

Transportation

This current transportation evaluation builds upon the prior extensive analyses conducted for the *Planned Unit Development (PUD) Preliminary Master Plan, Assembly Square, Somerville, MA* which was approved by the Planning Board on December 14, 2006, and amended on August 5, 2010. The Traffic Impact and Access Study¹ for the nearby Block 11A development also was considered as part of this current evaluation.

This section provides an evaluation of the new Block 5B development consisting of approximately 237,656 net square feet (sf) of general office space and 29,731 sf of accompanying street-front retail/restaurant space (the "Project"). The specific potential traffic impacts associated with this current development project, as described in the following section, is also evaluated as part of this current assessment.

Proposed Block 5B Development Program

The Block 5B development will be constructed within an approximately 71,952 square foot parcel of land in the Assembly Row District of Somerville, Massachusetts (the "Site"). This parcel is bordered by Grand Union Boulevard, Canal Street, Foley Street and the approved Block 5A development parcel currently under construction to the north. The Project involves the construction of a new 12-story mixed-use building including approximately 237,656 sf of office space and 29,731 sf of general retail/restaurant space. The retail/restaurant space is expected to be street-front oriented with approximately four separate tenants space around the ground floor of the building. Parking needs for the building will be accommodated by 489 total parking spaces to be provided within four levels of structured parking within the building. This supply satisfies the City of Somerville Zoning Ordinance requirements and meets the functional needs of the proposed uses.

In addition to the on-site parking supply within the building there also is ample onstreet parallel parking provided on multiple roads in the vicinity of Block 5B. Access changes proposed as part of this development will require the removal of four of the existing eight parallel parking spaces located along the Site's Grand Union Boulevard frontage. However, that change will be offset by the planned addition of six additional

<u>Final Level PUD Approval – Parcel 11A – Assembly Row</u>; Somerville, Massachusetts; Vanasse Hangen Brustlin, Inc.; May 15, 2014.



parallel parking spaces to be constructed along Block 5B's Canal Street frontage to the north.

The proposed development outlined above is consistent with the initial overall developments plans originally anticipated for Block 5 within the Assembly Square PUD. The anticipated trip generation associated with this proposed development is discussed in detail later in this chapter.

Vehicular Access and Circulation

Vehicular access to the 489-space structured parking supply within Block 5B will be provided by a full-access driveway on Foley Street roughly 75 feet to the east of that roadway's Stop line at its intersection with Grand Union Boulevard. In addition to this driveway, a new limited access driveway also is proposed on Grand Union Boulevard. This driveway will be located approximately 185 feet to the north of Foley Street and will be restricted to entering and exiting right turn movements only. This restriction will be enforced through signage provided facing both traffic exiting from the driveway and southbound traffic on Grand Union Boulevard. As the driveway is only partly blocked by the existing median on Grand Union Boulevard, a new 25-foot extension to this island will be constructed consisting of granite cobbles to help enforce this restriction further. Both the Foley Street and Grand Union Boulevard driveways will consist of single entering and exiting lanes.

The new driveway opening on Grand Union Boulevard is required for both truck deliveries, and to avoid potential impacts with entering traffic on Foley Street. The pattern for truck deliveries will involve trucks entering the Site from Foley Street and maneuvering back into the loading area within the easterly end of the building. After a delivery has been completed, trucks will exit Block 5B via the new driveway and head north on Grand Union Boulevard. From that point, trucks will be able to return to Route 28, Mystic Avenue, or Route I-93 using this route.

Allowing right-turn access and egress onto Grand Union Boulevard should also be beneficial to traffic operations on Foley Street, and at its intersection with Grand Union Boulevard. As discussed later in this section, that intersection is planned to be signalized in 2017. The westbound Foley Street approach to the newly signalized intersection will consist of a single shared left-/through lane, and an exclusive right-turn lane. This two-lane approach will extend roughly 150-feet to the east of the Foley Street Stop line at Grand Union Boulevard. As noted earlier, the new Foley Street driveway to Block 5B will be located only 75 feet to the east of Grand Union Boulevard. With this condition it is possible that at certain times of day the Block 5B driveway may be blocked by queued Foley Street westbound traffic at the signal. There still should be sufficient space within Foley Street for eastbound traffic



departing from the signal to bypass any traffic waiting to turn left into Block 5B. However, with entering right-turns being allowed at the new Grand Union Boulevard there will be an additional option available to access the Site for traffic arriving from the south on Grand Union Boulevard, or from the west on Foley Street.

