Chapter 10: Transportation

A. INTRODUCTION

This chapter identifies the transportation benefits and potential significant adverse impacts of the Proposed Project on specific local components of the region's transportation system—LIRR service, operations and ridership, nearby bus services, vehicular traffic, parking, pedestrian connectivity, and traffic safety. In terms of regional travel, the Proposed Project would provide substantial benefits by improving rail service and reliability to the tens of thousands of commuters who take trains that use the Main Line. There would be more reverse direction trains during peak periods, greater availability of seats, enhanced service reliability, and improvements to north–south vehicular traffic flow where grade crossings are eliminated in the New Hyde Park, Mineola, and Westbury/New Cassel communities. Traffic and pedestrian safety in the vicinity of existing grade crossings would be substantially improved. At the same time, the Proposed Project could result in some localized effects on traffic due to diversions where local streets are closed rather than grade-separated. This chapter provides an overview of regional transportation issues in the Main Line corridor and presents detailed analyses of existing conditions, future conditions without the Proposed Project (the No Build conditions), and future conditions with the Proposed Project (the Build condition), including the following:

- LIRR Service, Operations, and Ridership: This includes a description of current and projected future LIRR operating plans, ridership forecasts, projected station utilization, and additional train service that would be provided under the No Build and Build conditions.
- Bus Service: This includes a description of bus routes serving the corridor and their characteristics in serving local LIRR stations or providing alternative intra-Island service.
- Vehicular Traffic: This includes analyses of existing, No Build, and Build conditions, especially at grade crossings and nearby intersections that could be affected by the Proposed Project, including proposed grade crossing eliminations, and detailed analyses of queuing and delays at the seven LIRR grade crossings eliminated by the Proposed Project.
- Parking: This includes parking availability within the Project Corridor under existing, future No Build, and future Build conditions, which includes the provision of additional parking.
- Pedestrian Connectivity: Since the Proposed Project would include several grade crossing eliminations (either grade separations or street closures), this section addresses how pedestrian connections between the north and south sides of the tracks would be maintained.
- Traffic Safety: This section provides a summary analysis of crash data at the seven grade crossings and nearby intersections that are affected by the crossings and their potential grade separation or closures with the Proposed Project.

The Proposed Project is expected to provide significant transportation benefits but also has the potential to create significant adverse traffic impacts, with mitigation measures identified as well in this chapter. The methodologies used to analyze existing and projected future conditions are identified in each section of this chapter.

B. PRINCIPAL CONCLUSIONS AND IMPACTS

RAIL SERVICE AND RIDERSHIP

The Proposed Project would result in the expansion of Main Line train service with eight additional eastbound trains (reverse peak direction) and one more westbound train (peak direction) during the AM Peak Period; equivalent additional service in the reverse pattern would be offered in the PM Peak Period. Beyond these enhancements to services offered, the Proposed Project would improve reliability and flexibility in operations, critical for supporting planned service increases associated with LIRR's separate East Side Access Project. The Proposed Project would result in ridership increases associated with expanded reverse peak service. In the 2040 Build Condition, both Mineola and Hicksville stations would see an additional 17 percent growth in reverse peak ridership when compared to the 2040 No Build Condition. Furthermore, the improvements in reliability of the LIRR operation associated with the Proposed Project support the anticipated ridership growth with the LIRR's East Side Access Project and are necessary to sustain those ridership benefits over time.

BUS SERVICE

The Proposed Project is not anticipated to change the demand for (NICE) bus services with connections to LIRR stations. While increased reverse peak service in the Proposed Project could result in increased demand for Nassau Inter-County Express NICE bus service with connections to LIRR stations, this increased demand would be accommodated with adjustments to NICE bus service to complement the changes in LIRR ridership.

VEHICULAR TRAFFIC

The Proposed Project would eliminate all vehicular traffic delays and queues at each of the seven grade crossings that would be eliminated. In New Hyde Park, when trains approach the station, the LIRR gates are in the down position approximately 32 to 42 percent of the time in the AM and PM Peak hours. In Mineola, the gates are in the down position as much as 53 percent of the time; in Westbury, they are in the down position approximately 27 to 35 percent of the time. Without the Proposed Project but with additional trains being operated with the LIRR's East Side Access Project in place by 2023, gates would be in the down position for more time during the peak hours; vehicular traffic delays, which are already substantial today, would increase as would the unpredictability to motorists as to how long their delays would be, especially when back-to-back trains through the station areas cause extended gate down times. With the elimination of all seven grade crossings in the Project Corridor, traffic would flow smoothly and without delay due to these gate crossings.

With the elimination of all seven grade crossings, including the possible closure of South 12th Street in New Hyde Park and Main Street in Mineola, traffic diversions are expected to occur. The potential impacts of these diversions were analyzed in detail and are documented in the "Vehicular Traffic" section that follows. The detailed vehicular traffic analyses account for the annual growth in general background traffic, traffic expected to be generated by new commercial or residential development in the station areas, and new station-oriented traffic that would be generated by new LIRR riders. Adverse significant traffic impacts that could be generated by the Proposed Project in both the Year 2020 and 2040 analysis years, could all be mitigated with the implementation of standard traffic capacity improvements such as signal phasing and timing modifications, the installation of two new traffic signals (one in Mineola and one in Westbury), lane re-striping and intersection channelization modifications, and on-street parking prohibitions

at select locations where additional traffic capacity is needed. New traffic signals would also be installed as part of the Proposed Project at up to two intersections in New Hyde Park, at up to two intersections in Mineola, and at one intersection in Westbury.

Emergency vehicle travel times would remain comparable or improve with the elimination of grade crossings via the construction of underpasses. Should the two grade crossings in New Hyde Park (i.e., South 12th Street) and Mineola (i.e., Main Street) be closed, emergency vehicles would divert to the adjacent crossing locations where they could proceed unimpeded by stoppages due to LIRR gates being in the down position. With the elimination of existing grade crossings and the implementation of traffic mitigation measures outlined under "Vehicular Traffic," emergency vehicle access times would remain generally comparable to conditions without the Proposed Project or improve.

PARKING

The Proposed Project would not create the need for additional parking, but would add 95 parking spaces at New Hyde Park for one of the two Build options, two parking garages totaling 977 spaces at Mineola, two parking garages totaling 1,133 parking spaces at Westbury, and two parking garages connected by a pedestrian overpass totaling 1,283 spaces at Hicksville. These six new parking garages would replace existing surface parking lots at those stations. The "Parking" section of this chapter provides a detailed summary of the net increase in station parking. The proposed vehicular traffic mitigation measures would also result in parking losses on-street where additional traffic capacity is needed to improve traffic flow at key intersections. The net increase in commuter parking spaces would be substantial at Mineola, Westbury, and Hicksville, and while it may not fully address parking needs anticipated for East Side Access-related demand, along with expected annual growth through year 2040, it would be a major benefit of the Proposed Project. Parking needs and ridership would be monitored and additional measures would be implemented should a future shortfall occur.

PEDESTRIAN CONNECTIVITY AND BICYCLE ACCESS

The Proposed Project would not significantly increase the volume of pedestrians crossing the tracks, but would provide for the safe crossing of pedestrians at locations where underpasses or pedestrian overpasses would be built or where street closures would occur. There would be no conflicts between pedestrians and vehicular traffic crossing from one side of the tracks to the other. Pedestrian connectivity would be maintained wherever underpasses and overpasses are built. Bicycle access at New Hyde Park, Mineola, and Westbury would remain similar to existing conditions.

VEHICULAR AND PEDESTRIAN SAFETY

There have been a total of six fatal crashes over the past ten-year period at the grade crossing locations in the Proposed Project, with several additional incidents that resulted in personal injuries or property damage to the vehicles involved. The elimination of grade crossings would eliminate fatalities involving vehicular traffic being struck by LIRR trains. With the reduction in vehicular traffic delays due to elimination of the seven grade crossings, pedestrian and vehicular safety would also be improved at these locations and potentially at nearby locations. A summary of crash histories is presented in the "Vehicular and Pedestrian Safety" section of this chapter.

C. RAIL SERVICE AND RIDERSHIP

This section discusses rail operations in the Study Area, including both LIRR passenger train operations and freight rail operations, and projected passenger ridership on the LIRR Main Line, for the Study Area as a whole and on a station-by-station basis. Prior to the discussion of operations and ridership, the section presents a discussion of commuter rail service on the system and characteristics affecting the reliability and flexibility of rail service in meeting existing and future passenger needs.

PASSENGER RAIL SERVICE

The LIRR provides commuter rail service between Long Island and Manhattan and, to a lesser extent, Brooklyn and Queens. It also serves, on a smaller scale, trips from New York City to Long Island (reverse peak direction) as well as intra-Island trips within Nassau and Suffolk Counties. Customer demand for this type of reverse peak travel, as well as increasing demand for off-peak, non-work type trips, is a growing portion of the LIRR ridership – reverse direction ridership increased in both the morning and PM Peak Periods, 1.5 percent and 1.9 percent, respectively between 2013 and 2014. Supporting this trend, off-peak ridership was the fastest growing customer base for the LIRR between 2013 and 2014 with a 3.5 percent growth.[1]

The LIRR comprises 11 branches throughout Long Island with the Main Line serving as its central artery. Trains from five branches travel along the Main Line between Floral Park and Hicksville:

- **Hempstead Branch –**runs parallel to the Main Line west of Floral Park Station and joins the Main Line at Queens Village;
- **Oyster Bay Branch** – joins the Main Line at Mineola;
- **Port Jefferson Branch –** joins the Main Line at Hicksville;
- **Ronkonkoma Branch –** joins the Main Line at Hicksville (east of Bethpage, the Ronkonkoma Branch is the Main Line); and,
- **Montauk Branch –** trains travel up the Central Branch to join the Main Line at Bethpage.

The focus of this analysis is on the Main Line between Floral Park and Hicksville – the limits of the Project Corridor. Because the Oyster Bay Branch splits from the Main Line at Mineola, the total number of trains operating in the Project Corridor changes at Mineola. Therefore, service characteristics are presented in two sections – between Floral Park and Mineola and between Mineola and Hicksville. A discussion of the service characteristics for both the Hempstead and Oyster Bay Branches are presented separately.

SERVICE RELIABILITY

The current two-track configuration support two-way train traffic (westbound and eastbound) during less-intensive portions of the peak period and in off-peak hours. However, because of heavy ridership into Manhattan during the height of the AM Peak Period, both tracks are used exclusively for westbound service for more than 1.5 hours during the AM Peak Period. This operating configuration means that no eastbound service can run on the Main Line or branches

[1] LIRR Annual Ridership Report, 2014.

off of the Main Line during this time period. The Main Line and branches to the east of the Main Line are the only parts of the entire LIRR system that do not have eastbound service during this period of the day. During the PM Peak Period, this same limitation happens in reverse, resulting in the use of both tracks for eastbound service out of Manhattan, with no westbound service for significant periods of time.

In addition to the AM Peak Period with no eastbound service between approximately 7:00 AM and 8:30 AM (and a comparable period in the PM peak for westbound service), the transition from the "1 and 1" (eastbound and westbound) operation to the "2 and 0 operation" (both tracks westbound in the morning peak and both tracks eastbound in the evening peak) can result in reliability and operational problems as this transition in operations occurs during the busiest periods of the day. Since trains in the eastbound direction in the morning peak must clear the Main Line before "2 and 0" operations can go into effect, any late running eastbound train will hold up a queue of westbound trains waiting to get onto the second westbound track (the reverse is true in the evening peak). At the end of the "2 and 0" period, when the transition back to "1 and 1" operations occurs, eastbound trains can be held up by late running westbound trains that must clear the Main Line before the transition back to "1 and 1" operations can occur.

CAPACITY FOR NON-PEAK/INTRA-ISLAND TRIPS

Non-traditional trips include reverse peak direction trips (eastbound in the morning peak and westbound in the evening peak) and intra-Island trips. The current Main Line track configuration affects the LIRR's capacity to provide non-traditional trips in two different ways. First, as described in the previous section, because the LIRR must use both tracks to meet westbound passenger demand in the morning peak (and vice versa in the evening peak) service, no eastbound service is available to Study Area stations or stations to the east of the Study Area for approximately 1.5 hours starting at 7:00 AM during the "peak of the peak period" (as noted, the reverse happens in the evening peak). Therefore, the ability to provide service for riders traveling in the non-peak direction is limited, especially during the height of the peak period.

The second impact on the LIRR's ability to provide for non-traditional trips is due to the lack of operational flexibility and the inability to provide multiple types of service patterns. Currently, because of the need to use nearly all of the track capacity for peak direction trips, most often to Manhattan or downtown Brooklyn, little opportunity exists for local service making stops at all Main Line stations or a combination of stops that serves non-traditional origin-destination pairs. Consequently, it can be difficult to make intra-Island trips because a particular origin-destination pair may only be served by one or two trips during the entire four-hour peak period

ABILITY TO RECOVER FROM SERVICE DISRUPTIONS

The heavy volume of train traffic in both directions on the Main Line leaves little room for recovery from unanticipated incidents, such as a disabled train causing a bottleneck. These incidents, therefore, often result in service disruptions, due to the limited opportunity to reroute trains around problem areas. For example, a recent mechanical failure of a Port Jefferson train west of Hicksville at the height of the AM peak blocked the Main Line 2, southerly track (Main Line 2). Although the disabled train was moving again in less than 15 minutes, the ripple effect of the delay affected nine other trains from the Port Jefferson, Huntington, Ronkonkoma, and Montauk branches. The inability to route trains around the disabled train resulted in delays of between six and 14 minutes for each of these nine trains carrying more than 8,100 people. Similar ripple effects occur when incidents impact certain elements of LIRR infrastructure. A

recent track circuit failure at the New Hyde Park Road grade crossing took Main Line 2 out of service for one hour and 43 minutes. Without the ability to bypass the problem area, this single circuit failure delayed 15 trains between six and 27 minutes each. The track circuit failure also caused the warning gates at the New Hyde Park Road grade crossing to become inoperable, resulting in additional delay as trains were required to reduce speed through the crossing.

Particularly during peak commuting hours, individual incidents result in ripple effects of delay to thousands of customers on the Main Line and its branches. Furthermore, these delays often also result in passengers missing connections at Jamaica Station, further extending the overall impact of an incident. A third track would allow the LIRR to re-route service, reduce congestion and speed recovery time and thereby improve on-time arrivals for thousands of customers.

As demonstrated in the following sections, the ability to recover from service disruptions will become even more critical in the future, with or without the Proposed Project. For example, the number of westbound AM peak trains under the 2040 No Build scenario increases by eight, from 49 to 57, reflecting service increases related to the East Side Access project. In other words, with more service, a single incident has the potential to delay more trains and customers.

SCHEDULING OF INFRASTRUCTURE MAINTENANCE

At present, given the heavy volume of train traffic in both directions, scheduled track and other infrastructure maintenance projects, which necessitate taking a track out of service, often result in the reduction of train service along the Main Line. In order to minimize impact to passengers, the LIRR often schedules this work during off-peak periods. Nevertheless, this scheduled maintenance can result in inconvenience and added travel time for passengers, more crowded trains, as well as in certain instances, increased operating costs associated with the provision of bus service as an alternative.

The LIRR typically will remove one track from passenger service during these maintenance projects, resulting in a single-track corridor that effectively operates at half capacity, necessitating service reductions. Main Line service is often reduced from half-hourly to hourly, with even greater reductions to branches that feed into the corridor, such as the Port Jefferson and Oyster Bay branches. With an additional track, the LIRR would, in certain cases, be able to maintain regular service levels while it performs important maintenance work to its track, switches, signals, and other infrastructure.

As LIRR increases train service in the future to meet demand and provide East Side Access service, the additional trains will increase wear and tear on the infrastructure and will add to LIRR's maintenance needs.

EXISTING CONDITIONS

The LIRR operates through the Project Corridor round the clock. In general, the four-hour AM Peak Period is defined to include those trains arriving at western LIRR terminals between 6:00 AM and 10:00 AM. The PM Peak Period is defined to include those trains leaving the LIRR western terminals between 4:00 PM and 8:00 PM. LIRR predominantly operates electric multiple-unit trains. During the morning and PM Peak Periods, the average electric train consists of up to 12 cars and during the off-peak hours the trains typically consist of 10 cars. The LIRR also operates 13 diesel-powered trains on the non-electrified branches or portions of these branches that feed into the Main Line between Floral Park and Hicksville. A small number of bi-level trains use dual-mode locomotives (capable of operating in both diesel and electric modes)

to provide one-seat service directly to/from Manhattan. Maximum allowable speed for passenger trains on the Main Line is 80 mph. Freight rail service, which uses both the Main Line and branches of the LIRR system, is discussed later in this chapter.

SERVICE CHARACTERISTICS

On a daily basis, more than 250 trains operate between Floral Park and Mineola, with nearly 220 trains operating between Mineola and Hicksville (see **Table 10-1**). The train volumes are reported for both revenue and non-revenue (equipment) trains currently operating eastbound and westbound through the Project Corridor. Revenue trains carry passengers; non-revenue trains do not carry passengers, but are necessary equipment moves to position a train in order to make another revenue trip or to make room for additional revenue trains arriving at the Western terminals. In order to maximize the use of the existing fleet, it is essential that the LIRR operate both revenue and non-revenue trains throughout the day. As such, the total train volume, and required capacity to handle that train volume, is reflective of both revenue and non-revenue service.

Table 10-1
Existing Conditions – Daily and Peak Period Service between Floral Park and Hicksville

	Main Line: Floral Park to Mineola			Main Line: Mineola to Hicksville		
	Westbound	Eastbound	Total Westbound and Eastbound	Westbound	Eastbound	Total Westbound and Eastbound
Daily	**125**	**127**	**252**	**106**	**109**	**215**
Revenue	109	108	217	92	93	185
Equipment	16	19	35	14	16	30
AM Peak Period	**49**	**24**	**73**	**43**	**21**	**64**
Revenue	49	13	62	43	11	54
Equipment	0	11	11	0	10	10
PM Peak Period	**24**	**47**	**71**	**20**	**41**	**61**
Revenue	13	47	60	10	41	51
Equipment	11	0	11	10	0	10

In the AM Peak Period, the LIRR operates more than twice as many trains in the westbound direction to Manhattan than in the eastbound direction from Manhattan to Long Island. During this time period, all of the 49 trains are revenue trains. Similarly, during the PM Peak Period, all 47 trains are operating as revenue trains with no non-revenue moves. The LIRR does operate some eastbound trains (from Manhattan to the Study Area) in the AM Peak Period, although the number is limited by the amount of westbound train service. As previously noted, some trains leave the Project Corridor at Mineola to continue on the Oyster Bay Branch. Six AM Peak Period revenue trains join the Main Line at Mineola; similarly, six PM Peak Period revenue trains split from the Main Line at Mineola to continue on the Oyster Bay branch.

2020 NO BUILD AND BUILD CONDITIONS

The proposed service plan for 2020 No Build Conditions shown in **Table 10-2** is based on the LIRR Spring 2016 schedule, plus the added service proposed with the Double Track Project from Farmingdale to Ronkonkoma. LIRR then developed the corresponding service plan for 2020 Build Conditions by adding changes in service resulting from the Proposed Project to the

2020 No Build Condition. As stated previously, East Side Access service is scheduled to begin in 2023 and, therefore, was not been factored into 2020 No Build and Build Conditions for the Proposed Project.

Table 10-2
2020 No Build - Daily and Peak Period Service between Floral Park and Hicksville

	Main Line: Floral Park to Mineola			Main Line: Mineola to Hicksville		
	Westbound	**Eastbound**	**Total WB + EB**	**Westbound**	**Eastbound**	**Total WB + EB**
Daily	**138**	**141**	**279**	**119**	**123**	**242**
Revenue	122	122	244	105	106	211
Equipment	16	19	35	14	17	31
AM Peak Period	**49**	**24**	**73**	**43**	**21**	**64**
Revenue	49	13	62	43	11	54
Equipment	0	11	11	0	10	10
PM Peak Period	**24**	**47**	**71**	**20**	**41**	**61**
Revenue	13	47	60	10	41	51
Equipment	11	0	11	10	0	10

When compared to 2020 No Build Conditions, Main Line reverse peak train service would be expanded in the 2020 Build Condition, with eight additional eastbound trains and one more westbound train during the AM Peak Period; equivalent additional service in the reverse pattern would be offered in PM Peak Period with eight additional westbound trains and one more eastbound train.

The 2020 Build Condition would address the service reliability and the ability to recover from disruption issues identified in Existing Conditions and continued in the 2020 No Build (see **Table 10-3**). The Proposed Project would provide the flexibility necessary to route one train around another during a service disruption, thereby improving overall performance and reliability. In addition, the added capacity in this heavily used section of the LIRR would allow for an increase of more than 60 percent in reverse peak train service.

Table 10-3
2020 Build - Daily and Peak Period Service between Floral Park and Hicksville

	Main Line: Floral Park to Mineola			Main Line: Mineola to Hicksville		
	Westbound	**Eastbound**	**Total WB + EB**	**Westbound**	**Eastbound**	**Total WB + EB**
Daily	**147**	**150**	**297**	**128**	**132**	**260**
Revenue	131	131	262	114	114	228
Equipment	16	19	35	14	18	32
AM Peak Period	**50**	**32**	**82**	**44**	**29**	**73**
Revenue	50	21	71	44	19	63
Equipment	0	11	11	0	10	10
PM Peak Period	**32**	**48**	**80**	**28**	**42**	**70**
Revenue	21	48	69	18	42	60
Equipment	11	0	11	10	0	10

2040 NO BUILD AND BUILD CONDITIONS

The 2040 No Build service plan is based on the LIRR opening day plan for East Side Access, including service to both Penn Station New York and Grand Central Terminal (see **Table 10-4**). The 2040 No Build service plan also incorporates improvements associated with the Main Line Double Track Project (between Farmingdale and Ronkonkoma). The 2040 Build service plan is

based on the 2040 No Build service plan with the additional Proposed Project service (see **Table 10-5**). The Proposed Project would add one westbound and eight eastbound trains in the AM Peak Period and one eastbound and eight westbound trains in the PM Peak Period. Improvements associated with the Proposed Project would improve reliability and flexibility of operations and increased reverse direction service during peak hours. As noted earlier in this chapter, improvements in reliability and flexibility will be critical for supporting planned service increases associated with East Side Access.

Table 10-4
2040 No Build - Daily and Peak Period Service between Floral Park and Hicksville

	Main Line: Floral Park to Mineola			Main Line: Mineola to Hicksville		
	Westbound	Eastbound	Total WB + EB	Westbound	Eastbound	Total WB + EB
Daily	**150**	**150**	**300**	**131**	**131**	**262**
Revenue	137	138	275	120	120	240
Equipment	13	12	25	11	11	22
AM Peak Period	**57**	**23**	**80**	**51**	**20**	**71**
Revenue	57	14	71	51	12	63
Equipment	0	9	9	0	8	8
PM Peak Period	**22**	**52**	**74**	**19**	**46**	**65**
Revenue	14	52	66	11	46	57
Equipment	8	0	8	8	0	8

Table 10-5
2040 Build - Daily and Peak Period Service between Floral Park and Hicksville

	Main Line: Floral Park to Mineola			Main Line: Mineola to Hicksville		
	Westbound	Eastbound	Total WB + EB	Westbound	Eastbound	Total WB + EB
Daily	**159**	**158**	**317**	**140**	**139**	**279**
Revenue	146	146	292	129	128	257
Equipment	13	12	25	11	11	22
AM Peak Period	**58**	**31**	**89**	**52**	**28**	**80**
Revenue	58	22	80	52	20	72
Equipment	0	9	9	0	8	8
PM Peak Period	**30**	**53**	**83**	**27**	**47**	**74**
Revenue	22	53	75	19	47	66
Equipment	8	0	8	8	0	8

HEMPSTEAD AND OYSTER BAY BRANCHES

The Hempstead Branch serves Hempstead, Country Life Press, Garden City, Nassau Boulevard, and Stewart Manor stations in Nassau County, before paralleling the Main Line just east of Floral Park station to serve Floral Park, Bellerose, Queens Village, and Hollis stations. The current service pattern for the Hempstead Branch is expected to remain unchanged for the Existing Condition, 2020 No Build, and 2020 Build Conditions – four of the ten AM Peak Period trains continue to Penn Station New York, while the remaining six trains serve Atlantic Terminal in Brooklyn. In the PM Peak Period, six of the nine peak period trains originate at Penn Station New York, with the remaining three originating from Atlantic Terminal. Service on the Hempstead Branch would be modified in the 2040 No Build and Build conditions, as a result of the opening of East Side Access.

