly Road (PM peak hour)
- Saw Mill River Road (Route 9A) and Stevens Avenue North (AM peak hour)
- Saw Mill River Road (Route 9A) and Stevens Avenue South (PM peak hour)
- Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza Entrance (AM and PM peak hours)
- Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) (AM and PM peak hours)
- Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) Northbound Ramp (AM and PM peak hours)
- Grasslands Road (Route 100) and Virginia Road (PM peak hour)
- Grasslands Road (Route 100) and Legion Drive (AM and PM peak hours)
- Grasslands Road (Route 100) and WCC Campus West Gate (PM peak hour)
- Old Saw Mill River Road at the Landmark at Eastview East Driveway AM and PM peak hours)

These unsignalized intersections all have lane groups or approach movements that are projected to be operating above mid-LOS D (with delays in excess of 30.0 seconds), with some movements operating particularly poorly in the LOS F range. The agencies responsible for these roadways could potentially improve the operation of these locations, by investigating the installation of traffic signals at these intersections, accompanied by signal warrant studies, as appropriate.

Under 2008 FNB Option C conditions, there would be 11 signalized intersections that would experience a degradation (i.e., the LOS dropping from one level to a worse level) in their overall LOS from existing conditions during the AM and/or PM peak hours. Under 2008 FNB Option C conditions, there would also be 11 unsignalized intersections that would have approaches that would experience a degradation in LOS during the AM and/or PM peak hours.

Of the 11 signalized intersections that would experience degradations in their overall LOS, only 5 intersections would experience notable degradations (the LOS would drop to mid-LOS D, or worse) in their overall level of service during the AM and/or PM peak hours. These locations are as follows:

- The intersection of Grasslands Road (Route 100C) and Bradhurst Avenue where level of service would drop from below mid-LOS D (existing conditions) to LOS F (2008 FNB Option C conditions) during both the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100C) and Clearbrook Road/Walker Road would drop from LOS B (existing conditions) to LOS F (2008 FNB Option C conditions) during the PM peak hour.
- The intersection of Grasslands Road (Route 100C) and the Sprain Brook Parkway Northbound Ramp would drop from LOS C (existing conditions) to LOS E (2008 FNB Option C conditions) during the AM peak hour, and the intersection would drop from LOS C (existing conditions) to LOS F (2008 FNB Option C conditions) during the PM peak hour.
- The intersection of Virginia Road and the Bronx River Parkway would drop from above mid-LOS D (existing conditions) to LOS E (2008 FNB Option C conditions) during both the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100C) and the WCC Campus East Gate would drop from LOS B (existing conditions) to LOS E (2008 FNB Option C conditions) during the PM peak hour.

Of the 11 unsignalized intersections that would have approach movements that would experience degradations in their LOS, 10 would have approach movements that would experience notable degradations (the LOS would drop to mid-LOS D, or worse), during the AM and/or PM peak hours. As shown in Table 4.9-8, these include the following intersections:

- The intersection of Saw Mill River Road (Route 9A) and Beverly Road during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue North during the AM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue South during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and the Ramada Inn/Broadway Plaza during the AM and PM peak hours.
- The intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100C) and the Saw Mill River Road (Route 9A) Northbound Ramps during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100) and Virginia Road during the PM peak hour.
- The intersection of Grasslands Road (Route 100) and Legion Drive during the AM and PM peak hours.
- The Grasslands Road (Route 100) and the WCC Campus West Gate during the PM peak hour.
- The intersection of Old Saw Mill River Road and the Landmark at Eastview East Driveway during the AM and PM peak hours.


## 2010 FNB with Croton Project Traffic Conditions.

Figures 4.9-19 and 4.9-20 show the turning movement volumes anticipated for the study intersections for 2010 FNB conditions with the Croton project in operation. Results of the 2010 FNB analyses are presented in Table 4.9-9, for the signalized and unsignalized intersections examined in the study area. In the 2010 FNB analysis year, there are four signalized intersections that would experience unacceptable overall LOS conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.9-9. These signalized intersections are as follows:

## Signalized Intersections With Unacceptable Overall LOS.

- Grasslands Road (Route 100C) and Bradhurst Avenue (AM and PM peak hours)
- Grasslands Road (Route 100C) and Clearbrook Road/Walker Road PM peak hour)
- Grasslands Road (Route 100C) and the Sprain Brook Parkway Northbound Ramp (AM and PM peak hours)
- Virginia Road and the Bronx River Parkway (AM and PM peak hours)

These signalized locations are all projected to be operating unacceptably at overall LOS above mid-LOS D (overall intersection delays of greater than 45.0 seconds), with some movements operating particularly poorly in the LOS F range. Measures or modifications to improve or optimize the traffic processing capabilities of these intersections (e.g., signal timing or phasing changes, or lane utilization modifications) could be investigated by the appropriate agency responsible for maintaining the traffic signals at these locations, to improve operations.

In addition, there are nine unsignalized intersections in the 2010 FNB (with Croton project) analysis year that would have approaches or lane groups that would experience unacceptable level of service conditions (mid-LOS D, or worse) during the AM and/or PM peak hours, as shown in Table 4.9-9. These unsignalized intersections are as follows:

## Unsignalized Intersections Having Approaches With Unacceptable LOS.

- Saw Mill River Road (Route 9A) and Beverly Road (PM peak hour)
- Saw Mill River Road (Route 9A) and Stevens Avenue North (AM peak hour)
- Saw Mill River Road (Route 9A) and Stevens Avenue South (PM peak hour)
- Saw Mill River Road (Route 9A) and the Ramada Inn/Broadway Plaza (AM and PM peak hours)
- Grasslands Road (Route 100C) and Saw Mill River Road (Route 9A) (AM and PM peak hours)
- Grasslands Road (Route 100) and Virginia Road (PM peak hour)
- Grasslands Road (Route 100) and Legion Drive (AM and PM peak hours)
- Grasslands Road (Route 100) and WCC Campus West Gate (PM peak hour)
- Old Saw Mill River Road and the Landmark at Eastview East Driveway (PM peak hour)

TABLE 4.9-9. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2010 NO BUILD (WITH CROTON PROJECT) CONDITIONS


TABLE 4.9-9. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2010 NO BUILD (WITH CROTON PROJECT) CONDITIONS


Notes:
L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.9-9. LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2002/2003/2004 EXISTING AND 2010 NO BUILD (WITH CROTON PROJECT) CONDITIONS

| Intersection | No. | Approach | LaneGroup | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2002/03/04 Existing |  |  | 2010 No Build |  |  | 2002/03/04 Existing |  |  | 2010 No Build |  |  |
|  |  |  |  | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{array}{\|c} \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.10 | 10.2 | B | 0.12 | 10.8 | B | 0.17 | 9.2 | A | 0.20 | 9.7 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ | 2 | Northbound | LT | 0.01 | 9.8 | A | 0.01 | 10.4 | B | 0.02 | 11.9 | B | 0.03 | 13.3 | B |
| Beverly Road |  | Eastbound | LR | 0.05 | 18.2 | C | 0.07 | 22.0 | C | 0.03 | 22.8 | C | 0.06 | 31.5 | D |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3N | Northbound | LT | 0.02 | 10.3 | B | 0.02 | 11.0 | B | 0.01 | 9.3 | A | 0.01 | 9.9 | A |
|  |  | Southbound | LT | 0.03 | 8.9 | A | 0.03 | 9.2 | A | 0.02 | 9.8 | A | 0.02 | 10.6 | B |
|  |  | Eastbound | LTR | 0.02 | 27.5 | D | 0.03 | 37.1 | E | 0.09 | 18.6 | C | 0.14 | 25.2 | D |
|  |  | Westbound | LTR | 0.03 | 15.5 | C | 0.04 | 17.2 | C | 0.05 | 13.9 | B | 0.08 | 16.1 | C |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue South | 3S | Southbound | LT | 0.00 | 8.5 | A | 0.00 | 8.8 | A | 0.00 | 9.8 | A | 0.00 | 10.6 | B |
|  |  | Westbound | LR | 0.03 | 18.6 | C | 0.04 | 22.6 | C | 0.10 | 25.2 | D | 0.16 | 36.5 | E |
| Bradhurst Avenue (Rt. 100) @ Lakeview Avenue | 5 | Southbound | LT | 0.02 | 8.1 | A | 0.02 | 8.3 | A | 0.01 | 8.0 | A | 0.01 | 8.1 | A |
|  |  | Westbound | LR | 0.22 | 14.0 | B | 0.28 | 15.8 | C | 0.38 | 16.4 | C | 0.48 | 20.2 | C |
| Knollwood Road (Rt.100A) @ Hevelyne Road | 7 | Northbound | LT | 0.01 | 8.2 | A | 0.01 | 8.3 | A | 0.00 | 7.9 | A | 0.00 | 8.0 | A |
|  |  | Eastbound | LR | 0.03 | 12.5 | B | 0.04 | 13.4 | B | 0.01 | 10.5 | B | 0.01 | 10.9 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound | L | 0.07 | 9.5 | A | 0.10 | 10.2 | B | 0.12 | 9.6 | A | 0.17 | 10.9 | B |
|  |  | Southbound | LT | 0.01 | 8.5 | A | 0.01 | 9.0 | A | 0.01 | 9.0 | A | 0.01 | 9.6 | A |
|  |  | Eastbound | L | 0.01 | 25.7 | D | 0.02 | 36.6 | E | 0.01 | 35.5 | E | 0.02 | 61.2 | F |
|  |  |  | T | 0.01 | 29.2 | D | 0.02 | 43.7 | E | 0.05 | 53.6 | F | 0.12 | 104.6 | F |
|  |  | Westbound | LT | 0.07 | 26.0 | D | 0.12 | 39.9 | E | 0.07 | 39.3 | E | 0.14 | 70.2 | F |
|  |  |  | TR | 0.01 | 10.3 | B | 0.01 | 11.0 | B | 0.02 | 14.9 | B | 0.03 | 19.0 | C |
| Dana Road @ Walker Road | 18 | Northbound | LR | 0.08 | 10.4 | B | 0.24 | 12.2 | B | 0.04 | 10.3 | B | 0.12 | 12.9 | B |
|  |  | Westbound | LT | 0.00 | 8.2 | A | 0.02 | 8.7 | A | 0.01 | 7.7 | A | 0.11 | 8.2 | A |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound <br> Westbound | L | 0.56 | 47.4 | E | 1.02 | 159.2 | F | 0.67 | 61.2 | F | 1.34 | ** | F |
|  |  |  | R | 0.14 | 14.6 | B | 0.24 | 18.8 | C | 0.13 | 12.5 | B | 0.30 | 16.5 | C |
|  |  |  | L | 0.12 | 10.7 | B | 0.17 | 12.2 | B | 0.14 | 10.2 | B | 0.19 | 11.6 | B |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound Eastbound | LT | 0.04 | 21.4 | C | 0.07 | 29.3 | D | 0.03 | 18.5 | C | 0.06 | 29.0 | D |
|  |  |  | TR | 0.06 | 12.9 | B | 0.08 | 15.3 | C | 0.13 | 12.5 | B | 0.18 | 14.8 | B |
|  |  |  | L | 0.16 | 9.5 | A | 0.22 | 10.3 | B | 0.09 | 9.5 | A | 0.20 | 11.4 | B |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound | LT | 0.21 | 8.2 | A | 0.24 | 8.4 | A | 0.33 | 9.9 | A | 0.39 | 10.6 | B |
|  |  | Westbound | LR | 0.49 | 15.0 | B | 0.58 | 17.8 | C | 1.04 | 84.6 | F | 1.35 | 203.0 | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound <br> Eastbound | L | 0.36 | 25.5 | D | 0.46 | 33.2 | D | 1.04 | 123.1 | F | 1.42 | ** | F |
|  |  |  | R | 0.18 | 11.7 | B | 0.21 | 12.5 | B | 0.41 | 17.4 | C | 0.49 | 20.9 | C |
|  |  |  | LT | 0.06 | 8.4 | A | 0.07 | 8.6 | A | 0.21 | 10.3 | B | 0.25 | 10.9 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound | L | 0.05 | 19.0 | C | 0.06 | 21.5 | C | 0.21 | 40.5 | E | 0.31 | 57.9 | F |
|  |  |  | R | 0.01 | 13.1 | B | 0.01 | 13.9 | B | 0.44 | 16.4 | C | 0.53 | 20.0 | C |
|  |  | Westbound | LT | 0.00 | 9.7 | A | 0.00 | 10.1 | B | 0.11 | 8.9 | A | 0.13 | 9.2 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.06 | 15.0 | B | 0.09 | 19.7 | C | 0.08 | 23.3 | C | 0.13 | 38.0 | E |
|  |  | Southbound | LTR | 0.01 | 9.9 | A | 0.01 | 10.5 | B | 0.06 | 15.4 | C | 0.09 | 20.7 | C |
|  |  | Eastbound | LTR | 0.01 | 7.9 | A | 0.01 | 8.1 | A | 0.00 | 8.5 | A | 0.01 | 9.1 | A |
|  |  | Westbound | LTR | 0.01 | 9.5 | A | 0.02 | 10.7 | B | 0.01 | 8.7 | A | 0.01 | 9.3 | A |

## Notes:

L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service.
" * " indicates a v/c ratio greater than 1.50; " **" indicates a calculated delay greater than 240 seconds.

These unsignalized intersections all have lane groups or approach movements that are projected to be operating above mid-LOS D (with delays in excess of 30.0 seconds), with some movements operating particularly poorly in the LOS F range. The agencies responsible for these roadways could potentially improve the operation of these locations, by investigating the installation of traffic signals at these intersections, accompanied by signal warrant studies, as appropriate.

Under these 2010 FNB conditions, there would be 11 signalized intersections that would experience a degradation (i.e., the LOS dropping from one level to a worse level) in their overall LOS from existing conditions during the AM and/or PM peak hours. For 2010 FNB conditions, there would also be 10 unsignalized intersections that would have approaches that would experience a degradation in LOS during the AM and/or PM peak hours.

Of the 11 signalized intersections that would experience degradations in their overall LOS, only 4 intersections would experience notable degradations (the LOS would drop to mid-LOS D, or worse) in their overall level of service during the AM and/or PM peak hours. These locations are as follows:

- The intersection of Grasslands Road (Route 100C) and Bradhurst Avenue where level of service would drop from would drop from below mid-LOS D (existing conditions) to above mid-LOS D ( 2010 FNB conditions) during the AM peak hour, and drop from below mid-LOS D (existing conditions) to LOS E (2010 FNB conditions) during the PM peak hour.
- The intersection of Grasslands Road (Route 100C) and Clearbrook Road/Walker Road would drop from LOS B (existing conditions) to above mid-LOS D (2010 FNB conditions) during the PM peak hour.
- The intersection of Grasslands Road (Route 100C) and the Sprain Brook Parkway Northbound Ramp would drop from LOS C (existing conditions) to above mid-LOS D ( 2010 FNB conditions) during both the AM and PM peak hours.
- The intersection of Virginia Road and the Bronx River Parkway would drop from above mid-LOS D (existing conditions) to LOS E (2010 FNB conditions) during both the AM and PM peak hours.

Of the 10 unsignalized intersections that would have approach movements that would experience degradations in their LOS, 9 intersections would have approach movements that would experience notable degradations (the LOS would drop to mid-LOS D, or worse), during the AM and/or PM peak hours. As shown in Table 4.9-9, these include the following intersections:

- The intersection of Saw Mill River Road (Route 9A) and Beverly Road during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue North during the AM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and Stevens Avenue South during the PM peak hour.
- The intersection of Saw Mill River Road (Route 9A) and the Ramada Inn/Broadway Plaza during the AM and PM peak hours.
- The intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100) and Virginia Road during the PM peak hour.
- The intersection of Grasslands Road (Route 100) and Legion Drive during the AM and PM peak hours.
- The intersection of Grasslands Road (Route 100) and the WCC Campus West Gate during the PM peak hour.
- The intersection of Old Saw Mill River Road and the Landmark at Eastview East Driveway during the PM peak hour.


### 4.9.3. Potential Impacts

There are two future analysis years that are examined in this section; (1) the year with the UV Facility being at the peak of construction in 2008, and (2) the year with the UV Facility construction complete and in operation in 2010. Each of these analyses also takes into consideration conditions with and without the Croton project. The 2008 Construction conditions that include the Croton project have four Options, based on where the construction workers for the UV Facility would park. These construction worker parking Options have been selected for analysis purposes, as representative of the types of routings that worker vehicles would use for off-site parking. These Options are discussed further under the 2008 Construction discussion in Section 4.9.3.2.3, Potential Construction Impacts, With Croton Project at Eastview. The discussion of the potential significant adverse impacts associated with the operation of the UV Facility in 2010 are presented first in this section, followed by the discussion of temporary adverse impacts associated with the construction of the UV Facility in 2008.

### 4.9.3.1. Potential Project Impacts

Project impact analyses were performed for the Eastview Site to determine projected future conditions with the proposed UV Facility in place and fully operational. The 2010 Future With the Project (Build) conditions were compared with the 2010 Future Without the Project (Future No Build, "FNB") conditions to determine whether or not the operation of the proposed UV Facility would have significant adverse impacts on the study area traffic and safety. The 2010 Build analysis evaluated two scenarios:

- A Build condition that that does not include traffic generated by the Croton project in the 2010 FNB condition.
- A Build condition that includes traffic generated by the Croton project in the 2010 FNB condition.

The following sections describe the operational trip-generation characteristics of the proposed UV Facility, and then summarize the potential project impacts should the proposed UV Facility be constructed and made operational at the Eastview Site.

### 4.9.3.1.1. UV Facility Trip-Generation Characteristics

When fully constructed and operational, the future peak hour trips associated with the proposed UV Facility would be almost entirely employee-related. Table 4.9-10 shows the number of employees for day/evening shifts. For a more conservative analysis, however, it was assumed that employees for the first shift would arrive at the project site during the AM peak hour as those for the off-shift leave, and that they would leave during the PM peak hour, as those for the off-shift would arrive. Table 4.9-11 shows the anticipated truck deliveries during operation of the UV Facility, which are based on the preliminary engineering design. While most truck deliveries would be scheduled during normal working hours, the analyses conservatively assumed that there would be one (1) truck trip during each of the AM and PM peak hours.

TABLE 4.9-10. UV FACILITY STAFFING

|  | Shift 1 | Off-Shift* |
| :--- | :---: | :---: |
| Eastview Site | 20 Employees | 11 Employees |

*Off-shift consists of two shifts Monday-Friday, and three shifts Saturdays \& Sundays

TABLE 4.9-11. UV FACILITY TRUCK DELIVERIES

| Type of Truck | Operation | Peak Traffic |
| :---: | :--- | :---: |
| Tanker Trucks, Tractor | Chemical, Deliveries, | 1 truck trip/direction/peak hour |
| (the equivalent of 2 |  |  |
| Trailer \& Medium | \& Miscellaneous | trips/direction/hour in PCEs) |

As described Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, it is assumed that all employees would arrive at the proposed UV Facility site via private vehicles. It was likewise assumed that the vehicle occupancy rate would be 1.0 persons per vehicle; conservatively assuming that none of the employees would carpool to the Eastview Site. As shown in Table 4.9-12, the proposed UV Facility would generate 30 employee vehicle trips during each of the AM and PM peak hours.

TABLE 4.9-12. VEHICULAR TRIP FORECAST (IN PCES)

| Peak <br> Hour | Autos <br> (trips/hour) |  | Trucks* <br> (trips/hour) |  | Total |  | Total \# of Trips |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In | Out | In | Out | In | Out |  |
| AM | 20 | 10 | 2 | 2 | 22 | 12 | 34 |
| PM | 10 | 20 | 2 | 2 | 12 | 22 | 34 |

* Trips all shown in Passenger Car Equivalents (PCEs); 1 truck equals 2 PCEs.

Vehicle trips were assigned to the study area network, using the assignment pattern for autos, as discussed in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation,
and the project-generated traffic in 2010, for the proposed UV Facility, is shown in Figures 4.921 and 4.9-22, for the AM and PM peak hours, respectively.

Up to 34 vehicles per hour (vph) would be generated by the operations of the proposed UV Facility (2010 Build condition) during the peak analysis periods. When distributed among the different ingress/egress routes to the site, none of the intersections would meet the $50 \mathrm{vph} C E Q R$ Technical Manual threshold value requiring detailed quantified traffic analysis. However, because several of the study area intersections are anticipated to operate very poorly under 2010 FNB conditions, a quantified analysis was undertaken at each of the study area intersections, to ensure that any significant adverse impacts that might occur as a result of the traffic generated for operation of the proposed UV Facility were properly identified. The largest projectgenerated traffic volumes were predicted to occur at the three intersections just to the southeast of the site along Grasslands Road (Route 100C).

The following sections present a summary of the potential 2010 Build condition significant adverse impacts that were identified and associated with the operation of the proposed UV Facility at the site, both with and without the Croton WTP project included in the 2010 FNB conditions.

### 4.9.3.1.2. Without Croton Project at Eastview Site

Traffic. 34 vehicle trips would be generated in both the AM and PM peak analysis hours for the operation of the UV Facility at the Eastview Site. Figures 4.9-23 and 4.9-24 show the total resulting 2010 Build condition traffic volumes at the study area intersections for the AM and PM peak hours, respectively. Applying the CEQR Technical Manual impact criteria described in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, and as shown in Table 4.9-13, the addition of project-generated traffic would result in significant adverse traffic impacts at one signalized intersection and one unsignalized intersection, during the AM and/or PM peak hours. Both of these intersections are located along Grasslands Road (Route 100C), one is to the east of the Eastview Site, and the other is to the west. All increases in delay described below are given in comparison to the 2010 FNB conditions.

## Significant Traffic Impacts Occurring at Signalized Intersections.

- At the intersection of Grasslands Road and the Sprain Brook Parkway Northbound Ramp, the northbound left/through movement would be significantly impacted during the AM peak hour. The delay would increase from 76.4 seconds (LOS E) to 81.1 seconds (LOS F).


## Significant Traffic Impacts Occurring at Unsignalized Intersections.

- At the intersection of Saw Mill River Road and Grasslands Road, the northbound leftturn movement would be significantly impacted during both the AM and PM peak hours. During the AM peak hour the delay would increase from 152.7 seconds (LOS F) to 155.9 seconds (LOS F). During the PM peak hour this movement would
continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.

Measures have been identified that would mitigate these project-related significant adverse traffic impacts. A description of the measures, and an analysis showing the resulting effects of implementing the measures suggested as mitigation for these impacts, are fully discussed in Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts.

Parking. Sufficient on-site parking would be provided as part of the proposed project to accommodate all employees and visitors to the UV Facility. Therefore, no significant adverse parking impacts would be anticipated in 2010 as a result of the operation of the proposed project.

Safety. No additional accidents are anticipated given the low traffic volumes generated by the proposed project; therefore, no significant adverse traffic safety impacts are anticipated.

Transit. The proposed project would not generate any transit trips. In addition, because of the low generation of trips from both the UV Facility and the Bee-Line Bus Facility, operation of the UV Facility would not impact bus operations. Therefore, no significant adverse transitrelated impacts would be anticipated under the 2010 Build conditions.

TABLE 4.9-13. PURE NO BUILD VS. CAT DEL ALONE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2010 NO BUILD AND OPERATION CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Group } \\ \hline \end{array}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2010 No Build |  |  | 2010 Operation |  |  | 2010 No Build |  |  | 2010 Operation |  |  |
|  |  |  |  | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | Delay (sec) | LOS | $\begin{array}{\|c\|c} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | Delay (sec) | LOS |
| Saw Mill River Road (Rt.9A) (N-S) @ Saw Mill River Pkwy Ramp | 4 | Eastbound | L | 0.66 | 32.4 | C | 0.66 | 32.4 | C | 0.54 | 29.6 | C | 0.54 | 29.6 | C |
|  |  |  | LTR | 0.14 | 25.0 | C | 0.14 | 25.0 | C | 0.15 | 25.8 | C | 0.15 | 25.8 | C |
|  |  | Westbound | L | 0.15 | 32.4 | C | 0.15 | 32.4 | C | 0.14 | 34.2 | C | 0.14 | 34.2 | C |
|  |  |  | LT | 0.10 | 32.1 | C | 0.10 | 32.1 | C | 0.09 | 33.8 | C | 0.09 | 33.8 | C |
|  |  |  | R | 0.05 | 31.8 | C | 0.05 | 31.8 | C | 0.22 | 34.8 | C | 0.22 | 34.8 | C |
|  |  | Northbound | L | 0.19 | 14.2 | B | 0.19 | 14.2 | B | 0.83 | 34.6 | C | 0.83 | 34.6 | C |
|  |  |  | TR | 0.32 | 14.9 | B | 0.32 | 14.9 | B | 0.57 | 15.6 | B | 0.57 | 15.7 | B |
|  |  | Southbound | L | 0.10 | 13.3 | B | 0.10 | 13.3 | B | 0.16 | 21.7 | C | 0.16 | 21.7 | C |
|  |  |  | TR | 0.56 | 17.3 | B | 0.56 | 17.3 | B | 1.01 | 61.2 | E | 1.01 | 61.5 | E |
|  |  | Intersection |  |  | 19.7 | B |  | 19.7 | B |  | 36.8 | D |  | 36.9 | D |
| Grasslands Road (Rt. 100C) (E-W) @ Bradhurst Avenue (Rt. 100) | 6 | Eastbound | L | 0.77 | 41.7 | D | 0.77 | 41.7 | D | * | ** | F | * | ** | F |
|  |  |  | T | 1.06 | 84.2 | F | 1.06 | 84.2 | F | 0.60 | 22.7 | C | 0.60 | 22.7 | C |
|  |  |  | R | 0.36 | 16.5 | B | 0.36 | 16.5 | B | 0.28 | 12.2 | B | 0.28 | 12.2 | B |
|  |  | Westbound | L | 0.70 | 59.8 | E | 0.70 | 59.8 | E | 0.23 | 18.2 | B | 0.23 | 18.2 | B |
|  |  |  | TR | 0.45 | 26.2 | C | 0.45 | 26.2 | C | 1.01 | 63.9 | E | 1.01 | 63.9 | E |
|  |  | Northbound | L | 0.23 | 23.7 | C | 0.24 | 23.7 | C | 0.89 | 63.4 | E | 0.90 | 64.0 | E |
|  |  |  | TR | 0.35 | 26.1 | C | 0.35 | 26.1 | C | 0.20 | 16.4 | B | 0.20 | 16.4 | B |
|  |  | Southbound | L | 0.53 | 41.2 | D | 0.53 | 41.2 | D | 0.34 | 25.6 | C | 0.34 | 25.6 | C |
|  |  |  | TR | 0.70 | 50.8 | D | 0.70 | 50.8 | D | 1.15 | 121.9 | F | 1.15 | 121.9 | F |
|  |  | Intersection |  |  | 48.9 | D |  | 48.8 | D |  | 76.7 | E |  | 76.8 | E |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) WB Ramp | 8 | Westbound <br> Northbound <br> Southbound | LT | 0.47 | 27.8 | C | 0.47 | 27.8 | C | 0.82 | 41.1 | D | 0.82 | 41.1 | D |
|  |  |  | R | 0.25 | 25.5 | C | 0.25 | 25.5 | C | 0.46 | 27.8 | C | 0.46 | 27.8 | C |
|  |  |  | L | 0.53 | 10.2 | B | 0.53 | 10.2 | B | 1.00 | 66.7 | E | 1.00 | 66.8 | E |
|  |  |  | T | 0.52 | 10.5 | B | 0.52 | 10.5 | B | 0.54 | 10.7 | B | 0.54 | 10.7 | B |
|  |  |  | T | 0.31 | 13.5 | B | 0.31 | 13.5 | B | 0.46 | 14.9 | B | 0.46 | 14.9 | B |
|  |  |  | R | 0.14 | 12.2 | B | 0.14 | 12.2 | B | 0.23 | 12.9 | B | 0.23 | 12.9 | B |
|  |  | Intersection |  |  | 14.6 | B |  | 14.6 | B |  | 30.1 | C |  | 30.1 | C |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) EB Ramp | 9 | Eastbound <br> Northbound <br> Southbound | L | 0.70 | 33.6 | C | 0.70 | 33.6 | C | 0.49 | 24.6 | C | 0.49 | 24.6 | C |
|  |  |  | TR | 0.01 | 23.6 | C | 0.01 | 23.6 | C | 0.00 | 20.0 | C | 0.00 | 20.0 | C |
|  |  |  | R | 0.60 | 30.5 | C | 0.60 | 30.5 | C | 0.80 | 36.2 | D | 0.80 | 36.2 | D |
|  |  |  | T | 0.51 | 15.5 | B | 0.51 | 15.5 | B | 0.89 | 34.4 | C | 0.89 | 34.5 | C |
|  |  |  | R | 0.54 | 16.2 | B | 0.54 | 16.2 | B | 0.65 | 21.5 | C | 0.65 | 21.5 | C |
|  |  |  | L | 0.41 | 10.0 | B | 0.41 | 10.0 | B | 0.84 | 35.5 | D | 0.84 | 35.5 | D |
|  |  |  | T | 0.30 | 8.5 | A | 0.30 | 8.5 | A | 0.67 | 15.9 | B | 0.67 | 16.0 | B |
|  |  | Intersection |  |  | 19.0 | B |  | 19.0 | B |  | 27.4 | C |  | 27.4 | C |
| Tarrytown/White Plains Road(Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A) | 10 | Westbound <br> Northbound <br> Southbound | LT | 0.15 | 24.6 | C | 0.15 | 24.6 | C | 0.36 | 26.5 | C | 0.36 | 26.5 | C |
|  |  |  | R | 0.52 | 28.6 | C | 0.52 | 28.6 | C | 0.99 | 73.0 | E | 0.99 | 73.0 | E |
|  |  |  | LT | 0.42 | 10.3 | B | 0.42 | 10.3 | B | 0.62 | 13.0 | B | 0.62 | 13.0 | B |
|  |  |  | T | 0.21 | 15.3 | B | 0.21 | 15.3 | B | 0.45 | 17.5 | B | 0.45 | 17.5 | B |
|  |  |  | R | 0.20 | 15.4 | B | 0.20 | 15.4 | B | 0.49 | 18.2 | B | 0.49 | 18.2 | B |
|  |  | Intersection |  |  | 15.6 | B |  | 15.6 | B |  | 26.9 | C |  | 26.9 | C |
| Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A) | $\begin{array}{\|l\|} \hline 11 \\ 12 \\ \hline \end{array}$ | Eastbound <br> Northbound <br> Southbound | LT | 0.73 | 35.1 | D | 0.73 | 35.1 | D | 0.81 | 40.2 | D | 0.81 | 40.2 | D |
|  |  |  | R | 0.16 | 24.8 | C | 0.16 | 24.8 | C | 0.36 | 26.6 | C | 0.36 | 26.6 | C |
|  |  |  | TR | 0.41 | 20.3 | C | 0.41 | 20.3 | C | 0.43 | 20.4 | C | 0.43 | 20.4 | C |
|  |  |  | Def | 0.32 | 12.3 | B | 0.32 | 12.3 | B | 0.49 | 15.3 | B | 0.49 | 15.3 | B |
|  |  |  | T | 0.28 | 9.3 | A | 0.28 | 9.3 | A | 0.56 | 12.0 | B | 0.56 | 12.0 | B |
|  |  | Intersection |  |  | 20.8 | C |  | 20.8 | C |  | 21.7 | C |  | 21.7 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) WB Ramp | 13 | Westbound <br> Northbound <br> Southbound | L | 1.11 | 107.4 | F | 1.11 | 107.4 | F | 0.76 | 39.2 | D | 0.76 | 39.2 | D |
|  |  |  | R | 0.50 | 27.7 | C | 0.50 | 27.7 | C | 0.43 | 20.6 | C | 0.43 | 20.6 | C |
|  |  |  | LTR | 0.37 | 9.0 | A | 0.37 | 9.0 | A | 0.72 | 24.0 | c | 0.73 | 24.1 | C |
|  |  |  | TR | 0.48 | 9.9 | A | 0.48 | 9.9 | A | 0.88 | 24.2 | C | 0.88 | 24.4 | C |
|  |  | Intersection |  |  | 36.7 | D |  | 36.7 | D |  | 25.6 | C |  | 25.7 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) EB Ramp | 14 | Northbound Southbound$\qquad$ | TR | 0.32 | 12.4 | B | 0.32 | 12.4 | B | 0.91 | 37.4 | D | 0.92 | 37.7 | D |
|  |  |  | L | 0.51 | 2.0 | A | 0.52 | 2.1 | A | 0.76 | 25.0 | C | 0.77 | 25.2 | C |
|  |  |  | LT | 0.16 | 0.2 | A | 0.16 | 0.2 | A | 0.55 | 0.5 | A | 0.55 | 0.5 | A |
|  |  | Intersection |  |  | 5.1 | A |  | 5.1 | A |  | 18.9 | B |  | 19.0 | B |
| Saw Mill River Road (Rt.9A) @ Tarrytown/White Plains Road (Rt.119) | 15 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 1.00 | 78.1 | E | 1.01 | 79.3 | E | 1.02 | 84.8 | F | 1.03 | 85.6 | F |
|  |  |  | TR | 0.39 | 14.7 | B | 0.39 | 14.7 | B | 0.48 | 20.4 | C | 0.48 | 20.4 | C |
|  |  |  | L | 0.18 | 22.4 | C | 0.18 | 22.4 | C | 0.43 | 34.7 | C | 0.43 | 34.7 | C |
|  |  |  | TR | 0.31 | 23.6 | C | 0.31 | 23.6 | C | 0.91 | 51.6 | D | 0.91 | 51.6 | D |
|  |  |  | L | 0.40 | 34.4 | C | 0.40 | 34.4 | C | 0.32 | 25.3 | C | 0.32 | 25.3 | C |
|  |  |  | TR | 0.63 | 41.0 | D | 0.64 | 41.1 | D | 0.85 | 43.5 | D | 0.85 | 43.8 | D |
|  |  |  | L | 0.25 | 34.4 | C | 0.25 | 34.4 | C | 0.57 | 36.8 | D | 0.58 | 37.0 | D |
|  |  |  | T | 0.43 | 35.1 | D | 0.43 | 35.2 | D | 0.27 | 22.9 | C | 0.27 | 22.9 | C |
|  |  |  | R | 0.23 | 22.1 | C | 0.23 | 22.1 | C | 0.40 | 11.1 | B | 0.41 | 11.1 | B |
|  |  | Intersection |  |  | 33.9 | C |  | 34.2 | C |  | 37.1 | D |  | 37.2 | D |
| Saw Mill River Road (Rt.9A) @ Hunter Lane | 16 | Eastbound Westbound <br> Northbound Southbound | LTR | 0.01 | 29.1 | C | 0.01 | 29.1 | C | 0.01 | 32.9 | C | 0.01 | 32.9 | C |
|  |  |  | LT | 0.32 | 32.5 | C | 0.32 | 32.5 | C | 0.83 | 59.5 | E | 0.83 | 59.5 | E |
|  |  |  | R | 0.01 | 18.7 | B | 0.01 | 18.7 | B | 0.08 | 23.0 | C | 0.08 | 23.0 | C |
|  |  |  | LTR | 0.71 | 23.1 | C | 0.72 | 23.3 | C | 0.72 | 20.2 | C | 0.72 | 20.3 | C |
|  |  |  | LTR | 0.73 | 16.3 | B | 0.74 | 16.5 | B | 0.81 | 16.3 | B | 0.81 | 16.5 | B |
|  |  | Intersection |  |  | 20.3 | C |  | 20.5 | C |  | 21.8 | C |  | 22.0 | C |

