CHAPTER 22: ALTERNATIVES

A. INTRODUCTION

New York's State Environmental Quality Review Act (SEQRA) requires that alternatives to a proposed project be identified and evaluated in an Environmental Impact Statement (EIS) so that the decision-maker may consider whether alternatives exist that would minimize or avoid adverse environmental effects. According to the *CEQR Technical Manual*, alternatives selected for consideration in an EIS are generally those that are feasible and have the potential to reduce, eliminate, or avoid adverse impacts of a proposed action while meeting some or all of the goals and objectives of this action.

This chapter considers the following four alternatives to the Proposed Actions:

- A *No-Action Alternative*, which is mandated by City Environmental Quality Review (CEQR) and SEQRA, and is intended to provide the lead and involved agencies with an assessment of the expected environmental impacts of no action on their part (*i.e.,* no zoning changes);

- A *No Unmitigated Significant Adverse Impacts Alternative*, which considers whether the Proposed Actions could be modified to eliminate all of the unmitigated significant adverse impacts (community facilities, open space, archaeological resources, transportation (traffic, pedestrians), and construction); and

- A *Reduced Rezoning Area Alternative*, which excludes the Canal Street Corridor Project Area from the proposed rezoning area. In addition, this alternative would modify disposition requirements for one site. The proposed disposition of City Disposition Sites 3 (54 Central Avenue, Block 6, Lot 20) would be modified to require residential and commercial use, instead of office use on that site. Lastly, the proposed zoning text amendment of the Special Stapleton Waterfront District (SSWD) regulations affecting the Stapleton Waterfront Phase III Sites A and B1 would be modified to allow buildings in Subarea A or B1 to waive from floor area calculation purposes up to 100,000 square feet (sf) of community facility floor area.

- *A-Text Alternative*, which is a new alternative added to the FEIS that considers modifications to the Proposed Actions, would modify the SSWD regulations to allow buildings in Subareas A or B1 of the special district to waive from floor area calculation purposes up to 100,000 sf of community facility floor area for use as a school. This alternative would also modify the disposition requirements of two Projected Development Sites. The proposed disposition of City Disposition Sites 2 (539 Jersey Street/100 Brook Street, Block 34, Lot 1) and 3 (54 Central Avenue, Block 6, Lot 2) would be modified to require a greater amount of residential dwelling units (DUs), including Affordable Independent Residences for Seniors (AIRS)[1], and community facility space, and to reduce the amount of commercial use. In addition, this alternative would modify the regulations of the proposed Special Bay Street Corridor District

[1] Use Group 2 residence that requires a regulatory agreement with a City or State agency with a minimum term of 30 years. At least 90 percent of the space must be occupied by an elderly family, the head of which is 62 years or older. In addition, a minimum of four percent of the space must be dedicated to shared facilities for residents, like cafeterias and community rooms. Incomes are restricted to seniors making less than 80 percent of area median income (AMI).

(SBSCD) to allow brewery uses to locate throughout the district. Lastly, this alternative includes zoning text amendments to modify loading requirements and visual corridor design, which would be applicable in the SBSCD. DCP has prepared and filed an amended zoning text application (as ULURP application N190114(A) ZRR; see Appendix M) that addresses issues raised after issuance of the DEIS. In addition, HPD has prepared and filed an amended disposition and UDAAP designation application (ULURP No. C190179(A). These amended applications are assessed as the A-Text Alternative in the FEIS.

B. PRINCIPAL CONCLUSIONS

NO-ACTION ALTERNATIVE COMPARED TO THE PROPOSED ACTIONS

The No-Action Alternative examines future conditions within the Project Area, but assumes the absence of the Proposed Actions (*i.e.,* none of the discretionary approvals proposed as part of the Proposed Actions would be adopted). Under the No-Action Alternative, the existing zoning within the Project Area would remain. It is anticipated that the Project Area would experience moderate growth under the No-Action Alternative by 2030. Of the 30 Projected Development Sites, five sites are expected to be redeveloped, and three sites would undergo conversion. The existing vacant building on Stapleton Waterfront Phase III Site B1 would be demolished. The No-Action Alternative would result in an additional 8,290 sf of residential space (6 unregulated dwelling units) and 24,789 sf of community facility space, and a decrease in 36,489 sf of commercial space. The technical chapters of this EIS have described the No-Action Alternative as "the Future Without the Proposed Actions."

The significant adverse impacts anticipated due to the Proposed Actions would not occur under the No-Action Alternative. However, because existing conditions in the Project Area would generally be expected to remain unchanged, the No-Action Alternative would fail to meet the goals of the Proposed Actions, which are intended to facilitate implementation of the Bay Street Corridor Neighborhood Planning Initiative (the "Plan"). As described in Chapter 1, "Project Description," the Plan's guiding principles intend to support the creation of new housing, including affordable housing; support existing and new commercial development by encouraging a pedestrian-friendly commercial corridor between St. George and Stapleton; and align investment in infrastructure, public open spaces and services in the Bay Street Corridor to support current demands and future growth. Therefore, the No-Action Alternative would not realize the Plan's principal goals and recommendations.

NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE COMPARED TO THE PROPOSED ACTIONS

The No Unmitigated Significant Adverse Impacts Alternative examines a scenario in which the density and other components of the Proposed Actions are changed specifically to avoid the unmitigated significant adverse impacts associated with the Proposed Actions. The Proposed Actions could potentially result in unmitigated significant adverse impacts related to community facilities (public elementary schools and child care services), open space (total and active resources), historic and cultural resources (archaeological resources), transportation (traffic and pedestrians), and construction (historic resources and noise).

Under the With-Action Condition, the Proposed Actions would result in significant adverse impacts on publicly funded child care centers. If practical and feasible mitigation measures are not

established, the significant adverse impacts would be unmitigated. To avoid the identified significant adverse child care impact, the number of affordable dwelling units that could be developed on the identified Projected Developed Sites would have to be reduced to 210 affordable units from 1,061 affordable units—an approximately 80 percent reduction (851 fewer affordable units). Alternatively, 72 new publicly funded child care slots, an increase of 18.8 percent in the existing number of day care slots in the study area, would avoid the identified significant adverse child care impact.

Under the With-Action Condition, the Proposed Actions would result in significant adverse impacts to public elementary schools. If practical and feasible mitigation measures are not established, the significant adverse impacts would be unmitigated. To avoid the identified significant adverse elementary school impact, the number of DUs that could be developed on the identified Projected Developed Sites would have to be reduced to 1,720 DUs from 2,557 DUs—an approximately 33 percent reduction (837 fewer DUs). Alternatively, 175 new elementary school seats would avoid the identified significant adverse elementary school impact.

The Proposed Actions would result in significant adverse indirect impacts on the total and active open space resources in the 0.5-mile Residential Study Area. To avoid the significant adverse indirect impacts on open space resources in the 0.5-mile Residential Study Area, the number of dwelling units that could be developed on the Projected Development Sites would have to be reduced to 1,601 dwelling units from 2,569 dwelling units—an approximately 38 percent reduction (968 fewer dwelling units). Alternatively, the amount of acres of open space in the 0.5-mile Residential Study Area would need to increase by 6.15 acres, (1.55 acres more than the 4.6 acres provided in the With-Action), including 1.37 acres of active open space, to avoid the identified significant adverse open space impact.

The Proposed Actions have the potential to result in significant adverse impacts on archaeological resources impacts at Projected Development Site 5 (Block 488, Lot 65). The Phase 1A study of Projected Development Site 5, completed in May 2017, concluded that there is a potential for archaeological resources to be found on the site and that Phase 1B archaeological testing is necessary to determine the absence or presence of these potential buried resources. Because Projected Development Site 5 is owned by a private entity, there is no mechanism in place to require a developer to conduct archaeological testing or require the preservation or documentation of archaeological resources, should they exist. Because there is no mechanism to avoid or mitigate potential impacts at Projected Development Site 5, the potential significant adverse impact on archaeological resources would be unavoidable. In order to avoid this impact, a portion of the proposed rezoning area along the Bay Street corridor encompassing Projected Development Site 5 would need to be eliminated, which would be counter to key goals of the rezoning proposal.

During construction, the Proposed Actions would result in significant adverse construction-related impacts to two S/NR-eligible and/or NYCL-eligible architectural resources located within 90 feet of Projected or Potential Development Sites. Designated New York City Landmarks (NYCL) or S/NR-listed architectural resources located within 90 feet of a Projected or Potential new construction site are subject to the protections of the DOB's TPPN #10/88. The two impacted resources are not NYCLs or S/NR-listed, therefore they would not be afforded any of the protections under TPPN #10/88. In order to avoid this impact, a portion of the proposed rezoning area surrounding the eligible resources would need to be eliminated, which would be counter to key goals of the rezoning proposal.

The Proposed Actions would result in significant adverse traffic impacts at 31 intersections during one or more analyzed peak hours. Due to expected congestion at several intersections in the No-Action Condition, even small increases in incremental project-generated traffic volumes at some of these locations would result in significant adverse impacts that could not be fully mitigated during one or more analysis peak hours. Because any new development would result in unmitigated traffic impacts, no reasonable alternative could be developed to constitute a No Unmitigated Significant Adverse Impacts Condition without compromising the Proposed Actions' stated goals.

A total of 15 pedestrian elements would be significantly adversely impacted due to the Proposed Actions, including three sidewalks in the Weekday AM peak hour, six sidewalks and two crosswalks in the Weekday MD peak hour, nine sidewalks, and four crosswalks in the Weekday PM peak hour, and seven sidewalks and two crosswalks in the Saturday MD peak hour. Due to constrained right-of-way, mitigation measures to address the potential significant adverse pedestrian impacts for the 11 sidewalks are not feasible. No reasonable alternative could be developed to constitute a No Unmitigated Significant Adverse Impacts Condition without compromising the Proposed Actions' stated goals.

During the construction period, noise level increases exceeding *CEQR Technical Manual* impact criteria would occur at several locations throughout the Project Area. Construction activity is expected to follow the requirements of the NYC Noise Control Code. In order to completely avoid significant adverse construction noise impacts, project-generated construction would have to be restricted in such a manner as to not occur on the same block as, or within one to two blocks from, existing sensitive receptors, which would require elimination of the proposed rezoning area in the vicinity of these sensitive receptors. This would severely limit the Proposed Actions' goals and objectives. Overall, given the above-described limitations, in order to fully mitigate all identified significant adverse impacts, the Proposed Actions would have to be modified to a point where their principal goals and objectives would not be realized.

Overall, in order to eliminate all unmitigated significant adverse impacts, the Proposed Actions would have to be modified to a point where their principal goals and objectives would not be realized.

REDUCED REZONING AREA ALTERNATIVE COMPARED TO THE PROPOSED ACTIONS

The Reduced Rezoning Area Alternative considers a development scenario that assesses the impact of the Proposed Actions on a Reduced Project Area, and whether less total development as a result of reduction in the number of sites would eliminate or reduce the significant adverse impacts of the Proposed Actions, while also meeting the objectives and goals. The Reduced Project Area consists of 22 Projected Development Sites and 19 Potential Development Sites in the Bay Street Corridor Project Area, three City Disposition Sites, and Stapleton Waterfront Phase III Sites A and B1. In addition, under the Reduced Rezoning Area Alternative, several development assumptions have been modified to provide a conservative environmental analysis. These assumptions include the following:

- The Canal Street Corridor Project Area is removed from the Proposed Actions. Proposed zoning map and text amendments affecting the Canal Street Corridor would not be part of the Proposed Actions.

- Pursuant to the terms of disposition, City Disposition Site 3 would be developed with 17,536 sf of commercial space (8,768 sf of office and 8,768 sf of retail), 63,539 sf of residential space (64 dwelling units, all of which would be 100 percent affordable), and 121 parking spaces; and

- To reflect the proposed zoning text amendment, Stapleton Waterfront Phase III Site A would include an additional 100,000-sf of community facility space; the total development on Stapleton Waterfront Phase III Sites A and B1 would comprise 626,666 sf of residential use (627 dwelling units); 43,000 sf of commercial use; 100,000 sf of community facility use; and 343 parking spaces.

The reduction in Project Area and the change in development assumptions for City Disposition Site 3 and Stapleton Waterfront Phase III Site A would result in a total development of 513,990 sf of commercial space, 2,390,631 sf of residential space (2,391 dwelling units), 176,354 sf of community facility space, and 1,561 parking spaces. Compared to the increment resulting from the Proposed Actions, this would represent a decrease of a total of 172 residential units, including 162 unregulated units and 10 affordable units; a decrease of a total of 42,383 sf of commercial space, including an increase of 24,178 sf of retail space and a decrease of 66,561 sf of office space; and an increase of a total of 101,796 sf of community facility space. Both the Proposed Actions and the Reduced Rezoning Area Alternative would result in significant adverse impacts to open space, community facilities, historic and cultural resources (archaeological resources), transportation, and construction. However, in terms of traffic impacts, the Reduced Rezoning Area Alternative would generate a greater number of vehicle, transit, and pedestrian trips during one or more of the peak hours compared to the Proposed Actions, while parking demand would be reduced for the Reduced Rezoning Area Alternative compared to the Proposed Actions. As compared to the Proposed Actions, the Reduced Rezoning Area Alternative would result in the following additional impacts:

- *Person Trips* – an increase in approximately 140, 943, 461, and 405 Weekday AM, MD, PM, and Saturday MD peak-hour-trips, respectively (a 4.8 to 27.6 percent increase);

- *Vehicle Trips* – an increase of approximately 32 and 13 during the Weekday PM, and Saturday MD peak hours, respectively (a 4.1 percent increase);

- *Intersections Impacted* – one additional unmitigatable (partially or fully unmitigatable) intersection during the Weekday PM peak hour (Bay Street and Canal Street for the westbound approach);

- *Traffic Impacts* – one additional lane group and one additional intersection impacted during the Weekday PM peak hour;

- *Transit* – an additional 91 and 150 incremental bus trips during the Weekday AM and PM peak hours;

- *Pedestrian* – an increase of approximately 1,942, 3,347, 3,329, and 2,958 (SIR, bus, and walk-only) pedestrian trips, during the Weekday AM, MD, PM, and Saturday MD peak hours, respectively (an 11.4 to 34.9 percent increase);

- *Sidewalks* – two additional sidewalks impacted include Bay Street and Swan Street, south leg, west sidewalk (Weekday MD); and Bay Street and Hannah Street, south leg, east sidewalk (Weekday PM).

A-TEXT ALTERNATIVE COMPARED TO THE PROPOSED ACTIONS

The A-text Alternative considers modifications to the Proposed Actions that would modify the Special Stapleton Waterfront District (SSWD) regulations to allow buildings in Subareas A or B1 to waive from floor area calculation purposes up to 100,000 sf of community facility floor area for school use, modify the disposition terms of City Disposition Sites 2 and 3 to introduce a greater amount of residential units and community facility use, and reduce the amount of commercial use, and to permit brewery uses throughout the proposed Special Bay Street Corridor District (SBSCD). In addition, the A-Text Alternative includes zoning text amendments that modify loading requirements and visual corridor design in the proposed SBSCD. Since the issuance of the DEIS, DCP has prepared and filed an amended zoning text application that addresses issued raised after issuance of the DEIS. The amended application, filed as ULURP application N190114(A)ZRR and HPD's amended disposition and UDAAP designation application (ULURP No. C190179(A) HAR) consists of modifications to the Proposed Actions that aim to reinforce the goals of the Bay Street Corridor Neighborhood Plan, primarily facilitating the creation of a walkable mixed-use corridor with greater access to housing, local retail uses, and services that are expected to benefit the current and future residents of the area. The changes proposed as part of the A-Text Alternative are in response to views expressed during the public review process and are in appropriate areas of the district to allow continued consideration of appropriate building form and scale.

Like the Proposed Actions, the A-Text Alternative RWCDS includes 17 Projected Development Sites and 19 Potential Development Sites in the Bay Street Corridor Project Area, the eight Projected Development Sites and four Potential Development Sites in the Canal Street Corridor Project Area, as well as three City Disposition Sites and Stapleton Waterfront Phase III Sites A and B1.The A-Text Alternative would result in the same land uses generated by the Proposed Actions and consists of generally the same zoning actions sought under the Proposed Actions. The A-Text Alternative would introduce approximately 179 more DUs than the Proposed Actions, with a greater portion of affordable units (an increase of 200 affordable DUs as compared to the Proposed Actions, including Affordable Independent Residences for Seniors (AIRS)) as compared to market-rate DUs. The A-Text Alternative RWCDS, compared with the RWCDS for the Proposed Actions, would result in a net increase of 135,796 gsf of residential floor area (179 DUs), a net increase of 105,700 gsf in community facility floor area, and a net decrease of 91,793 gsf of commercial floor area. The loss of commercial floor area results from an incremental decrease of 15,432 gsf in retail and 76,361 gsf in office under the A-Text Alternative as compared to the Proposed Actions. In addition, there would be an incremental decrease of 155 parking spaces in the A-Text Alternative as compared to the Proposed Actions.

As with the Proposed Actions, the A-Text Alternative would not result in significant adverse impacts with respect to land use, zoning, and public policy; socioeconomic conditions; shadows; urban design and visual resources; hazardous materials; water and sewer infrastructure; solid waste and sanitation services; energy; greenhouse gas emissions and climate change; air quality; noise; public health; and neighborhood character.

The A-Text Alternative would result in the same or similar significant adverse impacts related to community facilities, open space, historic and cultural resources, transportation (traffic and pedestrians), and construction (noise). These significant adverse impacts would require the same or similar mitigations measures as the Proposed Actions.

The A-Text Alternative would generally meet the goals and objectives of the Proposed Actions to foster affordable housing, capital investments, and community resources creating a mixed-use walkable corridor that connects surrounding communities; however, as compared to the Proposed Actions, the A-Text Alternative would result in a net decrease in commercial uses compared to the Proposed Actions. The A-Text Alternative would result in a net increase of DUs, as well as an increase in the proportion affordable DUs to market-rate DUs, supporting the creation of housing for the broad spectrum of North Shore needs. The A-Text Alternative RWCDS also includes the introduction of senior housing on City Disposition Site 2.

C. NO-ACTION ALTERNATIVE COMPARED WITH THE PROPOSED ACTIONS

The No-Action Alternative assumes that the Proposed Actions are not implemented (*i.e.*, no zoning map and text amendments, no disposition of City-owned property, UDAA designation or UDAAP approval, no demapping of a City street). Conditions under this alternative are same as the "Future Without the Proposed Actions" described in the preceding chapters, which are compared in the following sections to conditions under the Proposed Actions.

Under the No-Action Alternative, it is anticipated that new development would occur on 5 of the 30 Projected Development Sites under the Reasonable Worst Case Development Scenario (RWCDS). These include Projected Development Sites 16, 21, 22, 23, and 25. In addition, in the No-Action Alternative, Projected Development Site 1, which is currently occupied by a non-conforming commercial building would be repurposed with an as-of-right community facility use; Projected Developed Site 9, which is currently partially occupied by a vacant community facility building would be repurposed with as-of-right retail use; former industrial buildings along Minthorne Street occupying a portion of Projected Development Site 7 are undergoing renovations, and are expected to be tenanted by additional commercial uses; and the vacant 50,000 sf Department of Transportation (DOT) Dockbuilders facility on Stapleton Waterfront Phase III Site B1 would be demolished, and the site would be fully vacant. For all other Projected Development Sites, existing uses would remain unchanged.

In total, the Projected Development Sites would include approximately 15,386 sf of residential floor area (12 unregulated dwelling units), 343,235 sf of commercial uses, 37,879 sf community facility uses, and 481 parking spaces under the 2030 No-Action Alternative.

The effects of the No-Action Alternative in comparison to those of the Proposed Actions are provided below.

LAND USE, ZONING, AND PUBLIC POLICY

Based on existing and foreseeable zoning and land use trends, as well as market conditions, it is anticipated that the majority of development sites identified within the Project Area would remain

in their existing conditions and several vacant lots would be developed as-of-right under the existing zoning. Under the No-Action Alternative, it is anticipated the Project Area would experience modest increase in residential and community facility uses, and a decrease in commercial uses. Compared to the Proposed Actions, under the No-Action Alternative there would be less residential, retail, office, and community facility uses.

Similar to the Proposed Actions, the No-Action Alternative would not result in significant adverse impacts to land use, zoning, or public policy. Development within the Project Area would be consistent with existing uses and is not expected to significantly affect the mix of existing land uses in the area. However, the No-Action Alternative, as compared to the Proposed Actions, would include significantly fewer residential units (12 dwelling units, as compared to 2,569 units in the Proposed Actions) and no new affordable housing would be developed under this alternative.

Under the No-Action Alternative, no changes to zoning are anticipated. Development could occur throughout the Project Area under the existing zoning, which includes a mix of residential, commercial, and manufacturing zoning districts and at the density and scale that is currently allowed under existing zoning.

Thus the benefit of the Proposed Actions—including supporting the creation of new affordable housing by increasing residential density and establishing a Mandatory Inclusionary Housing (MIH) area, supporting new and existing businesses by supporting a thriving retail and business corridor by mapping mixed-use zoning districts and increasing density in a highly transit accessible area, creating pedestrian-friendly streets through activating ground floor retail uses—would not be realized under the No-Action Alternative.

SOCIOECONOMIC CONDITIONS

As described above, absent the Proposed Actions, it is anticipated that new development would only occur on 5 of the 30 Projected Development Sites, and the existing buildings on portions of 3 Projected Development Sites would be repurposed to a new use that is permitted as-of-right. No-Action development would result in a net increase of 8,290 sf of residential use (6 dwelling units) and 24,789 sf of community facility use; and a net decrease of 36,489 sf of commercial use over existing conditions on the Projected Development Sites.

Similar to the Proposed Actions, the No-Action Alternative would not result in significant adverse impacts due to direct residential or business displacement, and indirect residential displacement.

COMMUNITY FACILITIES

Under the No-Action Alternative as compared to the Proposed Actions, fewer residents would be introduced in the Study Area, and, therefore, there would be a smaller increase in demand on community facilities within the Study Area. Neither the Proposed Actions nor the No-Action Alternative would result in direct impacts to community facilities and services or indirect impacts to public intermediate or high schools , library services, or police, fire, and emergency medical services. While the Proposed Actions would result in significant adverse impacts to public elementary schools and child care centers, the No-Action Alternative would not result in significant adverse impacts related to public elementary schools or child care facilities.

PUBLIC SCHOOLS

Under the No-Action Alternative, there would be some new residential development on the Projected Development Sites, which would include approximately six new residential units being added to the Project Area in addition to the six existing dwelling units. All the expected dwelling units in the No-Action development would be unregulated and would generate substantially less demand for community facilities, as compared to the net 1,061 affordable and 1,508 unregulated dwelling units generated by the Proposed Actions in the Project Area. As in the Proposed Actions, it is anticipated that in the No-Action Alternative, both elementary and high schools within Community School District (CSD) 31, Sub-District 4 would operate over capacity, at 129 percent utilization rate. Intermediate schools would operate below capacity, at 83 percent utilization rate.

CHILD CARE CENTERS

As no new affordable housing would be developed on Projected Development Sites in the No-Action Alternative, no additional publicly funded child care-eligible children would be introduced in the Project Area. Therefore, no significant adverse impacts to publicly funded child care facilities would occur under the No-Action Alternative, unlike the Proposed Actions. However, based on several proposed or ongoing "No-Build" developments in the study area that are expected to be complete by 2030, the enrollment in the child care centers would increase as a result of the affordable units to be developed in the No-Build condition. Therefore, publicly funded child care facilities would operate over capacity in the No-Action Alternative (approximately 100.78 percent utilization), similar to the Proposed Actions. As with the Proposed Actions, several factors could potentially limit the number of children in need of publicly funded child care slots in ACS-contracted child care facilities. The projected increase in demand for child care slots resulting from No-Build developments in the study area could be offset by private day care facilities and day care centers outside of the 1.5-mile Child Care Study Area, which are not included in this analysis; some parents may choose day care providers that are closer to their workplace rather than their home. In addition, the City's universal Pre-Kindergarten program has greatly expanded the number of free Pre-K seats available for four- to five-year-olds, these seats not accounted for in this analysis. The City recently announced this initiative will expand to offer free, full-day Pre-K to all three-year-olds within the next four years. Families might choose to enroll their children in Pre-K rather than in day care, reducing the demand for child care seats.

PUBLIC LIBRARIES

As fewer residents would be introduced in the Project Area under the No-Action Alternative, the Stapleton Branch and St. George Library Center of the New York Public Library (NYPL) would have a higher holdings-per-resident ratio (1.34 and 3.56, respectively) than under the Proposed Actions (1.16 and 3.32, respectively). Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse impacts on public libraries.

OPEN SPACE

Similar to the Proposed Actions, the No-Action Alternative would not have any direct impacts on open space resources.

In terms of indirect impacts, in both the Proposed Actions and the No-Action Alternative, the passive open space ratios in the 0.25-mile Non-Residential Study Area and 0.5-mile Residential Study Area would exceed *CEQR Technical Manual* open space ratio guidance. Therefore, in the No-Action Alternative, as in the Proposed Actions, daytime users of passive open space within the 0.25-mile Non-Residential Study Area would be well-served by the open space, and there would be no significant adverse open space impacts in the non-residential study area.

The residential user population within 0.5-mile Residential Study Area would be well-served by passive open space resources. However, in both the Proposed Actions and the No-Action Alternative, the total and active open space ratios would be below the *CEQR Technical Manual* guidance ratios. The No-Action Alternative would have slightly higher ratios with respect to overall open space, as well as passive and active open space. Under the No-Action Alternative, the total, passive and active open space ratios for the 0.5-mile Residential Study Area would be 1.51, 0.93, and 0.58 acres per 1,000 residents, respectively (compared to 1.41, 0.88, and 0.52 acres per 1,000 residents under the Proposed Actions). The passive open space ratio for the combined residential and non-resident populations in the 0.5-mile Residential Study Area would be 0.66 acres per 1,000 total users under the No-Action Alternative, compared to 0.64 acres per total users under the Proposed Actions.

SHADOWS

Similar to the Proposed Actions, the No-Action Alternative would not result adverse shadow impacts on publicly accessible open space resources and sunlight-sensitive historic resources.

HISTORIC AND CULTURAL RESOURCES

Similar to the Proposed Actions, the No-Action Alternative would not result in any significant adverse direct or any indirect contextual impacts to architectural resources. Unlike the Proposed Actions that have the potential to adversely impact the archaeological resources on Projected Development Site 5, the No-Action Alternative would not result in any significant adverse archaeological impacts because Projected Development Site 5 is not expected to be developed in this alternative. The five Projected Development Sites expected to be developed in the No-Action Alternative would be developed as-of-right. No development is anticipated to take place on the 23 Potential Development Sites identified under the RWCDS.

As noted in Chapter 7, "Historic Resources," there are no LPC-designated historic resources on any Projected/Potential Development Sites within the Project Area. There are 10 LPC-designated and/or S/NR-listed and/or S/NR-eligible historic resources within the 400-foot Study Area of the Project Area. Of the five Projected Development Sites being developed in the No-Action Alternative, none of the sites are within 90-feet of a designated or eligible historic resource. Therefore, the significant adverse construction-related impacts to the S/NR-eligible 292 Van Duzer Street and the LPC-eligible and S/NR-eligible Stapleton Branch of the New York City Public Library that would occur in the future with the Proposed Actions would not occur under the No-Action Alternative.

URBAN DESIGN AND VISUAL RESOURCES

As in the Proposed Actions, development in the No-Action Alternative would not result in significant adverse impacts on urban design, view corridors, and visual resources.

In the No-Action Alternative, it is assumed that the Bay Street Corridor Project Area and the Canal Street Corridor Project Area would not be rezoned, the three City Disposition Sites would not be disposed, and the permitted building height and street wall regulations on Stapleton Waterfront Phase III Sites A and B1 would remain unchanged; therefore, it is anticipated that current development patterns in the urban design study areas would remain unchanged. While a few vacant lots in the Bay Street Corridor Project Area and Canal Street Corridor Project Area would be redeveloped with new buildings under the No-Action Alternative, the anticipated No-Action buildings would be shorter in height than the expected building bulk under the Proposed Actions. Unlike in the Proposed Actions, the underlying zoning in the Canal Street Corridor Project Area does not require a street wall and new buildings would have the option to setback from the lot line. Moreover, the view corridors proposed under the Proposed Actions would not be created in the No-Action Alternative.

As described in Chapter 2, "Land Use, Zoning, and Public Policy," recent development trends in the neighborhood have shown little new private investment in the Primary Study Area. Because this trend would be expected to generally continue in the No-Action Alternative, existing conditions would generally be expected to remain unchanged. Unlike in the Proposed Actions, the overall street wall patterns and building forms are expected to remain largely consistent with existing conditions in the No-Action Alternative.

Therefore, while a small amount of growth is anticipated in the No-Action Alternative, along with the proposed or ongoing No-Build projects, unlike in the Proposed Actions the urban design characteristics of the Primary Study Area in the No-Action Alternative would generally remain unchanged from existing conditions. As such, the No-Action Alternative would not have the Proposed Actions' beneficial streetscape effects of facilitating active ground floor uses that would improve the pedestrian experience, in addition to street wall and building height requirements.

NATURAL RESOURCES

Similar to the Proposed Actions, the No-Action Alternative would not result in significant adverse impacts to natural resources.

The land cover type and the patterns and levels of human activity are expected to remain the same in both the No-Action Alternative and the Proposed Actions, and the Study Area would remain densely developed with existing buildings, roads, parking lots, and limited vegetated communities. Natural resources within the Study Area would remain largely unchanged from existing conditions, as would vegetation and ecological communities, and wildlife utilization. The limited vegetated areas, street trees, and patches of landscaped areas within the Study Area would continue to support the same communities of urban-adapted, generalist wildlife, such as eastern gray squirrel, Norway rat, rock dove, and house sparrow in both the No-Action Alternative and the Proposed Actions.

HAZARDOUS MATERIALS

As in the Proposed Actions, the No-Action Alternative would involve building construction, and conversions on Projected and/or Potential Development Sites identified in the Project Area. Construction of new as-of-right buildings under the current zoning in the No-Action Alternative may occur without regulatory oversight such that environmental conditions of these sites are not

addressed, and residual contamination could be encountered by construction workers or the general public without their knowledge. However, it is assumed that all construction and required removal or handling of hazardous materials would be conducted in accordance with applicable state and federal requirements, thereby minimizing the potential for exposure.

Because all Projected Development Sites would be redeveloped in the Proposed Actions, unlike in the No-Action Alternative, a greater amount of ground disturbance in areas where soil is potentially contaminated from hazardous material is anticipated in the Proposed Actions. However, any construction under the Proposed Actions that would involve soil disturbance in areas that could potentially create or increase pathways for human exposure to any subsurface hazardous materials would be conducted in accordance with testing and remediation requirements pursuant to (E) designations or comparable mechanism that would be placed on the Projected and Potential Development Sites under the Proposed Actions.

WATER AND SEWER INFRASTRUCTURE

Similar to the Proposed Actions, the No-Action Alternative would not result in significant adverse impacts to the City's water supply, wastewater treatment, or stormwater conveyance infrastructure. Because of lesser floor area anticipated in the No-Action Alternative, as compared to the Proposed Actions, the No-Action Alternative would generate less demand on the City's water supply and wastewater treatment infrastructure. Moreover, any new development under both the Proposed Actions and No-Action Alternative would require the incorporation of best management practices (BMPs) required as part of the New York City Department of Environmental Protection (DEP) site connection application process for new buildings.

SOLID WASTE AND SANITATION SERVICES

Similar to the Proposed Actions, the No-Action Alternative would not result in significant adverse impacts to the City's solid waste management system. Because of lesser floor area anticipated in the No-Action Alternative, as compared to the Proposed Actions, the No-Action Alternative would generate less demand on the City's solid waste services than the Proposed Actions.

ENERGY

Similar to the Proposed Actions, the No-Action Alternative would not result in significant adverse impacts to the transmission or generation of energy. Because of lesser floor area anticipated in the No-Action Alternative as compared to Proposed Actions, the total energy demand in the No-Action Alternative at approximately 85.1 million MBtus would be significantly lesser as compared to the Proposed Actions (480.5 million MBtus). However, under both the Proposed Actions and the No-Action Alternative, the annual increase in demand would represent a negligible amount of the City's forecasted annual energy requirements for 2030.