In both the 2040 No Build and Build Conditions, the Hempstead Branch would continue to have ten AM Peak Period and nine PM Peak Period trains. However, all morning and PM Peak Period trains would continue through Jamaica to either Penn Station or Grand Central Terminal in Manhattan – a 150 percent increase in direct service to Manhattan. The continuation of these four additional AM Peak Period trains to Manhattan would also provide increased access and service for customers boarding at Hollis, Queens Village, and Floral Park. Hempstead Branch passengers continuing to Atlantic Terminal would be able to make a connection at Jamaica Station.

The Oyster Bay Branch serves Mineola, East Williston, Albertson, Roslyn, Greenvale, Glen Head, Sea Cliff, Glen Street, Glen Cove, Locust Valley, and Oyster Bay stations in Nassau County. The Oyster Bay Branch connects with the Main Line at Mineola. Service levels on the Oyster Bay Branch would be unchanged from Existing Conditions in both the 2020 No Build and Build Conditions, and would continue to include six AM Peak westbound trains. In the Build Condition, eastbound Oyster Bay Branch trains will continue to stop at Mineola but will stop at the westbound platform. The 2040 No Build and Build Conditions would also be the same, with the addition of one eastbound off-peak train when compared to Existing Conditions. The addition of the three off-peak trains is attributable to service changes associated with East Side Access and would not change with the Proposed Project.

PASSENGER RAIL OPERATIONS SUMMARY

Compared to Existing Conditions, off-peak passenger rail operations would increase in the 2020 No Build Condition as a result of the opening of the Double Track Project between Farmingdale and Ronkonkoma, which includes the provision of half-hourly off-peak service between Manhattan and Ronkonkoma. Under 2040 No Build Conditions, passenger rail operations will increase further, due to the opening of the East Side Access Project. However, as shown in Tables 10-2 and 10-3, in comparing both 2020 No Build to 2020 Build Conditions and 2040 No Build to 2040 Build Conditions, most of the service increase would be realized in the reverse peak directions. This is consistent with the Purpose and Need for the Proposed Project in terms of the need to improve overall operational flexibility and reliability (i.e., particularly for peak period trips), while adding new reverse-peak direction service in response to increased demand for non-traditional trips.

Table 10-6 presents projected service levels by station for each of the scenarios analyzed in this chapter. The 2020 No Build Condition reflects the benefit of added off-peak service from the Double Track project to and from Ronkonkoma, while the 2020 Build Condition adds the service provided by the Proposed Project. The 2040 No Build Condition reflects the service patterns associated with East Side Access, and the 2040 Build Condition adds the additional service provided by the Proposed Project.

Table 10-6
Number of Trains Stopping by Station (24-hour Weekday Counts)

Station	Current	2020 No Build	2020 Build	2040 No Build	2040 Build
Hicksville*	150	177	195	186	204
Westbury	72	72	82	74	84
Carle Place	54	54	64	70	80
Mineola – Main Line Trains	123	150	168	150	168
Mineola – Oyster Bay Trains	30	30	30	33	33
Merillon Avenue	57	57	67	69	79
New Hyde Park	59	59	69	70	80
Floral Park – Hempstead Trains	58	58	58	58	58
Floral Park – Main Line Trains	4	4	4	15	15

*Includes Port Jefferson branch trains starting or ending at Hicksville
Notes:
2020 No Build = Current Schedule + Main Line 2nd Track
2020 Build = Current Schedule + Main Line 2nd Track + Main Line 3rd Track
2040 No Build = ESA Opening Day Plan (Includes Main Line 2nd Track)
2040 Build = ESA Opening Day Plan (Includes Main Line 2nd Track) + Main Line 3rd Track

RAIL FREIGHT SERVICE/OPERATIONS

This section discusses freight rail service/operations for Existing Conditions, 2020 and 2040 No Build Conditions, and 2020 and 2040 Build Conditions.

EXISTING CONDITIONS

LIRR is required by federal law to permit freight operations along its system, which it does under the terms of its agreement with the New York & Atlantic Railway (NY&A), an independent contractor. Since the primary mission of the LIRR is to move people expeditiously and reliably, the agreement between NY&A and LIRR provides that passenger trains have priority over freight trains. LIRR currently restricts the operation of freight trains to non-peak periods and is committed to keeping this restriction in place. Today the NY&A typically operates three round trip freight trains along the Project Corridor per weekday – one round trip during off-peak hours in the daytime and two at night (on weekends, NY&A typically operates only one round trip per day). Freight traffic represents approximately two percent of total train trips through the corridor.

NY&A has operating rights on LIRR track extending from Brooklyn and Queens to points east on the Main Line, Montauk, Port Jefferson, and Central Branches. The typical freight train includes approximately 20 freight cars and two locomotives. Maximum freight train operating speed is 45 mph. The NY&A operates out of the rail yard at Fresh Pond, Queens and serves a diverse customer base in Kings (Brooklyn), Queens, Nassau, and Suffolk Counties. While historical freight data are not available for the Main Line Expansion Project Study Area specifically, LIRR has experienced a substantial decrease in freight traffic system-wide. Currently the number of carloads of freight handled on the LIRR system is almost 90 percent fewer than the number of carloads handled in 1941. Furthermore, since 2009, freight traffic on LIRR's Main Line has fallen from five to three daily freight train round trips. Freight capacity is not constrained by the existing track network because freight trains travel during non-peak periods where capacity is currently available. Principal commodities handled are construction and demolition debris, flour, food products, liquefied propane gas, bio-diesel, stone, aggregates, and lumber.

2020 AND 2040 NO BUILD CONDITIONS

The demand for freight service on Long Island is not expected to grow beyond current service levels of three round-trip freight trains through the Project Corridor in the 2020 or 2040 No Build Conditions.

At current growth rates for freight, the existing three round trips could accommodate the modest increase in carloads through 2020 as well as through 2040. Incremental increases in demand for freight service in the future could be accommodated by adding freight cars to the existing freight trains.

2020 AND 2040 BUILD CONDITIONS

The purpose of the Proposed Project is to increase the capacity and improve reliability on the Main Line at peak periods. LIRR is committed to using this peak period capacity increase only for the operation of its own passenger trains, and is thus equally committed in the future to not scheduling freight trains during peak periods. Since freight operations are not currently capacity constrained during non-peak hours and since the Main Line peak hour capacity increase will not be used for freight trains, the additional third Main Line track proposed in the Proposed Project in both the 2020 and 2040 Build Conditions would not have any impact on freight traffic through the corridor.

In addition to track access or service planning, the Proposed Project would not affect the operating conditions for freight trains. Today, freight trains may not exceed 45 mph, far lower than the 80 mph maximum for passenger trains. These speed restrictions will not change as a result of the Proposed Project. Furthermore, all of NY&A freight train operations are subject to strict federal safety regulations which cover both train operations and the nature and handling of cargo. These federal safety regulatory requirements — which are not under the control of either LIRR or NY&A — will not change as a result of the Proposed Project.

RIDERSHIP

For evaluation purposes, ridership was estimated for an Existing (2015) Condition, a 2020 No Build and Build Condition, and a 2040 No Build and Build Condition. Passenger boardings (Ons) and alightings (Offs) were estimated for each of the seven stations on the Main Line in the Project Corridor (listed from west to east) as follows:

- Floral Park
- New Hyde Park
- Merillon Avenue
- Mineola
- Carle Place
- Westbury
- Hicksville

OVERVIEW OF METHODOLOGY

For the Proposed Project, ridership forecasts were based on 2014 station boardings and alightings at the seven LIRR stations in the Project Corridor. The LIRR then estimated growth in these station boardings based on branch and system-wide growth trends for the period 2011 –

2015, in order to avoid anomalies associated with the economic downturn between 2008 and 2010. These trends indicate that AM Peak Period ridership was growing at 1.3 percent per year and PM Peak Period ridership was growing at 1.7 percent per year. Using these growth factors, available 2014 station counts were adjusted for one year in order to establish Existing Conditions for 2015. Further inflation using these factors was then used to develop the 2020 No Build Condition.

For the 2020 Build Condition, additional ridership growth was estimated based on the addition of eight reverse peak direction trains during the morning and PM Peak Periods. The LIRR used comparables from the experience with increased reverse direction service on the Port Washington branch to estimate the customer response to this type of service increase on the Main Line. Based on these comparables, the 2020 Build Condition ridership in the morning and PM Peak Period reverse direction was increased by an additional 17 percent.

The 2040 No Build and Build Conditions were increased by an additional 20 percent in the Year 2023 to account for the opening of East Side Access service. Following the increase in 2023, growth of ridership was further projected to increase at a rate of 1.3 percent per year in the AM Peak Period and 1.7 percent per year in the PM Peak Period up to 2040. Further details as to assumptions and the overall ridership forecasting methodology are provided in Appendix 10.

Forecast ons and offs by station are necessary to evaluate the local impacts of additional passengers arriving and departing from each station in the Project Corridor. Station ons and offs support the traffic analysis described subsequently in this chapter. As further described in Appendix 10, total estimated growth was allocated to stations proportional to station boarding counts obtained in 2014. Further details are provided in Appendix 10.

RIDERSHIP FORECASTS – EXISTING, 2020 NO BUILD AND BUILD, 2040 NO BUILD AND BUILD CONDITIONS

Overall ridership and station-by-station ons and offs were estimated for the 2020 No Build and Build Conditions and 2040 No Build and Build Conditions for each of the seven stations in the Project Corridor. Ridership projections include boardings and alightings for the morning and PM Peak Periods in both the eastbound and westbound directions.

When compared to Existing Conditions, morning and PM Peak Period, peak direction ridership is expected to grow slightly in the 2020 No Build, as shown in **Table10-7**. This growth reflects recent trends for the LIRR system as a whole, associated with overall growth in population and employment, along with service improvements proposed with the Double Track Project. With the Proposed Project, when compared to the 2020 No Build Condition, morning and PM Peak Period, peak direction ridership would not increase, although the addition of eight reverse peak trains in the morning and PM Peak Periods is expected to result in a 17 percent increase in reverse peak ridership, respectively. **Table 10-8** sets for the projected ridership by station in both the 2020 and 2040 analysis years.

Table 10-7
Overall Ridership in the Study Area

Time Period	2015 Existing Conditions		2020 No-Build (w/o ESA)		2020 Build (w/o ESA)		2040 No-Build (w/ ESA)		2040 Build (w/ ESA)	
	West-bound	East-bound	West-bound	East-bound	West-bound	East-bound	West-bound	East-bound	West-bound	East-bound
AM Peak Period	45,600	5,060	48,650	5,400	48,650	6,315	76,240	6,990	76,240	8,235
PM Peak Period	5,600	37,190	6,085	40,395	7,115	40,395	8,465	67,470	9,905	67,470

Source: LIRR 2015.

Beyond the forecast ridership increases, added capacity and flexibility provided with the Proposed Project would improve overall service reliability, particularly during the morning and PM Peak Periods. While it is difficult to capture the effects of improved reliability on ridership forecasts, the Proposed Project improvements are fundamental to sustaining the ridership forecasts. Although not captured in this initial ridership forecast, there is also further potential for additional ridership growth as a result of improved on-time performance.

As shown on **Table 10-7** and **Table 10-8**, service improvements proposed for East Side Access would result in overall growth in passenger ridership in the 2040 No Build Condition, when compared to Existing Conditions as well as the 2020 No Build Condition. Mineola and Hicksville stations would continue to experience high volumes of ridership in both the peak and reverse peak directions, with growth of nearly 60% in the AM Peak Period peak direction travel. With continued constraints to operating reverse direction peak period service, reverse peak direction ridership would be constrained to 40% growth in the 2040 No Build Condition. As noted previously with regard to the 2020 Build Condition (see **Table 10-7** and **Table 10-8**), in the 2040 Build Condition, the Proposed Project would result in ridership increases associated with the addition of eight morning and PM Peak Period reverse peak direction trains. In the 2040 Build Condition, both Mineola and Hicksville stations would see an additional 17 percent growth when compared to the 2040 No Build Condition. Although the Proposed Project is not forecast to add ridership in the peak direction for either the morning or PM Peak Periods, when compared to the 2040 No Build Condition, the Proposed Project would add capacity and flexibility to the overall operation and result in improvements to the reliability of the LIRR operation in both the peak and reverse peak directions. These improvements support the anticipated ridership growth with the East Side Access Project and are necessary to sustain those ridership benefits over time.

Table 10-8
No Build and Build Ridership Projections by Station

2020 No Build Peak Hour Ridership Projections (without ESA)									2020 Build Peak Hour Ridership Projections (without ESA)								
Station	Westbound				Eastbound				Station	Westbound				Eastbound			
	AM Peak		PM Reverse Peak		AM Reverse Peak		PM Peak			AM Peak		PM Reverse Peak		AM Reverse Peak		PM Peak	
	On	Off	On	Off	On	Off	On	Off		On	Off	On	Off	On	Off	On	Off
Floral Park	510	5	40	5	10	30	0	420	Floral Park	510	5	50	5	15	35	0	420
New Hyde Park	625	25	70	20	10	45	25	545	New Hyde Park	625	25	80	25	15	50	25	545
Merillon Avenue	300	5	30	10	0	15	10	260	Merillon Avenue	300	5	40	10	5	20	10	260
Mineola	1,420	315	400	90	70	350	250	995	Mineola	1,420	315	470	110	80	405	250	995
Carle Place	140	0	20	5	0	15	5	105	Carle Place	140	0	25	5	0	15	5	105
Westbury	540	25	80	20	10	115	20	455	Westbury	540	25	95	20	15	135	20	455
Hicksville	2,740	335	430	80	85	350	275	2,225	Hicksville	2,740	335	505	90	100	410	275	2,225
Total	6,275	710	1,070	230	185	920	585	5,005	Total	6,275	710	1,265	265	230	1,070	585	5,005
2040 No Build Peak Hour Ridership Projections (with ESA)									**2040 Build Peak Hour Ridership Projections (with ESA)**								
Station	Westbound				Eastbound				Station	Westbound				Eastbound			
	AM Peak		PM Reverse Peak		AM Reverse Peak		PM Peak			AM Peak		PM Reverse Peak		AM Reverse Peak		PM Peak	
	On	Off	On	Off	On	Off	On	Off		On	Off	On	Off	On	Off	On	Off
Floral Park	800	5	60	5	15	40	5	700	Floral Park	800	5	70	5	15	45	5	700
New Hyde Park	980	40	95	30	15	60	45	910	New Hyde Park	980	40	115	35	20	70	45	910
Merillon Avenue	465	10	45	10	5	20	15	435	Merillon Avenue	465	10	55	15	5	25	15	435
Mineola	2,230	495	560	130	90	450	415	1,660	Mineola	2,230	495	655	150	105	530	415	1,660
Carle Place	220	5	25	5	0	20	5	180	Carle Place	220	5	30	10	0	20	5	180
Westbury	845	40	110	25	15	150	30	755	Westbury	845	40	130	30	20	175	30	755
Hicksville	4,295	525	600	110	110	450	460	3,715	Hicksville	4,295	525	700	130	130	530	460	3,715
Total	9,835	1,120	1,495	315	250	1,190	975	8,355	Total	9,835	1,120	1,755	375	295	1,395	975	8,355

Source: Gannett Fleming/AECOM 2016.

D. BUS SERVICE

METHODOLOGY

This section provides an overview of public bus services provided in and near the Study Area. An inventory of bus routes that are proximate to LIRR passenger rail stations within the Project Corridor is presented.

EXISTING CONDITIONS

Prior to 2012, MTA Long Island Bus provided public bus service on Long Island. Since that time, a private entity has been operating the Nassau Inter-County Express (NICE) public bus service under contract with Nassau County through a public-private operating partnership. NICE bus service operates throughout Nassau County and limited portions of western Suffolk County and Queens County. NICE includes more than 30 bus routes in Nassau County, in addition to several local shuttle buses. The n24 Bus runs roughly parallel to the portion of the Main Line within the study area—along Jericho Turnpike in the western portion and along Old County Road in the eastern portion—and stops directly at the Mineola Intermodal Center and Hicksville Station. Notably, recent NICE ridership data indicates that the two most popular alighting locations along the eastbound n24 are the Hicksville Station and the Mineola Intermodal Center, respectively.[1] According to current NICE maps (see **Figure 10-1**) and schedules, the following NICE bus stops are located near the LIRR stations within the Study Area:

- Floral Park Station – The n24 Bus stops at Jericho Turnpike and Tyson Avenue, approximately 0.3 miles from the station;
- New Hyde Park Station – The n24 Bus and the n25 Bus stop at Jericho Turnpike and New Hyde Park Road, approximately 0.2 miles from the station;
- Merillon Avenue Station – The n24 Bus stops at Jericho Turnpike and Nassau Boulevard, approximately 0.6 miles from the station;
- Mineola Station - The n22, n23, n24, n40, and n41 bus routes all offer direct connection to LIRR service at the Mineola Intermodal Center;
- Carle Place Station – The n22 Bus stops at Cherry Lane and Garden Avenue, approximately 0.2 miles from the station;
- Westbury Station – The n35 Bus stops at Post Avenue and Railroad Avenue, approximately 0.1 miles from the station, and the n22 Bus stops at Post Avenue and Maple Avenue, approximately 0.3 miles from the station;
- Hicksville Station – Connections to the n20, n22, n24, n48, n49, n78, n79, n80, and n81 bus routes are available at Newbridge Road, adjacent to the LIRR station.

Some of the bus lines listed above connect to locations in Queens (including Jamaica) and western Suffolk County. Service along most of the above-referenced bus routes are concentrated during the morning and evening rush hours, with little to no service in the overnight hours. As an example of schedule frequency, the n24 stop near Merillon Avenue Station is serviced by three westbound (to Jamaica) and five eastbound (to Hicksville) buses between 7:00 AM and 8:00

[1] Nassau Inter-County Express, Composite Statistics, as of September 9, 2016.

AM on weekdays. The n22 stop at Post Avenue and Maple Avenue near the Westbury Station is serviced by two westbound (to Jamaica) and five eastbound (to Hicksville) buses between 7:00 AM and 8:00 AM on weekdays.

For individuals with disabilities, NICE Able-Ride is available. NICE Able-Ride is a door-to-door shared ride paratransit bus service for individuals with disabilities. NICE Able-Ride provides trips that start and end within 0.75-miles of a fixed route service that is operating at the time an eligible customer wants to travel. Transfers to Suffolk County Accessible Transit (SCAT) and New York City Transit's Access-a-Ride paratransit system at certain locations are available upon request.

FUTURE WITHOUT THE PROPOSED PROJECT

NICE service is adjusted (increased or decreased) based on ridership, market demand, and other reasons. In the Future without the Proposed Project, it is anticipated that NICE service will continue to be adjusted to accommodate changes in demand. NICE bus and LIRR passenger rail will continue to provide complementary transportation services, including service to popular transfer points (such as Hicksville and Mineola, as discussed above). The projected substantial increases in LIRR ridership due to the completion of the East Side Access Project may necessitate additional NICE bus service to various LIRR stations.

FUTURE WITH THE PROPOSED PROJECT

The LIRR Main Line Expansion Project would result in ridership increases for reverse peak service. Increased reverse peak service could result in increased demand for NICE bus service with connections to LIRR stations. It is also likely that NICE would continue to adjust bus service to accommodate these and other changes in demand. Overall, the Proposed Project is unlikely to significantly change the demand for bus service. No adverse impacts to bus service would result from the Proposed Project.

E. VEHICULAR TRAFFIC

EXISTING CONDITIONS

METHODOLOGY

This section addresses vehicular traffic conditions in detail. It provides a description of the key streets in the vicinity of the three station/grade crossing study areas (as described below), weekday peak hour traffic volumes, and a detailed analysis of traffic conditions—i.e., volume-to-capacity (v/c) ratios, average vehicle delays, and levels of service (LOS)—at each intersection analyzed. Traffic levels of service measure the ability of each traffic movement at an intersection to be accommodated by the number and widths of travel lanes available, signal timing, on-street parking, and other characteristics that affect traffic flow.

Traffic LOS at signalized intersections are defined in terms of a vehicle's control delay at the intersection, as follows:

- LOS A describes operations with very low delays, i.e., 10.0 seconds or less per vehicle. This occurs when signal progression is extremely favorable and most vehicles arrive during the green phase. Most vehicles do not stop at all.

- LOS B describes operations with delays in excess of 10.0 seconds up to 20.0 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. Again, most vehicles do not stop at the intersection.
- LOS C describes operations with delays in excess of 20.0 seconds up to 35.0 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. The number of vehicles stopping is noticeable at this level, although many still pass through the intersection without stopping.
- LOS D describes operations with delays in excess of 35.0 seconds up to 55.0 seconds per vehicle. At LOS D, the influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle lengths, or high v/c ratios. Many vehicles stop, and the proportion of vehicles not stopping declines.
- LOS E describes operations with delays in excess of 55.0 seconds up to 80.0 seconds per vehicle. These high delay values generally indicate poor progression, long cycle lengths, and high v/c ratios.
- LOS F describes operations with delays in excess of 80.0 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation, i.e., when arrival flow rates exceed the capacity of the intersection. It may also occur at high v/c ratios with cycle failures. Poor progression and long cycle lengths may also contribute to such delays. Often, vehicles do not pass through the intersection in one signal cycle.

LOS A, B, and C are considered acceptable, LOS D is generally considered marginally acceptable up to mid-LOS D (45 seconds of delay for signalized intersections) and unacceptable above mid-LOS D; LOS E and F indicate congestion.

For unsignalized intersections, delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line: LOS A describes operations with very low delay, i.e., 10.0 seconds or less per vehicle; LOS B describes operations with delays in excess of 10.0 seconds up to 15.0 seconds; LOS C has delays in excess of 15.0 seconds up to 25.0 seconds; LOS D, excess of 25.0 seconds up to 35.0 seconds per vehicle; and LOS E, excess of 35.0 seconds up to 50.0 seconds per vehicle, which is considered to be the limit of acceptable delay. LOS F describes operation with delays in excess of 50.0 seconds per vehicle, which is considered unacceptable to most drivers. This condition exists when there are insufficient gaps of suitable size in a major vehicular traffic stream to allow side street traffic to cross safely.

NEW HYDE PARK STATION AREA

There are three grade crossings at or near the New Hyde Park station—at New Hyde Park Road, South 12th Street, and Covert Avenue. The number of times and the extent of time that the crossing gates are in a down position, precluding traffic from crossing from one side of the tracks to the other, is a major source of traffic congestion in the area because the prolonged gate down time creates significant queuing along these three north–south streets and is a major factor affecting traffic conditions throughout the station area.

The traffic study area encompasses the three grade crossings plus the following 12 intersections (see **Figure 10-2**):

- New Hyde Park Road and Jericho Turnpike;
- New Hyde Park Road and Second Avenue;

- New Hyde Park Road, Clinch Avenue and Greenridge Avenue;
- New Hyde Park Road and Stewart Avenue;
- South 12th Street and Jericho Turnpike;
- South 12th Street and Second Avenue;
- South 12th Street and Third Avenue;
- South 12th Street and Stewart Avenue;
- Covert Avenue and Jericho Turnpike;
- Covert Avenue and Second Avenue;
- Covert Avenue and Third Avenue; and
- Covert Avenue and Stewart Avenue.

Intersection through and turning movement counts were conducted in May 2016, supplemented by 24-hour Automatic Traffic Recorder (ATR) machine counts at key locations. The peak traffic analysis hours were then identified as 7:30–8:30 AM and 5:00–6:00 PM.

New Hyde Park Road is a key north–south road in the area. It has two travel lanes per direction with no curb parking north of the tracks in a primarily commercial part of the area. South of the tracks, it also has two travel lanes per direction with no curb parking in an entirely residential area. New Hyde Park Road borders the eastern edge of the train platform and there is a considerable volume of LIRR passengers that cross onto or off the platforms at this end of the station. New Hyde Park Road has a substantial volume of vehicle traffic—approximately 1,000 vehicles per hour (vph) northbound and 545 vph southbound near the grade crossing in the AM peak hour, and 510 vph northbound and 960 vph southbound in the PM peak hour.

South 12th Street is a much lower-volume street in terms of vehicular traffic, although there is considerable pedestrian traffic heading to and from the LIRR platforms at this western edge of the platform and considerable pick-up and drop-off activity. There is one travel lane per direction and curb parking immediately north and south of the tracks. Peak hour traffic volumes are approximately 190 vph northbound and 120 vph southbound near the grade crossing in the AM peak hour, and 125 vph northbound and 185 vph southbound in the PM peak hour.

Covert Avenue is another key north–south road in the area. It has one travel lane and curb parking north and south of the tracks but widens to two travel lanes per direction further south near Seventh Avenue. Peak hour traffic volumes are approximately 740 vph northbound and 400 vph southbound near the grade crossing in the AM peak hour, and 460 vph northbound and 755 vph southbound in the PM peak hour.