TABLE 4.9-13. PURE NO BUILD VS. CAT DEL ALONE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2010 NO BUILD AND OPERATION CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Group } \\ \hline \end{array}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2010 No Build |  |  | 2010 Operation |  |  | 2010 No Build |  |  | 2010 Operation |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{array}{\|c} \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \hline \end{gathered}$ | LOS | v/c <br> Ratio | $\begin{array}{\|c} \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \hline \end{gathered}$ | LOS |
| Saw Mill River Road (Rt.9A) @ Dana Road | 20 | Eastbound | LT | 0.07 | 25.5 | C | 0.07 | 25.5 | C | 0.31 | 27.8 | C | 0.32 | 27.8 | C |
|  |  |  | R | 0.08 | 25.6 | C | 0.08 | 25.6 | C | 0.24 | 26.9 | C | 0.24 | 26.9 | C |
|  |  | Westbound | L | 0.16 | 26.2 | C | 0.17 | 26.3 | C | 0.68 | 36.0 | D | 0.70 | 37.2 | D |
|  |  |  | TR | 0.07 | 25.5 | C | 0.08 | 25.5 | C | 0.48 | 29.3 | C | 0.48 | 29.3 | C |
|  |  | Northbound | L | 0.12 | 30.5 | C | 0.12 | 30.5 | C | 0.39 | 32.7 | C | 0.39 | 32.7 | C |
|  |  |  | TR | 0.71 | 27.0 | C | 0.71 | 27.2 | C | 0.87 | 34.4 | C | 0.88 | 34.6 | C |
|  |  | Southbound | L | 0.46 | 33.4 | C | 0.47 | 33.5 | C | 0.17 | 30.8 | C | 0.17 | 30.9 | C |
|  |  |  | TR | 0.61 | 24.4 | C | 0.61 | 24.4 | C | 0.76 | 28.5 | C | 0.76 | 28.5 | C |
|  |  | Intersection |  |  | 26.5 | C |  | 26.6 | C |  | 31.6 | C |  | 31.8 | C |
| Old Saw Mill River Road @ Saw Mill River Pkwy SB Off Ramp | 21 | Eastbound Westbound Southbound | LT | 0.92 | 34.2 | C | 0.92 | 34.5 | C | 1.10 | 92.7 | F | 1.11 | 93.5 | F |
|  |  |  | TR | 0.25 | 4.8 | A | 0.25 | 4.8 | A | 0.50 | 9.8 | A | 0.50 | 9.8 | A |
|  |  |  | L | 0.70 | 37.9 | D | 0.70 | 37.9 | D | 0.29 | 23.2 | c | 0.29 | 23.2 | C |
|  |  |  | LR | 0.17 | 28.3 | C | 0.17 | 28.3 | C | 0.22 | 22.6 | C | 0.22 | 22.6 | C |
|  |  | Intersection |  |  | 24.1 | C |  | 24.1 | C |  | 40.8 | D |  | 41.0 | D |
| Old Saw Mill River Road @ Saw Mill River Pkwy NB Off Ramp | 22 | Eastbound Westbound Northbound | , | 0.50 | 17.7 | B | 0.50 | 17.7 | B | 0.42 | 13.4 | B | 0.42 | 13.4 | B |
|  |  |  | T | 0.21 | 7.8 | A | 0.21 | 7.8 | A | 0.33 | 4.4 | A | 0.33 | 4.4 | A |
|  |  |  | LR | 0.54 | 26.1 | C | 0.54 | 26.2 | C | 0.48 | 31.8 | C | 0.48 | 31.8 | C |
|  |  |  | R | 0.51 | 25.5 | C | 0.51 | 25.6 | C | 0.46 | 31.7 | C | 0.47 | 31.8 | C |
|  |  | Intersection |  |  | 17.3 | B |  | 17.3 | B |  | 11.9 | B |  | 11.9 | B |
| Grassland Road (Rt.100C) @ Clearbrook Road/Walker Road | 24 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 0.16 | 3.1 | A | 0.17 | 3.1 | A | 0.16 | 10.3 | B | 0.17 | 10.4 | B |
|  |  |  | TR | 0.38 | 3.8 | A | 0.38 | 3.8 | A | 0.75 | 17.9 | B | 0.75 | 17.9 | B |
|  |  |  | L | 0.39 | 4.1 | A | 0.39 | 4.1 | A |  | ** | F | * | ** | F |
|  |  |  | TR | 0.40 | 3.9 | A | 0.41 | 4.0 | A | 0.72 | 17.2 | B | 0.73 | 17.5 | B |
|  |  |  | LT | 0.22 | 33.8 | C | 0.22 | 33.8 | C | 0.21 | 20.1 | c | 0.21 | 20.1 | C |
|  |  |  | LT | 0.21 | 33.8 | C | 0.27 | 34.4 | C | 0.24 | 20.4 | C | 0.27 | 20.7 | C |
|  |  |  | R | 0.08 | 32.7 | C | 0.09 | 32.8 | C | 0.19 | 19.9 | B | 0.19 | 19.9 | B |
|  |  | Intersection |  |  | 5.5 | A |  | 5.7 | A |  | 50.5 | D |  | 50.5 | D |
| Grassland Road (Rt.100C) @ Woods Drive/Taylor Road | 25 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 0.30 | 7.9 | A | 0.31 | 8.1 | A | 0.35 | 14.5 | B | 0.35 | 14.6 | B |
|  |  |  | TR | 0.27 | 5.3 | A | 0.27 | 5.3 | A | 0.58 | 12.7 | B | 0.59 | 12.8 | B |
|  |  |  | L | 0.00 | 9.3 | A | 0.00 | 9.3 | A | 0.01 | 12.6 | B | 0.01 | 12.6 | B |
|  |  |  | TR | 0.59 | 14.4 | B | 0.60 | 14.5 | B | 0.75 | 21.9 | C | 0.75 | 22.0 | C |
|  |  |  | LTR | 0.01 | 32.9 | C | 0.01 | 32.9 | C | 0.01 | 24.6 | C | 0.01 | 24.6 | C |
|  |  |  | LT | 0.56 | 39.7 | D | 0.56 | 39.7 | D | 0.81 | 43.5 | D | 0.81 | 43.5 | D |
|  |  |  | R | 0.09 | 21.2 | C | 0.09 | 21.2 | C | 0.12 | 17.2 | B | 0.12 | 17.2 | B |
|  |  | Intersection |  |  | 13.0 | B |  | 13.1 | B |  | 20.2 | C |  | 20.3 | C |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy SB Ramp | 26 | Eastbound Westbound Southbound | TR | 0.28 | 7.6 | A | 0.28 | 7.6 | A | 0.69 | 12.0 | B | 0.70 | 12.2 | B |
|  |  |  | T | 0.33 | 7.9 | A | 0.33 | 7.9 | A | 0.54 | 9.7 | A | 0.54 | 9.7 | A |
|  |  |  | L | 0.56 | 34.4 | C | 0.56 | 34.4 | C | 0.18 | 29.7 | C | 0.18 | 29.7 | C |
|  |  |  | R | 0.34 | 31.2 | C | 0.34 | 31.3 | C | 0.13 | 29.2 | C | 0.14 | 29.3 | C |
|  |  | Intersection |  |  | 13.2 | B |  | 13.2 | B |  | 11.8 | B |  | 11.9 | B |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy NB Ramp | $\begin{array}{\|l\|} \hline 27 \\ 30 \end{array}$ | Eastbound <br> Westbound Northbound | L | 0.09 | 14.8 | B | 0.10 | 14.9 | B | 0.51 | 15.6 | B | 0.52 | 15.9 | B |
|  |  |  | T | 0.51 | 18.2 | B | 0.51 | 18.2 | B | 0.33 | 9.0 | A | 0.33 | 9.0 | A |
|  |  |  | TR | 0.48 | 24.8 | C | 0.48 | 24.8 | C | 1.09 | 79.6 | E | 1.09 | 79.9 | E |
|  |  |  | LT | 1.03 | 76.4 | E | 1.05 | $81.1+$ | F | 0.71 | 30.2 | C | 0.72 | 30.5 | C |
|  |  |  | R | 1.05 | 84.7 | F | 1.05 | 84.7 | F | 0.37 | 23.2 | C | 0.37 | 23.2 | C |
|  |  | Intersection |  |  | 48.2 | D |  | 49.4 | D |  | 48.7 | D |  | 48.8 | D |
| Virginia Road @ Bronx River Pkwy | 31 | Eastbound <br> Westbound <br> Northbound <br> Southbound | LT | 1.17 | 145.3 | F | 1.17 | 145.3 | F | 1.21 | 162.4 | F | 1.21 | 162.4 | F |
|  |  |  | R | 0.22 | 19.7 | B | 0.22 | 19.7 | B | 0.41 | 34.8 | C | 0.41 | 34.8 | C |
|  |  |  | LTR | 0.43 | 35.1 | D | 0.43 | 35.1 | D | 1.40 | ** | F | 1.40 | ** | F |
|  |  |  | L | 0.06 | 46.4 | D | 0.06 | 46.4 | D | 0.06 | 11.1 | B | 0.06 | 11.1 | B |
|  |  |  | TR | 0.27 | 20.2 | C | 0.27 | 20.2 | C | 0.64 | 25.8 | C | 0.64 | 25.8 | C |
|  |  |  | L | 1.14 | 153.1 | F | 1.14 | 153.1 | F | 0.14 | 12.0 | B | 0.14 | 12.0 | B |
|  |  |  | T | 0.72 | 27.9 | C | 0.72 | 27.9 | C | 0.61 | 25.1 | C | 0.61 | 25.1 | C |
|  |  | Intersection |  |  | 58.3 | E |  | 58.3 | E |  | 72.6 | E |  | 72.6 | E |
| Grassland Road (Rt.100) @ WCC East Gate | 34 | Eastbound T <br> Westbound L <br>  T <br> Northbound L <br> Intersection  |  | 0.42 | 7.8 | A | 0.42 | 7.8 | A | 0.75 | 17.9 | B | 0.75 | 17.9 | B |
|  |  |  |  | 0.27 | 5.3 | A | 0.27 | 5.3 | A | 0.22 | 11.6 | B | 0.22 | 11.6 | B |
|  |  |  |  | 0.25 | 3.2 | A | 0.25 | 3.2 | A | 0.59 | 8.2 | A | 0.59 | 8.2 | A |
|  |  |  |  | 0.07 | 45.8 | D | 0.07 | 45.8 | D | 0.64 | 31.3 | C | 0.64 | 31.3 | C |
|  |  |  |  |  | 6.4 | A |  | 6.4 | A |  | 15.2 | B |  | 15.2 | B |
| Old Saw Mill River Road @ Landmark West Driveway | 46 | Eastbound | LTR | 0.81 | 11.1 | B | 0.82 | 11.3 | B | 0.60 | 6.4 | A | 0.60 | 6.4 | A |
|  |  | Westbound | LTR | 0.27 | 4.2 | A | 0.28 | 4.2 | A | 0.51 | 5.4 | A | 0.52 | 5.4 | A |
|  |  | Northbound | LTR | 0.02 | 21.0 | C | 0.02 | 21.0 | C | 0.08 | 21.2 | C | 0.08 | 21.2 | C |
|  |  | Southbound | LTR | 0.04 | 21.1 | C | 0.04 | 21.1 | C | 0.03 | 21.0 | C | 0.03 | 21.0 | C |
|  |  | Intersectio |  |  | 9.5 | A |  | 9.6 | A |  | 6.2 | A |  | 6.2 | A |

Notes:
$L=$ Left Turn, $T=$ Through, $R=$ Right Turn, Def = Defacto Left Turn; LOS = Level of Service. " + " indicates significant impacts.
" * " indicates a v/c ratio greater than 1.50 ; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.9-13. PURE NO BUILD VS. CAT DEL ALONE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2010 NO BUILD AND OPERATION CONDITIONS

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2010 No Build |  |  | 2010 Operation |  |  | 2010 No Build |  |  | 2010 Operation |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{array}{\|c} \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | v/c <br> Ratio | $\begin{array}{\|c} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{gathered}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.12 | 10.8 | B | 0.12 | 10.8 | B | 0.20 | 9.6 | A | 0.20 | 9.7 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ Beverly Road | 2 | Northbound | LT | 0.01 | 10.4 | B | 0.01 | 10.4 | B | 0.03 | 13.3 | B | 0.03 | 13.3 | B |
|  |  | Eastbound | LR | 0.07 | 21.9 | C | 0.07 | 22.0 | C | 0.06 | 31.5 | D | 0.06 | 31.5 | D |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3N | Northbound | LT | 0.02 | 11.0 | B | 0.02 | 11.0 | B | 0.01 | 9.9 | A | 0.01 | 9.9 | A |
|  |  | Southbound | LT | 0.03 | 9.2 | A | 0.03 | 9.2 | A | 0.02 | 10.6 | B | 0.02 | 10.6 | B |
|  |  | Eastbound | LTR | 0.03 | 37.1 | E | 0.03 | 37.1 | E | 0.14 | 25.2 | D | 0.14 | 25.2 | D |
|  |  | Westbound | LTR | 0.04 | 17.1 | C | 0.04 | 17.2 | C | 0.08 | 16.1 | C | 0.08 | 16.1 | C |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue South | 3 S | Southbound | LT | 0.00 | 8.8 | A | 0.00 | 8.8 | A | 0.00 | 10.5 | B | 0.00 | 10.6 | B |
|  |  | Westbound | LR | 0.04 | 22.6 | C | 0.04 | 22.6 | C | 0.16 | 36.2 | E | 0.16 | 36.5 | E |
| Bradhurst Avenue (Rt. 100) @ <br> Lakeview Avenue | 5 | Southbound | LT | 0.02 | 8.3 | A | 0.02 | 8.3 | A | 0.01 | 8.1 | A | 0.01 | 8.1 | A |
|  |  | Westbound | LR | 0.28 | 15.8 | C | 0.28 | 15.8 | C | 0.48 | 20.2 | C | 0.48 | 20.2 | C |
| Knollwood Road (Rt.100A) @ Hevelyne Road | 7 | Northbound | LT | 0.01 | 8.3 | A | 0.01 | 8.3 | A | 0.00 | 8.0 | A | 0.00 | 8.0 | A |
|  |  | Eastbound | LR | 0.04 | 13.4 | B | 0.04 | 13.4 | B | 0.01 | 10.9 | B | 0.01 | 10.9 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound | L | 0.10 | 10.2 | B | 0.10 | 10.2 | B | 0.17 | 10.8 | B | 0.17 | 10.9 | B |
|  |  | Southbound | LT | 0.01 | 9.0 | A | 0.01 | 9.0 | A | 0.01 | 9.6 | A | 0.01 | 9.6 | A |
|  |  | Eastbound | L | 0.02 | 36.0 | E | 0.02 | 36.6 | E | 0.01 | 59.5 | F | 0.02 | 61.2 | F |
|  |  |  | T | 0.02 | 42.9 | E | 0.02 | 43.7 | E | 0.12 | 102.0 | F | 0.12 | 104.6 | F |
|  |  | Westbound | LT | 0.12 | 38.9 | E | 0.12 | 39.9 | E | 0.14 | 69.1 | F | 0.14 | 70.2 | F |
|  |  |  | TR | 0.01 | 10.9 | B | 0.01 | 11.0 | B | 0.03 | 18.7 | C | 0.03 | 19.0 | C |
| Dana Road @ Walker Road | 18 | Northbound | LR | 0.23 | 12.1 | B | 0.25 | 12.3 | B | 0.09 | 11.7 | B | 0.12 | 12.7 | B |
|  |  | Westbound | LT | 0.02 | 8.7 | A | 0.02 | 8.7 | A | 0.11 | 8.1 | A | 0.11 | 8.2 | A |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | NorthboundWestbound | L | 1.00 | 152.7 | F | 1.01 | 155.9 + | F | 1.31 | ** | F | 1.32 | ** + | F |
|  |  |  | R | 0.24 | 18.6 | C | 0.24 | 18.7 | C | 0.30 | 16.5 | C | 0.30 | 16.5 | C |
|  |  |  | L | 0.17 | 12.2 | B | 0.17 | 12.2 | B | 0.19 | 11.6 | B | 0.19 | 11.6 | B |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | LT | 0.07 | 29.2 | D | 0.07 | 29.3 | D | 0.06 | 28.8 | D | 0.06 | 29.0 | D |
|  |  |  | TR | 0.08 | 15.1 | C | 0.08 | 15.2 | C | 0.18 | 14.7 | B | 0.18 | 14.8 | B |
|  |  |  | L | 0.22 | 10.3 | B | 0.22 | 10.3 | B | 0.19 | 11.3 | B | 0.20 | 11.3 | B |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound | LT | 0.24 | 8.4 | A | 0.24 | 8.4 | A | 0.39 | 10.6 | B | 0.39 | 10.6 | B |
|  |  | Westbound | LR | 0.58 | 17.8 | C | 0.58 | 17.8 | C | 1.35 | 203.0 | F | 1.35 | 203.0 | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound <br> Eastbound | L | 0.46 | 32.9 | D | 0.46 | 32.9 | D | 1.42 | ** | F | 1.42 | ** | F |
|  |  |  | R | 0.21 | 12.4 | B | 0.21 | 12.4 | B | 0.49 | 20.9 | C | 0.49 | 20.9 | C |
|  |  |  | LT | 0.07 | 8.6 | A | 0.07 | 8.6 | A | 0.25 | 10.9 | B | 0.25 | 10.9 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound | L | 0.06 | 21.4 | C | 0.06 | 21.4 | C | 0.31 | 57.9 | F | 0.31 | 57.9 | F |
|  |  |  | R | 0.01 | 13.9 | B | 0.01 | 13.9 | B | 0.53 | 19.9 | C | 0.53 | 19.9 | C |
|  |  | Westbound | LT | 0.00 | 10.1 | B | 0.00 | 10.1 | B | 0.13 | 9.2 | A | 0.13 | 9.2 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.09 | 19.6 | C | 0.09 | 19.7 | C | 0.13 | 37.7 | E | 0.13 | 38.0 | E |
|  |  | Southbound | LTR | 0.01 | 10.5 | B | 0.01 | 10.5 | B | 0.09 | 20.5 | C | 0.09 | 20.6 | C |
|  |  | Eastbound | LTR | 0.01 | 8.1 | A | 0.01 | 8.1 | A | 0.01 | 9.0 | A | 0.01 | 9.1 | A |
|  |  | Westbound | LTR | 0.02 | 10.7 | B | 0.02 | 10.7 | B | 0.01 | 9.3 | A | 0.01 | 9.3 | A |

## Notes:

L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.
" ** " indicates a calculated delay greater than 240 seconds.

### 4.9.3.1.3. With Croton Project at Eastview Site

Figures 4.9-25 and 4.9-26 show the total combined traffic under 2010 Build (operational) conditions with the Croton project at the Eastview Site.

Traffic. The potential impacts associated with the operation of the proposed UV Facility (2010 Build conditions) are shown in Table 4.9-14, and are similar to conditions without the Croton project. Applying the CEQR Technical Manual impact criteria to the analyses of 2010 Build conditions, shows that the addition of project-generated traffic would result in significant adverse traffic impacts at one signalized and one unsignalized intersection. The following is a summary of potential impacts associated with the 2010 Build conditions of the proposed project, with the Croton project included in the background 2010 FNB conditions. All increases in delay described below are given in comparison to the 2010 FNB (with Croton project) conditions.

## Significant Traffic Impacts Occurring at Signalized Intersections.

- At the intersection of Grasslands Road and the Sprain Brook Parkway Northbound Ramp, the northbound left/through movement would be significantly impacted during the AM peak hour. The delay would increase from 83.8 seconds (LOS E) to 89.0 seconds (LOS F).


## Significant Traffic Impacts Occurring at Unsignalized Intersections.

- At the intersection of Saw Mill River Road and Grasslands Road, the northbound leftturn movement would be significantly impacted during the PM peak hour. This movement would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.

Measures have been identified that would mitigate these project-related significant adverse traffic impacts. A description of the measures, and an analysis showing the resulting effects of implementing the measures suggested as mitigation for these impacts, are fully discussed in Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts.

TABLE 4.9-14. PURE NO BUILD + CROTON VS. CAT DEL ALONE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2010 NO BUILD AND OPERATION CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Group } \\ \hline \end{array}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2010 No Build |  |  | 2010 Operation |  |  | 2010 No Build |  |  | 2010 Operation |  |  |
|  |  |  |  | $\begin{array}{\|l\|} \hline \mathbf{v / c} \\ \text { Ratio } \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \hline \text { Delay } \\ (\mathrm{sec}) \\ \hline \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{aligned} & \hline \begin{array}{l} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ & \hline \end{aligned}$ | LOS |
| Saw Mill River Road (Rt.9A) (N-S) @ Saw Mill River Pkwy Ramp | 4 | Eastbound | L | 0.66 | 32.4 | C | 0.66 | 32.4 | C | 0.54 | 29.6 | C | 0.54 | 29.6 | C |
|  |  |  | LTR | 0.14 | 25.0 | C | 0.14 | 25.0 | C | 0.15 | 25.8 | C | 0.15 | 25.8 | C |
|  |  | Westbound | L | 0.15 | 32.4 | C | 0.15 | 32.4 | C | 0.14 | 34.2 | C | 0.14 | 34.2 | c |
|  |  |  | LT | 0.10 | 32.1 | c | 0.10 | 32.1 | c | 0.09 | 33.8 | c | 0.09 | 33.8 | c |
|  |  |  | R | 0.05 | 31.8 | C | 0.05 | 31.8 | C | 0.22 | 34.8 | C | 0.22 | 34.8 | C |
|  |  | Northbound | L | 0.19 | 14.2 | B | 0.19 | 14.2 | B | 0.83 | 34.6 | c | 0.83 | 34.6 | c |
|  |  |  | TR | 0.32 | 14.9 | B | 0.32 | 14.9 | B | 0.57 | 15.7 | B | 0.57 | 15.7 | B |
|  |  | Southbound | L | 0.10 | 13.3 | B | 0.10 | 13.3 | B | 0.16 | 21.7 | c | 0.16 | 21.7 | c |
|  |  |  | TR | 0.56 | 17.3 | B | 0.56 | 17.4 | B | 1.01 | 61.5 | E | 1.01 | 61.8 | E |
|  |  | Intersection |  |  | 19.7 | B |  | 19.7 | B |  | 36.9 | D |  | 37.0 | D |
| Grasslands Road (Rt. 100C) (E-W) @ Bradhurst Avenue (Rt. 100) | 6 | Eastbound | L | 0.77 | 41.7 | D | 0.77 | 41.7 | D | * | ** | F | * | ** | F |
|  |  |  | T | 1.06 | 84.2 | F | 1.06 | 84.2 | F | 0.61 | 22.8 | c | 0.61 | 22.8 | c |
|  |  |  | R | 0.36 | 16.5 | B | 0.36 | 16.5 | B | 0.28 | 12.2 | B | 0.28 | 12.2 | B |
|  |  | Westbound | L | 0.70 | 59.8 | E | 0.70 | 59.8 | E | 0.24 | 18.2 | B | 0.24 | 18.2 | B |
|  |  |  | TR | 0.46 | 26.3 | c | 0.46 | 26.3 | c | 1.01 | 63.9 | E | 1.01 | 63.9 | E |
|  |  | Northbound | L | 0.24 | 23.7 | c | 0.24 | 23.8 | C | 0.90 | 64.0 | E | 0.90 | 65.1 | E |
|  |  |  | TR | 0.35 | 26.1 | C | 0.35 | 26.1 | C | 0.20 | 16.4 | B | 0.20 | 16.4 | B |
|  |  | Southbound | L | 0.53 | 41.2 | D | 0.53 | 41.2 | D | 0.34 | 25.6 | C | 0.34 | 25.6 | C |
|  |  |  | TR | 0.70 | 50.8 | D | 0.70 | 50.8 | D | 1.15 | 121.9 | F | 1.15 | 121.9 | F |
|  |  | Intersection |  |  | 48.8 | D |  | 48.8 | D |  | 76.8 | E |  | 76.8 | E |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) WB Ramp | 8 | Westbound <br> Northbound <br> Southbound | LT | 0.47 | 27.8 | C | 0.47 | 27.8 | C | 0.82 | 41.1 | D | 0.82 | 41.1 | D |
|  |  |  | R | 0.25 | 25.5 | C | 0.25 | 25.5 | C | 0.46 | 27.8 | C | 0.46 | 27.8 | C |
|  |  |  | L | 0.53 | 10.2 | B | 0.53 | 10.2 | B | 1.00 | 66.8 | E | 1.00 | 67.5 | E |
|  |  |  | T | 0.52 | 10.5 | B | 0.52 | 10.5 | B | 0.54 | 10.7 | B | 0.54 | 10.7 | B |
|  |  |  | T | 0.31 | 13.5 | B | 0.31 | 13.5 | B | 0.46 | 14.9 | B | 0.46 | 15.0 | B |
|  |  |  | R | 0.14 | 12.2 | B | 0.14 | 12.2 | B | 0.23 | 12.9 | B | 0.23 | 12.9 | B |
|  |  | Intersection |  |  | 14.6 | B |  | 14.6 | B |  | 30.1 | C |  | 30.2 | C |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) EB Ramp | 9 | Eastbound <br> Northbound <br> Southbound | L | 0.70 | 33.6 | C | 0.70 | 33.6 | C | 0.49 | 24.6 | C | 0.49 | 24.6 | C |
|  |  |  | TR | 0.01 | 23.6 | C | 0.01 | 23.6 | C | 0.00 | 20.0 | C | 0.00 | 20.0 | C |
|  |  |  | R | 0.60 | 30.5 | c | 0.60 | 30.5 | c | 0.80 | 36.2 | D | 0.80 | 36.2 | D |
|  |  |  | T | 0.51 | 15.5 | B | 0.51 | 15.5 | B | 0.89 | 34.4 | C | 0.89 | 34.5 | c |
|  |  |  | R | 0.54 | 16.2 | B | 0.54 | 16.2 | B | 0.65 | 21.5 | C | 0.65 | 21.5 | c |
|  |  |  | L | 0.41 | 10.0 | B | 0.41 | 10.0 | B | 0.84 | 35.5 | D | 0.84 | 35.5 | D |
|  |  |  | T | 0.30 | 8.5 | A | 0.30 | 8.5 | A | 0.67 | 16.0 | B | 0.67 | 16.0 | B |
|  |  | Intersection |  |  | 19.0 | B |  | 19.0 | B |  | 27.4 | C |  | 27.4 | C |
| Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A) | 10 | Westbound <br> Northbound Southbound | LT | 0.15 | 24.6 | C | 0.15 | 24.6 | C | 0.36 | 26.5 | C | 0.36 | 26.5 | C |
|  |  |  | R | 0.52 | 28.6 | C | 0.52 | 28.6 | C | 0.99 | 73.0 | E | 0.99 | 73.0 | E |
|  |  |  | LT | 0.42 | 10.3 | B | 0.42 | 10.3 | B | 0.62 | 13.0 | B | 0.62 | 13.0 | B |
|  |  |  | T | 0.21 | 15.3 | B | 0.21 | 15.3 | B | 0.45 | 17.5 | B | 0.45 | 17.5 | B |
|  |  |  | R | 0.20 | 15.4 | B | 0.20 | 15.4 | B | 0.49 | 18.2 | B | 0.49 | 18.2 | B |
|  |  | Intersection |  |  | 15.6 | B |  | 15.6 | B |  | 26.9 | C |  | 26.9 | C |
| Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A) | $\begin{array}{\|l\|} \hline 11 \\ 12 \\ \hline \end{array}$ | Eastbound <br> Northbound Southbound | LT | 0.73 | 35.1 | D | 0.73 | 35.1 | D | 0.81 | 40.2 | D | 0.81 | 40.2 | D |
|  |  |  | R | 0.16 | 24.8 | C | 0.16 | 24.8 | C | 0.36 | 26.6 | C | 0.36 | 26.6 | C |
|  |  |  | TR | 0.41 | 20.3 | C | 0.41 | 20.3 | C | 0.43 | 20.4 | C | 0.43 | 20.4 | c |
|  |  |  | Def | 0.32 | 12.3 | B | 0.32 | 12.3 | B | 0.49 | 15.3 | B | 0.49 | 15.3 | B |
|  |  |  | T | 0.28 | 9.3 | A | 0.28 | 9.3 | A | 0.56 | 12.0 | B | 0.56 | 12.0 | B |
|  |  | Intersection |  |  | 20.8 | C |  | 20.8 | C |  | 21.7 | C |  | 21.7 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) WB Ramp | 13 | Westbound <br> Northbound Southbound | , | 1.11 | 107.4 | F | 1.11 | 107.4 | F | 0.76 | 39.2 | D | 0.76 | 39.2 | D |
|  |  |  | R | 0.50 | 27.7 | C | 0.50 | 27.8 | C | 0.43 | 20.6 | C | 0.43 | 20.6 | C |
|  |  |  | LTR | 0.37 | 9.0 | A | 0.38 | 9.0 | A | 0.73 | 24.1 | C | 0.73 | 24.2 | c |
|  |  |  | TR | 0.48 | 9.9 | A | 0.49 | 9.9 | A | 0.88 | 24.5 | c | 0.88 | 24.7 | c |
|  |  | Intersection |  |  | 36.6 | D |  | 36.6 | D |  | 25.7 | C |  | 25.9 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) EB Ramp | 14 | Northbound Southbound$\qquad$ | TR | 0.32 | 12.4 | B | 0.32 | 12.4 | B | 0.91 | 37.6 | D | 0.92 | 37.8 | D |
|  |  |  | L | 0.52 | 2.1 | A | 0.52 | 2.1 | A | 0.77 | 25.2 | c | 0.77 | 25.4 | c |
|  |  |  | LT | 0.16 | 0.2 | A | 0.17 | 0.2 | A | 0.55 | 0.5 | A | 0.55 | 0.5 | A |
|  |  | Intersection |  |  | 5.1 | A |  | 5.2 | A |  | 18.9 | B |  | 19.0 | B |
| Saw Mill River Road (Rt.9A) @ Tarrytown/White Plains Road (Rt.119) | 15 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 1.01 | 79.9 | E | 1.01 | 80.6 | F | 1.03 | 85.6 | F | 1.03 | 86.3 | F |
|  |  |  | TR | 0.39 | 14.7 | B | 0.39 | 14.7 | B | 0.48 | 20.4 | c | 0.48 | 20.4 | c |
|  |  |  | L | 0.18 | 22.4 | C | 0.18 | 22.4 | c | 0.43 | 34.7 | C | 0.43 | 34.7 | c |
|  |  |  | TR | 0.31 | 23.6 | c | 0.31 | 23.6 | c | 0.91 | 51.6 | D | 0.91 | 51.6 | D |
|  |  |  | L | 0.40 | 34.4 | C | 0.40 | 34.5 | C | 0.32 | 25.3 | C | 0.32 | 25.4 | c |
|  |  |  | TR | 0.64 | 41.1 | D | 0.64 | 41.3 | D | 0.85 | 43.8 | D | 0.85 | 44.0 | D |
|  |  |  | L | 0.25 | 34.4 | C | 0.25 | 34.5 | c | 0.58 | 37.0 | D | 0.58 | 37.0 | D |
|  |  |  | T | 0.43 | 35.2 | D | 0.44 | 35.2 | D | 0.27 | 22.9 | C | 0.27 | 23.0 | C |
|  |  |  | R | 0.23 | 22.1 | C | 0.23 | 22.1 | C | 0.41 | 11.1 | B | 0.41 | 11.1 | B |
|  |  | Intersection |  |  | 34.3 | C |  | 34.5 | C |  | 37.2 | D |  | 37.3 | D |
| Saw Mill River Road (Rt.9A) @ Hunter Lane | 16 | Eastbound Westbound <br> Northbound Southbound | LTR | 0.01 | 29.1 | C | 0.01 | 29.1 | C | 0.01 | 32.9 | C | 0.01 | 32.9 | C |
|  |  |  | LT | 0.32 | 32.5 | C | 0.32 | 32.5 | C | 0.83 | 59.5 | E | 0.83 | 59.5 | E |
|  |  |  | R | 0.01 | 18.7 | B | 0.01 | 18.7 | B | 0.08 | 23.0 | c | 0.08 | 23.0 | c |
|  |  |  | LTR | 0.72 | 23.3 | C | 0.72 | 23.5 | C | 0.72 | 20.2 | C | 0.72 | 20.3 | c |
|  |  |  | LTR | 0.74 | 16.4 | B | 0.74 | 16.6 | B | 0.81 | 16.6 | B | 0.82 | 16.8 | B |
|  |  | Intersection |  |  | 20.5 | C |  | 20.7 | C |  | 22.0 | C |  | 22.1 | C |

TABLE 4.9-14. PURE NO BUILD + CROTON VS. CAT DEL ALONE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2010 NO BUILD AND OPERATION CONDITIONS

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2010 No Build |  |  | 2010 Operation |  |  | 2010 No Build |  |  | 2010 Operation |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \\ \hline \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \hline \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{gathered}$ | LOS |
| Saw Mill River Road (Rt.9A) @ Dana Road | 20 | Eastbound | LT | 0.07 | 25.5 | C | 0.07 | 25.5 | C | 0.32 | 27.8 | C | 0.32 | 27.9 | C |
|  |  |  | R | 0.08 | 25.6 | C | 0.08 | 25.6 | C | 0.24 | 26.9 | C | 0.24 | 26.9 | C |
|  |  | Westbound | L | 0.17 | 26.3 | C | 0.18 | 26.4 | C | 0.71 | 37.4 | D | 0.73 | 38.6 | D |
|  |  |  | TR | 0.08 | 25.5 | C | 0.08 | 25.6 | C | 0.48 | 29.3 | C | 0.49 | 29.4 | C |
|  |  | Northbound | L | 0.12 | 30.5 | C | 0.12 | 30.5 | C | 0.39 | 32.7 | C | 0.39 | 32.7 | C |
|  |  |  | TR | 0.71 | 27.2 | C | 0.72 | 27.4 | C | 0.88 | 34.6 | C | 0.88 | 34.9 | C |
|  |  | Southbound | L | 0.47 | 33.5 | C | 0.47 | 33.6 | C | 0.17 | 30.9 | C | 0.17 | 30.9 | C |
|  |  |  | TR | 0.61 | 24.4 | C | 0.61 | 24.4 | C | 0.76 | 28.5 | C | 0.76 | 28.5 | C |
|  |  | Intersection |  |  | 26.6 | C |  | 26.7 | C |  | 31.8 | C |  | 32.1 | C |
| Old Saw Mill River Road @ Saw Mill River Pkwy SB Off Ramp | 21 | Eastbound <br> Westbound Southbound | LT | 0.92 | 34.9 | C | 0.92 | 34.9 | C | 1.11 | 93.5 | F | 1.11 | 94.2 | F |
|  |  |  | TR | 0.25 | 4.8 | A | 0.25 | 4.8 | A | 0.50 | 9.9 | A | 0.50 | 9.9 | A |
|  |  |  | L | 0.70 | 37.9 | D | 0.70 | 37.9 | D | 0.29 | 23.2 | C | 0.29 | 23.2 | C |
|  |  |  | LR | 0.17 | 28.3 | C | 0.17 | 28.3 | C | 0.22 | 22.6 | C | 0.22 | 22.6 | C |
|  |  | Intersection |  |  | 24.3 | C |  | 24.3 | C |  | 40.9 | D |  | 41.1 | D |
| Old Saw Mill River Road @ Saw Mill River Pkwy NB Off Ramp | 22 | Eastbound Westbound Northbound | T | 0.50 | 17.7 | B | 0.50 | 17.7 | B | 0.42 | 13.4 | B | 0.42 | 13.4 | B |
|  |  |  | T | 0.21 | 7.8 | A | 0.21 | 7.8 | A | 0.34 | 4.4 | A | 0.34 | 4.4 | A |
|  |  |  | LR | 0.54 | 26.2 | C | 0.55 | 26.3 | C | 0.48 | 31.8 | C | 0.49 | 31.8 | C |
|  |  |  | R | 0.52 | 25.7 | C | 0.52 | 25.8 | C | 0.47 | 31.8 | C | 0.47 | 31.8 | C |
|  |  | Intersection |  |  | 17.4 | B |  | 17.4 | B |  | 11.9 | B |  | 11.9 | B |
| Grassland Road (Rt.100C) @ Clearbrook Road/Walker Road | 24 | Eastbound <br> Westbound <br> Northbound Southbound | L | 0.18 | 3.2 | A | 0.19 | 3.2 | A | 0.17 | 10.4 | B | 0.20 | 10.7 | B |
|  |  |  | TR | 0.38 | 3.8 | A | 0.38 | 3.8 | A | 0.75 | 17.9 | B | 0.75 | 17.9 | B |
|  |  |  | L | 0.39 | 4.1 | A | 0.39 | 4.1 | A | * | ** | F | * | ** | F |
|  |  |  | TR | 0.42 | 4.0 | A | 0.43 | 4.1 | A | 0.73 | 17.5 | B | 0.74 | 17.8 | B |
|  |  |  | LT | 0.22 | 33.8 | C | 0.22 | 33.8 | C | 0.21 | 20.1 | C | 0.21 | 20.1 | C |
|  |  |  | LT | 0.27 | 34.4 | C | 0.32 | 35.0 | D | 0.29 | 20.9 | C | 0.23 | 21.2 | C |
|  |  |  | R | 0.09 | 32.8 | C | 0.10 | 32.8 | C | 0.20 | 20.0 | B | 0.21 | 20.0 | C |
|  |  | Intersection |  |  | 5.7 | A |  | 5.9 | A |  | 50.1 | D |  | 50.1 | D |
| Grassland Road (Rt.100C) @ Woods Drive/Taylor Road | 25 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 0.31 | 8.2 | A | 0.32 | 8.4 | A | 0.35 | 14.6 | B | 0.35 | 14.7 | B |
|  |  |  | TR | 0.27 | 5.3 | A | 0.28 | 5.3 | A | 0.59 | 12.8 | B | 0.60 | 13.0 | B |
|  |  |  | L | 0.00 | 9.3 | A | 0.00 | 9.3 | A | 0.01 | 12.6 | B | 0.01 | 12.6 | B |
|  |  |  | TR | 0.60 | 14.6 | B | 0.61 | 14.7 | B | 0.75 | 22.0 | C | 0.76 | 22.1 | C |
|  |  |  | LTR | 0.01 | 32.9 | C | 0.01 | 32.9 | C | 0.01 | 24.6 | C | 0.01 | 24.6 | C |
|  |  |  | LT | 0.56 | 39.7 | D | 0.56 | 39.7 | D | 0.81 | 43.5 | D | 0.81 | 43.5 | D |
|  |  |  | R | 0.09 | 21.2 | C | 0.09 | 21.2 | C | 0.12 | 17.2 | B | 0.12 | 17.2 | B |
|  |  | Intersection |  |  | 13.1 | B |  | 13.2 | B |  | 20.3 | C |  | 20.3 | C |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy SB Ramp | 26 | Eastbound Westbound Southbound | TR | 0.28 | 7.6 | A | 0.29 | 7.6 | A | 0.70 | 12.3 | B | 0.71 | 12.4 | B |
|  |  |  | T | 0.34 | 7.9 | A | 0.34 | 8.0 | A | 0.54 | 9.7 | A | 0.54 | 9.7 | A |
|  |  |  | L | 0.56 | 34.4 | C | 0.56 | 34.4 | C | 0.18 | 29.7 | C | 0.18 | 29.7 | C |
|  |  |  | R | 0.35 | 31.4 | C | 0.37 | 31.5 | C | 0.14 | 29.3 | C | 0.14 | 29.3 | C |
|  |  | Intersection |  |  | 13.3 | B |  | 13.3 | B |  | 12.0 | B |  | 12.1 | B |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy NB Ramp | $\begin{array}{\|l\|} \hline 27 \\ 30 \\ \hline \end{array}$ | Eastbound <br> Westbound <br> Northbound | L | 0.10 | 14.9 | B | 0.11 | 14.9 | B | 0.53 | 16.0 | B | 0.55 | 16.3 | B |
|  |  |  | T | 0.51 | 18.2 | B | 0.51 | 18.2 | B | 0.33 | 9.0 | A | 0.33 | 9.0 | A |
|  |  |  | TR | 0.48 | 24.8 | C | 0.48 | 24.8 | C | 1.09 | 79.9 | E | 1.09 | 80.2 | F |
|  |  |  | LT | 1.06 | 83.8 | F | 1.07 | 89.0 + | F | 0.72 | 30.5 | C | 0.73 | 30.8 | C |
|  |  |  | R | 1.05 | 84.7 | F | 1.05 | 84.7 | F | 0.37 | 23.2 | C | 0.37 | 23.2 | C |
|  |  | Intersection |  |  | 50.1 | D |  | 51.4 | D |  | 48.8 | D |  | 48.9 | D |
| Virginia Road @ <br> Bronx River Pkwy | 31 | Eastbound <br> Westbound <br> Northbound <br> Southbound | LT | 1.17 | 145.3 | F | 1.17 | 145.3 | F | 1.21 | 162.4 | F | 1.21 | 162.4 | F |
|  |  |  | R | 0.22 | 19.7 | B | 0.22 | 19.7 | B | 0.41 | 34.8 | C | 0.41 | 34.8 | C |
|  |  |  | LTR | 0.43 | 35.1 | D | 0.43 | 35.1 | D | 1.40 | ** | F | 1.40 | ** | F |
|  |  |  | L | 0.06 | 46.4 | D | 0.06 | 46.4 | D | 0.06 | 11.1 | B | 0.06 | 11.1 | B |
|  |  |  | TR | 0.27 | 20.2 | C | 0.27 | 20.2 | C | 0.64 | 25.8 | C | 0.64 | 25.8 | C |
|  |  |  | L | 1.14 | 153.1 | F | 1.14 | 153.1 | F | 0.14 | 12.0 | B | 0.14 | 12.0 | B |
|  |  |  | T | 0.72 | 27.9 | C | 0.72 | 27.9 | C | 0.61 | 25.1 | C | 0.61 | 25.1 | C |
|  |  |  |  |  | 58.3 | E |  | 58.3 | E |  | 72.6 | E |  | 72.6 | E |
| Grassland Road (Rt.100) @ WCC East Gate | 34 | Intersecti  <br> Eastbound  <br> Westbound  <br>   <br> Northbound  | T | 0.42 | 7.8 | A | 0.42 | 7.8 | A | 0.75 | 17.9 | B | 0.75 | 17.9 | B |
|  |  |  | L | 0.27 | 5.3 | A | 0.27 | 5.3 | A | 0.22 | 11.6 | B | 0.22 | 11.6 | B |
|  |  |  | T | 0.25 | 3.2 | A | 0.25 | 3.2 | A | 0.59 | 8.2 | A | 0.59 | 8.2 | A |
|  |  |  | L | 0.07 | 45.8 | D | 0.07 | 45.8 | D | 0.64 | 31.3 | C | 0.64 | 31.3 | C |
|  |  | Intersection |  |  | 6.4 | A |  | 6.4 | A |  | 15.3 | B |  | 15.3 | B |
| Old Saw Mill River Road @ Landmark West Driveway | 46 | Eastbound | LTR | 0.82 | 11.4 | B | 0.82 | 11.5 | B | 0.60 | 6.4 | A | 0.61 | 6.4 | A |
|  |  | Westbound | LTR | 0.28 | 4.2 | A | 0.28 | 4.2 | A | 0.52 | 5.4 | A | 0.52 | 5.5 | A |
|  |  | Northbound | LTR | 0.02 | 21.0 | C | 0.02 | 21.0 | C | 0.08 | 21.2 | C | 0.08 | 21.2 | C |
|  |  | Southbound | LTR | 0.04 | 21.1 | C | 0.04 | 21.1 | C | 0.03 | 21.0 | C | 0.03 | 21.0 | C |
|  |  | Intersecti |  |  | 9.7 | A |  | 9.8 | A |  | 6.2 | A |  | 6.2 | A |

Notes:
$\mathrm{L}=$ Left Turn, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn, Def = Defacto Left Turn; LOS = Level of Service. " + " indicates significant impacts.
" *" indicates a v/c ratio greater than 1.50; " **" indicates a calculated delay greater than 240 seconds.