TRANSPORTATION

Similar to the Proposed Actions, in the No-Action Alternative, traffic, transit, pedestrian, and parking demand are expected to increase in the study area due to background growth, development that could occur pursuant to existing zoning, and development of other projects in the study area. Unlike

the Proposed Actions, the No-Action Alternative would not result in any significant adverse transportation impacts as follows:

- The No-Action Alternative would not result in the significant adverse traffic impacts to 24, 21, 26 and 20 intersections during the Weekday AM, MD, PM, and Saturday MD peak hours, respectively, as in the Proposed Actions;

- The No-Action Alternative would not result in the significant adverse transit impacts to capacity shortfalls on the S51/81, S74/84, S76/86 and S78 bus services during the Weekday AM and PM peak hours, as in the Proposed Actions; and

- The No-Action Alternative would not result in the significant adverse pedestrian impacts to 11 sidewalks and 4 crosswalks during one or more peak hours, as in the Proposed Actions.

TRAFFIC

Traffic operations at many intersections in the study area would experience congested conditions in the No-Action Alternative. A total of 33 (27 signalized, 6 unsignalized) intersections would have at least one congested (delays exceed mid-LOS D) lane group during at least one peak hour, compared to 34 (27 signalized, 7 unsignalized) intersections with at least one congested lane group in one more peak hour under the Proposed Actions. However, there would be no intersections with significant adverse traffic impacts under the No-Action Alternative compared to 24, 21, 26 and 20 impacted intersections during the Weekday AM, MD, PM, and Saturday MD peak hours, respectively, under the Proposed Actions.

TRANSIT (SIR)

Under the No-Action Alternative, the St. George and Tompkinsville SIR stations are expected to experience an increase in demand as a result of background growth and future developments in the study area. All stairways and control areas at these stations are expected to operate at LOS A during the Weekday AM and PM peak hours, similar to the operation of these SIR elements under the Proposed Actions. Likewise, the SIR is projected to operate under capacity during the No-Action Alternative and the Proposed Actions. Therefore, similar to the Proposed Actions, the No-Action Alternative would not result in significant adverse SIR impacts.

TRANSIT (BUS)

Under the No-Action Alternative, demands on the local bus routes serving the study area are expected to increase due to background growth and future developments. The existing level of bus service would not be sufficient to provide adequate supply to meet projected demand generated under the No-Action Alternative on the northbound S51/81, S74/84, S76/86, and S78 and southbound S51/81 and S74/84 during the Weekday AM peak hour and the northbound S51/81, S76/86, and S78 and southbound S51/S81, S76/86, and S78 during the Weekday PM peak hour. In comparison, the northbound and southbound S51/81, S74/84, S76/86, and S78 routes would all be over capacity in the Proposed Actions during both peak hours. Based on a loading capacity of 54 passengers per bus, at most four additional buses would need to be added in one direction on any given route during any

given peak hour to accommodate the projected demand under the No-Action Alternative. The additional service would mitigate any bus transit impacts under the No-Action Alternative.

PEDESTRIAN

Under the No-Action Alternative, pedestrian volumes along corners, sidewalks, and crosswalks in the study area are expected to increase compared to the Existing Condition volumes due to background growth and new developments projects.

Corners

Under the No-Action Alternative, all analyzed corners are expected to operate at LOS B or better during all peak hours, similar to the corner operations under the Proposed Actions condition. Therefore, no significant adverse corner impacts are expected under either the No-Action Alternative or the Proposed Actions.

Sidewalks

During platoon conditions under the No-Action Alternative, all analyzed sidewalks are expected to operate at LOS C or better (average circulation space greater than 40.0 ft^2/p) during all peak hours with the exception of five sidewalk elements. This compares to significant adverse impacts at 11 sidewalks in one or more peak hours under the Proposed Actions.

Crosswalks

Under the No-Action Alternative, all analyzed crosswalks would operate at LOS C or better (average circulation space greater than 24.0 ft^2/p) during all peak hours with the exception of two crosswalk elements. This compares to significant adverse impacts at four crosswalk elements in one or more peak hours under the Proposed Actions.

PARKING

Under the No-Action Alternative, it is expected that the demand for on-street parking spaces would increase due to background growth and development projects in the study area. While parking demand is expected to exceed available on-street parking within some of the subareas, the on-street parking within a ¼-mile radius of the study area during the No-Action Alternative is expected to be at most 83 percent utilized during the Weekday MD peak hour. Therefore, no significant adverse parking impacts are expected during the No-Action Alternative.

AIR QUALITY

MOBILE SOURCES

Similar to the Proposed Actions, the No-Action Alternative would not result in significant adverse mobile source impacts. As described in Chapter 15, "Air Quality," no exceedances of the National Ambient Air Quality Standards for carbon monoxide or PM_{10} is anticipated.

STATIONARY SOURCES

Similar to the Proposed Actions, the No-Action Alternative would not result in potentially significant adverse stationary source impacts. In the No-Action Alternative, minimal development in the Study Area would occur by 2030; however, the Proposed Actions would result in more development. As described in Chapter 15, "Air Quality," the emissions from heat and hot water systems associated with the Proposed Actions would cumulatively be greater than the emissions from heat and hot water systems under the No-Action Alternative.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

With less development than under the Proposed Actions, the No-Action Alternative would have less energy use and would therefore result in fewer carbon dioxide equivalent (CO2e) emissions per year. Neither the Proposed Actions nor the No-Action Alternative would result in significant greenhouse gas (GHG) emission or climate change impacts.

NOISE

Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse noise impacts.

In the No-Action Alternative, as in the Proposed Actions, traffic volumes would increase in the area due to general background growth and trips associated with new development that would be independent of the Proposed Actions. These increases in traffic would be lower as compared to the Proposed Actions and in general would result in small changes in noise levels, but, as outlined in Chapter 17, "Noise," at most locations and during most time periods, the increase in $Leq_{(1)}$ noise levels would be less than 4.2 dBA— which represents a barely perceptible to readily noticeable change. As under conditions in the future with the Proposed Actions, noise levels in the proposed rezoning area would range from the "Acceptable" CEQR noise exposure category to the "Clearly Unacceptable" CEQR noise exposure category. However, no significant adverse noise impacts would occur under the No-Action Alternative or Proposed Actions.

PUBLIC HEALTH

Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse public health impacts. Under the No-Action Alternative, no unmitigated significant adverse impacts to hazardous materials, air quality, noise, or construction would occur, and thus there would be no significant adverse public health impacts associated with construction or operation of the new development anticipated under the No-Action Alternative.

NEIGHBORHOOD CHARACTER

Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse impacts to neighborhood character. The No-Action Alternative would result in minimal development as compared to the Proposed Actions, with only five Projected Development Sites anticipated to be developed. In addition, development in the No-Action Alternative would be pursuant to the underlying zoning and would be consistent with the current development trends and building typologies in the area, and the overall neighborhood character of the area would remain substantially

the same as it is today under the No- Action Alternative. Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse impacts to neighborhood character; however, the improvements to neighborhood character that would occur under the Proposed Actions would not occur under this alternative.

CONSTRUCTION

Because the amount of new construction in the No-Action Alternative would be significantly less than in the Proposed Actions, the No-Action Alternative would generate less temporary construction disruption and shorter durations of construction-related noise and traffic; it may also result in less potential construction-related impacts to non-designated historic resources in the area. Neither the Proposed Actions nor the No-Action Alternative would result in significant adverse construction impacts with respect to land use and neighborhood character, socioeconomic conditions, community facilities, or open space, hazardous materials, or air quality.

Of the five Projected Development Sites being developed in the No-Action Alternative, none are within 90-feet of a designated or eligible historic resource. Therefore, the significant adverse construction-related impacts to the S/NR-eligible 292 Van Duzer Street and the LPC-eligible and S/NR-eligible Stapleton Branch of the New York City Public Library that would occur in the future with the Proposed Actions would not occur under the No-Action Alternative. Moreover, as Projected Development Site 5 is not expected to be redeveloped under the No-Action Alternative, the potential impacts to archaeological resources that would occur in the future with the Proposed Actions would not occur under the No-Action Alternative. Although the No-Action Alternative would involve less soil disturbance, controls on its performance could potentially be less stringent than under the Proposed Actions. In addition, new development that could occur in the Project Area would be smaller in scale and of shorter duration as compared to the Proposed Actions. Therefore, construction noise impacts would not be expected at locations in close proximity to development sites under the No-Action Alternative.

D. NO UNMITIGATED SIGNIFICANT ADVERSE IMPACTS ALTERNATIVE COMPARED TO THE PROPOSED ACTIONS

Based on the analysis presented in other chapters of this EIS, there is the potential for the Proposed Actions to result in a number of significant adverse impacts for which no practicable mitigation has been identified. Specifically, unmitigated impacts were identified with respect to community facilities (publicly funded child care centers and public elementary schools), open space, historic resources (archaeology), transportation, and construction.

This alternative considers development that would not result in any significant adverse impacts that could not be fully mitigated. However, to eliminate all unmitigated significant adverse impacts, development anticipated under the Proposed Actions would have to be modified to a point where the principal goals and objective of the Proposed Actions would not be fully realized.

COMMUNITY FACILITIES

PUBLIC SCHOOLS

Under the RWCDS, the Proposed Actions would result in significant adverse impacts to public elementary schools. Development under the Proposed Actions would include approximately 2,557 additional DUs by 2030. Based on the updated student multipliers, this new development would generate approximately 716 elementary school students. By 2030, with the addition of these students, there would be a deficit of 3,911 seats within Community School District 31, Sub-district 4, and the 136 percent utilization rate would constitute an increase of 7 percentage points over the No-Action Condition.

Mitigation measures for elementary school impacts were explored in coordination with the lead agency (DCP) and the New York City School Construction Authority (SCA) and the New York City Department of Education (DOE) between the DEIS and FEIS. While the mitigation measures described in Chapter 21, "Mitigation" could offset or would serve to at least partially mitigate the identified impact to elementary school impacts, in the event that the significant adverse impact on elementary schools is not completely eliminated, an unavoidable significant adverse impact would result.

To avoid the identified significant adverse elementary school impact, the number of DUs that could be developed on the identified Projected Developed Sites would have to be reduced to 1,720 DUs from 2,557 DUs—an approximately 33 percent reduction (837 fewer DUs). Alternatively, 175 new elementary school seats would avoid the identified significant adverse elementary school impact.

The reduction in DUs that could be built under the Proposed Actions to avoid the unmitigated significant adverse impact to elementary schools would modify the Proposed Actions to a point where the principal goals and objectives of the Proposed Actions to support the creation of new housing, including affordable housing, would not be realized.

CHILD CARE

Under the RWCDS, the Proposed Actions would result in significant adverse impacts to publicly funded child care centers. Development under the Proposed Actions would include approximately 1,061 additional low- to moderate-income units by 2030. Based on the child care multipliers provided in the *CEQR Technical Manual*, this new development would generate approximately 95 children under the age of six who could be eligible for publicly funded child care programs. By 2030, with the addition of these children, there would be a deficit of 98 slots in the 1.5-mile Child Care Study Area, and the 125.59 percent utilization rate would constitute an increase of 24.80 percentage points over the No-Action Condition.

Mitigation measures for child care impacts were explored in coordination with the lead agency (DCP) and the New York City Administration of Children's Services between the DEIS and FEIS. While the mitigation measures described in Chapter 21, "Mitigation" could offset or would serve to at least partially mitigate the identified impact to publicly funded child care facilities, in the event that the significant adverse impact on publicly funded child care facilities is not completely eliminated, an unavoidable significant adverse impact would result.

To avoid the identified significant adverse impacts to child care services, the number of affordable dwelling units that could be developed on the identified Projected Developed Sites would have to be reduced to 210 affordable units from 1,061 affordable units—an approximately 80 percent reduction (851 fewer affordable units). Alternatively, 72 new publicly funded child care slots, an increase of approximately 18 percent over the existing number of slots, would avoid the identified significant adverse child are impact.

The 80 percent reduction in affordable dwelling units that could be built under the Proposed Actions to avoid the unmitigated significant adverse impact to publicly funded child care facilities would modify the Proposed Actions to a point where the principal goals and objectives of the Proposed Actions to support the creation of new housing, including affordable housing, would not be realized.

OPEN SPACE

Under the RWCDS, the Proposed Actions would result in significant adverse impacts to total and active open space within the 0. 5-mile Residential Study Area. Under the With-Action Condition, the total open space ratio within the 0.5-mile Residential Study Area would decrease by more than 5 percent from the No-Action Condition (7.01 percent); and would remain below the *CEQR Technical Manual* guidance of 2.50 acres per 1,000 residents. In the With-Action Condition, the active open space ratio within the 0. 5-mile Residential Study Area would decrease by 9.67 percent to 0.52 acres per 1,000 residents, which is below the *CEQR Technical Manual* open space ratio guidance of 2.00 acres of active open space per 1,000 residents.

While the measures described in Chapter 21, "Mitigation" could offset or would serve to at least partially mitigate the identified impact to the total and active open space in the Residential Study Area, in the event that the significant adverse impact on the total and active open space is not completely eliminated, an unavoidable significant impact would result.

To avoid the significant adverse indirect impacts on active open space resources in the 0.5-mile Residential Study Area, the number of dwelling units that could be developed on the Projected Development Sites would have to be reduced to 1,601 dwelling units from 2,569 dwelling units—an approximately 38 percent reduction (968 fewer dwelling units). Alternatively, the number of acres of open space in the 0.5-mile Residential Study Area would need to increase by 6.15 acres, (1.55 acres more than the 4.6 acres provided in the With-Action condition), including 1.37 acres of active open space, to avoid the identified significant adverse total and active open space impact.

The 38 percent reduction in dwelling units that could be built under the Proposed Actions to avoid the unmitigated significant adverse impact to the total and active open space would modify the Proposed Actions to a point where the principal goals and objectives of the Proposed Actions to support the creation of new housing, including affordable housing, would not be realized.

HISTORIC AND CULTURAL RESOURCES

As described in Chapter 7, "Historic and Cultural Resources," the Proposed Actions have the potential to result in significant adverse impacts on archaeological resources on Projected Development Site 5. The Proposed Actions would not result in any direct or indirect (contextual) significant adverse impact to architectural resources.

As discussed in Chapter 7, "Historic Resources," a Phase 1A study of Projected Development Site 5, completed in May 2017, concluded that there is potential for archaeological resources to be found on the site and that Phase 1B archaeological testing is necessary to determine the absence or presence of these potential buried resources. Because Projected Development Site 5 is owned by a private entity, there is no mechanism in place to require a developer to conduct archaeological testing or require the preservation or documentation of archaeological resources, should they exist. Because there is no mechanism to avoid or mitigate potential impacts to archaeological resources at Projected Development Site 5, the significant adverse impact would be unavoidable.

In order to entirely avoid the potential unmitigated adverse impact specified above, this alternative would require that Projected Development Site 5 be eliminated from the rezoning proposal by eliminating the site from the rezoning area. However, this site cannot be excluded on its own, as carving it out of the proposed rezoning would result in a highly irregular and impractical zoning map, leaving a pocket of M1-1 zoning adjacent to the residential and special mixed-use districts. Such a modification would be impractical and inconsistent with the Proposed Actions' goals and objectives.

TRANSPORTATION

As described in Chapter 14, "Transportation," the Proposed Actions are expected to result in significant adverse traffic, transit, and pedestrian impacts during one or more of the analyzed peak hours. No significant adverse parking or safety impacts were identified. Implementation of mitigation measures described in Chapter 21, "Mitigation" would mitigate several of the anticipated traffic and pedestrian impacts, and all anticipated transit impacts; however, several traffic and pedestrian impacts would remain unmitigated.

TRAFFIC

As presented in Chapter 14, "Transportation," the Proposed Actions are expected to result in significant traffic impacts at 31 study area intersections during one or more of the analyzed peak hours, which includes 24 intersections during the Weekday AM peak hour, 21 intersections during the Weekday MD peak hour, 26 intersections during the Weekday PM peak hour, and 20 intersections during the Saturday MD peak hour. Implementation of mitigation measures described in Chapter 21, "Mitigation", including signal timing changes and modifications to on-street parking regulations, would mitigate or partially mitigate several of the anticipated traffic impacts. However, six intersections would remain unmitigated, and 16 intersections would remain only partially mitigated.

Due to extreme congestion at many study intersections, even a minimal increase in traffic would result in unmitigatable impacts. Specifically, in the No-Action condition, a total of 34 intersections are expected to have at least one congested lane group (delays exceed mid-LOS D) in one or more peak hours, and a total of 7, 20, 19 and 21 intersections would have one or more lane groups operating at or over capacity (v/c ratio greater than or equal to 1.00) during the Weekday AM, MD, PM, and Saturday MD peak hours, respectively. According to the *CEQR Technical Manual*, an increase in three or more seconds of delay for intersections operating at LOS F is considered a significant impact. As such, it is likely that even the addition of a small project-generated increment to these intersections would result in a significant impact that could not be fully mitigated. Therefore, no reasonable alternative could be developed to completely avoid unmitigatable impacts without substantially compromising the goals of the Proposed Actions.

PEDESTRIAN

As presented in Chapter 14, "Transportation," the Proposed Actions are expected to result in significant pedestrian impacts at 11 sidewalk elements and 4 crosswalk elements during one or more of the analyzed peak hours. Implementation of mitigation measures, including widening crosswalks, as described in Chapter 21, "Mitigation," would mitigate the anticipated crosswalk impacts. However, it would not be feasible to mitigate the potential significant sidewalk impacts due to constrained right-of-way. Since 5 of the 11 sidewalk elements would operate at worse than LOS C during the No-Action Condition and mitigation measures would not be feasible, no reasonable alternative could be developed to completely avoid unmitigatable impacts without substantially compromising the goals of the Proposed Actions.

CONSTRUCTION

HISTORIC AND CULTURAL RESOURCES

As described in Chapter 20, "Construction," the Proposed Actions would result in significant adverse construction-related impacts to two eligible historic resources, the S/NR-eligible 292 Van Duzer Street and the S/NR-eligible and New York City Landmark (NYCL)-eligible Stapleton Branch of the New York City Public Library, from construction of developments within 90 feet on Potential Development Site Q and Projected Development Site 20, respectively. If the two eligible resources are designated or listed in the future, prior to the initiation of construction, the protective measures of NYCDOB TPPN #10/88 would apply and indirect significant adverse impact from construction would be avoided. Should they remain undesignated/unlisted, however, the additional protective measures of TPPN #10/88 would not apply, and the potential for significant adverse construction‐related impacts from developments within 90 feet would not be mitigated. Absent designation, in order to entirely avoid potential unmitigated adverse construction‐related impacts to eligible historic resources, this alternative would require that Projected Development Site 20 and Potential Development Site Q be eliminated from the rezoning proposal. However, carving these sites out of the proposed rezoning would result in a highly irregular and impractical zoning map, inconsistent with the Proposed Actions' goals and objectives.

NOISE

As presented in Chapter 20, "Construction," significant adverse construction noise impacts would occur at sensitive receptors throughout the rezoning area. Construction activities would follow the requirements of the New York City Noise Control Code (also known as Chapter 24 of the Administrative Code of the City of New York, or Local Law 113) for construction noise control measures. Specific noise control measures would be incorporated in noise mitigation plan(s) required under the New York City Noise Control Code. These measures could include a variety of source and path controls. However, the implementation of these measures would not eliminate the identified significant adverse construction noise impacts predicted to occur during hours when the loudest pieces of construction equipment are in use.

In order to completely avoid significant adverse construction noise impacts, project-generated construction would have to be restricted in such a manner so as to not occur on the same block as, or within one to two blocks from, existing sensitive receptors, which would require elimination of the

proposed rezoning area in the vicinity of these sensitive receptors. This would severely limit achievable development density and the Proposed Actions' goals and objectives.

Overall, given the above-described limitations, in order to fully mitigate all identified significant adverse impacts, the Proposed Actions would have to be modified to a point at which the Proposed Actions' goals and objectives would not be realized.

E. REDUCED REZONING AREA ALTERNATIVE AS COMPARED TO THE PROPOSED ACTIONS

The Reduced Rezoning Area Alternative assesses whether a reduction in total development would eliminate or reduce the significant adverse impacts of the Proposed Actions, while also meeting the goals and objectives of the Proposed Actions. Under the Reduced Rezoning Area Alternative, the area previously defined as the Canal Street Corridor Project Area is excluded (Figure 22-1). The resultant Reduced Project Area consists of 22 Projected Development Sites and 19 Potential Development Sites in three distinct areas compared to 30 Projected Development Sites and 23 Potential Development Sites in four distinct areas under the Proposed Actions. Like the Proposed Actions, the Reduced Rezoning Project Area includes the following:

1. Bay Street Corridor Project Area: A contiguous 14-block area along Bay Street, generally bounded by Victory Boulevard to the north; Van Duzer Street to the west; Staten Island Railroad (SIR) tracks to the east; and Sands Street to the south;

2. City Disposition Sites: Three City-owned properties located at (i) 55 Stuyvesant Place (Block 9, Lot 9); (ii) 539 Jersey Street/100 Brook Street (Block 34, Lot 1); and (iii) 54 Central Avenue (Block 6, Lot 20), which also includes the mapped, but unimproved, Victory Boulevard Extension that would be demapped to facilitate future development on one of the sites; and

3. Stapleton Waterfront Phase III: Two sites located in Subareas A and B1 of the Special Stapleton Waterfront District (SSWD).

The Reduced Rezoning Area Alternative would comprise the following actions:

- *Zoning Map Amendments (Zoning Map 21c)*: to rezone the Bay Street Corridor Project Area from an existing M1-1 zoning district, to R6 and R6B zoning districts, with C2-3, and C2-4 commercial overlay districts; and to establish the Special Bay Street Corridor District (SBSCD) on the entirety of the Bay Street Corridor Project Area;

- *Zoning Text Amendments*: to the New York City Zoning Resolution (ZR), Articles XI and XIII, to modify the building height and street wall regulations in the exiting SSWD and to create new zoning regulations under the SBSCD, respectively; and Appendix F of the ZR to establish MIH areas coterminous with the Bay Street Corridor Project Area boundaries. The proposed text amendment at Stapleton Waterfront Phase III Sites would be modified to allow buildings in Subarea A or B1 to waive from floor area calculation purposes up to 100,000 sf of community facility floor area.

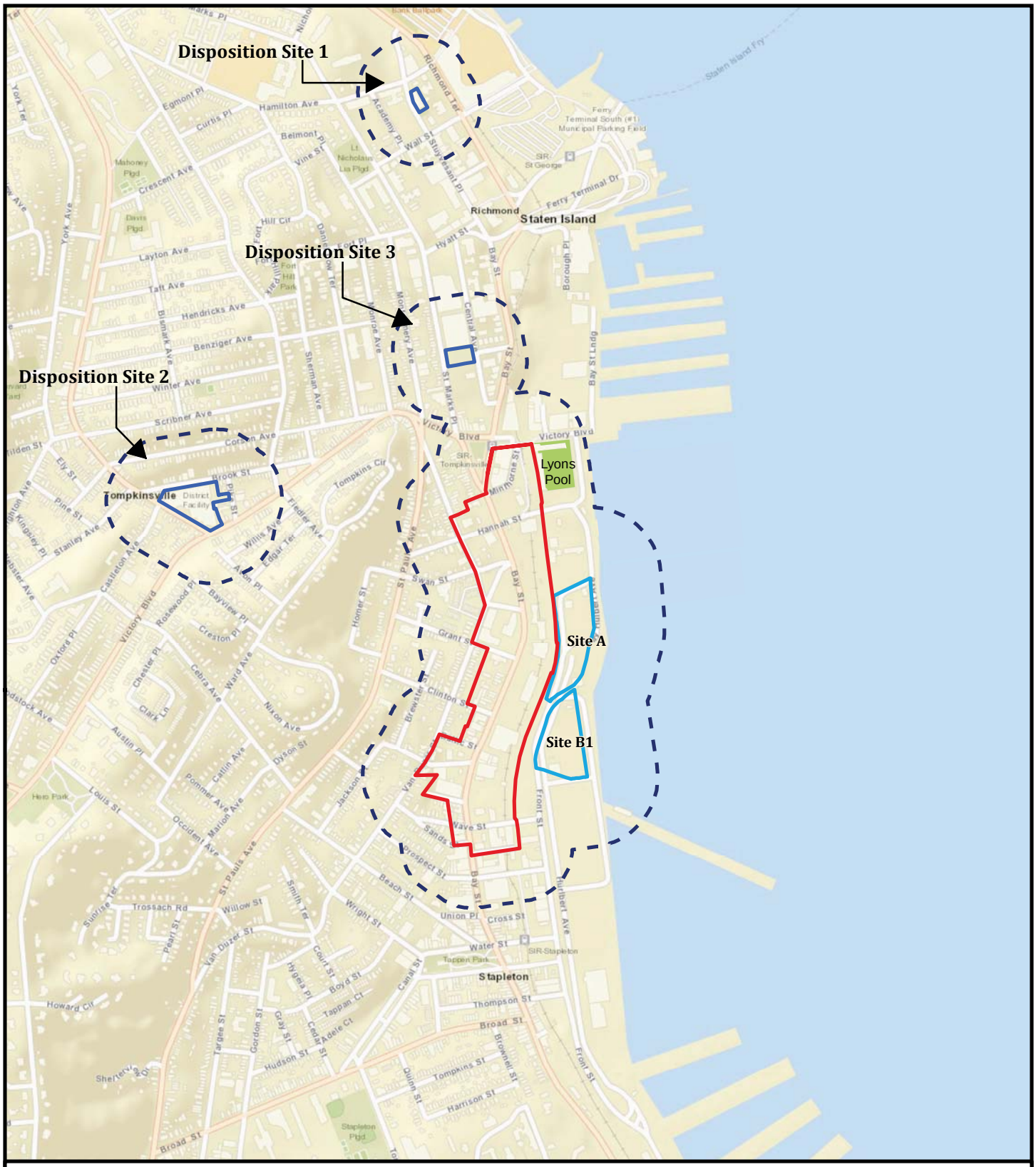

FIGURE 22-1: REDUCED REZONING AREA ALTERNATIVE - LOCATION MAP
BAY STREET CORRIDOR REZONING AND RELATED ACTIONS

0 495 990 1,980 Feet

N

Bay Street Corridor Project Area
City Disposition Sites
Stapleton Waterfront Phase III Sites
Study Area (400-foot radius)

STATEN ISLAND, NY

Map Reference: Basemap: ESRI; Shapefile: NYC Dept of City Planning, MapPLUTO Data.
Prepared by Langan

4. Stapleton Waterfront Phase III: Two sites located in Subareas A and B1 of the Special Stapleton Waterfront District (SSWD).

The Reduced Rezoning Area Alternative would comprise the following actions:

- *Zoning Map Amendments (Zoning Map 21c)*: to rezone the Bay Street Corridor Project Area from an existing M1-1 zoning district, to R6 and R6B zoning districts, with C2-3, and C2-4 commercial overlay districts; and to establish the Special Bay Street Corridor District (SBSCD) on the entirety of the Bay Street Corridor Project Area;

- *Zoning Text Amendments*: to the New York City Zoning Resolution (ZR), Articles XI and XIII, to modify the building height and street wall regulations in the exiting SSWD and to create new zoning regulations under the SBSCD, respectively; and Appendix F of the ZR to establish MIH areas coterminous with the Bay Street Corridor Project Area boundaries. The proposed text amendment at Stapleton Waterfront Phase III Sites would be modified to allow buildings in Subarea A or B1 to waive from floor area calculation purposes up to 100,000 sf of community facility floor area.

- *Disposition of City-owned Property*: three City-owned properties (City Disposition Site 1, City Disposition Site 2, and City Disposition Site 3) would be disposed; the terms of disposition of City Disposition Site 3 would require development with commercial and affordable residential use, rather than office; and

- *City Map Amendment*: to demap the unimproved portions of Victory Boulevard Extension to facilitate development on City Disposition Site 3.

In the Reduced Rezoning Area Alternative, 21 Projected Development Sites would be developed with new buildings, and the existing building on 1 Projected Development Site (City Disposition Site 1) would be re-purposed for a new use. The development would comprise of a total 513,990 sf of commercial use, 2,390,631 sf of residential use (2,391 dwelling units), 176,354 sf of community facility space, and 1,561 parking spaces.

Table 22-1 presents a comparison of projected development under the Proposed Actions and the Reduced Rezoning Area Alternative. Additional project components have been incorporated into this Alternative, to achieve the goals and objectives of the proposal. Unlike the Proposed Actions, in the Reduced Rezoning Area Alternative:

- Canal Street Corridor Project Area would not be proposed for zoning map or text amendments.

- Pursuant to the terms of disposition, City Disposition Site 3 would be developed with 17,536 sf of commercial space (8,768 sf of office and 8,768 sf of retail), 63,539 sf of residential space (100 percent affordable dwelling units [64 units]), and 121 parking spaces; and

- To reflect the zoning text amendment, Stapleton Waterfront Phase III Site A would include an additional 100,000-sf of community facility space; the total development on Stapleton Waterfront Phase III Sites A and B1 would comprise 626,666 sf of residential use (627

dwelling units); 43,000 sf of commercial use; 100,000 sf of community facility use; and 343 parking spaces.

Table 22-1: Comparison of RWCDS for Projected Development Sites in the Proposed Actions and Reduced Rezoning Area Alternative

Land Use	Proposed Actions[2]			Reduced Rezoning Area Alternative[1]			Difference
	No-Action Condition	With-Action Condition	Increment	No-Action Condition	With-Action Condition	Increment	
Residential (dwelling units)							
Unregulated Residential	*12*	*1,508*	*1,496*	*6*	*1,340*	*1,334*	*-162*
Affordable Residential	*0*	*1,061*	*1,061*	*0*	*1,051*	*1,051*	*-10*
Total Residential	**12**	**2,569**	**2,557**	**6**	**2,391**	**2,385**	**-172**
Commercial (square feet)							
Retail	*194,183*	*230,644*	*36,461*	*143,965*	*202,412*	*58,447*	*21,986*
Office	*99,179*	*316,939*	*217,760*	*87,655*	*240,578*	*152,923*	*-64,837*
Restaurant	*14,000*	*71,000*	*57,000*	*14,000*	*71,000*	*57,000*	*0*
Other Commercial	*35,873*	*0*	*-35,873*	*35,405*	*0*	*-35,405*	*468*
Total Commercial	**343,235**	**618,583**	**275,348**	**281,025**	**513,990**	**232,965**	**-42,383**
Community Facility (square feet)							
Total Community Facility	37,879	84,678	46,799	27,759	176,354	148,595	**101,796**
Parking							
Total Parking Spaces	481	1,771	1,290	347	1,561	1,214	**-76**
Population							
Total Residents[3]	31	6,602	6,571	15	6,145	6,130	**-441**
Total Workers[4]	1,253	2,565	1,312	1,021	2,438	1,417	**105**

Notes:
[1] Projected Development Sites 1 through 17; City Disposition Sites 1, 2, and 3; and Stapleton Waterfront Phase III Sites A and B1.
[2] Projected Development Sites 1 through 25; City Disposition Sites 1, 2, and 3; and Stapleton Waterfront Phase III Sites A and B1.
[3] Assumes 2.57 residents per dwelling unit based on 2010-2014 ACS 5 Year Estimates average household size of renter-occupied unit for Staten Island Census Tracts 3, 7, 11, 21 and 27.
[4] Estimate of workers is based on the following rates: 4 employees per 1,000 sf of office, 3 employees per 1,000 sf of retail/supermarket/restaurant uses, one employee per 25 dwelling units, 3 employees per 1,000 sf of community facility uses, and 1 employee per 50 parking spaces.

As shown in Table 22-1, the Reduced Rezoning Area Alternative would result in the following compared to the Proposed Actions:

- A decrease of a total of 172 residential units, which includes a decrease of 162 unregulated units and 10 affordable units;
- A decrease of a total of 42,383 sf of commercial space, which includes an increase of 21,986 sf of retail space and a decrease of 64,837 sf of Office space; and
- An increase of a total of 101,796 sf of community facility space.

The following sections describe the difference in future conditions under the Proposed Actions and the Reduced Rezoning Area Alternative. Because the Reduced Project Area includes fewer Projected Development Sites, there would be a decrease in total development in the Reduced Rezoning Area Alternative. Therefore, it is anticipated that impacts would generally be less significant in the Reduced Rezoning Area Alternative than under the Proposed Actions.