Second and Third Avenues near the station function as “service” roads to and from the station platforms on the north and south sides of the platform, respectively. Second Avenue is two-way at the eastern end of the station area and two-way at the western end of the station. Third Avenue only serves the western part of the south station platform, and is two-way. There is station parking on both Second and Third Avenues.

Jericho Turnpike is one of the primary east–west arterial roads in Nassau County, traversing busy commercial uses on both sides. Jericho Turnpike generally has two travel lanes in each direction, with left-turn slots at key intersections, curb parking, and bus activity. It has approximately 1,250 vph eastbound and 1,050 vph westbound near New Hyde Park Road in the AM peak hour, and 1,250 vph eastbound and 1,365 vph westbound in the PM peak hour.

Stewart Avenue is also an important east–west road in the area, traversing a residential corridor. It generally has two travel lanes per direction with left-turn slots at select intersections, and with curb parking allowed on some blocks. It has approximately 720 vph eastbound and 465 vph westbound near New Hyde Park Road in the AM peak hour, and 675 vph eastbound and 820 vph westbound in the PM peak hour.

Clinch Avenue has one travel lane per direction in the north–south direction with curb parking allowed in a residential corridor. It has approximately 225 vph northbound and 130 vph southbound near the grade crossing in the AM peak hour, and 165 vph northbound and 275 vph southbound in the PM peak hour.

Detailed traffic volume maps for the AM and PM peak hours are presented in **Appendix 10**. Based on these volumes, the Synchro model[1] was used to determine traffic levels of service. **Table 10-9** presents the overall level of service at each intersection as well as specific traffic movements that currently operate at unacceptable LOS E or F. Additional detailed information is available in **Appendix 10**.

The analyses incorporate conditions both when the three crossing gates are in the down position and traffic queues occur on both sides of the gates, and when the gates are in the up position and traffic flows freely across the tracks. The amount of time that the gates are in the down position is considerable in the AM and PM peak analysis hours:

- At New Hyde Park Road, the gates are in the down position approximately 33 percent of the time in the AM peak hour and 39 percent of the time in the PM peak hour. Traffic queues and delays are substantial, frequently extending for more than 15 to 20 car lengths in one or both directions. The occurrence of left turns from southbound New Hyde Park Road onto Clinch Avenue just south of the tracks, further exacerbate the congestion as these left turning vehicles must await gaps in oncoming northbound traffic in order to make their turns, and this condition is heightened when the gates are in the down position and northbound queuing blocks their path. Queues are typically longest when multiple trains pass without the LIRR grade crossing gates returning to the up position.
- At South 12th Street, the gates are in the down position close to 40 percent of the time in the AM and PM peak hours. However, due to the low volumes typically on South 12th Street, queuing and delays are not as extensive as at New Hyde Park Road. There is, however, a substantial volume of pick-ups and drop-offs at this location since it is at the west end of the train platform.
- Traffic queues on South 12th Street due to the LIRR gates in the down position typically extend approximately five car lengths in both directions during both peak hours when the LIRR gates are down and occasionally spill onto Second and Third Avenues, which run parallel to the LIRR tracks.

[1] Synchro is an industry-standard macroscopic traffic analysis model that generates LOS results by movement based on the Transportation Research Board's Highway Capacity Manual (HCM).

Table 10-9
2016 Existing Traffic Levels of Service Summary, New Hyde Park

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Covert Avenue at Jericho Turnpike (Rt. 25)	E	58.4	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn	E	60.2	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn
Covert Avenue at LIRR Grade Crossing	C	34.2	None	C	26.3	None
Covert Avenue at Stewart Avenue	B	18.8	None	B	17.1	None
South 12th Street at Jericho Turnpike (Rt. 25)	B	15.4	None	B	11.2	South 12th St NB approach
South 12th Street at LIRR Grade Crossing	C	23.4	None	B	17.9	None
New Hyde Park Road at Jericho Turnpike (Rt. 25)	E	61.7	New Hyde Park Rd NB shared through & right; Jericho Tpk EB approach and WB left turn	E	66.5	New Hyde Park Rd NB approach and SB shared through & right; Jericho Tpk EB left turn and WB approach
New Hyde Park Road at LIRR Grade Crossing	C	30.7	None	C	22.2	None
New Hyde Park Road at Stewart Avenue	C	33.6	None	C	24.3	None
Covert Avenue at Second Avenue	A	3.5	Second Ave WB approach	A	4.9	Second Ave WB approach
Covert Avenue at Third Avenue	A	2.4	Third Ave EB approach	A	2.6	Third Ave EB approach
South 12th Street at Second Avenue	A	9.9	None	A	9.3	None
South 12th Street at Third Avenue	A	8.7	None	A	8.1	None
South 12th Street/ Jefferson Street at Stewart Avenue	A	2.4	None	A	5.1	South 12th St SB approach
New Hyde Park Road at Second Avenue	A	0.8	None	A	0.7	None
New Hyde Park Road at Clinch Avenue	A	4.4	None	A	3.9	None

Note: Delay measured in seconds per vehicleSee Appendix 10 for detailed LOS for each turning movement.

- At Covert Avenue, the gates are in the down position approximately 32 to 42 percent of the time in the AM peak hour and about 33 percent of the time in the PM peak hour. Since this crossing is situated a block west of the station platform, pick-up and drop-off activity is lighter than at South 12th Street, but north–south volumes on Covert Avenue are higher than at South 12th Street. Queues on Covert Avenue due to the LIRR gates in the down position typically range from approximately 15 to 30 lengths in each direction during the AM and PM peak hours. Queues are typically longer in the northbound direction on Covert Avenue during the AM peak hour and in the southbound direction during the PM peak hour when the LIRR gates are down. Queues of less than five car lengths occasionally spill back onto Second and Third Avenues. Queues are typically longest when multiple trains pass without the LIRR grade crossing gates returning to the up position.

The key overall findings of the traffic level of service analyses and field observations are:

- Two of the 15 intersections analyzed operate at overall unacceptable LOS E or F in both the AM and PM peak hours. "Overall" LOS E or F means that serious congestion exists—either one specific traffic movement has severe delays, or two or more of the specific traffic movements at the intersection are at LOS E or F with very significant delays (the overall intersection level of service is a weighted average of all of the individual traffic movements).
- In both the AM and PM peak hours, the intersections of Covert Avenue at Jericho Turnpike and New Hyde Park Road at Jericho Turnpike both operate at overall intersection LOS E. Several traffic movements at each intersection operate at LOS E or F. All other intersections analyzed operate at overall acceptable levels of service; at some of these intersections, one or more traffic movements operate unacceptably.

MINEOLA STATION AREA

There are three grade crossings just east of the Mineola station—one at Main Street and two at Willis Avenue (Main Line and Oyster Bay branches). Grade crossings that had existed previously were eliminated via an overpass of Mineola Boulevard over the tracks, and an underpass of Roslyn Road under the tracks east of Willis Avenue several years ago. However, the number of times and the extent of time that the Main Street and Willis Avenue crossing gates are in a down position, precluding traffic from crossing from one side of the tracks to the other, is a major source of traffic issues in the area since the repeated instances of gates being down creates significant queuing along these two streets. This is exacerbated by the two sets of LIRR tracks at Willis Avenue where the Oyster Bay Branch tracks from the north merge with the Main Line tracks from the east.

The traffic study area encompasses the two grade crossings plus the following 16 intersections (see **Figure 10-3**):

- Main Street and First Street;
- Main Street and Second Street;
- Main Street and Front Street/Station Plaza (north side of tracks);
- Main Street and Front Street (south side of tracks);
- Main Street and Third Street;
- Main Street and Old Country Road;
- Willis Avenue and First Street;
- Willis Avenue and Second Street;
- Willis Avenue and Front Street;
- Willis Avenue and Third Street;
- Willis Avenue and Old Country Road;
- Mineola Boulevard and First Street;
- Mineola Boulevard and Second Street;
- Mineola Boulevard and Old Country Road;
- Roslyn Road and Second Street; and
- Roslyn Road and Old Country Road.

These intersection analysis locations are situated within the Mineola central business district, or downtown area, primarily north of the LIRR tracks, and the commercial and institutional area south of the tracks. Winthrop-University Hospital, a major traffic generator, and related medical office facilities are located north of the LIRR tracks and generally west of Mineola Boulevard. The area north of the Mineola downtown area is generally residential.

Intersection through and turning movement counts were conducted in May 2016, supplemented by 24-hour ATR machine counts at key locations. The peak traffic analysis hours were then identified as 8:00–9:00 AM, 12:30–1:30 PM (midday peak), and 4:45–5:45 PM. Midday counts and analyses were conducted in this area due to the busy nature of its commercial, retail, and institutional uses throughout the business day.

Main Street is a low-volume street that generally has one northbound travel lane, with curb parking, from Old Country Road to Third Street. Between Third Street and the LIRR tracks, it is a two-way street with one travel lane per direction and curb parking only in the northbound direction. North of the tracks, it remains two-way with one travel lane and curb parking in each direction. Main Street terminates three blocks north of the tracks at Harrison Avenue in a residential area. Just north of the tracks, it is a retail street within the Mineola business district, while south of the tracks it is generally in a commercial area. Main Street carries approximately 50 to 85 vph per direction near the grade crossing in the AM peak hour, 125 vph northbound and 60 vph southbound in the midday peak hour, and 135 vph northbound and 30 vph southbound in the PM peak hour.

Willis Avenue generally has one travel lane plus curb parking in each direction north of the tracks, while south of the tracks it generally has one travel lane per direction with curb parking only in the northbound direction. Southbound Willis Avenue flares to two travel lanes approaching the traffic signal at Old Country Road. There is a short section of Willis Avenue situated between the Oyster Bay Branch tracks and the Main Line tracks. Vehicular traffic may be stopped north and south of both sets of tracks. Willis Avenue carries approximately 135 vph northbound and 145 vph southbound near the grade crossing in the AM peak hour, 170 vph northbound and 245 vph southbound in the midday peak hour, and 210 vph northbound and 230 vph southbound in the PM peak hour.

Mineola Boulevard is a major north–south street in the area. In the downtown Mineola area north of the tracks, it generally provides for one travel lane per direction with curb parking allowed north of Second Street. The Mineola Boulevard viaduct over the tracks is wide and provides two northbound travel lanes and a left turn lane to First Street, and one southbound travel lane with an adjacent southbound left turn lane on the south side of the viaduct. South of the viaduct, there are three northbound travel lanes and three southbound travel lanes approaching Old Country Road. Mineola Boulevard has a substantial volume of vehicle traffic—approximately 865 vph northbound and 675 vph southbound on the viaduct over the LIRR tracks in the AM peak hour, 875 vph northbound and 765 vph southbound in the midday peak hour, and 1,150 vph northbound and 830 vph southbound in the PM peak hour.

Roslyn Road, located on the eastern edge of the downtown area, generally has two travel lanes per direction north of Old Country Road and under the viaduct up to Second Street. North of Second Street it has two travel lanes per direction through residential areas. Roslyn Road carries a substantial volume of vehicle traffic—approximately 730 vph northbound and 850 vph southbound in the underpass section beneath the LIRR tracks in the AM peak hour, 615 vph northbound and 470 vph southbound in the midday peak hour, and 880 vph northbound and 905 vph southbound in the PM peak hour.

First Street generally has one travel lane and curb parking in each direction between Mineola Boulevard and Willis Avenue. It traverses both commercial and residential blocks. It carries approximately 140 to 190 vph per direction in the AM peak hour, 90 to 150 vph per direction in the midday peak hour, and 125 to 215 vph per direction in the PM peak hour.

Second Street generally has one travel lane and curb parking in each direction in the commercial/retail section between Mineola Boulevard and Willis Avenue. It carries approximately 200 vph per direction in the AM and midday peak hours, and 175 vph westbound and 350 vph eastbound in the PM peak hour.

Third Street has one travel lane and curb parking in each direction between Mineola Boulevard and Main Street, and one travel lane eastbound plus curb parking on both sides of the street between Main Street and Willis Avenue. This street is a relatively minor east–west connecting street but does have major parking garage access/egress along it. It carries approximately 50 to 250 vph per direction in the AM and PM peak hours, and 100 to 160 vph per direction in the midday peak hour.

Old Country Road is one of Nassau County's primary east–west roadways traversing a key commercial corridor. It generally has two to three travel lanes per direction within this study area, with left turn lanes and right turn lanes at select locations. Curb parking is allowed at only select locations. Old Country Road is a carrier of a substantial volume of vehicular traffic—approximately 1,000 to 1,350 vph per direction in the AM, midday, and PM peak hours near Mineola Boulevard.

There is considerable multi-modal activity in the station area. The Mineola Bus Terminal and Parking Garage is situated on the south side of the tracks along with station taxi service and several formal and informal pick-up/drop-off areas. There are also a considerable number of taxi and auto pick-ups and drop-offs at the Mineola station house on the north side of the tracks.

Detailed traffic volume maps for the AM, midday, and PM peak hours are presented in **Appendix 10**. Based on these volumes, the Synchro model was used to determine traffic levels of service. **Table 10-10** presents the overall level of service at each intersection as well as specific traffic movements that currently operate at unacceptable LOS E or F. Additional detailed information is available in **Appendix 10**.

The analyses incorporate conditions both when the Main Street and Willis Avenue crossing gates are in the down position and traffic queues occur on both sides of the gates, and when the gates are in the up position and traffic flows freely across the tracks. The amount of time that the gates are in the down position is considerable in the three peak analysis hours.

At Main Street, the gates are in the down position approximately as much as 53 percent of the time in the AM and PM peak hours, and close to 20 percent of the time in the midday peak hour. Queues on Main Street due to the LIRR gates in the down position typically extend less than five car lengths in each direction during the AM, midday, and PM peak hours. Northbound queues occasionally spill back one to three car lengths on Front Street, which runs one-way westbound on the south side of the main line LIRR tracks.

Table 10-10
2016 Existing Traffic Levels of Service Summary, Mineola

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (MD)	Delay (MD)	Traffic Movements at LOS E or F (MD)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Mineola Boulevard/ Franklin Avenue at Old Country Road	D	44.2	Old Country Rd WB through	D	37.0	None	D	43.6	Old Country Rd WB through
Mineola Boulevard at Second Street	C	31.3	Mineola Blvd SB shared through & right	C	31.5	Mineola Blvd SB shared through & right	C	32.4	None
Mineola Boulevard at First Street	B	16.4	None	B	19.1	None	B	19.2	None
Willis Avenue at Old Country Road	B	12.6	Willis Avenue SB right turn	B	13.3	None	B	12.6	None
Willis Avenue at Grade Crossing	D	41.6	None	B	13.3	None	D	42.0	None
Willis Avenue at Second Street	C	24.1	None	C	21.8	None	C	28.3	None
Main Street at Grade Crossing	D	39.6	None	B	12.1	None	D	37.7	None
Roslyn Road/ Washington Avenue at Old Country Road	D	49.5	Old Country Rd EB and WB through	D	43.9	Old Country Rd EB and WB through	D	42.8	Old Country Rd EB through
Roslyn Road at Second Street	D	36.4	Roslyn Rd SB approach	C	22.3	None	D	40.1	None
Main Street at First Street	A	9.2	None	A	8.6	None	A	10.0	None
Main Street at Second Street	B	10.7	None	B	10.2	None	C	16.1	None
Main Street at Front Street (North side of LIRR Tracks)	A	3.4	None	A	2.2	None	A	1.5	None
Main Street at Front Street (South side of LIRR Tracks)	A	3.9	None	A	3.0	None	A	2.3	None
Main Street at Third Street	A	9.1	None	A	8.5	None	B	10.3	None
Willis Avenue at First Street	A	4.8	None	A	2.7	None	A	3.6	None
Willis Avenue at Front Street	A	1.7	None	A	1.1	None	A	0.9	None
Willis Avenue at Third Street	A	3.4	None	A	3.1	None	A	5.4	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

At Willis Avenue, the gates are in the down position approximately 43 percent of the time in the AM peak hour, 12 to 13 percent of the time in the midday peak hour, and 50 percent of the time in the PM peak hour. Queues on Willis Avenue due to the LIRR gates in the down position typically extend up to 10 car lengths in each direction during the AM and PM peak hours.

Queues extend onto Second Street, especially when the gates are down at the LIRR Oyster Bay branch grade crossing on Second Street. Queues are typically longest in the PM peak hour when multiple trains pass without the LIRR grade crossing gates returning to the up position.

The key overall findings of the traffic level of service analyses and our field observations are:

- None of the 18 intersections analyzed operate at overall unacceptable LOS E or F in the AM, midday, or PM peak hours. One intersection—Roslyn Road/Washington Avenue at Old Country Road—operates above mid-LOS D in the AM and midday peak hours, i.e., within the unacceptable range of LOS D. "Overall" LOS E or F means that serious congestion exists—either one specific traffic movement has severe delays, or two or more of the specific traffic movements at the intersection are at LOS E or F with very significant delays (the overall intersection level of service is a weighted average of all of the individual traffic movements).
- In each of the three traffic peak hours, there are individual traffic movements at specific intersections that currently operate at unacceptable LOS E or F, even if the overall intersection operates acceptably. Such traffic movements occur at Old Country Road/Mineola Boulevard/Franklin Avenue, Mineola Boulevard/Second Street, Willis Avenue/Old Country Road, Roslyn Road/Washington Avenue/Old Country Road, and Roslyn Road/Second Street.

WESTBURY STATION AREA/NEW CASSEL

There are two grade crossings proposed for elimination by the Proposed Project—at School Street and at Urban Avenue. These two grade crossings are about a mile apart and are situated near two key north–south roadways that are already grade-separated, Post Avenue which goes under the LIRR tracks immediately adjacent to the Westbury station and Grand Boulevard which is situated east of School Street and west of Urban Avenue. The number of times and the extent of time that the School Street and Urban Avenue crossing gates are in a down position, precluding traffic from crossing from one side of the tracks to the other, is not as pronounced as at the New Hyde Park and Mineola grade crossings, but vehicular and pedestrian safety is still a factor here and traffic conditions with and without the Proposed Project need to be addressed.

The traffic study area encompasses two gate crossings plus the following ten intersections (see **Figure 10-4**):

- School Street and Maple Avenue;
- School Street and Union Avenue;
- School Street and Railroad Avenue;
- School Street and Old Country Road;
- Urban Avenue and Prospect Avenue;
- Urban Avenue and Broadway;
- Urban Avenue and Railroad Avenue;
- Urban Avenue and Main Street;
- Urban Avenue and Old Country Road; and
- Grand Boulevard and Old Country Road.

Intersection through and turning movement counts were conducted in March 2016 and May 2016, supplemented by 24-hour ATR machine counts at key locations. The peak traffic analysis hours were then identified as 8:00–9:00 AM and 5:00–6:00 PM.

School Street has one travel lane in each direction with curb parking prohibited south of the LIRR tracks. The adjacent properties are mostly residential several blocks south of the tracks on the east side of School Street, while close to the tracks, the adjacent properties are industrial/commercial on both sides of the street. North of the tracks, School Street generally has one travel lane per direction within an industrial/commercial area, which becomes residential north of Maple Avenue. School Street carries approximately 350 vph northbound and 225 vph southbound near the grade crossing in the AM peak hour, and 300 to 350 vph per direction in the PM peak hour.

Urban Avenue has one travel lane per direction with limited curb parking south of the tracks since there are lengthy curb cuts for parking in front of industrial/commercial properties. North of the tracks, Urban Avenue again has one travel lane per direction within a residential area. Urban Avenue carries approximately 225 to 240 vph per direction near the grade crossing in the AM peak hour, and 440 vph northbound and 325 vph southbound in the PM peak hour.

The intersections analyzed in this area involve a series of east–west streets that cross Urban Avenue or School Street. Prospect Avenue has one travel lane per direction with curb parking and a Class II bike lane in both the eastbound and westbound directions through a corridor that varies between residential and commercial sections. Broadway has one travel lane per direction with curb parking on both sides of the street within a primarily residential area. Main Street has one travel lane per direction with curb parking on both sides of the street within a primarily industrial area at its analysis locations. Railroad Avenue parallels the LIRR tracks with two-way traffic flow on the north side of the tracks. Union Avenue generally has two travel lanes per direction in a retail/commercial area near School Street, with just one travel lane per direction to the west with some short-term parking closer to the Westbury LIRR station.

Old Country Road is one of Nassau County's primary east–west roadways traversing a key commercial corridor. It generally has two travel lanes per direction with a center left turn lane serving eastbound and westbound left turns within this study area. Old Country Road carries a substantial volume of vehicular traffic—approximately 1,200 to 1,300 vph per direction in the AM peak hour and 1,500 vph westbound and 1,800 vph eastbound in the PM peak hour.

As noted above, Post Avenue and Grand Boulevard—situated west and east of School Street and Urban Avenue—both currently provide grade-separated crossings of the LIRR tracks. Post Avenue extends under the tracks at the western edge of the Westbury station, traversing the Westbury downtown retail area north of the tracks and a mixed-use residential, institutional, and commercial area south of the tracks. It generally has one travel lane per direction with curb parking in the downtown retail area. Grand Boulevard is carried over the tracks within a primarily industrial/commercial area but with several residential blocks. It has one travel lane per direction over the tracks.

Detailed traffic volume maps for the AM and PM peak hours are presented in **Appendix 10**. Based on these volumes, the Synchro model was used to determine traffic levels of service. **Table 10-11** presents the overall level of service at each intersection as well as specific traffic movements that currently operate at unacceptable LOS E or F. Additional detailed information is available in **Appendix 10**.

Table 10-11
2016 Existing Traffic Levels of Service Summary, Westbury

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
School Street at Maple Avenue	B	10.9	None	B	13.2	None
School Street at Union Avenue	B	14.1	None	B	15.4	None
School Street at Grade Crossing	B	16.6	None	C	26.3	None
School Street at Old Country Road	D	48.7	School St NB and SB approaches	D	43.2	School St NB left turn and SB approach; Old Country Rd EB left turn
Urban Avenue at Prospect Avenue	B	13.5	None	B	16.1	None
Urban Avenue at Grade Crossing	A	9.8	None	C	21.2	None
Urban Avenue at Old Country Road	C	25.6	None	C	25.2	None
Old Country Road at Belmont Place/ Merillon Avenue	B	10.5	None	B	13.0	None
School Street at Railroad Avenue	A	3.4	None	A	3.0	None
Urban Avenue at Broadway	A	9.1	None	B	11.9	None
Urban Avenue at Railroad Avenue	A	3.2	None	A	5.7	Railroad Ave WB approach
Urban Avenue at Main Street	B	11.8	None	C	19.3	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

The analyses incorporate conditions both when the School Street and Urban Avenue crossing gates are in the down position and traffic queues occur on both sides of the gates, and when the gates are in the up position and traffic flows freely across the tracks. The amount of time that the gates are in the down position is substantially lower in the peak traffic analysis hours than at New Hyde Park and at Mineola:

- At School Street, the gates are in the down position approximately 27 to 28 percent of the time in the AM peak hour and up to 35 percent of the time in the PM peak hour. Queues on School Street due to the LIRR gates in the down position typically extend between approximately five and 15 car lengths in each direction during the AM and PM peak hours. Queues are typically longest when multiple trains pass without the LIRR grade crossing gates returning to the up position.
- At Urban Avenue, the gates are in the down position as much as 32 percent of the time in the AM peak hour and close to 30 percent of the time in the PM peak hour. Queues on Urban Avenue due to the LIRR gates in the down position typically extend five car lengths or less in each direction during the AM peak hour and between ten and 15 car lengths in each direction during the PM peak hour. Queues are typically longest when multiple trains pass without the LIRR grade crossing gates returning to the up position.

The key overall findings of the traffic level of service analyses and field observations are:

- None of the 12 intersections analyzed operate at overall unacceptable LOS E or F in the AM or PM peak hours. One intersection operates above mid-LOS D in the AM peak hour, i.e., within the unacceptable range of LOS D. "Overall" LOS E or F means that serious congestion exists—either one specific traffic movement has severe delays, or two or more of the specific traffic movements at the intersection are at LOS E or F with very significant delays (the overall intersection level of service is a weighted average of all of the individual traffic movements).
- In both the AM and PM peak hours, there are individual traffic movements at specific intersections that currently operate at unacceptable LOS E or F, even though the overall intersection operates acceptably. Such traffic movements occur at Old Country Road/School Street and at Urban Avenue/Railroad Avenue.

FUTURE CONDITIONS WITHOUT THE PROPOSED PROJECT (YEAR 2020)

METHODOLOGY

The development of projected future traffic volumes without the Proposed Project incorporates three factors. The first is the annual growth rate of background traffic, i.e., the general historical growth in traffic annually exclusive of major new developments. The second is traffic expected to be generated by significant development projects in the vicinity of the traffic study areas that have obtained the necessary approvals. The third is the growth in traffic generated by increased ridership at the three LIRR stations.