TABLE 4.9-14. PURE NO BUILD + CROTON VS. CAT DEL ALONE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2010 NO BUILD AND OPERATION CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c\|\|} \hline \text { Lane } \\ \text { Group } \end{array}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2010 No Build |  |  | 2010 Operation |  |  | 2010 No Build |  |  | 2010 Operation |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{array}{\|c} \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{gathered}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.12 | 10.8 | B | 0.12 | 10.8 | B | 0.20 | 9.7 | A | 0.20 | 9.7 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ | 2 | Northbound | LT | 0.01 | 10.4 | B | 0.01 | 10.5 | B | 0.03 | 13.3 | B | 0.03 | 13.4 | B |
| Beverly Road |  | Eastbound | LR | 0.07 | 22.0 | C | 0.07 | 22.0 | C | 0.06 | 31.5 | D | 0.06 | 31.7 | D |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3 N | Northbound | LT | 0.02 | 11.0 | B | 0.02 | 11.1 | B | 0.01 | 9.9 | A | 0.01 | 9.9 | A |
|  |  | Southbound | LT | 0.03 | 9.2 | A | 0.03 | 9.2 | A | 0.02 | 10.6 | B | 0.02 | 10.6 | B |
|  |  | Eastbound | LTR | 0.03 | 37.1 | E | 0.03 | 37.1 | E | 0.14 | 25.2 | D | 0.14 | 25.3 | D |
|  |  | Westbound | LTR | 0.04 | 17.2 | C | 0.04 | 17.2 | C | 0.08 | 16.1 | C | 0.08 | 16.1 | C |
| Saw Mill River Road (Rt.9A) @ | 3S | Southbound | LT | 0.00 | 8.8 | A | 0.00 | 8.8 | A | 0.00 | 10.6 | B | 0.00 | 10.6 | B |
| Stevens Avenue South |  | Westbound | LR | 0.04 | 22.6 | C | 0.04 | 22.7 | C | 0.16 | 36.5 | E | 0.16 | 36.5 | E |
| Bradhurst Avenue (Rt. 100) @ | 5 | Southbound | LT | 0.02 | 8.3 | A | 0.02 | 8.3 | A | 0.01 | 8.1 | A | 0.01 | 8.1 | A |
| Lakeview Avenue |  | Westbound | LR | 0.28 | 15.8 | C | 0.28 | 15.8 | C | 0.48 | 20.2 | C | 0.48 | 20.2 | C |
| Knollwood Road (Rt.100A) @ | 7 | Northbound | LT | 0.01 | 8.3 | A | 0.01 | 8.3 | A | 0.00 | 8.0 | A | 0.00 | 8.0 | A |
| Hevelyne Road |  | Eastbound | LR | 0.04 | 13.4 | B | 0.04 | 13.4 | B | 0.01 | 10.9 | B | 0.01 | 10.9 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound <br> Southbound <br> EastboundWestbound | L | 0.10 | 10.2 | B | 0.10 | 10.2 | B | 0.17 | 10.9 | B | 0.17 | 10.9 | B |
|  |  |  | LT | 0.01 | 9.0 | A | 0.01 | 9.0 | A | 0.01 | 9.6 | A | 0.01 | 9.6 | A |
|  |  |  | L | 0.02 | 36.6 | E | 0.02 | 37.1 | E | 0.02 | 61.2 | F | 0.02 | 61.2 | F |
|  |  |  | T | 0.02 | 43.7 | E | 0.02 | 44.6 | E | 0.12 | 104.6 | F | 0.13 | 107.5 | F |
|  |  |  | LT | 0.12 | 39.9 | E | 0.12 | 40.6 | E | 0.14 | 70.2 | F | 0.14 | 71.4 | F |
|  |  |  | TR | 0.01 | 11.0 | B | 0.01 | 11.0 | B | 0.03 | 19.0 | C | 0.03 | 19.1 | C |
| Dana Road @ <br> Walker Road <br> Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 18 | Northbound | LR | 0.24 | 12.2 | B | 0.26 | 12.5 | B | 0.12 | 12.9 | B | 0.15 | 13.7 | B |
|  |  | Westbound | LT | 0.02 | 8.7 | A | 0.02 | 8.8 | A | 0.11 | 8.2 | A | 0.11 | 8.2 | A |
|  | 19A | Northbound <br> Westbound | L | 1.02 | 159.2 | F | 1.02 | 159.2 | F | 1.34 | ** | F | 1.35 | ** | F |
|  |  |  | R | 0.24 | 18.8 | C | 0.24 | 18.9 | C | 0.30 | 16.5 | C | 0.30 | 16.6 | C |
|  |  |  | L | 0.17 | 12.2 | B | 0.17 | 12.2 | B | 0.19 | 11.6 | B | 0.19 | 11.6 | B |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | LT | 0.07 | 29.3 | D | 0.07 | 29.5 | D | 0.06 | 29.0 | D | 0.06 | 29.2 | D |
|  |  |  | TR | 0.08 | 15.3 | C | 0.08 | 15.3 | C | 0.18 | 14.8 | B | 0.18 | 14.8 | B |
|  |  |  | L | 0.22 | 10.3 | B | 0.22 | 10.3 | B | 0.20 | 11.4 | B | 0.20 | 11.4 | B |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound | LT | 0.24 | 8.4 | A | 0.24 | 8.4 | A | 0.39 | 10.6 | B | 0.39 | 10.6 | B |
|  |  | Westbound | LR | 0.58 | 17.8 | C | 0.58 | 17.8 | C | 1.35 | 203.0 | F | 1.35 | 203.0 | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound <br> Eastbound | L | 0.46 | 33.2 | D | 0.46 | 33.2 | D | 1.42 | ** | F | 1.42 | ** | F |
|  |  |  | R | 0.21 | 12.5 | B | 0.21 | 12.5 | B | 0.49 | 20.9 | C | 0.49 | 20.9 | C |
|  |  |  | LT | 0.07 | 8.6 | A | 0.07 | 8.6 | A | 0.25 | 10.9 | B | 0.25 | 10.9 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound <br> Westbound | L | 0.06 | 21.5 | C | 0.06 | 21.5 | C | 0.31 | 57.9 | F | 0.31 | 57.9 | F |
|  |  |  | R | 0.01 | 13.9 | B | 0.01 | 13.9 | B | 0.53 | 20.0 | C | 0.53 | 20.0 | C |
|  |  |  | LT | 0.00 | 10.1 | B | 0.00 | 10.1 | B | 0.13 | 9.2 | A | 0.13 | 9.2 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.09 | 19.7 | C | 0.09 | 19.9 | C | 0.13 | 38.0 | E | 0.14 | 38.6 | E |
|  |  | Southbound | LTR | 0.01 | 10.5 | B | 0.01 | 10.5 | B | 0.09 | 20.7 | C | 0.09 | 20.9 | C |
|  |  | Eastbound | LTR | 0.01 | 8.1 | A | 0.01 | 8.2 | A | 0.01 | 9.1 | A | 0.01 | 9.1 | A |
|  |  | Westbound | LTR | 0.02 | 10.7 | B | 0.02 | 10.7 | B | 0.01 | 9.3 | A | 0.01 | 9.3 | A |

Notes:
L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.
" ** " indicates a calculated delay greater than 240 seconds.

Parking. Sufficient on-site parking would be provided as part of the proposed project to accommodate all employees and visitors to the UV Facility. In addition, during operation, the UV Facility would not impinge on the Croton project project's area; therefore, it would not affect parking for that project. Therefore, no significant adverse parking impacts would be anticipated in 2010 as a result of the operation of the proposed project with the Croton project also in operation.

Safety. No additional accidents are anticipated given the low traffic volumes generated by the proposed project; therefore, no significant adverse traffic safety impacts are anticipated.

Transit. The proposed project would not generate any transit trips. In addition, because of the low generation of trips from both the UV Facility and the Bee-Line Bus Facility, operation of the UV Facility would not impact bus operations. Therefore, no significant adverse transitrelated impacts would be anticipated under the 2010 Build conditions.

### 4.9.3.2. Potential Construction Impacts

The analyses for 2008 UV Facility Construction conditions are also divided into scenarios with and without the Croton project under construction. The 2008 Construction analysis evaluated two scenarios:

- A 2008 Construction peak condition that does not include traffic generated by the Croton project in the 2008 FNB condition.
- A 2008 Construction peak condition that includes traffic generated by the Croton project in the 2008 FNB condition.

In addition, for the 2008 Construction scenario that also includes the Croton project under construction, a number of different construction worker parking Options are considered. This is because if both the Croton project and the proposed UV Facility were to be under construction at the Eastview Site at the same time, there would not be enough space on-site for all of the workers for both projects to park. The various construction worker parking Options, and how they integrate into the 2008 FNB construction analyses, are discussed in more detail in Section 4.9.3.2.3, Potential Construction Impacts, With Croton Project at Eastview Site, below.

Under all 2008 Construction conditions (with or without the Croton project), tunnels and conduits would have to be dug under Route 100 C , which would require closing part of this roadway on two occasions for periods on the order of two months each. During these time
| periods, NYCDEP would provide temporary roadway pavement alongside the permanent Route 100C roadbed to accommodate a comparable number of lanes of through traffic. This temporary roadway to carry diverted Route 100C traffic would require the approval of NYSDOT.

The following sections describe the construction-related trip-generation characteristics of the proposed UV Facility, and then summarize the project's temporary adverse peak construction impacts, should the proposed UV Facility be under construction at the Eastview Site in 2008.

### 4.9.3.2.1. UV Facility Construction-Related Trip-Generation Characteristics

Transportation data and planning assumptions for the construction workers as well as the construction trucks during the 2008 peak construction period were presented previously in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation. As described under Existing Conditions, there are limited transit facilities in the vicinity of the Eastview Site. Therefore, for the purposes of these traffic analyses, it was assumed that all construction workers would arrive in private vehicles. It was also assumed that the vehicle occupancy rate would be 1.2 persons per vehicle or that 20 percent of construction workers who would travel by automobile would carpool to the Eastview Site. Table 4.9-15 shows the anticipated 2008 peak year construction resources based on preliminary engineering design. Table 4.9-16 shows the resulting peak construction generated traffic based on preliminary engineering design. The passenger car equivalent (PCE) is typically 1.5 vehicles for 2 -axle trucks and 2.0 vehicles for 3 -axle trucks. To obtain traffic analysis results that are conservative, however, it was assumed that all construction trucks would be 3-axle trucks, or equivalent to 2.0 passenger cars.

Traffic assignment of construction workers to and from the proposed project site was determined through the use of population densities from U.S. census information within a 5 -mile radius of the site. U.S. census areas that exhibited larger population densities within this area were assumed to generate a higher number of project related trips. Traffic assignment of construction trucks was based on anticipated truck origins and known truck routes in the study area.

The traffic assignment pattern for automobiles driven by construction workers was assumed to be the same as the one generated by employees during operation, for conditions without the Croton project under construction. The assignments were modified somewhat for conditions with the Croton project also under construction, to conform to the various off-site parking locations that were examined for construction worker vehicle parking.

TABLE 4.9-15. 2008 UV FACILITY CONSTRUCTION RESOURCE REQUIREMENTS

| Potential Construction Impacts | UV Facility |
| :--- | :---: |
| Peak Year | 2008 |
| Construction Hours | $7: 00 \mathrm{AM}$ to 4:00 PM |
| Construction Shifts | 1 |
| Construction workers on a peak day | 480 |
| Construction vehicles on a peak day | 400 |
| Peak time of arrival (workers)* | $6: 30$ AM to 7:30 AM |
| Peak time of departure (workers)* | $3: 30 \mathrm{PM}$ to 4:30 PM |
| Period of arrivals and departures (trucks) | $7: 00 \mathrm{AM}$ to 4:00 PM |

Notes: * Analysis hour

TABLE 4.9-16. 2008 UV FACILITY CONSTRUCTION TRIP GENERATION*

|  | AM Peak period |  |  | PM Peak period |  |  |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: |
|  | In | Out | Total | In | Out | Total |
|  | 380 | 20 | 400 | 20 | 380 | 400 |
| Trucks | 7 | 7 | 14 | 7 | 7 | 14 |
| Total | 387 | 27 | 414 | 27 | 387 | 414 |
| PCE Total | 394 | 34 | 428 | 34 | 394 | 428 |

Notes: *For the analyses with the Croton Project also under construction, the trip-generation for the UV Facility's construction trips is approximately 7 percent smaller than shown in the table, because the resulting peak construction period for both projects combined is anticipated to occur in June 2008, when the UV Facility's construction trips are slightly lower than shown above.

### 4.9.3.2.2. Without Croton Project at Eastview Site

Traffic. The project-generated construction traffic was added to the 2008 FNB volumes in the AM and PM peak periods, and capacity analyses were performed for the resulting composite conditions. Figures 4.9-27 and 4.9-28 show the assignment and routing of the proposed construction generated traffic, for the AM and PM peak hours, respectively. Figures 4.9-29 and 4.9-30 show the total combined traffic under construction conditions, for the AM and PM peak hours, respectively. Table 4.9-17 shows a comparison of the traffic conditions for the 2008 FNB and the 2008 Construction conditions. Applying the traffic impact criteria described in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, Potential Construction Impacts, to the analysis results shows that there would be a total of 15 temporary adverse impacts at intersections in the primary study area under these 2008 Construction conditions ( 6 at signalized intersections, 3 during AM peak hour and 3 during the PM peak hour; and 9 at unsignalized intersections, 3 during the AM peak hour and 6 during the PM peak hour), resulting from the addition of project-related construction traffic to the area during the AM and/or PM peak hours.

The following is a summary of the temporary adverse impacts associated with constructing the UV Facility at the Eastview Site during the 2008 Construction year. All increases in delay described below are given in comparison to the 2008 FNB conditions.

## Potential Temporary Adverse Impacts Occurring at Signalized Intersections.

- The eastbound left-turn movement at the intersection of Saw Mill River Road (Route 9A) and Tarrytown-White Plains Road (Route 119) would be adversely impacted during the AM peak hour. The delay at this movement would increase from 66.8 seconds (LOS E) to 83.9 seconds (LOS F).
- The eastbound approach at the intersection of Old Saw Mill River Road and the Saw Mill River Parkway Southbound Off-Ramp would be adversely impacted during the PM peak hour. The delay at this approach would increase from 70.0 seconds (LOS E) to 76.8 seconds (LOS E).

TABLE 4.9-17. PURE NO BUILD VS. CAT DEL ALONE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION CONDITIONS

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|c|}
\hline \multirow[b]{3}{*}{Intersection} \& \multirow[b]{3}{*}{No.} \& \multirow[b]{3}{*}{Approach} \& \multirow[b]{3}{*}{\[
\begin{array}{|c|}
\hline \text { Lane } \\
\text { Group }
\end{array}
\]} \& \multicolumn{6}{|c|}{AM Peak Hour} \& \multicolumn{6}{|c|}{PM Peak Hour} \\
\hline \& \& \& \& \multicolumn{3}{|l|}{2008 No Build} \& \multicolumn{3}{|l|}{2008 Construction} \& \multicolumn{3}{|l|}{2008 No Build} \& \multicolumn{3}{|l|}{2008 Construction} \\
\hline \& \& \& \& \[
\begin{array}{|c|}
\hline \text { v/c } \\
\text { Ratio } \\
\hline
\end{array}
\] \& \[
\begin{array}{|c}
\begin{array}{c}
\text { Delay } \\
(\mathrm{sec})
\end{array} \\
\hline
\end{array}
\] \& LOS \& \[
\begin{array}{|c|}
\hline \mathbf{v} / \mathbf{c} \\
\text { Ratio } \\
\hline
\end{array}
\] \& \[
\begin{gathered}
\hline \begin{array}{c}
\text { Delay } \\
\text { (sec) }
\end{array} \\
\hline \hline
\end{gathered}
\] \& LOS \& \[
\begin{array}{|c|}
\hline \mathbf{v} / \mathbf{c} \\
\text { Ratio }
\end{array}
\] \& \[
\begin{array}{|c}
\begin{array}{c}
\text { Delay } \\
(\mathrm{sec})
\end{array} \\
\hline
\end{array}
\] \& LOS \& \begin{tabular}{|c|}
\hline v/c \\
Ratio \\
\hline
\end{tabular} \& \[
\begin{gathered}
\text { Delay } \\
(\mathrm{sec})
\end{gathered}
\] \& LOS \\
\hline \multirow[t]{10}{*}{Saw Mill River Road (Rt.9A) (N-S) @ Saw Mill River Pkwy Ramp} \& \multirow[t]{10}{*}{4} \& \multirow[t]{2}{*}{Eastbound} \& L \& 0.64 \& 31.6 \& C \& 0.64 \& 31.6 \& C \& 0.52 \& 29.3 \& C \& 0.52 \& 29.3 \& C \\
\hline \& \& \& LTR \& 0.14 \& 25.0 \& C \& 0.14 \& 25.0 \& C \& 0.14 \& 25.8 \& C \& 0.14 \& 25.8 \& C \\
\hline \& \& \multirow[t]{3}{*}{Westbound} \& L \& 0.14 \& 32.4 \& C \& 0.14 \& 32.4 \& C \& 0.14 \& 34.1 \& C \& 0.14 \& 34.1 \& C \\
\hline \& \& \& LT \& 0.10 \& 32.1 \& C \& 0.10 \& 32.1 \& C \& 0.09 \& 33.8 \& C \& 0.09 \& 33.8 \& C \\
\hline \& \& \& R \& 0.02 \& 31.6 \& C \& 0.02 \& 31.6 \& C \& 0.04 \& 33.6 \& C \& 0.04 \& 33.6 \& C \\
\hline \& \& \multirow[t]{2}{*}{Northbound} \& L \& 0.18 \& 14.1 \& B \& 0.19 \& 14.2 \& B \& 0.81 \& 31.5 \& C \& 0.81 \& 31.5 \& C \\
\hline \& \& \& TR \& 0.31 \& 14.8 \& B \& 0.32 \& 14.8 \& B \& 0.55 \& 15.4 \& B \& 0.57 \& 15.7 \& B \\
\hline \& \& \multirow[t]{2}{*}{Southbound} \& L \& 0.05 \& 13.0 \& B \& 0.05 \& 13.0 \& B \& 0.13 \& 21.4 \& C \& 0.13 \& 21.5 \& C \\
\hline \& \& \& TR \& 0.54 \& 17.1 \& B \& 0.56 \& 17.4 \& B \& 0.98 \& 54.3 \& D \& 0.98 \& 55.4 \& E \\
\hline \& \& \multicolumn{2}{|l|}{Intersection} \& \& 19.5 \& B \& \& 19.6 \& B \& \& 33.7 \& C \& \& 34.1 \& C \\
\hline \multirow[t]{10}{*}{Grasslands Road (Rt. 100C) (E-W) @ Bradhurst Avenue (Rt. 100)} \& \multirow[t]{10}{*}{6} \& \multirow[t]{3}{*}{Eastbound} \& L \& 0.71 \& 36.6 \& D \& 0.73 \& 38.0 \& D \& \& ** \& F \& \& ** \& F \\
\hline \& \& \& T \& 1.03 \& 75.1 \& E \& 1.03 \& 75.1 \& E \& 0.59 \& 22.3 \& C \& 0.60 \& 22.6 \& C \\
\hline \& \& \& R \& 0.35 \& 16.3 \& B \& 0.35 \& 16.4 \& B \& 0.27 \& 12.1 \& B \& 0.28 \& 12.2 \& B \\
\hline \& \& \multirow[t]{2}{*}{Westbound} \& L \& 0.68 \& 56.6 \& E \& 0.68 \& 56.6 \& E \& 0.22 \& 18.0 \& B \& 0.22 \& 18.0 \& B \\
\hline \& \& \& TR \& 0.43 \& 25.8 \& C \& 0.44 \& 26.0 \& C \& 0.98 \& 55.5 \& E \& 0.98 \& 55.5 \& E \\
\hline \& \& \multirow[t]{2}{*}{Northbound} \& L \& 0.23 \& 23.3 \& C \& 0.24 \& 23.5 \& C \& 0.87 \& 58.7 \& E \& 0.88 \& 60.6 \& E \\
\hline \& \& \& TR \& 0.34 \& 25.9 \& C \& 0.34 \& 25.9 \& C \& 0.20 \& 16.3 \& B \& 0.20 \& 16.3 \& B \\
\hline \& \& \multirow[t]{2}{*}{Southbound} \& L \& 0.50 \& 40.1 \& D \& 0.50 \& 40.1 \& D \& 0.30 \& 25.1 \& C \& 0.30 \& 25.1 \& C \\
\hline \& \& \& TR \& 0.68 \& 49.7 \& D \& 0.68 \& 49.7 \& D \& 1.12 \& 109.2 \& F \& 1.12 \& 109.2 \& F \\
\hline \& \& \multicolumn{2}{|l|}{Intersection} \& \& 45.2 \& D \& \& 45.2 \& D \& \& 70.0 \& E \& \& 70.0 \& E \\
\hline \multirow[t]{7}{*}{Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) WB Ramp} \& \multirow[t]{7}{*}{8} \& \multirow[t]{6}{*}{\begin{tabular}{l}
Westbound \\
Northbound \\
Southbound
\end{tabular}} \& LT \& 0.46 \& 27.6 \& C \& 0.46 \& 27.6 \& C \& 0.79 \& 39.0 \& D \& 0.79 \& 39.0 \& D \\
\hline \& \& \& R \& 0.24 \& 25.4 \& C \& 0.24 \& 25.4 \& C \& 0.45 \& 27.6 \& C \& 0.45 \& 27.6 \& C \\
\hline \& \& \& L \& 0.50 \& 9.8 \& A \& 0.51 \& 9.9 \& A \& 0.95 \& 52.6 \& D \& 0.96 \& 54.4 \& D \\
\hline \& \& \& T \& 0.51 \& 10.3 \& B \& 0.51 \& 10.4 \& B \& 0.52 \& 10.5 \& B \& 0.52 \& 10.5 \& B \\
\hline \& \& \& T \& 0.30 \& 13.4 \& B \& 0.31 \& 13.5 \& B \& 0.44 \& 14.8 \& B \& 0.45 \& 14.8 \& B \\
\hline \& \& \& R \& 0.13 \& 12.1 \& B \& 0.13 \& 12.1 \& B \& 0.23 \& 12.8 \& B \& 0.23 \& 12.9 \& B \\
\hline \& \& \multicolumn{2}{|l|}{Intersection} \& \& 14.4 \& B \& \& 14.4 \& B \& \& 26.7 \& C \& \& 27.0 \& C \\
\hline \multirow[t]{8}{*}{Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) EB Ramp} \& \multirow[t]{8}{*}{9} \& \multirow[t]{7}{*}{\begin{tabular}{l}
Eastbound \\
Northbound \\
Southbound
\end{tabular}} \& L \& 0.67 \& 32.7 \& C \& 0.68 \& 32.8 \& C \& 0.48 \& 24.4 \& C \& 0.48 \& 24.5 \& C \\
\hline \& \& \& TR \& 0.01 \& 23.6 \& C \& 0.01 \& 23.6 \& C \& 0.00 \& 20.0 \& C \& 0.00 \& 20.0 \& C \\
\hline \& \& \& R \& 0.58 \& 30.0 \& C \& 0.58 \& 30.0 \& C \& 0.77 \& 34.2 \& C \& 0.77 \& 34.2 \& C \\
\hline \& \& \& T \& 0.49 \& 15.3 \& B \& 0.50 \& 15.4 \& B \& 0.86 \& 31.6 \& C \& 0.86 \& 32.0 \& C \\
\hline \& \& \& R \& 0.52 \& 15.9 \& B \& 0.52 \& 15.9 \& B \& 0.62 \& 20.9 \& C \& 0.62 \& 20.9 \& C \\
\hline \& \& \& L \& 0.39 \& 9.8 \& A \& 0.40 \& 9.9 \& A \& 0.79 \& 29.3 \& C \& 0.80 \& 30.1 \& C \\
\hline \& \& \& T \& 0.29 \& 8.4 \& A \& 0.29 \& 8.4 \& A \& 0.65 \& 15.4 \& B \& 0.65 \& 15.6 \& B \\
\hline \& \& \multicolumn{2}{|l|}{Intersection} \& \& 18.6 \& B \& \& 18.6 \& B \& \& 25.6 \& C \& \& 25.8 \& C \\
\hline \multirow[t]{6}{*}{Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A)} \& \multirow[t]{6}{*}{10} \& \multirow[t]{5}{*}{\begin{tabular}{l}
Westbound \\
Northbound \\
Southbound
\end{tabular}} \& LT \& 0.14 \& 24.6 \& C \& 0.14 \& 24.6 \& C \& 0.35 \& 26.4 \& C \& 0.35 \& 26.4 \& C \\
\hline \& \& \& R \& 0.51 \& 28.3 \& C \& 0.51 \& 28.3 \& C \& 0.96 \& 64.3 \& E \& 0.96 \& 64.8 \& E \\
\hline \& \& \& LT \& 0.40 \& 10.1 \& B \& 0.41 \& 10.2 \& B \& 0.60 \& 12.6 \& B \& 0.60 \& 12.6 \& B \\
\hline \& \& \& T \& 0.20 \& 15.3 \& B \& 0.20 \& 15.3 \& B \& 0.43 \& 17.4 \& B \& 0.44 \& 17.4 \& B \\
\hline \& \& \& R \& 0.19 \& 15.3 \& B \& 0.19 \& 15.3 \& B \& 0.47 \& 18.0 \& B \& 0.47 \& 18.1 \& B \\
\hline \& \& \multicolumn{2}{|l|}{Intersection} \& \& 15.5 \& B \& \& 15.5 \& B \& \& 25.0 \& C \& \& 25.2 \& C \\
\hline \multirow[t]{6}{*}{Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A)} \& \multirow[t]{6}{*}{\[
\begin{array}{|l|}
\hline 11 \\
12
\end{array}
\]} \& \multirow[t]{5}{*}{\begin{tabular}{l}
Eastbound \\
Northbound Southbound
\end{tabular}} \& LT \& 0.71 \& 34.2 \& C \& 0.71 \& 34.6 \& C \& 0.78 \& 38.4 \& D \& 0.79 \& 38.6 \& D \\
\hline \& \& \& R \& 0.16 \& 24.8 \& C \& 0.16 \& 24.8 \& C \& 0.35 \& 26.5 \& C \& 0.35 \& 26.5 \& C \\
\hline \& \& \& TR \& 0.40 \& 20.1 \& C \& 0.40 \& 20.2 \& C \& 0.41 \& 20.3 \& C \& 0.41 \& 20.3 \& C \\
\hline \& \& \& Def \& 0.31 \& 11.9 \& B \& 0.31 \& 12.0 \& B \& 0.47 \& 14.7 \& B \& 0.47 \& 14.7 \& B \\
\hline \& \& \& T \& 0.28 \& 9.2 \& A \& 0.28 \& 9.2 \& A \& 0.54 \& 11.8 \& B \& 0.54 \& 11.8 \& B \\
\hline \& \& \multicolumn{2}{|l|}{Intersection} \& \& 20.4 \& C \& \& 20.6 \& C \& \& 21.1 \& C \& \& 21.1 \& C \\
\hline \multirow[t]{5}{*}{Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) WB Ramp} \& \multirow[t]{5}{*}{13} \& \multirow[t]{4}{*}{\begin{tabular}{l}
Westbound \\
Northbound \\
Southbound
\end{tabular}} \& L \& 1.09 \& 97.9 \& F \& 1.09 \& 97.9 \& F \& 0.74 \& 38.2 \& D \& 0.74 \& 38.2 \& D \\
\hline \& \& \& R \& 0.48 \& 27.5 \& C \& 0.53 \& 28.2 \& C \& 0.42 \& 20.4 \& C \& 0.42 \& 20.5 \& C \\
\hline \& \& \& LTR \& 0.36 \& 8.9 \& A \& 0.39 \& 9.1 \& A \& 0.69 \& 22.8 \& C \& 0.72 \& 23.7 \& C \\
\hline \& \& \& TR \& 0.47 \& 9.7 \& A \& 0.48 \& 9.8 \& A \& 0.85 \& 22.5 \& C \& 0.89 \& 25.4 \& C \\
\hline \& \& \multicolumn{2}{|l|}{Intersection} \& \& 34.3 \& C \& \& 34.3 \& C \& \& 24.4 \& C \& \& 25.9 \& C \\
\hline \multirow[t]{4}{*}{Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) EB Ramp} \& \multirow[t]{4}{*}{14} \& \multirow[t]{3}{*}{Northbound Southbound} \& TR \& 0.31 \& 12.3 \& B \& 0.33 \& 12.5 \& B \& 0.89 \& 34.7 \& C \& 0.89 \& 35.2 \& D \\
\hline \& \& \& L \& 0.50 \& 1.7 \& A \& 0.51 \& 2.2 \& A \& 0.74 \& 23.2 \& C \& 0.76 \& 24.7 \& C \\
\hline \& \& \& LT \& 0.16 \& 0.2 \& A \& 0.16 \& 0.2 \& A \& 0.53 \& 0.5 \& A \& 0.55 \& 0.5 \& A \\
\hline \& \& \multicolumn{2}{|l|}{Intersection} \& \& 5.0 \& A \& \& 5.4 \& A \& \& 17.5 \& B \& \& 17.8 \& B \\
\hline \multirow[t]{10}{*}{Saw Mill River Road (Rt.9A) @ Tarrytown/White Plains Road (Rt.119)} \& \multirow[t]{10}{*}{15} \& \multirow[t]{9}{*}{\begin{tabular}{l}
Eastbound \\
Westbound \\
Northbound \\
Southbound
\end{tabular}} \& L \& 0.97 \& 66.8 \& E \& 1.03 \& 83.9 + \& F \& 0.99 \& 76.6 \& E \& 1.00 \& 78.3 \& E \\
\hline \& \& \& TR \& 0.38 \& 14.5 \& B \& 0.38 \& 14.5 \& B \& 0.46 \& 20.2 \& C \& 0.46 \& 20.2 \& C \\
\hline \& \& \& L \& 0.17 \& 22.3 \& C \& 0.17 \& 22.3 \& C \& 0.42 \& 34.4 \& C \& 0.42 \& 34.4 \& C \\
\hline \& \& \& TR \& 0.30 \& 23.5 \& C \& 0.30 \& 23.5 \& C \& 0.88 \& 48.6 \& D \& 0.88 \& 48.7 \& D \\
\hline \& \& \& L \& 0.38 \& 34.2 \& C \& 0.38 \& 34.3 \& C \& 0.30 \& 25.0 \& C \& 0.32 \& 25.3 \& C \\
\hline \& \& \& TR \& 0.62 \& 40.3 \& D \& 0.66 \& 42.0 \& D \& 0.82 \& 41.0 \& D \& 0.83 \& 41.4 \& D \\
\hline \& \& \& L \& 0.24 \& 33.9 \& C \& 0.25 \& 34.9 \& C \& 0.54 \& 35.0 \& C \& 0.55 \& 35.3 \& D \\
\hline \& \& \& T \& 0.42 \& 34.9 \& C \& 0.42 \& 35.0 \& D \& 0.26 \& 22.8 \& C \& 0.29 \& 23.2 \& C \\
\hline \& \& \& R \& 0.23 \& 22.1 \& C \& 0.23 \& 22.1 \& C \& 0.39 \& 11.0 \& B \& 0.41 \& 11.1 \& B \\
\hline \& \& \multicolumn{2}{|l|}{Intersection} \& \& 31.8 \& C \& \& 35.5 \& D \& \& 35.0 \& C \& \& 35.1 \& D \\
\hline \multirow[t]{6}{*}{Saw Mill River Road (Rt.9A) @ Hunter Lane} \& \multirow[t]{6}{*}{16} \& \multirow[t]{5}{*}{Eastbound
Westbound

Northbound
Southbound} \& LTR \& 0.01 \& 29.1 \& C \& 0.01 \& 29.1 \& C \& 0.01 \& 32.9 \& C \& 0.01 \& 32.9 \& C <br>
\hline \& \& \& LT \& 0.31 \& 32.4 \& C \& 0.31 \& 32.4 \& C \& 0.81 \& 56.6 \& E \& 0.81 \& 56.6 \& E <br>
\hline \& \& \& R \& 0.01 \& 18.7 \& B \& 0.01 \& 18.7 \& B \& 0.07 \& 22.9 \& C \& 0.07 \& 22.9 \& C <br>
\hline \& \& \& LTR \& 0.64 \& 21.3 \& C \& 0.71 \& 23.2 \& C \& 0.69 \& 19.4 \& B \& 0.70 \& 19.6 \& B <br>
\hline \& \& \& LTR \& 0.67 \& 14.5 \& B \& 0.71 \& 15.5 \& B \& 0.73 \& 13.3 \& B \& 0.78 \& 15.0 \& B <br>
\hline \& \& \multicolumn{2}{|l|}{Intersection} \& \& 18.6 \& B \& \& 20.0 \& B \& \& 20.1 \& C \& \& 20.8 \& C <br>
\hline
\end{tabular}