Pedestrian/Bicycle Accommodations

As part of the multi-modal environment of Assembly Row there are significant pedestrian accommodations in place in the immediate vicinity of Block 5B. Grand Union Boulevard features 8-foot wide sidewalks along both sides of the roadway, with crosswalks provided at key locations along the roadway. Specifically, crosswalks are provided on each leg of Grand Union Boulevard's intersections with both Canal Street and Foley Street. Furthermore, as part of the upcoming traffic signal installation at Grand Union Boulevard and Foley Street a push-button actuated exclusive pedestrian phase will be provided. Grand Union Boulevard's intersection with Canal Street was constructed as a raised intersection. This treatment provides increased prominence and awareness of pedestrian traffic in this area to vehicular traffic. Pedestrian curbextensions also are provided at both the northwesterly and southeasterly corners of this intersection, which results in shorter pedestrian crossings across Grand Union Boulevard.

With the crosswalks located at the Grand Union Boulevard/Great River Road roundabout to the north and the Grand Union Boulevard/Foley Street intersection to the south there are ample opportunities for pedestrians to walk to and from Block 5B and the surrounding area. The clearly marked crosswalks at the major intersections within the Assembly Row development area results in a pedestrian-friendly environment which help to promote walking in this area.

The Somerville Zoning Ordinance requires 35 bicycle parking spaces for the proposed Block 5B development. To satisfy this requirement, the project design includes 36 bicycle storage spaces within the inside of the building which will be easily accessible by visitors to the site.

Loading

As noted earlier, loading activity within Block 5B will occur at the easterly end of the ground floor within the building. This internal loading area will be comprised of a clearly defined loading area at the easterly end of the building just south of the planned retail/restaurant space along Canal Street. This loading area will be located at the center of the building and will consist of three separate 12-foot wide/30-foot long loading spaces. Deliveries will be made by trucks entering Block 5B from Foley Street and maneuvering back into the internal loading area. Through the design and location of this area all of the required maneuvering activity will be contained within the



building. After completing a delivery, trucks will exit Block 5B via the new driveway and head north on Grand Union Boulevard to reach Route 28, Mystic Avenue, or Route I-93.

The Applicant is seeking a waiver from the loading bay requirement stated in Section 9.16 of the Somerville Zoning Ordinance. As noted in Section 9.16.3, shared loading spaces and a reduced number of loading spaces is encouraged. Accordingly, the Applicant is proposing a shared loading approach for the retail and restaurant uses. This will involve only three loading spaces being provided within Block 5B as compared to the four spaces required by the Zoning Ordinance. By allocating less ground floor space to loading bay spaces, more ground floor area is available for amenities and other uses that will help advance the lively pedestrian-friendly atmosphere envisioned for the district. The Project design includes three dedicated loading bay spaces which comply with the minimum dimensional requirements of having a 12-foot width and 30-foot length. The maximum loading need for the Block 5B building is anticipated to only be for three loading spaces due to the planned combination of retail and restaurant uses. From a functional perspective, this amount of loading spaces should not be necessary based on several factors. Individual tenant use of the loading bays by the primary uses will be for supply deliveries and may be from smaller trucks rather than longer trailer trucks. Accordingly, some shorter-term deliveries will be able to occur with two small vans simultaneously utilizing a loading area only allocated for one larger truck per the zoning standards. Most deliveries will likely occur in the weekday morning hours. Regardless, as part of the overall site management, deliveries being made to Block 5B will be scheduled to help minimize any shared loading conflicts.

Sight Distance Evaluation

Sight distance measurements and analyses were performed in conformance with guidelines of the American Association of State Highway and Transportation Officials (AASHTO)² for the proposed Block 5B site driveways on Grand Union Boulevard and Foley Street.

Stopping sight distance (SSD) is the distance required for a vehicle traveling along a roadway to perceive, react, and come to a complete stop before colliding with an object in the path of travel. SSD is measured along each major approach to unsignalized intersections to determine if vehicles can safely exit from a minor street or driveway approach. In this respect, SSD can be considered as the minimum visibility criterion for the safe operation of an unsignalized intersection.



A Policy on the Geometric Design of Highways and Streets; American Association of State Highway and Transportation Officials; Washington, D.C.; 2011.



Intersection sight distance (ISD) is based on the time required for perception, reaction, and completion of the desired critical exiting maneuver (a right-turn for both of the site driveways) once the driver on a minor street approach (or a driveway) decides to execute the maneuver. In this context, ISD is a desirable visibility criterion for the safe operation of an unsignalized intersection.