LAND USE, ZONING, AND PUBLIC POLICY

Similar to the Proposed Actions, no significant adverse impacts to land use, zoning, or public policy are anticipated under the Reduced Rezoning Area Alternative.

Both the Proposed Actions and the Reduced Rezoning Area Alternative would result in an overall increase in residential, commercial, and community facility uses compared to the No-Action Condition. As described above, the Reduced Rezoning Area Alternative would result in fewer dwelling units, including fewer affordable and unregulated dwelling units, less commercial space, but more community facility space compared to the Proposed Actions. However, as noted above, there would be a reduction in total development in the Reduced Rezoning Area Alternative.

As described earlier, the Reduced Rezoning Area Alternative would include the same zoning actions (amendments to the zoning map, text and city map) as the Proposed Actions, but would affect a Reduced Project Area that includes only the Bay Street Corridor Project Area, the three City Disposition Sites, and Stapleton Waterfront Phase III Sites A and B1 and not the Canal Street Corridor Project Area. As noted above, under the Reduced Rezoning Area Alternative, the Bay Street Corridor Project Area would be mapped with the proposed R6 and R6B zoning districts with C2-3 and C2-4 commercial overlays, as well as a Special Bay Street Corridor District (SBSCD) and designated as a MIH area. The existing building height and street wall regulations within the SSWD would be modified. The Reduced Rezoning Area Alternative, in contrast with the Proposed Actions, would include community facility space at Stapleton Waterfront Phase III Sites, and a fully affordable mixed-use development at City Disposition Site 3. As with the Proposed Actions, the Reduced Rezoning Area Alternative would increase density along selected corridors. With a highest permitted FAR of 4.60 for development for residential, office uses, and community facility uses, depending on location (i.e., in a Special District Subdistrict) and configuration of sites. In addition, Affordable Independent Residences for Seniors (AIRS) would be permitted at a higher FAR of 5.01. Both the Proposed Actions and the Reduced Rezoning Area Alternative would map new commercial overlays along Bay Street to incentivize mixed-use development, facilitate active streetscapes, and encourage local retail to support the expected residential development in the area.

The Reduced Rezoning Area Alternative would support, to a lesser degree, the housing goals of the Proposed Actions. Development in the Reduced Rezoning Area Alternative would introduce 2,385 incremental dwelling units to the Reduced Project Area (compared to 2,557 with the Proposed Actions), including 1,051 affordable dwelling units. The Reduced Rezoning Area Alternative is intended to support the goals and initiatives of the Bay Street Corridor Neighborhood Planning Initiative, which are consistent with the City's housing policy of increasing the amount of housing, including affordable housing. However, the amount of housing expected in the Reduced Rezoning Area Alternative would not be as extensive as under the Proposed Actions.

In addition, the goals of the Bay Street Corridor Neighborhood Planning Initiative include encouraging new retail and commercial activity in a pedestrian-friendly environment. Under the Reduced Rezoning Area Alternative, the Canal Street Corridor Project Area would not be rezoned, which would limit the realization of these goals.

Therefore, the Reduced Rezoning Area Alternative would lead to the production of fewer dwelling units than the Proposed Actions, and the potential goals and objectives of the Proposed Actions would not be fully realized under this alternative.

SOCIOECONOMIC CONDITIONS

The Reduced Rezoning Area Alternative would result in similar socioeconomic effects as the Proposed Actions. Compared to the Proposed Actions, under the Reduced Rezoning Area Alternative, 172 (6.7 percent) fewer total housing units and 10 (0.9 percent) fewer affordable housing units would be introduced to the Study Area. The Reduced Rezoning Area Alternative would introduce an increment of 2,385 housing units, including 1,051 affordable housing units, compared to the No-Action Condition. In addition, the Reduced Rezoning Area Alternative would introduce 42,383 (15.4 percent) less commercial square footage, and an additional 101,796 sf of community facility uses as compared to the Proposed Actions. The Reduced Rezoning Area Alternative would increase employment by an estimated 1,417 jobs compared to the No-Action Condition, which represents 105 additional jobs compared to the Proposed Actions' increment of 1,312 workers.

Neither the Proposed Actions nor the Reduced Rezoning Area Alternative would result in significant adverse socioeconomic impacts within the Study Area. The addition of commercial, housing, and community facility uses under the Reduced Rezoning Area Alternative would not lead to significant direct or indirect residential displacement, nor direct or indirect business and institutional displacement. The Reduced Rezoning Area Alternative would not affect business conditions in any industry or any category of businesses within or outside the Study Area, nor would the Reduced Rezoning Area Alternative substantially reduce employment or impair the economic viability in an industry or category of businesses.

Like the Proposed Actions, the Reduced Rezoning Area Alternative would increase housing and commercial development within the Study Area, seeking to build upon existing place-based assets to accommodate growth and improve the quality of life for residents in the Study Area and surrounding neighborhoods. While the Reduced Rezoning Area Alternative introduces 10 fewer affordable housing units compared to the Proposed Actions, it still introduces a new stock of affordable housing (1,051 units) to the Study Area in line with MIH.

COMMUNITY FACILITIES

The Reduced Rezoning Area Alternative would introduce fewer residents than the Proposed Actions; therefore, it is anticipated that there would be a smaller increase in demand on area community facilities. Similar to the Proposed Actions, the Reduced Rezoning Area Alternative would not result in direct impacts to community facilities or significant adverse indirect impacts to public intermediate or high schools, library services, or police, fire, and other emergency services. Both the Proposed Actions and the Reduced Rezoning Area Alternative would result in significant adverse indirect impacts to publicly funded child care facilities and public elementary schools.

PUBLIC SCHOOLS

Under the Reduced Rezoning Area Alternative, there would be new residential development on the Projected Development Sites, which would result in an increment of 2,385 dwelling units, and

generate an additional 668 elementary school students, 262 intermediate school students, and 310 high school students over the No-Action Condition.

As shown in Table 22-2, in the 2030 Build Year, elementary schools in CSD 31, Sub-district 4 would continue to operate over capacity under both the Proposed Actions and the Reduced Rezoning Area Alternative. Like the Proposed Actions, the Reduced Rezoning Area Alternative would result in an increase of 7.0 percent in the utilization rate from the No-Action Condition. In addition, as shown in Table 22-2, high schools would also continue to operate over capacity under both the Proposed Actions and the Reduced Rezoning Area Alternative. Like the Proposed Actions, the Reduced Rezoning Area Alternative would result in an increase of 2.0 percent in the utilization rate from the No-Action Conditions. Intermediate schools would continue to operate under capacity under both the Proposed Actions and the Reduced Rezoning Area Alternative.

Similar to the Proposed Actions, a significant adverse impact to elementary schools is anticipated under the Reduced Rezoning Area Alternative. Similar to the Proposed Actions, no significant adverse impacts to intermediate and high schools are anticipated under the Reduced Rezoning Area Alternative.

Table 22-2: 2030 Reduced Rezoning Area Alternative (RRAA) With-Action School Enrollment, Capacity, and Utilization

Study Area	Students Introduced by RRAA[1]	Total RRAA[1] Enrollment	Study Area Capacity	Available Seats Under RAA[1]	RRAA Utilization (%)	Change in Utilization from No-Action to With Action-Condition in RRAA[1] (percentage points)	Change in Utilization under Proposed Actions (percentage points)
Elementary Schools							
CSD 31 Sub-district 4	668	14,706	10,843	-3,863	136	7.0	7.0
Intermediate Schools							
CSD 31 Sub-district 4	262	4,993	5,698	705	88	5.0	5.0
High Schools							
Staten Island	310	20,391	15,576	-4,815	131	2.0	2.0

Note(s):
[1] RRAA = Reduced Rezoning Area Alternative.

Similar to the Proposed Actions, to avoid the identified significant adverse public elementary school impacts under the Reduced Rezoning Action Alternative, the number of DUs that could be developed on the Projected Developed Sites would have to be reduced to 1,725 DUs from 2,385 DUs—an approximately 28 percent reduction in the number of DUs (660 fewer DUs). Alternatively, the number of elementary school seats would need to increase by 140 (compared to 175 slots needed for the Proposed Actions) to avoid the identified significant adverse elementary school impacts.

CHILD CARE CENTERS

As discussed in the previous section, the affordable housing units in the Reduced Rezoning Area Alternative would be reduced by 10 units, a decrease of 0.94 percent of total of affordable units as compared to the Proposed Actions. It is anticipated that the Reduced Rezoning Area Alternative would introduce 94 children under the age of six eligible for publicly funded child care, which is

similar to the Proposed Actions (95 children under the age of six eligible for publicly funded child care). As under the Proposed Actions, the Reduced Rezoning Area Alternative would result in significant adverse impacts to publicly funded child care centers in the study area.

As shown in Table 22-3, the child care centers would operate at a utilization rate of 125.33 percent under the Reduced Rezoning Area Alternative (compared to 125.59 percent with the Proposed Actions), which represents a 24.55 percent increase from the No-Action Condition under the Reduced Rezoning Area Alternative (compared to increase of 24.80 percent under the Proposed Actions). The reduction in utilization rate under the Reduced Rezoning Area Alternative would be insignificant compared to the Proposed Actions. As the Reduced Rezoning Area Alternative would result in similar impacts as under the Proposed Actions, similar mitigation would be needed to mitigate the impact as under the Proposed Actions. Similar to the Proposed Actions, to avoid the identified significant adverse child care impacts under the Reduced Rezoning Action Alternative, the number of affordable dwelling units that could be developed on the Projected Developed Sites would have to be reduced to 210 affordable units from 1,051 affordable units—an approximately 80 percent reduction in the number of affordable dwelling units (841 fewer affordable units). Alternatively, the number of publicly funded child care slots would need to increase by 71 publicly funded child care slots (compared to 72 slots needed for the Proposed Actions) to avoid the identified significant adverse child care impacts.

Table 22-3: Comparison of Budget Capacity, Enrollment, Available Slots, and Utilization for the 2030 No-Action, Proposed Actions, and Reduced Rezoning Area Alternative (RRAA) conditions

	Capacity	Enrollment	Available Slots	Utilization (%)
Future With the Proposed Actions				
2030 No-Action Condition	383	386	-3	100.78
2030 With-Action Condition	383	481	-98	125.59
Proposed Actions Increment	**0**	**95**	**-95**	**24.80**
Reduced Rezoning Area Alternative				
2030 RRAA[1] No-Action Condition	383	386	-3	100.78
2030 RRAA[1] With-Action Condition	383	480	-97	125.33
RRAA[1] Increment	**0**	**94**	**-94**	**24.55**

Note(s):
[1] RRAA = Reduced Rezoning Area Alternative.

OPEN SPACE

Similar to the Proposed Actions, the Reduced Rezoning Area Alternative would not result in any direct impact on any open space resources. Both the Proposed Actions and the Reduced Rezoning Area Alternative would result in significant adverse indirect impacts on the total and active open space resources in the 0. 5-mile Residential Study Area.

Because the Canal Street Corridor Project Area is excluded from the Reduced Rezoning Area Alternative, Census Tract 27 (and its associated residential and worker populations) was removed from the Reduced Rezoning Area Alternative's 0.25-mile Non-Residential Study Area; and Census Tracts 29 and 33 (and their associated residential and worker populations) were removed from the Reduced Rezoning Area Alternative's 0.5-mile Residential Study Area. The resultant open space study

areas for the Reduced Rezoning Area Alternative are shown in Figure 22-2. With the elimination of the above census tracts, Stapleton Playground, Hero Park, Bedford Green, I.S. 49 School Yards to Playground, and Serpentine Art and Nature Commons were removed from the inventory of existing open space resources in the Reduced Rezoning Area Alternative's 0.5-mile Residential Study Area, resulting in 19.06 fewer acres of total open space compared to the Proposed Actions (refer to Table 22-4). Finally, the Reduced Rezoning Area Alternative would introduce slightly more workers and fewer residents than the Proposed Actions. Table 22-5 below shows the residential and worker populations within the two study areas for the Reduced Rezoning Area Alternative, compared to the Proposed Actions.

Table 22-4: Existing Open Space Resources — Proposed Actions and Reduced Rezoning Area Alternative

Open Space Acreage	Proposed Actions		Reduced Rezoning Area Alternative		Difference between the Proposed Actions and Reduced Rezoning Area Alternative	
	Non-Residential (0.25-mile) Study Area (acres)	Residential (0. 5-mile) Study Area (acres)	Reduced Rezoning Non-Residential (0.25-mile) Study Area (acres)	Reduced Rezoning Residential (0. 5-mile) Study Area (acres)	Non-Residential (0.25-mile) Study Area (acres)	Residential (0. 5-mile) Study Area (acres)
Active	8.51	26.38	8.51	21.35	0	-5.03
Passive	20.75	44.56	20.75	30.53	0	-14.03
Total	**29.26**	**70.94**	**29.26**	**51.88**	**0**	**-19.06**



FIGURE 22-2: REDUCED REZONING AREA ALTERNATIVE - OPEN SPACE STUDY AREAS MAP

0 0.125 0.25 0.5 Miles

N

BAY STREET CORRIDOR REZONING AND RELATED ACTIONS STATEN ISLAND, NY

- Bay Street Corridor Project Area
- City Disposition Sites
- Stapleton Waterfront Phase III Sites
- Non-Residential Study Area (0.25-mile Radius)
- Residential Study Area (0.5-mile Radius)
- 21 Census Tracts

Map Reference:
Basemap: ESRI
Shapefile: NYC DCP; MapPLUTO Data; NYC DPR

Table 22-5: Population — Existing, No-Action, and With-Action for the 2030 Proposed Actions and Reduced Rezoning Area Alternative

Population	Proposed Actions		Reduced Rezoning Area Alternative		Difference between the Proposed Actions and Reduced Rezoning Area Alternative	
	Non-Residential (0.25-mile) Study Area (population)[1]	Residential (0.5-mile) Study Area (population)[2]	Reduced Rezoning Non-Residential (0.25-mile) Study Area (population)[3]	Reduced Rezoning Residential (0.5-mile) Study Area (population)[4]	Non-Residential (0.25-mile) Study Area (population)	Residential (0.5-mile) Study Area (population)
Existing Conditions						
Residential	19,292	35,771	17,106	24,640	-2,186	-11,131
Non-Residential (Worker)	11,310	14,825	9,320	11,385	-1,990	-3,440
Combined Worker and Residential	**30,602**	**50,596**	**26,426**	**36,025**	**-4,176**	**-14,571**
No-Action Condition						
Residential	25,919	44,788	25,903	33,641	-16	-11,147
Non-Residential (Worker)	14,851	18,366	12,629	14,694	-2,222	-3,672
Combined Worker and Residential	**40,770**	**63,154**	**38,532**	**48,335**	**-2,238**	**-14,819**
With-Action Condition						
Residential	32,490	51,359	32,032	39,770	-458	-11,589
Non-Residential (Worker)	16,163	19,678	14,046	16,111	-2,117	-3,567
Combined Worker and Residential	**48,653**	**71,037**	**46,078**	**55,881**	**-2,575**	**-15,156**

Notes:
[1] Census Tracts 3, 7, 11, 17, 21, and 27.
[2] Census Tracts 3, 7, 9, 11, 17, 21, 27, 29, 33, 75, and 77.
[3] Census Tracts 3, 7, 11, 17, and 21.
[4] Census Tracts 3, 7, 9, 11, 17, 21, 75, and 77.

As shown in Table 22-6, similar to the Proposed Actions, the passive open space ratios for the Non-Residential (0.25-mile) Study Area under the Reduced Rezoning Area Alternative at 1.37 acres per 1,000 workers would exceed the *CEQR Technical Manual* passive open space ratio guidelines of 0.15 acres per 1,000 workers. Therefore, the non-residential (worker) population would be well-served by the passive open space resources available. There would be no significant adverse open space impact in the Non-residential Study Area as a result of the Reduced Rezoning Area Alternative or the Proposed Actions.

Table 22-6: Open Space Ratios Summary — No-Action, Reduced Rezoning Area Alternative, and Proposed Actions conditions

	Proposed Actions				Reduced Rezoning Area Alternative			
	Non-Residential (0.25-mile) Study Area	Residential (0.5-mile) Study Area			Non-Residential (0.25-mile) Study Area	Residential (0.5-mile) Study Area		
	Passive: Workers	Total: Residents	Passive: Residents	Active: Residents	Passive: Workers	Total: Residents	Passive: Residents	Active: Residents
CEQR Technical Manual Open Space Guidelines	**0.15**	**2.50**	**0.50**	**2.00**	**0.15**	**2.50**	**0.50**	**2.00**
Existing Open Space Ratio	0.78	1.61	0.91	0.70	0.95	1.56	0.76	0.81
No-Action Open Space Ratio	1.16	1.51	0.93	0.58	1.37	1.45	0.82	0.62
With-Action Open-Space Ratio	1.29	1.41	0.88	0.52	1.49	1.34	0.79	0.55
Percent Change (No-Action to With-Action)	**11.10%**	**-7.01%**	**-5.35%**	**-9.67%**	**8.70%**	**-7.54%**	**-4.49%**	**-11.72%**

As shown in Table 22-6, with the Reduced Rezoning Area Alternative, the Residential (0.5-mile) Study Area would have lower total and passive open space ratios at 1.34 and 0.79 acres per 1,000 residents, respectively, compared to the Proposed Actions (1.41 and 0.88). The active open space ratio under the Reduced Rezoning Area Alternative at 0.55 acres per 1,000 residents would be higher compared to the Proposed Actions (0.52). Similar to the Proposed Actions, the passive open space ratio for the Residential (0.5-mile) Study Area in the Reduced Rezoning Area Alternative would exceed the *CEQR Technical Manual* guidance of 0.50 acres of passive open space per 1,000 residents.

Under the Reduced Rezoning Area Alternative, the total and active open space ratios in the Residential (0. 5-mile) Study Area would remain below the *CEQR Technical Manual* active open space guidance of 2.50 and 2.00 acres of open space per 1,000 residents, respectively, similar to the Proposed Actions. Moreover, the decrease in the total and active open space ratios in both the Reduced Rezoning Area Alternative and Proposed Actions would exceed the *CEQR Technical Manual* threshold of five percent change; thus, it is anticipated that the Reduced Rezoning Area Alternative, similar to the Proposed Actions, would result in significant adverse indirect impacts to total and active open space resources in the Residential (0. 5-mile) Study Area.

As the Reduced Rezoning Area Alternative would result in similar impacts as under the Proposed Actions, similar mitigation would be needed to mitigate the open space impacts as under the Proposed Actions.

SHADOWS

Similar to the Proposed Actions, the Reduced Rezoning Area Alternative would not result in significant adverse shadows impacts on open space resources or sunlight-sensitive historic architectural resources.

With the elimination of the Canal Street Corridor, the Reduced Rezoning Alternative would not result in the incremental shadows on Tappen Park or the Canal Street Greenstreets that would result from the Proposed Actions. Under the Reduced Rezoning Area Alternative, the proposed building heights and bulk on Projected and Potential Development Sites within the Bay Street Corridor Project Area

would be the same as under the Proposed Actions. Therefore, similar to the Proposed Actions, the incremental shadows cast by the new development in the Bay Street Corridor Project Area would not result in significant adverse impacts on any sensitive open space or historic resources identified in the area. The Reduced Rezoning Area Alternative would result in additional floor area on the Stapleton Waterfront Phase III Sites A and B1, however, the building height would be the same as under the Proposed Actions. The additional floor area would result in a greater base height as compared to the Proposed Actions. While the Stapleton Waterfront Phase III Sites are adjacent to one existing sunlight-sensitive resource, Upper New York Bay, the small increases in additional base height that would result under the Reduced Rezoning Area Alternative are not expected to result in any increases to incremental shadow coverage or duration and would not result in any significant adverse shadow impacts. City Disposition Sites 1 and 2 would not be developed with new structures greater than 50 feet and are also not adjacent to sunlight-sensitive resources.

Therefore, similar to the Proposed Actions, no significant adverse shadows impacts are anticipated on open space resources or sunlight-sensitive historic architectural resources under the Reduced Rezoning Area Alternative.

HISTORIC AND CULTURAL RESOURCES

Similar to the Proposed Actions, the Reduced Rezoning Area Alternative would not result in direct or indirect significant adverse impacts to architectural resources. However, both the Proposed Actions and the Reduced Rezoning Area Alternative have the potential to result in significant adverse impacts on archaeological resources at Projected Development Site 5 (Block 488, Lot 65).

ARCHAEOLOGICAL RESOURCES

As discussed in Chapter 7, "Historic and Cultural Resources," a Phase 1A study of Projected Development Site 5 concluded that the archaeological area of potential effects (APE) has a moderate to high sensitivity for prehistoric resources on the western margin in the limited area of fast land, and a moderate to high sensitivity for nineteenth- to early-twentieth-century waterfront features (docks or piers) in the remainder of the southern archaeological-APE. The northern, narrow portion of the archaeological-APE was identified as having no to low sensitivity for shoreline features. Based on these findings, the Phase 1A study concluded that Phase 1B archaeological testing is necessary in advance of any future ground disturbing developments within the two areas of archaeological sensitivity to determine the absence or presence of these potential buried resources.

Projected Development Site 5 is owned by a private entity. There is no mechanism in place to require a developer to conduct archaeological testing or require the preservation or documentation of archaeological resources, should they exist. As such, similar to the Proposed Actions, the Reduced Rezoning Area Alternative has the potential to result in significant adverse archaeological impacts on Projected Development Site 5.

ARCHITECTURAL RESOURCES

Direct (Physical Impacts)

Because there are no designated or eligible historic resources located on any Projected or Potential Development Sites, neither the Proposed Actions nor the Reduced Rezoning Area Alternative would result in significant adverse direct impacts to historic resources.

Indirect (Contextual) Impacts

Similar to the Proposed Actions, Projected Development Sites 2, 7, 16, and 17 and Potential Development Sites O, P, and Q in the Bay Street Corridor Study Area are located in the vicinity of LPC-designated and S/NR-eligible historic landmarks in the Reduced Rezoning Area Alternative, and the development anticipated on these sites would be at building heights and bulk identical to the Proposed Actions. Therefore, similar to the Proposed Actions, the development anticipated in the Reduced Rezoning Area Alternative would not alter any historic resource's setting or its visual relationship to the streetscape so as to adversely impact the characteristics that make these resources historic.

Therefore, similar to the Proposed Actions no significant adverse contextual impacts are anticipated on historic architectural resources under the Reduced Rezoning Area Alternative.

Construction-Related Impacts

Under both the Proposed Actions and the Reduced Rezoning Area Alternative, all LPC-designated or S/NR-listed historic resources within 90 feet of a Projected or Potential Development Site that would undergo construction are subject to the protections of the New York City Department of Building's (DOB) Technical Policy and Procedure Notice (TPPN) #10/88. In both the Proposed Actions and Reduced Rezoning Area Alternative this would apply to (i) Tompkinsville (Joseph H. Lyons) Pool (LPC-designated; S/NR eligible) which is less than 90 feet from Projected Development Site 2; and (ii) the 120th Police Precinct Station House (LPC-designated; S/NR eligible) and Staten Island Family Courthouse (LPC-designated; S/NR eligible), both of which are less than 90 feet from City Disposition Site 1.

Similar to the Proposed Actions, construction on Potential Development Site Q could result in significant adverse construction-related impacts to the S/NR-eligible 292 Van Duzer Street, which is located within 90 feet. However, unlike the Proposed Actions, the Reduced Rezoning Area Alternative would not result in any significant adverse construction-related impacts to the LPC-eligible and S/NR-eligible Stapleton Branch of the New York City Public Library (due to the elimination of the Canal Street Corridor Project Area, which encompasses Projected Development Site 20).

Shadow Impacts

Similar to the Proposed Actions, the Reduced Rezoning Area Alternative would not result in incremental shadows being cast on sunlight-sensitive historic resources.

URBAN DESIGN AND VISUAL RESOURCES

Similar to the Proposed Actions, the Reduced Rezoning Area Alternative would not have significant adverse impacts on urban design, view corridors, and visual resources. Both the Proposed Actions and the Reduced Rezoning Area Alternative would result in development at a greater density than currently permitted as-of-right under the existing zoning and represent a notable change in the urban design character of the primary study area. However, as discussed above, in the Reduced Rezoning Area Alternative the proposed building heights and bulk on Projected and Potential Development Sites within the Bay Street Corridor Project Area would be the same as under the Proposed Actions. Additionally, unlike in the Proposed Actions, the Reduced Rezoning Area Alternative would include additional floor area on the Stapleton Waterfront Phase III Sites, which would result in buildings with greater base heights as compared to the Proposed Actions. However, the building heights would be the same as under the Proposed Actions.

Therefore, under both the Reduced Rezoning Area Alternative and the Proposed Actions, the proposed development would not result in an adverse impact on visual resources, the resources' visual context and the urban design character of the primary study area.

NATURAL RESOURCES

Neither the Proposed Actions nor the Reduced Rezoning Area Alternative would result in significant adverse impacts to groundwater, floodplains, water quality, aquatic biota, wetlands, terrestrial natural resources, or threatened or endangered species within or near the respective study areas.

The Reduced Rezoning Area Alternative, similar to the Proposed Actions, comprises a predominantly urbanized area of Staten Island that contains limited natural resources, including wooded corridors and occasional vacant wooded lots found along the SIR tracks and Tompkinsville Park; and the Stapleton waterfront that includes tidal wetlands. All of these areas could provide habitat for aquatic and/or terrestrial organisms, including, but not limited to, birds, small mammals, fish, and native plants. The Reduced Rezoning Area Alternative would result in new development of fewer Projected Development Sites as compared to the Proposed Actions, limited to within the Bay Street Project Area and the Stapleton Waterfront Phase III Sites. Therefore, similar to the Proposed Actions, development in the Reduced Rezoning Area Alternative would not result in significant adverse impacts to natural resources, and would not diminish Upper New York Bay's current ability to provide critical ecological functions and values or recreational and scenic resource values.

HAZARDOUS MATERIALS

The effects of the Reduced Rezoning Area Alternative are expected to be similar to the Proposed Actions. While fewer development sites would be developed with new buildings in the Reduced Rezoning Area Alternative (22 Projected Development Sites and 19 Potential Development Sites) as compared to the Proposed Actions (30 Projected Development Sites and 23 Potential Development Sites), the potential for site-specific hazardous materials impacts would still remain. As with the Proposed Actions, with the incorporation of (E) designations or other comparable mechanism, no significant adverse hazardous materials impacts would result. As the Reduced Rezoning Area Alternative would result in development on fewer sites, fewer hazardous materials (E) designations would be assigned in conjunction with the Reduced Rezoning Area Alternative (specifically, 8 fewer

Projected Development Sites and 4 fewer Potential Development Sites would be assigned (E) designations under this alternative).

WATER AND SEWER INFRASTRUCTURE

Similar to the Proposed Actions, the Reduced Rezoning Area Alternative is not anticipated to result in significant adverse impacts to the City's water and sewer infrastructure.

As shown in Table 22-7, the incremental water demand generated in the Reduced Rezoning Area Alternative at approximately 732,129 gallons per day (gpd; approximately 0.73 million gallons per day (mgd)) would be slightly lower than under the Proposed Actions (approximately 757,213 gpd (0.76 mgd)). Under both the Proposed Actions and Reduced Rezoning Area Alternative, the incremental water demand would represent less than 0.08 percent of New York City's average daily water supply of approximately one billion gpd; therefore, it is not anticipated that the incremental increase in water demand would be large enough to have a significant adverse impact on the City's water system.

Table 22-7: Reduced Rezoning Area Alternative Water Consumption

Land Use	Water Consumption & Wastewater Generation Rates	Area/ Dwelling Units	Domestic Water/Wastewater Generation (gpd)[1]	Air Conditioning (gpd)[1]
Residential[2]	257 gpd/ DU[2]	2,391	614,487	-
Retail[3]	Domestic 0.24 gpd/sf A/C 0.17gpd/sf	273,412	65,619	46,480
Commercial/Office[4]	Domestic 0.10 gpd/sf A/C 0.17gpd/sf	240,578	24,058	40,898
Community Facility[5]	Domestic 0.10 gpd/sf A/C 0.17gpd/sf	176,354	17,635	29,980
Total Water Demand (gpd)			**839,158**	
Reduced Rezoning Area Alternative Incremental Water Demand (No-Action to With-Action Incremental Water Demand (gpd))			**732,129**	
Total Wastewater Generation (gpd)			**721,799**	
Reduced Rezoning Area Alternative Incremental Wastewater Generation (No-Action to With-Action Incremental Wastewater Generation (gpd))			**667,264**	

Source: *Consumption rates obtained from the CEQR Technical Manual (2014), Table 13-2.*
Notes:
[1] Gallons per day (gpd).
[2] Approximately 2.57 residents per dwelling unit (DU) within Community District 1 (100 gpd per resident).
[3] Use group comprises retail, supermarket, and restaurant.
[4] Comprises commercial office and other commercial.
[5] Commercial/office rate. Includes all community facility uses.

Based on generation rates in the *CEQR Technical Manual,* the Reduced Rezoning Area Alternative has the potential to result in an incremental wastewater generation of 667,264 gpd over the No-Action Condition (compared to approximately 702,448 under in the Proposed Actions). Unlike in the Proposed Actions, the Reduced Rezoning Area Alternative would not affect Subcatchment PR-031, because the Canal Street Corridor Project Area would be excluded under this alternative. Both the Proposed Actions and the Reduced Rezoning Area Alternative would affect Subcatchment Areas PR-013 and PR-014, and the Direct Drainage Area. In the Reduced Rezoning Area Alternative, the flows to Subcatchment Areas PR-014would remain unchanged as compared to the Proposed Actions; however, flows to PR-013 and the Direct Drainage Area would increase due to the increase in residential area on City Disposition Site 3, and the additional 100,000-sf of community facility use on Stapleton Waterfront Phase III Sites. Similar to the Proposed Actions, as no additional floor area or

changes to surface area would occur on the Projected Development Site in Subcatchment area PR-011 (City Disposition Site 1) in the Reduced Rezoning Area Alternative, no changes to stormwater flows in the subcatchment area would occur.

In both the Proposed Actions and the Reduced Rezoning Area Alternative, the Port Richmond Wastewater Treatment Plant (WWTP) would continue to operate well under capacity, and no significant adverse impacts to wastewater treatment would occur. Depending on intensity and continuity during storm events with up to 2.5 inches of rainfall, the total volumes (stormwater and sanitary sewage) flowing to the combined sewer system in the Reduced Rezoning Area Alternative range would range from 0.00 to 0.01 mg in Subcatchment area PR-011; from 0.01 to 0.33 mg in Subcatchment area PR-013; from 0.07 to 1.06 mg in Subcatchment area PR-014; and from 0.02 to 0.13 mg in the direct drainage area.

As compared to the Proposed Actions, the Reduced Rezoning Area Alternative would generate slightly lesser sanitary flows and due to the approximately 34.72 mgd of available capacity at the WWTP, no adverse impacts to sewer infrastructure are anticipated as result of stormwater generated by the development in the Reduced Rezoning Area Alternative. Additionally, similar to the Proposed Action, the Reduced Rezoning Area Alternative would require Best Management Practices measures to be implemented on all the Projected Development Sites, which would further reduce the likelihood of adverse impacts to the City's water and sewer infrastructure.

SOLID WASTE AND SANITATION SERVICES

Neither the Proposed Actions nor the Reduced Rezoning Area Alternative would result in significant adverse impacts to solid waste or sanitation services. The Reduced Rezoning Area Alternative would generate lower incremental solid waste as compared to the Proposed Actions.

As shown in table 22-8, it is anticipated that development on the Projected Development Sites in the Reduced Rezoning Area Alternative would generate approximately 108.62 tons of solid waste per week, which would represent an approximately 79.28 ton per week increase in solid waste generation over the No-Action Condition, as compared to approximately 116.24 tons of solid waste per week (approximately 80.28 ton per week increase over the No-Action) under the Proposed Actions.

Development under the Reduced Rezoning Area Alternative would result in 172 fewer dwelling units and approximately 101,796 sf more of community facility space as compared to the Proposed Actions. As a result, the solid waste to be processed by the Department of Sanitation of New York (DSNY) would increase by approximately 0.72 tons per week, compared to the Proposed Actions. Though the Reduced Rezoning Area Alternative would result in a slight increase of solid waste to be processed by DSNY, based on the average DSNY truck capacity of approximately 12.5 tons, both the Reduced Rezoning Area Alternative and the Proposed Actions would require approximately four additional truckloads per week as compared to the No-Action Condition.