TABLE 4.9-17. PURE NO BUILD VS. CAT DEL ALONE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION CONDITIONS

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS |
| Saw Mill River Road (Rt.9A) @ Dana Road | 20 | Eastbound | LT | 0.07 | 25.5 | C | 0.07 | 25.5 | C | 0.28 | 27.4 | C | 0.31 | 27.8 | C |
|  |  |  | R | 0.08 | 25.6 | C | 0.08 | 25.6 | C | 0.24 | 26.9 | C | 0.24 | 26.9 | C |
|  |  | Westbound | L | 0.12 | 25.9 | C | 0.16 | 26.2 | C | 0.44 | 29.1 | C | 0.69 | 36.5 | D |
|  |  |  | TR | 0.06 | 25.4 | C | 0.07 | 25.5 | C | 0.40 | 28.4 | C | 0.47 | 29.2 | C |
|  |  | Northbound | L | 0.12 | 30.5 | C | 0.12 | 30.5 | C | 0.39 | 32.7 | C | 0.39 | 32.7 | C |
|  |  |  | TR | 0.63 | 25.1 | C | 0.71 | 27.1 | C | 0.84 | 31.9 | C | 0.85 | 32.6 | C |
|  |  | Southbound | L | 0.38 | 32.6 | C | 0.47 | 33.6 | C | 0.15 | 30.7 | C | 0.16 | 30.8 | C |
|  |  |  | TR | 0.59 | 24.1 | C | 0.59 | 24.1 | C | 0.74 | 27.7 | C | 0.74 | 27.7 | C |
|  |  | Intersection |  |  | 25.4 | C |  | 26.4 | C |  | 29.8 | C |  | 30.7 | C |
| Old Saw Mill River Road @ Saw Mill River Pkwy SB Off Ramp | 21 | Eastbound Westbound Southbound | LT | 0.87 | 28.2 | C | 0.88 | 29.6 | C | 1.04 | 70.0 | E | 1.06 | 76.8 | E |
|  |  |  | TR | 0.23 | 4.7 | A | 0.23 | 4.7 | A | 0.42 | 9.2 | A | 0.47 | 9.6 | A |
|  |  |  | L | 0.68 | 36.9 | D | 0.70 | 37.9 | D | 0.29 | 23.1 | C | 0.29 | 23.1 | C |
|  |  |  | LR | 0.16 | 28.2 | C | 0.16 | 28.2 | C | 0.21 | 22.6 | C | 0.21 | 22.6 | C |
|  |  | Intersection |  |  | 21.2 | C |  | 22.1 | C |  | 33.9 | C |  | 35.2 | D |
| Old Saw Mill River Road @ Saw Mill River Pkwy NB Off Ramp | 22 | Eastbound Westbound Northbound | T | 0.48 | 17.5 | B | 0.49 | 17.6 | B | 0.41 | 13.3 | B | 0.41 | 13.3 | B |
|  |  |  | T | 0.19 | 7.7 | A | 0.20 | 7.7 | A | 0.28 | 4.2 | A | 0.32 | 4.4 | A |
|  |  |  | LR | 0.44 | 24.7 | C | 0.53 | 25.9 | C | 0.45 | 31.5 | C | 0.46 | 31.5 | C |
|  |  |  | R | 0.41 | 24.3 | C | 0.50 | 25.3 | C | 0.41 | 31.1 | C | 0.42 | 31.2 | C |
|  |  | Intersection |  |  | 16.5 | B |  | 17.3 | B |  | 12.0 | B |  | 12.0 | B |
| Grassland Road (Rt.100C) @ Clearbrook Road/Walker Road | 24 | EastboundWestboundNorthboundSouthbound | L | 0.01 | 2.6 | A | 0.25 | 3.5 | A | 0.04 | 9.2 | A | 0.06 | 9.4 | A |
|  |  |  | TR | 0.37 | 3.8 | A | 0.37 | 3.8 | A | 0.73 | 17.2 | B | 0.73 | 17.2 | B |
|  |  |  | L | 0.38 | 4.0 | A | 0.38 | 4.0 | A | 1.40 | 230.4 | F | 1.40 | 230.4 | F |
|  |  |  | TR | 0.39 | 3.9 | A | 0.60 | 5.5 | A | 0.70 | 16.7 | B | 0.72 | 17.2 | B |
|  |  |  | LT | 0.21 | 33.7 | C | 0.22 | 33.7 | C | 0.19 | 19.9 | B | 0.32 | 21.4 | C |
|  |  |  | LT | 0.21 | 33.8 | C | 0.32 | 34.9 | C | 0.23 | 20.3 | C | 0.84 | 40.7 | D |
|  |  |  | R | 0.00 | 32.2 | C | 0.02 | 32.4 | C | 0.01 | 18.5 | B | 0.16 | 19.6 | B |
|  |  | Intersection |  |  | 5.3 | A |  | 6.1 | A |  | 42.3 | D |  | 42.3 | D |
| Grassland Road (Rt.100C) @ Woods Drive/Taylor Road | 25 | Eastbound <br> Westbound <br> Northbound Southbound | L | 0.28 | 7.5 | A | 0.36 | 11.5 | B | 0.33 | 13.8 | B | 0.33 | 14.1 | B |
|  |  |  | TR | 0.26 | 5.2 | A | 0.27 | 5.3 | A | 0.57 | 12.5 | B | 0.69 | 14.6 | B |
|  |  |  | L | 0.00 | 9.3 | A | 0.00 | 9.3 | A | 0.01 | 12.5 | B | 0.01 | 12.6 | B |
|  |  |  | TR | 0.57 | 14.1 | B | 0.72 | 17.0 | B | 0.73 | 21.2 | C | 0.74 | 21.5 | C |
|  |  |  | LTR | 0.01 | 32.9 | C | 0.01 | 32.9 | C | 0.01 | 24.6 | C | 0.01 | 24.6 | C |
|  |  |  | LT | 0.55 | 39.2 | D | 0.55 | 39.2 | D | 0.79 | 41.6 | D | 0.79 | 41.6 | D |
|  |  |  | R | 0.08 | 21.2 | C | 0.08 | 21.2 | C | 0.11 | 17.2 | B | 0.11 | 17.2 | B |
|  |  | Intersection |  |  | 12.8 | B |  | 14.8 | B |  | 19.6 | B |  | 20.1 | C |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy SB Ramp | 26 | Eastbound Westbound Southbound | TR | 0.27 | 7.5 | A | 0.28 | 7.5 | A | 0.67 | 11.7 | B | 0.79 | 14.7 | B |
|  |  |  | T | 0.32 | 7.8 | A | 0.39 | 8.3 | A | 0.52 | 9.5 | A | 0.53 | 9.6 | A |
|  |  |  | L | 0.55 | 34.0 | C | 0.55 | 34.0 | C | 0.17 | 29.6 | C | 0.17 | 29.6 | C |
|  |  |  | R | 0.32 | 31.0 | C | 0.55 | 34.1 | C | 0.12 | 29.2 | C | 0.14 | 29.3 | C |
|  |  | Intersection |  |  | 13.1 | B |  | 14.0 | B |  | 11.5 | B |  | 13.3 | B |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy NB Ramp | $\begin{array}{\|l\|} \hline 27 \\ 30 \\ \hline \end{array}$ | Eastbound <br> Westbound Northbound | L | 0.09 | 14.7 | B | 0.11 | 14.9 | B | 0.50 | 15.4 | B | 0.77 | 29.4 | C |
|  |  |  | T | 0.50 | 18.0 | B | 0.50 | 18.0 | B | 0.32 | 9.0 | A | 0.33 | 9.0 | A |
|  |  |  | TR | 0.47 | 24.6 | C | 0.48 | 24.8 | C | 1.06 | 67.9 | E | 1.06 | 69.0 | E |
|  |  |  | LT | 1.00 | 68.7 | E | 1.28 | $172.3+$ | F | 0.69 | 29.4 | C | 0.71 | 30.0 | C |
|  |  |  | R | 1.02 | 74.8 | E | 1.02 | 74.8 | E | 0.35 | 23.1 | C | 0.35 | 23.1 | C |
|  |  | Intersection |  |  | 44.0 | D |  | 75.1 | E |  | 42.6 | D |  | 43.4 | D |
| Virginia Road @ Bronx River Pkwy | 31 | Eastbound <br> Westbound <br> Northbound <br> Southbound | LT | 1.12 | 126.9 | F | 1.12 | 129.4 + | F | 1.16 | 139.6 | F | 1.16 | 142.8 + | F |
|  |  |  | R | 0.21 | 19.6 | B | 0.21 | 19.6 | B | 0.39 | 34.6 | C | 0.39 | 34.6 | C |
|  |  |  | LTR | 0.40 | 34.6 | C | 0.40 | 34.7 | C | 1.26 | 185.8 | F | 1.27 | 189.6 + | F |
|  |  |  | L | 0.04 | 46.3 | D | 0.05 | 46.3 | D | 0.06 | 10.9 | B | 0.06 | 10.9 | B |
|  |  |  | TR | 0.26 | 20.1 | C | 0.26 | 20.1 | C | 0.62 | 25.3 | C | 0.62 | 25.3 | C |
|  |  |  | L | 1.10 | 141.5 | F | 1.10 | 141.5 | F | 0.13 | 11.7 | B | 0.13 | 11.7 | B |
|  |  |  | TR | 0.70 | 27.3 | C | 0.70 | 27.3 | C | 0.59 | 24.7 | C | 0.59 | 24.7 | C |
|  |  |  |  |  | 53.9 | D |  | 54.3 | D |  | 61.7 | E |  | 62.7 | E |
| Grassland Road (Rt.100) @ WCC East Gate | 34 | Eastbound Westbound <br> Northbound | T | 0.41 | 7.7 | A | 0.41 | 7.7 | A | 0.72 | 16.6 | B | 0.73 | 17.0 | B |
|  |  |  | L | 0.26 | 5.2 | A | 0.26 | 5.2 | A | 0.21 | 11.1 | B | 0.22 | 11.2 | B |
|  |  |  | T | 0.24 | 3.2 | A | 0.24 | 3.2 | A | 0.58 | 7.9 | A | 0.58 | 7.9 | A |
|  |  |  | L | 0.07 | 45.8 | D | 0.07 | 45.8 | D | 0.62 | 30.6 | C | 0.62 | 30.6 | C |
|  |  | Intersection |  |  | 6.3 | A |  | 6.3 | A |  | 14.5 | B |  | 14.7 | B |
| Old Saw Mill River Road @ Landmark West Driveway | 46 | Eastbound | LTR | 0.74 | 8.7 | A | 0.80 | 10.5 | B | 0.57 | 6.0 | A | 0.58 | 6.1 | A |
|  |  | Westbound | LTR | 0.26 | 4.1 | A | 0.26 | 4.1 | A | 0.43 | 4.9 | A | 0.49 | 5.2 | A |
|  |  | Northbound | LTR | 0.02 | 21.0 | C | 0.02 | 21.0 | C | 0.08 | 21.2 | C | 0.08 | 21.2 | C |
|  |  | Southbound | LTR | 0.04 | 21.1 | C | 0.04 | 21.1 | C | 0.03 | 21.0 | C | 0.03 | 21.0 | C |
|  |  | Intersecti |  |  | 7.7 | A |  | 9.1 | A |  | 5.8 | A |  | 5.9 | A |

Notes:
$L=$ Left Turn, $T=$ Through, $R=$ Right Turn, Def = Defacto Left Turn; LOS = Level of Service. " + " indicates significant impacts.

TABLE 4.9-17. PURE NO BUILD VS. CAT DEL ALONE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Group } \\ \hline \end{array}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{array}$ | LOS | v/c Ratio | $\begin{gathered} \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \hline \end{gathered}$ | LOS | v/c Ratio | $\begin{array}{\|c} \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{array}$ | LOS | v/c Ratio | $\begin{gathered} \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \hline \end{gathered}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.12 | 10.6 | B | 0.12 | 10.7 | B | 0.19 | 9.5 | A | 0.20 | 9.7 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ | 2 | Northbound | LT | 0.01 | 10.3 | B | 0.01 | 10.4 | B | 0.03 | 13.1 | B | 0.03 | 13.1 | B |
| Beverly Road |  | Eastbound | LR | 0.07 | 21.1 | C | 0.07 | 21.7 | C | 0.05 | 29.7 | D | 0.05 | 30.5 | D |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3N | Northbound | LT | 0.02 | 10.9 | B | 0.02 | 11.1 | B | 0.01 | 9.8 | A | 0.01 | 9.8 | A |
|  |  | Southbound | LT | 0.03 | 9.2 | A | 0.03 | 9.2 | A | 0.02 | 10.5 | B | 0.02 | 10.6 | B |
|  |  | Eastbound | LTR | 0.02 | 35.0 | D | 0.03 | 36.6 | E | 0.13 | 24.1 | C | 0.14 | 24.7 | C |
|  |  | Westbound | LTR | 0.03 | 16.7 | C | 0.04 | 17.0 | C | 0.07 | 15.7 | C | 0.07 | 16.1 | C |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue South | 3 S | Southbound | LT | 0.00 | 8.8 | A | 0.00 | 8.8 | A | 0.00 | 10.4 | B | 0.00 | 10.5 | B |
|  |  | Westbound | LR | 0.03 | 21.4 | C | 0.03 | 22.0 | C | 0.14 | 34.0 | D | 0.15 | 35.5 | E |
| Bradhurst Avenue (Rt. 100) @ Lakeview Avenue | 5 | Southbound | LT | 0.02 | 8.2 | A | 0.02 | 8.2 | A | 0.01 | 8.1 | A | 0.01 | 8.1 | A |
|  |  | Westbound | LR | 0.26 | 15.1 | C | 0.26 | 15.1 | C | 0.45 | 18.8 | C | 0.45 | 18.8 | C |
| Knollwood Road (Rt.100A) @ Hevelyne Road | 7 | Northbound | LT | 0.01 | 8.3 | A | 0.01 | 8.3 | A | 0.00 | 8.0 | A | 0.00 | 8.0 | A |
|  |  | Eastbound | LR | 0.03 | 13.1 | B | 0.03 | 13.2 | B | 0.01 | 10.9 | B | 0.01 | 10.9 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound | L | 0.09 | 10.0 | A | 0.09 | 10.1 | B | 0.15 | 10.3 | B | 0.16 | 10.7 | B |
|  |  | Southbound | LT | 0.01 | 8.7 | A | 0.01 | 9.0 | A | 0.01 | 9.4 | A | 0.01 | 9.5 | A |
|  |  | Eastbound | L | 0.01 | 31.9 | D | 0.02 | 34.8 | D | 0.01 | 48.4 | E | 0.01 | $56.4+$ | F |
|  |  |  | T | 0.02 | 36.9 | E | 0.02 | 42.1 + | E | 0.08 | 79.9 | F | 0.09 | 94.8 + | F |
|  |  | Westbound | LT | 0.10 | 33.1 | D | 0.12 | $38.9+$ | E | 0.11 | 56.3 | F | 0.13 | 64.8 + | F |
|  |  |  | TR | 0.01 | 10.6 | B | 0.01 | 11.0 | B | 0.03 | 17.0 | C | 0.03 | 18.2 | C |
| Dana Road @ Walker Road | 18 | Northbound | LR | 0.09 | 10.5 | B | 0.13 | 11.3 | B | 0.04 | 10.5 | B | 0.27 | 13.1 | B |
|  |  | Westbound | LT | 0.00 | 8.3 | A | 0.00 | 8.7 | A | 0.01 | 7.8 | A | 0.01 | 7.8 | A |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound <br> Westbound | L | 0.78 | 85.3 | F | 0.91 | 121.2 | F | 0.99 | 145.4 | F | 1.14 | 202.7 | F |
|  |  |  | R | 0.20 | 16.3 | C | 0.23 | 18.2 | C | 0.28 | 15.7 | C | 0.28 | 15.8 | C |
|  |  |  | L | 0.15 | 11.3 | B | 0.16 | 11.9 | B | 0.17 | 11.2 | B | 0.18 | 11.3 | B |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | LT | 0.06 | 25.7 | D | 0.07 | 27.8 | D | 0.05 | 25.0 | C | 0.05 | 27.1 | D |
|  |  |  | TR | 0.07 | 13.7 | B | 0.08 | 15.0 | B | 0.16 | 14.2 | B | 0.17 | 14.2 | B |
|  |  |  | L | 0.21 | 10.1 | B | 0.21 | 10.1 | B | 0.17 | 10.5 | B | 0.19 | 11.0 | B |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound | LT | 0.23 | 8.3 | A | 0.23 | 8.4 | A | 0.36 | 10.3 | B | 0.37 | 10.4 | B |
|  |  | Westbound | LR | 0.55 | 16.6 | C | 0.55 | 16.8 | C | 1.23 | 155.8 | F | 1.25 | 161.1 + | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound <br> Eastbound | L | 0.42 | 29.8 | D | 0.43 | 30.5 | D | 1.27 | 210.8 | F | 1.28 | 217.2 | F |
|  |  |  | R | 0.20 | 12.1 | B | 0.20 | 12.3 | B | 0.47 | 19.7 | C | 0.47 | 19.7 | C |
|  |  |  | LT | 0.07 | 8.5 | A | 0.07 | 8.5 | A | 0.24 | 10.7 | B | 0.24 | 10.7 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound <br> Westbound | L | 0.06 | 20.5 | C | 0.06 | 20.7 | C | 0.26 | 50.2 | F | 0.27 | 51.3 | F |
|  |  |  | R | 0.01 | 13.7 | B | 0.01 | 13.7 | B | 0.49 | 18.4 | C | 0.50 | 18.8 | C |
|  |  |  | LT | 0.00 | 9.9 | A | 0.00 | 9.9 | A | 0.12 | 9.1 | A | 0.12 | 9.1 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.07 | 17.5 | C | 0.08 | 19.1 | C | 0.11 | 30.0 | D | 0.12 | 34.0 | D |
|  |  | Southbound | LTR | 0.01 | 10.3 | B | 0.01 | 10.3 | B | 0.07 | 17.4 | C | 0.08 | 19.2 | C |
|  |  | Eastbound | LTR | 0.01 | 8.1 | A | 0.01 | 8.1 | A | 0.01 | 8.7 | A | 0.01 | 8.9 | A |
|  |  | Westbound | LTR | 0.02 | 10.2 | B | 0.02 | 10.6 | B | 0.01 | 9.2 | A | 0.01 | 9.2 | A |

Notes:
L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.

- The northbound left/through movement at the intersection of Grasslands Road (Route 100C) and the Sprain Brook Parkway Northbound Ramp would be adversely impacted during the AM peak hour. The delay at this movement would increase from 68.7 seconds (LOS E) to 172.3 seconds (LOS F).
- The eastbound left/through movement at the intersection of Virginia Road and the Bronx River Parkway would be adversely impacted during the AM and PM peak hours. During the AM peak, the delay at this movement would increase from 126.9 seconds (LOS F) to 129.4 seconds (LOS F). During the PM peak, the delay at this movement would increase from 139.6 seconds (LOS F) to 142.8 seconds (LOS F).
- The westbound approach at the intersection of Virginia Road and the Bronx River Parkway would be adversely impacted during the PM peak hour. The delay at this movement would increase from 185.8 seconds (LOS F) to 189.6 seconds (LOS F).


## Potential Temporary Adverse Impacts Occurring at Unsignalized Intersections.

- The eastbound left-turn movement at the intersection of Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza would be adversely impacted during the PM peak hour. The delay at this movement would increase from 48.4 seconds (LOS E) to 56.4 seconds (LOS F).
- The eastbound through movement at the intersection of Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza would be adversely impacted during the AM and PM peak hours. During the AM peak hour, the delay at this movement would increase from 36.9 seconds (LOS E) to 42.1 seconds (LOS E), and during the PM peak hour the delay at this movement would increase from 79.9 seconds (LOS F) to 94.8 seconds (LOS F).
- The westbound left/through movements at the intersection of Saw Mill River Road (Route 9A) and Ramada Inn/Broadway Plaza would be adversely impacted during both the AM and PM peak hours. During the AM peak, the delay at this movement would drop from 33.1 seconds (LOS D) to 38.9 seconds (LOS E), and during the PM peak, the delay at this movement would increase from 56.3 seconds (LOS F) to 64.8 seconds (LOS F).
- The northbound left-turn movement at the intersection of Saw Mill River Road (Route 9A) and Grasslands Road (Route 100C) would be adversely impacted during both the AM and PM peak hours. During the AM peak hour the delay would increase from 85.3 seconds (LOS F) to 121.2 seconds (LOS F). During the PM peak hour the delay would increase from 145.4 seconds (LOS F) to 202.7 seconds (LOS F).
- The westbound approach at the intersection of Virginia Road and Grasslands Road (Route 100) would be adversely impacted during the PM peak hour. The delay at this approach would increase from 155.8 seconds (LOS F) to 161.1 seconds (LOS F).
- The southbound left-turn movement at the intersection of Grasslands Road (Route 100) and Legion Drive would be adversely impacted during the PM peak hour. The delay at this movement would increase from 210.8 seconds (LOS F) to 217.2 seconds (LOS F).

Although these impacts would not be permanent because they are construction-related, measures have been identified that would mitigate these construction-related potential temporary adverse traffic impacts. A description of the measures, and an analysis showing the resulting effects of implementing the measures suggested as mitigation for these impacts, are fully discussed in Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts. All of the mitigation measures suggested would serve to eliminate the predicted temporary adverse construction period impacts of the proposed project. If the mitigation identified is not applied, the predicted temporary adverse construction period traffic impacts identified would not be mitigated. In the absence of implementing the mitigation measures proposed, NYCDEP would consider other traffic management techniques, if approved by the governing roadway entity, to offset these temporary adverse impacts, and ensure the smooth and safe operation of traffic.

Parking. As discussed in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, the proposed project is anticipated to provide on-site parking facilities for construction vehicles and workers during project construction. Based on the transportation data and planning assumptions presented in Section 3.9, this on-site parking area would need to accommodate 400 construction worker vehicles. Since the construction site would accommodate these parked vehicles, no temporary adverse parking impacts are anticipated to occur to the public and private parking facilities in the vicinity of the UV Facility site.

Safety. In the scenario where the proposed UV Facility is constructed on the Eastview Site without the Croton project, the construction activities would increase the study area traffic volumes by 1 to 30 percent at key study area intersections during peak-hour operating conditions. This projected traffic growth can be anticipated to translate to between 1 and 10 additional accidents per year along the roadway corridors during the construction period. These additional accidents could be considered significant, depending on the intersection. However, with mitigation in place and a traffic management plan, the projected accident rate would likely be lower and not significant. See Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts, for a description of the recommended traffic mitigation measures.

Transit. The construction of the UV Facility is not anticipated to generate any considerable transit ridership. In addition, because of the low generation of trips from the BeeLine Bus Facility during the UV Facility's peak construction hours, the construction of the UV Facility would not impact bus operations. Therefore, no temporary adverse transit-related impacts would be anticipated to occur under 2008 Construction conditions.

Pavement Infrastructure. Roadway pavements deteriorate with traffic loads, environmental conditions and time. Highways are typically able to carry higher traffic loads than arterials and other lower volume roadways. The principal measure of traffic loading is "equivalent 18,000 pounds single axle loads" (18 kip Equivalent Single Axle Load [ESAL]) over
the useful life of the pavement, typically 20 years. As these loads are applied over time, the pavement's serviceability declines to the point where it must be repaired. Different types of trucks affect pavement differently. Trucks that have concentrated wheel loads (e.g., full concrete trucks) would cause worse pavement effects than a flat-bed tractor-trailer combination carrying steel reinforcing rods. Highways can have design loads of $10,000,000$ to $80,000,000$ (or more) ESAL, arterials generally between $2,000,000$ to $5,000,000$ ESAL and low-volume roadways 50,000 to 500,000 ESAL (or more).

The proposed UV Facility is anticipated to generate a total of approximately 79,330 entering/exiting truck trips over the approximately four and one-half-year construction period, anticipated to run from April 2005 through September 2009. These truck trips equate to a total of approximately 53,950 ESAL inbound and 53,950 ESAL outbound, over the duration of construction for the proposed UV Facility. This would translate to a predicted truck load over the duration of construction of approximately 107,900 ESAL on the proposed truck routes to and from the site (e.g., about 80 percent of the trips using Grasslands Road to Route 9A-86,320 EASL, and about 20 percent of the trips using Knollwood Road to Route 119 - 21,580 ESAL). The peak construction truck trip generation is anticipated to occur in 2007, when construction of the UV Facility would generate an annual total of approximately 26,180 entering/exiting truck trips. These truck trips translate to a total of approximately 17,800 ESAL inbound and 17,800 ESAL outbound, in 2007. When compared with the predicted truck loads with designed loads for arterial roadways, the anticipated loads generated from the construction of the proposed UV Facility are not anticipated to be significant adverse impacts.

### 4.9.3.2.3. With Croton Project at Eastview Site

As mentioned previously, under 2008 conditions with both the UV Facility and the Croton project under construction, construction workers would be required to park off-site. For the scenario with the Croton project under construction, four different construction worker parking Options have been considered, resulting in four distinct 2008 Construction with Croton conditions (Options A, B, C, and D). This is because with both the Croton project and the proposed UV Facility under construction at the Eastview Site at the same time, there would not be enough space on-site for all of the workers for both projects to park, as most of the available land area would either be under construction, or in use as construction lay-down or staging areas. These construction worker parking Options have been selected for analysis purposes, as representative of the types of routings that worker vehicles would use for off-site parking. Each of the four construction worker parking Options also includes an additional assignment for shuttle buses that would transport the workers between the Eastview Site and the parking areas. It is important to note that under these 2008 Construction conditions, not only are the workers associated with the UV Facility's construction routed to one or more off-site locations, but the construction workers associated with the Croton project have also been routed to one or more of the same off-site parking locations as the UV Facility's workers (as described in the 2008 FNB with Croton discussion). These four construction worker parking Options are described below:

- Option A: All of the construction workers for both the UV Facility and the Croton project would park at the Landmark at Eastview, west of the project site, and would be shuttled to the site in buses or vans.
- Option B: All of the construction workers for both the UV Facility and the Croton project would park at the Westchester Community College (WCC) Campus, east of the project site, and would be shuttled to the site in buses or vans.
- Option C: Parking for all of the construction workers for both the UV Facility and the Croton project would be split evenly between the Landmark at Eastview and WCC, and would be shuttled to the site in buses or vans.
- Option D: All of the construction workers for the Croton project would park at the Landmark at Eastview, west of the project site, and all of the construction workers for the UV Facility would park at the new Home Depot off Dana Road, just northwest of the project site. Rather than simply splitting the workers between the two sites, workers from the UV Facility were assigned to the Home Depot site because the property owner indicated that they anticipated that the parking that would be available would be just enough to accommodate the projected number of UV Facility construction worker vehicles, but would not be sufficient to accommodate the projected number of Croton WTP worker vehicles. All workers for either project would be shuttled to the site from their respective parking areas in buses or vans.

It is important to note that these 2008 Construction (Options A through D) conditions reflect the maximum number of worker trips that would be anticipated at the peak of the concurrent construction of the UV Facility and the Croton project. During other times during the 6 -year construction period, the numbers of total workers traveling to and from the Eastview Site would be substantially lower than for peak conditions in 2008. It may be possible to accommodate construction workers on-site during the non-peak construction periods. During these times with fewer workers and the ability to accommodate the parking for construction workers on the north parcel of the Eastview Site, the impacts would be less than those discussed in the subsections below, and would be likely to occur at locations similar to conditions outlined for Option A. This is because the routing of construction worker vehicles parking on the north parcel would be very similar to the routing examined for Option A.

The anticipated total 2008 Construction traffic volumes and conditions, including the identification of potential 2008 construction period impacts for each of the working parking Options are outlined and summarized in the sections below.

## Option A-Parking at the Landmark Site

The traffic generated by the construction of the UV Facility with construction of the Croton project on the site for Option A is shown in Figures 4.9-31 and 4.9-32, for the AM and PM peak hours, respectively. Figures 4.9-33 and 4.9-34 show the total resulting 2008 Construction Option A traffic volumes. Table 4.9-18 shows a comparison of the results of the HCM analyses for the 2008 FNB (with the Croton project) conditions and the 2008 UV Facility Construction (Option A) conditions.

Option A Traffic. The following is a summary of the significant adverse impacts that have been identified during 2008, associated with the UV Facility's peak construction activities at the Eastview Site under worker parking Option A conditions. There would be a total of 26 potential significant adverse impacts at intersections in the primary study area under 2008 Construction Option A conditions (11 at signalized intersections, 4 during the AM peak hour and 7 during the PM peak hour, and 15 at unsignalized intersections, 6 during the AM peak hour and 9 during the PM peak hour).

## Potential Significant Adverse Impacts Occurring at Signalized Intersections.

- Saw Mill River Road (Route 9A)/Tarrytown-White Plains Road (Route 119) Intersection. During the AM peak hour, the eastbound left-turn movement would remain at LOS F, with delays increasing from 92.2 to 113.5 seconds. During the PM peak hour the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 79.6 to 83.3 seconds.
- Old Saw Mill River Road/Saw Mill River Parkway Southbound Off-Ramp Intersection. During the PM peak hour, the eastbound approach would deteriorate from LOS E to LOS F, with delays increasing from 79.8 to 86.2 seconds.
- Grasslands Road (Route 100C)/Clearbrook Road/Walker Road Intersection. During the PM peak hour, the eastbound through/right lane group would deteriorate from LOS E to LOS F, with delays increasing from 55.4 to 133.1 seconds.
- Grasslands Road (Route 100C)/Sprain Brook Parkway Southbound Ramp Intersection. During the AM peak hour, the southbound right-turn movement would deteriorate beyond mid-LOS D, with delays increasing from 36.3 to 48.4 seconds.
- Grasslands Road (Route 100C)/Sprain Brook Parkway Northbound Ramp Intersection. During the AM peak hour, the northbound left/through lane group would remain at LOS F, with delays increasing from 216.3 to well beyond 240 seconds. During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS D to LOS F, with delays increasing from 41.3 to 104.4 seconds.
- Virginia Road/Bronx River Parkway Intersection. During the AM and PM peak hours, the eastbound left/through movement would remain at LOS F, with delays increasing from 129.4 to 130.6 seconds during the AM peak hour, and from 142.8 to 144.9 seconds during the PM peak hour. During the PM peak hour, the westbound approach would also remain at LOS F, with delays increasing from 189.6 to 193.5 seconds.
- Old Saw Mill River Road/Landmark at Eastview West Driveway Intersection. During the PM peak hour, the northbound approach would deteriorate from LOS C to LOS E, with delays increasing from 27.0 to 63.3 seconds.

TABLE 4.9-18. PURE NO BUILD + CROTON VS. CAT DEL, PARKING AT THE LANDMARK EASTVIEW SITE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION A) CONDITIONS

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | Delay (sec) | LOS |
| Saw Mill River Road (Rt.9A) (N-S) @ Saw Mill River Pkwy Ramp | 4 | Eastbound | L | 0.64 | 31.6 | C | 0.64 | 31.6 | C | 0.52 | 29.3 | C | 0.52 | 29.3 | C |
|  |  |  | LTR | 0.14 | 25.0 | C | 0.14 | 25.0 | C | 0.14 | 25.8 | C | 0.14 | 25.8 | C |
|  |  | Westbound | L | 0.14 | 32.4 | C | 0.14 | 32.4 | C | 0.14 | 34.1 | C | 0.14 | 34.1 | C |
|  |  |  | LT | 0.10 | 32.1 | C | 0.10 | 32.1 | C | 0.09 | 33.8 | C | 0.09 | 33.8 | C |
|  |  |  | R | 0.02 | 31.6 | C | 0.02 | 31.6 | C | 0.04 | 33.6 | C | 0.04 | 33.6 | C |
|  |  | Northbound | L | 0.19 | 14.2 | B | 0.20 | 14.3 | B | 0.81 | 31.6 | C | 0.81 | 31.6 | C |
|  |  |  | TR | 0.33 | 14.9 | B | 0.34 | 15.0 | B | 0.59 | 15.9 | B | 0.61 | 16.3 | B |
|  |  | Southbound | L | 0.05 | 13.0 | B | 0.05 | 13.0 | B | 0.14 | 21.5 | C | 0.14 | 21.6 | C |
|  |  |  | TR | 0.57 | 17.5 | B | 0.60 | 17.9 | B | 0.99 | 56.3 | E | 1.00 | 58.5 | E |
|  |  | Intersection |  |  | 19.6 | B |  | 19.7 | B |  | 34.4 | C |  | 35.1 | D |
| Grasslands Road (Rt. 100C) (E-W) @ Bradhurst Avenue (Rt. 100) | 6 | Eastbound | L | 0.73 | 38.4 | D | 0.75 | 39.9 | D | * | ** | F | * | ** | F |
|  |  |  | T | 1.03 | 75.5 | E | 1.03 | 75.5 | E | 0.60 | 22.6 | C | 0.61 | 22.9 | C |
|  |  |  | R | 0.36 | 16.4 | B | 0.36 | 16.5 | B | 0.29 | 12.2 | B | 0.30 | 12.3 | B |
|  |  | Westbound | L | 0.68 | 56.6 | E | 0.68 | 56.6 | E | 0.22 | 18.0 | B | 0.23 | 18.1 | B |
|  |  |  | TR | 0.44 | 26.1 | C | 0.45 | 26.2 | C | 0.98 | 55.9 | E | 0.98 | 55.9 | E |
|  |  | Northbound | L | 0.25 | 23.6 | C | 0.26 | 23.9 | C | 0.88 | 61.6 | E | 0.90 | 64.9 | E |
|  |  |  | TR | 0.34 | 25.9 | C | 0.34 | 25.9 | C | 0.20 | 16.3 | B | 0.20 | 16.3 | B |
|  |  | Southbound | L | 0.50 | 40.1 | D | 0.50 | 40.1 | D | 0.30 | 25.1 | C | 0.00 | 25.1 | C |
|  |  |  | TR | 0.68 | 49.7 | D | 0.68 | 49.7 | D | 1.12 | 109.2 | F | 1.12 | 109.2 | F |
|  |  | Intersection |  |  | 45.3 | D |  | 45.3 | D |  | 70.0 | E |  | 70.0 | E |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) WB Ramp | 8 | Westbound <br> Northbound <br> Southbound | LT | 0.46 | 27.6 | C | 0.46 | 27.6 | C | 0.79 | 39.0 | D | 0.79 | 39.0 | D |
|  |  |  | R | 0.24 | 25.4 | C | 0.24 | 25.5 | C | 0.45 | 27.6 | C | 0.45 | 27.6 | C |
|  |  |  | L | 0.51 | 9.9 | A | 0.51 | 10.0 | A | 0.96 | 56.2 | E | 0.97 | 58.2 | E |
|  |  |  | T | 0.52 | 10.4 | B | 0.53 | 10.6 | B | 0.52 | 10.5 | B | 0.53 | 10.6 | B |
|  |  |  | T | 0.31 | 13.5 | B | 0.31 | 13.5 | B | 0.45 | 14.9 | B | 0.46 | 15.0 | B |
|  |  |  | R | 0.13 | 12.1 | B | 0.14 | 12.2 | B | 0.23 | 12.9 | B | 0.23 | 12.9 | B |
|  |  | Intersection |  |  | 14.4 | B |  | 14.5 | B |  | 27.4 | C |  | 27.7 | C |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (l-287) EB Ramp | 9 | Eastbound <br> Northbound <br> Southbound | L | 0.68 | 32.8 | C | 0.68 | 32.9 | C | 0.48 | 24.5 | C | 0.48 | 24.5 | C |
|  |  |  | TR | 0.01 | 23.6 | C | 0.01 | 23.6 | C | 0.00 | 20.0 | C | 0.00 | 20.0 | C |
|  |  |  | R | 0.58 | 30.0 | C | 0.58 | 30.0 | C | 0.77 | 34.2 | C | 0.77 | 34.2 | C |
|  |  |  | T | 0.50 | 15.4 | B | 0.51 | 15.5 | B | 0.87 | 32.1 | C | 0.87 | 32.4 | C |
|  |  |  | R | 0.52 | 15.9 | B | 0.52 | 15.9 | B | 0.62 | 20.9 | C | 0.62 | 20.9 | C |
|  |  |  | L | 0.40 | 9.9 | A | 0.40 | 10.0 | A | 0.80 | 30.9 | C | 0.81 | 31.3 | C |
|  |  |  | T | 0.29 | 8.4 | A | 0.30 | 8.5 | A | 0.66 | 15.7 | B | 0.66 | 15.8 | B |
|  |  | Intersection |  |  | 18.6 | B |  | 18.6 | B |  | 25.9 | C |  | 26.0 | C |
| ```Tarrytown/White Plains Road(Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A)``` | 10 | Westbound <br> Northbound Southbound | LT | 0.14 | 24.6 | C | 0.14 | 24.6 | C | 0.35 | 26.4 | C | 0.35 | 26.4 | C |
|  |  |  | R | 0.51 | 28.3 | C | 0.51 | 28.3 | C | 0.96 | 64.8 | E | 0.96 | 65.3 | E |
|  |  |  | LT | 0.41 | 10.2 | B | 0.41 | 10.2 | B | 0.60 | 12.6 | B | 0.60 | 12.6 | B |
|  |  |  | T | 0.20 | 15.3 | B | 0.20 | 15.3 | B | 0.44 | 17.4 | B | 0.44 | 17.4 | B |
|  |  |  | R | 0.19 | 15.3 | B | 0.20 | 15.4 | B | 0.48 | 18.1 | B | 0.48 | 18.2 | B |
|  |  | Intersection |  |  | 15.5 | B |  | 15.5 | B |  | 25.2 | C |  | 25.3 | C |
| ```Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A)``` | $\begin{array}{\|l\|} \hline 11 \\ 12 \end{array}$ | Eastbound <br> Northbound Southbound | LT | 0.72 | 34.7 | C | 0.73 | 35.1 | D | 0.79 | 38.6 | D | 0.79 | 38.7 | D |
|  |  |  | R | 0.16 | 24.8 | C | 0.16 | 24.8 | C | 0.35 | 26.5 | C | 0.35 | 26.5 | C |
|  |  |  | TR | 0.40 | 20.2 | C | 0.41 | 20.2 | C | 0.41 | 20.3 | C | 0.41 | 20.3 | C |
|  |  |  | Def | 0.31 | 12.0 | B | 0.32 | 12.1 | B | 0.47 | 14.7 | B | 0.48 | 14.8 | B |
|  |  |  | T | 0.28 | 9.2 | A | 0.28 | 9.2 | A | 0.54 | 11.8 | B | 0.55 | 11.9 | B |
|  |  | Intersection |  |  | 20.6 | C |  | 20.8 | C |  | 21.1 | C |  | 21.2 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) WB Ramp | 13 | Westbound <br> Northbound <br> Southbound | L | 1.09 | 97.9 | F | 1.09 | 97.9 | F | 0.74 | 38.2 | D | 0.74 | 38.2 | D |
|  |  |  | R | 0.55 | 28.6 | C | 0.61 | 29.6 | C | 0.43 | 20.5 | C | 0.43 | 20.6 | C |
|  |  |  | LTR | 0.40 | 9.2 | A | 0.43 | 9.4 | A | 0.73 | 24.3 | C | 0.77 | 25.8 | C |
|  |  |  | TR | 0.49 | 10.0 | A | 0.51 | 10.2 | B | 0.92 | 27.8 | C | 0.96 | 34.4 | C |
|  |  | Intersection |  |  | 33.4 | C |  | 33.4 | C |  | 27.2 | C |  | 30.8 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) EB Ramp | 14 | Northbound Southbound | TR | 0.34 | 12.6 | B | 0.36 | 12.8 | B | 0.90 | 35.6 | D | 0.90 | 36.4 | D |
|  |  |  | L | 0.52 | 2.5 | A | 0.55 | 3.6 | A | 0.79 | 25.9 | C | 0.82 | 28.7 | C |
|  |  |  | LT | 0.17 | 0.2 | A | 0.17 | 0.2 | A | 0.56 | 0.5 | A | 0.59 | 0.6 | A |
|  |  | Intersection |  |  | 5.5 | A |  | 6.0 | A |  | 18.1 | B |  | 18.8 | B |
| Saw Mill River Road (Rt.9A) @ Tarrytown/White Plains Road (Rt.119) | 15 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 1.05 | 92.2 | F | 1.12 | 113.5 + | F | 1.01 | 79.6 | E | 1.02 | 83.3 + | F |
|  |  |  | TR | 0.38 | 14.5 | B | 0.38 | 14.5 | B | 0.46 | 20.2 | C | 0.46 | 20.2 | C |
|  |  |  | L | 0.17 | 22.3 | C | 0.17 | 22.3 | C | 0.42 | 34.4 | C | 0.42 | 34.4 | C |
|  |  |  | TR | 0.31 | 23.6 | C | 0.31 | 23.6 | C | 0.89 | 49.1 | D | 0.89 | 49.7 | D |
|  |  |  | L | 0.39 | 34.3 | C | 0.39 | 34.4 | C | 0.32 | 25.5 | C | 0.34 | 25.8 | C |
|  |  |  | TR | 0.67 | 42.7 | D | 0.72 | 44.9 | D | 0.83 | 41.6 | D | 0.83 | 42.1 | D |
|  |  |  | L | 0.27 | 35.4 | D | 0.29 | 36.6 | D | 0.56 | 35.8 | D | 0.58 | 36.5 | D |
|  |  |  | T | 0.43 | 35.1 | D | 0.44 | 35.3 | D | 0.31 | 23.4 | C | 0.34 | 23.8 | C |
|  |  |  | R | 0.23 | 22.1 | C | 0.24 | 22.2 | C | 0.41 | 11.2 | B | 0.43 | 11.3 | B |
|  |  | Intersection |  |  | 37.4 | D |  | 42.3 | D |  | 35.3 | D |  | 35.9 | D |
| Saw Mill River Road (Rt.9A) @ Hunter Lane | 16 | Eastbound | LTR | 0.01 | 29.1 | C | 0.01 | 29.1 | C | 0.01 | 32.9 | C | 0.01 | 32.9 | C |
|  |  | Westbound LT <br>  R <br> Northbound LTR <br> Southbound LTR <br> Intersection  |  | 0.31 | 32.4 | C | 0.31 | 32.4 | C | 0.81 | 56.6 | E | 0.81 | 56.6 | E |
|  |  |  |  | 0.01 | 18.7 | B | 0.01 | 18.7 | B | 0.07 | 22.9 | C | 0.07 | 22.9 | C |
|  |  |  |  | 0.74 | 24.1 | C | 0.81 | 27.0 | C | 0.70 | 19.8 | B | 0.71 | 20.1 | C |
|  |  |  |  | 0.73 | 16.3 | B | 0.78 | 18.3 | B | 0.81 | 16.3 | B | 0.87 | 19.8 | B |
|  |  |  |  |  | 20.8 | C |  | 23.3 | C |  | 21.3 | C |  | 23.0 | C |