The required SSD and ISD for the proposed Block 5B driveways were calculated using AASHTO guidelines. Table 1 summarizes the available and required sight distances.

Table 1
Sight Distance Analysis Summary

	Stopping Sight Distance			Intersection Sight Distance		
Driveway	Traveling	Required*	Measured	Looking	Desired	Measured
Foley Street driveway	Eastbound	155 feet	75 feet ¹	Right	280'	75 feet ¹
	Westbound	155 feet	685 feet'	Left	280'	685 feet
Grand Union Boulevard driveway	Northbound	155 feet	185 feet	Right	N/A	N/A
	Southbound	N/A	N/A	Left	280'	185'+

^{*} Calculated sight distance based on 25 mph design speed.

As can be seen in Table 1, the measured sight distances for the proposed Block 5B driveway exceed the critical minimum SSD requirements. While the measured eastbound SSD and ISD values shown in Table 1 fall below the AASHTO levels specified these are actually the measured distances from the driveway to the Grand Union Boulevard/Foley Street intersection. Furthermore, the sight lines looking from the Foley Street driveways extend even further beyond this location. Accordingly, traffic turning from these nearby intersecting streets will be doing so at low speeds so that adequate sight lines still will be available. This same condition exists relative to the proposed Grand Union Boulevard driveway due to its relative proximity to Foley Street. While clear sight lines also are available looking to and from the north, that visibility is not critical due to the driveway being restricted to entering and exiting right-turn movements only. With the buildings being set back sufficiently from the roadway edge there are no physical obstructions which will impede the driver's sight lines from the Block 5B driveways

¹ Clear sight lines are available between the proposed Block 5B driveway and the Grand Union Boulevard/Foley Street intersection located approximately 75 feet to the south.

² Clear sight lines are available between the proposed Block 5B (right-turn-only) driveway and the Grand Union Boulevard/Foley Street intersection located approximately 185 feet to the south.



Trip Generation Summary

The trip generation analysis presented during the 2010 Amended PUD approval process was a complex in nature partly due to the timing of the new MBTA Orange Line station relative to the phased construction of the various proposed uses. The MBTA station now has been in operation since September 2014, and almost all of the required PUD development roadway improvements have been constructed. Therefore, with this transportation infrastructure being in place this current evaluation focusses on its ability to accommodate the current Block 5B proposal in addition to the other surrounding Assembly Row development. As with prior evaluations, the Block 5B trip generation was calculated for this assessment using the same Institute of Transportation Engineers (ITE)³ based methodology used in prior studies within the Assembly Square area.

Block 5B Trip Generation Summary

The <u>unadjusted</u> trip generation estimates for the current Block 5B development proposal are summarized in Table 2 for the proposed office and retail/restaurant uses.



Table 2
Block 5B Trip Generation –
Total <u>Unadjusted</u> Trips

	Office:	Retail/Restaurant:	
Time Period	237,656 sf ¹ +	29,731 sf ²	= Total
Weekday Daily (vpd)	1,360	650	2,010
Weekday Morning Peak (vph)			
Enter	204	8	212
<u>Exit</u>	<u>28</u>	<u>5</u>	<u>33</u>
Total	232	13	245
Weekday Evening Peak (vph)			
Enter	49	29	78
<u>Exit</u>	<u>238</u>	<u>32</u>	<u>270</u>
Total	287	61	348
Saturday Daily (vpd)	520	822	1,342
Saturday Midday Peak (vph)			
Enter	59	44	103
<u>Exit</u>	<u>51</u>	<u>40</u>	<u>91</u>
Total	110	84	194

vpd Vehicles per day vph Vehicles per hour

The trip generation estimates summarized in Table 2 are the raw, unadjusted trips that could be generated by the proposed uses without any consideration for transit use, travel by bicycles and pedestrians, shared trips and other factors inherent within the mixed-use context of the surrounding area. For instance, as documented in the prior Block 11A traffic evaluation, approximately 15-percent of the overall weekday daily traffic generated by the full Assembly Square build-out would be in the form of shared trips between the various uses within the site. In this instance, those shared trips could be in the form of office workers walking to a nearby retail shop or restaurant within Block 5B or elsewhere within Assembly Square. In the absence of this mixed-use environment workers on site would need to drive-off site to visit these other uses. The exact amount of trip sharing is largely depending on the amount and type of

Source: <u>Trip Generation Manual; Ninth Edition</u>; Institute of Transportation Engineers; Washington, D.C.; 2012. LUC 710 (General Office Building) comparing addition of 255,772 gross of office space to the currently approved total of 1,248,183 sf. While the Somerville Zoning Ordinance only considers net floor area, trip generation was calculated based on the larger 255,772 sf of gross building area.