For background traffic growth, an annual background traffic growth of 0.5 percent was assumed, as per the New York State Department of Transportation (NYSDOT). For traffic generated by major new developments in the vicinity of the three station/grade crossing areas, four such developments were identified in the downtown Mineola area. For traffic expected to be generated at the three stations due to new riders, projections were developed in conjunction with the LIRR for year 2020 conditions without the East Side Access Project in place since the East Side Access Project is not expected to be operational until 2023 (it is included in the Year 2040 analyses later in this chapter). (See Section "Ridership", which describes ridership projections).

Additionally, under projected future conditions without the Proposed Project, gate down times would increase slightly and thus adversely affect traffic conditions in all three station/grade crossing areas. This would be more pronounced under 2040 conditions since East Side Access would not be in place until 2023 and additional trains could not be operated until that time.

NEW HYDE PARK STATION AREA

For year 2020 conditions without the Proposed Project, it was determined that there would be additional vehicle trips to/from the New Hyde Park station, as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station—16 in the AM peak hour (15 vehicles to the station and 1 from the station) and 17 in the PM peak hour (1 vehicle to the station and 16 from the station).
- Additional auto pick-up or drop-off trips serving new riders—26 in the AM peak hour (13 vehicles to the station and 13 from the station) and 30 in the PM peak hour (15 vehicles to the station and 15 from the station).

- There would not be any projected additional taxi trips serving new riders.

These additional vehicle trips were assigned to routes serving the station area and added to background trips and to existing peak hour volumes, resulting in future peak hour volumes without the Proposed Project. Figures in **Appendix 10** illustrate projected future volumes in the New Hyde Park traffic study area in the year 2020. Resulting intersection levels of service are shown in **Table 10-12**; additional detailed information is provided in **Appendix 10**.

This represents the background, or baseline, condition against which the potential year 2020 impacts of the Proposed Project are compared.

The key overall findings of the traffic level of service findings are:

- The same two intersections operating at overall unacceptable levels of service in the AM and PM peak hours under existing conditions (Covert Avenue at Jericho Turnpike, and New Hyde Park Road at Jericho Turnpike) would continue to do so, but no additional intersections would deteriorate into overall unacceptable LOS E or F.
- Two additional intersections would have specific traffic movements operating at LOS E or F in the AM peak hour—New Hyde Park Road/Stewart Avenue and South 12th Street/Jefferson Street/Stewart Avenue.

MINEOLA STATION AREA

Traffic expected to be generated by four proposed development projects in the downtown area were added to annual background traffic growth:

- Mill Creek Searing Avenue (120, 121, and 127 Searing Avenue) which will provide 197 residential units. Weekday traffic generation is expected to be: weekday AM peak hour, 20 vehicle trips in and 81 vehicle trips out; weekday midday peak hour, 28 vehicle trips in and 28 out; weekday PM peak hour, 80 vehicle trips in and 43 out.
- Mill Creek Modera (140 Old Country Road) which will provide 285 residential units. Weekday traffic generation is expected to be: weekday AM peak hour, 15 vehicle trips in and 59 vehicle trips out; weekday midday peak hour, 20 vehicle trips in and 20 out; weekday PM peak hour, 58 vehicle trips in and 31 out.
- Lalezarian Village Green (199 Second Street) which will provide 296 residential units and approximately 6,975 square feet of retail space and 6,975 square feet of restaurant space. Weekday traffic generation is expected to be: weekday AM peak hour, 28 vehicle trips in and 52 vehicle trips out; weekday midday peak hour, 72 vehicle trips in and 76 out; weekday PM peak hour, 98 vehicle trips in and 68 out.
- Lalezarian One Third Avenue (250 Old Country Road) which will provide 346 residential units. Weekday traffic generation is expected to be: weekday AM peak hour, 26 vehicle trips in and 106 vehicle trips out; weekday midday peak hour, 36 vehicle trips in and 37 out; weekday PM peak hour, 105 vehicle trips in and 56 out.

These vehicle trips were assigned to the traffic study area street network. By 2020, Third Street between Main Street and Willis Avenue would be converted from the existing one-way eastbound operation to two-way operation.

Table 10-12
2020 No Build Traffic Levels of Service Summary, New Hyde Park

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Covert Avenue at Jericho Turnpike (Rt. 25)	E	63.7	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn	E	65.5	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn
Covert Avenue at LIRR Grade Crossing	C	34.7	None	C	26.7	None
Covert Avenue at Stewart Avenue	B	19.7	None	B	18.1	None
South 12th Street at Jericho Turnpike (Rt. 25)	B	16.8	None	B	12.3	South 12th St NB approach
South 12th Street at LIRR Grade Crossing	C	23.5	None	B	18.0	None
New Hyde Park Road at Jericho Turnpike (Rt. 25)	E	68.0	New Hyde Park Rd NB shared through & right; Jericho Tpk EB approach and WB left turn	E	73.0	New Hyde Park Rd NB approach and SB shared through & right; Jericho Tpk EB and WB approaches
New Hyde Park Road at LIRR Grade Crossing	C	31.1	None	C	22.4	None
New Hyde Park Road at Stewart Avenue	D	37.7	New Hyde Park Rd NB approach	C	24.8	None
Covert Avenue at Second Avenue	A	3.9	Second Ave WB approach	A	5.5	Second Ave WB approach
Covert Avenue at Third Avenue	A	2.5	Third Ave EB approach	A	2.9	Third Ave EB and WB approaches
South 12th Street at Second Avenue	B	10.2	None	A	9.6	None
South 12th Street at Third Avenue	A	8.9	None	A	8.2	None
South 12th Street/Jefferson Street at Stewart Avenue	A	2.5	South 12th St SB approach	A	5.6	South 12th St SB approach
New Hyde Park Road at Second Avenue	A	0.8	None	A	0.8	None
New Hyde Park Road at Clinch Avenue	A	4.6	None	A	4.0	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

There would also be additional vehicle trips to/from the Mineola station under future 2020 conditions without the Proposed Project, as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station—65 in the AM peak hour (51 vehicles to the station and 14 from the station), 30 in the midday peak hour (14 vehicles to the station and 16 from the station), and 63 in the PM peak hour (17 vehicles to the station and 46 from the station).

- Additional taxi trips serving new LIRR riders—2 in the AM peak hour (1 vehicle to and from the station), 16 in the midday peak hour (8 vehicles to and from the station), and 3 in the PM peak hour (1 vehicle to the station and 2 from the station)
- Additional auto pick-up or drop-off trips serving new riders—48 in the AM peak hour (24 vehicles to and from the station), 54 in the midday peak hour (27 vehicles to and from the station), and 50 in the PM peak hour (25 vehicles to and from the station).

These additional vehicle trips were also assigned to routes serving the station area and added to background trips, development project generated trips, and to existing peak hour volumes, resulting in future peak hour volumes without the Proposed Project. Figures in **Appendix 10** illustrate projected future volumes at the 16 Mineola station area intersections in the year 2020. Resulting intersection levels of service are shown in **Table 10-13**; additional detailed information is provided in **Appendix 10**.

This represents the background, or baseline, condition against which the potential year 2020 impacts of the Proposed Project are compared.

The key overall findings of the traffic level of service analyses are:

- Two of the 18 intersections analyzed operate at overall unacceptable LOS E or F in the AM, midday, or PM peak hours—Mineola Boulevard/Franklin Avenue at Old Country Road in the AM and PM peak hours, and Roslyn Road/Washington Avenue at Old Country Road during all three peak analysis hours. Two additional intersections operate just above mid-LOS D—Mineola Boulevard/Second Street and Roslyn Road/Second Street in the PM peak hour. "Overall" LOS E or F means that serious congestion exists—either one specific traffic movement has severe delays, or two or more of the specific traffic movements at the intersection are at LOS E or F with very significant delays (the overall intersection level of service is a weighted average of all of the individual traffic movements).
- In addition to the four intersections noted above, one additional intersection—Willis Avenue at Old Country Road—would have one individual traffic movement at unacceptable LOS E or F, even if the overall intersection operates acceptably.

WESTBURY/NEW CASSEL

For year 2020 conditions without the Proposed Project, it was determined that there would be additional vehicle trips to/from the Westbury, as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station—22 in the AM peak hour (21 vehicles to the station and 1 from the station) and 23 in the PM peak hour (1 vehicle to the station and 22 from the station).
- Additional taxi trips serving new LIRR riders—none in the AM peak hour and 2 in the PM peak hour (1 vehicle to and from the station)
- Additional auto pick-up or drop-off trips serving new riders—24 in the AM peak hour (12 vehicles to and from the station) and 22 in the PM peak hour (11 vehicles to and from the station).

These additional vehicle trips were assigned to routes serving the station area and added to background trips and to existing peak hour volumes, resulting in future peak hour volumes without the Proposed Project. Figures in **Appendix 10** illustrate projected future volumes at the nine Westbury study area intersections in the year 2020. Resulting intersection levels of service are shown in **Table 10-14**; additional detailed information is provided in **Appendix 10**.

Table 10-13
2020 No Build Traffic Levels of Service Summary, Mineola

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (MD)	Delay (MD)	Traffic Movements at LOS E or F (MD)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Mineola Boulevard/ Franklin Avenue at Old Country Road	E	57.0	Old Country Rd EB and WB through	D	42.1	None	E	56.1	Old Country Rd WB through
Mineola Boulevard at Second Street	D	41.5	Mineola Blvd SB shared through & right	D	42.7	Mineola Blvd SB shared through & right	D	45.3	Mineola Blvd SB shared through & right; Second St WB approach
Mineola Boulevard at First Street	B	17.1	None	C	32.8	None	C	21.4	None
Willis Avenue at Old Country Road	B	15.2	Willis Ave SB right turn	B	14.8	None	B	14.9	Willis Ave SB left turn
Willis Avenue at LIRR Tracks	D	42.6	None	B	18.0	None	D	43.0	None
Willis Avenue at Second Street	C	24.4	None	C	23.1	None	C	31.9	None
Main Street at LIRR Tracks	D	40.1	None	B	16.5	None	D	39.0	None
Roslyn Road/ Washington Avenue at Old Country Road	E	63.5	Old Country Rd EB and WB through	E	57.9	Old Country Rd EB and WB through	E	57.2	Old Country Rd EB and WB through
Roslyn Road at Second Street	D	42.6	Roslyn Rd SB approach	C	23.0	None	D	46.4	Second St EB shared through & right
Main Street at Old Country Road	C	0.4	None	A	0.3	None	A	0.4	None
Main Street at First Street	A	9.3	None	A	8.7	None	B	10.4	None
Main Street at Second Street	B	11.8	None	B	11.7	None	D	29.5	Second St EB approach
Main Street at Front Street (North side of LIRR Tracks)	A	4.5	None	A	4.2	None	A	3.7	None
Main Street at Front Street (South side of LIRR Tracks)	A	3.8	None	A	2.8	None	A	2.3	None
Main Street at Third Street	A	9.7	None	A	9.1	None	B	12.2	None
Willis Avenue at First Street	A	5.3	None	A	2.9	None	A	4.2	None
Willis Avenue at Front Street	A	1.8	None	A	1.2	None	A	1.4	None
Willis Avenue at Third Street	A	5.8	None	A	4.6	None	A	8.2	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

Table 10-14
2020 No Build Traffic Levels of Service Summary, Westbury

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
School Street at Maple Avenue	B	10.9	None	B	13.5	None
School Street at Union Avenue	B	15.4	None	B	16.7	None
School Street at Grade Crossing	B	16.7	None	C	26.6	None
School Street at Old Country Road	D	52.2	School St NB and SB approaches	D	46.5	School St NB left turn and SB approach; Old Country Rd EB left turn
Urban Avenue at Prospect Avenue	B	13.6	None	B	16.4	None
Urban Avenue at Grade Crossing	A	9.8	None	C	21.4	None
Urban Avenue at Old Country Road	C	28.0	None	C	25.1	None
Old Country Road at Belmont Place/ Merillon Avenue	B	10.5	None	B	13.5	None
School Street at Railroad Avenue	A	3.7	None	A	3.8	None
Urban Avenue at Broadway	A	9.2	None	B	12.1	None
Urban Avenue at Railroad Avenue	A	3.3	None	A	6.0	Railroad Ave WB approach
Urban Avenue at Main Street	B	12.0	None	C	20.5	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

This represents the background, or baseline, condition against which the potential year 2020 impacts of the Proposed Project is compared.

The key overall findings of the traffic level of service analyses are:

- None of the 12 intersections analyzed would operate at overall unacceptable LOS E or F in the AM or PM peak hours. One intersection—School Street at Old Country Road—would operate above mid-LOS D in the AM and PM peak hours, i.e., within the unacceptable range of LOS D. "Overall" LOS E or F means that serious congestion exists—either one specific traffic movement has severe delays, or two or more of the specific traffic movements at the intersection are at LOS E or F with very significant delays (the overall intersection level of service is a weighted average of all of the individual traffic movements).
- In both the AM and PM peak hours, there are individual traffic movements at specific intersections that currently operate at unacceptable LOS E or F, even if the overall intersection operates acceptably. Such traffic movements occur at Old Country Road/School Street and at Urban Avenue/Railroad Avenue.

FUTURE CONDITIONS WITH THE PROPOSED PROJECT (YEAR 2020)

METHODOLOGY

The evaluation of future conditions with the Proposed Project includes additional vehicular traffic that would be generated by additional trains that would be operated with the third track in place. This includes additional commuter trips by car who park at the station[1], additional auto drop-offs or pick-ups, and taxi trips serving new commuters either in the peak or reverse-commute peak direction. It also includes the construction of new parking and/or pick-up/drop-off facilities. These analyses also include the effects of eliminating all seven project area grade crossings, which would result in no queuing at the crossings and the potential diversions of some traffic from one north–south route to another depending on the grade crossing elimination options being studied.

In most cases, the elimination of grade crossings will reduce north–south vehicular traffic delays. For some conditions, the diversion of traffic from one crossing location to another—as new grade-separated crossings become available to the motoring public—could result in increases in traffic delay that would require capacity improvements such as modifying existing intersection signal timings to accommodate changes in traffic flows. "Significant traffic impacts" requiring such mitigation are defined as increases in vehicular traffic delay of ten or more seconds where conditions are at unacceptable levels of service. This is the same criterion used on other major transportation projects of regional significance, such as LIRR's East Side Access Project. Locations where significant traffic delay reduction benefits are also expected are also identified in this section of the EIS.

NEW HYDE PARK STATION AREA

Three existing grade crossings have been proposed for elimination. The grade crossing at Covert Avenue is proposed for grade separation, with Covert Avenue passing under the LIRR tracks and a southbound service road on the north side of the LIRR tracks to access 2nd Avenue and a northbound service road on the south side of the LIRR tracks to access 3rd Avenue from the south. Traffic currently using Covert Avenue would continue to do so. There are two grade crossing elimination options being considered for the grade crossing at South 12th Street (closure of the street at the tracks with the diversion of traffic to Covert Avenue and/or New Hyde Park Road; or grade separation under the tracks providing for one-way southbound flow, in which case northbound traffic would be expected to divert to Covert Avenue and/or New Hyde Park Road). New Hyde Park Road would be grade-separated with New Hyde Park Road going under the LIRR tracks. The cross section of New Hyde Park Road would either provide for two northbound travel lanes and two southbound travel lanes within a four-lane cross-section, or would also add a southbound left turn lane to Clinch Avenue within a five-lane cross section. The intersection of New Hyde Park Road with Clinch Avenue would be signalized.

For the purposes of this traffic analysis, two potential combinations of these options were analyzed in detail:

[1] The traffic analyses are based on the parking plan detailed in the Final SEQRA Scoping Document. The traffic study will be updated once the final parking plan for the Proposed Project has been established.

Option 1:

Closure of South 12th Street at the tracks and provision of a four-lane underpass for New Hyde Park Road beneath the LIRR tracks

Option 2:

Closure of South 12th Street at the tracks and provision of a five-lane underpass for New Hyde Park Road beneath the LIRR tracks

With both options, the intersection of New Hyde Park Road and Second 2nd Avenue would be eliminated and 2nd Avenue would have a dead-end just west of New Hyde Park Road. In addition, Greenridge Avenue would intersect with Clinch Avenue east of the intersection of New Hyde Park Road and Clinch Avenue and would no longer intersect with New Hyde Park Road. Traffic levels of service are nearly identical under both of these options. Potential grade separation of South 12th Street with provision of a southbound underpass was not analyzed in detail. Existing northbound traffic on South 12th Street could be expected to divert to Covert Avenue and/or New Hyde Park Road similar to the full closure scenario analyzed and impacts could be expected to be comparable; existing southbound traffic on South 12th Street would be expected to follow similar patterns to existing and No Build conditions and could be expected to operate at similar levels of service to No Build conditions.

In addition to traffic diversions that would result from the grade crossing configurations, station ridership projections for the 2020 condition with the Proposed Project are as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station—1 vehicle from the station in the AM peak hour and 1 vehicle to the station in the PM peak hour.
- Additional auto pick-up or drop-off trips serving new riders—2 in the AM peak hour (1 vehicle to and from the station) and 8 in the PM peak hour (4 vehicles to and from the station).
- There would not be any additional taxi trips serving new riders.

These new trips were assigned to the station area for taxi and auto pick-ups and drop-offs and to station parking facilities, including new facilities that would be built as part of the Proposed Project. Detailed traffic volume maps for the AM and PM peak hours are presented in **Appendix 10**. **Tables 10-15** and **10-16** present the overall level of service at each intersection as well as specific traffic movements that currently operate at unacceptable levels of service E or F. Additional detailed information is available in **Appendix 10**.

The findings of the traffic level of service analyses for both Build options are nearly identical, which is expected since the primary difference between the two is the provision of a four-lane section (Build Option 1) or a five-lane section (Build Option 2) for the New Hyde Park Road underpass below the LIRR tracks. Build Option 1 also includes a new pick-up/drop-off facility along the west side of New Hyde Park Road; Build Option 2 includes the same new pick-up/drop-off facility plus a new 95-space surface parking lot on the north side of the tracks at the station house.

Table 10-15
2020 Build Traffic Levels of Service Summary, New Hyde Park
Option 1: Four-Lane New Hyde Park Road Underpass and Closure of South 12th Street

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Covert Avenue at Jericho Turnpike (Rt. 25)	E	74.3	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn	E	73.1	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn
Covert Avenue at Stewart Avenue	C	21.0	None	C	17.6	None
South 12th Street at Jericho Turnpike (Rt. 25)	A	9.7	None	A	7.6	South 12th St NB approach
South 12th Street at Grade Crossing[1]	-	-	-	-	-	-
New Hyde Park Road at Jericho Turnpike (Rt. 25)	E	70.8	New Hyde Park Rd NB shared through & right; Jericho Tpk EB approach and WB left turn	E	79.3	New Hyde Park Rd NB approach and SB shared through & right; Jericho Tpk EB and WB approaches
New Hyde Park Road at Stewart Avenue	D	37.0	New Hyde Park Rd NB approach	C	24.7	None
Covert Avenue at Second Avenue	A	4.6	None	A	5.4	None
Covert Avenue at Third Avenue	A	0.1	None	A	1.9	None
South 12th Street at Second Avenue	A	8.1	None	A	7.6	None
South 12th Street at Third Avenue	A	7.1	None	A	7.2	None
South 12th Street/Jefferson Street at Stewart Avenue	A	1.7	None	A	2.2	None
New Hyde Park Road at Clinch Avenue	A	8.9	None	A	9.9	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

Table 10-16
2020 Build Traffic Levels of Service Summary, New Hyde Park
Option 2: Five-Lane New Hyde Park Road Underpass and Closure of South 12th Street

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Covert Avenue at Jericho Turnpike (Rt. 25)	E	73.9	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn	E	72.8	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn
Covert Avenue at Stewart Avenue	C	21.0	None	C	17.6	None
South 12th Street at Jericho Turnpike (Rt. 25)	A	9.8	None	A	7.6	South 12th St NB approach
South 12th Street at Grade Crossing[1]	-	-	-	-	-	-
New Hyde Park Road at Jericho Turnpike (Rt. 25)	E	70.8	New Hyde Park Rd NB shared through & right; Jericho Tpk EB approach and WB left turn	E	79.3	New Hyde Park Rd NB approach and SB shared through & right; Jericho Tpk EB and WB approaches
New Hyde Park Road at Stewart Avenue	D	37.0	New Hyde Park Rd NB approach	C	24.7	None
Covert Avenue at Second Avenue	A	4.4	None	A	5.4	None
Covert Avenue at Third Avenue	A	0.1	None	A	1.9	None
South 12th Street at Second Avenue	A	8.1	None	A	7.6	None
South 12th Street at Third Avenue	A	7.1	None	A	7.1	None
South 12th Street/Jefferson Street at Stewart Avenue	A	1.7	None	A	2.2	None
New Hyde Park Road at Clinch Avenue	A	4.1	None	A	2.9	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

Under both Build options, there would be the following significant adverse traffic impacts which can be mitigated, as described below:

- Covert Avenue and Jericho Turnpike— AM peak hour impacts would occur for the northbound Covert Avenue shared through-right movement and westbound Jericho Turnpike left-turn movement with both Build options, and PM peak hour impacts would occur for the northbound Covert Avenue left-turn movement with both Build options and the eastbound shared through-right movement with Build Option 1. Impacts identified for the AM and PM peak hours can be mitigated by reconfiguring the southbound approach to require all exits from the retail site to be made on the North Sixth Street side of the property and by modifying the traffic signal timing plan.
- New Hyde Park Road and Jericho Turnpike— PM peak hour impacts would occur for the eastbound Jericho Turnpike shared through-right movement and westbound Jericho

Turnpike left-turn movement with both Build options. Impacts identified for the PM peak hour can be mitigated by modifying the traffic signal timing plan and by prohibiting parking along approximately 250 feet from the stop bar on the south side of eastbound Jericho Turnpike during the 5-6 PM peak hour.

In addition, the intersection of New Hyde Park Road at Clinch Avenue would be signalized as part of the Proposed Project under Build Option 1 and would operate at acceptable levels of service.

The above mitigation measures would reduce any increases in traffic delay for critical movements operating at unacceptable LOS D, E, or F to fewer than ten seconds above No Build traffic delays, which are not considered significant. Detailed traffic level of service tables and schematic drawings of proposed traffic mitigation measures are presented in **Appendix 10**.

Average and 95th Percentile queue lengths are presented below in **Table 10-17**. Queues at the three grade crossings in New Hyde Park extend to as many as approximately 34 vehicles per lane on southbound Covert Avenue during the PM peak hour under Existing Conditions and could be expected to increase by up to 5 vehicles per lane in each direction during peak hours between Existing and 2020 No Build Conditions. Queues would increase in the 2020 No Build Condition due to the growth in vehicular traffic volumes and additional time that LIRR gates are in the down position due to additional trains operating along the LIRR Main Line. Queues at each of the grade crossings would be eliminated entirely with Build Option 1 and Build Option 2 due to the elimination of existing grade crossings and proposed underpasses. Elimination of queues at the grade crossings could be expected to result in smoother traffic flow along these corridors.

MINEOLA STATION AREA

Two existing grade crossings have been proposed for elimination. There are two options for Main Street—closure of the street with the diversion of traffic to other adjacent grade-separated crossings; or construction of an underpass under the LIRR tracks with Main Street operating one-way northbound.

There are also two options for Willis Avenue, both of which involve grade-separating the crossing by bringing Willis Avenue under the tracks: one option would build a two-way underpass, while the second option would make the underpass one-way southbound.

For the purposes of this traffic analysis, two potential combinations of these options were analyzed in detail:

Option 1:

Closure of Main Street at the LIRR tracks and provision of a two-way underpass for Willis Avenue beneath the tracks

Option 2:

Provision of a pair of one-way underpasses, with Main Street one-way northbound and Willis Avenue one-way southbound.

Table 10-17
Queue Lengths at LIRR Grade Crossings, New Hyde Park

LIRR Grade Crossing Approach	Queues	AM Peak Hour				PM Peak Hour			
		Existing	2020 No Build	2020 Build Option 1	2020 Build Option 2	Existing	2020 No Build	2020 Build Option 1	2020 Build Option 2
NB Covert Avenue	50th Percentile Queue (veh/lane)	29	30	-	-	13	13	-	-
	95th Percentile Queue (veh/lane)	36	37	-	-	16	16	-	-
SB Covert Avenue	50th Percentile Queue (veh/lane)	16	16	-	-	28	29	-	-
	95th Percentile Queue (veh/lane)	17	17	-	-	34	35	-	-
NB South 12th Street	50th Percentile Queue (veh/lane)	5	5	-	-	4	4	-	-
	95th Percentile Queue (veh/lane)	7	8	-	-	4	5	-	-
SB South 12th Street	50th Percentile Queue (veh/lane)	4	4	-	-	5	5	-	-
	95th Percentile Queue (veh/lane)	5	5	-	-	6	7	-	-
NB New Hyde Park Road	50th Percentile Queue (veh/lane)	21	22	-	-	8	8	-	-
	95th Percentile Queue (veh/lane)	24	25	-	-	9	9	-	-
SB New Hyde Park Road	50th Percentile Queue (veh/lane)	10	9	-	-	16	17	-	-
	95th Percentile Queue (veh/lane)	12	11	-	-	18	19	-	-

Note: The 95th percentile queue is the queue length (in vehicles per lane) that has a 95% probability of not being exceeded during the peak hour. The 50th percentile queue is the average queue length (in vehicles per lane) during a typical gate down condition.