TABLE 4.9-18. PURE NO BUILD + CROTON VS. CAT DEL, PARKING AT THE LANDMARK EASTVIEW SITE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION A) CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Group } \\ \hline \end{array}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \text { Delay } \\ \text { (sec) } \\ \hline \end{gathered}$ | LOS | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | v/c <br> Ratio | Delay (sec) | LOS |
| Saw Mill River Road (Rt.9A) @ Dana Road | 20 | Eastbound | LT | 0.07 | 25.5 | C | 0.07 | 25.5 | C | 0.29 | 27.5 | C | 0.29 | 27.6 | C |
|  |  |  | R | 0.08 | 25.6 | C | 0.08 | 25.6 | C | 0.24 | 26.9 | C | 0.24 | 26.9 | C |
|  |  | Westbound | L | 0.21 | 26.6 | C | 0.28 | 27.3 | C | 0.50 | 29.8 | C | 0.55 | 31.1 | C |
|  |  |  | TR | 0.11 | 25.8 | C | 0.15 | 26.1 | C | 0.41 | 28.5 | C | 0.42 | 28.7 | C |
|  |  | Northbound | L | 0.12 | 30.5 | C | 0.12 | 30.5 | C | 0.39 | 32.7 | C | 0.39 | 32.7 | C |
|  |  |  | TR | 0.65 | 25.6 | C | 0.67 | 26.0 | C | 0.89 | 35.9 | D | 0.93 | 40.5 | D |
|  |  | Southbound | L | 0.39 | 32.8 | C | 0.41 | 33.0 | C | 0.16 | 30.8 | C | 0.18 | 31.0 | C |
|  |  |  | TR | 0.63 | 24.7 | C | 0.64 | 25.2 | C | 0.74 | 27.8 | C | 0.74 | 27.8 | C |
|  |  | Intersection |  |  | 25.9 | C |  | 26.3 | C |  | 31.5 | C |  | 33.6 | C |
| Old Saw Mill River Road @ Saw Mill River Pkwy SB Off Ramp | 21 | Eastbound Westbound Southbound | LT | 0.89 | 30.0 | C | 0.90 | 31.7 | C | 1.07 | 79.8 | E | 1.09 | 86.2 + | F |
|  |  |  | TR | 0.23 | 4.7 | A | 0.24 | 4.7 | A | 0.49 | 9.8 | A | 0.54 | 10.3 | B |
|  |  |  | L | 0.70 | 38.1 | D | 0.72 | 39.0 | D | 0.29 | 23.1 | C | 0.29 | 23.1 | C |
|  |  |  | LR | 0.16 | 28.2 | C | 0.16 | 28.2 | C | 0.21 | 22.6 | C | 0.21 | 22.6 | C |
|  |  | Intersection |  |  | 22.3 | C |  | 23.2 | C |  | 35.8 | D |  | 37.1 | D |
| Old Saw Mill River Road @ Saw Mill River Pkwy NB Off Ramp | 22 | Eastbound Westbound Northbound | T | 0.49 | 17.6 | B | 0.50 | 17.7 | B | 0.41 | 13.3 | B | 0.41 | 13.3 | B |
|  |  |  | T | 0.20 | 7.7 | A | 0.20 | 7.8 | A | 0.33 | 4.4 | A | 0.36 | 4.6 | A |
|  |  |  | LR | 0.56 | 26.5 | C | 0.64 | 28.7 | C | 0.46 | 31.5 | C | 0.46 | 31.6 | C |
|  |  |  | R | 0.53 | 26.0 | C | 0.61 | 28.1 | C | 0.42 | 31.3 | C | 0.43 | 31.4 | C |
|  |  | Intersection |  |  | 17.6 | B |  | 18.7 | B |  | 11.6 | B |  | 11.4 | B |
| Grassland Road (Rt.100C) @ Clearbrook Road/Walker Road | 24 | Eastbound <br> Westbound <br> Northbound Southbound | L | 0.10 | 2.9 | A | 0.29 | 4.2 | A | 0.04 | 9.2 | A | 0.04 | 9.3 | A |
|  |  |  | TR | 0.38 | 3.8 | A | 0.39 | 3.8 | A | 1.03 | 55.4 | E | 1.23 | 133.1 + | F |
|  |  |  | L | 0.38 | 4.1 | A | 0.39 | 4.1 | A | * | ** | F | * | ** | F |
|  |  |  | TR | 0.64 | 6.1 | A | 0.81 | 10.5 | B | 0.72 | 17.2 | B | 0.73 | 17.5 | B |
|  |  |  | LT | 0.21 | 33.7 | C | 0.21 | 33.7 | C | 0.19 | 19.9 | B | 0.19 | 19.9 | B |
|  |  |  | LT | 0.21 | 33.8 | C | 0.21 | 33.8 | C | 0.23 | 20.3 | C | 0.23 | 20.3 | C |
|  |  |  | R | 0.00 | 32.2 | C | 0.00 | 32.2 | C | 0.05 | 18.8 | B | 0.08 | 19.0 | B |
|  |  | Intersection |  |  | 6.1 | A |  | 8.5 | A |  | 108.6 | F |  | 144.3 | F |
| Grassland Road (Rt.100C) @ Woods Drive/Taylor Road | 25 | Eastbound <br> Westbound <br> Northbound Southbound | L | 0.39 | 14.1 | B | 0.40 | 18.7 | B | 0.33 | 14.2 | B | 0.34 | 14.5 | B |
|  |  |  | TR | 0.27 | 5.3 | A | 0.28 | 5.3 | A | 0.73 | 15.6 | B | 0.84 | 19.4 | B |
|  |  |  | L | 0.00 | 9.3 | A | 0.00 | 9.3 | A | 0.01 | 12.6 | B | 0.01 | 12.7 | B |
|  |  |  | TR | 0.77 | 18.6 | B | 0.91 | 26.0 | C | 0.74 | 21.7 | C | 0.75 | 22.0 | C |
|  |  |  | LTR | 0.01 | 32.9 | C | 0.01 | 32.9 | C | 0.01 | 24.6 | C | 0.01 | 24.6 | C |
|  |  |  | LT | 0.55 | 39.2 | D | 0.55 | 39.2 | D | 0.79 | 41.6 | D | 0.79 | 41.6 | D |
|  |  |  | R | 0.08 | 21.2 | C | 0.08 | 21.2 | C | 0.11 | 17.2 | B | 0.11 | 17.2 | B |
|  |  |  |  |  | 15.9 | B |  | 21.1 | C |  | 20.5 | C |  | 22.3 | C |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy SB Ramp | 26 | $$ | TR | 0.28 | 7.6 | A | 0.29 | 7.6 | A | 0.84 | 16.5 | B | 0.95 | 26.0 | C |
|  |  |  | T | 0.41 | 8.5 | A | 0.48 | 9.0 | A | 0.53 | 9.6 | A | 0.54 | 9.7 | A |
|  |  |  | L | 0.55 | 34.0 | C | 0.55 | 34.0 | C | 0.17 | 29.6 | C | 0.17 | 29.6 | C |
|  |  |  | R | 0.62 | 36.3 | D | 0.82 | $48.4+$ | D | 0.14 | 29.3 | C | 0.16 | 29.4 | C |
|  |  | Intersection |  |  | 14.5 | B |  | 16.8 | B |  | 14.4 | B |  | 20.3 | C |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy NB Ramp | $\begin{array}{\|l\|} \hline 27 \\ 30 \\ \hline \end{array}$ | Eastbound <br> Westbound <br> Northbound | L | 0.12 | 15.0 | B | 0.14 | 15.2 | B | 0.87 | 41.3 | D | 1.11 | 104.4 + | F |
|  |  |  | T | 0.50 | 18.0 | B | 0.51 | 18.1 | B | 0.34 | 9.0 | A | 0.34 | 9.1 | A |
|  |  |  | TR | 0.49 | 24.9 | C | 0.51 | 25.1 | C | 1.07 | 69.5 | E | 1.07 | 71.4 | E |
|  |  |  | LT | 1.39 | 216.3 | F | * | ** + | F | 0.71 | 30.2 | C | 0.73 | 30.8 | C |
|  |  |  | R | 1.02 | 74.8 | E | 1.02 | 74.8 | E | 0.35 | 23.1 | C | 0.35 | 23.1 | C |
|  |  | Intersection |  |  | 90.2 | F |  | 132.9 | F |  | 44.7 | D |  | 53.2 | D |
| Virginia Road @ Bronx River Pkwy | 31 | Eastbound <br> Westbound <br> Northbound <br> Southbound | LT | 1.12 | 129.4 | F | 1.13 | 130.6 + | F | 1.16 | 142.8 | F | 1.17 | 144.9 + | F |
|  |  |  | R | 0.21 | 19.6 | B | 0.21 | 19.6 | B | 0.39 | 34.6 | C | 0.40 | 34.7 | C |
|  |  |  | LTR | 0.40 | 34.7 | C | 0.40 | 34.7 | C | 1.27 | 189.6 | F | 1.28 | $193.5+$ | F |
|  |  |  | L | 0.05 | 46.3 | D | 0.06 | 46.4 | D | 0.06 | 10.9 | B | 0.06 | 10.9 | B |
|  |  |  | TR | 0.26 | 20.1 | C | 0.26 | 20.1 | C | 0.62 | 25.3 | C | 0.62 | 25.3 | C |
|  |  |  | L | 1.10 | 141.5 | F | 1.10 | 141.5 | F | 0.13 | 11.7 | B | 0.13 | 11.7 | B |
|  |  |  | T | 0.70 | 27.3 | C | 0.70 | 27.3 | C | 0.59 | 24.7 | C | 0.59 | 24.7 | C |
|  |  | Intersection |  |  | 54.3 | D |  | 54.5 | D |  | 62.7 | E |  | 63.5 | E |
| Grassland Road (Rt.100) @ WCC East Gate | 34 | Eastbound Westbound <br> Northbound | T | 0.41 | 7.7 | A | 0.41 | 7.7 | A | 0.73 | 17.1 | B | 0.74 | 17.4 | B |
|  |  |  | L | 0.26 | 5.2 | A | 0.26 | 5.2 | A | 0.22 | 11.3 | B | 0.22 | 11.4 | B |
|  |  |  | T | 0.25 | 3.2 | A | 0.25 | 3.2 | A | 0.58 | 7.9 | A | 0.58 | 7.9 | A |
|  |  |  | L | 0.07 | 45.8 | D | 0.07 | 45.8 | D | 0.62 | 30.6 | C | 0.62 | 30.6 | C |
|  |  | Intersection |  |  | 6.3 | A |  | 6.3 | A |  | 14.7 | B |  | 14.9 | B |
| Old Saw Mill River Road @ Landmark West Driveway | 46 | Eastbound | LTR | 0.82 | 11.4 | B | 0.88 | 14.6 | B | 0.58 | 6.0 | A | 0.58 | 6.1 | A |
|  |  | Westbound | LTR | 0.26 | 4.1 | A | 0.26 | 4.1 | A | 0.43 | 4.9 | A | 0.43 | 4.9 | A |
|  |  | Northbound | LTR | 0.04 | 21.1 | C | 0.07 | 21.2 | C | 0.59 | 27.0 | C | 0.92 | $63.3+$ | E |
|  |  | Southbound | LTR | 0.04 | 21.1 | C | 0.04 | 21.1 | C | 0.03 | 21.0 | C | 0.03 | 21.0 | C |
|  |  | Intersectio |  |  | 9.9 | A |  | 12.4 | B |  | 7.5 | A |  | 13.2 | B |

L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. " + " indicates significant impacts.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.9-18. PURE NO BUILD + CROTON VS. CAT DEL, PARKING AT THE LANDMARK EASTVIEW SITE LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION A) CONDITIONS

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | $\begin{array}{\|l\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\overline{\text { Delay }}$ $(\mathrm{sec})$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.12 | 10.7 | B | 0.12 | 10.8 | B | 0.20 | 9.8 | A | 0.21 | 9.9 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ Beverly Road | 2 | Northbound | LT | 0.01 | 10.5 | B | 0.01 | 10.6 | B | 0.03 | 13.2 | B | 0.03 | 13.2 | B |
|  |  | Eastbound | LR | 0.07 | 22.1 | C | 0.08 | 23.0 | C | 0.05 | 31.1 | D | 0.06 | 32.1 | D |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3N | Northbound | LT | 0.02 | 11.1 | B | 0.02 | 11.3 | B | 0.01 | 9.8 | A | 0.01 | 9.8 | A |
|  |  | Southbound | LT | 0.03 | 9.3 | A | 0.03 | 9.3 | A | 0.02 | 10.7 | B | 0.02 | 10.9 | B |
|  |  | Eastbound | LTR | 0.03 | 38.0 | E | 0.03 | 40.6 | E | 0.14 | 25.3 | D | 0.15 | 26.2 | D |
|  |  | Westbound | LTR | 0.04 | 17.4 | C | 0.04 | 18.1 | C | 0.08 | 16.4 | C | 0.08 | 16.9 | C |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue South | 3 S | Southbound | LT | 0.00 | 8.8 | A | 0.00 | 8.9 | A | 0.00 | 10.7 | B | 0.00 | 10.8 | B |
|  |  | Westbound | LR | 0.03 | 22.6 | C | 0.03 | 23.5 | C | 0.16 | 36.8 | E | 0.17 | 38.9 | E |
| Bradhurst Avenue (Rt. 100) @ Lakeview Avenue | 5 | Southbound | LT | 0.02 | 8.2 | A | 0.02 | 8.2 | A | 0.01 | 8.1 | A | 0.01 | 8.1 | A |
|  |  | Westbound | LR | 0.26 | 15.1 | C | 0.26 | 15.1 | C | 0.45 | 18.8 | C | 0.45 | 18.8 | C |
| Knollwood Road (Rt.100A) @ Hevelyne Road | 7 | Northbound | LT | 0.01 | 8.3 | A | 0.01 | 8.3 | A | 0.00 | 8.0 | A | 0.00 | 8.0 | A |
|  |  | Eastbound | LR | 0.03 | 13.2 | B | 0.03 | 13.4 | C | 0.01 | 10.9 | B | 0.01 | 11.0 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound | L | 0.16 | 10.5 | B | 0.20 | 11.0 | B | 0.16 | 10.4 | B | 0.16 | 10.5 | B |
|  |  | Southbound | LT | 0.01 | 9.0 | A | 0.01 | 9.1 | A | 0.01 | 9.5 | A | 0.01 | 9.6 | A |
|  |  | Eastbound | L | 0.02 | 43.3 | E | 0.03 | 54.3 + | F | 0.01 | 51.8 | F | 0.01 | 53.6 | F |
|  |  |  | T | 0.03 | 51.8 | F | 0.03 | 66.0 + | F | 0.08 | 84.9 | F | 0.09 | 92.7 + | F |
|  |  | Westbound | LT | 0.14 | 48.3 | E | 0.19 | $65.7+$ | F | 0.12 | 60.3 | F | 0.13 | $63.9+$ | F |
|  |  |  | TR | 0.01 | 10.9 | B | 0.01 | 11.2 | B | 0.03 | 17.5 | C | 0.03 | 18.0 | C |
| Dana Road @ Walker Road | 18 | Northbound | LR | 0.17 | 11.3 | B | 0.24 | 12.1 | B | 0.09 | 11.3 | B | 0.14 | 11.9 | B |
|  |  | Westbound | LT | 0.00 | 8.4 | A | 0.00 | 8.5 | A | 0.01 | 7.8 | A | 0.01 | 7.9 | A |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound <br> Westbound | L |  | ** | F |  | ** + | F |  | ** | F |  | ** + | F |
|  |  |  | R | 0.22 | 17.2 | C | 0.22 | 17.9 | C | 0.48 | 29.8 | D | 0.68 | $57.2+$ | F |
|  |  |  | L | 0.15 | 11.7 | B | 0.16 | 11.9 | B | 0.28 | 16.5 | C | 0.39 | 23.5 | C |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | LT | 0.60 | 73.7 | F | * | ** + | F | 0.10 | 39.6 | E | 0.16 | 58.5 + | F |
|  |  |  | TR | 0.07 | 14.3 | B | 0.07 | 14.7 | B | 0.26 | 21.2 | C | 0.35 | 29.6 | D |
|  |  |  | L | 0.29 | 12.9 | B | 0.37 | 16.1 | C | 0.24 | 11.2 | B | 0.29 | 11.8 | B |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound | LT | 0.23 | 8.4 | A | 0.23 | 8.4 | A | 0.37 | 10.4 | B | 0.37 | 10.4 | B |
|  |  | Westbound | LR | 0.56 | 16.9 | C | 0.56 | 17.1 | C | 1.25 | 162.4 | F | 1.26 | 166.5 + | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound <br> Eastbound | L | 0.43 | 30.6 | D | 0.43 | 31.0 | D | 1.29 | 220.5 | F | 1.31 | 227.1 + | F |
|  |  |  | R | 0.20 | 12.3 | B | 0.21 | 12.4 | B | 0.47 | 19.7 | C | 0.47 | 19.7 | C |
|  |  |  | LT | 0.07 | 8.6 | A | 0.07 | 8.6 | A | 0.24 | 10.7 | B | 0.24 | 10.7 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound | L | 0.06 | 20.8 | C | 0.06 | 20.9 | C | 0.27 | 51.3 | F | 0.27 | 52.5 | F |
|  |  |  | R | 0.01 | 13.7 | B | 0.01 | 13.7 | B | 0.50 | 18.9 | C | 0.51 | 19.2 | C |
|  |  | Westbound | LT | 0.00 | 9.9 | A | 0.00 | 9.9 | A | 0.12 | 9.2 | A | 0.12 | 9.2 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.16 | 18.7 | C | 0.21 | 19.7 | C | 0.69 | 33.7 | D | 1.08 | 103.2 + | F |
|  |  | Southbound | LTR | 0.96 | ** | F |  | ** + | F | * | ** | F |  | ** + | F |
|  |  | Eastbound | LTR | 0.02 | 8.7 | A | 0.02 | 9.3 | A | 0.01 | 8.7 | A | 0.01 | 8.8 | A |
|  |  | Westbound | LTR | 0.34 | 12.7 | B | 0.55 | 16.1 | C | 0.04 | 9.3 | A | 0.06 | 9.4 | A |

Notes:
L = Left Turn, $\mathrm{T}=$ Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

## Potential Significant Adverse Impacts Occurring at Unsignalized Intersections.

- Saw Mill River Road (Route 9A)/Ramada Inn/Broadway Plaza Intersection. During the AM peak hour, the eastbound left-turn lane group would deteriorate from LOS E (43.3 seconds delay) to LOS F ( 54.3 seconds delay), the eastbound through movement would remain at LOS F (delay increasing from 51.8 to 66.0 seconds), and the westbound left/through lane group would deteriorate from LOS E ( 48.3 seconds delay) to LOS F ( 65.7 seconds delay). During the PM peak hour, the eastbound through movement would remain at LOS F (delay increasing from 84.9 to 92.7 seconds), and the westbound left/through lane group would remain at LOS F (delay increasing from 60.3 to 63.9 seconds).
- Saw Mill River Road (Route 9A)/Grasslands Road (Route 100C) Intersection. During both the AM and PM peak hours, the northbound left-turn movement would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further. The northbound right-turn movement would deteriorate from LOS D (29.8 seconds delay) to LOS F (57.2 seconds delay) during the PM peak hour.
- Grasslands Road (Route 100C)/Saw Mill River Road (Route 9A) Northbound Ramp Intersection. During the AM peak hour, the northbound left/through lane group would remain at LOS F (delay increasing from 73.7 to greater than 240.0 seconds). During the PM peak hour, the northbound left/through lane group would deteriorate from LOS E (39.6 seconds delay) to LOS F ( 58.5 seconds delay).
- Grasslands Road (Route 100)/Virginia Road Intersection. During the PM peak hour, the westbound approach would remain at LOS F (delay increasing from 162.4 to 166.5 seconds).
- Grasslands Road (Route 100)/Legion Drive Intersection. During the PM peak hour, the southbound left-turn movement would remain at LOS F (delay increasing from 220.5 to 227.1 seconds).
- Old Saw Mill River Road/Landmark at Eastview East Driveway Intersection. During the PM peak hour, the northbound approach would deteriorate from LOS D to LOS F, with delays increasing from 33.7 to 103.2 seconds. The southbound approach would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further, during both the AM and PM peak hours.

Although these impacts would not be permanent because they are construction-related, measures have been identified that would mitigate the construction-related significant adverse traffic impacts predicted to occur under 2008 Construction Option A conditions. A description of the measures, and an analysis showing the resulting effects of implementing the measures suggested as mitigation for these impacts, are fully discussed in Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts.

Parking. Nearly the entire Eastview construction site would be unavailable for construction worker parking because of the concurrent construction of the UV Facility and the Croton project under 2008 Construction Option A conditions. As discussed in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, an off-site parking facility has been identified at the Landmark at Eastview for construction vehicles and workers during project construction, under Option A conditions. Based on the transportation data and planning assumptions presented in Section 3.9, this off-site parking facility would need to accommodate 400 construction worker vehicles from the UV Facility's construction, as well as 543 worker vehicles related to the concurrent construction of the Croton project. It is anticipated that this off-site parking facility would be able to accommodate these parked vehicles, therefore; no significant adverse parking impacts are anticipated to occur to the public and private parking facilities in the vicinity of the UV Facility under 2008 Option A conditions.

Safety. In the scenario where the proposed UV Facility would be constructed on the Eastview Site with the Croton project, the construction activities would increase the study area traffic volumes by 1 to 40 percent at key study area intersections during peak-hour operating conditions. This projected traffic growth can be anticipated to translate to between 1 and 15 additional accidents per year along the roadway corridors during the construction period. These additional accidents could be considered significant, depending on the intersection. However, with mitigation in place and a traffic management plan, the projected accident rate would likely be lower and not significant. See Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts, for a description of the recommended traffic mitigation measures.

Transit. The construction of the UV Facility under 2008 Construction Option A conditions is not anticipated to generate any considerable transit ridership. In addition, because of the low generation of trips from the Bee-Line Bus Facility during the UV Facility's peak construction hours, the construction of the UV Facility would not impact bus operations. Therefore, no significant adverse transit-related impacts would be anticipated to occur under 2008 Construction conditions.

Pavement Infrastructure. The proposed UV Facility is anticipated to generate a total of approximately 79,330 entering/exiting truck trips over the approximately four and one-half-year construction period, anticipated to run from April 2005 through September 2009. These truck trips equate to a total of approximately 53,950 ESAL inbound and 53,950 ESAL outbound, over the duration of construction for the proposed UV Facility. This would translate to a predicted truck load over the duration of construction of approximately 107,900 ESAL on the proposed truck routes to and from the site (e.g., about 80 percent of the trips using Grasslands Road to Route 9A - 86,320 EASL, and about 20 percent of the trips using Knollwood Road to Route 119 - 21,580 ESAL). The peak construction truck generation is anticipated to occur in 2007, when construction of the UV Facility would generate an annual total of approximately 26,180 entering/exiting truck trips. These truck trips translate to a total of approximately 17,800 ESAL inbound and 17,800 ESAL outbound, in 2007. When compared with the predicted truck loads with designed loads for arterial roadways, the anticipated loads generated from the construction of the proposed UV Facility are not anticipated to be significant adverse impacts.

## Option B - Parking at the Westchester Community College (WCC) Campus

The traffic generated by the construction of the UV Facility with construction of the Croton project on the site for Option B is shown in Figures 4.9-35 and 4.9-36, for the AM and PM peak hours, respectively. Figures 4.9-37 and 4.9-38 show the total resulting 2008 Construction Option B traffic volumes. Table 4.9-19 shows a comparison of the results of the HCM analyses for the 2008 FNB (with the Croton project) conditions and the 2008 UV Facility Construction (Option B) conditions.

Option B Traffic. The following is a summary of the significant adverse impacts that have been identified during 2008, associated with the UV Facility's peak construction activities at the Eastview Site under worker parking Option B conditions. There would be a total of 33 potential significant adverse impacts at intersections in the primary study area under 2008 Construction Option B conditions (17 at signalized intersections, 8 during the AM peak hour and 9 during the PM peak hour, and 16 at unsignalized intersections, 8 during the AM peak hour and 8 during the PM peak hour).

## Potential Significant Adverse Impacts Occurring at Signalized Intersections.

- Grasslands Road (Route 100C)/Bradhurst Avenue Intersection. During the AM peak hour, the eastbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 47.6 to 64.3 seconds, and the eastbound through movement would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further. During the PM peak hour, the westbound through/right lane group would also continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.
- Saw Mill River Road (Route 9A)/Tarrytown-White Plains Road (Route 119) Intersection. During the AM peak hour, the eastbound left-turn movement would remain at LOS F, with delays increasing from 92.2 to 113.5 seconds. During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F , with delays increasing from 79.6 to 83.3 seconds.
- Old Saw Mill River Road/Saw Mill River Parkway Southbound Off-Ramp Intersection. During the PM peak hour, the eastbound approach would deteriorate from LOS E to LOS F, with delays increasing from 77.9 to 83.6 seconds.

Grasslands Road (Route 100C)/Clearbrook Road/Walker Road Intersection. During the AM peak hour, the southbound left/through land group would deteriorate past mid-LOS D, with delays increasing from 37.3 to 48.5 seconds. During the PM peak hour, the westbound left-turn movement would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further, and the westbound through/right lane group would deteriorate from LOS C to LOS E, with delays increasing from 34.8 to 79.6 seconds.

- Grasslands Road (Route 100C)/Sprain Brook Parkway Southbound Ramp Intersection. During the AM peak hour, the southbound left-turn movement would deteriorate past mid-LOS D, with delays increasing from 41.4 to 53.9 seconds.
- Grasslands Road (Route 100C)/Sprain Brook Parkway Northbound Ramp Intersection. During the AM peak hour, the northbound right-turn movement would remain at LOS F, with delays increasing from 189.5 to greater than 240.0 seconds. During the PM peak hour, the westbound approach would remain at LOS F, with delays increasing from 223.9 to greater than 240.0 seconds.
- Virginia Road/Bronx River Parkway Intersection. During the AM peak hour, the eastbound left/through lane group would remain at LOS F, with delays increasing from 137.8 to 145.7 seconds, and the northbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 50.0 to 59.8 seconds. During the PM peak hour, the eastbound left/through lane group would remain at LOS F, with delays increasing from 215.8 to greater than 240.0 seconds, and the westbound approach would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.
- Grasslands Road (Route 100)/Westchester Community College East Gate Intersection. During the PM peak hour, the northbound left-turn movement would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.