Source: Ibid; LUC 820 (Shopping Center) for 29,731 sf of additional retail/restaurant building space compared to existing total of 733,330 sf (including 328,806 sf of Assembly Square Marketplace retail).



surrounding uses, both of which will be continually changing as Assembly Row continues its development. As such, varying levels of trip sharing also expect through various time of day and on weekends.

The amount of automobile traffic generated by Block 5B should be limited due to the availability of public transportation. While only five-percent of the retail customers are assumed to utilize public transportation approximately 25-percent of office workers are expected to use the MBTA Orange Line or bus service.

Furthermore, retail uses typically attract a significant percentage of their customers in the form of "pass-by" trips consisting of vehicles already on the adjacent roadway that are attracted to a retail use when passing the Site. The primary destination of this traffic is elsewhere and the primary trip will be resumed following a stop at the proposed development. As with previous evaluations in this area, a 25-percent pass-by rate was used to determine the pass-by trip credit for the retail trips. This results in a slightly conservative estimate of the number of "new" trips generated by the Site as ITE has documented 34- and 26-percent pass-by rates for shopping centers during the respective weekday evening and Saturday midday peak hours.

These factors, combined with the internal trip sharing with other nearby uses, will reduce the amount of vehicle traffic associated with the new Block 5B development. Once these factors have been appropriately considered, the resulting vehicular traffic on the surrounding roadways can be estimated. Table 3 summarizes the Block 5B trip generation considering internal shared trips and mode splits.



Table 3
Block 5B Trip Generation –
Net New Vehicle Trips

		- Shared/Transit/	
Time Period	Total Unadjusted ¹	Bike/Pedestrian ²	= Total Net
Weekday Daily (vpd)	2,010	538	1,472
Weekday Morning Peak (vph)			
Enter	212	62	150
<u>Exit</u>	<u>33</u>	<u>9</u>	<u>24</u>
Total	245	71	174
Weekday Evening Peak (vph)			
Enter	78	19	59
<u>Exit</u>	<u>270</u>	<u>76</u>	<u>194</u>
Total	348	95	253
Saturday Daily (vpd)	1,342	398	944
Saturday Midday Peak (vph)			
Enter	103	32	71
<u>Exit</u>	<u>91</u>	<u>28</u>	<u>63</u>
Total	194	60	134

vpd Vehicles per day

As shown in Table 3, once transit use, internal shared trips, and travel to and from the Project site by biking and walking are properly considered the resulting trip generation ranges from 134 to 253 total peak hour trips. As noted earlier, the amount of "new" trips added to the surrounding roadway network should be slightly lower due to the occurrence of pass-by traffic. However, with most of the Block 5B traffic being associated with the office space and not the retail uses, the reduction in trips due to pass-by traffic should be fewer than 16 trips per hour compared to the volumes shown in Table 2. The street-front retail uses are expected to be heavily oriented towards nearby residents, workers, or shoppers already visiting other locations within Assembly Row. Because of that, the amount of new retail traffic generated by the new stores and restaurants should be minimized. Likewise, all of the Block 5B uses should experience notable transit ridership as the new Orange Line Station is conveniently located just over 500 feet to the east. Block 5B traffic is expected to follow the same general travel patterns to and from the site as that summarized for the major site

vph Vehicles per hour

¹ Source: Table 2.

Source: Adjustments to trip generation based on methodology outlined in <u>Trip Generation Manual; Ninth Edition</u>; Institute of Transportation Engineers; Washington, D.C.; 2012.



components in the Block 11A traffic evaluation referenced earlier. Once these trips have been distributed onto the surrounding roadway network this level of additional traffic should not have a notable impact on the operation of the surrounding roadways or intersections.

Traffic Mitigation Overview

The prior Amended PUD Transportation analysis identified several transportation-related improvements both within the Assembly Square District and in the surrounding area. These improvements have since almost entirely been constructed. As noted below, the only remaining significant infrastructure improvement to be built is the new Mystic Avenue u-turn connection. That mitigation is planned to be constructed during the 2017 construction season. The following section summarizes this soon to be constructed mitigation and other substantial roadway improvements which already have been implemented both within the Assembly Square District and on the surrounding study area roadways and intersections as part of the overall Assembly Square development to date.