With the first option, Willis Avenue would have a northbound one-way service road beginning at Third Street that would be used to access westbound Front Street. South of the LIRR tracks, Main Street would terminate at the LIRR tracks on either side of the tracks. With the second option, Main Street would be converted to a one-way northbound street between Third and Second Streets with a northbound one-lane service road between Third Street and Front Street and northbound one-way service road between Station Plaza and Second Street. Front Street between Main Street and Roslyn Road would be converted from the existing one-way westbound street to a one-way eastbound street; Front Street would intersect with a southbound Willis Avenue service road that would begin south of the LIRR tracks and intersect with the southbound Willis Avenue underpass at the intersection of Willis Avenue and Third Street.

In addition to traffic diversions that would result from the grade crossing configurations, station ridership projections for the 2020 condition with the Proposed Project are projected as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station—9 in the AM peak hour (2 vehicles to the station and 7 from the station) and 16 in the PM peak hour (13 vehicles to the station and 3 from the station).
- Additional taxi trips serving new LIRR riders—5 in the AM peak hour (3 vehicles to the station and 2 from the station) and 6 in the PM peak hour (3 vehicles to and from the station)
- Additional auto pick-up or drop-off trips serving new riders—22 in the AM peak hour (11 vehicles to and from the station) and 30 in the PM peak hour (15 vehicles to and from the station).
- There would not be any additional vehicle trips during the midday peak hour.

These new trips were assigned to the station area for taxi and auto pick-ups and drop-offs and to station parking facilities, including additional parking that would be built as part of the Proposed Project. Detailed traffic volume maps for the AM, midday, and PM peak hours are presented in **Appendix 10**. **Tables 10-18 and 10-19** present the overall level of service at each intersection as well as specific traffic movements that currently operate at unacceptable levels of service E or F. Additional detailed information is available in **Appendix 10**.

Table 10-18
2020 Build Traffic Levels of Service Summary, Mineola
Option 1: Two-Way Willis Avenue Underpass and Closure of Main Street

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (MD)	Delay (MD)	Traffic Movements at LOS E or F (MD)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Mineola Boulevard/ Franklin Avenue at Old Country Road	E	64.0	Old Country Rd EB and WB through	D	46.5	Old Country Rd EB through and WB left turn	E	60.5	Old Country Rd EB left turn, and WB left turn and through
Mineola Boulevard at Second Street	D	38.7	Mineola Blvd SB shared through & right	D	35.2	Mineola Blvd SB shared through & right	D	44.8	Mineola Blvd SB shared through & right
Mineola Boulevard at First Street	B	17.6	None	C	23.8	None	C	21.3	None
Willis Avenue at Old Country Road	B	19.3	Willis Ave SB right turn	C	25.4	Willis Ave SB approach	C	22.7	Willis Ave SB approach
Willis Avenue at Third Street	D	43.3	None	D	48.5	None	E	72.8	Willis Ave NB and Third St EB approaches
Willis Avenue at Second Street	C	24.3	None	C	23.8	None	D	36.3	None
Roslyn Road/ Washington Avenue at Old Country Road	E	65.8	Old Country Rd EB and WB through	E	60.9	Old Country Rd EB and WB through	E	60.3	Old Country Rd EB and WB through
Roslyn Road at Second Street	D	41.4	Roslyn Road SB approach	C	22.8	None	D	45.7	Second St EB shared through & right
Main Street at Old Country Road	A	0.3	None	A	0.2	None	A	0.3	None
Main Street at First Street	A	9.1	None	A	8.5	None	A	9.8	None
Main Street at Second Street	B	13.0	None	B	11.5	None	C	21.7	None
Main Street at Front Street (North side of LIRR Tracks)	A	7.7	None	A	7.6	None	A	7.5	None
Main Street at Front Street (South side of LIRR Tracks)	A	7.9	None	A	7.8	None	A	7.2	None
Main Street at Third Street	A	9.9	None	A	9.2	None	B	10.8	None
Willis Avenue at First Street	A	6.0	None	A	3.2	None	A	4.4	None
Willis Avenue at Front Street	A	8.2	None	A	7.9	None	A	2.7	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

Table 10-19
2020 Build Traffic Levels of Service Summary, Mineola
Option 2: One-Way Northbound Main Street and One-Way Southbound Willis Avenue Underpasses

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (MD)	Delay (MD)	Traffic Movements at LOS E or F (MD)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Mineola Boulevard/ Franklin Avenue at Old Country Road	E	58.2	Old Country Rd EB and WB through	D	42.1	None	E	57.5	Old Country Rd WB through
Mineola Boulevard at Second Street	D	47.4	Mineola Blvd SB shared through & right	D	49.7	Mineola Blvd SB shared through & right	D	52.5	Mineola Blvd SB shared through & right
Mineola Boulevard at First Street	B	17.7	None	D	42.2	Mineola Blvd NB approach	C	22.7	None
Main Street at Second Street	C	29.6	None	C	24.3	None	D	50.2	Main St SB approach; Second St EB approach
Willis Avenue at Old Country Road	B	12.8	None	B	14.4	None	B	14.7	Willis Ave SB left turn
Willis Avenue at Third Street	B	17.9	None	B	18.3	None	D	35.4	None
Willis Avenue at Second Street	C	30.9	None	C	27.5	None	E	71.4	Second St EB approach
Roslyn Road/ Washington Avenue at Old Country Road	E	61.2	Old Country Rd EB and WB through	E	55.3	Old Country Rd EB and WB through	E	55.1	Old Country Rd EB and WB through
Roslyn Road at Second Street	D	44.8	Roslyn Rd SB approach	C	23.8	None	D	49.8	Roslyn Rd SB approach; Second St EB shared through &right
Main Street at Old Country Road	A	0.5	None	A	0.4	None	A	0.5	None
Main Street at First Street	A	9.5	None	A	8.8	None	B	10.7	None
Main Street at Front Street (North side of LIRR Tracks)	A	9.0	None	A	9.0	None	A	8.9	None
Main Street at Third Street	B	12.9	None	B	11.4	None	D	34.3	Third St EB left turn
Willis Avenue at First Street	A	9.7	First St EB approach	A	4.5	None	B	5.8	First St EB approach
Willis Avenue at Front Street	A	0.0	None	A	0.0	None	A	0.0	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

Under Build Option 1 (Main Street closed and a two-way underpass for Willis Avenue under the LIRR tracks) there would be significant adverse traffic impacts at several intersections which could be mitigated as follows:

- Mineola Boulevard/Franklin Avenue at Old Country Road—AM peak hour impacts would occur for the eastbound Old Country Road through movement and midday and PM peak hour impacts would occur for westbound Old Country Road left turns, and could be mitigated by restriping the westbound Old Country Road approach as one 12 foot left-turn lane, two 11 foot through lanes, and one 10 foot right-turn lane and by modifying the traffic signal timing plan.
- Willis Avenue at Old Country Road—AM, midday, and PM peak hour impacts would occur for the southbound Willis Avenue approach and could be mitigated by modifying the traffic signal phasing and timing plan during all three peak hours.

In addition, the intersection of Willis Avenue at Third Street would be signalized as part of the Proposed Project. AM peak hour impacts would occur for the northbound Willis Avenue and eastbound Third Street approaches and Midday and PM peak hour impacts would occur for the northbound and southbound Willis Avenue and eastbound Third Street approaches. Impacts could be mitigated by prohibiting parking for 250 feet from the stopbar on the eastbound Third Street approach and restriping the approach as one 10 foot left-turn lane and one 10 foot right-turn lane, and by prohibiting parking 250 feet from the intersection on the westbound Third street receiving side of the intersection.

The above mitigation measures would reduce any increases in traffic delay for critical movements operating at unacceptable LOS D, E, or F to fewer than ten seconds above No Build traffic delays, which are not considered significant. Detailed traffic level of service tables and schematic drawings of proposed traffic mitigation measures are presented in **Appendix 10**.

Under Build Option 2 (Main Street northbound underpass and Willis Avenue southbound underpass) there would be significant adverse traffic impacts at several intersections which could be mitigated as follows:

- Mineola Boulevard at Second Street—AM, midday, and PM peak hour impacts to the southbound Mineola Boulevard through and right turn movement could be mitigated by modifying the traffic signal timing plan.
- Mineola Boulevard at First Street—Midday peak hour impacts to the northbound Mineola Boulevard approach could be mitigated by modifying the traffic signal timing plan.
- Main Street at Second Street—PM peak hour impacts to the northbound and southbound Main Street approaches and eastbound Second Street approach could be mitigated by shifting the centerline one foot to the north and prohibiting parking for 100 feet from the stopbar on the eastbound Second Street approach and 50 feet on the receiving side of the intersection; restriping the eastbound Second Street approach as one 10 foot left-turn lane and one 10 foot through lane; shifting the centerline five feet to the east and prohibiting parking for 200 feet on the southbound Main Street approach; restriping the southbound Main Street approach as one 12 foot left-turn lane and one 10 foot right-turn lane; prohibiting parking for 200 feet along the east curb of the northbound Main Street receiving side of the intersection; and modifying the signal timing and phasing plan.
- Willis Avenue at Second Street—AM and PM peak hour impacts to the eastbound Second Street approach could be mitigated by modifying the traffic signal timing plan.

In addition, the intersections of Willis Avenue at Third Street and Main Street at Second Street would be signalized as part of the Proposed Project.

The above mitigation measures would reduce any increases in traffic delay for critical movements operating at unacceptable LOS D, E, or F to fewer than ten seconds above No Build traffic delays, which are not considered significant. Detailed traffic level of service tables and schematic drawings of proposed traffic mitigation measures are presented in **Appendix 10**.

Average and 95th Percentile queue lengths are presented below in **Table 10-20**. Queues at the two grade crossings in Mineola extend to as many as approximately 13 vehicles per lane on Southbound Willis Avenue during the PM peak hour under Existing conditions and could be expected to grow by up to 5 vehicles per lane in each direction during peak hours between Existing and 2020 No Build conditions. Queues would grow longer in the 2020 No Build condition due to the growth in vehicular traffic volumes and additional time that LIRR gates are in the down position due to additional trains operating along the LIRR Main Line. Queues at each of the grade crossings would be eliminated entirely with Build Option 1 and Build Option 2 due to the elimination of existing grade crossings and proposed underpasses. Elimination of queues at the grade crossings could be expected to result in smoother traffic flow along these corridors.

Table 10-20
Queue Lengths at LIRR Grade Crossings, Mineola

LIRR Grade Crossing Approach	Queues	AM Peak Hour				Midday Peak Hour				PM Peak Hour			
		Existing	2020 No Build	2020 Build Option 1	2020 Build Option 2	Existing	2020 No Build	2020 Build Option 1	2020 Build Option 2	Existing	2020 No Build	2020 Build Option 1	2020 Build Option 2
NB Main Street	50th Percentile Queue (veh/lane)	4	4	-	-	4	6	-	-	4	6	-	-
	95th Percentile Queue (veh/lane)	5	6	-	-	6	7	-	-	6	9	-	-
SB Main Street	50th Percentile Queue (veh/lane)	2	3	-	-	2	3	-	-	1	2	-	-
	95th Percentile Queue (veh/lane)	3	5	-	-	3	4	-	-	2	4	-	-
NB Willis Avenue	50th Percentile Queue (veh/lane)	6	7	-	-	6	7	-	-	8	10	-	-
	95th Percentile Queue (veh/lane)	8	10	-	-	8	9	-	-	12	13	-	-
SB Willis Avenue	50th Percentile Queue (veh/lane)	6	7	-	-	10	11	-	-	10	11	-	-
	95th Percentile Queue (veh/lane)	9	10	-	-	11	13	-	-	13	14	-	-

Note: The 95th percentile queue is the queue length (in vehicles per lane) that has a 95% probability of not being exceeded during the peak hour. The 50th percentile queue is the average queue length (in vehicles per lane) during a typical gate down condition.

WESTBURY STATION AREA/NEW CASSEL

The existing grade crossings of Urban Avenue and School Street are proposed as grade-separated underpasses beneath the LIRR tracks. Urban Avenue would have a northbound one-way service road on the south side of the LIRR tracks to access local businesses. This plan was analyzed in detail.

In addition to traffic diversions that would result from the grade crossing configurations, station ridership projections for the 2020 condition with the Proposed Project are as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station – 1 vehicle from the station in the AM peak hour and 1 vehicle to the station in the PM peak hour.

- Additional taxi trips serving new LIRR riders – 2 the AM peak hour (1 vehicle to and from the station) and 2 the AM peak hour (1 vehicle to and from the station).
- Additional auto pick-up or drop-off trips serving new riders – 20 in the AM peak hour (10 vehicles to and from the station) and 12 in the PM peak hour (6 vehicles to and from the station).

These new trips were assigned to the station area for taxi and auto pick-ups and drop-offs and to station parking facilities. Detailed traffic volume maps for the AM and PM peak hours are presented in in **Appendix 10**. **Table 10-21** presents the overall level of service at each intersection as well as specific traffic movements that currently operate at unacceptable levels of service E or F. Additional detailed information is available in **Appendix 10**.

Table 10-21
2020 Build Traffic Levels of Service Summary, Westbury

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
School Street at Maple Avenue	B	11.0	None	B	13.5	None
School Street at Union Avenue	B	15.7	None	B	17.0	None
School Street at Railroad Avenue	A	6.6	None	A	7.8	None
School Street at Old Country Road	D	52.4	School St NB and SB approaches	D	46.5	School St NB left turn and SB approach; Old Country Rd EB left turn
Urban Avenue at Prospect Avenue	B	13.6	None	B	16.4	None
Urban Avenue at Old Country Road	C	28.2	None	C	25.1	Urban Ave SB right turn; Old Country Rd EB left turn
Old Country Road at Belmont Place/ Merillon Avenue	B	10.4	None	B	13.5	None
Urban Avenue at Broadway	B	10.7	None	C	24.6	None
Urban Avenue at Main Street	B	12.0	None	C	20.5	None
Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.						

There would not be any significant adverse traffic impacts in 2020 with the Proposed Project at any of the intersections analyzed. The intersection of School Street and Railroad Avenue would be signalized as part of the Proposed Project and would operate at acceptable levels of service. Detailed traffic level of service tables are presented in **Appendix 10**.

Average and 95th Percentile queue lengths are presented below in **Table 10-22**. Queues at the two grade crossings in Westbury extend to as many as approximately 16 vehicles per lane on Northbound Urban Avenue during the PM peak hour under Existing conditions and could be expected to grow by up to 5 vehicles per lane in each direction during peak hours between Existing and 2020 No Build conditions. Queues would grow longer in the 2020 No Build condition due to the growth in vehicular traffic volumes and additional time that LIRR gates are in the down position due to additional trains operating along the LIRR Main Line. Queues at each of the grade crossings would be eliminated entirely with Build Option 1 and Build Option 2 due to the elimination of existing grade crossings and proposed underpasses. Elimination of queues at the grade crossings could be expected to result in smoother traffic flow along these corridors.

Table 10-22
Queue Lengths at LIRR Grade Crossings, Westbury

LIRR Grade Crossing Approach	Queues	AM Peak Hour			PM Peak Hour		
		Existing	2020 No Build	2020 Build	Existing	2020 No Build	2020 Build
NB School Street	50th Percentile Queue (veh/lane)	11	11	-	11	12	-
	95th Percentile Queue (veh/lane)	13	14	-	15	15	-
SB School Street	50th Percentile Queue (veh/lane)	6	7	-	12	13	-
	95th Percentile Queue (veh/lane)	8	9	-	15	16	-
NB Urban Avenue	50th Percentile Queue (veh/lane)	5	5	-	13	13	-
	95th Percentile Queue (veh/lane)	6	7	-	16	17	-
SB Urban Avenue	50th Percentile Queue (veh/lane)	5	6	-	9	9	-
	95th Percentile Queue (veh/lane)	7	7	-	11	12	-

Note: The 95th percentile queue is the queue length (in vehicles per lane) that has a 95% probability of not being exceeded during the peak hour. The 50th percentile queue is the average queue length (in vehicles per lane) during a typical gate down condition.

FUTURE CONDITIONS WITHOUT THE PROPOSED PROJECT (YEAR 2040)

METHODOLOGY

The development of projected future traffic volumes without the Proposed Project in 2040 incorporates the same annual background traffic growth rate of 0.5 percent per year as was applied for year 2020 conditions, plus the significant growth in LIRR ridership projected to occur once East Side Access service is provided. Additionally, under projected future conditions without the Proposed Project, gate down times would increase due to more trains operated with East Side Access; this would adversely affect traffic conditions in all three station/grade crossing areas.

NEW HYDE PARK STATION AREA

For year 2040 conditions without the Proposed Project, it was determined that there would be additional vehicle trips to/from the New Hyde Park station, as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station – 150 in the AM peak hour (143 vehicles to the station and 7 from the station) and 161 in the PM peak hour (11 vehicles to the station and 150 from the station).
- Additional taxi trips serving new LIRR riders – 4 in the AM peak hour (2 vehicles to and from the station) and 6 in the PM peak hour (3 vehicles to and from the station)
- Additional auto pick-up or drop-off trips serving new riders – 246 in the AM peak hour (123 vehicles to and from the station) and 270 in the PM peak hour (135 vehicles to and from the station).

These additional vehicle trips were assigned to routes serving the station area and added to background traffic, resulting in future peak hour volumes without the Proposed Project. Figures in **Appendix 10** illustrate projected future volumes in the New Hyde Park traffic study area in the year 2040. Resulting intersection levels of service are shown in **Table 10-23**; additional detailed information is provided in **Appendix 10**.

Table 10-23
2040 No Build Traffic Levels of Service Summary, New Hyde Park

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Covert Avenue at Jericho Turnpike (Rt. 25)	F	96.7	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn	F	101.1	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn
Covert Avenue at Grade Crossing	D	43.1	None	C	30.6	None
Covert Avenue at Stewart Avenue	C	26.4	Covert Ave (south leg) NB through	C	31.6	Covert Ave (north leg) SB shared through & right; Covert Ave (south leg) NB right turn
South 12th Street at Jericho Turnpike (Rt. 25)	D	51.5	Jericho Tpk EB approach	C	25.5	South 12th St NB approach
South 12th Street at Grade Crossing	C	26.4	None	B	19.2	None
New Hyde Park Road at Jericho Turnpike (Rt. 25)	F	111.3	New Hyde Park Rd NB approach, and SB left turn; Jericho Tpk. EB and WB approaches	F	116.7	New Hyde Park Rd NB and SB approaches; Jericho Tpk EB and WB approaches
New Hyde Park Road at Grade Crossing	D	37.5	None	C	24.8	None
New Hyde Park Road at Stewart Avenue	E	71.1	New Hyde Park Rd NB approach	C	30.7	None
Covert Avenue at Second Avenue	C	16.1	Second Ave EB and WB approaches	B	14.8	Second Ave EB and WB approaches
Covert Avenue at Third Avenue	A	4.3	Third Ave EB and WB approaches	A	7.1	Third Ave EB and WB approaches
South 12th Street at Second Avenue	C	17.4	None	C	15.6	None
South 12th Street at Third Avenue	B	10.3	None	A	9.5	None
South 12th Street/ Jefferson Street at Stewart Avenue	A	3.2	South 12th St SB approach	B	10.8	South 12th St NB and SB approaches
New Hyde Park Road at Second Avenue	A	1.2	None	A	1.6	None
New Hyde Park Road at Clinch Avenue	A	6.6	None	A	4.8	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

The key overall findings of the traffic level of service analyses are:

- In addition to the intersection of Covert Avenue at Jericho Turnpike and New Hyde Park Road at Jericho Turnpike, one additional intersection—New Hyde Park Road at Second Avenue—would also operate at overall unacceptable LOS E or F.
- With the additional background traffic growth of 0.5 percent per year for 20 years plus additional vehicle trips generated to and from the New Hyde Park train station as a result of more LIRR trains operating with East Side Access in place, several additional intersections would have one or more traffic movements operating at unacceptable LOS E or F even if the "overall" intersection operates acceptably.

This represents the year 2040 background, or baseline, condition against which the potential impacts of the Proposed Project are compared.

MINEOLA STATION AREA

In addition to the four development projects included in the Year 2020 analyses, for year 2040 conditions without the Proposed Project, it was determined that there would be additional vehicle trips to/from the Mineola station, as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station—643 in the AM peak hour (516 vehicles to the station and 127 from the station), 83 in the midday peak hour (38 vehicles to the station and 45 from the station), and 576 in the PM peak hour (142 vehicles to the station and 434 from the station).
- Additional taxi trips serving new LIRR riders—16 in the AM peak hour (8 vehicles to and from the station), 42 in the midday peak hour (21 vehicles to and from the station), and 21 in the PM peak hour (11 vehicles to the station and 10 from the station)
- Additional auto pick-up or drop-off trips serving new riders—458 in the AM peak hour (229 vehicles to and from the station), 148 in the midday peak hour (74 vehicles to and from the station), and 428 in the PM peak hour (214 vehicles to and from the station).

These additional vehicle trips were assigned to routes serving the station area and added to background traffic, resulting in future peak hour volumes without the Proposed Project. As noted earlier, Third Street between Main Street and Willis Avenue would be converted from the existing one-way eastbound operation to two-way operation. Figures in **Appendix 10** illustrate projected future volumes in the New Hyde Park traffic study area in the year 2040. Resulting intersection levels of service are shown in **Table 10-24**; additional detailed information is provided in **Appendix 10**.

With the additional background traffic growth of 0.5 percent per year for 20 years plus additional vehicle trips generated to and from the Mineola train station as a result of more LIRR trains operating with East Side Access in place, several additional intersections or intersection movements would operate at unacceptable LOS E or F, as noted below:

- Of the 18 intersections analyzed, four intersections would operate at overall unacceptable LOS E or F in the AM and midday peak hours and seven would operate at overall LOS E or F in the PM peak hour. This would include the intersections of Mineola Boulevard/Franklin Avenue at Old Country Road, Mineola Boulevard at Second Street, and Roslyn Road/Washington Avenue at Old Country Road during all three peak traffic analysis hours. The intersections of Mineola Boulevard at First Street would operate at overall LOS E or F in the midday and PM peak hours, the intersection of Roslyn Road at Second Street would

operate at overall LOS E or F in the AM and PM peak hours, and the intersections of Willis Avenue at Second Street and Main Street and Second Street would operate at overall LOS E or F in the PM peak hour.

- In addition to the intersections noted above, several additional intersections would have one or more individual traffic movements at LOS E or F even if the overall intersections would be operating at overall acceptable levels of service.

This represents the year 2040 background, or baseline, condition against which the potential impacts of the Proposed Project are compared.

WESTBURY STATION AREA/NEW CASSEL

For year 2040 conditions without the Proposed Project, it was determined that there would be additional vehicle trips to/from the Westbury station, as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station—221 in the AM peak hour (209 vehicles to the station and 12 from the station) and 222 in the PM peak hour (12 vehicles to the station and 210 from the station).
- Additional taxi trips serving new LIRR riders—10 in the AM peak hour (5 vehicles to and from the station) and 12 in the PM peak hour (6 vehicles to and from the station).
- Additional auto pick-up or drop-off trips serving new riders—194 in the AM peak hour (97 vehicles to and from the station) and 188 in the PM peak hour (94 vehicles to and from the station).

These additional vehicle trips were assigned to routes serving the station area and added to background traffic, resulting in future peak hour volumes without the Proposed Project. Figures in **Appendix 10** illustrate projected future volumes in the Westbury/New Cassel traffic study area in the year 2040. Resulting intersection levels of service are shown in **Table 10-25**; additional detailed information is provided in **Appendix 10**.

The key overall findings of the traffic level of service analyses are:

- Two of the 12 intersections analyzed would operate at overall unacceptable level of service E or F—the intersection of School Street at Old Country Road would operate at overall LOS F in the AM peak hour and LOS E in the PM peak hour, and the intersection of School Street at Railroad Avenue would operate at overall LOS F in the PM peak hour.
- With the additional background traffic growth of 0.5 percent per year for 20 years plus additional vehicle trips generated to and from the Westbury train station as a result of more LIRR trains operating with East Side Access in place, several additional intersections would have one or more traffic movements operating at unacceptable LOS E or F even if the "overall" intersection operates acceptably.