TABLE 4.9-19. PURE NO BUILD + CROTON VS. CAT DEL ALONE, PARKING AT WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION B)

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | Delay (sec) | LOS | v/c <br> Ratio | $\begin{gathered} \text { Delay } \\ (\mathrm{sec}) \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | Delay (sec) | LOS |
| Saw Mill River Road (Rt.9A) (N-S) @ Saw Mill River Pkwy Ramp | 4 | Eastbound | L | 0.64 | 31.6 | C | 0.64 | 31.6 | C | 0.52 | 29.3 | C | 0.52 | 29.3 | C |
|  |  |  | LTR | 0.14 | 25.0 | C | 0.14 | 25.0 | C | 0.14 | 25.8 | C | 0.14 | 25.8 | C |
|  |  | Westbound | L | 0.14 | 32.4 | C | 0.14 | 32.4 | C | 0.14 | 34.1 | C | 0.14 | 34.1 | C |
|  |  |  | LT | 0.10 | 32.1 | C | 0.10 | 32.1 | C | 0.09 | 33.8 | C | 0.09 | 33.8 | C |
|  |  |  | R | 0.02 | 31.6 | C | 0.02 | 31.6 | C | 0.04 | 33.6 | C | 0.04 | 33.6 | C |
|  |  | Northbound | L | 0.19 | 14.2 | B | 0.20 | 14.3 | B | 0.81 | 31.6 | C | 0.81 | 31.6 | C |
|  |  |  | TR | 0.33 | 14.9 | B | 0.34 | 15.0 | B | 0.58 | 15.8 | B | 0.60 | 16.1 | B |
|  |  | Southbound | L | 0.05 | 13.0 | B | 0.05 | 13.0 | B | 0.14 | 21.5 | C | 0.14 | 21.5 | C |
|  |  |  | TR | 0.57 | 17.5 | B | 0.60 | 17.9 | B | 0.99 | 56.3 | E | 1.00 | 58.5 | E |
|  |  | Intersection |  |  | 19.6 | B |  | 19.7 | B |  | 34.4 | C |  | 35.2 | D |
| Grasslands Road (Rt. 100C) (E-W) @ Bradhurst Avenue (Rt. 100) | 6 | Eastbound | L | 0.81 | 47.6 | D | 0.90 | 64.3 + | E | * | ** | F | * | ** | F |
|  |  |  | T | * | ** | F | * | ** + | F | 0.65 | 23.9 | C | 0.69 | 25.2 | C |
|  |  |  | R | 0.36 | 16.4 | B | 0.36 | 16.5 | B | 0.28 | 12.2 | B | 0.29 | 12.2 | B |
|  |  | Westbound | L | 0.68 | 56.6 | E | 0.68 | 56.6 | E | 0.28 | 18.7 | B | 0.32 | 19.4 | B |
|  |  |  | TR | 0.50 | 26.9 | C | 0.55 | 27.9 | C |  | ** | F | * | ** + | F |
|  |  | Northbound | L | 0.24 | 23.5 | C | 0.25 | 23.6 | C | 0.88 | 61.6 | E | 0.90 | 64.9 | E |
|  |  |  | TR | 0.35 | 26.1 | C | 0.36 | 26.2 | C | 0.20 | 16.3 | B | 0.20 | 16.3 | B |
|  |  | Southbound | L | 0.51 | 40.5 | D | 0.52 | 40.8 | D | 0.30 | 25.1 | C | 0.30 | 25.1 | C |
|  |  |  | TR | 0.68 | 49.7 | D | 0.68 | 49.7 | D | 1.12 | 109.2 | F | 1.12 | 109.2 | F |
|  |  | Intersection |  |  | 175.7 | F |  | ** | F |  | 157.0 | F |  | ** | F |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (1-287) WB Ramp | 8 | Westbound <br> Northbound <br> Southbound | LT | 0.46 | 27.6 | C | 0.46 | 27.6 | C | 0.79 | 39.0 | D | 0.79 | 39.0 | D |
|  |  |  | R | 0.24 | 25.4 | C | 0.24 | 25.5 | C | 0.45 | 27.6 | C | 0.45 | 27.6 | C |
|  |  |  | L | 0.51 | 9.9 | A | 0.51 | 10.0 | A | 0.96 | 56.2 | E | 0.97 | 58.2 | E |
|  |  |  | T | 0.52 | 10.4 | B | 0.53 | 10.6 | B | 0.52 | 10.5 | B | 0.53 | 10.6 | B |
|  |  |  | T | 0.31 | 13.5 | B | 0.31 | 13.5 | B | 0.45 | 14.9 | B | 0.46 | 15.0 | B |
|  |  |  | R | 0.13 | 12.1 | B | 0.14 | 12.2 | B | 0.23 | 12.9 | B | 0.23 | 12.9 | B |
|  |  | Intersection |  |  | 14.4 | B |  | 14.5 | B |  | 27.4 | C |  | 27.7 | C |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) EB Ramp | 9 | Eastbound <br> Northbound <br> Southbound | L | 0.68 | 32.8 | C | 0.68 | 32.9 | C | 0.48 | 24.5 | C | 0.48 | 24.5 | C |
|  |  |  | TR | 0.01 | 23.6 | C | 0.01 | 23.6 | C | 0.00 | 20.0 | C | 0.00 | 20.0 | C |
|  |  |  | R | 0.58 | 30.0 | C | 0.58 | 30.0 | C | 0.77 | 34.2 | C | 0.77 | 34.2 | C |
|  |  |  | T | 0.50 | 15.4 | B | 0.51 | 15.5 | B | 0.87 | 32.1 | C | 0.87 | 32.4 | C |
|  |  |  | R | 0.52 | 15.9 | B | 0.52 | 15.9 | B | 0.62 | 20.9 | C | 0.62 | 20.9 | C |
|  |  |  | L | 0.40 | 9.9 | A | 0.40 | 10.0 | A | 0.80 | 30.9 | C | 0.81 | 31.3 | C |
|  |  |  | T | 0.29 | 8.4 | A | 0.30 | 8.5 | A | 0.66 | 15.7 | B | 0.66 | 15.8 | B |
|  |  | Intersection |  |  | 18.6 | B |  | 18.6 | B |  | 25.9 | C |  | 26.0 | C |
| ```Tarrytown/White Plains Road(Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A)``` | 10 | Westbound <br> Northbound Southbound | LT | 0.14 | 24.6 | C | 0.14 | 24.6 | C | 0.35 | 26.4 | C | 0.35 | 26.4 | C |
|  |  |  | R | 0.51 | 28.3 | C | 0.51 | 28.3 | C | 0.96 | 64.8 | E | 0.96 | 65.3 | E |
|  |  |  | LT | 0.41 | 10.2 | B | 0.41 | 10.2 | B | 0.60 | 12.6 | B | 0.60 | 12.6 | B |
|  |  |  | T | 0.20 | 15.3 | B | 0.20 | 15.3 | B | 0.44 | 17.4 | B | 0.44 | 17.4 | B |
|  |  |  | R | 0.19 | 15.3 | B | 0.20 | 15.4 | B | 0.48 | 18.1 | B | 0.48 | 18.2 | B |
|  |  | Intersection |  |  | 15.5 | B |  | 15.5 | B |  | 25.2 | C |  | 25.3 | C |
| ```Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A)``` | $\begin{array}{\|l\|} \hline 11 \\ 12 \end{array}$ | Eastbound <br> Northbound Southbound | LT | 0.72 | 34.7 | C | 0.73 | 35.1 | D | 0.79 | 38.6 | D | 0.79 | 38.7 | D |
|  |  |  | R | 0.16 | 24.8 | C | 0.16 | 24.8 | C | 0.35 | 26.5 | C | 0.35 | 26.5 | C |
|  |  |  | TR | 0.40 | 20.2 | C | 0.41 | 20.2 | C | 0.41 | 20.3 | C | 0.41 | 20.3 | C |
|  |  |  | Def | 0.31 | 12.0 | B | 0.32 | 12.1 | B | 0.47 | 14.7 | B | 0.48 | 14.8 | B |
|  |  |  | T | 0.28 | 9.2 | A | 0.28 | 9.2 | A | 0.54 | 11.8 | B | 0.55 | 11.9 | B |
|  |  | Intersection |  |  | 20.6 | C |  | 20.8 | C |  | 21.1 | C |  | 21.2 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) WB Ramp | 13 | Westbound <br> Northbound Southbound | L | 1.09 | 97.9 | F | 1.09 | 97.9 | F | 0.74 | 38.2 | D | 0.74 | 38.2 | D |
|  |  |  | R | 0.55 | 28.6 | C | 0.61 | 29.6 | C | 0.43 | 20.5 | C | 0.43 | 20.6 | C |
|  |  |  | LTR | 0.40 | 9.2 | A | 0.43 | 9.4 | A | 0.73 | 24.2 | C | 0.76 | 25.5 | C |
|  |  |  | TR | 0.49 | 10.0 | A | 0.51 | 10.2 | B | 0.91 | 27.0 | C | 0.95 | 32.6 | C |
|  |  | Intersection |  |  | 33.4 | C |  | 33.0 | C |  | 26.8 | C |  | 29.9 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) EB Ramp | 14 | Northbound Southbound | TR | 0.34 | 12.6 | B | 0.36 | 12.8 | B | 0.90 | 35.6 | D | 0.90 | 36.4 | D |
|  |  |  | L | 0.52 | 2.5 | A | 0.55 | 3.6 | A | 0.87 | 25.6 | C | 0.81 | 27.9 | C |
|  |  |  | LT | 0.17 | 0.2 | A | 0.17 | 0.2 | A | 0.56 | 0.5 | A | 0.58 | 0.6 | A |
|  |  | Intersection |  |  | 5.5 | A |  | 6.0 | A |  | 18.0 | B |  | 18.7 | B |
| Saw Mill River Road (Rt.9A) @ Tarrytown/White Plains Road (Rt.119) | 15 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 1.05 | 92.2 | F | 1.12 | 113.5 + | F | 1.01 | 79.6 | E | 1.02 | 83.3 + | F |
|  |  |  | TR | 0.38 | 14.5 | B | 0.38 | 14.5 | B | 0.46 | 20.2 | C | 0.46 | 20.2 | C |
|  |  |  | L | 0.17 | 22.3 | C | 0.17 | 22.3 | C | 0.42 | 34.4 | C | 0.42 | 34.4 | C |
|  |  |  | TR | 0.31 | 23.6 | C | 0.31 | 23.6 | C | 0.89 | 49.1 | D | 0.89 | 49.7 | D |
|  |  |  | L | 0.39 | 34.3 | C | 0.39 | 34.4 | C | 0.32 | 25.4 | C | 0.34 | 25.8 | C |
|  |  |  | TR | 0.67 | 42.7 | D | 0.72 | 44.9 | D | 0.83 | 41.6 | D | 0.83 | 42.1 | D |
|  |  |  | L | 0.27 | 35.4 | D | 0.29 | 36.6 | D | 0.56 | 35.7 | D | 0.57 | 36.4 | D |
|  |  |  | T | 0.43 | 35.1 | D | 0.44 | 35.3 | D | 0.31 | 23.3 | C | 0.34 | 23.7 | C |
|  |  |  | R | 0.23 | 22.1 | C | 0.24 | 22.2 | C | 0.41 | 11.2 | B | 0.43 | 11.3 | B |
|  |  | Intersection |  |  | 37.4 | D |  | 42.3 | D |  | 35.3 | D |  | 35.9 | D |
| Saw Mill River Road (Rt.9A) @ Hunter Lane | 16 | Eastbound LTR <br> Westbound LT <br>  R <br> Northbound LTR <br> Southbound LTR <br> Intersection  <br>   |  | 0.01 | 29.1 | C | 0.01 | 29.1 | C | 0.01 | 32.9 | C | 0.01 | 32.9 | C |
|  |  |  |  | 0.31 | 32.4 | C | 0.31 | 32.4 | C | 0.81 | 56.6 | E | 0.81 | 56.6 | E |
|  |  |  |  | 0.01 | 18.7 | B | 0.01 | 18.7 | B | 0.07 | 22.9 | C | 0.07 | 22.9 | C |
|  |  |  |  | 0.74 | 24.1 | C | 0.81 | 27.0 | C | 0.70 | 19.8 | B | 0.71 | 20.1 | C |
|  |  |  |  | 0.73 | 16.3 | B | 0.78 | 18.3 | B | 0.80 | 16.0 | B | 0.85 | 18.9 | B |
|  |  |  |  |  | 20.8 | C |  | 23.3 | C |  | 21.2 | C |  | 22.6 | C |

TABLE 4.9-19. PURE NO BUILD + CROTON VS. CAT DEL ALONE, PARKING AT WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION B)

| CONDITIONS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Intersection | No. | Approach | $\begin{gathered} \text { Lane } \\ \text { Group } \\ \hline \end{gathered}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{gathered} \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{gathered}$ | LOS | v/c <br> Ratio | $\begin{gathered} \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{gathered}$ | LOS | v/c <br> Ratio | $\begin{gathered} \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{gathered}$ | LOS | v/c <br> Ratio | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS |
| Saw Mill River Road (Rt.9A) @ Dana Road | 20 | Eastbound | LT | 0.07 | 25.5 | C | 0.07 | 25.5 | C | 0.29 | 27.5 | C | 0.29 | 27.6 | C |
|  |  |  | R | 0.08 | 25.6 | C | 0.08 | 25.6 | C | 0.24 | 26.9 | C | 0.24 | 26.9 | C |
|  |  | Westbound | L | 0.21 | 26.6 | C | 0.28 | 27.3 | C | 0.50 | 29.8 | C | 0.55 | 31.1 | C |
|  |  |  | TR | 0.11 | 25.8 | C | 0.15 | 26.1 | C | 0.41 | 28.5 | c | 0.42 | 28.7 | c |
|  |  | Northbound | L | 0.12 | 30.5 | C | 0.12 | 30.5 | C | 0.39 | 32.7 | C | 0.39 | 32.7 | C |
|  |  |  | TR | 0.65 | 25.6 | C | 0.67 | 26.0 | C | 0.88 | 34.9 | C | 0.91 | 38.3 | D |
|  |  | Southbound | L | 0.51 | 34.1 | c | 0.60 | 36.5 | D | 0.17 | 30.9 | c | 0.19 | 31.0 | C |
|  |  |  | TR | 0.59 | 24.1 | C | 0.59 | 24.1 | C | 0.74 | 27.7 | C | 0.74 | 27.7 | C |
|  |  | Intersection |  |  | 25.9 | C |  | 26.5 | C |  | 31.1 | C |  | 32.6 | C |
| Old Saw Mill River Road @ Saw Mill River Pkwy SB Off Ramp | 21 | Eastbound Westbound Southbound | LT | 0.89 | 30.0 | C | 0.90 | 31.7 | C | 1.06 | 77.9 | E | 1.08 | 83.6 + | F |
|  |  |  | TR | 0.23 | 4.7 | A | 0.23 | 4.7 | A | 0.48 | 9.7 | A | 0.52 | 10.1 | B |
|  |  |  | L | 0.70 | 38.1 | D | 0.72 | 39.0 | D | 0.29 | 23.1 | c | 0.29 | 23.1 | C |
|  |  |  | LR | 0.16 | 28.2 | C | 0.16 | 28.2 | C | 0.21 | 22.6 | C | 0.21 | 22.6 | C |
|  |  | Intersection |  |  | 22.3 | C |  | 23.3 | C |  | 35.4 | D |  | 36.6 | D |
| Old Saw Mill River Road @ Saw Mill River Pkwy NB Off Ramp | 22 | $\begin{array}{\|c\|} \hline \text { Eastbound } \\ \text { Westbound } \\ \text { Northbound } \end{array}$ | T | 0.49 | 17.6 | B | 0.50 | 17.7 | B | 0.41 | 13.3 | B | 0.41 | 13.3 | B |
|  |  |  | T | 0.20 | 7.7 | A | 0.20 | 7.8 | A | 0.32 | 4.4 | A | 0.35 | 4.5 | A |
|  |  |  | LR | 0.54 | 26.2 | C | 0.61 | 27.9 | C | 0.46 | 31.5 | C | 0.46 | 31.5 | C |
|  |  |  | R | 0.52 | 25.7 | C | 0.59 | 27.4 | C | 0.42 | 31.2 | C | 0.43 | 31.4 | C |
|  |  | Intersection |  |  | 17.4 | B |  | 18.3 | B |  | 11.7 | B |  | 11.7 | B |
| Grassland Road (Rt.100C) @ Clearbrook Road/Walker Road | 24 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 0.01 | 2.6 | A | 0.01 | 2.6 | A | 0.07 | 9.7 | A | 0.07 | 9.7 | A |
|  |  |  | TR | 0.51 | 4.5 | A | 0.61 | 5.5 | A | 0.74 | 17.5 | B | 0.74 | 17.8 | B |
|  |  |  | L | 0.52 | 5.4 | A | 0.68 | 11.1 | B | 1.46 | ** | F |  | ** + | F |
|  |  |  | TR | 0.42 | 4.0 | A | 0.44 | 4.1 | A | 0.94 | 34.8 | C | 1.1 | 79.6 + | E |
|  |  |  | LT | 0.24 | 34.0 | C | 0.30 | 34.8 | C | 0.20 | 20.0 | B | 0.20 | 20.0 | C |
|  |  |  | LT | 0.50 | 37.3 | D | 0.68 | 48.5 + | D | 0.30 | 20.9 | C | 0.34 | 21.4 | C |
|  |  |  | R | 0.00 | 32.2 | C | 0.00 | 32.2 | C | 0.01 | 18.5 | B | 0.01 | 18.5 | B |
|  |  | Intersection |  |  | 6.4 | A |  | 8.4 | A |  | 49.8 | D |  | 71.9 | E |
| Grassland Road (Rt.100C) @ Woods Drive/Taylor Road | 25 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 0.30 | 8.0 | A | 0.30 | 8.4 | A | 0.37 | 17.9 | B | 0.37 | 20.9 | C |
|  |  |  | TR | 0.38 | 5.9 | A | 0.46 | 6.4 | A | 0.59 | 12.8 | B | 0.60 | 13.0 | B |
|  |  |  | L | 0.00 | 9.3 | A | 0.00 | 9.3 | A | 0.01 | 12.6 | B | 0.01 | 12.6 | B |
|  |  |  | TR | 0.60 | 14.5 | B | 0.61 | 14.8 | B | 0.88 | 27.9 | C | 0.98 | 41.6 | D |
|  |  |  | LTR | 0.01 | 32.9 | C | 0.01 | 32.9 | C | 0.01 | 24.6 | C | 0.01 | 24.6 | C |
|  |  |  | LT | 0.55 | 39.2 | D | 0.55 | 39.2 | D | 0.79 | 41.6 | D | 0.79 | 41.6 | D |
|  |  |  | R | 0.08 | 21.2 | C | 0.08 | 21.2 | C | 0.11 | 17.2 | B | 0.11 | 17.2 | B |
|  |  | Intersection |  |  | 12.3 | B |  | 12.3 | B |  | 22.9 | C |  | 29.8 | C |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy SB Ramp | 26 | Eastbound Westbound Southbound | TR | 0.37 | 8.2 | A | 0.44 | 8.7 | A | 0.69 | 12.0 | B | 0.70 | 12.3 | B |
|  |  |  | T | 0.34 | 8.0 | A | 0.35 | 8.0 | A | 0.64 | 11.1 | B | 0.72 | 12.6 | B |
|  |  |  | L | 0.75 | 41.4 | D | 0.88 | $53.9+$ | D | 0.19 | 29.7 | C | 0.19 | 29.8 | C |
|  |  |  | R | 0.32 | 31.0 | C | 0.32 | 31.0 | C | 0.12 | 29.2 | C | 0.12 | 29.2 | C |
|  |  | Intersection |  |  | 14.7 | B |  | 17.1 | B |  | 12.3 | B |  | 13.1 | B |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy NB Ramp | $\begin{aligned} & 27 \\ & 30 \end{aligned}$ | Eastbound <br> Westbound Northbound | L | 0.09 | 15.1 | B | 0.10 | 15.4 | B | 0.50 | 15.4 | B | 0.50 | 15.4 | B |
|  |  |  | T | 0.75 | 23.3 | C | 0.92 | 33.4 | C | 0.35 | 9.1 | A | 0.36 | 9.2 | A |
|  |  |  | TR | 0.52 | 25.4 | C | 0.56 | 26.0 | C | 1.43 | 223.9 | F |  | ** + | F |
|  |  |  | LT | 1.00 | 68.7 | E | 1.00 | 68.7 | E | 0.69 | 29.4 | C | 0.69 | 29.4 | C |
|  |  |  | R | 1.32 | 189.5 | F | * | ** + | F | 0.37 | 23.2 | C | 0.38 | 23.3 | C |
|  |  | Intersection |  |  | 69.9 | E |  | 93.1 | F |  | 134.5 | F |  | 206.8 | F |
| Virginia Road @ Bronx River Pkwy | 31 | Eastbound <br> Westbound Northbound <br> Southbound | LT | 1.15 | 137.8 | F | 1.17 | 145.7 + | F | 1.35 | 215.8 | F | 1.47 | ** + | F |
|  |  |  | R | 0.22 | 19.7 | B | 0.22 | 19.8 | B | 0.56 | 37.6 | D | 0.67 | 41.5 | D |
|  |  |  | LTR | 0.41 | 34.9 | C | 0.43 | 35.0 | D |  | ** | F | * | ** + | F |
|  |  |  | L | 0.43 | 50.0 | D | 0.70 | 59.8 + | E | 0.06 | 11.0 | B | 0.07 | 11.0 | B |
|  |  |  | TR | 0.26 | 20.1 | C | 0.26 | 20.1 | C | 0.62 | 25.3 | C | 0.62 | 25.3 | C |
|  |  |  | L | 1.10 | 141.5 | F | 1.10 | 141.5 | F | 0.13 | 11.7 | B | 0.13 | 11.7 | B |
|  |  |  | T | 0.70 | 27.3 | C | 0.70 | 27.3 | C | 0.59 | 24.7 | C | 0.59 | 24.7 | C |
|  |  | Intersection |  |  | 55.4 | E |  | 57.0 | E |  | 89.8 | F |  | 113.1 | F |
| Grassland Road (Rt.100) @ WCC East Gate | 34 | Eastbound | T | 0.41 | 7.7 | A | 0.41 | 7.7 | A | 0.72 | 16.6 | B | 0.72 | 16.6 | B |
|  |  | Westbound | L | 0.42 | 6.4 | A | 0.53 | 7.7 | A | 0.23 | 11.2 | B | 0.24 | 11.3 | B |
|  |  |  | T | 0.24 | 3.2 | A | 0.24 | 3.2 | A | 0.58 | 7.9 | A | 0.58 | 7.9 | A |
|  |  | Northbound | L | 0.37 | 48.3 | D | 0.56 | 52.0 | D | * | ** | F | * | ** + | F |
|  |  | Intersection |  |  | 8.6 | A |  | 10.4 | B |  | 180.2 | F |  | ** | F |
| Old Saw Mill River Road @ Landmark West Driveway | 46 | Eastbound | LTR | 0.81 | 11.1 | B | 0.86 | 13.6 | B | 0.58 | 6.1 | A | 0.58 | 6.1 | A |
|  |  | Westbound | LTR | 0.26 | 4.1 | A | 0.26 | 4.1 | A | 0.50 | 5.3 | A | 0.55 | 5.7 | A |
|  |  | Northbound | LTR | 0.02 | 21.0 | C | 0.02 | 21.0 | C | 0.08 | 21.2 | C | 0.08 | 21.2 | C |
|  |  | Southbound | LTR | 0.04 | 21.1 | C | 0.04 | 21.1 | C | 0.03 | 21.0 | C | 0.03 | 21.0 | C |
|  |  | Intersectio |  |  | 9.5 | A |  | 11.5 | B |  | 6.0 | A |  | 6.2 | A |

Notes:
$\mathrm{L}=$ Left Turn, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.
" * " indicates a v/c ratio greater than 1.50 ; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.9-19. PURE NO BUILD + CROTON VS. CAT DEL ALONE, PARKING AT WCC LEVEL-OFSERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION B) CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c\|} \hline \text { Lane } \\ \text { Group } \\ \hline \end{array}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{gathered} \text { Delay } \\ (\mathrm{sec}) \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \text { Delay } \\ (\mathrm{sec}) \end{gathered}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.12 | 10.7 | B | 0.12 | 10.8 | B | 0.20 | 9.7 | A | 0.20 | 9.9 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ | 2 | Northbound | LT | 0.01 | 10.5 | B | 0.01 | 10.6 | B | 0.03 | 13.2 | B | 0.03 | 13.2 | B |
| Beverly Road |  | Eastbound | LR | 0.07 | 22.1 | C | 0.08 | 23.0 | C | 0.05 | 30.9 | D | 0.06 | 31.7 | D |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3N | Northbound | LT | 0.02 | 11.1 | B | 0.02 | 11.3 | B | 0.01 | 9.8 | A | 0.01 | 9.8 | A |
|  |  | Southbound | LT | 0.03 | 9.3 | A | 0.03 | 9.3 | A | 0.02 | 10.7 | B | 0.02 | 10.8 | B |
|  |  | Eastbound | LTR | 0.03 | 38.0 | E | 0.03 | 40.6 | E | 0.14 | 25.1 | D | 0.14 | 25.8 | D |
|  |  | Westbound | LTR | 0.04 | 17.4 | C | 0.04 | 18.1 | C | 0.08 | 16.2 | C | 0.08 | 16.6 | C |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue South | 3 S | Southbound | LT | 0.00 | 8.8 | A | 0.00 | 8.9 | A | 0.00 | 10.6 | B | 0.00 | 10.7 | B |
|  |  | Westbound | LR | 0.03 | 22.6 | C | 0.03 | 23.5 | C | 0.15 | 36.0 | E | 0.16 | 37.7 | E |
| Bradhurst Avenue (Rt. 100) @ Lakeview Avenue | 5 | Southbound | LT | 0.02 | 8.2 | A | 0.02 | 8.2 | A | 0.01 | 8.1 | A | 0.01 | 8.1 | A |
|  |  | Westbound | LR | 0.26 | 15.1 | C | 0.26 | 15.1 | C | 0.45 | 18.8 | C | 0.45 | 18.8 | C |
| Knollwood Road (Rt.100A) @ Hevelyne Road | 7 | Northbound | LT | 0.01 | 8.3 | A | 0.01 | 8.3 | A | 0.00 | 8.0 | A | 0.00 | 8.0 | A |
|  |  | Eastbound | LR | 0.03 | 13.2 | B | 0.03 | 13.4 | C | 0.01 | 10.9 | B | 0.01 | 11.0 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound | L | 0.09 | 10.1 | B | 0.10 | 10.3 | B | 0.16 | 10.4 | B | 0.16 | 10.5 | B |
|  |  | Southbound | LT | 0.01 | 9.1 | A | 0.02 | 9.4 | A | 0.01 | 9.5 | A | 0.01 | 9.6 | A |
|  |  | Eastbound | L | 0.02 | 36.9 | E | 0.02 | 41.0 | E | 0.01 | 51.2 | F | 0.01 | 53.0 | F |
|  |  |  | T | 0.02 | 45.0 | E | 0.03 | 52.4 | F | 0.08 | 84.9 | F | 0.09 | 90.6 | F |
|  |  | Westbound | LT | 0.13 | 41.7 | E | 0.15 | 50.5 | F | 0.12 | 60.3 | F | 0.13 | $63.9+$ | F |
|  |  |  | TR | 0.01 | 11.1 | B | 0.01 | 11.6 | B | 0.03 | 17.5 | C | 0.03 | 18.0 | C |
| Dana Road @ Walker Road | 18 | Northbound | LR | 0.18 | 11.5 | B | 0.25 | 12.4 | B | 0.09 | 11.3 | B | 0.14 | 11.9 | B |
|  |  | Westbound | LT | 0.00 | 8.5 | A | 0.00 | 8.7 | A | 0.01 | 7.8 | A | 0.01 | 7.9 | A |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound | L | 0.97 | 142.0 | F | 1.10 | 195.5 | F |  | ** | F |  | ** | F |
|  |  |  | R | 0.23 | 18.6 | C | 0.26 | 20.4 | C | 0.28 | 15.8 | C | 0.28 | 15.8 | C |
|  |  | Westbound | L | 0.17 | 12.2 | B | 0.19 | 12.8 | B | 0.33 | 12.7 | B | 0.43 | 14.0 | B |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | LT | 0.07 | 28.5 | D | 0.07 | 30.5 | D | 0.06 | 31.3 | D | 0.08 | $37.4+$ | E |
|  |  |  | TR | 0.38 | 20.1 | C | 0.63 | 32.1 | D | 0.18 | 14.4 | B | 0.19 | 14.5 | B |
|  |  |  | L | 0.21 | 10.1 | B | 0.21 | 10.2 | B | 0.21 | 12.1 | B | 0.24 | 13.5 | B |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound | LT | 0.24 | 8.4 | A | 0.24 | 8.4 | A | 0.49 | 11.6 | B | 0.57 | 12.8 | B |
|  |  | Westbound | LR | 0.70 | 21.1 | C | 0.81 | 27.3 | D | * | ** | F | * | ** | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound | L | 0.51 | 40.3 | E | 0.58 | 50.3 | F | 1.48 | ** | F | * | ** + | F |
|  |  |  | R | 0.24 | 13.9 | B | 0.26 | 15.3 | C | 0.47 | 19.9 | C | 0.47 | 20.1 | C |
|  |  | Eastbound | LT | 0.08 | 9.0 | A | 0.08 | 9.3 | A | 0.24 | 10.8 | B | 0.24 | 10.8 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound | L | 0.13 | 44.5 | E | 0.24 | 84.1 | F | 0.61 | 166.1 | F | 1.04 | ** | F |
|  |  |  | R | 0.03 | 23.5 | C | 0.04 | 36.0 + | E | 0.53 | 20.5 | C | 0.56 | 22.1 | C |
|  |  | Westbound | LT | 0.01 | 13.1 | B | 0.01 | 16.3 | C | 0.13 | 9.3 | A | 0.13 | 9.5 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.08 | 19.5 | C | 0.09 | 21.0 | C | 0.13 | 35.2 | E | 0.14 | 39.2 | E |
|  |  | Southbound | LTR | 0.01 | 10.3 | B | 0.01 | 10.3 | B | 0.08 | 19.7 | C | 0.09 | 21.4 | C |
|  |  | Eastbound | LTR | 0.01 | 8.1 | A | 0.01 | 8.1 | A | 0.01 | 9.0 | A | 0.01 | 9.2 | A |
|  |  | Westbound | LTR | 0.02 | 10.7 | B | 0.02 | 11.0 | B | 0.01 | 9.2 | A | 0.01 | 9.2 | A |

Notes:
L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

## Potential Significant Adverse Impacts Occurring at Unsignalized Intersections.

- Saw Mill River Road (Route 9A)/Ramada Inn/Broadway Plaza Intersection. During the AM peak hour, the eastbound left-turn movement would remain at LOS E, with delays increasing from 36.9 to 41.0 seconds, the eastbound through movement would deteriorate from LOS E to LOS F, with delays increasing from 45.0 to 52.4 seconds, and the westbound left/through lane group would deteriorate from LOS E to LOS F, with delays increasing from 41.7 to 50.5 seconds. During the PM peak hour, the eastbound through movement would remain at LOS F, with delays increasing from 84.9 to 90.6 seconds, and the westbound left/through land group would remain at LOS F, with delays increasing from 60.3 to 63.9 seconds.
- Saw Mill River Road (Route 9A)/Grasslands Road (Route 100C) Intersection. During the AM peak hour, the northbound left-turn movement would remain at LOS F, with delays increasing from 142.0 to 195.5 seconds. During the PM peak hour, the northbound left-turn movement would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.
- Grasslands Road (Route 100C)/Saw Mill River Road Northbound Ramp Intersection. During the AM peak hour, the northbound through/right lane group would deteriorate from LOS C to LOS D, with delays increasing from 20.1 to 32.1 seconds. During the PM peak hour, the northbound left/through lane group would deteriorate from LOS D to LOS E, with delays increasing from 31.3 to 37.4 seconds.
- Grasslands Road (Route 100)/Virginia Road Intersection. During the PM peak hour, the westbound approach would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.
- Grasslands Road (Route 100)/Legion Drive Intersection. During the AM peak hour, the southbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 40.3 to 50.3 seconds. During the PM peak hour, the southbound left-turn movement would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.
- Grasslands Road (Route 100)/Westchester Community College East Gate Intersection. During the AM peak hour, the northbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 44.5 to 84.1 seconds, and the northbound right-turn movement would deteriorate from LOS C to LOS E, with delays increasing from 23.5 to 36.0 seconds. During the PM peak hour, the northbound left-turn movement would remain at LOS F, with delays increasing from 166.1 to greater than 240.0 seconds.
- Old Saw Mill River Road/Landmark at Eastview East Driveway Intersection. During the PM peak hour, the northbound approach would remain at LOS E, with delays increasing from 35.2 to 39.2 seconds.

Although these impacts would not be permanent because they are construction-related, measures have been identified that would mitigate the construction-related significant adverse traffic impacts predicted to occur under 2008 Construction Option B conditions. A description of the measures, and an analysis showing the resulting effects of implementing the measures suggested as mitigation for these impacts, are fully discussed in Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts.

Parking. Nearly the entire Eastview construction site would be unavailable for construction worker parking because of the concurrent construction of the UV Facility and the Croton project under 2008 Construction Option B conditions. As discussed in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, an off-site parking facility has been identified at the WCC Campus for construction vehicles and workers during project construction, under Option B conditions. Based on the transportation data and planning assumptions presented in Section 3.9, this off-site parking facility would need to accommodate 400 construction worker vehicles from the UV Facility's construction, as well as 543 worker vehicles related to the concurrent construction of the Croton project. It is anticipated that this off-site parking facility would be able to accommodate these parked vehicles; therefore, no significant adverse parking impacts are anticipated to occur to the public and private parking facilities in the vicinity of the UV Facility under 2008 Option B conditions.

Safety. In the scenario where the proposed UV Facility would be constructed on the Eastview Site with the Croton project, the construction activities would increase the study area traffic volumes by 1 to 40 percent at key study area intersections during peak-hour operating conditions. This projected traffic growth can be anticipated to translate to between 1 and 15 additional accidents per year along the roadway corridors during the construction period. These additional accidents could be considered significant, depending on the intersection. However, with mitigation in place and a traffic management plan, the projected accident rate would likely be lower and not significant. See Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts, for a description of the recommended traffic mitigation measures.

Transit. The construction of the UV Facility under 2008 Construction Option B conditions is not anticipated to generate any considerable transit ridership. In addition because of the low generation of trips from the Bee-Line Bus Facility during the UV Facility's peak construction hours, the construction of the UV Facility would not impact bus operations. Therefore, no significant adverse transit-related impacts would be anticipated to occur under 2008 Construction conditions.

Pavement Infrastructure. The proposed UV Facility is anticipated to generate a total of approximately 79,330 entering/exiting truck trips over the approximately four and one-half-year construction period, anticipated to run from April 2005 through September 2009. These truck trips equate to a total of approximately 53,950 ESAL inbound and 53,950 ESAL outbound, over the duration of construction for the proposed UV Facility. This would translate to a predicted truck load over the duration of construction of approximately 107,900 ESAL on the proposed truck routes to and from the site (e.g., about 80 percent of the trips using Grasslands Road to Route 9A-86,320 EASL, and about 20 percent of the trips using Knollwood Road to Route 119
$-21,580 \mathrm{ESAL})$. The peak construction truck generation is anticipated to occur in 2007, when construction of the UV Facility would generate an annual total of approximately 26,180 entering/exiting truck trips. These truck trips translate to a total of approximately 17,800 ESAL inbound and 17,800 ESAL outbound, in 2007. When compared with the predicted truck loads with designed loads for arterial roadways, the anticipated loads generated from the construction of the proposed UV Facility are not anticipated to be significant adverse impacts.

## Option C-Parking at both the Landmark and the WCC Campus

The traffic generated by the construction of the UV Facility with construction of the Croton project on the site for Option C is shown in Figures 4.9-39 and 4.9-40, for the AM and PM peak hours, respectively. Figures 4.9-41 and 4.9-42 show the total resulting 2008 Construction Option C traffic volumes. Table 4.9-20 shows a comparison of the results of the HCM analyses for the 2008 FNB (with Croton) conditions and the 2008 UV Facility Construction (Option C) conditions.

Option C Traffic. The following is a summary of the significant adverse impacts that have been identified during 2008, associated with the UV Facility's peak construction activities at the Eastview Site under worker parking Option C conditions. There would be a total of 27 potential significant adverse impacts at intersections in the primary study area under 2008 Construction Option C conditions (12 at signalized intersections, 5 during the AM peak hour and 7 during the PM peak hour, and 15 at unsignalized intersections, 7 during the AM peak hour and 8 during the PM peak hour).

## Potential Significant Adverse Impacts Occurring at Signalized Intersections.

- Grasslands Road (Route 100C)/Bradhurst Avenue Intersection. During the AM peak hour, the eastbound through movement would continue operating at LOS F, with its delay of 211.3 seconds increasing to greater than 240 seconds. During the PM peak hour, the westbound through/right lane group would remain at LOS F, with delays increasing from 164.5 to greater than 240.0 seconds.
- Saw Mill River Road (Route 9A)/Tarrytown-White Plains Road (Route 119) Intersection. During the AM peak hour, the eastbound left-turn movement would remain at LOS F, with delays increasing from 92.2 to 113.5 seconds. During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 79.6 to 83.2 seconds.
- Old Saw Mill River Road/Saw Mill River Parkway Southbound Off-Ramp Intersection. During the PM peak hour, the eastbound approach would deteriorate from LOS E to LOS F , with delays increasing from 78.5 to 86.1 seconds.