Grand Union Boulevard

Grand Union Boulevard was constructed in 2011 as part of significant roadway improvements (known as the Assembly Square Access Improvements "ASAI" Project) funded through the American Recovery and Reinvestment Act (ARRA). As part of these improvements, Grand Union Boulevard was constructed from Route 28 extending south to Mystic Avenue. This roadway now serves as the primary north-south access to the various intersecting side streets within the overall Assembly Square Mixed-Use Redevelopment. The two-lane landscaped roadway (with additional turn lanes at prominent intersections and on-street parking) accommodates bicycle lanes and pedestrian sidewalks as well as vehicular traffic in a "Complete Streets" setting. Immediately to the northwest of Block 1 is a roundabout at Grand Union Boulevard's intersection with Great River Road. This gateway location provides access to Great River Road, which serves Block 1 as well as future additional waterfront development further to the east in Block 2, while also providing an improved connection to the existing Draw 7 Park to the east of the Project site. Other elements of the significant transportation infrastructure in this area are summarized below.

Assembly Square Off-Site Transportation Mitigation

In addition to the new Grand Union Boulevard, a comprehensive off-site traffic mitigation program was implemented as part of the ASAI project. Specifically, the



following off-site improvements have been implemented and are now fully operational:

- Southbound/ Grand Union Boulevard (4 locations): Mitigation to this interchange consisted of improvements to the existing signalized intersections of Mystic Avenue northbound/Lombardi Street/Grand Union Boulevard and at Broadway/ Lombardi Street/Mount Vernon Street. The Route I-93/Mystic Avenue southbound off-ramp intersection with Lombardi Street also was signalized along with the Mystic Avenue southbound U-turn underpass to Mystic Avenue northbound with all of these signals constructed to operate as part of an interconnected closed-loop system.
- Mystic Avenue Northbound at New Road: Improvements at this location involved installing new signal equipment to return this location to its original fully-operative signalized condition.
- Middlesex Avenue at Foley Street: The previously inoperative traffic signal
 at this location was replaced with new equipment to make the intersection
 fully functional.
- Route 28 at Grand Union Boulevard and Middlesex Avenue: The former
 Assembly Square Drive intersection with Route 28 was reconfigured to allow
 exiting left turns from the newly named Grand Union Boulevard. In
 conjunction with this work, new signal equipment and geometric
 improvements also were e implemented at Route 28/Middlesex Avenue. Due
 to the proximity of both intersections, both locations operate under a single
 traffic signal controller.
- Route 28 at Mystic Avenue Northbound Traffic Signal: New signal equipment was installed at this location to improve the visibility of traffic on both Route 28 and Mystic Avenue at this location.
- **Kensington Avenue:** Safety and accessibility improvements were implemented at an existing pedestrian crossing connecting the northbound and southbound segments of Mystic Avenue under Route I-93.

The design of the locations listed above also featured extensive pedestrian and/or bicycle related improvements to address existing deficiencies. Those included new signalized crosswalks, bicycle detection at traffic signals, dedicated bicycles lanes, and other measures to promote multi-modal travel within Assembly Square.

Grand Union Boulevard at New Road/Revolution Drive

In conjunction with the Block 11A Partners development changes were proposed to the signal operation at the Grand Union Boulevard/New Road/Revolution Drive



intersection. These changes are limited to the signal operation itself and do not require any additional travel lanes, widening or other notable physical changes at this location.

Currently this intersection features a southbound "lead-phase" in which southbound left-turns run unopposed along with the adjacent Grand Union Boulevard southbound traffic. Following that phase, Grand Union Boulevard traffic runs in both directions with left-turns being allowed permissively onto either New Road or Revolution Drive. This signal operation will be modified shortly to provide an initial protected left-turn signal phase in both directions on Grand Union Boulevard instead of just the southbound advance phase currently provided. This will require that the green-arrow signal heads facing southbound traffic be switched to the northbound approach, along with other associated changes to signal equipment that are required.

Grand Union Boulevard at Foley Street

As noted earlier, the Grand Union Boulevard/Foley Street intersection will be signalized during the 2017 construction season. Lane use will remain unchanged, with single through-/right-turn lanes provided in both directions on Grand Union Boulevard along with exclusive left-turn lanes. These left-turn lanes now will operate with an initial protected phase followed by permissive left-turns being allowed. The eastbound Foley Street approach will function with two shared lanes, while the westbound approach will consist of a single shared left-through lane and an exclusive right-turn lane. Both approaches will operate during the same signal phase, with a right-turn only phase being provided for westbound right-turns during the protected southbound left-turn phase for Grand Union Boulevard. A new push-button actuated exclusive pedestrian phase also will be provided with the new signal operation.