This represents the year 2040 background, or baseline, condition against which the potential impacts of the Proposed Project are compared.

Table 10-24
2040 No Build Traffic Levels of Service Summary, Mineola

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (MD)	Delay (MD)	Traffic Movements at LOS E or F (MD)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Mineola Boulevard/ Franklin Avenue at Old Country Road	F	112.0	Old Country Rd EB and WB left turn and through	E	57.9	Mineola Blvd SB left turn; Old Country Rd EB through and WB left turn and through	F	90.5	Mineola Blvd SB left turn; Old Country Rd EB approach and WB left turn and through
Mineola Boulevard at Second Street	F	165.9	Mineola Blvd SB shared through & right; Second St WB approach	E	77.4	Mineola Blvd SB shared through & right	F	118.1	Mineola Blvd SB shared through & right; Second St WB approach
Mineola Boulevard at First Street	C	26.6	First St EB approach	F	91.8	Mineola Blvd NB approach	E	71.9	Mineola Blvd NB approach; First St EB and WB approaches
Willis Avenue at Old Country Road	B	17.9	Willis Ave SB right turn	B	16.3	Willis Ave SB left turn	B	16.5	Willis Ave SB left turn
Willis Avenue at Grade Crossing	D	52.6	None	B	18.5	None	D	49.6	None
Willis Avenue at Second Street	C	28.4	None	C	24.7	None	E	68.3	Second St EB approach
Main Street at Grade Crossing	D	46.6	None	B	16.6	None	D	41.6	None
Roslyn Road/ Washington Avenue at Old Country Road	F	117.5	Old Country Rd EB through and WB left turn and through	F	97.0	Old Country Rd EB and WB through	F	99.3	Old Country Rd EB and WB through
Roslyn Road at Second Street	F	89.3	Roslyn Rd SB approach	C	25.1	None	F	126.2	Roslyn Rd NB shared through & right and SB approach; Second St EB approach
Main Street at Old Country Road	A	0.5	None	A	0.4	None	A	0.4	None
Main Street at First Street	A	9.9	None	A	9.0	None	B	11.8	None
Main Street at Second Street	C	19.1	None	B	13.3	None	F	82.2	Main St SB approach; Second St EB approach
Main Street at Front Street (North side of LIRR Tracks)	A	4.2	None	A	4.2	None	A	3.7	None
Main Street at Front Street (South side of LIRR Tracks)	A	5.5	None	A	3.2	None	A	3.9	None
Main Street at Third Street	B	12.2	None	A	9.7	None	C	23.9	Third St EB approach
Willis Avenue at First Street	C	16.0	First St EB approach	A	3.5	None	D	29.4	First St EB approach
Willis Avenue at Front Street	A	2.2	None	A	1.3	None	A	1.9	None
Willis Avenue at Third Street	A	9.9	None	A	5.5	None	C	21.7	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

Table 10-25
2040 No Build Traffic Levels of Service Summary, Westbury

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
School Street at Maple Avenue	B	11.7	None	B	15.5	None
School Street at Union Avenue	D	43.5	School St NB approach; Union Ave WB left turn	D	40.4	School St NB approach; Union Ave WB left turn
School Street at Grade Crossing	C	21.4	None	C	31.8	None
School Street at Old Country Road	F	81.3	School St NB and SB approaches; Old Country Rd WB shared through & right	E	72.7	School St NB and SB approaches; Old Country Rd EB approach
Urban Avenue at Prospect Avenue	B	14.5	None	B	18.3	None
Urban Avenue at Grade Crossing	B	11.8	None	C	23.4	None
Urban Avenue at Old Country Road	D	54.5	Old Country Rd EB left turn and WB approach	D	38.0	Old Country Rd EB left turn and WB approach
Old Country Road at Belmont Place/ Merillon Avenue	B	11.0	None	B	18.1	None
School Street at Railroad Avenue	C	16.8	Railroad Ave EB approach	F	126.7	Railroad Ave EB approach
Urban Avenue at Broadway	A	9.5	None	B	13.7	None
Urban Avenue at Railroad Avenue	A	3.5	None	A	8.0	Railroad Ave WB approach
Urban Avenue at Main Street	B	13.3	None	D	31.7	Urban Ave NB and SB approaches

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

FUTURE CONDITIONS WITH THE PROPOSED PROJECT (YEAR 2040)

METHODOLOGY

The evaluation of future conditions with the Proposed Project in year 2040 includes additional vehicular traffic that would be generated by additional trains operated with the Proposed Project. This includes commuter trips by car who park at the station[1], auto drop-offs or pick-ups, and taxi trips serving new commuters either in the peak or reverse-commute peak direction. It also includes the effects of eliminating all seven project area grade crossings, which would eliminate queuing at the crossings coupled with potential diversions of some traffic from one north–south route to another depending on the grade crossing elimination options being studied.

[1] The traffic analyses are based on the parking plan detailed in the Final SEQRA Scoping Document. The traffic study will be updated once the final parking plan for the Proposed Project has been established.

As noted earlier for year 2020 conditions with the Proposed Project, in most cases, the elimination of grade crossings will reduce north–south vehicular traffic delays. For some conditions, the diversion of traffic from one crossing location to another—as new grade-separated crossings become available to the motoring public—could result in increases in traffic delay that would require capacity improvements such as modifying existing intersection signal timings to accommodate changes in traffic flows. "Significant traffic impacts" requiring such mitigation are defined as increases in vehicular traffic delay of ten or more seconds where conditions are at unacceptable levels of service. Locations where significant traffic delay reduction benefits are also expected are also identified in this section of the EIS.

NEW HYDE PARK STATION AREA

In addition to traffic diversions that would result from the grade crossing configurations in 2040, station ridership projections for the 2040 condition with the Proposed Project are as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station—1 vehicle leaving the station in the AM peak hour and 3 in the PM peak hour (2 vehicles to the station and 1 from the station).
- Additional auto pick-up or drop-off trips serving new riders—6 in the AM peak hour (3 vehicles to and from the station) and 10 in the PM peak hour (5 vehicles to and from the station).
- There would not be any additional projected taxi trips serving new riders.

These new trips were assigned to the station area for taxi and auto pick-ups and drop-offs and to station parking facilities, including new facilities that would be built as part of the Proposed Project. Detailed traffic volume maps for the AM and PM peak hours are presented in **Appendix 10**. **Tables 10-26 and 10-27** present the overall level of service at each intersection as well as specific traffic movements that currently operate at unacceptable levels of service E or F. Additional detailed information is available in **Appendix 10**.

As reported in year 2020 conditions with the Proposed Project, the findings of the traffic level of service analyses for both Build options are nearly identical, which is expected since the primary difference between the two is the provision of a four-lane section (Build Option 1) or a five-lane section (Build Option 2) for the New Hyde Park Road underpass below the LIRR tracks. Build Option 1 also includes a new pick-up/drop-off facility along the west side of New Hyde Park Road; Build Option 2 includes the same new pick-up/drop-off facility plus a new 95-space surface parking lot on the north side of the tracks at the station house.

Under both Build options, there would be the following significant adverse traffic impacts which can be mitigated, as described below:

- Covert Avenue and Jericho Turnpike— AM peak hour impacts would occur for the northbound Covert Avenue approach, the eastbound shared through-right movement, and the westbound Jericho Turnpike left-turn movement with both Build options, and PM peak hour impacts would occur for the northbound Covert Avenue left-turn movement with both Build options and the westbound Jericho Turnpike left-turn movement with Build Option 1. Impacts identified for the AM and PM peak hours can be mitigated by reconfiguring the southbound approach to require all exits from the retail site to be made on the North Sixth Street side of the property and by modifying the traffic signal timing plan.

- New Hyde Park Road and Jericho Turnpike— AM and PM peak hour impacts would occur for the northbound New Hyde Park Road left-turn movement with both Build options and PM peak hour impacts would occur for the eastbound Jericho Turnpike shared through-right movement and westbound Jericho Turnpike left-turn movement with both Build options. Impacts identified for the PM peak hour can be mitigated by modifying the traffic signal timing plan and by prohibiting parking along the south side of eastbound Jericho Turnpike for approximately 250 feet from the stopbar during the 5-6 PM peak hour; AM peak hour impacts can be mitigated by prohibiting parking along the north side of westbound Jericho Turnpike for approximately 250 feet from the stopbar during the 7:30-8:30 AM peak hour.

Table 10-26
2040 Build Traffic Levels of Service Summary, New Hyde Park
Option 1: Four-Lane New Hyde Park Road Underpass and Closure of South 12th Street

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E of F (PM)
Covert Avenue at Jericho Turnpike (Rt. 25)	F	122.1	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn	F	113.2	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn
Covert Avenue at Grade Crossing	-	-	-	-	-	-
Covert Avenue at Stewart Avenue	C	28.7	Covert Ave NB (south leg) through	C	29.8	Covert Ave SB (north leg) shared through & right; Covert Ave NB (south leg) right turn
South 12th Street at Jericho Turnpike (Rt. 25)	B	16.6	None	B	10.8	South 12th St NB approach
New Hyde Park Road at Jericho Turnpike (Rt. 25)	F	115.3	New Hyde Park Rd NB and SB approaches; Jericho Tpk EB and WB approaches	F	125.6	New Hyde Park Rd NB and SB approaches; Jericho Tpk EB and WB approaches
New Hyde Park Road at Stewart Avenue	E	69.9	New Hyde Park Rd NB approach	C	31.1	None
Covert Avenue at Second Avenue	A	5.9	None	A	6.4	None
Covert Avenue at Third Avenue	A	0.4	None	A	1.8	None
South 12th Street at Second Avenue	A	9.1	None	A	8.4	None
South 12th Street at Third Avenue	A	8.9	None	A	9.7	None
South 12th Street/Jefferson Street at Stewart Avenue	A	2.2	South 12th St SB approach	A	2.9	South 12th St SB approach
New Hyde Park Road at Clinch Avenue	B	11.4	None	B	12.6	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

Table 10-27
2040 Build Traffic Levels of Service Summary, New Hyde Park
Option 2: Five-Lane New Hyde Park Road Underpass and Closure of South 12th Street

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Covert Avenue at Jericho Turnpike (Rt. 25)	F	120.0	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn	F	112.9	Covert Ave NB and SB approaches; Jericho Tpk EB shared through & right and WB left turn
Covert Avenue at Grade Crossing	-	-	-	-	-	-
Covert Avenue at Stewart Avenue	C	28.7	Covert Ave NB (south leg) through	C	29.8	Covert Ave SB (north leg) shared through & right; Covert Ave NB (south leg) right turn
South 12th Street at Jericho Turnpike (Rt. 25)	B	17.3	None	B	11.0	South 12th St NB approach
South 12th Street at Grade Crossing	-	-	-	-	-	-
New Hyde Park Road at Jericho Turnpike (Rt. 25)	F	114.9	New Hyde Park Rd NB and SB approaches; Jericho Tpk EB and WB approaches	F	125.6	New Hyde Park Rd NB and SB approaches; Jericho Tpk EB and WB approaches
New Hyde Park Road at Grade Crossing	-	-	-	-	-	-
New Hyde Park Road at Stewart Avenue	E	69.9	New Hyde Park Rd NB approach	C	31.1	None
Covert Avenue at Second Avenue	A	4.1	None	A	6.4	None
Covert Avenue at Third Avenue	A	0.4	None	A	1.8	None
South 12th Street at Second Avenue	A	9.2	None	A	8.2	None
South 12th Street at Third Avenue	A	8.8	None	A	9.7	None
South 12th Street/ Jefferson Street at Stewart Avenue	A	2.2	South 12th St SB approach	A	2.9	South 12th St SB approach
New Hyde Park Road at Second Avenue	-	-	-	-	-	-
New Hyde Park Road at Clinch Avenue	B	5.7	None	B	3.3	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

In addition, the intersection of New Hyde Park Road at Clinch Avenue would be signalized as part of the Proposed Project under Build Option 1 and would operate at acceptable levels of service.

The above mitigation measures would reduce any increases in traffic delay for critical movements operating at unacceptable LOS D, E, or F to fewer than ten seconds above No Build

traffic delays, which are not considered significant. Detailed traffic level of service tables and schematic drawings of proposed traffic mitigation measures are presented in **Appendix 10**.

Average and 95th Percentile queue lengths are presented below in **Table 10-28**. Queues at the three grade crossings in New Hyde Park extend to as many as approximately 34 vehicles per lane on Southbound Covert Avenue during the PM peak hour under Existing conditions and could be expected to grow by fewer than 10 vehicles per lane in each direction during peak hours between Existing and 2040 No Build conditions. Queues would grow longer in the 2040 No Build condition due to the growth in vehicular traffic volumes and additional time that LIRR gates are in the down position due to additional trains operating along the LIRR Main Line, particularly with the completed East Side Access Project. Queues at each of the grade crossings would be eliminated entirely with Build Option 1 and Build Option 2 due to the elimination of existing grade crossings and proposed underpasses. Elimination of queues at the grade crossings could be expected to result in smoother traffic flow along these corridors.

Table 10-28
Queue Lengths at LIRR Grade Crossings, New Hyde Park

LIRR Grade Crossing Approach	Queues	AM Peak Hour				PM Peak Hour			
		Existing	2040 No Build	2040 Build Option 1	2040 Build Option 2	Existing	2040 No Build	2040 Build Option 1	2040 Build Option 2
NB Covert Avenue	50th Percentile Queue (veh/lane)	29	36	-	-	13	15	-	-
	95th Percentile Queue (veh/lane)	36	44	-	-	16	19	-	-
SB Covert Avenue	50th Percentile Queue (veh/lane)	16	18	-	-	28	35	-	-
	95th Percentile Queue (veh/lane)	17	18	-	-	34	42	-	-
NB South 12th Street	50th Percentile Queue (veh/lane)	5	6	-	-	4	4	-	-
	95th Percentile Queue (veh/lane)	7	8	-	-	4	5	-	-
SB South 12th Street	50th Percentile Queue (veh/lane)	4	4	-	-	5	6	-	-
	95th Percentile Queue (veh/lane)	5	6	-	-	6	7	-	-
NB New Hyde Park Road	50th Percentile Queue (veh/lane)	21	26	-	-	8	10	-	-
	95th Percentile Queue (veh/lane)	24	29	-	-	9	10	-	-
SB New Hyde Park Road	50th Percentile Queue (veh/lane)	10	10	-	-	16	22	-	-
	95th Percentile Queue (veh/lane)	12	12	-	-	18	27	-	-

Note: The 95th percentile queue is the queue length (in vehicles per lane) that has a 95% probability of not being exceeded during the peak hour. The 50th percentile queue is the average queue length (in vehicles per lane) during a typical gate down condition.

MINEOLA STATION AREA

In addition to traffic diversions that would result from the grade crossing configurations in 2040, station ridership projections for the 2040 condition with the Proposed Project are as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station—12 in the AM peak hour (3 vehicles to the station and 9 from the station) and 23 in the PM peak hour (18 vehicles to the station and 5 from the station).
- Additional taxi trips serving new LIRR riders—6 in the AM peak hour (3 vehicles to and from the station) and 10 in the PM peak hour (5 vehicles to and from the station)
- Additional auto pick-up or drop-off trips serving new riders—32 in the AM peak hour (16 vehicles to and from the station) and 40 in the PM peak hour (20 vehicles to and from the station).
- There would not be any additional vehicle trips during the midday peak hour.

These new trips were assigned to the station area for taxi and auto pick-ups and drop-offs and to station parking facilities, including new facilities that would be built as part of the Proposed Project. Detailed traffic volume maps for the AM and PM peak hours are presented in **Appendix 10**. **Tables 10-29 and 10-30** present the overall level of service at each intersection as well as specific traffic movements that currently operate at unacceptable levels of service E or F. Additional detailed information is available in **Appendix 10**.

Under Build Option 1 (Main Street closed and a two-way underpass for Willis Avenue under the LIRR tracks) there would be additional significant traffic impacts beyond those identified under year 2020 conditions with the Proposed Project since background traffic volumes would be substantially higher due to 20 additional years of annual background traffic growth combined with additional trips attracted to the Mineola station with East Side Access in place. These impacts could be mitigated as follows:

- Mineola Boulevard/Franklin Avenue at Old Country Road—AM peak hour impacts would occur for the eastbound Old Country Road through movement and AM, midday, and PM peak hour impacts would occur for westbound Old Country Road left turns and could be mitigated by restriping the northbound Franklin Avenue approach as one 11 foot left-turn lane and two 12 foot shared through-right lanes; shifting the centerline on the southbound Mineola Boulevard approach two feet to the east and restriping the approach as one 12 foot left-turn lane and two 10 foot shared through-right lanes; restriping the westbound Old Country Road approach as one 12 foot left-turn lane, two 11 foot through lanes, and one 10 foot right-turn lane; restriping the eastbound Old Country Road approach as one 10 foot left-turn lane, two 12 foot through lanes, and one 13 foot right-turn lane by reducing the existing five foot painted buffer between through and right-turn lane to a one foot buffer; and by modifying the traffic signal timing plan.
- Mineola Boulevard and Second Street—AM and PM peak hour impacts to the westbound Second Street approach to the intersection could be mitigated by prohibiting parking on the westbound Second Street approach for approximately 150 feet from the stopbar and restriping the approach as one 10 foot left-turn lane and one 10 foot through-right lane.
- Willis Avenue at Old Country Road—AM, midday, and PM peak hour impacts would occur for the southbound Willis Avenue approach and could be mitigated by modifying the traffic signal phasing and timing plan.

Table 10-29
2040 Build Traffic Levels of Service Summary, Mineola
Option 1: Two-Way Willis Avenue Underpass and Closure of Main Street

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (MD)	Delay (MD)	Traffic Movements at LOS E or F (MD)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Mineola Boulevard/ Franklin Avenue at Old Country Road	F	126.8	Old Country Rd EB and WB left turn and through	E	65.5	Mineola Blvd SB left turn; Old Country Rd EB through and WB left turn and through	F	99.0	Mineola Blvd NB shared through & right and SB left turn; Old Country Rd EB approach and WB left turn and through
Mineola Boulevard at Second Street	F	148.7	Mineola Blvd SB shared through & right; Second St WB approach	E	68.4	Mineola Blvd SB shared through & right	F	103.6	Mineola Blvd SB shared through & right; Second St WB approach
Mineola Boulevard at First Street	C	25.7	First St EB approach	E	64.4	Mineola Blvd NB approach	E	56.9	Mineola Blvd NB approach; First St EB and WB approaches
Willis Avenue at Old Country Road	C	26.4	Willis Ave SB approach	C	33.6	Willis Ave SB approach	C	26.8	Willis Ave SB approach
Willis Avenue at Third Street	F	140.1	Third St EB approach	F	114.9	Third St EB approach	F	284.3	Willis Ave NB and SB approaches; Third St EB approach
Willis Avenue at Second Street	D	37.7		C	33.8	None	F	118.5	Willis Ave SB approach; Second St EB approach
Roslyn Road/ Washington Avenue at Old Country Road	F	120.8	Old Country Rd EB through and WB left turn and through	F	98.6	Old Country Rd EB and WB through	F	102.9	Old Country Rd EB and WB through
Roslyn Road at Second Street	E	74.7	Roslyn Rd SB approach	C	24.1	None	F	116.2	Roslyn Rd NB shared through & right and SB approach; Second St EB approach
Main Street at Old Country Road	A	0.5	None	A	0.3	None	A	0.3	None
Main Street at First Street	A	9.6	None	A	8.8	None	B	11.0	None
Main Street at Second Street	D	26.6	Second St WB approach	B	13.7	None	F	65.1	Second St EB and WB approaches
Main Street at Front Street (North side of LIRR Tracks)	A	2.4	None	A	7.7	None	A	2.5	None
Main Street at Front Street (South side of LIRR Tracks)	A	8.5	None	A	8.0	None	B	12.5	None
Main Street at Third Street	B	13.5	None	B	10.2	None	D	32.2	Third St EB approach
Willis Avenue at First Street	E	35.8	First St EB approach	A	4.5	None	E	50.0	First St EB approach
Willis Avenue at Front Street	A	9.7	None	A	6.9	None	A	8.9	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

Table 10-30
2040 Build Traffic Levels of Service Summary, Mineola
Option 2: One-Way Northbound Main Street and One-Way Southbound Willis Avenue Underpasses

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (MD)	Delay (MD)	Traffic Movements at LOS E or F (MD)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
Mineola Boulevard/ Franklin Avenue at Old Country Road	F	113.0	Old Country Rd EB and WB left turn and through	E	57.8	Mineola Blvd SB left turn; Old Country Rd EB through and WB left turn and through	F	92.3	Mineola Blvd SB left turn; Old Country Rd EB and WB approaches
Mineola Boulevard at Second Street	F	172.9	Mineola Blvd SB shared through & right; Second St WB approach	F	89.6	Mineola Blvd SB shared through & right	F	125.5	Mineola Blvd SB shared through right; Second St WB approach
Mineola Boulevard at First Street	C	28.8	First St EB approach	F	110.3	Mineola Blvd NB approach	C	22.7	None
Main Street at Second Street	D	35.6	None	C	27.4	None	F	135.9	Main St NB and approaches; Second St WB approach
Willis Avenue at Old Country Road	B	15.2	None	B	15.7	Willis Ave SB left turn	B	16.1	Willis Ave SB left turn
Willis Avenue at Third Street	C	31.3	None	B	19.9	None	D	49.0	None
Willis Avenue at Second Street	F	94.9	Second St EB approach and WB shared left & through	C	30.2	None	F	415.6	Second St EB approach and WB shared left & through
Roslyn Road/Washington Avenue at Old Country Road	F	115.1	Old Country Rd EB and WB through	F	92.8	Old Country Rd EB and WB through	F	97.1	Old Country Rd EB and WB through
Roslyn Road at Second Street	F	91.5	Roslyn Rd SB approach	C	26.3	None	F	134.7	Roslyn Rd NB shared through & right and SB approach; Second St EB approach
Main Street at Old Country Road	A	0.9	Old Country Rd EB left turn	A	0.4	None	A	0.5	None
Main Street at First Street	B	10.1	None	A	9.1	None	B	12.3	None
Main Street at Front Street (North side of LIRR Tracks)	A	9.1	None	A	9.0	None	A	8.9	None
Main Street at Third Street	C	21.2	None	B	12.8	None	D	30.8	None
Willis Avenue at First Street	E	46.1	First St EB approach	A	6.3	None	F	69.7	First St EB approach
Willis Avenue at Front Street	A	0.0	None	A	0.0	None	A	0.0	None

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

- Willis Avenue at Third Street—AM, midday, and PM peak hour impacts would occur for the northbound and southbound Willis Avenue approaches and the eastbound Third Street approach and could be fully mitigated in the AM, midday, and PM peak hours by prohibiting parking for approximately 250 feet from the stopbar on the eastbound Third Street approach and restriping the approach as one 10 foot left-turn lane and one 10 foot right-turn lane; by prohibiting parking for approximately 250 feet on the westbound Third Street receiving side of the intersection; and by prohibiting parking on the northbound Willis Avenue approach for approximately 250 feet from the stopbar and restriping the approach as one 10 foot left-turn lane and one 10 foot through lane.
- Willis Avenue at Second Street—AM, midday, and PM peak hour impacts would occur along southbound Willis Avenue and could be mitigated by prohibiting parking on the southbound Willis Avenue approach for approximately 250 feet from the stopbar and restriping the approach as one 10 foot left-turn lane and one 10 foot shared through-right lane; prohibiting parking on the eastbound Second Street approach for approximately 250 feet from the stopbar and for approximately 250 feet on the westbound Second Street receiving side of the intersection; restriping the eastbound Second Street approach as two 12 foot lanes; and modifying the traffic signal timing plan.
- Willis Avenue at First Street—AM and PM peak hour impacts would occur along eastbound First Street and could be mitigated by prohibiting parking for approximately 150 feet from the stopbar on the northbound Willis Avenue approach and approximately 100 feet on the northbound Willis Avenue receiving side of the intersection; restriping the northbound Willis Avenue approach as one 10 foot left-turn pocket lane and one 10 foot through lane; and by installing an actuated traffic signal.
- Roslyn Road at Second Street—AM and PM peak hour impacts along eastbound First Street could be mitigated by widening the south side of the eastbound Second Street approach to allow for an 11 foot right-turn pocket lane; and modifying the traffic signal timing plan.

In addition, the intersection of Willis Avenue at Third Street would be signalized as part of the Proposed Project.