TABLE 4.9-20. PURE NO BUILD + CROTON VS. CAT DEL ALONE, PARKING AT LANDMARK AND WCC LEVEL-OFSERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION C) CONDITIONS

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{array}{\|c} \hline \text { Delay } \\ (\mathrm{sec}) \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | Delay (sec) | LOS |
| Saw Mill River Road (Rt.9A) (N-S) @ Saw Mill River Pkwy Ramp | 4 | Eastbound | L | 0.64 | 31.6 | C | 0.64 | 31.6 | C | 0.52 | 29.3 | C | 0.52 | 29.3 | C |
|  |  |  | LTR | 0.14 | 25.0 | C | 0.14 | 25.0 | C | 0.14 | 25.8 | C | 0.14 | 25.8 | C |
|  |  | Westbound | L | 0.14 | 32.4 | C | 0.14 | 32.4 | C | 0.14 | 34.1 | C | 0.14 | 34.1 | C |
|  |  |  | LT | 0.10 | 32.1 | C | 0.10 | 32.1 | C | 0.09 | 33.8 | C | 0.09 | 33.8 | C |
|  |  |  | R | 0.02 | 31.6 | C | 0.02 | 31.6 | C | 0.04 | 33.6 | C | 0.04 | 33.6 | C |
|  |  | Northbound | L | 0.19 | 14.2 | B | 0.20 | 14.3 | B | 0.81 | 31.6 | C | 0.81 | 31.6 | C |
|  |  |  | TR | 0.33 | 14.9 | B | 0.34 | 15.0 | B | 0.58 | 15.9 | B | 0.61 | 16.2 | B |
|  |  | Southbound | L | 0.05 | 13.0 | B | 0.05 | 13.0 | B | 0.14 | 21.5 | C | 0.14 | 21.6 | C |
|  |  |  | TR | 0.57 | 17.5 | B | 0.60 | 17.9 | B | 0.99 | 56.3 | E | 1.00 | 58.5 | E |
|  |  | Intersection |  |  | 19.6 | B |  | 19.7 | B |  | 34.4 | C |  | 35.1 | D |
| Grasslands Road (Rt. 100C) (E-W) @ Bradhurst Avenue (Rt. 100) | 6 | Eastbound | L | 0.77 | 42.2 | D | 0.82 | 48.0 | D | * | ** | F | * | ** | F |
|  |  |  | T | 1.37 | 211.3 | F | * | ** + | F | 0.63 | 23.3 | C | 0.65 | 23.9 | C |
|  |  |  | R | 0.36 | 16.4 | B | 0.36 | 16.5 | B | 0.28 | 12.2 | B | 0.29 | 12.3 | B |
|  |  | Westbound | L | 0.68 | 56.6 | E | 0.68 | 56.6 | E | 0.26 | 18.4 | B | 0.28 | 18.7 | B |
|  |  |  | TR | 0.47 | 26.5 | C | 0.50 | 26.9 | C | 1.28 | 164.5 | F | 1.48 | ** + | F |
|  |  | Northbound | L | 0.24 | 23.6 | C | 0.26 | 23.8 | C | 0.88 | 61.6 | E | 0.90 | 64.9 | E |
|  |  |  | TR | 0.35 | 26.0 | C | 0.35 | 26.1 | C | 0.20 | 16.3 | B | 0.20 | 16.3 | B |
|  |  | Southbound | L | 0.51 | 40.3 | D | 0.51 | 40.5 | D | 0.30 | 25.1 | C | 0.30 | 25.1 | C |
|  |  |  | TR | 0.68 | 49.7 | D | 0.68 | 49.7 | D | 1.12 | 109.2 | F | 1.12 | 109.2 | F |
|  |  | Intersection |  |  | 100.2 | F |  | 147.5 | F |  | 104.3 | F |  | 137.0 | F |
| Knollwood Road(Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) WB Ramp | 8 | Westbound <br> Northbound <br> Southbound | LT | 0.46 | 27.6 | C | 0.46 | 27.6 | C | 0.79 | 39.0 | D | 0.79 | 39.0 | D |
|  |  |  | R | 0.24 | 25.4 | C | 0.25 | 25.5 | C | 0.45 | 27.6 | C | 0.45 | 27.6 | C |
|  |  |  | L | 0.51 | 9.9 | A | 0.51 | 10.0 | A | 0.96 | 56.2 | E | 0.97 | 58.2 | E |
|  |  |  | T | 0.52 | 10.4 | B | 0.53 | 10.6 | B | 0.52 | 10.5 | B | 0.53 | 10.6 | B |
|  |  |  | T | 0.31 | 13.5 | B | 0.31 | 13.5 | B | 0.45 | 14.9 | B | 0.46 | 15.0 | B |
|  |  |  | R | 0.13 | 12.1 | B | 0.14 | 12.2 | B | 0.23 | 12.9 | B | 0.23 | 12.9 | B |
|  |  | Intersection |  |  | 14.4 | B |  | 14.5 | B |  | 27.4 | C |  | 27.7 | C |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) EB Ramp | 9 | Eastbound <br> Northbound <br> Southbound | L | 0.68 | 32.8 | C | 0.68 | 32.9 | C | 0.48 | 24.5 | C | 0.48 | 24.5 | C |
|  |  |  | TR | 0.01 | 23.6 | C | 0.01 | 23.6 | C | 0.00 | 20.0 | C | 0.00 | 20.0 | C |
|  |  |  | R | 0.58 | 30.0 | C | 0.58 | 30.0 | C | 0.77 | 34.2 | C | 0.77 | 34.2 | C |
|  |  |  | T | 0.50 | 15.4 | B | 0.51 | 15.5 | B | 0.87 | 32.1 | C | 0.87 | 32.4 | C |
|  |  |  | R | 0.52 | 15.9 | B | 0.52 | 15.9 | B | 0.62 | 20.9 | C | 0.62 | 20.9 | C |
|  |  |  | L | 0.40 | 9.9 | A | 0.40 | 10.0 | A | 0.80 | 30.9 | C | 0.81 | 31.3 | C |
|  |  |  | T | 0.29 | 8.4 | A | 0.30 | 8.5 | A | 0.66 | 15.7 | B | 0.66 | 15.8 | B |
|  |  | Intersection |  |  | 18.6 | B |  | 18.6 | B |  | 25.9 | C |  | 26.0 | C |
| ```Tarrytown/White Plains Road(Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A)``` | 10 | Westbound <br> Northbound Southbound | LT | 0.14 | 24.6 | C | 0.14 | 24.6 | C | 0.35 | 26.4 | C | 0.35 | 26.4 | C |
|  |  |  | R | 0.51 | 28.3 | C | 0.51 | 28.3 | C | 0.96 | 64.8 | E | 0.97 | 65.9 | E |
|  |  |  | LT | 0.41 | 10.2 | B | 0.41 | 10.2 | B | 0.60 | 12.6 | B | 0.60 | 12.6 | B |
|  |  |  | T | 0.20 | 15.3 | B | 0.20 | 15.3 | B | 0.44 | 17.4 | B | 0.44 | 17.4 | B |
|  |  |  | R | 0.19 | 15.3 | B | 0.20 | 15.4 | B | 0.48 | 18.1 | B | 0.48 | 18.2 | B |
|  |  | Intersection |  |  | 15.5 | B |  | 15.5 | B |  | 25.2 | C |  | 25.4 | C |
| ```Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A)``` | $\begin{aligned} & 11 \\ & 12 \end{aligned}$ | Eastbound <br> Northbound Southbound | LT | 0.72 | 34.7 | C | 0.73 | 35.1 | D | 0.79 | 38.6 | D | 0.79 | 38.7 | D |
|  |  |  | R | 0.16 | 24.8 | C | 0.16 | 24.8 | C | 0.35 | 26.5 | C | 0.35 | 26.5 | C |
|  |  |  | TR | 0.40 | 20.2 | C | 0.41 | 20.2 | C | 0.41 | 20.3 | C | 0.41 | 20.3 | C |
|  |  |  | Def | 0.31 | 12.0 | B | 0.32 | 12.1 | B | 0.47 | 14.7 | B | 0.48 | 14.8 | B |
|  |  |  | T | 0.28 | 9.2 | A | 0.28 | 9.2 | A | 0.54 | 11.8 | B | 0.55 | 11.9 | B |
|  |  | Intersection |  |  | 20.6 | C |  | 20.8 | C |  | 21.1 | C |  | 21.2 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) WB Ramp | 13 | Westbound <br> Northbound <br> Southbound | L | 1.09 | 97.9 | F | 1.09 | 97.9 | F | 0.74 | 38.2 | D | 0.74 | 38.2 | D |
|  |  |  | R | 0.56 | 28.7 | C | 0.62 | 29.9 | C | 0.43 | 20.5 | C | 0.44 | 20.6 | C |
|  |  |  | LTR | 0.40 | 9.2 | A | 0.43 | 9.4 | A | 0.73 | 24.2 | C | 0.76 | 25.7 | C |
|  |  |  | TR | 0.49 | 10.0 | A | 0.51 | 10.2 | B | 0.91 | 27.4 | C | 0.96 | 33.6 | C |
|  |  | Intersection |  |  | 33.5 | C |  | 33.5 | C |  | 27.0 | C |  | 30.4 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) EB Ramp | 14 | Northbound Southbound | TR | 0.34 | 12.6 | B | 0.36 | 12.8 | B | 0.90 | 35.6 | D | 0.90 | 36.4 | D |
|  |  |  | L | 0.52 | 2.5 | A | 0.55 | 3.6 | A | 0.78 | 25.7 | C | 0.82 | 28.3 | C |
|  |  |  | LT | 0.17 | 0.2 | A | 0.17 | 0.2 | A | 0.56 | 0.5 | A | 0.58 | 0.6 | A |
|  |  | Intersection |  |  | 5.5 | A |  | 6.0 | A |  | 18.1 | B |  | 18.7 | B |
| Saw Mill River Road (Rt.9A) @ Tarrytown/White Plains Road (Rt.119) | 15 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 1.05 | 92.2 | F | 1.12 | 113.5 + | F | 1.01 | 79.6 | E | 1.02 | 83.2 + | F |
|  |  |  | TR | 0.38 | 14.5 | B | 0.38 | 14.5 | B | 0.46 | 20.2 | C | 0.46 | 20.2 | C |
|  |  |  | L | 0.17 | 22.3 | C | 0.17 | 22.3 | C | 0.42 | 34.4 | C | 0.42 | 34.4 | C |
|  |  |  | TR | 0.31 | 23.6 | C | 0.31 | 23.6 | C | 0.89 | 49.1 | D | 0.89 | 49.3 | D |
|  |  |  | L | 0.39 | 34.3 | C | 0.39 | 34.4 | C | 0.32 | 25.5 | C | 0.34 | 25.8 | C |
|  |  |  | TR | 0.67 | 42.7 | D | 0.72 | 44.9 | D | 0.83 | 41.6 | D | 0.83 | 42.1 | D |
|  |  |  | L | 0.27 | 35.4 | D | 0.29 | 36.6 | D | 0.56 | 35.7 | D | 0.57 | 36.4 | D |
|  |  |  | T | 0.43 | 35.1 | D | 0.44 | 35.3 | D | 0.31 | 23.4 | C | 0.34 | 23.8 | C |
|  |  |  | R | 0.23 | 22.1 | C | 0.24 | 22.2 | C | 0.41 | 11.2 | B | 0.43 | 11.3 | B |
|  |  | Intersection |  |  | 37.4 | D |  | 42.3 | D |  | 35.3 | D |  | 35.8 | D |
| Saw Mill River Road (Rt.9A) @ Hunter Lane | 16 | Eastbound | LTR | 0.01 | 29.1 | C | 0.01 | 29.1 | C | 0.01 | 32.9 | C | 0.01 | 32.9 | C |
|  |  | Westbound LT <br>  R <br> Northbound LTR <br> Southbound LTR <br> Intersection  |  | 0.31 | 32.4 | C | 0.31 | 32.4 | C | 0.81 | 56.6 | E | 0.81 | 56.6 | E |
|  |  |  |  | 0.01 | 18.7 | B | 0.01 | 18.7 | B | 0.07 | 22.9 | C | 0.07 | 22.9 | C |
|  |  |  |  | 0.74 | 24.1 | C | 0.81 | 27.0 | C | 0.70 | 19.8 | B | 0.71 | 20.1 | C |
|  |  |  |  | 0.73 | 16.3 | B | 0.78 | 18.3 | B | 0.80 | 16.2 | B | 0.86 | 19.4 | B |
|  |  |  |  |  | 20.8 | C |  | 23.3 | C |  | 21.3 | C |  | 22.8 | C |

TABLE 4.9-20. PURE NO BUILD + CROTON VS. CAT DEL ALONE, PARKING AT LANDMARK AND WCC LEVEL-OFSERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION C) CONDITIONS

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{gathered} \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | v/c <br> Ratio | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \\ \hline \hline \end{gathered}$ | LOS |
| Saw Mill River Road (Rt.9A) @ Dana Road | 20 | Eastbound | LT | 0.07 | 25.5 | C | 0.07 | 25.5 | C | 0.29 | 27.5 | C | 0.29 | 27.6 | C |
|  |  |  | R | 0.08 | 25.6 | C | 0.08 | 25.6 | C | 0.24 | 26.9 | C | 0.24 | 26.9 | C |
|  |  | Westbound | L | 0.21 | 26.6 | C | 0.28 | 27.3 | C | 0.50 | 29.8 | C | 0.55 | 31.1 | C |
|  |  |  | TR | 0.11 | 25.8 | C | 0.15 | 26.1 | C | 0.41 | 28.5 | C | 0.42 | 28.7 | C |
|  |  | Northbound | L | 0.12 | 30.5 | C | 0.12 | 30.5 | C | 0.39 | 32.7 | C | 0.39 | 32.7 | C |
|  |  |  | TR | 0.65 | 25.6 | C | 0.67 | 26.0 | C | 0.88 | 35.3 | D | 0.92 | 39.3 | D |
|  |  | Southbound | L | 0.45 | 33.4 | C | 0.51 | 34.1 | C | 0.17 | 30.8 | C | 0.19 | 31.0 | C |
|  |  |  | TR | 0.61 | 24.4 | C | 0.62 | 24.6 | C | 0.74 | 27.7 | C | 0.74 | 27.8 | C |
|  |  | Intersection |  |  | 25.9 | C |  | 26.3 | C |  | 31.3 | C |  | 33.1 | C |
| Old Saw Mill River Road @ Saw Mill River Pkwy SB Off Ramp | 21 | Eastbound Westbound Southbound | LT | 0.89 | 30.0 | C | 0.90 | 31.7 | C | 1.06 | 78.5 | E | 1.08 | 86.1 | F |
|  |  |  | TR | 0.23 | 4.7 | A | 0.23 | 4.7 | A | 0.49 | 9.8 | A | 0.53 | 10.2 | B |
|  |  |  | L | 0.70 | 38.1 | D | 0.72 | 39.0 | D | 0.29 | 23.1 | C | 0.29 | 23.1 | C |
|  |  |  | LR | 0.16 | 28.2 | C | 0.16 | 28.2 | C | 0.21 | 22.6 | C | 0.21 | 22.6 | C |
|  |  | Intersection |  |  | 22.3 | C |  | 23.3 | C |  | 35.5 | D |  | 37.2 | D |
| Old Saw Mill River Road @ Saw Mill River Pkwy NB Off Ramp | 22 | Eastbound <br> Westbound <br> Northbound | T | 0.49 | 17.6 | B | 0.50 | 17.7 | B | 0.41 | 13.3 | B | 0.41 | 13.3 | B |
|  |  |  | T | 0.20 | 7.7 | A | 0.20 | 7.8 | A | 0.33 | 4.4 | A | 0.36 | 4.5 | A |
|  |  |  | LR | 0.55 | 26.4 | C | 0.62 | 28.3 | C | 0.46 | 31.5 | C | 0.46 | 31.5 | C |
|  |  |  | R | 0.53 | 25.9 | C | 0.60 | 27.7 | C | 0.42 | 31.2 | C | 0.43 | 31.4 | C |
|  |  | Intersection |  |  | 17.5 | B |  | 18.5 | B |  | 11.6 | B |  | 11.4 | B |
| Grassland Road (Rt.100C) @ Clearbrook Road/Walker Road | 24 | Eastbound <br> Westbound <br> Northbound Southbound | L | 0.05 | 2.7 | A | 0.08 | 2.9 | A | 0.06 | 9.5 | A | 0.07 | 9.7 | A |
|  |  |  | TR | 0.45 | 4.1 | A | 0.50 | 4.4 | A | 0.89 | 26.0 | C | 0.99 | 43.7 | D |
|  |  |  | L | 0.45 | 4.5 | A | 0.50 | 5.1 | A | * | ** | F | * | ** | F |
|  |  |  | TR | 0.53 | 4.7 | A | 0.63 | 5.8 | A | 0.83 | 22.3 | C | 0.92 | 30.5 | C |
|  |  |  | LT | 0.22 | 33.8 | C | 0.23 | 33.9 | C | 0.20 | 20.0 | B | 0.20 | 20.0 | B |
|  |  |  | LT | 0.35 | 35.3 | D | 0.44 | 36.4 | D | 0.27 | 20.6 | C | 0.29 | 20.9 | C |
|  |  |  | R | 0.00 | 32.2 | C | 0.00 | 32.2 | C | 0.03 | 18.6 | B | 0.04 | 18.7 | B |
|  |  | Intersection |  |  | 5.9 | A |  | 6.6 | A |  | 97.1 | F |  | 101.5 | F |
| Grassland Road (Rt.100C) @ Woods Drive/Taylor Road | 25 | Eastbound <br> Westbound <br> Northbound Southbound | L | 0.34 | 10.3 | B | 0.38 | 13.5 | B | 0.37 | 16.3 | B | 0.37 | 17.6 | B |
|  |  |  | TR | 0.33 | 5.6 | A | 0.37 | 5.8 | A | 0.66 | 14.0 | B | 0.72 | 15.4 | B |
|  |  |  | L | 0.00 | 9.3 | A | 0.00 | 9.3 | A | 0.01 | 12.6 | B | 0.01 | 12.6 | B |
|  |  |  | TR | 0.68 | 16.2 | B | 0.76 | 18.2 | B | 0.81 | 24.1 | C | 0.86 | 27.0 | C |
|  |  |  | LTR | 0.01 | 32.9 | C | 0.01 | 32.9 | C | 0.01 | 24.6 | C | 0.01 | 24.6 | C |
|  |  |  | LT | 0.55 | 39.2 | D | 0.55 | 39.2 | D | 0.79 | 41.6 | D | 0.79 | 41.6 | D |
|  |  |  | R | 0.08 | 21.2 | C | 0.08 | 21.2 | C | 0.11 | 17.2 | B | 0.11 | 17.2 | B |
|  |  | Intersection |  |  | 13.8 | B |  | 14.9 | B |  | 21.2 | C |  | 22.8 | C |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy SB Ramp | 26 | Eastbound Westbound Southbound | TR | 0.33 | 7.9 | A | 0.36 | 8.1 | A | 0.76 | 13.8 | B | 0.83 | 16.0 | B |
|  |  |  | T | 0.38 | 8.2 | A | 0.41 | 8.5 | A | 0.59 | 10.3 | B | 0.63 | 10.9 | B |
|  |  |  | L | 0.65 | 36.9 | D | 0.71 | 39.7 | D | 0.18 | 29.7 | C | 0.18 | 29.7 | C |
|  |  |  | R | 0.47 | 32.8 | C | 0.57 | 34.8 | C | 0.13 | 29.2 | C | 0.14 | 29.3 | C |
|  |  | Intersection |  |  | 14.2 | B |  | 15.1 | B |  | 13.0 | B |  | 14.4 | B |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy NB Ramp | $\begin{array}{\|l\|} \hline 27 \\ 30 \end{array}$ | Eastbound <br> Westbound Northbound | L | 0.11 | 15.0 | B | 0.12 | 15.3 | B | 0.68 | 22.3 | C | 0.80 | 32.8 | C |
|  |  |  | T | 0.63 | 20.2 | C | 0.72 | 22.2 | C | 0.34 | 9.1 | A | 0.35 | 9.2 | A |
|  |  |  | TR | 0.51 | 25.1 | C | 0.53 | 25.6 | C | 1.25 | 144.1 | F | 1.38 | 199.0 + | F |
|  |  |  | LT | 1.20 | 135.1 | F | 1.32 | $187.6+$ | F | 0.70 | 29.8 | C | 0.71 | 30.0 | C |
|  |  |  | R | 1.17 | 126.2 | F | 1.27 | 165.4 + | F | 0.36 | 23.1 | C | 0.37 | 23.2 | C |
|  |  | Intersection |  |  | 71.6 | E |  | 93.0 | F |  | 84.3 | F |  | 116.2 | F |
| Virginia Road @ Bronx River Pkwy | 31 | Eastbound <br> Westbound <br> Northbound <br> Southbound | LT | 1.15 | 138.2 | F | 1.17 | 148.9 + | F | 1.26 | 179.7 | F | 1.32 | 205.4 + | F |
|  |  |  | R | 0.22 | 19.7 | B | 0.22 | 19.7 | B | 0.48 | 35.8 | D | 0.53 | 36.9 | D |
|  |  |  | LTR | 0.42 | 34.9 | C | 0.44 | 35.2 | D | 1.42 | ** | F | * | ** + | F |
|  |  |  | L | 0.24 | 47.9 | D | 0.36 | 49.2 | D | 0.06 | 10.9 | B | 0.06 | 11.0 | B |
|  |  |  | TR | 0.26 | 20.1 | C | 0.26 | 20.1 | C | 0.62 | 25.3 | C | 0.62 | 25.3 | C |
|  |  |  | L | 1.10 | 141.5 | F | 1.10 | 141.5 | F | 0.13 | 11.7 | B | 0.13 | 11.7 | B |
|  |  |  | T | 0.70 | 27.3 | C | 0.70 | 27.3 | C | 0.59 | 24.7 | C | 0.59 | 24.7 | C |
|  |  | Intersection |  |  | 55.5 | E |  | 57.0 | E |  | 76.7 | E |  | 87.5 | F |
| Grassland Road (Rt.100) @ WCC East Gate | 34 | Eastbound Westbound Northbound | T | 0.41 | 7.7 | A | 0.41 | 7.7 | A | 0.73 | 16.8 | B | 0.73 | 17.0 | B |
|  |  |  | L | 0.34 | 5.7 | A | 0.39 | 6.1 | A | 0.22 | 11.2 | B | 0.23 | 11.3 | B |
|  |  |  | T | 0.24 | 3.2 | A | 0.24 | 3.2 | A | 0.58 | 7.9 | A | 0.58 | 7.9 | A |
|  |  |  | L | 0.22 | 46.9 | D | 0.31 | 47.8 | D | 1.34 | 199.2 | F | * | ** + | F |
|  |  | Intersection |  |  | 7.5 | A |  | 8.2 | A |  | 58.0 | E |  | 132.3 | F |
| Old Saw Mill River Road @ Landmark West Driveway | 46 | Eastbound | LTR | 0.78 | 9.9 | A | 0.81 | 10.8 | B | 0.58 | 6.0 | A | 0.58 | 6.0 | A |
|  |  | Westbound | LTR | 0.26 | 4.1 | A | 0.26 | 4.1 | A | 0.43 | 4.9 | A | 0.43 | 4.9 | A |
|  |  | Northbound | LTR | 0.04 | 21.0 | C | 0.04 | 21.1 | C | 0.34 | 23.0 | C | 0.5 | 24.5 | C |
|  |  | Southbound | LTR | 0.04 | 21.1 | C | 0.04 | 21.1 | C | 0.03 | 21.0 | C | 0.03 | 21.0 | C |
|  |  | Intersectio |  |  | 8.6 | A |  | 9.4 | A |  | 6.5 | A |  | 7.1 | A |

Notes:
L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts.
" * " indicates a $\mathrm{v} / \mathrm{c}$ ratio greater than 1.50 ; " ** " indicates a calculated delay greater than 240 seconds.

TABLE 4.9-20. PURE NO BUILD + CROTON VS. CAT DEL ALONE, PARKING AT LANDMARK AND WCC LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION C) CONDITIONS

| Intersection | No. | Approach | LaneGroup | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | v/c Ratio | Delay (sec) | LOS | v/c Ratio | Delay (sec) | LOS | v/c Ratio | Delay (sec) | LOS | v/c Ratio | Delay (sec) | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.12 | 10.7 | B | 0.12 | 10.8 | B | 0.20 | 9.7 | A | 0.20 | 9.9 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ | 2 | Northbound | LT | 0.01 | 10.5 | B | 0.01 | 10.6 | B | 0.03 | 13.2 | B | 0.03 | 13.2 | B |
| Beverly Road |  | Eastbound | LR | 0.07 | 22.1 | C | 0.08 | 23.0 | C | 0.05 | 31.1 | D | 0.06 | 31.9 | D |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3 N | Northbound | LT | 0.02 | 11.1 | B | 0.02 | 11.3 | B | 0.01 | 9.8 | A | 0.01 | 9.8 | A |
|  |  | Southbound | LT | 0.03 | 9.3 | A | 0.03 | 9.3 | A | 0.02 | 10.7 | B | 0.02 | 10.9 | B |
|  |  | Eastbound | LTR | 0.03 | 38.0 | E | 0.03 | 40.6 | E | 0.14 | 25.2 | D | 0.14 | 25.9 | D |
|  |  | Westbound | LTR | 0.04 | 17.4 | C | 0.04 | 18.1 | C | 0.08 | 16.3 | C | 0.08 | 16.7 | C |
| Saw Mill River Road (Rt.9A) @ | 3S | Southbound | LT | 0.00 | 8.8 | A | 0.00 | 8.9 | A | 0.00 | 10.6 | B | 0.00 | 10.8 | B |
| Stevens Avenue South |  | Westbound | LR | 0.03 | 22.6 | C | 0.03 | 23.5 | C | 0.15 | 36.2 | E | 0.16 | 38.3 | E |
| Bradhurst Avenue (Rt. 100) @ | 5 | Southbound | LT | 0.02 | 8.2 | A | 0.02 | 8.2 | A | 0.01 | 8.1 | A | 0.01 | 8.1 | A |
| Lakeview Avenue |  | Westbound | LR | 0.26 | 15.1 | C | 0.26 | 15.1 | C | 0.45 | 18.8 | C | 0.45 | 18.8 | C |
| Knollwood Road (Rt.100A) @ | 7 | Northbound | LT | 0.01 | 8.3 | A | 0.01 | 8.3 | A | 0.00 | 8.0 | A | 0.00 | 8.0 | A |
| Hevelyne Road |  | Eastbound | LR | 0.03 | 13.3 | B | 0.03 | 13.5 | B | 0.01 | 11.0 | B | 0.01 | 11.1 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound Southbound Eastbound <br> Westbound | L | 0.13 | 10.3 | B | 0.15 | 10.6 | B | 0.16 | 10.4 | B | 0.16 | 10.5 | B |
|  |  |  | LT | 0.01 | 9.0 | A | 0.02 | 9.3 | A | 0.01 | 9.5 | A | 0.01 | 9.6 | A |
|  |  |  | L | 0.02 | 40.0 | E | 0.02 | $47.4+$ | E | 0.01 | 51.2 | F | 0.01 | 53.0 | F |
|  |  |  | T | 0.02 | 47.9 | E | 0.03 | $58.7+$ | F | 0.08 | 84.9 | F | 0.09 | $90.6+$ | F |
|  |  |  | LT | 0.14 | 45.4 | E | 0.17 | 57.7 + | F | 0.12 | 60.3 | F | 0.13 | $63.9+$ | F |
|  |  |  | TR | 0.01 | 11.0 | B | 0.01 | 11.4 | B | 0.03 | 17.5 | C | 0.03 | 18.0 | C |
| Dana Road @ | 18 | Northbound | LR | 0.18 | 11.4 | B | 0.25 | 12.2 | B | 0.09 | 11.3 | B | 0.14 | 11.9 | B |
| Walker Road |  | Westbound | LT | 0.00 | 8.4 | A | 0.00 | 8.6 | A | 0.01 | 7.8 | A | 0.01 | 7.9 | A |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound <br> Westbound | L | 1.43 | ** | F | * | ** + | F | * | ** | F | * |  | F |
|  |  |  | R | 0.22 | 17.9 | C | 0.24 | 19.1 | C | 0.37 | 20.8 | C | 0.44 | 26.2 | D |
|  |  |  | L | 0.16 | 11.9 | B | 0.17 | 12.3 | B | 0.32 | 14.5 | B | 0.45 | 18.7 | C |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound Eastbound | LT | 0.29 | 40.3 | E | 0.51 | 64.4 + | F | 0.08 | 34.7 | D | 0.11 | 45.0 | E |
|  |  |  | TR | 0.22 | 16.5 | C | 0.34 | 19.6 | C | 0.21 | 17.2 | C | 0.25 | 19.9 | C |
|  |  |  | L | 0.25 | 11.3 | B | 0.28 | 12.4 | B | 0.23 | 11.7 | B | 0.27 | 12.7 | B |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound | LT | 0.23 | 8.4 | A | 0.24 | 8.4 | A | 0.43 | 11.0 | B | 0.47 | 11.4 | B |
|  |  | Westbound | LR | 0.63 | 18.6 | C | 0.69 | 20.6 | C | 1.42 | 236.2 | F | * | ** + | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound Eastbound | L | 0.47 | 35.2 | E | 0.50 | 39.1 | E | 1.38 | ** | F | 1.46 | ** | F |
|  |  |  | R | 0.22 | 13.0 | B | 0.23 | 13.7 | B | 0.47 | 19.8 | C | 0.47 | 19.9 | C |
|  |  |  | LT | 0.07 | 8.8 | A | 0.08 | 8.9 | A | 0.24 | 10.7 | B | 0.24 | 10.8 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound <br> Westbound | L | 0.09 | 29.6 | D | 0.12 | $38.9+$ | E | 0.40 | 87.2 | F | 0.54 | 136.4 | F |
|  |  |  | R | 0.02 | 17.6 | C | 0.02 | 21.2 | C | 0.52 | 19.7 | C | 0.53 | 20.5 | C |
|  |  |  | LT | 0.01 | 11.3 | B | 0.01 | 12.4 | B | 0.12 | 9.2 | A | 0.13 | 9.3 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.12 | 18.0 | C | 0.14 | 18.5 | C | 0.40 | 22.1 | C | 0.59 | 28.0 | D |
|  |  | Southbound | LTR | 0.22 | 67.7 | F | 0.55 | $174.1+$ | F | ${ }^{*}$ | ** | F | * |  | F |
|  |  | Eastbound | LTR | 0.02 | 8.4 | A | 0.02 | 8.6 | A | 0.01 | 8.7 | A | 0.01 | 8.7 | A |
|  |  | Westbound | LTR | 0.18 | 11.2 | B | 0.28 | 12.1 | B | 0.02 | 9.2 | A | 0.03 | 9.3 | A |

Notes:
L = Left Turn, $\mathrm{T}=$ Through, $\mathrm{R}=$ Right Turn; LOS = Level of Service. "+" indicates significant impacts.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

- Grasslands Road (Route 100C)/Sprain Brook Parkway Northbound Ramp Intersection. During the AM peak hour, the northbound left/through movement would remain at LOS F, with delays increasing from 135.1 to 187.6 seconds, and the northbound right-turn movement would remain at LOS F, with delays increasing from 126.2 to 165.4 seconds. During the PM peak hour, the westbound approach would remain at LOS F, with delays increasing from 144.1 to 199.0 seconds.
- Virginia Road/Bronx River Parkway Intersection. During the AM peak hour, the eastbound left/through lane group would remain at LOS F, with delays increasing from 138.2 to 148.9 seconds. During the PM peak hour, the eastbound left/through lane group would remain at LOS F, with delays increasing from 179.7 to 205.4 seconds, and the westbound approach would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.
- Grasslands Road (Route 100)/Westchester Community College East Gate Intersection. During the PM peak hour, the northbound left-turn movement would remain at LOS F, with delays increasing from 199.2 to greater than 240.0 seconds.


## Potential Significant Adverse Impacts Occurring at Unsignalized Intersections.

- Saw Mill River Road (Route 9A)/Ramada Inn/Broadway Plaza Intersection. During the AM peak hour, the eastbound left-turn movement would remain at LOS E, with delays increasing from 40.0 to 47.4 seconds, the eastbound through movement would deteriorate from LOS E to LOS F, with delays increasing from 47.9 to 58.7 seconds, and the westbound left/through lane group would deteriorate from LOS E to LOS F, with delays increasing from 45.4 to 57.7 seconds. During the PM peak hour, the eastbound through movement would remain at LOS F, with delays increasing from 84.9 to 90.6 seconds, and the westbound left/through land group would remain at LOS F, with delays increasing from 60.3 to 63.9 seconds.
- Saw Mill River Road (Route 9A)/Grasslands Road (Route 100C) Intersection. During the AM peak hour, the northbound left-turn movement would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further. During the PM peak hour, the northbound left-turn movement would also continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.
- Grasslands Road (Route 100C)/Saw Mill River Road (Route 9A) Northbound Ramp Intersection. During the AM peak hour, the northbound left/through lane group would deteriorate from LOS E to LOS F, with delays increasing from 40.3 to 64.4 seconds. During the PM peak hour, the northbound left/through lane group would deteriorate from LOS D to LOS E, with delays increasing from 34.7 to 45.0 seconds.
- Grasslands Road (Route 100)/Virginia Road Intersection. During the PM peak hour, the westbound approach would remain at LOS F, with delays increasing from 236.2 to greater than 240.0 seconds.
- Grasslands Road (Route 100)/Legion Drive intersection. During the PM peak hour, the southbound left-turn movement would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.
- Grasslands Road (Route 100)/Westchester Community College East Gate Intersection. During the AM peak hour, the northbound left-turn movement would deteriorate from LOS D to LOS E, with delays increasing from 29.6 to 38.9 seconds. During the PM peak hour, the northbound left-turn movement would remain at LOS F, with delays increasing from 87.2 to 136.4 seconds.
- Old Saw Mill River Road/Landmark at Eastview East Driveway Intersection. The southbound approach would remain at LOS F during both the AM and PM peak hours. During the AM peak hour, the delay at this approach would increase from 67.7 to 174.1 seconds. During the PM peak, this approach would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further.

Although these impacts would not be permanent because they are construction-related, measures have been identified that would mitigate the construction-related significant adverse traffic impacts predicted to occur under 2008 Construction Option C conditions. A description of the measures, and an analysis showing the resulting effects of implementing the measures suggested as mitigation for these impacts, are fully discussed in Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts.

Parking. Nearly the entire Eastview construction site would be unavailable for construction worker parking because of the concurrent construction of the UV Facility and the Croton project under 2008 Construction Option C conditions. As discussed in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, two off-site parking facilities have been identified for construction vehicles and workers during project construction, under
| Option C conditions. One facility is located at the Landmark at Eastview, west of the project site; the other is located at the WCC Campus, east of the project site. Based on the transportation data and planning assumptions presented in Section 3.9, these two off-site parking facilities would each need to accommodate half of the estimated 400 construction worker vehicles from the UV Facility's construction, as well as half of the estimated 543 worker vehicles related to the concurrent construction of the Croton project. It is anticipated that these off-site parking facilities would be able to accommodate these parked vehicles; therefore, no significant adverse parking impacts are anticipated to occur to the public and private parking facilities in the vicinity of the UV Facility under 2008 Option C conditions.

Safety. In the scenario where the proposed UV Facility would be constructed on the Eastview Site with the Croton project, the construction activities would increase the study area traffic volumes by 1 to 40 percent at key study area intersections during peak-hour operating conditions. This projected traffic growth can be anticipated to translate to between 1 and 15 additional accidents per year along the roadway corridors during the construction period. These additional accidents could be considered significant, depending on the intersection. However, with mitigation in place and a traffic management plan, the projected accident rate would likely
be lower and not significant. See Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts, for a description of the recommended traffic mitigation measures.

Transit. The construction of the UV Facility under 2008 Construction Option C conditions is not anticipated to generate any considerable transit ridership. In addition, because of the low generation of trips from the Bee-Line Bus Facility during the UV Facility's peak construction hours, the construction of the UV Facility would not impact bus operations. Therefore, no significant adverse transit-related impacts would be anticipated to occur under 2008 Construction conditions.

Pavement Infrastructure. The proposed UV Facility is anticipated to generate a total of approximately 79,330 entering/exiting truck trips over the approximately four and one-half-year construction period, anticipated to run from April 2005 through September 2009. These truck trips equate to a total of approximately 53,950 ESAL inbound and 53,950 ESAL outbound, over the duration of construction for the proposed UV Facility. This would translate to a predicted truck load over the duration of construction of approximately 107,900 ESAL on the proposed truck routes to and from the site (e.g., about 80 percent of the trips using Grasslands Road to Route 9A-86,320 EASL, and about 20 percent of the trips using Knollwood Road to Route 119 - 21,580 ESAL). The peak construction truck generation is anticipated to occur in 2007, when construction of the UV Facility would generate an annual total of approximately 26,180 entering/exiting truck trips. These truck trips translate to a total of approximately 17,800 ESAL inbound and 17,800 ESAL outbound, in 2007. When compared with the predicted truck loads with designed loads for arterial roadways, the anticipated loads generated from the construction of the proposed UV Facility are not anticipated to be significant adverse impacts.

## Option D - Parking at the Landmark and Home Depot Sites

The traffic generated by the construction of the UV Facility with construction of the Croton project on the site for Option D is shown in Figures 4.9-43 and 4.9-44, for the AM and PM peak hours, respectively. Figures 4.9-45 and 4.9-46 show the total resulting 2008 Construction Option D traffic volumes. Table 4.9-21 shows a comparison of the results of the HCM analyses for the 2008 FNB (with Croton) conditions and the 2008 UV Facility Construction (Option D) conditions.

Option D Traffic. The following is a summary of the significant adverse impacts that have been identified during 2008, associated with the UV Facility's peak construction activities at the Eastview Site under worker parking Option D conditions. There would be a total of 24 potential significant adverse traffic impacts at intersections in the primary study area under 2008 Construction Option D conditions (11 at signalized intersections, 4 during the AM peak hour and 7 during the PM peak hour, and 13 at unsignalized intersections, 6 during the AM peak hour and 7 during the PM peak hour).

## Potential Significant Adverse Impacts Occurring at Signalized Intersections.

- Saw Mill River Road (Route 9A)/Tarrytown-White Plains Road (Route 119) Intersection. During the AM peak hour, the eastbound left-turn movement would remain at LOS F,
with delays increasing from 92.2 to 113.5 seconds. During the PM peak hour the eastbound left-turn movement would deteriorate from LOS E to LOS F, with delays increasing from 79.6 to 83.3 seconds.
- Saw Mill River Road (Route 9A)/Dana Road Intersection. During the PM peak hour, the eastbound left/through movement would deteriorate from LOS C to LOS F, with delays increasing from 27.5 to 81.2 seconds. During the PM peak hour, the westbound left-turn movement would deteriorate from LOS C to LOS F, with delays increasing from 29.8 to greater than 240.0 seconds.
- Old Saw Mill River Road/Saw Mill River Parkway Southbound Off-Ramp Intersection. During the PM peak hour, the eastbound approach would deteriorate from LOS E to LOS F, with delays increasing from 79.8 to 86.2 seconds.
- Grasslands Road (Route 100C)/Sprain Brook Parkway Southbound Ramp Intersection. During the AM peak hour, the southbound right-turn movement would deteriorate beyond mid-LOS D, with delays increasing from 36.3 to 48.4 seconds.
- Grasslands Road (Route 100C)/Sprain Brook Parkway Northbound Ramp Intersection. During the AM peak hour, the northbound left/through lane group would remain at LOS F, with delays increasing from 216.3 to greater than 240.0 seconds. During the PM peak hour, the eastbound left-turn movement would deteriorate from LOS D to LOS F, with delays increasing from 41.3 to 104.4 seconds.
- Virginia Road/Bronx River Parkway Intersection. During the AM and PM peak hours, the eastbound left/through movement would remain at LOS F, with delays increasing from 129.4 to 130.6 seconds during the AM peak hour, and from 142.8 to 144.9 seconds during the PM peak hour. During the PM peak hour, the westbound approach would also remain at LOS F, with delays increasing from 189.6 to 193.5 seconds.