**Table 22-8: Weekly Solid Waste Generation—
No-Action, Reduced Rezoning Area Alternative (RRAA), and the Proposed Actions**

Solid Waste Generation (tons/week)	Proposed Actions			Reduced Rezoning Area Alternative			Difference in increment between the Proposed Actions and RRAA
	No-Action Condition	With-Action Condition	Increment	No-Action Condition	With-Action Condition	Increment	
Solid Waste Handled by DSNY	3.53	53.93	50.40	0.54	51.66	51.12	0.72
Solid Waste Handled by Private Carters	32.43	62.61	29.88	28.80	56.96	28.16	-1.72
Total	**35.96**	**116.24**	**80.28**	**29.34**	**108.62**	**79.28**	**-1.0**

Incremental development under the Revised Rezoning Area Alternative would result in approximately 42,383 sf less of commercial floor area as compared to the Proposed Actions. This reduction in commercial floor area would result in a decrease of approximately 1.72 tons per week of solid waste to be processed by private carters in the Reduced Rezoning Area Alternative, compared to the Proposed Actions. Based on the average private carter truck capacity of between approximately 12 and 15 tons, both the Reduced Rezoning Area Alternative and the Proposed Actions would require approximately two additional truckloads per week as compared to the No-Action Condition.

Therefore, under both the Proposed Actions and the Reduced Rezoning Area Alternative, the net incremental solid waste generated would not overburden DSNY or private carter's collection services or the greater waste management system.

ENERGY

Both the Proposed Actions and the Reduced Rezoning Area Alternative would not result in significant adverse impacts to energy. The Reduced Rezoning Area Alternative would result in a lower increment in energy usage as compared to the Proposed Actions.

As shown in Table 22-9, anticipated energy usage in the Reduced Rezoning Area Alternative would be approximately 458.28 MBtu, which would represent an approximately 389.72 MBtu increase over the No-Action Condition as compared to an increase of approximately 395.33 MBtu under the Proposed Actions. Therefore, the Reduced Rezoning Area Alternative would result in an approximately 5.61 MBtu reduction in incremental energy usage as compared to the Proposed Actions.

It is anticipated that the increase in energy consumption in both the Proposed Actions and Reduced Rezoning Area Alternative would not result in significant adverse impacts to energy.

Table 22-9: Reduced Rezoning Area Alternative (RRAA) Annual Energy Consumption for the Projected Development Sites, compared to Proposed Actions

Use	Floor Area (sf)	Average Annual Energy Use Rate (MBtu/sf) [1,2]	RRAA Annual Energy Use (million MBtu)	RRAA's Incremental Annual Energy Use (MBtu)	Proposed Action's Incremental Annual Energy Use (MBtu)[4]
Commercial[3]	513,990	216.3	111.18	50.39	59.56
Industrial	0	554.3	0	0	0
Institutional	176,354	250.7	44.21	37.25	11.73
Large Residential (>4 Family)	2,390,631	126.7	302.89	302.89	325.49
Small Residential (1-4 Family)	0	94.0	0	-0.81	-1.45
		Total	**458.28**	**389.72**	**395.33**

Notes:
[1] MBtu = 1,000 Btu.
[2] CEQR Technical Manual, Chapter 15, Table 15-1.
[3] Includes retail supermarket, restaurant, and office.
[4] 1 million MBtu = 1 billion Btu.

TRANSPORTATION

The Reduced Rezoning Area Alternative would result in changes to the size and types of land uses proposed at the Projected Development sites at Canal Street, Stapleton Waterfront Phase III Site A, and 54 Central Avenue, as shown in Table 22-10. As a result of the proposed changes to the Projected Development sites, the Reduced Rezoning Area Alternative would generate a greater number of vehicles, transit, and pedestrian trips during one or more of the peak hours compared to the Proposed Actions, while parking demand would be reduced for the Reduced Rezoning Area Alternative compared to the Proposed Actions. As shown in Table 22-11, the Reduced Rezoning Area Alternative would generate approximately 140, 943, 461, and 405 additional person trips during the Weekday AM, MD, PM, and Saturday MD peak hours, respectively, compared to the Proposed Actions. Depending on the peak hour, this represents a 4.8 to 27.6 percent increase in project-generated person trips compared to the Proposed Actions.

It is expected that the Reduced Rezoning Area Alternative would result in significant adverse traffic, bus transit, and pedestrian impacts. The Reduced Rezoning Area Alternative is not expected to result in significant adverse SIR transit or parking impacts.

TRAFFIC

As shown in Table 22-12, the Reduced Rezoning Area Alternative is expected to generate -75, 32, -51, and 13 incremental vehicle trips during the Weekday AM, MD, PM, and Saturday MD peak hours, respectively, compared to the Proposed Actions. This represents a 7.6 percent decrease to a 4.1 percent increase, depending on peak hour. Study intersections where the Proposed Actions were found to result in significant adverse impacts were evaluated to determine if the impacts would also occur under the Reduced Rezoning Area Alternative, and if those impacts could be mitigated.

Table 22-10: Total Development Area by Land Use: Proposed Actions compared to Reduced Rezoning Area Alternative

Land Use	Existing Condition	No-Action Condition	No-Action net Existing	With-Action Condition	With-Action net Existing	With-Action net No-Action	Reduced Rezoning Area Alternative No-Action	Reduced Rezoning Area Alternative	Reduced Rezoning Area Alternative Net Existing	Reduced Rezoning Area Alternative Net Reduced Rezoning Area Alternative No-Action
Residential										
Market-Rate Residential	6	12	6	1,508	1,502	1,496	6	1,340	1,334	1,334
Affordable Residential	0	0	0	1,061	1,061	1,061	0	1,051	1,051	1,051
Total Residential	6	12	6	2,569	2,563	2,557	6	2,391	2,385	2,385
Commercial										
Local Retail	95,274	209,936	114,662	230,644	135,370	20,708	157,526	202,412	107,138	44,886
Office	123,638	99,179	-24,459	316,939	193,301	217,760	89,379	240,578	116,940	151,199
Restaurant	0	19,585	19,585	71,000	71,000	51,415	19,585	71,000	71,000	51,415
Factory	35,900	0	-35,900	0	-35,900	0	0	0	-35,900	0
Garage	27,728	14,535	-13,193	0	-27,728	-14,535	14,535	0	-27,728	-14,535
Storage	24,092	0	-24,092	0	-24,092	0	0	0	-24,092	0
Total Commercial	306,632	343,235	36,603	618,583	311,951	275,348	281,025	513,990	207,358	232,965
Other Uses										
Industrial	0	0	0	0	0	0	0	0	0	0
Medical Office	0	0	0	20,000	20,000	20,000	0	20,000	20,000	20,000
Community Facility	13,090	37,879	24,789	64,678	51,588	26,799	27,759	156,354	143,264	128,595
Other	73,092	0	-73,092	0	-73,092	0	0	0	-73,092	0
Total Floor Area	86,182	37,879	-48,303	84,678	-1,504	46,799	27,759	176,354	90,172	148,595
Parking										
Parking Spaces	481	481	0	1,771	1,290	1,290	347	1,561	1,080	1,214
Residential										
Market-Rate Residential	6	12	6	1,508	1,502	1,496	6	1,340	1,334	1,334
Affordable Residential	0	0	0	1,061	1,061	1,061	0	1,051	1,051	1,051
Total Residential	6	12	6	2,569	2,563	2,557	6	2,391	2,385	2,385
Commercial										
Local Retail	95,274	209,936	114,662	230,644	135,370	20,708	157,526	202,412	107,138	44,886
Office	123,638	99,179	-24,459	316,939	193,301	217,760	89,379	240,578	116,940	151,199
Restaurant	0	19,585	19,585	71,000	71,000	51,415	19,585	71,000	71,000	51,415
Factory	35,900	0	-35,900	0	-35,900	0	0	0	-35,900	0
Garage	27,728	14,535	-13,193	0	-27,728	-14,535	14,535	0	-27,728	-14,535
Storage	24,092	0	-24,092	0	-24,092	0	0	0	-24,092	0
Total Commercial	306,632	343,235	36,603	618,583	311,951	275,348	281,025	513,990	207,358	232,965
Other Uses										
Industrial	0	0	0	0	0	0	0	0	0	0
Medical Office	0	0	0	20,000	20,000	20,000	0	20,000	20,000	20,000
Community Facility	13,090	37,879	24,789	64,678	51,588	26,799	27,759	156,354	143,264	128,595
Other	73,092	0	-73,092	0	-73,092	0	0	0	-73,092	0
Total Floor Area	86,182	37,879	-48,303	84,678	-1,504	46,799	27,759	176,354	90,172	148,595
Parking										
Parking Spaces	481	481	0	1,771	1,290	1,290	347	1,561	1,080	1,214

Table 22-11: Incremental Peak Hour Person Trips by Mode:
Proposed Actions compared to Reduced Rezoning Area Alternative

Scenario	Auto	Taxi	SIR	Bus	Walk/ Other	Total
Weekday AM						
Proposed Action	1,143	12	433	860	451	2,898
Reduced Area Alternative	1,082	13	399	950	592	3,037
Net Difference	***-61***	***1***	***-33***	***91***	***142***	***140***
Weekday MD						
Proposed Action	892	46	373	621	1,486	3,418
Reduced Area Alternative	955	58	397	882	2,068	4,361
Net Difference	***64***	***12***	***23***	***260***	***583***	***943***
Weekday PM						
Proposed Action	1,587	44	578	1,093	1,165	4,468
Reduced Area Alternative	1,549	51	561	1,243	1,525	4,929
Net Difference	***-38***	***6***	***-17***	***150***	***360***	***461***
Saturday MD						
Proposed Action	855	42	487	846	1,249	3,479
Reduced Area Alternative	875	51	486	903	1,570	3,884
Net Difference	***20***	***9***	***-2***	***56***	***321***	***405***
Weekday AM						
Proposed Action	1,143	12	433	860	451	2,898
Modified Proposal Alternative	1,082	13	399	950	592	3,037
Net Difference	***-61***	***1***	***-33***	***91***	***142***	***140***
Weekday MD						
Proposed Action	892	46	373	621	1,486	3,418
Modified Proposal Alternative	955	58	397	882	2,068	4,361
Net Difference	***64***	***12***	***23***	***260***	***583***	***943***
Weekday PM						
Proposed Action	1,587	44	578	1,093	1,165	4,468
Modified Proposal Alternative	1,549	51	561	1,243	1,525	4,929
Net Difference	***-38***	***6***	***-17***	***150***	***360***	***461***
Saturday MD						
Proposed Action	855	42	487	846	1,249	3,479
Modified Proposal Alternative	875	51	486	903	1,570	3,884
Net Difference	***20***	***9***	***-2***	***56***	***321***	***405***

Table 22-12: Incremental Peak Hour Vehicle Trips: Proposed Actions compared to Reduced Rezoning Area Alternative

Scenario	Auto	Taxi	Truck	Total
Weekday AM				
Proposed Action	949	14	22	985
Reduced Area Alternative	878	12	20	910
Net Difference	***-71***	***-2***	***-2***	***-75***
Weekday MD				
Proposed Action	699	64	16	779
Reduced Area Alternative	713	84	14	811
Net Difference	***14***	***20***	***-2***	***32***
Weekday PM				
Proposed Action	1,233	64	2	1,299
Reduced Area Alternative	1,168	78	2	1,248
Net Difference	***-65***	***14***	***0***	***-51***
Saturday MD				
Proposed Action	625	70	0	695
Reduced Area Alternative	626	82	0	708
Net Difference	***1***	***12***	***0***	***13***

Table 22-13 presents the number of lane groups and intersections where significant adverse traffic impacts are expected due to the Reduced Rezoning Area Alternative compared to the Proposed Actions and the number of lane groups and intersections where those impacts could be fully mitigated. Table 22-14 compares the lane groups and intersections where significant adverse traffic impacts are expected for the Proposed Actions versus the Reduced Rezoning Area Alternative for the signalized intersections. No changes to significant traffic impacts are expected at the unsignalized study intersections. The results of the analyses are summarized below:

- For the Weekday AM peak hour, the Reduced Rezoning Area Alternative would not result in any new significant traffic impacts. Significant traffic impacts identified due to the Proposed Actions would no longer be impacted for six lane groups at the following intersections:
    - Bay Street and Slosson Terrace (northbound left-turn)
    - Victory Boulevard and Bay Street (eastbound left-turn)
    - Bay Street and Swan Street/Van Duzer Street (eastbound left-turn)
    - Broad Street and Targee Street (northbound through/left-turn)
    - Vanderbilt Avenue and Tompkins Avenue (southbound approach)
    - Bay Street and Vanderbilt Avenue (northbound through/left-turn)

  Overall, the Reduced Rezoning Area Alternative would result in six fewer impacted lane groups and three fewer impacted intersections compared to the Proposed Actions during the Weekday AM peak hour.

Table 22-13: Impacted Lane Groups and Intersections with Significant Adverse Impacts Proposed Actions compared to Reduced Rezoning Area Alternative

		With-Action			With-Action With Mitigation		
Peak Hour	Development Scenario	Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections With No Significant Impacts	Lane Groups/ Intersections With Significant Impacts	Lane Groups/ Intersections Analyzed	Mitigated Lane Groups/ Intersections	Unmitigated Lane Groups/ Intersections
Weekday AM	Proposed Action	191 / 49	155 / 25	36 / 24	195 / 49	185 / 43	10 / 6
	Reduced Area Alternative	191 / 49	161 / 28	30 / 21	195 / 49	187 / 44	8 / 5
Weekday MD	Proposed Action	188 / 49	145 / 28	43 / 21	194 / 49	170 / 38	24 / 11
	Reduced Area Alternative	188 / 49	145 / 28	43 / 21	194 / 49	171 / 38	23 / 11
Weekday PM	Proposed Action	189 / 49	130 / 23	59 / 26	195 / 49	149 / 28	46 / 21
	Reduced Area Alternative	189 / 49	129 / 22	60 / 27	195 / 49	149 / 27	46 / 22
Saturday MD	Proposed Action	188 / 49	151 / 29	37 / 20	194 / 49	180 / 40	14 / 9
	Reduced Area Alternative	188 / 49	151 / 30	37 / 19	194 / 49	183 / 41	11 / 8
Weekday AM	Proposed Action	191 / 49	155 / 25	36 / 24	195 / 49	185 / 43	10 / 6
	Modified Proposal Alternative	191 / 49	161 / 28	30 / 21	195 / 49	187 / 44	8 / 5
Weekday MD	Proposed Action	188 / 49	145 / 28	43 / 21	194 / 49	170 / 38	24 / 11
	Modified Proposal Alternative	188 / 49	145 / 28	43 / 21	194 / 49	171 / 38	23 / 11
Weekday PM	Proposed Action	189 / 49	130 / 23	59 / 26	195 / 49	149 / 28	46 / 21
	Modified Proposal Alternative	189 / 49	129 / 22	60 / 27	195 / 49	149 / 27	46 / 22
Saturday MD	Proposed Action	188 / 49	151 / 29	37 / 20	194 / 49	180 / 40	14 / 9
	Modified Proposal Alternative	188 / 49	151 / 30	37 / 19	194 / 49	183 / 41	11 / 8

- For the Weekday MD peak hour, the Reduced Rezoning Area Alternative would result in a new significant adverse impact at the intersection of Bay Street and Canal Street for the westbound approach. The significant traffic impact identified due to the Proposed Actions at the intersection of Bay Street and Slosson Terrace for the northbound left-turn movement would no longer be impacted.

  Overall, the Reduced Rezoning Area Alternative would result in the same number of impacted lane groups and intersections compared to the Proposed Actions during the Weekday MD peak hour.

- For the Weekday PM peak hour, the Reduced Rezoning Area Alternative would result in new significant impacts for three lane groups at the following intersections:

  - Wall Street and Richmond Terrace (westbound left/through/right lane and the westbound left-turn)
  - Victory Boulevard and Cebra Avenue (westbound left-turn)

  Significant traffic impacts identified due to the Proposed Actions would no longer be impacted for two lane groups at the following intersections:

  - Victory Boulevard and Bay Street (southbound through/left-turn)
  - Victory Boulevard and Forest Avenue (southbound through)

  Overall, the Reduced Rezoning Area Alternative would result in the one additional impacted lane group and one additional impacted intersection compared to the Proposed Actions during the Weekday PM peak hour.

- For the Saturday MD peak hour, the Reduced Rezoning Area Alternative would result in a new significant adverse impact at the intersection of Bay Street and Canal Street for the westbound approach. The significant traffic impact identified due to the Proposed Actions at the intersection of Richmond Terrace and the Ferry Terminal (bus) for the southbound approach would no longer be impacted.

  Overall, the Reduced Rezoning Area Alternative would result in the same number of impacted lane groups and one fewer impacted intersection compared to the Proposed Actions during the Weekday PM peak hour.

Table 22-14: Signalized Level of Service Analysis – Weekday AM Peak Hour
Proposed Actions compared to Reduced Rezoning Area Alternative

#	Intersection & Approach	With-Action Conditions (Proposed Action)						With-Action Condition (Reduced Rezoning Rezoning Area						New Impact?	No Longer Impacted?
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)			
10	**Bay Street and Slosson Terrace**														
	Eastbound	LR	0.13	33.3	C	52		LR	0.14	33.5	C	56			
	Northbound	L	1.07	89.9	F	328	+	L	0.76	35.7	D	185			Yes
		T	0.72	14.9	B	315		T	0.72	14.4	B	294			
	Southbound	TR	0.74	22.2	C	467		TR	0.74	22.3	C	468			
		Intersection		27.5	C			Intersection		20.2	C				
12	**Victory Boulevard and Bay Street**														
	Eastbound	L	0.82	49.9	D	328	+	L	0.76	43.3	D	292			Yes
		LT	0.77	43.5	D	320		LT	0.68	36.7	D	251			
	Westbound	LTR	0.40	39.2	D	115		LTR	0.38	38.3	D	114			
	Northbound	L	1.15	97.3	F	142	+	L	1.18	111.4	F	163	+		
		TR	0.75	19.6	B	230		TR	0.72	19.1	B	227			
	Southbound	LT	0.68	9.3	A	48		LT	0.67	8.7	A	50			
		R	0.38	7.1	A	32		R	0.38	7.3	A	33			
		Intersection		28.0	C			Intersection		28.0	C				
15	**Bay Street and Swan Street/Van Duzer Street**														
	Eastbound	L	1.11	128.3	F	449	+	L	1.04	127.6	F	409			Yes
		LTR	1.06	127.8	F	467		LTR	1.08	126.6	F	473			
	Westbound	LTR	0.03	30.0	C	11		LTR	0.03	30.0	C	11			
	Northbound	LTR	0.57	9.4	A	48		LTR	0.55	8.6	A	47			
	Southbound	LTR	0.48	10.7	B	105		LTR	0.48	10.7	B	105			
		Intersection		41.5	D			Intersection		40.8	D				
43	**Broad Street and Targee Street**														
	Eastbound	LT	0.56	53.7	D	336	+	LT	0.56	53.4	D	336	+		
	Westbound	TR	0.47	41.3	D	249		TR	0.47	41.2	D	247			
	Northbound	LT	1.00	58.7	E	868	+	LT	0.98	53.9	D	842			Yes
		R	0.51	20.1	C	225		R	0.51	20.0	C	223			
		Intersection		48.2	D			Intersection		45.7	D				
44	**Vanderbilt Avenue and Tompkins Avenue**														
	Eastbound	LTR	0.95	49.9	D	826	+	LTR	0.95	49.5	D	825	+		
	Westbound	LTR	0.51	16.2	B	141		LTR	0.51	16.2	B	144			
	Northbound	LTR	1.37	220.2	F	529	+	LTR	1.31	193.7	F	505	+		
	Southbound	LTR	1.12	113.7	F	618	+	LTR	1.08	100.7	F	586			Yes
		Intersection		94.6	F			Intersection		84.8	F				
45	**Bay Street and Vanderbilt Avenue**														
	Eastbound	L	0.63	27.7	C	141		L	0.62	27.2	C	140			
		R	0.44	25.4	C	82		R	0.44	25.0	C	82			
	Northbound	LT	0.99	46.8	D	659	+	LT	0.95	37.7	D	623			Yes
	Southbound	T	0.81	35.8	D	567		T	0.80	35.6	D	555			
		R	0.31	8.2	A	86		R	0.31	8.3	A	87			
		Intersection		33.1	C			Intersection		30.2	C				

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-14 (con't): Signalized Level of Service Analysis – Weekday MD Peak Hour Proposed Actions compared to Reduced Rezoning Area Alternative

Int #	Intersection & Approach	With-Action Conditions (Proposed Action)						With-Action Condition (Reduced Rezoning Area Alternative)						New Impact?	No Longer Impacted?
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)			
10	**Bay Street and Slosson Terrace**														
	Eastbound	LR	0.38	28.2	C	109		LR	0.23	25.6	C	71			
	Northbound	L	0.89	50.0	D	90	+	L	0.70	33.9	C	64			Yes
		T	0.93	17.3	B	287		T	0.93	17.3	B	518			
	Southbound	TR	1.21	122.1	F	724	+	TR	1.21	121.2	F	723	+		
		Intersection		69.4	E			Intersection		69.1	E				
29	**Bay Street and Canal Street**														
	Eastbound	L	0.64	161.1	F	165		L	0.45	139.7	F	118			
		TR	0.24	20.8	C	73		TR	0.21	20.1	C	71			
	Westbound	LTR	0.28	144.2	F	66		LTR	0.24	128.5	F	71	+	Yes	
	Northbound	TR	1.39	196.5	F	71	+	TR	1.38	192.6	F	80	+		
	Southbound	LT	3.64	1201.2	F	642	+	LT	3.59	1181.1	F	655	+		
		Intersection		643.7	F			Intersection		627.3	F				

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-14 (con't): Signalized Level of Service Analysis – Weekday PM Peak Hour Proposed Actions compared to Reduced Rezoning Area Alternative

Int #	Intersection & Approach	With-Action Conditions (Proposed Action)						With-Action Condition (Reduced Rezoning Area Alternative)						New Impact?	No Longer Impacted?
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)			
7	**Wall Street and Richmond Terrace**														
	Eastbound														
	Westbound	LTR	0.66	185.5	F	312		LTR	0.66	185.5	F	312	+	Yes	
		L	0.62	177.9	F	273		L	0.62	177.9	F	273	+	Yes	
	Northbound	T	0.60	5.2	A	52		T	0.59	5.1	A	50			
		R	0.51	6.1	A	39		R	0.51	6.1	A	39			
	Southbound	LTR	0.71	11.7	B	93		LTR	0.70	11.4	B	90			
		Intersection		44.1	D			Intersection		44.2	D				
12	**Victory Boulevard and Bay Street**														
	Eastbound	L	0.90	83.1	F	351	+	L	0.92	86.9	F	357	+		
		LT	0.88	95.2	F	363	+	LT	0.89	96.7	F	368	+		
	Westbound	LTR	2.61	756.6	F	863	+	LTR	2.62	761.8	F	864	+		
	Northbound	L	3.75	1255.3	F	246	+	L	3.36	1081.2	F	241	+		
		TR	0.73	17.8	B	204		TR	0.73	18.4	B	209			
	Southbound	LT	1.08	55.4	E	172	+	LT	1.04	38.8	D	138			Yes
		R	0.89	27.9	C	108		R	0.83	18.4	B	78			
		Intersection		210.2	F			Intersection		200.0	F				
35	**Victory Boulevard and Cebra Avenue**														
	Eastbound	L	1.13	197.4	F	137	+	L	1.08	179.7	F	135	+		
		TR	0.72	54.2	D	252		TR	0.72	54.2	D	252			
	Westbound	L	0.73	72.2	E	170		L	0.71	69.1	E	163	+	Yes	
		TR	0.98	87.0	F	434	+	TR	0.97	84.0	F	427	+		
	Northbound	LTR	1.34	191.0	F	1180	+	LTR	1.34	190.2	F	1179	+		
	Southbound														
		LT	1.22	113.6	F	1089	+	LT	1.17	92.8	F	1074	+		
		R	0.04	3.6	A	4		R	0.04	3.7	A	4			
		Intersection		127.5	F			Intersection		118.4	F				
38	**Victory Boulevard and Forest Avenue**														
	Eastbound	LR	0.55	43.1	D	195		LR	0.55	43.1	D	195			
	Northbound	L	0.91	86.4	F	197	+	L	0.77	54.1	D	180	+		
		T	0.58	17.4	B	373		T	0.58	17.4	B	373			
	Southbound	T	0.92	79.8	E	664	+	T	0.88	77.5	E	579			Yes
		R	0.42	8.2	A	81		R	0.41	7.8	A	75			
		Intersection		47.2	D			Intersection		44.5	D				

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-14 (con't): Signalized Level of Service Analysis – Saturday MD Peak Hour
Proposed Actions compared to Reduced Rezoning Area Alternative

Int #	Intersection & Approach	With-Action Conditions (Proposed Action)						With-Action Condition (Reduced Rezoning Area Alternative)						New Impact?	No Longer Impacted?
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)			
8	**Richmond Terrace and Ferry Terminal (bus)**														
	Westbound	L	1.24	195.9	F	206		L	1.24	195.9	F	206			
		R	0.44	48.3	D	63		R	0.44	48.3	D	63			
	Northbound	T	0.71	42.6	D	48		T	0.70	41.1	D	47			
	Southbound	T	0.81	46.0	D	208	+	T	0.80	43.5	D	207			Yes
		Intersection		53.4	D			Intersection		51.6	D				
29	**Bay Street and Canal Street**														
	Eastbound	L	0.62	145.2	F	161		L	0.48	132.0	F	136			
		TR	0.25	20.7	C	84		TR	0.22	20.1	C	82			
	Westbound	LTR	0.25	134.8	F	64		LTR	0.21	125.2	F	65	+	Yes	
	Northbound	TR	1.35	179.2	F	86	+	TR	1.35	177.3	F	95	+		
	Southbound	LT	3.88	1309.0	F	677	+	LT	3.88	1307.9	F	685	+		
		Intersection		697.8	F			Intersection		694.8	F				

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

The approach movements that were mitigated for the Reduced Rezoning Area Alternative used the same types of mitigation measures as the Proposed Actions (i.e., signal timing changes, signal offsets, etc.). Table 22-15 summarizes the recommended mitigation measures for each of the impacted intersections for the Reduced Rezoning Area Alternative compared to the Proposed Actions during the Weekday AM, MD, PM, and Saturday MD peak hours. Tables 22-7 and 22-8 present the capacity analysis results for the signalized and unsignalized intersections for the No-Action, With-Action, and mitigated conditions for the Reduced Rezoning Area Alternative for the Weekday AM, MD, PM, and Saturday MD peak hours.

Table 22-15: Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

1 — Richmond Terrace and Franklin Avenue

Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts		Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		WB LT	37.1 D	75.5 E +	36.2 D					WB LT	67.8 E	238.7 F +	69.1 E				
Mitigation Description		Shift 3 seconds from NB phase to EB / WB phase.								Shift 7 seconds from NB phase to EB / WB phase.							
Signal Timing Mitigation		No-Action/With-Action			Mitigated					No-Action/With-Action			Mitigated				
			G	A	R		G	A	R		G	A	R		G	A	R
		EB / WB	79.0	3.0	2.0	EB / WB	82.0	3.0	2.0	WB / EB	79.0	3.0	2.0	EB / WB	86.0	3.0	2.0
		NB	31.0	3.0	2.0	NB	28.0	3.0	2.0	NB	31.0	3.0	2.0	NB	24.0	3.0	2.0
		Offset		56	sec	Offset		56	sec	Offset		60	sec	Offset		60	sec
		Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		120	sec

2 — Richmond Terrace and Jersey Street

Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts		Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		EB L	86.0 F	203.1 F +	60.0 E					EB L	36.7 D	48.5 D +	32.6 C				
		WB LT	68.3 E	108.9 F +		WB LT	198.7 F	319.0 F +		WB LT	149.5 F	336.2 F +		WB LT	73.0 E	108.8 F +	
		WB R	7.7 A	9.0 A		WB R	8.9 A	8.2 A		WB R	10.9 B	9.9 A		WB R	9.6 A	12.2 B	
		WB L			12.6 B	WB L			10.3 B	WB L			14.1 B	WB L			13.2 B
		WB TR			43.2 D	WB TR			39.6 D	WB TR			73.5 E +	WB TR			51.5 D +
Mitigation Description		Re-stripe WB approach as one 10' L lane and one 11' TR lane for 100'. Shift 3 seconds from NB / SB phase to EB / WB phase. Shift 3 seconds from NB / SB to EBL lead phase. Change offset from 97 seconds to 55 seconds.				Re-stripe WB approach as one 10' L lane and one 11' TR lane for 100'. Shift 4 seconds from NB / SB phase and 1 second from EBL phase to EB / WB phase. Shift 1 second from EBL lead phase to EB / WB phase. Change offset from 34 seconds to 45 seconds.				Partial mitigation: re-stripe WB approach as one 10' L lane and one 11' TR lane for 100'. Shift 2 seconds from NB / SB phase to EB / WB phase. Change offset from 34 seconds to 52 seconds.				Partial mitigation: Re-stripe WB approach as one 10' L lane and one 11' TR lane for 100'.			
Signal Timing Mitigation		No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated
			G	A	R		G	A	R		G	A	R		G	A	R		G	A	R		G	A	R		G	A	R
		EBL	10.0	3.0	2.0	EBL	13.0	3.0	2.0	EBL	9.0	3.0	2.0	EBL	8.0	3.0	2.0	EBL	8.0	3.0	2.0	EBL	8.0	3.0	2.0	EBL	10.0	3.0	2.0	EBL	10.0	3.0	2.0
		EB / WB	65.0	3.0	2.0	EB / WB	68.0	3.0	2.0	EB / WB	64.0	3.0	2.0	EB / WB	69.0	3.0	2.0	EB / WB	67.0	3.0	2.0	EB / WB	69.0	3.0	2.0	EB / WB	40.0	3.0	2.0	EB / WB	40.0	3.0	2.0
		NB / SB	30.0	3.0	2.0	NB / SB	24.0	3.0	2.0	NB / SB	32.0	3.0	2.0	NB / SB	28.0	3.0	2.0	NB / SB	30.0	3.0	2.0	NB / SB	28.0	3.0	2.0	NB / SB	25.0	3.0	2.0	NB / SB	25.0	3.0	2.0
		Offset		97	sec	Offset		55	sec	Offset		34	sec	Offset		45	sec	Offset		34	sec	Offset		52	sec	Offset		60	sec	Offset		60	sec
		Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec

3 — Richmond Terrace and Westervelt Avenue

Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts		Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
										EB TR	25.1 C	45.9 D +	37.9 D				
		WB LT	46.2 D	87.8 F +	31.0 C	WB LT	69.9 E	79.1 E +	29.4 C	WB LT	76.6 E	100.4 F +	76.4 E				
Mitigation Description		Change offset from 93 seconds to 75 seconds.				Change offset from 23 seconds to 43 seconds.				Shift 2 seconds from NB phase to EB / WB phase. Change offset from 23 seconds to 50 seconds.							
Signal Timing Mitigation		No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated				
			G	A	R		G	A	R		G	A	R		G	A	R
		EB / WB	73.0	3.0	2.0	EB / WB	73.0	3.0	2.0	EB / WB	73.0	3.0	2.0	EB / WB	75.0	3.0	2.0
		NB	37.0	3.0	2.0	NB	37.0	3.0	2.0	NB	37.0	3.0	2.0	NB	35.0	3.0	2.0
		Offset		93	sec	Offset		75	sec	Offset		23	sec	Offset		43	sec
		Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		120	sec

Table 22-15 (con't): Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

5 — Hamilton Avenue and Richmond Terrace

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
													NB LT	29.3 C	50.2 D +	41.7 D
Mitigation Description													Shift 1 second from the pedestrian phase to NB / SB phase.			
Signal Timing Mitigation													No-Action/With-Action			Mitigated
														G A R		G A R
													NB / SB	45.0 3.0 2.0		NB / SB 46.0 3.0 2.0
													All Peds	35.0 3.0 2.0		All Peds 34.0 3.0 2.0
													Offset	60 sec		Offset 60 sec
													Cycle Length	90 sec		Cycle Length 90 sec