The above mitigation measures would reduce any increases in traffic delay for critical movements operating at unacceptable LOS D, E, or F to fewer than ten seconds above No Build traffic delays, which are not considered significant. Detailed traffic level of service tables and schematic drawings of proposed traffic mitigation measures are presented in **Appendix 10**.

Under Build Option 2 (a northbound underpass along Main Street and a southbound underpass along Willis Avenue, beneath the LIRR tracks) there would also be additional significant traffic impacts beyond those identified under year 2020 conditions with the Proposed Project since background traffic volumes would be substantially higher with 20 additional years of annual traffic growth plus additional trips generated to the Mineola station with East Side Access in place. These impacts could be mitigated as follows:

- Mineola Boulevard/Franklin Avenue at Old Country Road—PM peak hour impacts would occur for the westbound Old Country Road right movement and could be mitigated by modifying the traffic signal timing plan.
- Mineola Boulevard at Second Street—AM, midday, and PM peak hour impacts to the southbound Mineola Boulevard through and right turn movement and AM and PM peak hour impacts along westbound Second Street could be mitigated by modifying the traffic signal timing plan.

- Mineola Boulevard at First Street—Midday peak hour impacts to the northbound Mineola Boulevard approach could be mitigated by modifying the traffic signal timing plan.
- Main Street at Second Street—PM peak hour impacts to three of the four approaches to the intersection could be mitigated by shifting the centerline five feet to the north and prohibiting parking on the eastbound Second Street approach for approximately 250 feet from the stopbar and for approximately 50 feet on the receiving side of the intersection; restriping the eastbound Second Street approach as one 10 foot left-turn lane and one 14 foot through lane; prohibiting parking on the westbound Second Street approach for approximately 250 feet from the stopbar and for approximately 250 feet on the westbound receiving side of the intersection; restriping the westbound Second Street approach as a 15 foot lane and a 4 foot shoulder; shifting the centerline five feet to the east and prohibiting parking on the southbound Main Street approach for approximately 250 feet from the stopbar; restriping the southbound Main Street approach as one 12 foot left-turn lane and one 10 foot right-turn lane; prohibiting parking along the east curb of the northbound Main Street receiving side of the intersection for approximately 250 feet; and modifying the signal timing and phasing plan.
- Willis Avenue at Second Street—AM and PM peak hour impacts to the eastbound and westbound Second Street approaches could be mitigated by prohibiting parking for approximately 150 feet from the stopbar on the southbound Willis Avenue approach and restriping the approach as one 10 foot left-turn lane and one 10 foot shared through-right lane; and by modifying the signal phasing and timing plan.
- Roslyn Road at Second Street—PM peak hour impacts to southbound Roslyn Road could be mitigated by modifying the traffic signal timing plan.
- Willis Avenue at Third Street—PM peak hour impacts to the southbound Willis Avenue underpass and eastbound the Third Street approaches could be mitigated by prohibiting parking on the eastbound Third Street approach from 4 PM to 7 PM Monday through Friday for approximately 250 feet from the stopbar.
- Willis Avenue at First Street—AM and PM peak hour impacts would occur along eastbound First Street and could be mitigated by prohibiting parking for approximately 150 feet from the stopbar on the northbound Willis Avenue approach and for approximately 100 feet on the northbound Willis Avenue receiving side of the intersection; restriping the northbound Willis Avenue approach as one 10 foot left-turn pocket lane and one 10 foot through lane; and by installing an actuated traffic signal.

In addition, the intersections of Willis Avenue at Third Street and Main Street at Second Street would be signalized as part of the Proposed Project.

The above mitigation measures would reduce any increases in traffic delay for critical movements operating at unacceptable LOS D, E, or F to fewer than ten seconds above No Build traffic delays, which are not considered significant. Detailed traffic level of service tables and schematic drawings of proposed traffic mitigation measures are presented in **Appendix 10**.

Average and 95th Percentile queue lengths are presented below in **Table 10-31**. Queues at the two grade crossings in Mineola extend to as many as approximately 13 vehicles per lane on Southbound Willis Avenue during the PM peak hour under Existing conditions and could be expected to grow by fewer than 10 vehicles per lane in each direction during peak hours between Existing and 2040 No Build conditions. Queues would grow longer in the 2040 No Build condition due to the growth in vehicular traffic volumes and additional time that LIRR gates are

in the down position due to additional trains operating along the LIRR Main Line, particularly with the completed East Side Access Project. Queues at each of the grade crossings would be eliminated entirely with Build Option 1 and Build Option 2 due to the elimination of existing grade crossings and proposed underpasses. Elimination of queues at the grade crossings could be expected to result in smoother traffic flow along these corridors.

Table 10-31
Queue Lengths at LIRR Grade Crossings, Mineola

LIRR Grade Crossing Approach	Queues	AM Peak Hour				Midday Peak Hour				PM Peak Hour			
		Existing	2040 No Build	2040 Build Option 1	2040 Build Option 2	Existing	2040 No Build	2040 Build Option 1	2040 Build Option 2	Existing	2040 No Build	2040 Build Option 1	2040 Build Option 2
NB Main Street	50th Percentile Queue (veh/lane)	4	5	-	-	4	6	-	-	4	7	-	-
	95th Percentile Queue (veh/lane)	5	8	-	-	6	8	-	-	6	10	-	-
SB Main Street	50th Percentile Queue (veh/lane)	2	3	-	-	2	3	-	-	1	2	-	-
	95th Percentile Queue (veh/lane)	3	5	-	-	3	4	-	-	2	4	-	-
NB Willis Avenue	50th Percentile Queue (veh/lane)	6	10	-	-	6	8	-	-	8	16	-	-
	95th Percentile Queue (veh/lane)	8	14	-	-	8	10	-	-	12	20	-	-
SB Willis Avenue	50th Percentile Queue (veh/lane)	6	12	-	-	10	12	-	-	10	14	-	-
	95th Percentile Queue (veh/lane)	9	16	-	-	11	14	-	-	13	18	-	-

Note: The 95th percentile queue is the queue length (in vehicles per lane) that has a 95% probability of not being exceeded during the peak hour. The 50th percentile queue is the average queue length (in vehicles per lane) during a typical gate down condition.

WESTBURY STATION AREA/NEW CASSEL

In addition to traffic diversions that would result from the grade crossing configurations in 2040, station ridership projections for the 2040 condition with the Proposed Project are as follows:

- Additional vehicle trips by new LIRR riders who would drive and park at the station—2 vehicles from the station in the AM peak hour and 2 vehicles to the station in the PM peak hour.
- Additional taxi trips serving new LIRR riders—4 in each of the AM and PM peak hours (2 vehicles to and from the station during each of the AM and PM peak hours)
- Additional auto pick-up or drop-off trips serving new riders—26 in the AM peak hour (13 vehicles to and from the station) and 18 in the PM peak hour (9 vehicles to and from the station).

These new trips were assigned to the station area for taxi and auto pick-ups and drop-offs and to station parking facilities, including new facilities that would be built as part of the Proposed Project. Detailed traffic volume maps for the AM and PM peak hours are presented in **Appendix 10**. **Table 10-32** presents the overall level of service at each intersection as well as specific traffic movements that currently operate at unacceptable levels of service E or F. Additional detailed information is available in **Appendix 10**.

There would be significant traffic impacts in year 2040 with the Proposed Project, since background traffic volumes would be substantially higher with 20 additional years of annual traffic growth plus additional trips generated in the Westbury/New Cassel area with East Side

Access in place. Urban Avenue at Broadway would have impacts on the northbound Urban Avenue approach during the PM peak hour, which could be mitigated by installing an actuated traffic signal. In addition, the intersection of School Street and Railroad Avenue would be signalized as part of the Proposed Project and would operate at acceptable levels of service.

Table 10-32
2040 Build Traffic Levels of Service Summary, Westbury

Intersection	Overall LOS (AM)	Delay (AM)	Traffic Movements at LOS E or F (AM)	Overall LOS (PM)	Delay (PM)	Traffic Movements at LOS E or F (PM)
School Street at Maple Avenue	B	11.7	None	B	15.6	None
School Street at Union Avenue	D	46.4	School St NB approach; Union Ave WB left turn	D	42.2	School St NB approach; Union Ave WB left turn
School Street at Railroad Avenue	A	10.3	None	B	16.3	None
School Street at Old Country Road	F	82.0	School St NB and SB approaches; Old Country Rd WB shared through & right	E	73.0	School St NB and SB approaches; Old Country Rd EB approach
Urban Avenue at Prospect Avenue	B	14.5	None	B	18.4	None
Urban Avenue at Old Country Road	D	54.9	Old Country Rd EB left turn and WB shared through & right	D	38.1	Old Country Rd EB left turn and WB shared through & right
Old Country Road at Belmont Place/ Merillon Avenue	B	11.0	None	B	18.2	None
Urban Avenue at Broadway	B	11.5	None	E	40.8	Urban Ave NB approach
Urban Avenue at Main Street	B	13.3	None	D	31.7	Urban Ave NB and SB approaches

Note: Delay measured in seconds per vehicle. See Appendix 10 for detailed LOS for each turning movement.

The above mitigation measures would reduce any increases in traffic delay for critical movements to fewer than ten seconds, which are not considered significant. Detailed traffic level of service tables are presented in **Appendix 10**.

Average and 95th Percentile queue lengths are presented below in **Table 10-33**. Queues at the two grade crossings in Westbury extend to as many as approximately 16 vehicles per lane on Northbound Urban Avenue during the PM peak hour under Existing conditions and could be expected to grow by fewer than 10 vehicles per lane in each direction during peak hours between Existing and 2040 No Build conditions. Queues would grow longer in the 2040 No Build condition due to the growth in vehicular traffic volumes and additional time that LIRR gates are in the down position due to additional trains operating along the LIRR Main Line, particularly with the completed East Side Access Project. Queues at each of the grade crossings would be eliminated entirely with Build Option 1 and Build Option 2 due to the elimination of existing grade crossings and proposed underpasses. Elimination of queues at the grade crossings could be expected to result in smoother traffic flow along these corridors.

Table 10-33
Queue Lengths at LIRR Grade Crossings, Westbury

LIRR Grade Crossing Approach	Queues	AM Peak Hour			PM Peak Hour		
		Existing	2040 No Build	2040 Build	Existing	2040 No Build	2040 Build
NB School Street	50th Percentile Queue (veh/lane)	11	14	-	11	19	-
	95th Percentile Queue (veh/lane)	13	18	-	15	24	-
SB School Street	50th Percentile Queue (veh/lane)	6	12	-	12	16	-
	95th Percentile Queue (veh/lane)	8	15	-	15	20	-
NB Urban Avenue	50th Percentile Queue (veh/lane)	5	6	-	13	15	-
	95th Percentile Queue (veh/lane)	6	7	-	16	19	-
SB Urban Avenue	50th Percentile Queue (veh/lane)	5	6	-	9	11	-
	95th Percentile Queue (veh/lane)	7	8	-	11	13	-

Note: The 95th percentile queue is the queue length (in vehicles per lane) that has a 95% probability of not being exceeded during the peak hour. The 50th percentile queue is the average queue length (in vehicles per lane) during a typical gate down condition.

EMERGENCY VEHICLE AND SCHOOL BUS TRAVEL TIMES

This section of the Transportation chapter details future expected emergency vehicle response times and bus travel times along key north-south corridors in each of the three station areas—New Hyde Park, Mineola, and Westbury—with and without the Proposed Project. Travel times along the north-south corridors that currently have grade crossings will change with the proposed elimination of the grade crossings and construction of underpasses and the expected diversion of traffic away from LIRR crossings that are completely closed.

NEW HYDE PARK STATION AREA

Average existing travel times along Covert Avenue, South 12th Street, and New Hyde Park Road between Stewart Avenue and Jericho Turnpike range between 2.3 and 5.0 minutes, depending on the corridor, peak hour, and direction of travel. Travel times would increase in 2020 without the Proposed Project, i.e., the 2020 No Build condition, due to the growth in traffic volumes and additional gate down times at LIRR grade crossings. With the Proposed Project, the LIRR grade crossing at South 12th Street would be closed in Build Option 1 and Build Option 2 and all traffic, including emergency vehicles and school buses, would divert to Covert Avenue or New Hyde Park Road. These two parallel routes are approximately one-quarter mile west and east of South 12th Street, respectively, and underpasses are proposed for those two LIRR crossings. Travel times between on Covert Avenue and New Hyde Park Road, between Stewart Avenue and Jericho Turnpike, with Build Option 1 and Build Option 2 would remain comparable to existing travel times or improve with mitigation measures as proposed above implemented. Travel times are presented below in **Table 10-34**.

Table 10-34
Travel Times, New Hyde Park

	AM Peak Hour Travel Times (minutes)				PM Peak Hour Travel Times (minutes)			
	Existing	2020 No Build	2020 Build Option 1 With Mitigation	2020 Build Option. 2 With Mitigation	Existing	2020 No Build	2020 Build Option 1 With Mitigation	2020 Build Option 2 With Mitigation
NB Covert Avenue	4.7	4.8	4.0	4.0	2.4	2.4	2.1	2.1
SB Covert Avenue	4.4	4.4	3.9	3.9	3.2	3.2	2.7	2.7
NB South 12th Street	5.0	5.0	-	-	3.5	3.5	-	-
SB South 12th Street	4.7	4.7	-	-	3.2	3.3	-	-
NB New Hyde Park Road	4.5	4.6	4.3	4.2	2.6	2.6	2.4	2.3
SB New Hyde Park Road	2.8	2.9	4.3	2.5	2.3	2.3	2.0	2.0

Note: Travel times were calculated based on existing speed runs along each of the corridors during peak periods and the difference between existing and future delays in the Synchro model.

MINEOLA STATION AREA

Average existing travel times along Main Street and Willis Avenue, between Old Country Road and First Street, range between 0.9 and 2.6 minutes, depending on the corridor, peak hour, and direction of travel. Travel times would increase in 2020 without the Proposed Project, i.e., the 2020 No Build condition, due to the growth in traffic volumes and additional gate down times at LIRR grade crossings. The LIRR grade crossing at Main Street would be closed in Build Option 1 and all traffic, including emergency vehicles and school buses, would be diverted to Mineola Boulevard, which has an existing overpass over the LIRR tracks, and Willis Avenue, which would be grade-separated as part of the Proposed Project. These two parallel routes are approximately one quarter mile west and east of Main Street, respectively. Under Build Option 2, a one-way northbound under the LIRR tracks is proposed on Main Street and a one-way southbound underpass is proposed on Willis Avenue. Existing southbound Main Street traffic would divert to Willis Avenue and northbound Willis Avenue traffic would divert to Main Street. Travel times between on Willis Avenue and Main Street between Old Country Road and First Street would remain comparable to existing travel times or improve with mitigation measures as proposed above implemented. Travel times are presented below in **Table 10-35**.

Table 10-35
Travel Times, Mineola

	AM Peak Hour Travel Times (minutes)				Midday Peak Hour Travel Times (minutes)				PM Peak Hour Travel Times (minutes)			
	Existing	2020 No Build	2020 Build Option 1 With Mitigation	2020 Build Option 2 With Mitigation	Existing	2020 No Build	2020 Build Option 1 With Mitigation	2020 Build Option 2 With Mitigation	Existing	2020 No Build	2020 Build Option 1 With Mitigation	2020 Build Option 2 With Mitigation
NB Main Street	1.2	1.2	-	0.8	0.9	1.0	-	1.2	1.1	1.2	-	0.9
SB Main Street	0.9	0.9	-	-	0.9	1.0	-	-	1.2	1.3	-	-
NB Willis Avenue	1.7	1.7	1.5	-	0.9	1.0	1.4	-	0.9	0.9	0.9	-
SB Willis Avenue	2.6	2.7	2.2	2.2	1.0	1.1	1.7	1.4	2.0	2.1	2.2	1.9

Note: Travel times were calculated based on existing speed runs along each of the corridors during peak periods and the difference between existing and future delays in the Synchro model.

WESTBURY STATION AREA

Average existing travel times along School Street between Old Country Road and Union Avenue and along Urban Avenue between Old Country Road and Prospect Avenue, range between 2.5 and 3.5 minutes, depending on the corridor, peak hour, and direction of travel. Travel times would increase in 2020 without the Proposed Project, i.e., the 2020 No Build condition, due to the growth in traffic volumes and additional gate down times at LIRR grade crossings. Two-way underpasses beneath the LIRR tracks are proposed for both corridors. Travel times would remain comparable to existing travel times or improve with mitigation measures as proposed above implemented. Travel times are presented below in **Table 10-36**.

Table 10-36
Travel Times, Westbury

	AM Peak Hour Travel Times (minutes)			PM Peak Hour Travel Times (minutes)		
	Existing	2020 No Build	2020 Build With Mitigation	Existing	2020 No Build	2020 Build With Mitigation
NB School Street	2.5	2.5	2.3	2.9	2.9	2.5
SB School Street	3.5	3.6	3.4	3.0	3.2	2.8
NB Urban Avenue	2.8	2.9	2.7	3.2	3.3	3.3
SB Urban Avenue	3.1	3.1	3.0	3.0	3.0	2.7
Note: Travel times were calculated based on existing speed runs along each of the corridors during peak periods and the difference between existing and future delays in the Synchro model.						

F. PARKING

This section of the Transportation chapter identifies parking facilities available at each of the seven station areas in the Project corridor— Floral Park, New Hyde Park, Merillon Avenue, Mineola, Carle Place, Westbury, and Hicksville—to serve LIRR commuters, and the extent of parking facilities that would be available to accommodate projected future parking demands for: year 2020 conditions without the Proposed Project; year 2020 conditions with the Proposed Project; year 2040 conditions without the Proposed Project but with new parking needs generated with East Side Access service; and then year 2040 conditions with both the East Side Access and Proposed Project in place. Parking inventories provided below were obtained from the LIRR. Parking projections developed and included as part of this EIS (see Section B above) were derived from ridership projections provided by the LIRR.

The overall findings of the parking assessment are: 1) parking lots and garages available to serve LIRR commuters today are nearly generally 90 to 100 percent occupied as the peak morning commute period ends with little if any capacity to accommodate significant additional parkers; 2) parking demands that would be generated by the Proposed Project itself are not substantial and would not generate the need for additional station area parking; and 3) the East Side Access project would generate a substantial need for more parking, not directly associated with the Proposed Project, However, the Proposed Project includes the addition of parking at several stations recognizing the overall need for more parking along the Project Corridor

EXISTING CONDITIONS

Table 10-37 presents LIRR information for existing off-street and on-street parking facilities available to commuters at Floral Park, New Hyde Park, Merillon Avenue, Mineola, Carle Place, Westbury, and Hicksville stations.

Table 10-37
Existing Station Parking Capacity and Usage

Station	Off-Street Capacity	Off-Street Usage	Percent Utilization	On-Street Capacity	On-Street Usage	Percent Utilization
Floral Park	637	529	83.1	0	0	0
New Hyde Park	488	471	96.5	100	83	83.0
Merillon Avenue	121	121	100.0	46	46	100.0
Mineola	1,526	1,419	93.0	213	61	28.6
Carle Place	13	13	100.0	0	0	0.0
Westbury	577	571	99.0	133	126	94.7
Hicksville	3,634	3,567	98.1	100	100	100.0

FLORAL PARK STATION AREA

LIRR riders who park at Floral Park are currently accommodated by a surface lot north of the station and two surface lots south of the station. There is also parking beneath the elevated LIRR tracks and on streets adjacent to the station. One surface parking lot south of the station is on the north side of Floral Boulevard between Carlton Street and Carnation Avenue and has a capacity of 120 head-in parking spaces that are metered for long-term daily parking. The other surface lot south of the station is further to the east, at the southeast corner of Plainfield Avenue and Magnolia Avenue and has a capacity of 27 spaces that are metered for long-term daily parking. The surface lot north of the station extends northwest-southeast between Jericho Turnpike and South Tyson Avenue and has a capacity of 260 long-term daily metered or "permit parking" spaces. The remaining 230 spaces are located on streets adjacent to or beneath the station and are "permit parking" or metered for long-term daily parking. Available off-street parking is approximately 83 percent occupied.

The streets north and south of the station have a mix of residential and commercial uses. Parking near commercial uses are largely metered with time restrictions. Parking on some residential streets is prohibited from 9:00 AM to 4:00 PM, while parking on other streets has a four-hour time limit or is completed unrestricted.

NEW HYDE PARK STATION AREA

Station parking at New Hyde Park is currently accommodated by surface lots at or near the station and parallel and head-in parking along the north and south sides of the station. The closest surface parking lot is Municipal Parking Lot No. 3 along the west side of South 12th Street just south of the LIRR tracks, which has a capacity for 126 spaces as "permit parking". There is also 12-hour metered parking available within a surface lot on the north side of Jericho Turnpike west of New Hyde Park, which provides 69 parking spaces. The parallel and head-in parking available along the north and south sides of the station and tracks provide an additional 419 spaces. These are long-term voucher parking zone spaces, as per regulations posted by the Village of New Hyde Park. There are also some additional on-street parking spaces signed for long-term voucher zone parking along South 11th and South 12th Streets and along Baer Place

south of the station, and along Millers Lane north of the station, totaling approximately 100 spaces, according to data provided by the LIRR. The total of 488 off-street spaces are 96.5 percent utilized, while the 100 on-street spaces where long-term parking is allowed are 83 percent utilized.

The streets just north and south of the station are primarily residential with some commercial uses. The Village of New Hyde Park's streets are signed for a maximum of four-hour parking, which is intended to discourage long-term use by commuter parkers. Several streets allow for one-hour or two-hour parking from 8:00 AM to 6:00 PM, while others are signed with No Parking or No Standing regulations (either from 8:00 AM to 6:00 PM, 7:00 AM to 5:00 PM, or anytime).

MERILLON AVENUE STATION AREA

Parking for LIRR commuters and riders is limited to a surface lot north of the station and on-street parking along Main Avenue south of the station. The surface lot has a capacity of 121 spaces and parking is unrestricted. The 46 on-street parking spaces are restricted to Village of Garden City residents that hold parking permits. Commuter parking spaces are 100 percent occupied.

The streets south of the station are entirely residential, while streets north of the station have a mix of residential and commercial uses. On-street parking south of the station is prohibited between 8:00 AM and 12:00 PM. Parking restrictions on streets north of the station vary; parking is either prohibited with No Parking regulations (either from 7:00 AM to 7:00 PM, 8:00 AM to 10:00 AM, 8:00 AM to 12:00 PM, or 8:00 AM to 5:00 PM) or is short-term parking with two or three hour parking limits.

MINEOLA STATION AREA

The Mineola station area is served by a number of surface parking lots, parking structures, and 12-hour on-street parking at select locations. The largest commuter parking facility is within the Mineola Intermodal Center situated immediately adjacent to the south side station platform. It provides 941 long-term parking spaces that are available to the general public. Village of Mineola Parking Field No. 3 provides 311 long-term parking spaces in structure parking along the north side of Third Street between Mineola Boulevard and Main Street. Parking Field No. 4 provides an additional 81 spaces along the south side of First Street between Mineola Boulevard and Main Street. In addition, parking is also accommodated within Parking Field No. 1 along the west side of 3rd Avenue immediately on the north side of the station, and within on-street spaces along the north and south sides of the station, including along Front Street on the south side of the tracks and along Station Road and several streets west of the Intermodal Center.

The Mineola station area has a total of approximately 1,526 parking lot or garage spaces and an additional 213 long-term on-street parking spaces. According to LIRR survey data, the off-street parking lot and garage spaces are approximately 93 percent occupied on a given weekday, while the on-street spaces are just 29 percent occupied. The street network in the downtown Mineola station area serve its retail and commercial clientele, including Winthrop-University Hospital, with on-street spaces generally short-term metered parking.

CARLE PLACE STATION AREA

Parking for LIRR commuters is provided in an off-street surface lot north of the station that has a capacity of 13 parking spaces that are 100 percent occupied. Streets nears the station are largely residential with some commercial uses, and most on-street parking is prohibited with No Parking regulations (8:00 AM to 4:00 PM, 8:00 AM to 5:00 PM, or Midnight to 6:00 AM) or has parking limits of varying durations less than two hours.

WESTBURY STATION AREA

There are two major surface parking lots available to LIRR commuters. The first is situated along the south side of the station and north of Railroad Avenue; its capacity is 302 spaces. The second is situated on a T-shaped property extending southward from Scally Place (one block north of the station) to Union Avenue immediately across from the station house. Its capacity is 275 spaces and requires a Village of Westbury parking permit. The combined utilization of the two surface lots is 99 percent.

There is also 12-hour metered on-street parking available for commuter use along Railroad Avenue one block south of the station and along Post Avenue south of Railroad Avenue, with some additional 12-hour metered parking spaces along Scally Place. There are 133 such parking spaces and their combined utilization of these on-street spaces is approximately 95 percent.