Route 28 at Mystic Avenue Northbound – U-turn Slot

A new at-grade signalized U-turn slot will be constructed underneath Route I-93 to the east of the Route 28/Mystic Avenue intersection. This construction will occur shortly at the start of the 2017 construction season. This will allow for traffic traveling north on Mystic Avenue to reverse direction and access the I-93 southbound on-ramp without having to pass through the signalized Route 28/Mystic Avenue interchange. The benefit to this measure is that traffic exiting the Assembly Square District wishing to return to Route I-93 would have this option as opposed to having to exit onto Route 28, travel south to the signal at Mystic Avenue, and then access the Mystic Avenue on-ramp leading to Route I-93 south. This will allow motorists to bypass two Route 28 signals, which will help minimize congestion and delays in this area. From Assembly Row, this route can be reached via exiting from either Grand Union Boulevard at Mystic Avenue/Lombardi Street, New Road at Mystic Avenue, or by



turning left from Foley Street onto Middlesex Avenue. This mitigation will involve the following elements:

- Construct the at-grade U-turn slot underneath the Route I-93 overpass to the
 east of the Route 28/Mystic Avenue intersection. The entry point for this turn
 slot would be just east of the point where the Route I-93 off-ramp intersects
 with Mystic Avenue.
- Install a new actuated traffic signal at the point where the U-turn slot intersects the Route 28 southbound to I-93 southbound on-ramp. The signal will operate in a dependent manner to the Route 28/Mystic Avenue northbound intersection. This measure will result in traffic turning onto Mystic Avenue from the new U-turn slot only running during the signal phase where Route 28 southbound traffic is stopped at the Route 28/Mystic Avenue intersection.

Transportation Demand Management (TDM) Plan

Transportation Demand Management (TDM) refers to measures that can be put in place to minimize or lessen the impact of vehicular traffic to an area. TDM plans are generally most effective with residential or office developments, where the same people are regularly at a given site. While orienting TDM measures toward retail traffic is more difficult, there still are opportunities for TDM success due to the mixed-use and transit-orientated nature of Assembly Row. The most important objective in implementing the TDM program is to provide appropriate alternatives to the singleoccupant motor vehicle as the principal travel mode to and from the site. Most of the typically benefits associated with a TDM should already inherently be provided at Block 5B due to the surrounding mixed-use, transit-oriented environment. Several of the TDM measures to be implemented for the entire site should also be attractive to visitors in this area. Specifically, the provision of on-site bicycle parking spaces, pedestrian walkways and proximity to MBTA public transportation should help minimize the need for private automobile travel. Combined with other bike accommodations within the roadways in and around Assembly Row these measures will help to promote bicycle travel to and from the site. As noted earlier, the new Block 5B retail/restaurant uses should be attractive to residents or workers who wish to stay within Assembly Row for their shopping, dining or entertainment needs. The proximity of Block 5B to the new MBTA Orange Line Station just over 500 feet to the east, as well as existing bus routes along Grand Union Boulevard, will help to promote nonvehicular travel to and from the Site.



Conclusion

The proposed Block 5B development will involve the construction of approximately 237,656 net sf of general office space and 29,731 sf of accompanying street-front retail/restaurant space. Trip generation for this development was estimated using the same ITE-based methodology utilized for prior traffic analyses for the overall Assembly Row redevelopment. The resulting trip generation is expected to range from 134 to 253 total peak hour trips on the surrounding roadway network. Once these trips have been distributed onto the surrounding roadway network this level of additional traffic should not have a notable impact on the operation of the surrounding roadways or intersections. The trip generation associated with Block 5B falls within the previously estimated levels for this area, so there should not be any changes in the anticipated impacts which were considered in designing the surrounding roadway infrastructure. Accordingly, further detailed traffic analyses should not be necessary for this currently proposed development. Signal phasing/timing changes will soon be implemented at Grand Union Boulevard's intersection with Revolution Drive/New Road. At the same time as that improvement the Grand Union Boulevard/Foley Street intersection will be signalized. With these improvements in place traffic flow in the area should be enhanced even with the additional traffic generated by Block 5B.