7 — Wall Street and Richmond Terrace

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
									WB LTR	179.8 F	185.5 F +	165.0 F				
									WB L	170.8 F	177.9 F +	158.4 F				
Mitigation Description									Change offset from 77 seconds to 74 seconds.							
Signal Timing Mitigation									No-Action/With-Action			Mitigated				
										G A R						
									WB	37.0 3 2		WB	37.0 3 2			
									NB / SB	73.0 3 2		NB / SB	73.0 3 2			
									Offset	77 sec		Offset	74 sec			
									Cycle Length	120 sec		Cycle Length	120 sec			

8 — Richmond Terrace and Ferry Terminal (bus)

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
					WB L	134.0 F	139.4 F +	139.4 F +								
									NB T	75.0 E	79.6 E +	79.6 E +				
					SB T	58.9 E	82.2 F +	82.2 F +	SB T	79.5 E	86.6 F +	86.6 F +				
Mitigation Description	Shift 1 second from WB phase to NB / SB phase to mitigate impact at intersection #9.				Unmitigable				Unmitigable							
Signal Timing Mitigation	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated				
	G A R			G A R	G A R			G A R	G A R			G A R				
	WB	27.0 3.0 2.0		WB 26.0 3.0 2.0	WB	10.0 3.0 2.0		WB 10.0 3.0 2.0	WB	27.0 3.0 2.0		WB 27.0 3.0 2.0				
	All Peds	23.0 3.0 2.0		All Peds 23.0 3.0 2.0	All Peds	23.0 3.0 2.0		All Peds 23.0 3.0 2.0	All Peds	23.0 3.0 2.0		All Peds 23.0 3.0 2.0				
	NB / SB	55.0 3.0 2.0		NB / SB 56.0 3.0 2.0	NB / SB	42.0 3.0 2.0		NB / SB 42.0 3.0 2.0	NB / SB	55.0 3.0 2.0		NB / SB 55.0 3.0 2.0				
	Offset	21 sec		Offset 21 sec	Offset	45 sec		Offset 45 sec	Offset	95 sec		Offset 95 sec				
	Cycle Length	120 sec		Cycle Length 120 sec	Cycle Length	90 sec		Cycle Length 90 sec	Cycle Length	120 sec		Cycle Length 120 sec				

Table 22-15 (con't): Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

	Intersection		Weekday AM Peak Hour								Weekday MD Peak Hour							
9	Richmond Terrace and Ferry Terminal (parking lot)	Impacts	Movement	No-Action		With-Action			Mitigated		Movement	No-Action		With-Action			Mitigated	
			NB T	38.9	D	50.3	D	+	41.0	D	NB T	59.3	E	87.1	F	+	87.6	F +
											SB TR	65.6	E	92.1	F	+	92.1	F +
		Mitigation Description	Shift 1 second from WB / NB R phase to NB / SB R phase.								Unmitigable							
		Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated			
				G	A	R		G	A	R		G	A	R		G	A	R
			WB / NB R	27.0	3.0	2.0	WB / NB R	26.0	3.0	2.0	WB / NB R	10.0	3.0	2.0	WB / NB R	10.0	3.0	2.0
			All Peds	23.0	3.0	2.0	All Peds	23.0	3.0	2.0	All Peds	23.0	3.0	2.0	All Peds	23.0	3.0	2.0
			SB / WB R	24.0	3.0	2.0	SB / WB R	24.0	3.0	2.0	SB / WB R	8.0	3.0	2.0	SB / WB R	8.0	3.0	2.0
			NB / SB R	26.0	3.0	2.0	NB / SB R	27.0	3.0	2.0	NB / SB R	29.0	3.0	2.0	NB / SB R	29.0	3.0	2.0
			Offset		21	sec	Offset		21	sec	Offset		45	sec	Offset		45	sec
			Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec
10	Bay Street and Slosson Terrace	Impacts	Movement	No-Action		With-Action			Mitigated		Movement	No-Action		With-Action			Mitigated	
											SB TR	97.8	F	121.2	F	+	93.9	F
		Mitigation Description									Shift 2 seconds from EB phase to NB / SB phase.							
		Signal Timing Mitigation									No-Action/With-Action				Mitigated			
												G	A	R		G	A	R
											EB	27.0	3.0	2.0	EB	25.0	3.0	2.0
											NB L	8.0	3.0	2.0	NB L	8.0	3.0	2.0
											NB / SB	40.0	3.0	2.0	NB / SB	42.0	3.0	2.0
											Offset		65	sec	Offset		65	sec
											Cycle Length		90	sec	Cycle Length		90	sec
11	Victory Boulevard and Bay Street/St. Marks Place	Impacts	Movement	No-Action		With-Action			Mitigated		Movement	No-Action		With-Action			Mitigated	
											WB T	35.7	D	62.2	E	+	59.8	E +
											SB R	84.4	F	98.1	F	+	98.1	F +
		Mitigation Description									Unmitigable							
		Signal Timing Mitigation									No-Action/With-Action				Mitigated			
												G	A	R		G	A	R
											EB / WB	74.0	3.0	2.0	EB / WB	74.0	3.0	2.0
											LPI	5.0	2.0	0.0	LPI	5.0	2.0	0.0
											SB	29.0	3.0	2.0	SB	29.0	3.0	2.0
											Offset		60	sec	Offset		60	sec
											Cycle Length		120	sec	Cycle Length		120	sec

	Intersection		Weekday PM Peak Hour								Saturday MD Peak Hour							
9	Richmond Terrace and Ferry Terminal (parking lot)	Impacts	Movement	No-Action		With-Action			Mitigated		Movement	No-Action		With-Action			Mitigated	
			NB T	202.5	F	253.9	F	+	254.6	F +	NB T	67.4	E	77.3	E	+	77.3	E +
			SB TR	52.6	D	64.4	E	+	64.4	E +	SB TR	126.9	F	155.4	F	+	155.4	F +
		Mitigation Description	Unmitigable								Unmitigable							
		Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated			
				G	A	R		G	A	R		G	A	R		G	A	R
			WB / NB R	27.0	3.0	2.0	WB / NB R	27.0	3.0	2.0	WB / NB R	10.0	3.0	2.0	WB / NB R	10.0	3.0	2.0
			All Peds	23.0	3.0	2.0	All Peds	23.0	3.0	2.0	All Peds	23.0	3.0	2.0	All Peds	23.0	3.0	2.0
			SB / WB R	21.0	3.0	2.0	SB / WB R	21.0	3.0	2.0	SB / WB R	9.0	3.0	2.0	SB / WB R	9.0	3.0	2.0
			NB / SB R	29.0	3.0	2.0	NB / SB R	29.0	3.0	2.0	NB / SB R	28.0	3.0	2.0	NB / SB R	28.0	3.0	2.0
			Offset		95	sec	Offset		95	sec	Offset		45	sec	Offset		45	sec
			Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec
10	Bay Street and Slosson Terrace	Impacts	Movement	No-Action		With-Action			Mitigated		Movement	No-Action		With-Action			Mitigated	
			NB T	43.9	D	64.1	E	+	25.6	C								
			SB TR	93.3	F	123.4	F	+	88.8	F	SB TR	139.5	F	160.9	F	+	133.6	F
		Mitigation Description	Shift 4 seconds from EB phase to NB / SB phase.								Shift 2 seconds from EB phase to NB / SB phase.							
		Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated			
				G	A	R		G	A	R		G	A	R		G	A	R
			EB	34.0	3.0	2.0	EB	30.0	3.0	2.0	EB	27.0	3.0	2.0	EB	25.0	3.0	2.0
			NB L	12.0	3.0	2.0	NB L	12.0	3.0	2.0	NB L	8.0	3.0	2.0	NB L	8.0	3.0	2.0
			NB / SB	59.0	3.0	2.0	NB / SB	63.0	3.0	2.0	NB / SB	40.0	3.0	2.0	NB / SB	42.0	3.0	2.0
			Offset		48	sec	Offset		48	sec	Offset		65	sec	Offset		65	sec
			Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec
11	Victory Boulevard and Bay Street/St. Marks Place	Impacts	Movement	No-Action		With-Action			Mitigated		Movement	No-Action		With-Action			Mitigated	
		Mitigation Description																
		Signal Timing Mitigation																

Table 22-15 (con't): Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

12 — Victory Boulevard and Bay Street

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
					EB L	31.5 C	55.9 E +	61.0 E +	EB L	71.9 E	86.9 F +	89.1 F +				
									EB LT	72.8 E	96.7 F +	95.1 F +				
					WB LTR	26.7 C	214.1 F +	212.8 F +	WB LTR	57.8 E	761.8 F +	662.8 F +	WB LTR	24.2 C	49.2 D +	37.3 D
	NB L	31.7 C	111.4 F +	42.8 D	NB L	761.2 F	1,135.8 F +	333.8 F	NB L	544.7 F	1,081.2 F +	479.8 F	NB L	1,141.5 F	1,567.7 F +	382.8 F
					SB LT	41.4 D	109.1 F +	224.7 F +	SB LT	14.0 B	38.8 D	135.1 F +	SB LT	43.4 D	68.7 E +	226.9 F +
					SB R	93.8 F	90.9 F	208.1 F +	SB R	12.0 B	18.4 B	50.3 D +				
Mitigation Description	Re-allocate 24 seconds from NB / SB phase to create a leading NB left-turn phase. Change offset from 100 seconds to 10 seconds.				Partial mitigation: Re-allocate 11 seconds from NB / SB phase to create a leading NB left-turn phase. Change the offset from 45 seconds to 5 seconds.				Partial mitigation: Re-allocate 12 seconds from NB / SB phase to create a leading NB left-turn phase and shift 2 seconds from NB / SB phase to EB / WB phase. Change the offset from 48 seconds to 76 seconds.				Partial mitigation: Re-allocate 11 seconds from NB / SB phase to create a leading NB left-turn phase and shift 2 seconds from NB / SB phase to EB / WB phase. Change the offset from 45 seconds to 1 second.			
Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated			
		G	A	R		G	A	R		G	A	R		G	A	R
	EB / WB	35.0	3.0	2.0	EB / WB	35.0	3.0	2.0	EB / WB	29.0	3.0	2.0	EB / WB	29.0	3.0	2.0
	LPI	5.0	2.0	0.0	LPI	5.0	2.0	0.0	LPI	5.0	2.0	0.0	LPI	5.0	2.0	0.0
	NB L				NB L	19.0	3.0	2.0	NB L				NB L	6.0	3.0	2.0
	NB / SB	68.0	3.0	2.0	NB / SB	44.0	3.0	2.0	NB / SB	44.0	3.0	2.0	NB / SB	33.0	3.0	2.0
	Offset		100	sec	Offset		10	sec	Offset		45	sec	Offset		5	sec
	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
	WB LTR	56.7 E	125.7 F +	58.6 E					WB LTR	58.9 E	146.3 F +	58.3 E				
	NB LTR	81.8 F	141.3 F +		NB LTR	377.6 F	459.0 F +		NB LTR	113.3 F	196.6 F +		NB LTR	211.3 F	283.4 F +	
	NB L			44.5 D	NB L			67.3 E	NB L			43.2 D	NB L			19.0 B
	NB TR			85.9 F +	NB TR			96.1 F	NB TR			86.1 F +	NB TR			81.1 F
	SB L	280.4 F	724.7 F +	298.5 F +	SB L	1,706.2 F	2,411.3 F +	714.4 F	SB L	691.8 F	1,426.7 F +	766.7 F +	SB L	1,023.2 F	1,766.8 F +	381.8 F
Mitigation Description	Partial mitigation: Reconfigure south leg of the intersection - NB approach: add a permanent curb extension, one 5' bike lane, two 11' TR lanes, one 11' L lane (75' turn bay) and eliminate parking to Swan Street (125', approximately 6 parking spaces) - SB direction: modify DOT proposed pavement markings and create permanent curb extension. Re-allocate 15 seconds from NB / SB phase to create a lagging NB / SB left-turn phase. Shift 9 seconds from NB / SB phase to EB / WB phase. Change offset from 101 seconds to 110 seconds.				Reconfigure south leg of the intersection - NB approach: add a permanent curb extension, one 5' bike lane, two 11' TR lanes, one 11' L lane (75' turn bay) and eliminate parking to Swan Street (125', approximately 6 parking spaces) - SB direction: modify DOT proposed pavement markings and create permanent curb extension. Re-allocate 11 seconds from NB / SB phase to create a lagging NB / SB left-turn phase. Change offset from 53 seconds to 50 seconds.				Partial mitigation: Reconfigure south leg of the intersection - NB approach: add a permanent curb extension, one 5' bike lane, two 11' TR lanes, one 11' L lane (75' turn bay) and eliminate parking to Swan Street (125', approximately 6 parking spaces) - SB direction: modify DOT proposed pavement markings and create permanent curb extension. Re-allocate 16 seconds from NB / SB phase to create a lagging NB / SB left-turn phase. Shift 9 second from NB / SB phase to EB / WB phase. Change offset from 15 seconds to 30 seconds.			Reconfigure south leg of the intersection - NB approach: add a permanent curb extension, one 5' bike lane, two 11' TR lanes, one 11' L lane (75' turn bay) and eliminate parking to Swan Street (125', approximately 6 parking spaces) - SB direction: modify DOT proposed pavement markings and create permanent curb extension. Re-allocate 11 seconds from NB / SB phase and 2 seconds from EB / WB phase to create a lagging NB / SB left-turn phase. Change offset from 53 seconds to 42 seconds.			
Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated			
		G	A	R		G	A	R		G	A	R		G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	46.0	3.0	2.0	EB / WB	35.0	3.0	2.0	EB / WB	35.0	3.0	2.0
	NB / SB	73.0	3.0	2.0	NB / SB	49.0	3.0	2.0	NB / SB	45.0	3.0	2.0	NB / SB	34.0	3.0	2.0
	NB L / SB L				NB L / SB L	10.0	3.0	2.0	NB L / SB L				NB L / SB L	6.0	3.0	2.0
	Offset		101	sec	Offset		110	sec	Offset		53	sec	Offset		50	sec
	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec

13 — Bay Street and Hannah Street

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
					NB LR	23.1 C	59.1 E +	44.0 D								
Mitigation Description					Shift 3 seconds from EB / WB phase to NB phase.											
Signal Timing Mitigation					No-Action/With-Action				Mitigated							
						G	A	R		G	A	R				
					EB / WB	43.0	3.0	2.0	EB / WB	40.0	3.0	2.0				
					NB	37.0	3.0	2.0	NB	40.0	3.0	2.0				
					Offset		0	sec	Offset		0	sec				
					Cycle Length		90	sec	Cycle Length		90	sec				

14 — Front Street and Hannah Street

Table 22-15(con't): Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

	Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
15	Bay Street and Swan Street/Van Duzer Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
											EB L	65.8 E	115.0 F +	51.5 D				
											EB LTR	67.0 E	114.5 F +	49.7 D				
		Mitigation Description										Change offset from 21 seconds to 13 seconds.						
		Signal Timing Mitigation									No-Action/With-Action			Mitigated				
												G	A	R		G	A	R
											EB / WB	37.0	3.0	2.0	EB / WB	37.0	3.0	2.0
											NB / SB	73.0	3.0	2.0	NB / SB	73.0	3.0	2.0
											Offset	21 sec			Offset	13 sec		
											Cycle Length	120 sec			Cycle Length	120 sec		
18	Bay Street and Grant Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
			EB LTR			41.2 D	EB LTR			30.6 C	EB LTR			43.3 D	EB LTR			31.0 C
			WB R			34.7 C	WB R			28.0 C	WB R			36.6 D	WB R			28.6 C
			NB TR			8.3 A	NB TR			5.2 A	NB TR			1.4 A	NB TR			10.1 B
			SB T			84.1 F +	SB T			257.1 F +	SB T			214.8 F +	SB T			239.0 F +
		Mitigation Description	Partial mitigation: Signalize intersection. Signal warrant #4 is met.				Partial mitigation: Signalize intersection. Signal warrant #4 is met.				Partial mitigation: Signalize intersection. Signal warrant #4 is met.				Partial mitigation: Signalize intersection. Signal warrant #4 is met.			
		Signal Timing Mitigation	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated
						G A R				G A R				G A R				G A R
			Unsignalized			EB / WB 30.0 3.0 2.0	*Unsignalized*			EB / WB 22.0 3.0 2.0	*Unsignalized*			EB / WB 30.0 3.0 2.0	*Unsignalized*			EB / WB 22.0 3.0 2.0
						NB / SB 80.0 3.0 2.0				NB / SB 58.0 3.0 2.0				NB / SB 80.0 3.0 2.0				NB / SB 58.0 3.0 2.0
						Offset 0 sec				Offset 89 sec				Offset 31 sec				Offset 0 sec
						Cycle Length 120 sec				Cycle Length 90 sec				Cycle Length 120 sec				Cycle Length 90 sec
20	Bay Street and Clinton Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
											WB LTR	114.5 F	710.4 F +	146.8 F +				
			SB TR	33.6 C	66.0 E +	23.9 C	SB TR	179.4 F	228.0 F +	176.8 F	SB TR	85.5 F	173.4 F +	82.6 F	SB TR	217.8 F	268.3 F +	211.1 F
		Mitigation Description	Change offset from 76 seconds to 14 seconds. Shift 5 seconds from WB phase to NB / SB phase.				Shift 4 seconds from WB phase to NB / SB phase.				Partial mitigation: Change offset from 40 seconds to 18 seconds. Shift 12 seconds from WB phase to NB / SB phase.				Shift 4 seconds from WB phase to NB / SB phase. Change offset from 0 seconds to 19 seconds.			
		Signal Timing Mitigation	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated
				G	A R			G	A R			G	A R			G	A R	
			WB	37.0	3.0 2.0	WB 32.0 3.0 2.0	WB	31.0	3.0 2.0	WB 27.0 3.0 2.0	WB	37.0	3.0 2.0	WB 25.0 3.0 2.0	WB	31.0	3.0 2.0	WB 27.0 3.0 2.0
			NB / SB	73.0	3.0 2.0	NB / SB 78.0 3.0 2.0	NB / SB	49.0	3.0 2.0	NB / SB 53.0 3.0 2.0	NB / SB	73.0	3.0 2.0	NB / SB 85.0 3.0 2.0	NB / SB	49.0	3.0 2.0	NB / SB 53.0 3.0 2.0
			Offset		76 sec	Offset 14 sec	Offset		0 sec	Offset 0 sec	Offset		40 sec	Offset 18 sec	Offset		0 sec	Offset 19 sec
			Cycle Length		120 sec	Cycle Length 120 sec	Cycle Length		90 sec	Cycle Length 90 sec	Cycle Length		120 sec	Cycle Length 120 sec	Cycle Length		90 sec	Cycle Length 90 sec

Table 22-15 (con't): Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

	Intersection		Weekday AM Peak Hour								Weekday MD Peak Hour							
21	Bay Street and Baltic Street	Impacts	Movement	No-Action		With-Action		Mitigated			Movement	No-Action		With-Action		Mitigated		
			EB LTR					44.1	D		EB LTR					39.6	D	
			WB LTR					39.0	D		WB LTR					35.2	D	
			NB TR					7.4	A		NB TR					10.2	B	
			SB LT					15.0	B		SB LT					134.5	F	+
		Mitigation Description	Signalize intersection. Signal warrant #4 is met.								Signalize intersection. Signal warrant #4 is met.							
		Signal Timing Mitigation	No-Action/With-Action			Mitigated					No-Action/With-Action			Mitigated				
			Unsignalized				G	A	R		*Unsignalized*				G	A	R	
						EB / WB	24.0	3.0	2.0					EB / WB	14.0	3.0	2.0	
						NB / SB	86.0	3.0	2.0					NB / SB	66.0	3.0	2.0	
						Offset		14	sec					Offset		4	sec	
						Cycle Length		120	sec					Cycle Length		90	sec	
22	Bay Street and William Street	Impacts	Movement	No-Action		With-Action		Mitigated			Movement	No-Action		With-Action		Mitigated		
			EB LR	47.9	E	158.7	F	+	317.6	F	+	EB LR	Err	F	Err	F		Err	F
												NB LT	23.5	C	20.6	C		128.5	F
		Mitigation Description	Unmitigable. Intersection operations degrade due to mitigation measures applied at adjacent intersections. Resulting impact is unmitigable.								Unmitigable. Intersection operations degrade due to mitigation measures applied at adjacent intersections. Resulting impact is unmitigable.							
		Signal Timing Mitigation	No-Action/With-Action			Mitigated					No-Action/With-Action			Mitigated				
			Unsignalized			*Unsignalized*					*Unsignalized*			*Unsignalized*				
23	Bay Street and Congress Street	Impacts	Movement	No-Action		With-Action		Mitigated			Movement	No-Action		With-Action		Mitigated		
		Mitigation Description																
		Signal Timing Mitigation																

	Intersection		Weekday PM Peak Hour								Saturday MD Peak Hour							
21	Bay Street and Baltic Street	Impacts	Movement	No-Action		With-Action		Mitigated			Movement	No-Action		With-Action		Mitigated		
			EB LTR					44.2	D		EB LTR					38.7	D	
			WB LTR					39.5	D		WB LTR					33.8	C	
			NB TR					41.5	D		NB TR					11.0	B	
			SB LT					123.9	F	+	SB LT					103.6	F	+
		Mitigation Description	Signalize intersection. Signal warrant #4 is met.								Signalize intersection. Signal warrant #4 is met.							
		Signal Timing Mitigation	No-Action/With-Action			Mitigated					No-Action/With-Action			Mitigated				
			Unsignalized				G	A	R		*Unsignalized*				G	A	R	
						EB / WB	23.0	3.0	2.0					EB / WB	14.0	3.0	2.0	
						NB / SB	87.0	3.0	2.0					NB / SB	66.0	3.0	2.0	
						Offset		11	sec					Offset		83	sec	
						Cycle Length		120	sec					Cycle Length		90	sec	
22	Bay Street and William Street	Impacts	Movement	No-Action		With-Action		Mitigated			Movement	No-Action		With-Action		Mitigated		
			EB LR	Err	F	Err	F											
			NB LT	13.0	B	70.5	F	+	234.0	F	+	NB LT	6.2	A	11.0	B		63.4	F
		Mitigation Description	Unmitigable. Intersection operations degrade due to mitigation measures applied at adjacent intersections. Resulting impacts are unmitigable.								Unmitigable. Intersection operations degrade due to mitigation measures applied at adjacent intersections. Resulting impact is unmitigable.							
		Signal Timing Mitigation	No-Action/With-Action			Mitigated					No-Action/With-Action			Mitigated				
			Unsignalized			*Unsignalized*					*Unsignalized*			*Unsignalized*				
23	Bay Street and Congress Street	Impacts	Movement	No-Action		With-Action		Mitigated			Movement	No-Action		With-Action		Mitigated		
			NB LT	2.0	A	9.5	A		31.2	D	+							
		Mitigation Description	Unmitigable. Intersection operations degrade due to mitigation measures applied at adjacent intersections. Resulting impact is unmitigable.															
		Signal Timing Mitigation	No-Action/With-Action			Mitigated												
			Unsignalized			*Unsignalized*												

Table 22-15 (con't): Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

Intersection

Weekday AM Peak Hour

			Movement	No-Action		With-Action		Mitigated	
24	Bay Street and Wave Street	Impacts	SB TR	23.0	C	77.8	E +	23.9	C
		Mitigation Description	Re-stripe WB approach as one 10' L lane (70' turn bay) and one 10' TR lane. Modify parking regulation on WB approach to "No Standing Anytime" for 95' from the stop bar (4 parking spaces will be removed). Change offset from 0 seconds to 8 seconds. Shift 11 seconds from WB phase to NB / SB phase.						
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			WB	37.0	3.0	2.0	WB	26.0	3.0	2.0
			NB / SB	73.0	3.0	2.0	NB / SB	84.0	3.0	2.0
			Offset		0	sec	Offset		8	sec
			Cycle Length		120	sec	Cycle Length		120	sec
25	Front Street and Wave Street	Impacts								
		Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.							
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			EB	19.0	3.0	2.0	EB	25.0	3.0	2.0
			NB / SB	31.0	3.0	2.0	NB / SB	55.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		60	sec	Cycle Length		90	sec
26	Front Street and Prospect Street	Impacts	NB TR	41.6	D	85.7	F +	29.6	C
			SB LT	31.7	C	188.9	F +	35.3	D
		Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.						
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			EB	13.0	3.0	2.0	EB	15.0	3.0	2.0
			WB	13.0	3.0	2.0	WB	24.0	3.0	2.0
			NB / SB	19.0	3.0	2.0	NB / SB	36.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		60	sec	Cycle Length		90	sec

Weekday MD Peak Hour

			Movement	No-Action		With-Action		Mitigated	
24	Bay Street and Wave Street	Impacts	NB LT	193.2	F	262.4	F +	190.8	F
			SB TR	206.7	F	254.7	F +	190.3	F
		Mitigation Description	Re-stripe WB approach as one 10' L lane (70' turn bay) and one 10' TR lane. Modify parking regulation on WB approach to "No Standing Anytime" for 95' from the stop bar (4 parking spaces will be removed). Shift 5 seconds from WB phase to NB / SB phase.						
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			WB	31.0	3.0	2.0	WB	26.0	3.0	2.0
			NB / SB	49.0	3.0	2.0	NB / SB	54.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		90	sec	Cycle Length		90	sec
25	Front Street and Wave Street	Impacts								
		Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.							
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			EB	19.0	3.0	2.0	EB	25.0	3.0	2.0
			NB / SB	31.0	3.0	2.0	NB / SB	55.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		60	sec	Cycle Length		90	sec
26	Front Street and Prospect Street	Impacts	NB TR	72.7	E	164.2	F +	21.0	C
			SB LT	231.4	F	962.5	F +	30.9	C
		Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.						
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			EB	13.0	3.0	2.0	EB	15.0	3.0	2.0
			WB	13.0	3.0	2.0	WB	15.0	3.0	2.0
			NB / SB	19.0	3.0	2.0	NB / SB	45.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		60	sec	Cycle Length		90	sec

Weekday PM Peak Hour

			Movement	No-Action		With-Action		Mitigated	
24	Bay Street and Wave Street	Impacts	WB LTR	37.1	D	34.3	C		
			WB L					54.1	D +
			WB TR					63.2	E +
			NB LT	77.8	E	212.7	F +	133.7	F +
			SB L	17.2	B	99.4	F +	4.6	A
			SB TR	106.4	F	187.1	F +	102.5	F
		Mitigation Description	Partial mitigation: Re-stripe WB approach as one 10' L lane (70' turn bay) and one 10' TR lane. Modify parking regulation on WB approach to "No Standing Anytime" for 95' from the stop bar (4 parking spaces will be removed). Shift 10 seconds from WB phase to NB / SB phase.						
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			WB	30.0	3.0	2.0	WB	20.0	3.0	2.0
			NB / SB	80.0	3.0	2.0	NB / SB	90.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		120	sec	Cycle Length		120	sec
25	Front Street and Wave Street	Impacts	NB LT	7.3	A	87.4	F +	14.5	B
		Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.						
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			EB	19.0	3.0	2.0	EB	21.0	3.0	2.0
			NB / SB	31.0	3.0	2.0	NB / SB	59.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		60	sec	Cycle Length		90	sec
26	Front Street and Prospect Street	Impacts	NB TR	194.1	F	334.2	F +	100.5	F
			SB LT	2,797.4	F	4,152.9	F +	1,478.2	F
		Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.						
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			EB	13.0	3.0	2.0	EB	18.0	3.0	2.0
			WB	13.0	3.0	2.0	WB	16.0	3.0	2.0
			NB / SB	19.0	3.0	2.0	NB / SB	41.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		60	sec	Cycle Length		90	sec

Saturday MD Peak Hour

			Movement	No-Action		With-Action		Mitigated	
24	Bay Street and Wave Street	Impacts	NB LT	135.8	F	210.4	F +	132.1	F
			SB TR	263.3	F	318.4	F +	234.3	F
		Mitigation Description	Re-stripe WB approach as one 10' L lane (70' turn bay) and one 10' TR lane. Modify parking regulation on WB approach to "No Standing Anytime" for 95' from the stop bar (4 parking spaces will be removed). Shift 6 seconds from WB phase to NB / SB phase.						
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			WB	31.0	3.0	2.0	WB	25.0	3.0	2.0
			NB / SB	49.0	3.0	2.0	NB / SB	55.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		90	sec	Cycle Length		90	sec
25	Front Street and Wave Street	Impacts								
		Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.							
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			EB	19.0	3.0	2.0	EB	25.0	3.0	2.0
			NB / SB	31.0	3.0	2.0	NB / SB	55.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		60	sec	Cycle Length		90	sec
26	Front Street and Prospect Street	Impacts	NB TR	80.6	F	158.3	F +	48.0	D
			SB LT	410.8	F	1,241.5	F +	298.1	F
		Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.						
		Signal Timing Mitigation	No-Action/With-Action			Mitigated			
				G	A	R		G	A	R
			EB	13.0	3.0	2.0	EB	20.0	3.0	2.0
			WB	13.0	3.0	2.0	WB	18.0	3.0	2.0
			NB / SB	19.0	3.0	2.0	NB / SB	37.0	3.0	2.0
			Offset		0	sec	Offset		0	sec
			Cycle Length		60	sec	Cycle Length		90	sec

Table 22-15 (con't): Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

	Intersection		Weekday AM Peak Hour												Weekday MD Peak Hour											
27	Van Duzer Street and Beach Street	Impacts	Movement	No-Action			With-Action			Mitigated					Movement	No-Action			With-Action			Mitigated				
			EB LT	56.0	E		61.8	E	+	57.8	E															
		Mitigation Description	Shift 1 second from NB phase to EB / WB phase.																							
		Signal Timing Mitigation	No-Action/With-Action							Mitigated																
				G	A	R					G	A	R													
			EB / WB	43.0	3.0	2.0				EB / WB	44.0	3.0	2.0													
			NB	67.0	3.0	2.0				NB	66.0	3.0	2.0													
			Offset		76	sec				Offset		76	sec													
			Cycle Length		120	sec				Cycle Length		120	sec													
28	Bay Street and Water Street	Impacts	Movement	No-Action			With-Action			Mitigated					Movement	No-Action			With-Action			Mitigated				
			NB L	24.2	C		389.7	F	+	20.2	C				NB L	348.6	F		373.4	F	+	362.2	F	+		
			NB T	24.7	C		72.9	E	+	6.9	A				NB T	62.3	E		108.1	F	+	59.6	E			
			SB TR	67.6	E		80.7	F	+	47.5	D				SB TR	190.6	F		236.6	F	+	141.5	F			
		Mitigation Description	Shift 12 seconds from WB phase to NB / SB phase.												Partial mitigation: Shift 8 seconds from WB phase to NB / SB phase. Change offset from 0 seconds to 83 seconds.											
		Signal Timing Mitigation	No-Action/With-Action							Mitigated					No-Action/With-Action							Mitigated				
				G	A	R					G	A	R			G	A	R					G	A	R	
			WB	36.0	3.0	2.0				WB	24.0	3.0	2.0		WB	27.0	3.0	2.0				WB	19.0	3.0	2.0	
			NB / SB	74.0	3.0	2.0				NB / SB	86.0	3.0	2.0		NB / SB	53.0	3.0	2.0				NB / SB	61.0	3.0	2.0	
			Offset		0	sec				Offset		0	sec		Offset		0	sec				Offset		83	sec	
			Cycle Length		120	sec				Cycle Length		120	sec		Cycle Length		90	sec				Cycle Length		90	sec	
29	Bay Street and Canal Street	Impacts	Movement	No-Action			With-Action			Mitigated					Movement	No-Action			With-Action			Mitigated				
															WB LTR	124.3	F		128.5	F	+	64.5	E			
			NB TR	8.3	A		58.6	E	+	21.4	C				NB TR	110.6	F		192.6	F	+	104.3	F			
															SB LT	1,052.7	F		1,181.1	F	+	149.7	F			
		Mitigation Description	Change offset from 34 seconds to 11 seconds. Prohibit SB left turns. (Note: mitigated condition includes detoured traffic due to turn prohibition)												Change offset from 12 seconds to 11 seconds. Shift 7 seconds from EB / WB phase to NB / SB phase. Prohibit SB left turns. (Note: mitigated condition includes detoured traffic due to turn prohibition)											
		Signal Timing Mitigation	No-Action/With-Action							Mitigated					No-Action/With-Action							Mitigated				
				G	A	R					G	A	R			G	A	R					G	A	R	
			EB / WB	37.0	3.0	2.0				EB / WB	37.0	3.0	2.0		EB / WB	35.0	3.0	2.0				EB / WB	28.0	3.0	2.0	
			NB / SB	73.0	3.0	2.0				NB / SB	73.0	3.0	2.0		NB / SB	45.0	3.0	2.0				NB / SB	52.0	3.0	2.0	
			Offset		34	sec				Offset		11	sec		Offset		12	sec				Offset		11	sec	
			Cycle Length		120	sec				Cycle Length		120	sec		Cycle Length		90	sec				Cycle Length		90	sec	
30	Front Street and Canal Street	Impacts	Movement	No-Action			With-Action			Mitigated					Movement	No-Action			With-Action			Mitigated				
		Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.												Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.											
		Signal Timing Mitigation	No-Action/With-Action							Mitigated					No-Action/With-Action							Mitigated				
				G	A	R					G	A	R			G	A	R					G	A	R	
			EB	19.0	3.0	2.0				EB	30.0	3.0	2.0		EB	19.0	3.0	2.0				EB	35.0	3.0	2.0	
			NB / SB	31.0	3.0	2.0				NB / SB	50.0	3.0	2.0		NB / SB	31.0	3.0	2.0				NB / SB	45.0	3.0	2.0	
			Offset		0	sec				Offset		0	sec		Offset		0	sec				Offset		0	sec	
			Cycle Length		60	sec				Cycle Length		90	sec		Cycle Length		60	sec				Cycle Length		90	sec	