The station is situated within the Village downtown shopping area to the north along Post Avenue with residential areas east and west of Post Avenue. There are also industrial uses, as well as a cemetery, south of the station. Two-hour metered parking is in place along Post Avenue and Maple Avenue north of the station, and parking regulations along residential blocks to the east and west have a mix of parking regulations intended to discourage longer-term commuter parking—e.g., two-hour parking from 8:00 AM to 4:00 PM or 9:00 AM to 5:00 PM on alternate days of the week, two-hour parking 9:00 AM to 6:00 PM Friday to Sunday, no parking 9:00 AM to 6:00 PM, and No Parking or No Standing Anytime. South of the station, residential street parking by commuters is also discouraged by regulations such as two-hour parking or by No Parking 12:00 Noon to 2:00 PM on alternate days of the week.

HICKSVILLE STATION AREA

There are numerous surface parking lots and one multi-level parking structure in the vicinity of the Hicksville station that are available to LIRR commuters. There are also approximately 100 on-street "Permit parking" spaces for Town of Oyster Bay residents along the south side of West Barclay Street, west of Newbridge Road. The Town of Oyster Bay parking structure is situated at the southwest corner of Newbridge Road and Duffys Avenue and is the largest commuter parking facility with a capacity of 1,465 spaces. All parking within the parking structure is "Permit parking" and is limited to Town of Oyster Bay residents. The remaining surface lots vary in size and are generally located south of East/West John Street and north of West Marie Street and East/West Nicholai Street. Of the 2,169 spaces contained within the surface lots, 1,601 spaces are "Permit parking" spaces for Town of Oyster Bay residents only and 568 spaces are "Permit parking" spaces or metered for long-term daily parking. On-street and off-street parking commuter parking spaces are 98 percent occupied.

The streets south of West John Street and north of Duffy Avenue have mostly commercial uses; streets north of West John Street and south of Duffy Avenue have mostly residential uses. A large commercial use (Broadway Mall) begins two blocks north of West John Street. Streets that

are lined with mostly commercial uses have short-term metered parking near those uses. In addition, most residential and many commercial streets have No Parking regulations during various hours of the day or short-term parking limits of four hours or less.

FUTURE CONDITIONS WITHOUT AND WITH THE PROPOSED PROJECT (YEAR 2020)

By year 2020, under conditions with background growth in LIRR ridership but before completion of the East Side Access project which is expected in 2023, parking demands at the stations are expected to increase as follows: 32 additional parking space demand at Floral Park; 34 additional parking space demand at New Hyde Park; 14 additional parking space demand at Merillon Avenue; 97 additional parking space demand at Mineola; 7 additional parking space demand at Carle Place; 49 additional parking space demand at Westbury; and 279 additional parking space demand at Hicksville. Assuming that these demands seek to park only at off-street station area parking facilities, **Table 10-38** presents projected year 2020 utilization without East Side Access.

Table 10-38
Projected Year 2020 Parking Demand without the Proposed Project

Station	Year 2020 Off-Street Capacity	Existing Off-Street Usage	Projected Additional Demand	Projected Total Demand	Projected Parking Space Shortfall
Floral Park	637	529	32	561	0
New Hyde Park	488	471	34	505	17
Merillon Avenue	121	121	14	135	14
Mineola	1,526	1,419	97	1,516	0
Carle Place	13	13	7	20	7
Westbury	577	571	49	620	43
Hicksville	3,634	3,567	279	3,846	212

New Hyde Park, Merillon Avenue, and Carle Place stations would have nominal parking space shortfalls of 17, 14, and 7 spaces, respectively, and projected percent utilization of 103.5 percent, 111.6 percent, and 153.8 percent, respectively. Westbury and Hicksville would have larger parking space shortfalls of 43 and 212 spaces, respectively, and projected percent utilization of 107.5 percent and 105.8 percent, respectively. Existing parking space capacity in Floral Park and Mineola would be expected to accommodate additional demand in 2020 without the Proposed Project and would have a projected percent utilization of 88.1 percent and 99.3 percent, respectively.

The Proposed Project is not expected to significantly increase station area parking demand for the following inter-related reasons: there would only be one additional train operating in the peak westbound direction in the AM Peak Period; and there would be more new riders alighting from eastbound trains in the AM Peak Period vacating parking spaces in the parking lots than new riders parking in the lots and boarding eastbound trains. Additional parking facilities would be built at New Hyde Park, Mineola, Westbury, and Hicksville stations as part of the Proposed Project, as follows:

- New Hyde Park—Under Build Option 2 with a five-lane underpass on New Hyde Park Road, an addition of 95 parking spaces would be built at the northwest corner of Second Avenue and New Hyde Park Road (existing self-storage facility). The construction of an

additional parking garage at a location to be determined, north of the New Hyde Park LIRR Station would be considered.

- Mineola—A 424-space parking garage would be built to replace an existing surface parking lot on the south side of Second Street between Main Street and Willis Avenue and a 553-space parking garage would be built to replace an existing surface parking lot on the east side of Third Avenue between First Street and Harrison Avenue.
- Westbury—A 630-space parking garage would be built to replace an existing surface parking lot on the north side of Union Avenue between Post Avenue and Linden Avenue, and a 503-space parking garage would replace part of the existing surface parking lot on the south side of the station. The existing surface lot on the south side of the station would retain 123 existing parking spaces on either side of the proposed 503-space parking garage.
- Hicksville—Two parking garages would be built to replace existing surface parking lots on both sides of West Barclay Street and would be connected by a pedestrian overpass. A 608-space parking garage would replace an existing surface parking lot on the south side of West Barclay Street at Marion Place and a 675-space parking garage would be built on the north side of West Barclay Street between Marion Place and Newbridge Road.

These additional parking facilities, to be built as part of the Proposed Project in 2020 would be available to begin accommodating increased parking demand in 2023 when East Side Access is completed and operational.

With the new parking facilities that would be built as part of the Proposed Project at New Hyde Park, Mineola, Westbury, and Hicksville stations, the capacity of available off-street parking facilities and projected percent utilizations would change as follows:

- New Hyde Park—Off-street parking capacity would remain the same with Build Option 1 and would increase to 583 parking spaces with Build Option 2. Projected percent utilization would remain the same with Build Option 1 and would decrease from 103.5 percent in 2020 without the Proposed Project to 100.4 percent with Build Option 2.
- Mineola—Off-street parking capacity would increase to 2,401 parking spaces with the Proposed Project, which would result in a decrease in projected percent utilization from 99.3 percent in 2020 without the Proposed Project to 63.1 percent in 2020 with the Proposed Project.
- Westbury—Off-street parking capacity would increase to 1,308 parking spaces with the Proposed Project, which would result in a decrease in projected percent utilization from 107.5 percent in year 2020 without the Proposed Project to 47.4 percent in year 2020 with the Proposed Project.
- Hicksville—Off-street parking capacity would increase to 4,543 parking spaces with the Proposed Project, which would result in a decrease in projected percent utilization from 105.8 percent in year 2020 without the Proposed Project to 84.7 percent in 2020 with the Proposed Project.

Available off-street parking capacity at Floral Park would satisfy the expected demand in Year 2020 with the Proposed Project. Parking shortfalls identified at Merillon Avenue and Carle Place stations in Year 2020 without the Proposed Project would remain in Year 2020 with the Proposed Project. As noted in the section below, parking utilization would increase by the Year 2040 condition with East Side Access in place.

FUTURE CONDITIONS WITHOUT AND WITH THE PROPOSED PROJECT (YEAR 2040)

Parking demand forecasts were made for year 2040,with new anticipated ridership due to completion of the East Side Access project and expected growth in existing ridership of approximately 1.5 percent annually. By year 2040, with completion of the East Side Access project and with continued annual growth in ridership but without the Proposed Project, parking demands at the seven stations are forecast to increase as follows: 314 additional parking space demand at Floral Park; 345 additional parking space demand at New Hyde Park; 138 additional parking space demand at Merillon Avenue; 986 additional parking space demand at Mineola; 76 additional parking space demand at Carle Place; 499 additional parking space demand at Westbury; and 2,831 additional parking space demand at Hicksville. There would be a parking shortfall, as shown in **Table 10-39,** without the Proposed Project. The shortfall is attributable to new service provided by East Side Access plus continued annual growth in ridership. The parking demand forecasts for 24 years from now are conservative current projections of LIRR ridership. Parking needs at each of the stations would be monitored and assessed after completion of East Side Access. Should the need for additional parking arise beyond the additional off-street parking capacity that would be built as part of the Proposed Project, approaches to provide further additional parking would be discussed with local jurisdictions to accommodate identified future parking needs.

Table 10-39
Projected Year 2040 Parking Demand without the Proposed Project

Station	Year 2040 Off-Street Capacity	Year 2020 Off-Street Usage	Projected Additional Demand	Projected Total Demand	Projected Parking Space Shortfall
Floral Park	637	561	314	875	238
New Hyde Park	488	505	345	850	362
Merillon Avenue	121	135	138	273	152
Mineola	1,526	1,516	986	2,502	976
Carle Place	13	20	76	96	83
Westbury	577	620	499	1,119	542
Hicksville	3,634	3,846	2,831	6,677	3,043

As shown in Table 10-22, above, there would be a projected parking space shortfall of 238 spaces at Floral Park, 362 spaces at New Hyde Park, 152 spaces at Merillon Avenue, 976 spaces at Mineola, 83 spaces at Carle Place, 542 spaces at Westbury, and 3,043 spaces at Hicksville in year 2040 without the Proposed Project but with East Side Access in place and current project annual growth in ridership. These parking space shortfalls would be reduced or eliminated with construction of parking facilities planned as part of the Proposed Project at four of the seven stations identified with the largest parking space shortfalls. These parking improvements are described in the section below.

The Proposed Project is not expected to increase station area parking demand since there would not be additional trains operating in the peak westbound direction in the AM Peak Period and since it is expected that there would be more new riders alighting from eastbound trains in the AM Peak Period and vacating parking spaces in the parking lots than new riders parking in the lots and boarding eastbound trains.

The Proposed Project would reduce parking shortfalls in 2040 at New Hyde Park, Mineola, Westbury, and Hicksville stations. The capacity of available off-street parking facilities at these four stations would change as follows:

- New Hyde Park—Off-street parking capacity would remain the same with Build Option 1 and would increase to 583 parking spaces with Build Option 2. The parking space shortfall for Build Option 1 would remain the same as the shortfall of 362 spaces in 2040 without the Proposed Project and would decrease to 267 spaces with Build Option 2.
- Mineola—Off-street parking capacity would increase to 2,401 parking spaces with the Proposed Project and the parking space shortfall would decrease from 976 spaces in 2040 without the Proposed Project to 101 spaces with the Proposed Project.
- Westbury—Off-street parking capacity at the Westbury station would increase to 1,308 parking spaces and the parking space shortfall of 542 spaces in year 2040 without the Proposed Project would be eliminated and expected demand would be met. The projected excess of 189 spaces at Westbury could be used by LIRR patrons who live in the Westbury area but currently commute from Hicksville.
- Hicksville—Off-street parking capacity would increase to 4,543 parking spaces and the parking space shortfall would decrease from 3,043 spaces in year 2040 without the Proposed Project to 2,134 spaces with the Proposed Project. Some of this shortfall could be further alleviated by the proposed addition of parking spaces at Westbury with Westbury area residents more able to obtain parking at Westbury than at Hicksville. The LIRR would work with local officials to monitor whether shortfall actually occurs once East Side Access is operational and in the event ridership increases consistent with projections.

The parking shortfalls identified at Floral Park, Merillon Avenue, and Carle Place stations in year 2040 without the Proposed Project would remain the same in 2040 with the Proposed Project.

The additional parking demand forecasted at each of the seven stations due to East Side Access and continued annual growth will be monitored and assessed at each of the seven stations after completion of the East Side Access project and after completion of the additional off-street parking capacity to be built as part of the Proposed Project. The range of additional parking accommodation options could include one or more of the following on a station-by-station basis:

- Restriping of existing surface parking lots to increase capacity, expansion of existing lots, or construction of additional new lots beyond those described above.
- Construction of parking garages atop existing surface lots beyond those described above or at new locations.
- Modification of train service and schedules to improve or increase service at stations with available parking or where parking could be added more easily.
- Increase of existing bus service to stations to promote bus use. Free or heavily subsidized fares and combination fare tickets could also be considered.
- Implementation of new station-oriented feeder bus service or jitney service, with local input.
- Improvement and prioritization of kiss-and-ride facilities to increase pick-up/drop-off activity and reduce parking demand.

- Provision of preferential parking areas for carpoolers, with enforcement. Consideration could also be given to decreasing parking charges for carpoolers.
- Provision of additional bicycle racks and/or lockers to promote increased bicycle use for access to stations.

G. PEDESTRIAN CONNECTIVITY AND BICYCLE ACCESS

This section of the Transportation chapter addresses how pedestrian connectivity across the LIRR tracks and bicycle access will be maintained with the elimination of grade crossings as part of the Proposed Project.

PEDESTRIAN CONNECTIVITY

EXISTING CONDITIONS

In May and June of 2016, surveys of the number of pedestrians crossing the LIRR tracks were conducted at the seven grade crossings in the project area. At all locations surveys were conducted during the AM, midday, and PM peak periods. Peak hour pedestrian volumes are presented in **Table 10-40**.

Table 10-40
Existing Peak Hour Pedestrian Volumes at Grade Crossings

Grade Crossing	AM Peak Hour	Midday Peak Hour	PM Peak Hour
Covert Avenue	23	18	28
South 12th Street	238	42	143
New Hyde Park Road	80	39	50
Main Street	48	171	41
Willis Avenue	22	51	20
School Street	16	35	43
Urban Avenue	52	87	78

In the New Hyde Park area, the South 12th Street crossing has the highest volume of pedestrians crossing the tracks, primarily due to the surface parking lot located along the west side of South 12th Street just south of the tracks. This location is also used as a major pick-up/drop-off area for LIRR station users.

In Mineola, Main Street is the busiest of the two crossings, especially at midday. The two crossing locations in Westbury/New Cassel have modest pedestrian crossing volumes as there are no major trip generators or commuter parking facilities.

FUTURE CONDITIONS WITHOUT THE PROPOSED PROJECT (YEARS 2020 AND 2040)

The grade crossings would remain "as is" under future conditions without the Proposed Project. There would be no changes to station access nor to the grade crossings themselves. Pedestrian volumes would increase modestly in 2020 due to background growth in LIRR ridership from 2016 to 2020. With the institution of East Side Access in 2023, there would be a substantial increase in ridership and pedestrian crossings at the three New Hyde Park grade crossing locations (more so at South 12th Street which is the busiest pedestrian crossing location) and at the two Mineola grade crossings, but continued modest pedestrian increases at the two Westbury/New Cassel grade crossings since they are not situated at the Westbury LIRR station.

However, when additional LIRR service is implemented as part of East Side Access in 2023, the number of times the crossing gates will be in the down position will increase, and the amount of time for pedestrians to cross at these locations will be reduced.

FUTURE CONDITIONS WITH THE PROPOSED PROJECT (YEARS 2020 AND 2040)

The Proposed Project would not significantly increase the volume of pedestrians crossing the tracks, but will provide for the safe crossing of pedestrians at locations where underpasses or pedestrian overpasses would be built or where street closures would occur. There would be no conflicts between pedestrians and vehicular traffic crossing from one side of the tracks to the other. Pedestrian connectivity would be maintained wherever underpasses are built.

For the proposed Covert Avenue underpass, there would be a sidewalk along the east side of the underpass to serve pedestrians crossing from one side to the other. For the proposed New Hyde Park Road underpass, sidewalks would be constructed along both sides of the underpass. For the closure of South 12th Street at the tracks, a pedestrian bridge would be built to accommodate crossing pedestrians. Should it be determined that construction of an underpass for South 12th Street is preferred over the street closure option, a sidewalk would be provided on the east side of the underpass.

For the Main Street crossing, should it be determined that closing Main Street is the preferred option or that an underpass be built under the tracks, a pedestrian bridge would be built to accommodate pedestrian crossings. For the Willis Avenue crossing, a pedestrian bridge would also be built whether a one-way or two-way underpass is the preferred vehicular traffic option.

For both the School Street and Urban Avenue crossings, sidewalks would be built to accommodate pedestrian crossings—along the east side of the School Street underpass and along the west side of the Urban Avenue underpass.

The Proposed Project would thus maintain pedestrian connectivity at all crossing locations while improving traffic and pedestrian safety at each crossing location by eliminating the potential for vehicular traffic or pedestrians to cross the tracks at-grade.

BICYCLE ACCESS

Bicycle racks for bicycle parking are currently provided adjacent to the station houses and westbound LIRR platforms at the New Hyde Park, Mineola, and Westbury stations. Bicycle racks are typically utilized by LIRR commuters who park their bicycles at the stations during the AM peak period and retrieve their bicycles during the PM peak period. Bicycle racks would remain available to LIRR riders in 2020 and 2040, with and without the Proposed Project.

Access to the New Hyde Park station would remain comparable to existing access to the station with the Proposed Project. Under both Build Option 1 and Build Option 2, Second Avenue would no longer intersect with New Hyde Park Road and cyclists would utilize Herkomer Street and Plaza Avenue to access New Hyde Park Road from the station. In addition, if the LIRR grade crossing at South 12th Street is closed, cyclists would use the proposed underpasses on New Hyde Park Road or Covert Avenue to cross from one side of the LIRR tracks to the other. If a one-way southbound underpass is constructed on South 12th Street, northbound cyclists would utilize New Hyde Park Road or Covert Avenue to cross the LIRR tracks.

In Mineola, access to the station and bicycle racks would remain comparable to existing access via 2nd Street and the reconfigured Front Street/Station Plaza. Under Build Option 1, the grade

crossing at Main Street would be eliminated and Main Street at the LIRR grade crossing would be closed. Cyclists would use the proposed two-way underpass on Willis Avenue or the existing viaduct on Mineola Boulevard to cross the tracks. Under Build Option 2, northbound cyclists would use the proposed one-way northbound Main Street underpass or the existing viaduct on Mineola Boulevard to cross the LIRR tracks; southbound cyclists would use the proposed one-way Willis Avenue underpass or the existing viaduct on Mineola Boulevard to cross the LIRR tracks. In Westbury, access to bicycle racks would remain unchanged from existing conditions.

H. VEHICULAR AND PEDESTRIAN SAFETY

SAFETY STUDY AREAS

This section summarizes the results of crash studies that were performed for study locations encompassing seven segments of roadway and two intersections nearby the New Hyde Park, Mineola and Westbury LIRR stations. These seven roadways are those within which grade crossing eliminations are being considered as part of the Proposed Project. The crash data obtained included vehicular and pedestrian crashes at the grade crossings (including any vehicle crashes into the gates at the crossings), along the section of each roadway leading to and from the grade crossings, and at two key intersections identified for evaluation by the NYSDOT. The safety study locations are as follows:

- Covert Avenue: from 7th Avenue to Jericho Turnpike
- South 12th Street: from 5th Avenue to Jericho Turnpike
- New Hyde Park Road: from 5th Avenue to Jericho Turnpike
- Main Street: from Old Country Road to 1st Street
- Willis Avenue: from Old Country Road to 1st Street
- Intersection of Mineola Boulevard/Franklin Avenue and Old Country Road
- Intersection of Mineola Boulevard and 2nd Street
- School Street: from Lowell Street to Maple Avenue
- Urban Avenue: from Main Street to Prospect Avenue

The elimination of the grade crossings would eliminate fatalities involving vehicular traffic being struck by trains. This section also describes crash histories along those sections of the seven roadways leading to and from the seven grade crossings.

METHODOLOGY

The crash analysis is based on methodology and procedures used by NYSDOT. This involved obtaining police accident reports (Form MV-104AN) and the New York State Department of Motor Vehicles (NYSDMV) accident reports (Form MV-104) for the study locations, recorded during the most recent and available three-year period from November 1, 2012 to October 31, 2015, The reports were obtained from the Safety Information Management System (SIMS) and were provided by the NYSDOT Traffic Safety and Mobility Division. The data were supplemented with rail crossing crash data obtained from the Public Transportation Safety Board and the Federal Railroad Administration. The rail crash data was reviewed for a 10-year period beginning November 1, 2005.

All crash reports were reviewed and sorted by location. The detailed information for each report was entered into a data base program that generated crash summary information including date, time of day, collision type, severity, weather, lighting, roadway surface condition, and apparent contributing factors to the accidents. Collision diagrams were prepared for each safety study location on aerial photograph imagery presenting crash types and spatial patterns in each area. The crash summary information and collision diagrams were reviewed to determine if there were significant patterns of crashes by type, location, or other identifiable factors or conditions. To supplement this, field investigations were conducted at each study location to review information on the existing roadway conditions and to identify physical and operational features including existing roadway geometrics and traffic control devices that may have contributed to any identified crash pattern. The analyses also sought to correlate identified safety issues at the safety study areas to observations made in the field.

SUMMARY FINDINGS

Table 10-41 provides a summary of the total crashes, and a breakdown of crash severity and major crash types for each safety study location.

Table 10-41
Summary of Crash Data for Safety Study Areas (November 2012 – October 2015)

Safety Study Location	Total Crashes	Crash Severity				Crash Type			
		Fatal	Injury	Property Damage Only	Non-Reportable	Rear End	Overtake	Right Angle	Left Turn
Covert Avenue	99	2	22	43	32	33	15	20	7
South 12th Street	17	1	4	6	6	1	1	4	1
New Hyde Park Road	100	0	22	44	34	33	29	8	11
Main Street	34	0	3	15	16	5	6	2	3
Willis Avenue	68	1	12	21	34	21	15	13	3
Mineola Blvd/ Franklin Ave at Old Country Rd	95	0	20	42	33	40	26	6	6
Mineola Boulevard at 2nd Street	64	0	17	30	17	15	20	3	4
School Street	59	0	11	27	21	13	8	12	7
Urban Avenue	53	1	12	19	21	9	6	11	0

In addition to the three-year period from November 1, 2012 through October 31, 2015, ten years of crash records were reviewed for crashes resulting in a fatality at the seven crossing locations. There were a total of six crashes over the 10-year period that resulted in one fatality at the seven grade crossing locations and one additional crash resulting in one fatality that occurred at an intersection along the study roadways during the three-year period from November 1, 2012 through October 31, 2015, as follows:

- One crash that resulted in a fatality occurred at the Covert Avenue grade crossing and involved a westbound train striking a pedestrian who was reported to have jumped onto the tracks in August 2013.
- Another fatal crash occurred at the intersection of Covert Avenue and 2nd Avenue and involved a southbound vehicle that collided with a westbound vehicle in August 2014.
- A fatal crashed occurred at the South 12th Street grade crossing and involved a westbound train striking a pedestrian in December 2012.
- There was a fatality involving an incident with a train at the New Hyde Park Road grade crossing in May 2009.

- A fatal crash occurred along Willis Avenue involving a westbound train striking a pedestrian reported to be trespassing in January 2013.
- There was a crash along Urban Avenue in January 2006 involving a train (unknown direction) striking a pedestrian.
- Another fatal crash occurred along Urban Avenue in November 2012 involving an eastbound train striking a bicyclist reported to have ridden around the closed crossing gate.

Table 10-42 presents a summary of total crashes, and the breakdown of crash severity and major crash types for crashes that occurred at or near each of the seven grade crossing locations.

Table 10-42
Summary of Crash Data at or Near Grade Crossing Locations (November 2012 – October 2015)

Location	Total Crashes	Crash Severity			
		Fatal	Injury	Property Damage Only	Non-Reportable
Covert Avenue	28	2	5	13	8
South 12th Street	4	1	2	1	0
New Hyde Park Road	22	0	2	12	8
Main Street	1	0	0	0	1
Willis Avenue	2	1	0	1	0
School Street	1	0	0	0	1
Urban Avenue	8	1	2	3	2

The elimination of the existing grade crossings with the Proposed Project would significantly improve pedestrian and vehicular safety conditions at critical locations. For example, a significant number of crashes at the Covert Avenue grade crossing occurred when traffic was slowing for, or stopping at, a closed crossing gate. This condition would be eliminated by the Proposed Project. With the elimination of seven grade crossings, all rail-related crashes involving trains and pedestrians and/or vehicles would be ameliorated.

The detailed traffic analyses conducted for the Proposed Project, with mitigation, also concluded that vehicle delays would be significantly reduced and, as a result, traffic operating conditions improved. The Proposed Project and the elimination of the existing grade crossings will eliminate crashes that occur when traffic slows for, or stops at, a closed crossing gate, and will help to decrease the overall number of crashes within the study area.

Under projected future conditions without the Proposed Project, with conditions left unchanged and traffic volumes likely to increase, it can be expected that the frequency of crashes would also increase. ✷