TABLE 4.9-21. PURE NO BUILD + CROTON VS. CAT DEL, PARKING AT LANDMARK(CROTON) AND HOME DEPOT(CAT DEL) LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION D) CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c} \text { Lane } \\ \text { Group } \end{array}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | v/c <br> Ratio <br> 0 | $\begin{array}{\|c\|} \hline \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \hline \end{gathered}$ | LOS | $\begin{array}{\|c} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{gathered} \text { Delay } \\ (\mathrm{sec}) \end{gathered}$ | LOS | $\mathbf{v} / \mathbf{c}$ <br> Ratio | $\begin{gathered} \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \hline \end{gathered}$ | LOS |
| Saw Mill River Road (Rt.9A) (N-S) @ Saw Mill River Pkwy Ramp | 4 | Eastbound | L | 0.64 | 31.6 | C | 0.64 | 31.6 | C | 0.52 | 29.3 | C | 0.52 | 29.3 | C |
|  |  |  | LTR | 0.14 | 25.0 | c | 0.14 | 25.0 | C | 0.14 | 25.8 | C | 0.14 | 25.8 | C |
|  |  | Westbound | L | 0.14 | 32.4 | C | 0.14 | 32.4 | C | 0.14 | 34.1 | C | 0.14 | 34.1 | C |
|  |  |  | LT | 0.10 | 32.1 | C | 0.10 | 32.1 | c | 0.09 | 33.8 | c | 0.09 | 33.8 | c |
|  |  |  | R | 0.02 | 31.6 | C | 0.02 | 31.6 | C | 0.04 | 33.6 | c | 0.04 | 33.6 | c |
|  |  | Northbound | L | 0.19 | 14.2 | B | 0.20 | 14.3 | B | 0.81 | 31.6 | C | 0.81 | 31.6 | C |
|  |  |  | TR | 0.33 | 14.9 | B | 0.34 | 15.0 | B | 0.59 | 15.9 | B | 0.61 | 16.3 | B |
|  |  | Southbound | L | 0.05 | 13.0 | B | 0.05 | 13.0 | B | 0.14 | 21.5 | C | 0.14 | 21.6 | C |
|  |  |  | TR | 0.57 | 17.5 | B | 0.60 | 17.9 | B | 0.99 | 56.3 | E | 1.00 | 58.5 | E |
|  |  | Intersection |  |  | 19.6 | B |  | 19.7 | B |  | 34.4 | C |  | 35.1 | D |
| Grasslands Road (Rt. 100C) (E-W) @ Bradhurst Avenue (Rt. 100) | 6 | Eastbound | L | 0.73 | 38.4 | D | 0.75 | 39.9 | D | * | ** | F | * | ** | F |
|  |  |  | T | 1.03 | 75.5 | E | 1.03 | 75.5 | E | 0.60 | 22.6 | C | 0.61 | 22.9 | C |
|  |  |  | R | 0.36 | 16.4 | B | 0.36 | 16.5 | B | 0.29 | 12.2 | B | 0.30 | 12.3 | B |
|  |  | Westbound | L | 0.68 | 56.6 | E | 0.68 | 56.6 | E | 0.22 | 18.0 | B | 0.23 | 18.1 | B |
|  |  |  | TR | 0.44 | 26.1 | C | 0.45 | 26.2 | C | 0.98 | 55.9 | E | 0.98 | 55.9 | E |
|  |  | Northbound | L | 0.25 | 23.6 | C | 0.26 | 23.9 | C | 0.88 | 61.6 | E | 0.90 | 64.9 | E |
|  |  |  | TR | 0.34 | 25.9 | C | 0.34 | 25.9 | C | 0.20 | 16.3 | B | 0.20 | 16.3 | B |
|  |  | Southbound | L | 0.50 | 40.1 | D | 0.50 | 40.1 | D | 0.30 | 25.1 | C | 0.00 | 25.1 | C |
|  |  |  | TR | 0.68 | 49.7 | D | 0.68 | 49.7 | D | 1.12 | 109.2 | F | 1.12 | 109.2 | F |
|  |  | Intersection |  |  | 45.3 | D |  | 45.3 | D |  | 70.0 | E |  | 70.0 | E |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) WB Ramp | 8 | Westbound <br> Northbound <br> Southbound | LT | 0.46 | 27.6 | C | 0.46 | 27.6 | C | 0.79 | 39.0 | D | 0.79 | 39.0 | D |
|  |  |  | R | 0.24 | 25.4 | C | 0.24 | 25.5 | C | 0.45 | 27.6 | C | 0.45 | 27.6 | C |
|  |  |  | L | 0.51 | 9.9 | A | 0.51 | 10.0 | A | 0.96 | 56.2 | E | 0.97 | 58.2 | E |
|  |  |  | T | 0.52 | 10.4 | B | 0.53 | 10.6 | B | 0.52 | 10.5 | B | 0.53 | 10.6 | B |
|  |  |  | T | 0.31 | 13.5 | B | 0.31 | 13.5 | B | 0.45 | 14.9 | B | 0.46 | 15.0 | B |
|  |  |  | R | 0.13 | 12.1 | B | 0.14 | 12.2 | B | 0.23 | 12.9 | B | 0.23 | 12.9 | B |
|  |  | Intersection |  |  | 14.4 | B |  | 14.5 | B |  | 27.4 | C |  | 27.7 | C |
| Knollwood Road (Rt. 100A) (E-W) @ Cross Westchester Expy (I-287) EB Ramp | 9 | Eastbound <br> Northbound <br> Southbound | L | 0.68 | 32.8 | C | 0.68 | 32.9 | C | 0.48 | 24.5 | C | 0.48 | 24.5 | C |
|  |  |  | TR | 0.01 | 23.6 | C | 0.01 | 23.6 | C | 0.00 | 20.0 | C | 0.00 | 20.0 | C |
|  |  |  | R | 0.58 | 30.0 | C | 0.58 | 30.0 | C | 0.77 | 34.2 | c | 0.77 | 34.2 | c |
|  |  |  | T | 0.50 | 15.4 | B | 0.51 | 15.5 | B | 0.87 | 32.1 | c | 0.87 | 32.4 | c |
|  |  |  | R | 0.52 | 15.9 | B | 0.52 | 15.9 | B | 0.62 | 20.9 | C | 0.62 | 20.9 | C |
|  |  |  | L | 0.40 | 9.9 | A | 0.40 | 10.0 | A | 0.80 | 30.9 | C | 0.81 | 31.3 | C |
|  |  |  | T | 0.29 | 8.4 | A | 0.30 | 8.5 | A | 0.66 | 15.7 | B | 0.66 | 15.8 | B |
|  |  | Intersection |  |  | 18.6 | B |  | 18.6 | B |  | 25.9 | C |  | 26.0 | C |
| Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A) | 10 | Westbound <br> Northbound Southbound | LT | 0.14 | 24.6 | C | 0.14 | 24.6 | C | 0.35 | 26.4 | C | 0.35 | 26.4 | C |
|  |  |  | R | 0.51 | 28.3 | C | 0.51 | 28.3 | C | 0.96 | 64.8 | E | 0.96 | 65.3 | E |
|  |  |  | LT | 0.41 | 10.2 | B | 0.41 | 10.2 | B | 0.60 | 12.6 | B | 0.60 | 12.6 | B |
|  |  |  | T | 0.20 | 15.3 | B | 0.20 | 15.3 | B | 0.44 | 17.4 | B | 0.44 | 17.4 | B |
|  |  |  | R | 0.19 | 15.3 | B | 0.20 | 15.4 | B | 0.48 | 18.1 | B | 0.48 | 18.2 | B |
|  |  | Intersection |  |  | 15.5 | B |  | 15.5 | B |  | 25.2 | C |  | 25.3 | C |
| Tarrytown/White Plains Road (Rt. 119) WB Ramp (E-W) @ Knollwood Road (Rt.100A) | $\begin{array}{\|l\|} \hline 11 \\ 12 \end{array}$ | Eastbound <br> Northbound Southbound | LT | 0.72 | 34.7 | C | 0.73 | 35.1 | D | 0.79 | 38.6 | D | 0.79 | 38.7 | D |
|  |  |  | R | 0.16 | 24.8 | C | 0.16 | 24.8 | C | 0.35 | 26.5 | C | 0.35 | 26.5 | C |
|  |  |  | TR | 0.40 | 20.2 | C | 0.41 | 20.2 | C | 0.41 | 20.3 | C | 0.41 | 20.3 | C |
|  |  |  | Def | 0.31 | 12.0 | B | 0.32 | 12.1 | B | 0.47 | 14.7 | B | 0.48 | 14.8 | B |
|  |  |  | T | 0.28 | 9.2 | A | 0.28 | 9.2 | A | 0.54 | 11.8 | B | 0.55 | 11.9 | B |
|  |  | Intersection |  |  | 20.6 | C |  | 20.8 | C |  | 21.1 | C |  | 21.2 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) WB Ramp | 13 | Westbound <br> Northbound Southbound | L | 1.09 | 97.9 | F | 1.09 | 97.9 | F | 0.74 | 38.2 | D | 0.74 | 38.2 | D |
|  |  |  | R | 0.55 | 28.6 | C | 0.61 | 29.6 | C | 0.43 | 20.5 | C | 0.43 | 20.6 | C |
|  |  |  | LTR | 0.40 | 9.2 | A | 0.43 | 9.4 | A | 0.73 | 24.3 | c | 0.77 | 25.8 | C |
|  |  |  | TR | 0.49 | 10.0 | A | 0.51 | 10.2 | B | 0.92 | 27.8 | C | 0.96 | 34.4 | C |
|  |  | Intersection |  |  | 33.4 | C |  | 33.4 | C |  | 27.2 | C |  | 30.8 | C |
| Saw Mill River Road (Rt.9A) @ Cross Westchester Expy (I-287) EB Ramp | 14 | Northbound Southbound | TR | 0.34 | 12.6 | B | 0.36 | 12.8 | B | 0.90 | 35.6 | D | 0.90 | 36.4 | D |
|  |  |  | L | 0.52 | 2.5 | A | 0.55 | 3.6 | A | 0.79 | 25.9 | C | 0.82 | 28.7 | C |
|  |  |  | LT | 0.17 | 0.2 | A | 0.17 | 0.2 | A | 0.56 | 0.5 | A | 0.59 | 0.6 | A |
|  |  | Intersection |  |  | 5.5 | A |  | 6.0 | A |  | 18.1 | B |  | 18.8 | B |
| Saw Mill River Road (Rt.9A) @ Tarrytown/White Plains Road (Rt.119) | 15 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 1.05 | 92.2 | F | 1.12 | 113.5 + | F | 1.01 | 79.6 | E | 1.02 | $83.3+$ | F |
|  |  |  | TR | 0.38 | 14.5 | B | 0.38 | 14.5 | B | 0.46 | 20.2 | C | 0.46 | 20.2 | C |
|  |  |  | L | 0.17 | 22.3 | C | 0.17 | 22.3 | C | 0.42 | 34.4 | C | 0.42 | 34.4 | C |
|  |  |  | TR | 0.31 | 23.6 | C | 0.31 | 23.6 | C | 0.89 | 49.1 | D | 0.89 | 49.7 | D |
|  |  |  | L | 0.39 | 34.3 | C | 0.39 | 34.4 | C | 0.32 | 25.5 | C | 0.34 | 25.8 | C |
|  |  |  | TR | 0.67 | 42.7 | D | 0.72 | 44.9 | D | 0.83 | 41.6 | D | 0.83 | 42.1 | D |
|  |  |  | L | 0.27 | 35.4 | D | 0.29 | 36.6 | D | 0.56 | 35.8 | D | 0.58 | 36.5 | D |
|  |  |  | T | 0.43 | 35.1 | D | 0.44 | 35.3 | D | 0.31 | 23.4 | C | 0.34 | 23.8 | C |
|  |  |  | R | 0.23 | 22.1 | C | 0.24 | 22.2 | C | 0.41 | 11.2 | B | 0.43 | 11.3 | B |
|  |  | Intersection |  |  | 37.4 | D |  | 42.3 | D |  | 35.3 | D |  | 35.9 | D |
| Saw Mill River Road (Rt.9A) @ Hunter Lane | 16 | Eastbound Westbound <br> Northbound Southbound | LTR | 0.01 | 29.1 | C | 0.01 | 29.1 | C | 0.01 | 32.9 | C | 0.01 | 32.9 | C |
|  |  |  | LT | 0.31 | 32.4 | C | 0.31 | 32.4 | C | 0.81 | 56.6 | E | 0.81 | 56.6 | E |
|  |  |  | R | 0.01 | 18.7 | B | 0.01 | 18.7 | B | 0.07 | 22.9 | C | 0.07 | 22.9 | C |
|  |  |  | LTR | 0.74 | 24.1 | C | 0.81 | 27.0 | C | 0.70 | 19.8 | B | 0.71 | 20.1 | C |
|  |  |  | LTR | 0.73 | 16.3 | B | 0.78 | 18.3 | B | 0.81 | 16.3 | B | 0.87 | 19.8 | B |
|  |  | Intersection |  |  | 20.8 | C |  | 23.3 | C |  | 21.3 | C |  | 23.0 | C |

TABLE 4.9-21. PURE NO BUILD + CROTON VS. CAT DEL, PARKING AT LANDMARK(CROTON) AND HOME DEPOT(CAT DEL) LEVEL-OF-SERVICE ANALYSIS RESULTS FOR SIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION D) CONDITIONS

| Intersection | No. | Approach | Lane Group | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | $\begin{array}{\|c} \hline \text { v/c } \\ \text { Ratio } \end{array}$ | $\begin{array}{\|c\|} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \mathbf{v} / \mathbf{c} \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{array}{\|c} \hline \text { Delay } \\ \text { (sec) } \end{array}$ | LOS | $\begin{array}{\|c} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \hline \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{gathered}$ | LOS |
| Saw Mill River Road (Rt.9A) @ Dana Road | 20 | Eastbound | LT | 0.07 | 25.5 | C | 0.15 | 26.1 | C | 0.29 | 27.5 | C | 0.99 | $81.2+$ | F |
|  |  |  | R | 0.08 | 25.6 | C | 0.11 | 25.8 | C | 0.24 | 26.9 | C | 0.61 | 32.2 | C |
|  |  | Westbound | L | 0.21 | 26.6 | C | 0.29 | 27.4 | C | 0.50 | 29.8 | C | 1.50 | ** + | F |
|  |  |  | TR | 0.11 | 25.8 | C | 0.74 | 38.3 | D | 0.41 | 28.5 | C | 0.48 | 29.3 | C |
|  |  | Northbound | L | 0.12 | 30.5 | C | 0.56 | 35.3 | D | 0.39 | 32.7 | C | 0.41 | 32.9 | C |
|  |  |  | TR | 0.65 | 25.6 | C | 0.67 | 26.0 | C | 0.89 | 35.9 | D | 0.91 | 37.4 | D |
|  |  | Southbound | L | 0.39 | 32.8 | C | 0.41 | 33.0 | C | 0.16 | 30.8 | C | 0.18 | 31.0 | C |
|  |  |  | TR | 0.63 | 24.7 | C | 0.65 | 25.2 | C | 0.74 | 27.8 | C | 0.74 | 27.8 | C |
|  |  | Intersection |  |  | 25.9 | C |  | 28.5 | C |  | 31.5 | C |  | 53.0 | D |
| Old Saw Mill River Road @ Saw Mill River Pkwy SB Off Ramp | 21 | Eastbound Westbound Southbound | LT | 0.89 | 30.0 | C | 0.90 | 31.7 | C | 1.07 | 79.8 | E | 1.09 | 86.2 | F |
|  |  |  | TR | 0.23 | 4.7 | A | 0.24 | 4.7 | A | 0.49 | 9.8 | A | 0.54 | 10.3 | B |
|  |  |  | L | 0.70 | 38.1 | D | 0.72 | 39.0 | D | 0.29 | 23.1 | C | 0.29 | 23.1 | C |
|  |  |  | LR | 0.16 | 28.2 | C | 0.16 | 28.2 | C | 0.21 | 22.6 | C | 0.21 | 22.6 | C |
|  |  | Intersection |  |  | 22.3 | C |  | 23.2 | C |  | 35.8 | D |  | 37.1 | D |
| Old Saw Mill River Road @ Saw Mill River Pkwy NB Off Ramp | 22 | Eastbound <br> Westbound <br> Northbound | T | 0.49 | 17.6 | B | 0.50 | 17.7 | B | 0.41 | 13.3 | B | 0.41 | 13.3 | B |
|  |  |  | T | 0.20 | 7.7 | A | 0.20 | 7.8 | A | 0.33 | 4.4 | A | 0.36 | 4.6 | A |
|  |  |  | LR | 0.56 | 26.5 | C | 0.64 | 28.7 | C | 0.46 | 31.5 | C | 0.46 | 31.6 | C |
|  |  |  | R | 0.53 | 26.0 | C | 0.61 | 28.1 | C | 0.42 | 31.3 | C | 0.43 | 31.4 | C |
|  |  | Intersection |  |  | 17.6 | B |  | 18.7 | B |  | 11.6 | B |  | 11.6 | B |
| Grassland Road (Rt.100C) @ Clearbrook Road/Walker Road | 24 | EastboundWestboundNorthboundSouthbound | L | 0.10 | 2.9 | A | 0.19 | 3.6 | A | 0.04 | 9.2 | A | 0.04 | 9.3 | A |
|  |  |  | TR | 0.38 | 3.8 | A | 0.38 | 3.8 | A | 1.03 | 55.4 | E | 1.03 | 55.4 | E |
|  |  |  | L | 0.38 | 4.1 | A | 0.38 | 4.1 | A | * | ** | F | * | ** | F |
|  |  |  | TR | 0.64 | 6.1 | A | 0.84 | 11.7 | B | 0.72 | 17.2 | B | 0.73 | 17.7 | B |
|  |  |  | LT | 0.21 | 33.7 | C | 0.22 | 33.7 | C | 0.19 | 19.9 | B | 0.30 | 21.1 | C |
|  |  |  | LT | 0.21 | 33.8 | C | 0.31 | 34.8 | C | 0.23 | 20.3 | C | 0.78 | 34.5 | C |
|  |  |  | R | 0.00 | 32.2 | C | 0.00 | 32.2 | C | 0.05 | 18.8 | B | 0.05 | 18.8 | B |
|  |  | Intersection |  |  | 6.1 | A |  | 9.4 | A |  | 108.6 | F |  | 108.6 | F |
| Grassland Road (Rt.100C) @ Woods Drive/Taylor Road | 25 | Eastbound <br> Westbound <br> Northbound <br> Southbound | L | 0.39 | 14.1 | B | 0.40 | 18.7 | B | 0.33 | 14.2 | B | 0.34 | 14.5 | B |
|  |  |  | TR | 0.27 | 5.3 | A | 0.28 | 5.3 | A | 0.73 | 15.6 | B | 0.84 | 19.4 | B |
|  |  |  | L | 0.00 | 9.3 | A | 0.00 | 9.3 | A | 0.01 | 12.6 | B | 0.01 | 12.7 | B |
|  |  |  | TR | 0.77 | 18.6 | B | 0.91 | 26.0 | C | 0.74 | 21.7 | C | 0.75 | 22.0 | C |
|  |  |  | LTR | 0.01 | 32.9 | C | 0.01 | 32.9 | C | 0.01 | 24.6 | C | 0.01 | 24.6 | C |
|  |  |  | LT | 0.55 | 39.2 | D | 0.55 | 39.2 | D | 0.79 | 41.6 | D | 0.79 | 41.6 | D |
|  |  |  | R | 0.08 | 21.2 | C | 0.08 | 21.2 | C | 0.11 | 17.2 | B | 0.11 | 17.2 | B |
|  |  | Intersection |  |  | 15.9 | B |  | 21.1 | C |  | 20.5 | C |  | 22.3 | C |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy SB Ramp | 26 | Eastbound Westbound Southbound | TR | 0.28 | 7.6 | A | 0.29 | 7.6 | A | 0.84 | 16.5 | B | 0.95 | 26.0 | C |
|  |  |  | T | 0.41 | 8.5 | A | 0.48 | 9.0 | A | 0.53 | 9.6 | A | 0.54 | 9.7 | A |
|  |  |  | L | 0.55 | 34.0 | C | 0.55 | 34.0 | C | 0.17 | 29.6 | C | 0.17 | 29.6 | C |
|  |  |  | R | 0.62 | 36.3 | D | 0.82 | $48.4+$ | D | 0.14 | 29.3 | C | 0.16 | 29.4 | C |
|  |  | Intersection |  |  | 14.5 | B |  | 16.8 | B |  | 14.4 | B |  | 20.3 | C |
| Grassland Road (Rt.100C) @ Sprain Brook Pkwy NB Ramp | $\begin{array}{\|l\|} \hline 27 \\ 30 \\ \hline \end{array}$ | Eastbound <br> Westbound Northbound | L | 0.12 | 15.0 | B | 0.14 | 15.2 | B | 0.87 | 41.3 | D | 1.11 | 104.4 | F |
|  |  |  | T | 0.50 | 18.0 | B | 0.51 | 18.1 | B | 0.34 | 9.0 | A | 0.34 | 9.1 | A |
|  |  |  | TR | 0.49 | 24.9 | C | 0.51 | 25.1 | C | 1.07 | 69.5 | E | 1.07 | 71.4 | E |
|  |  |  | LT | 1.39 | 216.3 | F | * | ** + | F | 0.71 | 30.2 | C | 0.73 | 30.8 | C |
|  |  |  | R | 1.02 | 74.8 | E | 1.02 | 74.8 | E | 0.35 | 23.1 | C | 0.35 | 23.1 | C |
|  |  | Intersection |  |  | 90.2 | F |  | 132.9 | F |  | 44.7 | D |  | 53.2 | D |
| Virginia Road @ Bronx River Pkwy | 31 | Eastbound <br> Westbound Northbound <br> Southbound | LT | 1.12 | 129.4 | F | 1.13 | $130.6+$ | F | 1.16 | 142.8 | F | 1.17 | 144.9 + | F |
|  |  |  | R | 0.21 | 19.6 | B | 0.21 | 19.6 | B | 0.39 | 34.6 | C | 0.40 | 34.7 | C |
|  |  |  | LTR | 0.40 | 34.7 | C | 0.40 | 34.7 | C | 1.27 | 189.6 | F | 1.28 | $193.5+$ | F |
|  |  |  | L | 0.05 | 46.3 | D | 0.06 | 46.4 | D | 0.06 | 10.9 | B | 0.06 | 10.9 | B |
|  |  |  | TR | 0.26 | 20.1 | C | 0.26 | 20.1 | C | 0.62 | 25.3 | C | 0.62 | 25.3 | C |
|  |  |  | L | 1.10 | 141.5 | F | 1.10 | 141.5 | F | 0.13 | 11.7 | B | 0.13 | 11.7 | B |
|  |  |  | T | 0.70 | 27.3 | C | 0.70 | 27.3 | C | 0.59 | 24.7 | C | 0.59 | 24.7 | C |
|  |  | Intersection |  |  | 54.3 | D |  | 54.5 | D |  | 62.7 | E |  | 63.5 | E |
| Grassland Road (Rt.100) @ WCC East Gate | 34 | Eastbound Westbound <br> Northbound | T | 0.41 | 7.7 | A | 0.41 | 7.7 | A | 0.73 | 17.1 | B | 0.74 | 17.4 | B |
|  |  |  | L | 0.26 | 5.2 | A | 0.26 | 5.2 | A | 0.22 | 11.3 | B | 0.22 | 11.4 | B |
|  |  |  | T | 0.25 | 3.2 | A | 0.25 | 3.2 | A | 0.58 | 7.9 | A | 0.58 | 7.9 | A |
|  |  |  | L | 0.07 | 45.8 | D | 0.07 | 45.8 | D | 0.62 | 30.6 | C | 0.62 | 30.6 | C |
|  |  | Intersection |  |  | 6.3 | A |  | 6.3 | A |  | 14.7 | B |  | 14.9 | B |
| Old Saw Mill River Road @ Landmark West Driveway | 46 | Eastbound LTR <br> Westbound LTR <br> Northbound LTR <br> Southbound LTR <br> Intersection |  | 0.82 | 11.4 | B | 0.87 | 14.0 | B | 0.58 | 6.0 | A | 0.58 | 6.1 | A |
|  |  |  |  | 0.26 | 4.1 | A | 0.26 | 4.1 | A | 0.43 | 4.9 | A | 0.48 | 5.2 | A |
|  |  |  |  | 0.04 | 21.1 | C | 0.04 | 21.1 | C | 0.59 | 27.0 | C | 0.59 | 27.0 | C |
|  |  |  |  | 0.04 | 21.1 | C | 0.04 | 21.1 | C | 0.03 | 21.0 | C | 0.03 | 21.0 | C |
|  |  |  |  |  | 9.9 | A |  | 11.9 | B |  | 7.5 | A |  | 7.5 | A |
| Notes: <br> L = Left Turn, T = Through, R = Right Turn, Def = Defacto Left Turn; LOS = Level of Service. "+" indicates significant impacts. " * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds. |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

TABLE 4.9-21. PURE NO BUILD + CROTON VS. CAT DEL, PARKING AT LANDMARK(CROTON) AND HOME DEPOT(CAT DEL) LEVEL-OF-SERVICE ANALYSIS RESULTS FOR UNSIGNALIZED INTERSECTIONS: 2008 NO BUILD AND CONSTRUCTION (OPTION D) CONDITIONS

| Intersection | No. | Approach | $\begin{array}{\|c\|\|} \hline \text { Lane } \\ \text { Group } \\ \hline \end{array}$ | AM Peak Hour |  |  |  |  |  | PM Peak Hour |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  | 2008 No Build |  |  | 2008 Construction |  |  | 2008 No Build |  |  | 2008 Construction |  |  |
|  |  |  |  | v/c <br> Ratio | $\begin{array}{\|c} \begin{array}{c} \text { Delay } \\ \text { (sec) } \end{array} \\ \hline \end{array}$ | LOS | v/c <br> Ratio | $\begin{gathered} \hline \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{gathered}$ | LOS | $\begin{array}{\|c\|} \hline \text { v/c } \\ \text { Ratio } \\ \hline \end{array}$ | $\begin{gathered} \hline \text { Delay } \\ \text { (sec) } \end{gathered}$ | LOS | v/c <br> Ratio <br> 0.20 .20 | $\begin{gathered} \hline \begin{array}{c} \text { Delay } \\ (\mathrm{sec}) \end{array} \\ \hline \end{gathered}$ | LOS |
| Sprain Pkwy SB On Ramp (N-S) @ Broadway (Rt. 141) | 1 | Westbound | LT | 0.12 | 10.7 | B | 0.12 | 10.8 | B | 0.20 | 9.8 | A | 0.21 | 9.9 | A |
| Saw Mill River Road (Rt.9A) (N-S) @ | 2 | Northbound | LT | 0.01 | 10.5 | B | 0.01 | 10.6 | B | 0.03 | 13.2 | B | 0.03 | 13.2 | B |
| Beverly Road |  | Eastbound | LR | 0.07 | 22.1 | C | 0.08 | 23.0 | C | 0.05 | 31.1 | D | 0.06 | 32.1 | D |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue North | 3N | Northbound | LT | 0.02 | 11.1 | B | 0.02 | 11.3 | B | 0.01 | 9.8 | A | 0.01 | 9.8 | A |
|  |  | Southbound | LT | 0.03 | 9.3 | A | 0.03 | 9.3 | A | 0.02 | 10.7 | B | 0.02 | 10.9 | B |
|  |  | Eastbound | LTR | 0.03 | 38.0 | E | 0.03 | 40.6 | E | 0.14 | 25.3 | D | 0.15 | 26.2 | D |
|  |  | Westbound | LTR | 0.04 | 17.4 | C | 0.04 | 18.1 | C | 0.08 | 16.4 | C | 0.08 | 16.9 | C |
| Saw Mill River Road (Rt.9A) @ Stevens Avenue South | 3 S | Southbound | LT | 0.00 | 8.8 | A | 0.00 | 8.9 | A | 0.00 | 10.7 | B | 0.00 | 10.8 | B |
|  |  | Westbound | LR | 0.03 | 22.6 | C | 0.03 | 23.5 | C | 0.16 | 36.8 | E | 0.17 | 38.9 | E |
| Bradhurst Avenue (Rt. 100) @ Lakeview Avenue | 5 | Southbound | LT | 0.02 | 8.2 | A | 0.02 | 8.2 | A | 0.01 | 8.1 | A | 0.01 | 8.1 | A |
|  |  | Westbound | LR | 0.26 | 15.1 | C | 0.26 | 15.1 | C | 0.45 | 18.8 | C | 0.45 | 18.8 | C |
| Knollwood Road (Rt.100A) @ Hevelyne Road | 7 | Northbound | LT | 0.01 | 8.3 | A | 0.01 | 8.3 | A | 0.00 | 8.0 | A | 0.00 | 8.0 | A |
|  |  | Eastbound | LR | 0.03 | 13.2 | B | 0.03 | 13.4 | C | 0.01 | 10.9 | B | 0.01 | 11.0 | B |
| Saw Mill River Road (Rt.9A) @ Ramada Inn/Broadway Plaza | 17 | Northbound | L | 0.16 | 10.5 | B | 0.16 | 10.7 | B | 0.16 | 10.4 | B | 0.17 | 10.9 | B |
|  |  | Southbound | LT | 0.01 | 9.0 | A | 0.02 | 9.3 | A | 0.01 | 9.5 | A | 0.01 | 9.6 | A |
|  |  | Eastbound | L | 0.02 | 43.3 | E | 0.02 | $48.4+$ | E | 0.01 | 51.8 | F | 0.02 | $60.4+$ | F |
|  |  |  | T | 0.03 | 51.8 | F | 0.03 | $60.4+$ | F | 0.08 | 84.9 | F | 0.10 | 102.1 + | F |
|  |  | Westbound | LT | 0.14 | 48.3 | E | 0.17 | 59.3 + | F | 0.12 | 60.3 | F | 0.14 | 69.1 + | F |
|  |  |  | TR | 0.01 | 10.9 | B | 0.01 | 11.3 | B | 0.03 | 17.5 | C | 0.03 | 19.0 | C |
| Dana Road @ Walker Road | 18 | Northbound | LR | 0.17 | 11.3 | B | 0.64 | 19.7 | C | 0.09 | 11.3 | B | 0.22 | 13.6 | B |
|  |  | Westbound | LT | 0.00 | 8.4 | A | 0.00 | 8.6 | A | 0.01 | 7.8 | A | 0.01 | 8.6 | A |
| Saw Mill River Road (Rt. 9A) @ Grasslands Road (Rt.100C) | 19A | Northbound <br> Westbound | L | * | ** | F | * | ** | F | * | ** | F | * | ** | F |
|  |  |  | R | 0.22 | 17.2 | C | 0.24 | 19.0 | C | 0.48 | 29.8 | D | 0.48 | 30.1 | D |
|  |  |  | L | 0.15 | 11.7 | B | 0.16 | 12.2 | B | 0.28 | 16.5 | C | 0.28 | 16.6 | C |
| Grasslands Road (Rt. 100C) (E-W) @ Saw Mill River Road NB Ramp (N-S) | 19B | Northbound <br> Eastbound | LT | 0.60 | 73.7 | F | 0.99 | 202.6 + | F | 0.10 | 39.6 | E | 0.10 | 40.3 | E |
|  |  |  | TR | 0.07 | 14.3 | B | 0.07 | 14.3 | B | 0.26 | 21.2 | C | 0.26 | 21.2 | C |
|  |  |  | L | 0.29 | 12.9 | B | 0.43 | 14.8 | B | 0.24 | 11.2 | B | 0.25 | 11.3 | B |
| Grasslands Road (Rt. 100) @ Virginia Road | 32 | Southbound | LT | 0.23 | 8.4 | A | 0.23 | 8.4 | A | 0.37 | 10.4 | B | 0.37 | 10.4 | B |
|  |  | Westbound | LR | 0.56 | 16.9 | C | 0.56 | 17.1 | C | 1.25 | 162.4 | F | 1.26 | 166.5 + | F |
| Grasslands Road (Rt. 100) @ Legion Drive | 33 | Southbound | L | 0.43 | 30.6 | D | 0.43 | 31.0 | D | 1.29 | 220.5 | F | 1.31 | 227.1 + | F |
|  |  |  | R | 0.20 | 12.3 | B | 0.21 | 12.4 | B | 0.47 | 19.7 | C | 0.47 | 19.7 | C |
|  |  | Eastbound | LT | 0.07 | 8.6 | A | 0.07 | 8.6 | A | 0.24 | 10.7 | B | 0.24 | 10.7 | B |
| Grasslands Road (Rt. 100) @ WCC West Gate | 35 | Northbound | L | 0.06 | 20.8 | C | 0.06 | 20.9 | C | 0.27 | 51.3 | F | 0.27 | 52.5 | F |
|  |  |  | R | 0.01 | 13.7 | B | 0.01 | 13.7 | B | 0.50 | 18.9 | C | 0.51 | 19.2 | C |
|  |  | Westbound | LT | 0.00 | 9.9 | A | 0.00 | 9.9 | A | 0.12 | 9.2 | A | 0.12 | 9.2 | A |
| Old Saw Mill River Road @ Landmark East Driveway | 47 | Northbound | LTR | 0.16 | 18.7 | C | 0.18 | 20.5 | C | 0.69 | 33.7 | D | 0.71 | 35.9 | E |
|  |  | Southbound | LTR | 0.96 | ** | F | 1.18 | ** + | F | * | ** | F | * | ** + | F |
|  |  | Eastbound | LTR | 0.02 | 8.7 | A | 0.02 | 8.8 | A | 0.01 | 8.7 | A | 0.01 | 9.0 | A |
|  |  | Westbound | LTR | 0.34 | 12.7 | B | 0.36 | 13.5 | B | 0.04 | 9.3 | A | 0.04 | 9.3 | A |

Notes:
L = Left Turn, T = Through, R = Right Turn; LOS = Level of Service. "+" indicates significant impacts.
" * " indicates a v/c ratio greater than 1.50; " ** " indicates a calculated delay greater than 240 seconds.

## Potential Significant Adverse Impacts Occurring at Unsignalized Intersections.

- Saw Mill River Road (Route 9A)/Ramada Inn/Broadway Plaza Intersection. During the AM peak hour, the eastbound left-turn lane group would remain at LOS E (delay increasing from 43.3 to 48.4 seconds), the eastbound through movement would remain at LOS F (delay increasing from 51.8 to 60.4 seconds), and the westbound left/through lane group would deteriorate from LOS E ( 48.3 seconds delay) to LOS F ( 59.3 seconds delay). During the PM peak hour, the eastbound left-turn lane group would remain at LOS F (delay increasing from 51.8 to 60.4 seconds), the eastbound through movement would remain at LOS F (delay increasing from 84.9 to 102.1 seconds), and the westbound left/through lane group would remain at LOS F (delay increasing from 60.3 to 69.1 seconds).
- Saw Mill River Road (Route 9A)/Grasslands Road (Route 100C) Intersection. During both the AM and PM peak hours, the northbound left-turn movement would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further during both peak hours.
- Grasslands Road (Route 100C)/Saw Mill River Road (Route 9A) Northbound Ramp Intersection. During the AM peak hour, the northbound left/through lane group would remain at LOS F (delay increasing from 73.7 to 202.6 seconds).
- Grasslands Road (Route 100)/Virginia Road Intersection. During the PM peak hour, the westbound approach would remain at LOS F (delay increasing from 162.4 to 166.5 seconds).
- Grasslands Road (Route 100)/Legion Drive Intersection. During the PM peak hour, the southbound left-turn movement would remain at LOS F (delay increasing from 220.5 to 227.1 seconds).
- Old Saw Mill River Road/Landmark at Eastview East Driveway Intersection. The southbound approach would continue operating at LOS F, with its delay of greater than 240 seconds, increasing further during both the AM and PM peak hours.

Although these impacts would not be permanent because they are construction-related, measures have been identified that would mitigate the construction-related significant adverse traffic impacts predicted to occur under 2008 Construction Option D conditions. A description of the measures, and an analysis showing the resulting effects of implementing the measures suggested as mitigation for these impacts, are fully discussed in Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts.

Parking. Nearly the entire Eastview construction site would be unavailable for construction worker parking because of the concurrent construction of the UV Facility and the Croton project under 2008 Construction Option D conditions. As discussed in Section 3.9, Data Collection and Impact Methodologies, Traffic and Transportation, two off-site parking facilities
have been identified for use by construction workers. One is at the Landmark at Eastview, which would be used for parking construction worker vehicles related to the Croton project's construction, the other is at the Home Depot off Dana Road that is currently under construction, and anticipated to be completed sometime in 2005. The Home Depot parking lot would be used to accommodate the construction worker vehicles from the UV Facility construction, under Option D conditions. Rather than simply splitting the workers between the two sites, workers from the UV Facility were assigned to the Home Depot site because the property owner indicated that they anticipated that the parking that would be available would be just enough to accommodate the projected number of UV Facility construction worker vehicles, but would not be sufficient to accommodate the projected number of Croton project worker vehicles. Based on the transportation data and planning assumptions presented in Section 3.9, the Home Depot parking lot would need to accommodate 400 construction worker vehicles related to the UV Facility's construction, while the Landmark at Eastview would need to accommodate 543 worker vehicles related to construction of the Croton project. It is anticipated that these off-site parking facilities would be able to accommodate these parked vehicles, therefore; no significant adverse parking impacts are anticipated to occur to the public and private parking facilities in the vicinity of the UV Facility under 2008 Option D conditions.

Safety. In the scenario where the proposed UV Facility would be constructed on the Eastview Site with the Croton project, the construction activities would increase the study area traffic volumes by 1 to 40 percent at key study area intersections during peak-hour operating conditions. This projected traffic growth can be anticipated to translate to between 1 and 15 additional accidents per year along the roadway corridors during the construction period. These additional accidents could be considered significant, depending on the intersection. However, with mitigation in place and a traffic management plan, the projected accident rate would likely be lower and not significant. See Section 6, Mitigation of Potential Significant or Temporary Adverse Impacts, for a description of the recommended traffic mitigation measures.

Transit. The construction of the UV Facility under 2008 Construction Option D conditions is not anticipated to generate any considerable transit ridership. In addition because of the low generation of trips from the Bee-Line Bus Facility during the UV Facility's peak construction hours, the construction of the UV Facility would not impact bus operations. Therefore, no significant adverse transit-related impacts would be anticipated to occur under 2008 Construction conditions.

Pavement Infrastructure. The proposed UV Facility is anticipated to generate a total of approximately 79,330 entering/exiting truck trips over the approximately four and one-half-year construction period, anticipated to run from April 2005 through September 2009. These truck trips equate to a total of approximately 53,950 ESAL inbound and 53,950 ESAL outbound, over the duration of construction for the proposed UV Facility. This would translate to a predicted truck load over the duration of construction of approximately 107,900 ESAL on the proposed truck routes to and from the site (e.g., about 80 percent of the trips using Grasslands Road to Route 9A-86,320 EASL, and about 20 percent of the trips using Knollwood Road to Route 119 - 21,580 ESAL). The peak construction truck generation is anticipated to occur in 2007, when construction of the UV Facility would generate an annual total of approximately 26,180 entering/exiting truck trips. These truck trips translate to a total of approximately 17,800 ESAL
inbound and 17,800 ESAL outbound, in 2007. When compared with the predicted truck loads with designed loads for arterial roadways, the anticipated loads generated from the construction of the proposed UV Facility are not anticipated to be significant adverse impacts.


Intersection Numbers:



2002/2003/2004 Existing Traffic Volumes PM Peak Hour (3:30-4:30 PM)







