	Intersection		Weekday PM Peak Hour												Saturday MD Peak Hour											
27	Van Duzer Street and Beach Street	Impacts	Movement	No-Action			With-Action			Mitigated					Movement	No-Action			With-Action			Mitigated				
			EB LT	48.0	D		73.9	E	+	51.5	D															
		Mitigation Description	Shift 4 seconds from NB phase to EB / WB phase.																							
		Signal Timing Mitigation	No-Action/With-Action							Mitigated																
				G	A	R					G	A	R													
			EB / WB	43.0	3.0	2.0				EB / WB	47.0	3.0	2.0													
			NB	67.0	3.0	2.0				NB	63.0	3.0	2.0													
			Offset		6	sec				Offset		6	sec													
			Cycle Length		120	sec				Cycle Length		120	sec													
28	Bay Street and Water Street	Impacts	Movement	No-Action			With-Action			Mitigated					Movement	No-Action			With-Action			Mitigated				
			NB L	921.0	F		971.4	F	+	970.2	F	+			NB L	359.2	F		383.0	F	+	372.1	F	+		
			NB T	73.7	E		141.1	F	+	118.1	F	+			NB T	60.7	E		104.0	F	+	57.5	E			
			SB TR	166.3	F		253.5	F	+	233.3	F	+			SB TR	234.1	F		284.5	F	+	172.0	F			
		Mitigation Description	Partial mitigation: Shift 2 seconds from WB phase to NB / SB phase.												Partial mitigation: Shift 9 seconds from WB phase to NB / SB phase. Change offset from 0 seconds to 84 seconds.											
		Signal Timing Mitigation	No-Action/With-Action							Mitigated					No-Action/With-Action							Mitigated				
				G	A	R					G	A	R			G	A	R					G	A	R	
			WB	36.0	3.0	2.0				WB	34.0	3.0	2.0		WB	27.0	3.0	2.0				WB	18.0	3.0	2.0	
			NB / SB	74.0	3.0	2.0				NB / SB	76.0	3.0	2.0		NB / SB	53.0	3.0	2.0				NB / SB	62.0	3.0	2.0	
			Offset		0	sec				Offset		0	sec		Offset		0	sec				Offset		84	sec	
			Cycle Length		120	sec				Cycle Length		120	sec		Cycle Length		90	sec				Cycle Length		90	sec	
29	Bay Street and Canal Street	Impacts	Movement	No-Action			With-Action			Mitigated					Movement	No-Action			With-Action			Mitigated				
			WB LTR	80.0	F		219.5	F	+	217.0	F	+			WB LTR	121.7	F		125.2	F	+	70.4	E			
			NB TR	1,303.9	F		1,601.4	F	+	233.8	F				NB TR	92.5	F		177.3	F	+	70.9	E			
			SB LT												SB LT	1,167.3	F		1,307.9	F	+	160.8	F			
		Mitigation Description	Partial mitigation: Change offset from 82 seconds to 99 seconds. Prohibit SB left turns. (Note: mitigated condition includes detoured traffic due to turn prohibition)												Shift 9 seconds from EB / WB phase to NB / SB phase. Prohibit SB left turns. (Note: mitigated condition includes detoured traffic due to turn prohibition)											
		Signal Timing Mitigation	No-Action/With-Action							Mitigated					No-Action/With-Action							Mitigated				
				G	A	R					G	A	R			G	A	R					G	A	R	
			EB / WB	37.0	3.0	2.0				EB / WB	37.0	3.0	2.0		EB / WB	35.0	3.0	2.0				EB / WB	26.0	3.0	2.0	
			NB / SB	73.0	3.0	2.0				NB / SB	73.0	3.0	2.0		NB / SB	45.0	3.0	2.0				NB / SB	54.0	3.0	2.0	
			Offset		82	sec				Offset		99	sec		Offset		12	sec				Offset		12	sec	
			Cycle Length		120	sec				Cycle Length		120	sec		Cycle Length		90	sec				Cycle Length		90	sec	
30	Front Street and Canal Street	Impacts	Movement	No-Action			With-Action			Mitigated					Movement	No-Action			With-Action			Mitigated				
		Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.												Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.											
		Signal Timing Mitigation	No-Action/With-Action							Mitigated					No-Action/With-Action							Mitigated				
				G	A	R					G	A	R			G	A	R					G	A	R	
			EB	19.0	3.0	2.0				EB	34.0	3.0	2.0		EB	19.0	3.0	2.0				EB	35.0	3.0	2.0	
			NB / SB	31.0	3.0	2.0				NB / SB	46.0	3.0	2.0		NB / SB	31.0	3.0	2.0				NB / SB	45.0	3.0	2.0	
			Offset		0	sec				Offset		0	sec		Offset		0	sec				Offset		0	sec	
			Cycle Length		60	sec				Cycle Length		90	sec		Cycle Length		60	sec				Cycle Length		90	sec	

Table 22-15 (con't): Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

31 — Bay Street and Broad Street

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
									EB LR	36.2 D	114.2 F +					
									EB L			44.4 D				
									EB R			40.0 D				
	NB LT	18.4 B	51.2 D +	38.8 D	NB LT	998.1 F	1,157.1 F +	986.4 F	NB LT	967.9 F	1,303.1 F +	1,113.7 F +	NB LT	915.7 F	1,091.8 F +	896.9 F
					SB T	136.3 F	183.3 F +	132.3 F	SB T	62.0 E	125.5 F +	72.5 E +	SB T	180.6 F	230.5 F +	164.1 F
Mitigation Description	Re-stripe EB approach as one 14' L lane (100' turn bay) and one 11' TR lane. Extend "No Parking Anytime" regulation on EB approach by 75' (3 parking spaces will be removed). Shift 1 second from EB phase to NB / SB phase.				Re-stripe EB approach as one 14' L lane (100' turn bay) and one 11' TR lane. Extend "No Parking Anytime" regulation on EB approach by 75' (3 parking spaces will be removed). Shift 4 seconds from EB phase to NB / SB phase.				Partial mitigation: Re-stripe EB approach as one 14' L lane (100' turn bay) and one 11' TR lane. Extend "No Parking Anytime" regulation on EB approach by 75' (3 spaces will be removed). Shift 7 seconds from EB phase to NB / SB phase.				Re-stripe EB approach as one 14' L lane (100' turn bay) and one 11' TR lane. Extend "No Parking Anytime" regulation on EB approach by 75' (3 parking spaces will be removed). Shift 5 seconds from EB phase to NB / SB phase.			

Signal Timing Mitigation

No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R
LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0
EB	33.0	3.0	2.0	EB	32.0	3.0	2.0	EB	27.0	3.0	2.0	EB	23.0	3.0	2.0	EB	33.0	3.0	2.0	EB	26.0	3.0	2.0	EB	27.0	3.0	2.0	EB	22.0	3.0	2.0
NB / SB	70.0	3.0	2.0	NB / SB	71.0	3.0	2.0	NB / SB	46.0	3.0	2.0	NB / SB	50.0	3.0	2.0	NB / SB	70.0	3.0	2.0	NB / SB	77.0	3.0	2.0	NB / SB	46.0	3.0	2.0	NB / SB	51.0	3.0	2.0
Offset		26	sec	Offset		26	sec	Offset		6	sec	Offset		6	sec	Offset		90	sec	Offset		90	sec	Offset		6	sec	Offset		6	sec
Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec

35 — Victory Boulevard and Cebra Avenue

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
									EB L	141.8 F	179.7 F +	179.7 F +				
	WB L	58.6 E	70.2 E +	57.5 E					WB L	63.1 E	69.1 E +	69.1 E +				
									WB TR	74.3 E	84.0 F +	84.0 F +				
					NB LTR	34.1 C	48.2 D +	48.1 D +	NB LTR	39.1 D	190.2 F +	190.3 F +	NB LTR	37.0 D	49.4 D +	32.6 C
					SB LTR	94.0 F	160.9 F +	160.9 F +					SB LTR	61.1 E	97.7 F +	56.4 E
									SB LT	43.0 D	92.8 F +	92.8 F +				
Mitigation Description	Change offset from 112 seconds to 94 seconds. Shift 2 seconds from NB / SB phase to EB / WB phase.				Unmitigable				Unmitigable				Shift 4 seconds from EB / WB phase to NB / SB phase.			

Signal Timing Mitigation

No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R
LPI	5.0	2.0	0.0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0
EB / WB	31.0	3.0	2.0	EB / WB	33.0	3.0	2.0	EB / WB	26.0	3.0	2.0	EB / WB	26.0	3.0	2.0	EB / WB	29.0	3.0	2.0	EB / WB	29.0	3.0	2.0	EB / WB	26.0	3.0	2.0	EB / WB	22.0	3.0	2.0
NB / SB	72.0	3.0	2.0	NB / SB	70.0	3.0	2.0	NB / SB	47.0	3.0	2.0	NB / SB	47.0	3.0	2.0	NB / SB	74.0	3.0	2.0	NB / SB	74.0	3.0	2.0	NB / SB	47.0	3.0	2.0	NB / SB	51.0	3.0	2.0
Offset		112	sec	Offset		94	sec	Offset		0	sec	Offset		0	sec	Offset		57	sec	Offset		57	sec	Offset		0	sec	Offset		0	sec
Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec

36 — Victory Boulevard and Jersey Street

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
					EB L	41.4 D	185.6 F +	185.6 F +	EB L	60.5 E	544.0 F +	544.0 F +	EB L	34.3 C	84.6 F +	40.9 D
					EB T	39.1 D	63.3 E +	63.3 E +					EB T	42.6 D	58.0 E +	39.5 D
					WB T	68.8 E	95.0 F +	95.3 F +	WB T	74.6 E	93.8 F +	93.7 F +	WB T	49.5 D	63.7 E +	44.9 D
	SB LR	40.8 D	49.5 D +	43.8 D	SB LR	28.1 C	66.9 E +	66.9 E +	SB LR	43.2 D	70.0 E +	70.0 E +				
Mitigation Description	Shift 3 seconds from EB / WB phase to SB phase.				Unmitigable				Unmitigable				Shift 3 seconds from SB phase to EB / WB phase.			

Signal Timing Mitigation

No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R
EB / WB	76.0	3.0	2.0	EB / WB	73.0	3.0	2.0	EB / WB	49.0	3.0	2.0	EB / WB	49.0	3.0	2.0	EB / WB	77.0	3.0	2.0	EB / WB	77.0	3.0	2.0	EB / WB	49.0	3.0	2.0	EB / WB	52.0	3.0	2.0
SB	34.0	3.0	2.0	SB	37.0	3.0	2.0	SB	31.0	3.0	2.0	SB	31.0	3.0	2.0	SB	33.0	3.0	2.0	SB	33.0	3.0	2.0	SB	31.0	3.0	2.0	SB	28.0	3.0	2.0
Offset		103	sec	Offset		103	sec	Offset		0	sec	Offset		0	sec	Offset		33	sec	Offset		33	sec	Offset		0	sec	Offset		0	sec
Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec

Table 22-15 (con't): Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
38 Victory Boulevard and Forest Avenue	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
						NB L	49.9 D	83.5 F +	53.7 D	NB L	29.5 C	54.1 D +	45.8 D +	NB L	65.8 E	97.4 F +	61.2 E
						SB T	74.7 E	78.9 E +	74.9 E					SB T	64.2 E	78.4 E +	65.8 E
	Mitigation Description					Shift 2 seconds from EB phase to NB / SB phase.				Partial mitigation: Shift 1 second from EB phase to NB / SB phase.				Shift 2 seconds from EB phase to NB / SB phase.			
	Signal Timing Mitigation					No-Action/With-Action				No-Action/With-Action				No-Action/With-Action			
							G A R				G A R				G A R		
						LPI	5.0 2.0 0	Mitigated		LPI	5.0 2.0 0	Mitigated		LPI	5.0 2.0 0.0	Mitigated	
						EB	27.0 3.0 2.0			EB	29.0 3.0 2.0			EB	28.0 3.0 2.0		
						NB / SB	46.0 3.0 2.0			NB / SB	74.0 3.0 2.0			NB / SB	75.0 3.0 2.0		
						Offset	0 sec			Offset	77 sec			Offset	0 sec		
						Cycle Length	90 sec			Cycle Length	120 sec			Cycle Length	90 sec		
43 Broad Street and Targee Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		EB LT	47.3 D	53.4 D +	28.3 C												
	Mitigation Description	Change offset from 10 seconds to 92 seconds.															
	Signal Timing Mitigation	No-Action/With-Action				Mitigated											
			G A R				G A R										
		EB / WB	43.0 3.0 2.0			EB / WB	43.0 3.0 2.0										
		NB	67.0 3.0 2.0			NB	67.0 3.0 2.0										
		Offset	10 sec			Offset	92 sec										
		Cycle Length	120 sec			Cycle Length	120 sec										
44 Vanderbilt Avenue and Tompkins Avenue	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		EB LTR	39.4 D	49.5 D +	49.5 D +	EB LTR	52.7 D	73.8 E +	73.8 E +								
										WB LTR	37.4 D	50.2 D +	47.9 D +				
		NB LTR	172.2 F	193.7 F +	193.7 F +	NB LTR	141.7 F	161.9 F +	161.9 F +	NB LTR	72.3 E	77.8 E +	77.8 E +				
	Mitigation Description	Unmitigable				Unmitigable				Unmitigable							
	Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				No-Action/With-Action			
			G A R				G A R				G A R				G A R		
		EB / WB	62.0 3.0 2.0			EB / WB	62.0 3.0 2.0			EB / WB	42.0 3.0 2.0			EB / WB	42.0 3.0 2.0		
		LPI	2.0 3.0 2.0			LPI	2.0 3.0 2.0			LPI	2.0 3.0 2.0			LPI	2.0 3.0 2.0		
		NB / SB	41.0 3.0 2.0			NB / SB	41.0 3.0 2.0			NB / SB	31.0 3.0 2.0			NB / SB	31.0 3.0 2.0		
		Offset	25 sec			Offset	25 sec			Offset	0 sec			Offset	0 sec		
		Cycle Length	120 sec			Cycle Length	120 sec			Cycle Length	90 sec			Cycle Length	90 sec		
45 Bay Street and Vanderbilt Avenue	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
						NB LT	1,694.3 F	2,709.4 F +	1,613.8 F	NB LT	486.2 F	877.1 F +	658.6 F +	NB LT	3,224.7 F	3,572.6 F +	2,976.6 F
						SB T	99.0 F	120.1 F +	95.7 F					SB T	143.0 F	176.8 F +	125.6 F
	Mitigation Description					Shift 2 seconds from EB phase to NB / SB phase.				Partial mitigation: Shift 3 seconds from EB phase to NB / SB phase. Change offset from 115 seconds to 106 seconds.				Shift 4 seconds from EB phase to NB / SB phase.			
	Signal Timing Mitigation					No-Action/With-Action				No-Action/With-Action				No-Action/With-Action			
							G A R				G A R				G A R		
						EB	35.0 3.0 2.0	Mitigated		EB	37.0 3.0 2.0	Mitigated		EB	35.0 3.0 2.0	Mitigated	
						NB / SB	45.0 3.0 2.0			NB / SB	73.0 3.0 2.0			NB / SB	45.0 3.0 2.0		
						Offset	52 sec			Offset	115 sec			Offset	52 sec		
						Cycle Length	90 sec			Cycle Length	120 sec			Cycle Length	90 sec		

Table 22-15(con't): Proposed Traffic Mitigation Table: Reduced Rezoning Area Alternative

Intersection | **Weekday AM Peak Hour** | **Weekday MD Peak Hour** | **Weekday PM Peak Hour** | **Saturday MD Peak Hour**

47 — Bay Street and Edgewater Drive

Weekday AM Peak Hour																Saturday MD Peak Hour											
Impacts	Movement	No-Action		With-Action			Mitigated			Movement	No-Action		With-Action			Mitigated			Movement	No-Action		With-Action			Mitigated			Movement	No-Action		With-Action			Mitigated		
																												SB T	35.4	D	52.8	D	+	44.1	D	
Mitigation Description	Shift 1 second from WB / NWB phase to NB / SB phase.																																			
Signal Timing Mitigation	No-Action/With-Action						Mitigated																													
		G	A	R			G	A	R		G	A	R			G	A	R			G	A	R			G	A	R			G	A	R		
	WB / NWB	31.0	3.0	2.0		WB / NWB	30.0	3.0	2.0																			WB / NWB	31.0	3.0	2.0		WB / NWB	30.0	3.0	2.0
	NB / SB	49.0	3.0	2.0		NB / SB	50.0	3.0	2.0																			NB / SB	49.0	3.0	2.0		NB / SB	50.0	3.0	2.0
	Offset		45	sec		Offset		45	sec																			Offset		45	sec		Offset		45	sec
	Cycle Length		90	sec		Cycle Length		90	sec																			Cycle Length		90	sec		Cycle Length		90	sec

48 — Bay Street and Hylan Boulevard

Weekday AM Peak Hour																Weekday MD Peak Hour											
Impacts	Movement	No-Action		With-Action			Mitigated			Movement	No-Action		With-Action			Mitigated			Movement	No-Action		With-Action			Mitigated		
	WB LTR	100.6	F	107.0	F	+	89.5	F		EB LTR	80.1	F	109.4	F	+	109.4	F	+	EB LTR	95.2	F	167.8	F	+	167.8	F	+
	NB LTR	174.4	F	665.6	F	+	580.5	F	+	NB LTR	1,621.9	F	2,445.4	F	+	2,445.4	F	+	WB LTR	89.2	F	92.4	F	+	92.4	F	+
	SB T	39.0	D	70.7	E	+	64.4	E	+	SB T	93.4	F	131.8	F	+	131.8	F	+	NB LTR	1,260.4	F	1,857.4	F	+	1,857.5	F	+
																			SB T	83.2	F	138.0	F	+	136.9	F	+
Mitigation Description	Partial mitigation: Shift 1 second from SBR / EBL phase to NB / SB Phase. Shift 1 second from SBR / EBL phase to EB / WB phase.									Unmitigable									Unmitigable								
Signal Timing Mitigation	No-Action/With-Action						Mitigated			No-Action/With-Action						Mitigated			No-Action/With-Action						Mitigated		
		G	A	R			G	A	R		G	A	R			G	A	R			G	A	R			G	A	R
	SBR / EBL	13.0	3.0	2.0		SBR / EBL	11.0	3.0	2.0		SBR / EBL	9.0	3.0	2.0		SBR / EBL	9.0	3.0	2.0		SBR / EBL	13.0	3.0	2.0		SBR / EBL	13.0	3.0	2.0
	EB / WB	31.0	3.0	2.0		EB / WB	32.0	3.0	2.0		EB / WB	22.0	3.0	2.0		EB / WB	22.0	3.0	2.0		EB / WB	31.0	3.0	2.0		EB / WB	31.0	3.0	2.0
	LPI	2.0	3.0	2.0		LPI	2.0	3.0	2.0		LPI	2.0	3.0	2.0		LPI	2.0	3.0	2.0		LPI	2.0	3.0	2.0		LPI	2.0	3.0	2.0
	NB / SB	54.0	3.0	2.0		NB / SB	55.0	3.0	2.0		NB / SB	37.0	3.0	2.0		NB / SB	37.0	3.0	2.0		NB / SB	54.0	3.0	2.0		NB / SB	54.0	3.0	2.0
	Offset		55	sec		Offset		55	sec		Offset		0	sec		Offset		0	sec		Offset		61	sec		Offset		61	sec
	Cycle Length		120	sec		Cycle Length		120	sec		Cycle Length		90	sec		Cycle Length		90	sec		Cycle Length		120	sec		Cycle Length		120	sec

Weekday PM Peak Hour										Saturday MD Peak Hour									
Movement	No-Action		With-Action			Mitigated				Movement	No-Action		With-Action			Mitigated			
EB LTR	77.3	E	109.6	F	+	109.6	F	+											
WB LTR																			
NB LTR	1,486.7	F	1,902.4	F	+	1,902.5	F	+											
SB T	89.3	F	126.4	F	+	126.6	F	+											
Unmitigable																			
No-Action/With-Action						Mitigated													
	G	A	R			G	A	R											
SBR / EBL	9.0	3.0	2.0		SBR / EBL	9.0	3.0	2.0											
EB / WB	22.0	3.0	2.0		EB / WB	22.0	3.0	2.0											
LPI	2.0	3.0	2.0		LPI	2.0	3.0	2.0											
NB / SB	37.0	3.0	2.0		NB / SB	37.0	3.0	2.0											
Offset		0	sec		Offset		0	sec											
Cycle Length		90	sec		Cycle Length		90	sec											

49 — Bay Street and School Road

Weekday AM Peak Hour																Weekday MD Peak Hour											
Impacts	Movement	No-Action		With-Action			Mitigated			Movement	No-Action		With-Action			Mitigated			Movement	No-Action		With-Action			Mitigated		
	EB L	92.5	F	140.7	F	+	94.9	F		EB L	191.4	F	248.7	F	+	186.4	F		EB L	231.6	F	338.0	F	+	303.6	F	+
Mitigation Description	Shift 5 seconds from NB / SB phase to EB / WB phase.									Shift 4 seconds from NB / SB phase to EB / WB phase.									Partial mitigation: Shift 3 seconds from NB / SB phase to EB / WB phase.								
Signal Timing Mitigation	No-Action/With-Action						Mitigated			No-Action/With-Action						Mitigated			No-Action/With-Action						Mitigated		
		G	A	R			G	A	R		G	A	R			G	A	R			G	A	R			G	A	R
	EB / WB	45.0	3.0	2.0		EB / WB	50.0	3.0	2.0		EB / WB	38.0	3.0	2.0		EB / WB	42.0	3.0	2.0		EB / WB	63.0	3.0	2.0		EB / WB	66.0	3.0	2.0
	NB / SB	65.0	3.0	2.0		NB / SB	60.0	3.0	2.0		NB / SB	42.0	3.0	2.0		NB / SB	38.0	3.0	2.0		NB / SB	47.0	3.0	2.0		NB / SB	44.0	3.0	2.0
	Offset		0	sec		Offset		0	sec		Offset		25	sec		Offset		25	sec		Offset		116	sec		Offset		116	sec
	Cycle Length		120	sec		Cycle Length		120	sec		Cycle Length		90	sec		Cycle Length		90	sec		Cycle Length		120	sec		Cycle Length		120	sec

Weekday PM Peak Hour										Saturday MD Peak Hour									
Movement	No-Action		With-Action			Mitigated				Movement	No-Action		With-Action			Mitigated			
EB L	208.4	F	274.3	F	+	208.9	F												
Shift 4 seconds from NB / SB phase to EB / WB phase.																			
No-Action/With-Action						Mitigated													
	G	A	R			G	A	R											
EB / WB	38.0	3.0	2.0		EB / WB	42.0	3.0	2.0											
NB / SB	42.0	3.0	2.0		NB / SB	38.0	3.0	2.0											
Offset		25	sec		Offset		25	sec											
Cycle Length		90	sec		Cycle Length		90	sec											

Table 22-16: Signalized Level of Service Analysis – Weekday AM Peak Hour
No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)
	Richmond Terrace and Franklin Avenue																
1	Eastbound	TR	0.77	9.1	A	331	TR	0.81	10.7	B	358		TR	0.78	8.6	A	293
	Westbound	LT	0.88	37.1	D	634	LT	1.08	75.5	E	639	+	LT	0.95	36.2	D	473
	Northbound	LR	0.25	37.1	D	112	LR	0.26	37.1	D	112		LR	0.28	39.9	D	116
		Intersection		22.6	C		Intersection		40.3	D			Intersection		22.4	C	
	Richmond Terrace and Jersey Street																
2	Eastbound	L	1.07	86.0	F	195	L	1.35	203.1	F	359	+	L	0.96	60.0	E	273
		TR	0.70	7.3	A	329	TR	0.74	8.5	A	429		TR	0.69	12.3	B	319
	Westbound	LT	1.06	68.3	E	940	LT	1.17	108.9	F	1063	+					
		R	0.00	7.7	A	1	R	0.00	9.0	A	1						
													L	0.10	12.6	B	16
													TR	0.95	43.2	D	886
	Northbound	L	0.09	35.6	D	37	L	0.09	35.6	D	37		L	0.11	40.8	D	40
		TR	0.26	38.3	D	102	TR	0.27	38.4	D	103		TR	0.34	44.7	D	111
	Southbound	L	0.01	34.0	C	11	L	0.01	34.0	C	11		L	0.02	39.0	D	11
		TR	0.08	35.3	D	43	TR	0.08	35.3	D	43		TR	0.11	40.4	D	46
		Intersection		45.6	D		Intersection		79.0	E			Intersection		33.6	C	
	Richmond Terrace and Westervelt Avenue																
3	Eastbound	TR	0.78	13.8	B	229	TR	0.83	16.5	B	273		TR	0.83	18.6	B	530
	Westbound	LT	0.71	46.2	D	635	LT	0.85	87.8	F	763	+	LT	0.85	31.0	C	762
	Northbound	LR	0.37	35.0	D	158	LR	0.37	35.1	D	158		LR	0.37	35.1	D	158
		Intersection		29.5	C		Intersection		49.0	D			Intersection		25.7	C	
	Hamilton Avenue and Richmond Terrace																
5	Northbound	LT	0.71	13.1	B	139	LT	0.80	19.1	B	148		LT	0.80	19.0	B	150
	Southbound	TR	0.39	9.0	A	87	TR	0.42	9.7	A	101		TR	0.42	7.4	A	84
		Intersection		11.2	B		Intersection		14.8	B			Intersection		13.7	B	
	Wall Street and Richmond Terrace																
7	Westbound	LTR	0.18	28.8	C	75	LTR	0.18	28.8	C	75		LTR	0.18	28.8	C	75
		L	0.23	29.9	C	71	L	0.23	29.9	C	71		L	0.23	29.9	C	71
	Northbound	T	0.48	11.8	B	134	T	0.53	12.7	B	197		T	0.53	12.1	B	142
		R	0.29	10.9	B	63	R	0.29	10.6	B	60		R	0.29	10.3	B	58
	Southbound	LTR	0.46	7.3	A	42	LTR	0.50	7.7	A	45		LTR	0.50	5.8	A	45
		Intersection		11.4	B		Intersection		11.9	B			Intersection		10.8	B	
	Richmond Terrace and Ferry Terminal (bus)																
8	Westbound	L	0.47	45.7	D	173	L	0.47	45.7	D	173		L	0.49	47.2	D	175
		R	0.41	45.5	D	108	R	0.41	45.5	D	108		R	0.42	46.9	D	109
	Northbound	T	0.41	13.1	B	80	T	0.47	17.5	B	80		T	0.46	14.7	B	81
	Southbound	T	0.63	85.5	F	476	T	0.67	88.1	F	515		T	0.66	87.8	F	514
		Intersection		50.2	D		Intersection		52.4	D			Intersection		51.3	D	
	Richmond Terrace and Ferry Terminal (parking lot)																
9	Westbound	L	0.74	55.7	E	315	L	0.74	55.7	E	315		L	0.77	58.7	E	336
		R	0.20	11.8	B	47	R	0.20	11.8	B	47		R	0.21	12.2	B	49
	Northbound	T	0.78	38.9	D	257	T	0.90	50.3	D	353	+	T	0.87	41.0	D	341
		R	0.35	16.1	B	209	R	0.35	16.3	B	223		R	0.35	18.2	B	243
		R	0.32	15.4	B	120	R	0.32	15.7	B	127		R	0.32	17.5	B	139
	Southbound	L	5.82	2211.2	F	573	L	5.70	2156.8	F	573		L	5.82	2209.9	F	574
		TR	0.55	2.6	A	5	TR	0.59	3.5	A	18		TR	0.59	3.5	A	19
		Intersection		286.1	F		Intersection		268.6	F			Intersection		273.0	F	
	Bay Street and Slosson Terrace																
10	Eastbound	LR	0.10	32.7	C	41	LR	0.14	33.5	C	56		LR	0.14	33.5	C	56
	Northbound	L	0.68	29.6	C	158	L	0.76	35.7	D	185		L	0.76	32.8	C	185
		T	0.66	14.1	B	254	T	0.72	14.4	B	294		T	0.72	21.6	C	370
	Southbound	TR	0.70	19.8	B	297	TR	0.74	22.3	C	468		TR	0.74	22.2	C	468
		Intersection		18.3	B		Intersection		20.2	C			Intersection		23.1	C	
	Victory Boulevard and Bay Street/St. Marks Place																
11	Eastbound	TR	0.35	6.2	A	56	TR	0.43	8.2	A	87		TR	0.43	8.1	A	87
		R	0.36	6.3	A	43	R	0.40	7.9	A	61		R	0.40	7.9	A	61
	Westbound	T	0.44	16.7	B	253	T	0.52	29.9	C	244		T	0.52	17.4	B	352
		L	0.07	4.9	A	12	L	0.08	4.8	A	10		L	0.08	4.9	A	12
	Southbound	LT	0.43	42.8	D	165	LT	0.45	43.1	D	170		LT	0.45	43.1	D	170
		R	0.35	41.9	D	115	R	0.35	42.2	D	116		R	0.35	42.2	D	116
		Intersection		16.6	B		Intersection		21.3	C			Intersection		17.1	B	

Table 22-16 (con't): Signalized Level of Service Analysis – Weekday AM Peak Hour No-Action, vs. With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
12	**Victory Boulevard and Bay Street**																	
	Eastbound	L	0.58	31.4	C	197	L	0.76	43.3	D	292		L	0.76	42.5	D	292	
		LT	0.58	31.4	C	198	LT	0.68	36.7	D	251		LT	0.68	35.8	D	251	
	Westbound	LTR	0.09	31.8	C	45	LTR	0.38	38.3	D	114		LTR	0.38	38.3	D	114	
	Northbound	L	0.86	31.7	C	119	L	1.18	111.4	F	163	+	L	0.83	42.8	D	160	
		TR	0.67	17.6	B	243	TR	0.72	19.1	B	227		TR	0.72	7.8	A	155	
	Southbound	LT	0.52	7.1	A	42	LT	0.67	8.7	A	50		LT	1.00	42.8	D	481	
		R	0.36	7.0	A	30	R	0.38	7.3	A	33		R	0.63	16.6	B	152	
		Intersection		17.0	B		Intersection		28.0	C			Intersection		26.8	C		
13	**Bay Street and Hannah Street**																	
	Eastbound	LTR	0.09	30.2	C	57	LTR	0.09	30.3	C	57		LTR	0.07	24.0	C	51	
	Westbound	LTR	0.86	56.7	E	518	LTR	1.15	125.7	F	752	+	LTR	0.91	58.6	E	645	
	Northbound	LTR	1.09	81.8	F	351	LTR	1.24	141.3	F	798	+						
													L	0.64	44.5	D	92	
													TR	0.99	85.9	F	513	+
	Southbound	L	1.51	280.4	F	436	L	2.52	724.7	F	578	+	L	1.56	298.5	F	352	+
		T	0.39	8.2	A	103	T	0.41	9.7	A	138		T	0.61	44.1	D	291	
		R	0.17	2.1	A	16	R	0.18	2.9	A	21		R	0.27	21.6	C	61	
		Intersection		71.2	E		Intersection		153.2	F			Intersection		85.0	F		
14	**Front Street and Hannah Street**																	
	Eastbound	TR	0.32	4.0	A	61	TR	0.37	3.9	A	64		TR	0.37	3.9	A	64	
	Westbound	LT	0.08	13.2	B	45	LT	0.09	13.2	B	45		LT	0.09	13.2	B	45	
	Northbound	LR	0.56	23.9	C	264	LR	0.80	34.1	C	425		LR	0.80	34.1	C	425	
		Intersection		15.0	B		Intersection		20.9	C			Intersection		20.9	C		
15	**Bay Street and Swan Street/Van Duzer Street**																	
	Eastbound	L	0.94	125.1	F	362	L	1.04	127.6	F	409		L	1.04	125.6	F	409	
		LTR	1.09	125.2	F	488	LTR	1.08	126.6	F	473		LTR	1.08	124.7	F	473	
	Westbound	LTR	0.03	30.0	C	11	LTR	0.03	30.0	C	11		LTR	0.03	30.0	C	11	
	Northbound	LTR	0.45	6.7	A	46	LTR	0.55	8.6	A	47		LTR	0.55	29.0	C	334	
	Southbound	LTR	0.45	11.2	B	111	LTR	0.48	10.7	B	105		LTR	0.48	2.4	A	18	
		Intersection		42.4	D		Intersection		40.8	D			Intersection		44.8	D		
18	**Bay Street and Grant Street**																	
	Eastbound	**Unsignalized**					**Unsignalized**						LTR	0.35	41.2	D	122	
	Westbound												R	0.04	34.7	C	25	
	Northbound												TR	0.4	8.3	A	111	
	Southbound												T	0.99	84.1	F	987	+
													Intersection		47.4	D		
19	**Van Duzer Street and Clinton Street**																	
	Westbound	TR	0.22	41.0	D	60	TR	0.28	43.9	D	75		TR	0.28	32.8	C	77	
	Northbound	LT	0.64	13.8	B	305	LT	0.65	14.1	B	316		LT	0.65	14.1	B	316	
		Intersection		16.5	B		Intersection		17.8	B			Intersection		16.4	B		
20	**Bay Street and Clinton Street**																	
	Westbound	LTR	0.11	30.6	C	59	LTR	0.12	31.1	C	59		LTR	0.14	34.7	C	63	
	Northbound	L	0.07	20.4	C	17	L	0.23	28.1	C	31		L	0.16	8.1	A	6	
		TR	0.41	24.6	C	305	TR	0.49	26.8	C	377		TR	0.46	7.4	A	82	
	Southbound	L	0.17	12.3	B	51	L	0.21	15.6	B	54		L	0.19	3.5	A	5	
		TR	0.83	33.6	C	561	TR	0.97	66.0	E	940	+	TR	0.91	23.9	C	65	
		Intersection		28.9	C		Intersection		45.8	D			Intersection		16.2	B		
21	**Bay Street and Baltic Street**																	
	Eastbound	**Unsignalized**					**Unsignalized**						LTR	0.25	44.1	D	64	
	Westbound												LTR	0.02	39.0	D	11	
	Northbound												TR	0.68	7.4	A	145	
	Southbound												LT	0.92	15.0	B	897	
													Intersection		12.4	B		
24	**Bay Street and Wave Street**																	
	Westbound	LTR	0.18	28.3	C	53	LTR	0.19	28.2	C	47							
													L	0.13	39.8	D	44	
													TR	0.19	41.3	D	60	
	Northbound	LT	0.54	18.8	B	264	LT	0.66	18.1	B	305		LT	0.57	9.6	A	204	
		R	0.11	14.1	B	43	R	0.13	12.2	B	35		R	0.11	6.3	A	25	
	Southbound	L	0.25	7.0	A	23	L	0.35	9.4	A	25		L	0.25	8.7	A	22	
		TR	0.85	23.0	C	800	TR	1.08	77.8	E	1022	+	TR	0.94	23.9	C	928	
		Intersection		20.6	C		Intersection		49.3	D			Intersection		18.1	B		
25	**Front Street and Wave Street**																	
	Eastbound	LR	0.30	19.2	B	68	LR	0.32	20.1	C	63		LR	0.38	31.0	C	84	
	Northbound	LT	0.66	5.0	A	29	LT	0.81	8.5	A	25		LT	0.69	8.2	A	103	
	Southbound	TR	0.40	10.7	B	116	TR	0.57	13.4	B	181		TR	0.48	11.9	B	202	
		Intersection		8.7	A		Intersection		11.5	B			Intersection		11.7	B		
26	**Front Street and Prospect Street**																	
	Eastbound	LTR	0.26	21.8	C	47	LTR	0.27	22.3	C	49		LTR	0.37	39.0	D	83	
	Westbound	LTR	0.83	45.1	D	227	LTR	0.84	45.7	D	228		LTR	0.68	38.1	D	247	
	Northbound	TR	0.77	41.6	D	219	TR	1.00	85.7	F	549	+	TR	0.79	29.6	C	276	
	Southbound	LT	0.83	31.7	C	301	LT	1.34	188.9	F	738	+	LT	0.88	35.3	D	460	
		Intersection		37.9	D		Intersection		112.2	F			Intersection		34.2	C		

Table 22-16 (con't): Signalized Level of Service Analysis – Weekday AM Peak Hour
No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
27	**Van Duzer Street and Beach Street**																	
	Eastbound	LT	0.85	56.0	E	381	LT	0.89	61.8	E	410	+	LT	0.87	57.8	E	402	
	Westbound	TR	0.25	28.9	C	106	TR	0.26	29.2	C	112		TR	0.25	28.4	C	110	
	Northbound	L	0.32	15.5	B	171	L	0.32	15.5	B	172		L	0.33	16.1	B	176	
		TR	0.88	37.0	D	731	TR	0.89	38.5	D	751		TR	0.90	40.9	D	761	
		Intersection		36.7	D		Intersection		39.1	D			Intersection		39.3	D		
28	**Bay Street and Water Street**																	
	Westbound	LTR	0.20	32.7	C	85	LTR	0.20	32.7	C	85		LTR	0.30	44.6	D	98	
	Northbound	L	0.56	24.2	C	72	L	1.72	389.7	F	186	+	L	0.65	20.2	C	20	
		T	0.60	24.7	C	274	T	0.73	72.9	E	391	+	T	0.63	6.9	A	107	
	Southbound	TR	0.80	67.6	E	298	TR	1.03	80.7	F	859	+	TR	0.89	47.5	D	414	
		Intersection		46.9	D		Intersection		93.5	F			Intersection		31.0	C		
29	**Bay Street and Canal Street**																	
	Eastbound	L	0.32	36.9	D	108	L	0.32	36.9	D	108		L	0.32	35.9	D	108	
		TR	0.19	32.1	C	89	TR	0.19	32.1	C	89		TR	0.22	32.5	C	99	
	Westbound	LTR	0.16	29.3	C	49	LTR	0.31	33.7	C	74		LTR	0.31	35.8	D	96	
	Northbound	TR	0.61	8.3	A	81	TR	0.75	58.6	E	108	+	TR	0.75	21.4	C	316	
	Southbound	LT	0.71	71.8	E	694	LT	0.94	75.0	E	758		T	0.93	46.9	D	879	
	Intersection			40.5	D		Intersection			63.1	E		Intersection			35.2	D	
30	**Front Street and Canal Street**																	
	Eastbound	LR	0.38	24.0	C	78	LR	0.44	23.5	C	78		LR	0.41	26.8	C	119	
	Northbound	LT	0.42	11.0	B	122	LT	0.53	12.7	B	164		LT	0.49	14.7	B	215	
	Southbound	TR	0.55	10.9	B	92	TR	0.69	10.9	B	88		TR	0.65	9.3	A	168	
		Intersection		13.0	B		Intersection		13.4	B			Intersection		13.7	B		
31	**Bay Street and Broad Street**																	
	Eastbound	LR	0.34	40.8	D	184	LR	0.42	40.6	D	226							
													L	0.26	33.5	C	127	
													R	0.25	33.8	C	99	
	Northbound	LT	0.60	18.4	B	320	LT	0.99	51.2	D	674	+	LT	0.94	38.8	D	645	
	Southbound	T	0.71	11.0	B	221	T	0.93	41.5	D	448		T	0.91	33.4	C	455	
		R	0.12	6.9	A	35	R	0.19	11.9	B	54		R	0.18	4.3	A	16	
		Intersection		16.6	B		Intersection		42.5	D			Intersection		33.0	C		
32	**Richmond Terrace and Clove Road**																	
	Eastbound	LT	0.89	27.8	C	893	LT	0.92	32.4	C	949		LT	0.92	32.4	C	949	
		R	0.16	4.5	A	27	R	0.16	4.5	A	27		R	0.16	4.5	A	27	
	Westbound	L	0.55	24.2	C	53	L	0.66	38.8	D	82		L	0.66	38.8	D	82	
		TR	0.57	12.4	B	284	TR	0.65	15.1	B	384		TR	0.65	15.1	B	384	
	Northbound	LTR	0.44	38.3	D	192	LTR	0.47	39.1	D	206		LTR	0.47	39.1	D	206	
		Intersection		22.4	C		Intersection		25.9	C			Intersection		25.9	C		
35	**Victory Boulevard and Cebra Avenue**																	
	Eastbound	L	0.55	55.8	E	95	L	0.56	56.6	E	95		L	0.50	49.9	D	91	
		TR	0.82	60.2	E	304	TR	0.82	60.2	E	304		TR	0.77	53.8	D	297	
	Westbound	L	0.57	58.6	E	106	L	0.70	70.2	E	139	+	L	0.60	57.5	E	124	
		TR	0.69	50.0	D	291	TR	0.70	50.7	D	296		TR	0.66	46.8	D	289	
	Northbound	LT	0.66	16.2	B	283	LT	0.73	18.5	B	374		LT	0.75	23.0	C	438	
		R	0.11	9.9	A	28	R	0.11	10.0	B	31		R	0.12	12.5	B	38	
	Southbound	LTR	0.67	19.4	B	472	LTR	0.88	34.5	C	628		LTR	0.95	40.2	D	640	
		Intersection		31.6	C	0	Intersection		36.3	D			Intersection		37.2	D		
36	**Victory Boulevard and Jersey Street**																	
	Eastbound	L	0.18	8.1	A	27	L	0.21	9.2	A	32		L	0.23	7.4	A	22	
		T	0.68	12.1	B	239	T	0.75	14.0	B	311		T	0.78	12.3	B	188	
	Westbound	T	0.50	21.1	C	302	T	0.55	20.3	C	326		T	0.58	21.4	C	336	
		R	0.10	13.3	B	47	R	0.16	12.8	B	62		R	0.17	13.5	B	64	
	Southbound	LR	0.46	40.8	D	170	LR	0.66	49.5	D	237	+	LR	0.61	43.8	D	227	
		Intersection		18.0	B		Intersection		20.3	C			Intersection		19.0	B		
38	**Victory Boulevard and Forest Avenue**																	
	Eastbound	LR	0.72	44.1	D	252	LR	0.75	45.4	D	265		LR	0.75	45.4	D	265	
	Northbound	L	0.24	14.4	B	74	L	0.26	15.0	B	76		L	0.26	15.0	B	76	
		T	0.58	74.4	E	370	T	0.63	75.2	E	421		T	0.63	75.2	E	421	
	Southbound	T	0.40	21.3	C	185	T	0.45	23.8	C	214		T	0.45	24.0	C	214	
		R	0.32	4.1	A	22	R	0.34	4.2	A	25		R	0.34	4.2	A	25	
		Intersection		40.9	D		Intersection		42.1	D			Intersection		42.1	D		

Table 22-16(con't): Signalized Level of Service Analysis – Weekday AM Peak Hour
No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
41	**Broad Street and Canal Street**																	
	Eastbound	L	0.23	12.2	B	95	L	0.25	12.2	B	90		L	0.25	9.8	A	86	
		TR	0.47	15.9	B	218	TR	0.52	16.2	B	235		TR	0.52	13.7	B	248	
	Westbound	LTR	0.16	16.9	B	84	LTR	0.22	16.0	B	102		LTR	0.22	14.5	B	103	
	Northbound	L	0.45	42.8	D	100	L	0.45	42.8	D	100		L	0.45	42.8	D	100	
		TR	0.52	40.6	D	193	TR	0.52	40.6	D	193		TR	0.52	40.6	D	193	
	Southbound	LT	0.38	37.0	D	157	LT	0.38	37.0	D	157		LT	0.38	37.0	D	157	
		Intersection		26.1	C		Intersection		25.2	C			Intersection		23.9	C		
42	**Broad Street and Van Duzer Street**																	
	Westbound	L	0.74	91.9	F	224	L	0.78	90.2	F	244		L	0.78	31.8	C	272	
	Southbound	L	0.27	6.4	A	122	L	0.28	8.2	A	141		L	0.28	8.2	A	141	
		T	0.50	8.8	A	300	T	0.53	11.4	B	353		T	0.53	11.4	B	353	
		Intersection		21.9	C		Intersection		26.5	C			Intersection		14.7	B		
43	**Broad Street and Targee Street**																	
	Eastbound	LT	0.55	47.3	D	336	LT	0.56	53.4	D	336	+	LT	0.56	28.3	C	275	
	Westbound	TR	0.36	41.8	D	193	TR	0.47	41.2	D	247		TR	0.47	39.4	D	264	
	Northbound	LT	0.98	52.5	D	834	LT	0.98	53.9	D	842		LT	0.98	53.9	D	842	
		R	0.44	18.4	B	187	R	0.51	20.0	C	223		R	0.51	20.0	C	223	
		Intersection		44.4	D		Intersection		45.7	D			Intersection		41.0	D		
44	**Vanderbilt Avenue and Tompkins Avenue**																	
	Eastbound	LTR	0.88	39.4	D	733	LTR	0.95	49.5	D	825	+	LTR	0.95	49.5	D	825	+
	Westbound	LTR	0.43	15.2	B	146	LTR	0.51	16.2	B	144		LTR	0.51	16.8	B	143	
	Northbound	LTR	1.25	172.2	F	470	LTR	1.31	193.7	F	505	+	LTR	1.31	193.7	F	505	+
	Southbound	LTR	1.07	98.0	F	582	LTR	1.08	100.7	F	586		LTR	1.08	100.7	F	586	
		Intersection		77.8	E		Intersection		84.8	F			Intersection		84.9	F		
45	**Bay Street and Vanderbilt Avenue**																	
	Eastbound	L	0.44	24.7	C	96	L	0.62	27.2	C	140		L	0.62	27.2	C	140	
		R	0.44	24.9	C	89	R	0.44	25.0	C	82		R	0.44	25.0	C	82	
	Northbound	LT	0.74	13.7	B	235	LT	0.95	37.7	D	623		LT	0.95	37.8	D	623	
	Southbound	T	0.63	28.8	C	489	T	0.80	35.6	D	555		T	0.80	37.1	D	564	
		R	0.25	5.9	A	76	R	0.31	8.3	A	87		R	0.31	8.9	A	86	
		Intersection		20.1	C		Intersection		30.2	C			Intersection		30.9	C		
47	**Bay Street and Edgewater Drive**																	
	Westbound	LR	0.42	34.5	C	182	LR	0.51	36.2	D	225		LR	0.51	36.2	D	225	
	Northbound	TR	0.37	8.5	A	70	TR	0.45	9.3	A	62		TR	0.45	9.7	A	67	
	Southbound	T	0.69	12.3	B	359	T	0.84	22.5	C	509		T	0.84	22.7	C	510	
	Northwestbound	R	0.19	0.5	A	0	R	0.21	0.6	A	0		R	0.21	0.6	A	0	
		Intersection		14.9	B		Intersection		19.6	B			Intersection		19.8	B		
48	**Bay Street and Hylan Boulevard**																	
	Eastbound	LTR	0.73	29.7	C	207	LTR	0.85	39.8	D	489		LTR	0.88	44.3	D	518	
	Westbound	LTR	1.02	100.6	F	449	LTR	1.05	107.0	F	455	+	LTR	0.98	89.5	F	439	
	Northbound	LTR	1.30	174.4	F	696	LTR	2.43	665.6	F	788	+	LTR	2.23	580.5	F	854	+
	Southbound	T	0.82	39.0	D	544	T	1.04	70.7	E	876	+	T	1.02	64.4	E	865	+
		R	0.26	10.0	A	67	R	0.37	11.9	B	92		R	0.38	12.6	B	95	
		Intersection		84.9	F		Intersection		234.5	F			Intersection		206.8	F		
49	**Bay Street and School Road**																	
	Eastbound	L	1.05	92.5	F	658	L	1.20	140.7	F	781	+	L	1.08	94.9	F	736	
		TR	0.14	13.3	B	48	TR	0.14	13.3	B	48		TR	0.13	11.6	B	44	
	Westbound	LTR	0.00	23.5	C	7	LTR	0.00	23.5	C	7		LTR	0.00	20.5	C	6	
	Northbound	LTR	0.09	13.6	B	47	LTR	0.09	13.6	B	47		LTR	0.09	16.2	B	52	
	Southbound	LTR	0.09	6.4	A	20	LTR	0.14	5.6	A	21		LTR	0.15	10.4	B	29	
		R	0.70	3.9	A	30	R	0.79	5.7	A	34		R	0.80	6.2	A	65	
		Intersection		37.6	D		Intersection		54.8	D			Intersection		39.0	D		

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-16 (con't): Signalized Level of Service Analysis – Weekday MD Peak Hour
No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
1	**Richmond Terrace and Franklin Avenue**																	
	Eastbound	TR	0.65	11.4	B	357	TR	0.71	13.0	B	400		TR	0.71	13.0	B	400	
	Westbound	LT	0.89	10.7	B	133	LT	1.02	28.6	C	118		LT	1.02	43.6	D	957	
	Northbound	LR	0.19	36.2	D	79	LR	0.19	36.2	D	81		LR	0.19	36.2	D	81	
		Intersection		12.1	B		Intersection		21.9	C			Intersection		29.6	C		
2	**Richmond Terrace and Jersey Street**																	
	Eastbound	L	0.66	37.8	D	116	L	0.66	36.7	D	104		L	0.55	23.7	C	87	
		TR	0.77	26.0	C	545	TR	0.84	31.4	C	605		TR	0.80	21.9	C	441	
	Westbound	LT	1.38	198.7	F	1215	LT	1.65	319.0	F	1334	+						
		R	0.02	8.9	A	4	R	0.02	8.2	A	3							
													L	0.35	10.3	B	24	
													TR	0.93	39.6	D	856	
	Northbound	L	0.10	34.5	C	37	L	0.10	34.5	C	37		L	0.12	37.9	D	39	
		TR	0.17	35.2	D	81	TR	0.18	35.5	D	86		TR	0.21	39.1	D	91	
	Southbound	L	0.02	32.8	C	13	L	0.02	32.8	C	13		L	0.02	35.8	D	13	
		TR	0.33	37.8	D	131	TR	0.33	37.8	D	131		TR	0.37	42.0	D	137	
		Intersection		104.6	F		Intersection		160.6	F			Intersection		30.8	C		
3	**Richmond Terrace and Westervelt Avenue**																	
	Eastbound	TR	0.80	20.2	C	333	TR	0.86	24.1	C	558		TR	0.86	29.9	C	689	
	Westbound	LT	0.78	69.9	E	382	LT	0.89	79.1	E	845	+	LT	0.89	29.4	C	868	
	Northbound	LR	0.45	37.0	D	186	LR	0.46	37.1	D	188		LR	0.46	37.1	D	188	
		Intersection		43.9	D		Intersection		49.7	D			Intersection		30.5	C		
5	**Hamilton Avenue and Richmond Terrace**																	
	Northbound	LT	0.89	20.9	C	510	LT	0.97	31.8	C	581		LT	0.97	31.8	C	581	
	Southbound	TR	0.42	11.9	B	146	TR	0.46	13.0	B	171		TR	0.46	16.1	B	230	
		Intersection		17.2	B		Intersection		23.9	C			Intersection		25.2	C		
7	**Wall Street and Richmond Terrace**																	
	Westbound	LTR	0.86	66.0	E	376	LTR	0.86	66.5	E	376		LTR	0.86	66.5	E	376	
		L	0.98	92.7	F	350	L	0.98	94.4	F	350		L	0.98	94.4	F	350	
	Northbound	T	0.55	10.1	B	329	T	0.59	11.6	B	365		T	0.59	11.6	B	365	
		R	0.51	11.5	B	292	R	0.51	11.5	B	292		R	0.51	11.5	B	292	
	Southbound	LTR	0.58	14.5	B	95	LTR	0.64	15.3	B	100		LTR	0.64	12.5	B	71	
		Intersection		27.4	C		Intersection		27.6	C			Intersection		26.8	C		
8	**Richmond Terrace and Ferry Terminal (bus)**																	
	Westbound	L	0.98	134.0	F	165	L	0.98	139.4	F	165	+	L	0.98	139.4	F	165	+
		R	0.46	51.0	D	63	R	0.46	51.0	D	63		R	0.46	51.0	D	63	
	Northbound	T	0.66	16.5	B	57	T	0.69	31.3	C	57		T	0.69	31.1	C	57	
	Southbound	T	0.86	58.9	E	508	T	0.92	82.2	F	565	+	T	0.92	82.2	F	565	+
		Intersection		43.2	D		Intersection		60.6	E			Intersection		60.6	E		
9	**Richmond Terrace and Ferry Terminal (parking lot)**																	
	Westbound	L	0.53	48.4	D	95	L	0.53	48.4	D	95		L	0.53	48.4	D	95	
		R	0.11	15.8	B	19	R	0.11	16.6	B	19		R	0.11	16.6	B	19	
	Northbound	T	0.96	59.3	E	420	T	1.03	87.1	F	463	+	T	1.03	87.6	F	463	+
		R	0.18	17.2	B	57	R	0.18	16.8	B	58		R	0.18	17.0	B	58	
		R	0.20	17.7	B	31	R	0.20	17.3	B	33		R	0.20	17.4	B	33	
	Southbound	L	1.80	426.5	F	94	L	1.76	404.4	F	90		L	1.76	404.4	F	90	
		TR	1.09	65.6	E	877	TR	1.16	92.1	F	890	+	TR	1.16	92.1	F	890	+
		Intersection		70.4	E		Intersection		91.5	F			Intersection		91.7	F		
10	**Bay Street and Slosson Terrace**																	
	Eastbound	LR	0.17	24.7	C	56	LR	0.23	25.6	C	71		LR	0.25	27.5	C	74	
	Northbound	L	0.61	31.4	C	62	L	0.70	33.9	C	64		L	0.70	26.2	C	64	
		T	0.89	15.3	B	175	T	0.93	17.3	B	518		T	0.89	32.9	C	513	
	Southbound	TR	1.16	97.8	F	677	TR	1.21	121.2	F	723	+	TR	1.15	93.9	F	695	
		Intersection		57.0	E		Intersection		69.1	E			Intersection		62.3	E		
11	**Victory Boulevard and Bay Street/St. Marks Place**																	
	Eastbound	TR	0.42	18.5	B	188	TR	0.51	21.7	C	227		TR	0.51	21.7	C	227	
		R	0.45	18.6	B	167	R	0.53	20.8	C	192		R	0.53	20.8	C	192	
	Westbound	T	0.81	89.8	F	385	T	0.93	86.4	F	342		T	0.93	56.9	E	44	
		L	0.11	18.8	B	18	L	0.12	17.4	B	13		L	0.12	3.4	A	2	
	Southbound	LT	0.52	31.7	C	168	LT	0.55	32.4	C	175		LT	0.55	32.6	C	175	
		R	0.49	33.3	C	107	R	0.53	35.5	D	111		R	0.53	35.5	D	111	
		Intersection		50.1	D		Intersection		50.3	D			Intersection		37.9	D		

Table 22-16 (con't): Signalized Level of Service Analysis – Weekday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
	Victory Boulevard and Bay Street																	
	Eastbound	L	0.62	31.5	C	186	L	0.88	55.9	E	267	+	L	0.88	61.0	E	272	+
		LT	0.61	30.6	C	145	LT	0.75	37.3	D	247		LT	0.75	42.9	D	252	
	Westbound	LTR	0.35	26.7	C	93	LTR	1.36	214.1	F	397	+	LTR	1.36	212.8	F	397	+
12	Northbound	L	2.63	761.2	F	174	L	3.46	1135.8	F	170	+	L	1.69	333.8	F	165	
		TR	0.85	26.0	C	173	TR	0.87	25.5	C	160		TR	0.87	22.7	C	346	
	Southbound	LT	0.89	41.4	D	316	LT	1.15	109.1	F	325	+	LT	1.46	224.7	F	428	+
		R	0.90	93.8	F	227	R	1.01	90.9	F	229		R	1.42	208.1	F	301	+
		Intersection		93.0	F		Intersection		158.1	F			Intersection		149.3	F		
	Bay Street and Hannah Street																	
	Eastbound	LTR	0.07	17.8	B	35	LTR	0.07	17.9	B	35		LTR	0.07	17.9	B	35	
	Westbound	LTR	0.67	15.2	B	76	LTR	0.97	36.8	D	206		LTR	0.97	43.1	D	388	
	Northbound	LTR	1.79	377.6	F	790	LTR	1.97	459.0	F	831	+						
13													L	0.92	67.3	E	101	
													TR	1.15	96.1	F	598	
	Southbound	L	4.71	1706.2	F	435	L	6.31	2411.3	F	468	+	L	2.54	714.4	F	328	
		T	0.71	11.6	B	142	T	0.77	14.5	B	144		T	1.02	38.4	D	287	
		R	0.32	5.8	A	16	R	0.39	9.1	A	27		R	0.61	16.0	B	66	
		Intersection		318.6	F		Intersection		460.3	F			Intersection		135.9	F		
	Front Street and Hannah Street																	
	Eastbound	TR	0.38	10.2	B	0	TR	0.47	10.2	B	0		TR	0.48	12.4	B	3	
14	Westbound	LT	0.10	13.4	B	47	LT	0.10	13.4	B	47		LT	0.11	15.2	B	51	
	Northbound	LR	0.52	23.1	C	243	LR	0.96	59.1	E	461	+	LR	0.89	44.0	D	437	
		Intersection		16.2	B		Intersection		32.3	C			Intersection		26.7	C		
	Bay Street and Swan Street/Van Duzer Street																	
	Eastbound	L	0.61	31.9	C	185	L	0.67	35.3	D	204		L	0.67	36.0	D	204	
		LTR	0.60	31.6	C	177	LTR	0.66	35.4	D	197		LTR	0.66	36.0	D	197	
15	Westbound	LTR	0.00	17.5	B	5	LTR	0.00	17.5	B	5		LTR	0.00	17.5	B	5	
	Northbound	LTR	0.70	64.2	E	291	LTR	0.76	65.6	E	374		LTR	0.76	21.4	C	397	
	Southbound	LTR	0.82	16.8	B	141	LTR	0.88	18.8	B	162		LTR	0.88	12.8	B	65	
		Intersection		37.1	D		Intersection		39.3	D			Intersection		19.6	B		
	Bay Street and Grant Street																	
	Eastbound												LTR	0.21	30.6	C	48	
18	Westbound												R	0.15	28.0	C	54	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.5	5.2	A	56	
	Southbound												T	1.51	257.1	F	1356	+
													Intersection		144.5	F		
	Van Duzer Street and Clinton Street																	
19	Westbound	TR	0.36	34.4	C	62	TR	0.36	34.2	C	60		TR	0.36	34.3	C	64	
	Northbound	LT	0.50	9.3	A	152	LT	0.51	9.5	A	159		LT	0.51	9.5	A	159	
		Intersection		14.3	B		Intersection		14.3	B			Intersection		14.3	B		
	Bay Street and Clinton Street																	
	Westbound	LTR	0.29	23.7	C	89	LTR	0.29	23.7	C	89		LTR	0.35	28.0	C	97	
	Northbound	L	0.41	20.1	C	11	L	0.41	20.1	C	10		L	0.41	20.0	C	9	
20		TR	0.65	17.9	B	137	TR	0.71	18.5	B	136		TR	0.66	15.8	B	156	
	Southbound	L	0.34	7.5	A	12	L	0.40	9.7	A	12		L	0.34	10.0	A	8	
		TR	1.35	179.4	F	1212	TR	1.46	228.0	F	1303	+	TR	1.35	176.8	F	166	
		Intersection		97.4	F		Intersection		121.9	F			Intersection		95.7	F		
	Bay Street and Baltic Street																	
	Eastbound												LTR	0.21	39.6	D	32	
21	Westbound												LTR	0.09	35.2	D	17	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.87	10.2	B	43	
	Southbound												LT	1.26	134.5	F	642	+
													Intersection		76.5	E		
	Bay Street and Wave Street																	
	Westbound	LTR	0.31	25.4	C	77	LTR	0.31	25.2	C	80							
													L	0.22	25.4	C	42	
													TR	0.23	26.0	C	44	
24	Northbound	LT	1.36	193.2	F	811	LT	1.52	262.4	F	913	+	LT	1.36	190.8	F	931	
		R	0.13	13.6	B	26	R	0.13	13.3	B	26		R	0.11	9.5	A	21	
	Southbound	L	0.84	41.2	D	18	L	0.82	38.8	D	17		L	0.83	37.2	D	15	
		TR	1.41	206.7	F	654	TR	1.51	254.7	F	662	+	TR	1.37	190.3	F	720	
		Intersection		186.9	F		Intersection		240.5	F			Intersection		178.0	F		
	Front Street and Wave Street																	
	Eastbound	LR	0.28	18.7	B	47	LR	0.29	19.0	B	47		LR	0.35	32.3	C	71	
25	Northbound	LT	0.65	6.2	A	12	LT	0.83	11.7	B	11		LT	0.70	5.0	A	41	
	Southbound	TR	0.47	11.4	B	154	TR	0.60	13.7	B	215		TR	0.51	12.3	B	241	
		Intersection		9.4	A		Intersection		13.1	B			Intersection		10.0	A		
	Front Street and Prospect Street																	
	Eastbound	LTR	0.20	21.5	C	43	LTR	0.21	21.6	C	46		LTR	0.28	36.9	D	68	
26	Westbound	LTR	0.29	22.4	C	65	LTR	0.29	22.5	C	65		LTR	0.39	38.8	D	97	
	Northbound	TR	1.00	72.7	E	369	TR	1.27	164.2	F	491	+	TR	0.80	21.0	C	280	
	Southbound	LT	1.43	231.4	F	380	LT	3.08	962.5	F	547	+	LT	0.89	30.9	C	515	
		Intersection		133.3	F		Intersection		494.3	F			Intersection		27.3	C		

Table 22-16 (con't): Signalized Level of Service Analysis – Weekday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
27	**Van Duzer Street and Beach Street**																	
	Eastbound	LT	0.73	38.8	D	201	LT	0.78	42.5	D	216		LT	0.78	42.5	D	216	
	Westbound	TR	0.35	24.8	C	105	TR	0.37	25.2	C	111		TR	0.37	25.2	C	111	
	Northbound	L	0.39	13.6	B	162	L	0.40	13.8	B	166		L	0.40	13.8	B	166	
		TR	0.69	21.0	C	326	TR	0.70	21.5	C	335		TR	0.70	21.5	C	335	
		Intersection		23.5	C		Intersection		24.8	C			Intersection		24.8	C		
28	**Bay Street and Water Street**																	
	Westbound	LTR	0.24	25.7	C	79	LTR	0.24	25.7	C	79		LTR	0.36	34.6	C	90	
	Northbound	L	1.72	348.6	F	97	L	1.77	373.4	F	84	+	L	1.75	362.2	F	100	+
		T	1.08	62.3	E	180	T	1.20	108.1	F	171	+	T	1.04	59.6	E	221	
	Southbound	TR	1.35	190.6	F	875	TR	1.45	236.6	F	968	+	TR	1.26	141.5	F	931	
		Intersection		140.2	F		Intersection		182.6	F			Intersection		114.1	F		
29	**Bay Street and Canal Street**																	
	Eastbound	L	0.46	141.4	F	119	L	0.45	139.7	F	118		L	0.60	118.0	F	139	
		TR	0.21	20.0	C	71	TR	0.21	20.1	C	71		TR	0.33	27.3	C	101	
	Westbound	LTR	0.14	124.3	F	48	LTR	0.24	128.5	F	71	+	LTR	0.32	64.5	E	87	
	Northbound	TR	1.20	110.6	F	66	TR	1.38	192.6	F	80	+	TR	1.19	104.3	F	70	
	Southbound	LT	3.31	1052.7	F	641	LT	3.59	1181.1	F	655	+	T	1.29	149.7	F	664	
		Intersection		544.1	F		Intersection		627.3	F			Intersection		120.8	F		
30	**Front Street and Canal Street**																	
	Eastbound	LR	0.57	25.3	C	96	LR	0.71	33.6	C	138		LR	0.55	21.5	C	104	
	Northbound	LT	0.60	14.1	B	189	LT	0.71	17.3	B	247		LT	0.73	24.8	C	368	
	Southbound	TR	0.49	11.7	B	60	TR	0.63	14.1	B	43		TR	0.65	17.3	B	205	
		Intersection		15.0	B		Intersection		18.7	B			Intersection		21.1	C		
31	**Bay Street and Broad Street**																	
	Eastbound	LR	0.23	25.8	C	102	LR	0.31	24.9	C	139							
													L	0.32	28.2	C	127	
													R	0.09	26.4	C	35	
	Northbound	LT	3.18	998.1	F	210	LT	3.53	1157.1	F	257	+	LT	3.15	986.4	F	425	
	Southbound	T	1.25	136.3	F	114	T	1.35	183.3	F	123	+	T	1.25	132.3	F	267	
		R	0.19	14.2	B	15	R	0.24	14.5	B	20		R	0.22	12.2	B	39	
		Intersection		477.2	F		Intersection		557.3	F			Intersection		464.6	F		
32	**Richmond Terrace and Clove Road**																	
	Eastbound	LT	0.64	18.1	B	529	LT	0.68	19.8	B	566		LT	0.68	19.8	B	566	
		R	0.13	2.3	A	26	R	0.13	2.4	A	28		R	0.13	2.4	A	28	
	Westbound	L	0.33	20.5	C	95	L	0.40	23.2	C	110		L	0.40	23.2	C	110	
		TR	0.84	37.0	D	818	TR	0.88	40.0	D	886		TR	0.88	40.0	D	886	
	Northbound	LTR	0.46	39.2	D	200	LTR	0.50	40.1	D	214		LTR	0.50	40.1	D	214	
		Intersection		27.6	C		Intersection		29.7	C			Intersection		29.7	C		
35	**Victory Boulevard and Cebra Avenue**																	
	Eastbound	L	0.29	31.5	C	42	L	0.31	32.4	C	43		L	0.31	32.4	C	43	
		TR	0.76	42.7	D	240	TR	0.76	42.7	D	240		TR	0.76	42.7	D	240	
	Westbound	L	0.64	47.2	D	104	L	0.66	48.5	D	113		L	0.66	48.5	D	113	
		TR	0.72	39.3	D	252	TR	0.75	41.6	D	285		TR	0.75	41.6	D	285	
	Northbound	LTR	0.89	34.1	C	602	LTR	0.98	48.2	D	700	+	LTR	0.98	48.1	D	700	+
	Southbound	LTR	1.15	94.0	F	567	LTR	1.30	160.9	F	602	+	LTR	1.30	160.9	F	602	+
		Intersection		58.1	E		Intersection		87.9	F			Intersection		87.9	F		
36	**Victory Boulevard and Jersey Street**																	
	Eastbound	L	0.76	41.4	D	36	L	1.30	185.6	F	94	+	L	1.30	185.6	F	94	+
		T	0.98	39.1	D	488	T	1.07	63.3	E	497	+	T	1.07	63.3	E	497	+
	Westbound	T	1.04	68.8	E	697	T	1.12	95.0	F	774	+	T	1.12	95.3	F	774	+
		R	0.19	13.7	B	66	R	0.33	16.6	B	93		R	0.33	16.8	B	93	
	Southbound	LR	0.50	28.1	C	143	LR	0.93	66.9	E	260	+	LR	0.93	66.9	E	260	+
		Intersection		49.3	D		Intersection		80.3	F			Intersection		80.4	F		
38	**Victory Boulevard and Forest Avenue**																	
	Eastbound	LR	0.45	27.4	C	136	LR	0.47	27.8	C	145		LR	0.51	30.0	C	151	
	Northbound	L	0.77	49.9	D	169	L	0.92	83.5	F	186	+	L	0.80	53.7	D	172	
		T	0.69	21.9	C	361	T	0.74	24.4	C	412		T	0.71	21.6	C	390	
	Southbound	T	0.82	74.7	E	342	T	0.88	78.9	E	419	+	T	0.85	74.9	E	374	
		R	0.38	2.9	A	10	R	0.41	3.0	A	11		R	0.40	2.7	A	9	
		Intersection		38.6	D		Intersection		42.6	D			Intersection		39.2	D		

Table 22-16 (con't): Signalized Level of Service Analysis – Weekday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Rezoning Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
41	**Broad Street and Canal Street**																	
	Eastbound	L	0.25	8.8	A	48	L	0.27	10.5	B	64		L	0.27	10.5	B	64	
		TR	0.33	9.4	A	87	TR	0.39	11.2	B	138		TR	0.39	11.2	B	138	
	Westbound	TR	0.19	17.0	B	109	LTR	0.32	21.9	C	176		LTR	0.32	20.8	C	177	
	Northbound	L	0.39	28.2	C	92	L	0.39	28.2	C	92		L	0.39	28.2	C	92	
		TR	0.57	31.3	C	191	TR	0.57	31.3	C	191		TR	0.57	31.3	C	191	
	Southbound	LT	0.30	24.8	C	114	LT	0.30	24.8	C	114		LT	0.30	24.8	C	114	
		Intersection		20.3	C		Intersection		21.3	C			Intersection		21.1	C		
42	**Broad Street and Van Duzer Street**																	
	Westbound	L	0.78	56.5	E	164	L	0.82	54.7	D	195		L	0.82	54.7	D	195	
	Southbound	L	0.18	8.7	A	76	L	0.19	9.5	A	76		L	0.19	9.5	A	76	
		T	0.60	14.0	B	312	T	0.63	15.6	B	320		T	0.63	15.6	B	320	
		Intersection		24.7	C		Intersection		26.3	C			Intersection		26.3	C		
43	**Broad Street and Targee Street**																	
	Eastbound	TR	0.33	30.0	C	155	TR	0.34	29.7	C	156		TR	0.34	29.7	C	156	
	Westbound	TR	0.56	28.4	C	209	TR	0.64	30.9	C	254		TR	0.64	30.9	C	254	
	Northbound	LT	0.77	24.7	C	355	LT	0.78	25.5	C	364		LT	0.78	25.5	C	364	
		R	0.38	14.0	B	108	R	0.47	15.7	B	138		R	0.47	15.7	B	138	
		Intersection		24.3	C		Intersection		25.3	C			Intersection		25.3	C		
44	**Vanderbilt Avenue and Tompkins Avenue**																	
	Eastbound	LTR	0.96	52.7	D	528	LTR	1.04	73.8	E	597	+	LTR	1.04	73.8	E	597	+
	Westbound	LTR	0.78	9.8	A	70	LTR	0.92	14.1	B	248		LTR	0.92	14.8	B	264	
	Northbound	LTR	1.19	141.7	F	447	LTR	1.25	161.9	F	473	+	LTR	1.25	161.9	F	473	+
	Southbound	LTR	0.95	59.2	E	468	LTR	0.95	60.4	E	470		LTR	0.95	60.4	E	470	
		Intersection		62.0	E		Intersection		73.0	E			Intersection		73.2	E		
45	**Bay Street and Vanderbilt Avenue**																	
	Eastbound	L	0.48	27.2	C	112	L	0.62	29.3	C	142		L	0.66	31.2	C	147	
		R	0.21	24.2	C	38	R	0.21	24.3	C	35		R	0.22	25.8	C	37	
	Northbound	LT	4.72	1694.3	F	1155	LT	6.98	2709.4	F	1235	+	LT	4.54	1613.8	F	1170	
	Southbound	T	1.18	99.0	F	451	T	1.23	120.1	F	325	+	T	1.18	95.7	F	329	
		R	0.37	1.4	A	10	R	0.46	1.8	A	12		R	0.44	1.5	A	12	
		Intersection		648.2	F		Intersection		978.7	F			Intersection		593.9	F		
47	**Bay Street and Edgewater Drive**																	
	Westbound	LR	0.36	23.2	C	124	LR	0.43	24.2	C	151		LR	0.43	24.2	C	151	
	Northbound	TR	0.58	16.9	B	76	TR	0.66	17.5	B	73		TR	0.66	17.5	B	73	
	Southbound	T	0.96	28.0	C	329	T	0.98	31.0	C	325		T	0.98	31.2	C	349	
	Northwestbound	R	0.25	0.6	A	0	R	0.27	0.8	A	0		R	0.27	0.8	A	0	
		Intersection		20.5	C		Intersection		22.0	C			Intersection		22.1	C		
48	**Bay Street and Hylan Boulevard**																	
	Eastbound	LTR	1.03	80.1	F	530	LTR	1.12	109.4	F	592	+	LTR	1.12	109.4	F	592	+
	Westbound	LTR	0.90	66.8	E	300	LTR	0.91	69.2	E	302		LTR	0.91	69.2	E	302	
	Northbound	LTR	4.58	1621.9	F	743	LTR	6.41	2445.4	F	773	+	LTR	6.41	2445.4	F	849	+
	Southbound	T	1.11	93.4	F	571	T	1.21	131.8	F	648	+	T	1.21	131.8	F	648	+
		R	0.58	17.9	B	170	R	0.64	18.6	B	193		R	0.64	18.6	B	193	
		Intersection		543.4	F		Intersection		814.0	F			Intersection		814.0	F		
49	**Bay Street and School Road**																	
	Eastbound	L	1.34	191.4	F	780	L	1.48	248.7	F	875	+	L	1.33	186.4	F	840	
		TR	0.12	12.1	B	39	TR	0.12	12.1	B	39		TR	0.10	10.2	B	35	
	Westbound	LTR	0.01	15.2	B	8	LTR	0.01	15.2	B	8		LTR	0.01	13.0	B	7	
	Northbound	LTR	0.22	15.2	B	83	LTR	0.22	15.2	B	83		LTR	0.24	17.9	B	91	
	Southbound	LTR	0.08	16.7	B	23	LTR	0.08	16.9	B	21		LTR	0.09	17.7	B	22	
		R	0.71	6.7	A	324	R	0.71	6.9	A	324		R	0.71	6.9	A	324	
		Intersection		80.6	F		Intersection		105.4	F			Intersection		80.5	F		

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-16 (con't): Signalized Level of Service Analysis – Weekday PM Peak Hour
No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

		No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
Int #	Intersection & Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
	Richmond Terrace and Franklin Avenue																	
1	Eastbound	TR	0.75	28.5	C	734	TR	0.84	34.3	C	833		TR	0.77	21.4	C	709	
	Westbound	LT	1.11	67.8	E	273	LT	1.49	238.7	F	691	+	LT	1.10	69.1	E	1117	
	Northbound	LR	0.14	35.3	D	67	LR	0.14	35.4	D	68		LR	0.19	41.6	D	74	
		Intersection		49.2	D		Intersection		139.2	F			Intersection		46.5	D		
	Richmond Terrace and Jersey Street																	
2	Eastbound	L	0.70	36.7	D	105	L	0.81	48.5	D	92	+	L	0.69	32.6	C	91	
		TR	0.82	27.7	C	592	TR	0.92	36.2	D	945		TR	0.90	22.4	C	925	
	Westbound	LT	1.26	149.5	F	1160	LT	1.69	336.2	F	1125	+						
		R	0.01	10.9	B	4	R	0.01	9.9	A	3							
													L	0.37	14.1	B	27	
													TR	0.96	73.5	E	663	+
	Northbound	L	0.20	39.5	D	42	L	0.20	39.5	D	42		L	0.23	42.4	D	44	
		TR	0.19	37.0	D	86	TR	0.20	37.3	D	91		TR	0.21	39.0	D	93	
	Southbound	L	0.04	34.7	C	23	L	0.04	34.7	C	23		L	0.04	36.4	D	23	
		TR	0.68	49.9	D	255	TR	0.68	49.9	D	255		TR	0.72	54.4	D	261	
		Intersection		79.4	E		Intersection		157.9	F			Intersection		46.2	D		
	Richmond Terrace and Westervelt Avenue																	
3	Eastbound	TR	0.87	25.1	C	398	TR	0.98	45.9	D	457	+	TR	0.95	37.9	D	361	
	Westbound	LT	0.77	76.6	E	332	LT	1.09	100.4	F	918	+	LT	0.99	76.4	E	887	
	Northbound	LR	0.52	38.5	D	223	LR	0.52	38.5	D	223		LR	0.55	40.9	D	229	
		Intersection		46.7	D		Intersection		65.9	E			Intersection		53.1	D		
	Hamilton Avenue and Richmond Terrace																	
5	Northbound	LT	0.86	20.7	C	171	LT	0.98	34.4	C	602		LT	0.98	35.0	C	602	
	Southbound	TR	0.47	34.1	C	328	TR	0.54	33.6	C	363		TR	0.54	30.1	C	363	
		Intersection		26.3	C		Intersection		34.0	C			Intersection		32.9	C		
	Wall Street and Richmond Terrace																	
7	Westbound	LTR	0.66	179.8	F	312	LTR	0.66	185.5	F	312	+	LTR	0.66	165.0	F	312	
		L	0.62	170.8	F	273	L	0.62	177.9	F	273	+	L	0.62	158.4	F	273	
	Northbound	T	0.54	4.5	A	37	T	0.59	5.1	A	50		T	0.59	4.8	A	50	
		R	0.51	5.6	A	31	R	0.51	6.1	A	39		R	0.51	5.8	A	38	
	Southbound	LTR	0.60	8.2	A	72	LTR	0.70	11.4	B	90		LTR	0.70	12.2	B	90	
		Intersection		44.2	D		Intersection		44.2	D			Intersection		40.1	D		
	Richmond Terrace and Ferry Terminal (bus)																	
8	Westbound	L	0.67	57.7	E	174	L	0.67	57.7	E	174		L	0.67	57.7	E	174	
		R	0.34	44.1	D	84	R	0.34	44.1	D	84		R	0.34	44.1	D	84	
	Northbound	T	0.71	75.0	E	65	T	0.77	79.6	E	63	+	T	0.77	79.6	E	63	+
	Southbound	T	0.89	79.5	E	658	T	0.97	86.6	F	823	+	T	0.97	86.6	F	823	+
		Intersection		75.0	E		Intersection		80.5	F			Intersection		80.5	F		
	Richmond Terrace and Ferry Terminal (parking lot)																	
9	Westbound	L	0.77	58.0	E	286	L	0.77	58.0	E	286		L	0.77	58.0	E	286	
		R	0.16	13.2	B	40	R	0.16	13.2	B	40		R	0.16	13.2	B	40	
	Northbound	T	1.36	202.5	F	687	T	1.48	253.9	F	765	+	T	1.48	254.6	F	765	+
		R	0.26	2.1	A	12	R	0.26	2.8	A	19		R	0.26	2.9	A	20	
		R	0.30	3.2	A	6	R	0.30	4.0	A	10		R	0.30	4.1	A	11	
	Southbound	L	4.16	1457.6	F	353	L	4.16	1451.8	F	316		L	4.16	1451.8	F	316	
		TR	0.90	52.6	D	328	TR	1.00	64.4	E	1019	+	TR	1.00	64.4	E	1019	+
		Intersection		203.6	F		Intersection		220.5	F			Intersection		220.7	F		
	Bay Street and Slosson Terrace																	
10	Eastbound	LR	0.20	34.4	C	80	LR	0.27	35.7	D	102		LR	0.31	39.6	D	107	
	Northbound	L	0.57	32.7	C	91	L	0.64	33.4	C	93		L	0.64	32.8	C	93	
		T	0.85	43.9	D	377	T	0.90	64.1	E	405	+	T	0.86	25.6	C	508	
	Southbound	TR	1.12	93.3	F	922	TR	1.19	123.4	F	1015	+	TR	1.12	88.8	F	970	
		Intersection		67.9	E		Intersection		91.4	F			Intersection		57.7	E		
	Victory Boulevard and Bay Street/St. Marks Place																	
11	Eastbound	TR	0.39	12.6	B	157	TR	0.43	13.5	B	178		TR	0.43	13.5	B	178	
		R	0.33	11.9	B	104	R	0.42	13.4	B	135		R	0.42	13.4	B	135	
	Westbound	T	0.73	35.7	D	152	T	0.88	62.2	E	217	+	T	0.88	59.8	E	131	+
		L	0.08	3.2	A	3	L	0.08	5.2	A	4		L	0.08	5.6	A	5	
	Southbound	LT	0.56	46.4	D	207	LT	0.58	47.3	D	214		LT	0.58	48.1	D	214	
		R	0.91	84.4	F	263	R	0.97	98.1	F	275	+	R	0.97	98.1	F	275	+
		Intersection		34.0	C		Intersection		46.6	D			Intersection		45.6	D		

Table 22-16 (con't): Signalized Level of Service Analysis – Weekday PM Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

		No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
Int #	Intersection & Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
	Victory Boulevard and Bay Street																	
	Eastbound	L	0.84	71.9	E	321	L	0.92	86.9	F	357	+	L	0.88	89.1	F	347	+
		LT	0.84	72.8	E	325	LT	0.89	96.7	F	368	+	LT	0.86	95.1	F	357	+
	Westbound	LTR	0.75	57.8	E	204	LTR	2.62	761.8	F	864	+	LTR	2.40	662.8	F	847	+
12	Northbound	L	2.16	544.7	F	208	L	3.36	1081.2	F	241	+	L	1.99	479.8	F	361	
		TR	0.70	16.6	B	262	TR	0.73	18.4	B	209		TR	0.75	24.8	C	526	
	Southbound	LT	0.86	14.0	B	130	LT	1.04	38.8	D	138		LT	1.26	135.1	F	632	+
		R	0.76	12.0	B	70	R	0.83	18.4	B	78		R	1.06	50.3	D	129	+
		Intersection		58.0	E		Intersection		200.0	F			Intersection		182.5	F		
	Bay Street and Hannah Street																	
	Eastbound	LTR	0.11	30.5	C	64	LTR	0.12	30.7	C	64		LTR	0.09	24.3	C	56	
	Westbound	LTR	0.88	58.9	E	529	LTR	1.20	146.3	F	727	+	LTR	0.92	58.3	E	618	
	Northbound	LTR	1.16	113.3	F	727	LTR	1.36	196.6	F	855	+						
13													L	0.61	43.2	D	113	
													TR	0.93	86.1	F	483	+
	Southbound	L	2.46	691.8	F	667	L	4.14	1426.7	F	735	+	L	2.65	766.7	F	581	+
		T	0.54	24.1	C	370	T	0.64	21.9	C	325		T	0.97	43.8	D	422	
		R	0.29	7.5	A	67	R	0.35	10.6	B	66		R	0.58	22.3	C	90	
		Intersection		137.6	F		Intersection		290.8	F			Intersection		157.2	F		
	Front Street and Hannah Street																	
14	Eastbound	TR	0.45	3.7	A	67	TR	0.56	4.0	A	73		TR	0.56	4.0	A	73	
	Westbound	LT	0.10	13.3	B	47	LT	0.11	13.5	B	47		LT	0.11	13.5	B	47	
	Northbound	LR	0.61	25.2	C	289	LR	0.89	44.4	D	464		LR	0.89	44.4	D	464	
		Intersection		13.8	B		Intersection		21.6	C			Intersection		21.6	C		
	Bay Street and Swan Street/Van Duzer Street																	
	Eastbound	L	0.62	65.8	E	190	L	0.69	115.0	F	206	+	L	0.69	51.5	D	206	
		LTR	0.62	67.0	E	220	LTR	0.66	114.5	F	224	+	LTR	0.66	49.7	D	224	
15	Westbound	LTR	0.00	0.0	0.0	0	LTR	0.00	0.0	0.0	0		LTR	0.00	0.0	0.0	0	
	Northbound	LTR	0.54	20.2	C	257	LTR	0.61	21.7	C	315		LTR	0.61	16.4	B	238	
	Southbound	LTR	0.66	5.9	A	41	LTR	0.78	7.5	A	41		LTR	0.78	19.9	B	108	
		Intersection		20.5	C		Intersection		27.7	C			Intersection		22.9	C		
	Bay Street and Grant Street																	
	Eastbound												LTR	0.37	43.3	D	113	
18	Westbound												R	0.17	36.6	D	72	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.46	1.4	A	12	
	Southbound												T	1.42	214.8	F	1751	+
													Intersection		119.9	F		
	Van Duzer Street and Clinton Street																	
19	Westbound	TR	0.28	37.4	D	80	TR	0.32	38.3	D	86		TR	0.32	43.5	D	94	
	Northbound	LT	0.39	9.2	A	146	LT	0.40	9.3	A	151		LT	0.40	9.3	A	151	
		Intersection		15.1	B		Intersection		15.8	B			Intersection		17.0	B		
	Bay Street and Clinton Street																	
	Westbound	LTR	0.39	114.5	F	153	LTR	0.41	710.4	F	154	+	LTR	0.69	146.8	F	184	+
	Northbound	L	0.33	11.8	B	5	L	0.40	10.5	B	5		L	0.40	14.3	B	4	
20		TR	0.52	5.7	A	113	TR	0.62	5.8	A	100		TR	0.53	5.7	A	114	
	Southbound	L	0.30	9.6	A	20	L	0.40	11.1	B	16		L	0.30	7.9	A	14	
		TR	1.13	85.5	F	1303	TR	1.33	173.4	F	1661	+	TR	1.15	82.6	F	223	
		Intersection		52.9	D		Intersection		134.1	F			Intersection		53.0	D		
	Bay Street and Baltic Street																	
	Eastbound												LTR	0.16	44.2	D	37	
21	Westbound												LTR	0.01	39.5	D	9	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.87	41.5	D	245	
	Southbound												LT	1.23	123.9	F	1134	+
													Intersection		86.7	F		
	Bay Street and Wave Street																	
	Westbound	LTR	0.40	37.1	D	75	LTR	0.42	34.3	C	54							
													L	0.33	54.1	D	58	+
													TR	0.50	63.2	E	84	+
24	Northbound	LT	1.10	77.8	E	929	LT	1.41	212.7	F	1257	+	LT	1.24	133.7	F	1179	+
		R	0.06	7.7	A	16	R	0.07	7.9	A	16		R	0.06	4.1	A	11	
	Southbound	L	0.29	17.2	B	28	L	1.08	99.4	F	32	+	L	0.40	4.6	A	6	
		TR	1.16	106.4	F	1010	TR	1.34	187.1	F	1022	+	TR	1.19	102.5	F	156	
		Intersection		89.4	F		Intersection		188.8	F			Intersection		110.8	F		
	Front Street and Wave Street																	
	Eastbound	LR	0.22	16.1	B	42	LR	0.25	17.4	B	34		LR	0.38	36.2	D	66	
25	Northbound	LT	0.82	7.3	A	21	LT	1.15	87.4	F	29	+	LT	0.82	14.5	B	44	
	Southbound	TR	0.49	11.6	B	161	TR	0.67	15.2	B	252		TR	0.53	10.2	B	242	
		Intersection		9.6	A		Intersection		52.9	D			Intersection		13.7	B		
	Front Street and Prospect Street																	
	Eastbound	LTR	0.53	28.6	C	81	LTR	0.55	29.1	C	80		LTR	0.60	44.0	D	141	
26	Westbound	LTR	0.41	24.6	C	90	LTR	0.42	24.8	C	90		LTR	0.53	41.6	D	134	
	Northbound	TR	1.34	194.1	F	888	TR	1.68	334.2	F	1073	+	TR	1.15	100.5	F	638	
	Southbound	LT	7.14	2797.4	F	907	LT	10.16	4152.9	F	1193	+	LT	4.23	1478.2	F	890	
		Intersection		1048.1	F		Intersection		1711.9	F			Intersection		606.6	F		

Table 22-16 (con't): Signalized Level of Service Analysis – Weekday PM Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

		No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
Int #	Intersection & Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
	Van Duzer Street and Beach Street																	
27	Eastbound	LT	0.75	48.0	D	276	LT	0.94	73.9	E	373	+	LT	0.82	51.5	D	334	
	Westbound	TR	0.46	33.0	C	195	TR	0.48	33.6	C	206		TR	0.44	29.8	C	194	
	Northbound	L	0.41	16.9	B	200	L	0.42	17.0	B	204		L	0.45	19.7	B	222	
		TR	0.58	20.8	C	315	TR	0.59	21.3	C	328		TR	0.63	24.9	C	356	
		Intersection		27.5	C		Intersection		33.9	C			Intersection		30.2	C		
	Bay Street and Water Street																	
28	Westbound	LTR	0.25	56.9	E	107	LTR	0.25	55.8	E	107		LTR	0.26	44.7	D	110	
	Northbound	L	3.00	921.0	F	190	L	3.11	971.4	F	149	+	L	3.11	970.2	F	139	+
		T	1.00	73.7	E	740	T	1.24	141.1	F	754	+	T	1.21	118.1	F	751	+
	Southbound	TR	1.30	166.3	F	1320	TR	1.49	253.5	F	1549	+	TR	1.45	233.3	F	1631	+
		Intersection		172.0	F		Intersection		239.4	F			Intersection		219.3	F		
	Bay Street and Canal Street																	
29	Eastbound	L	0.66	51.1	D	199	L	0.69	53.2	D	211		L	0.69	53.2	D	211	
		TR	0.22	32.9	C	89	TR	0.22	32.9	C	89		TR	0.30	34.4	C	119	
	Westbound	LTR	0.19	38.3	D	66	LTR	0.33	42.0	D	94		LTR	0.34	36.9	D	101	
	Northbound	TR	1.13	80.0	F	147	TR	1.43	219.5	F	178	+	TR	1.43	217.0	F	141	+
	Southbound	LT	3.86	1303.9	F	1247	LT	4.53	1601.4	F	1283	+	T	1.47	233.8	F	334	
		Intersection		626.5	F		Intersection		805.8	F			Intersection		204.9	F		
	Front Street and Canal Street																	
30	Eastbound	LR	0.57	17.9	B	65	LR	0.71	21.5	C	74		LR	0.57	28.8	C	171	
	Northbound	LT	0.76	19.7	B	303	LT	0.89	29.6	C	418		LT	0.90	36.9	D	582	
	Southbound	TR	0.46	10.9	B	36	TR	0.64	12.4	B	36		TR	0.64	16.0	B	65	
		Intersection		16.4	B		Intersection		21.8	C			Intersection		27.7	C		
	Bay Street and Broad Street																	
31	Eastbound	LR	0.28	36.2	D	145	LR	0.42	114.2	F	209	+						
													L	0.46	44.4	D	203	
													R	0.13	40.0	D	53	
	Northbound	LT	3.11	967.9	F	753	LT	3.86	1303.1	F	801	+	LT	3.43	1113.7	F	892	+
	Southbound	T	1.07	62.0	E	45	T	1.23	125.5	F	51	+	T	1.12	72.5	E	214	+
		R	0.17	0.8	A	0	R	0.24	1.1	A	0		R	0.22	3.1	A	7	
		Intersection		432.7	F		Intersection		608.4	F			Intersection		501.1	F		
	Richmond Terrace and Clove Road																	
32	Eastbound	LT	0.73	16.9	B	642	LT	0.82	22.4	C	768		LT	0.82	22.4	C	768	
		R	0.17	3.1	A	27	R	0.17	3.5	A	31		R	0.17	3.5	A	31	
	Westbound	L	0.42	13.9	B	84	L	0.61	26.7	C	150		L	0.61	26.7	C	150	
		TR	0.75	19.0	B	703	TR	0.80	22.0	C	776		TR	0.80	22.0	C	776	
	Northbound	LTR	0.34	36.1	D	156	LTR	0.36	36.5	D	165		LTR	0.36	36.5	D	165	
		Intersection		18.1	B		Intersection		22.2	C			Intersection		22.2	C		
	Victory Boulevard and Cebra Avenue																	
35	Eastbound	L	0.96	141.8	F	127	L	1.08	179.7	F	135	+	L	1.08	179.7	F	135	+
		TR	0.72	54.2	D	252	TR	0.72	54.2	D	252		TR	0.72	54.2	D	252	
	Westbound	L	0.64	63.1	E	142	L	0.71	69.1	E	163	+	L	0.71	69.1	E	163	+
		TR	0.92	74.3	E	400	TR	0.97	84.0	F	427	+	TR	0.97	84.0	F	427	+
	Northbound	LTR	0.90	39.1	D	836	LTR	1.34	190.2	F	1179	+	LTR	1.34	190.3	F	1179	+
	Southbound	LT	1.04	43.0	D	1030	LT	1.17	92.8	F	1074	+	LT	1.17	92.8	F	1074	+
		R	0.04	3.7	A	5	R	0.04	3.7	A	4		R	0.04	3.7	A	4	
		Intersection		50.0	D		Intersection		118.4	F			Intersection		118.4	F		
	Victory Boulevard and Jersey Street																	
36	Eastbound	L	0.90	60.5	E	62	L	2.15	544.0	F	113	+	L	2.15	544.0	F	113	+
		T	0.89	27.7	C	448	T	0.97	28.9	C	304		T	0.97	28.9	C	304	
	Westbound	T	0.91	74.6	E	983	T	1.00	93.8	F	1145	+	T	1.00	93.7	F	1145	+
		R	0.09	7.3	A	38	R	0.18	8.1	A	66		R	0.18	8.2	A	66	
	Southbound	LR	0.53	43.2	D	175	LR	0.87	70.0	E	281	+	LR	0.87	70.0	E	281	+
		Intersection		52.2	D		Intersection		89.3	F			Intersection		89.3	F		
	Victory Boulevard and Forest Avenue																	
38	Eastbound	LR	0.51	42.2	D	180	LR	0.55	43.1	D	195		LR	0.57	44.3	D	197	
	Northbound	L	0.58	29.5	C	128	L	0.77	54.1	D	180	+	L	0.72	45.8	D	172	+
		T	0.52	16.0	B	322	T	0.58	17.4	B	373		T	0.57	16.7	B	364	
	Southbound	T	0.81	73.9	E	449	T	0.88	77.5	E	579		T	0.87	76.0	E	552	
		R	0.37	7.0	A	60	R	0.41	7.8	A	75		R	0.40	7.3	A	70	
		Intersection		41.7	D		Intersection		44.5	D			Intersection		43.6	D		

Table 22-16 (con't): Signalized Level of Service Analysis – Weekday PM Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
41	**Broad Street and Canal Street**																	
	Eastbound	L	0.19	7.9	A	46	L	0.22	12.1	B	70		L	0.22	12.1	B	70	
		TR	0.21	7.7	A	67	TR	0.29	11.9	B	138		TR	0.29	11.9	B	138	
	Westbound	TR	0.21	16.0	B	91	LTR	0.35	17.6	B	150		LTR	0.35	18.9	B	171	
	Northbound	L	0.37	39.7	D	97	L	0.37	39.7	D	97		L	0.37	39.7	D	97	
		TR	0.58	42.9	D	212	TR	0.58	42.9	D	212		TR	0.58	42.9	D	212	
	Southbound	LT	0.38	36.8	D	156	LT	0.38	36.8	D	156		LT	0.38	36.8	D	156	
		Intersection		25.9	C		Intersection		25.9	C			Intersection		26.2	C		
42	**Broad Street and Van Duzer Street**																	
	Westbound	L	0.75	78.6	E	174	L	0.79	67.3	E	179		L	0.79	67.3	E	179	
	Southbound	L	0.12	5.8	A	54	L	0.13	7.7	A	64		L	0.13	7.7	A	64	
		T	0.44	8.3	A	279	T	0.47	11.0	B	334		T	0.47	11.0	B	334	
		Intersection		24.6	C		Intersection		26.7	C			Intersection		26.7	C		
43	**Broad Street and Targee Street**																	
	Eastbound	LT	0.22	45.0	D	162	LT	0.23	44.6	D	163		LT	0.23	44.6	D	163	
	Westbound	TR	0.37	27.0	C	187	TR	0.49	34.8	C	272		TR	0.49	36.8	D	272	
	Northbound	LT	0.65	22.8	C	403	LT	0.66	23.1	C	413		LT	0.66	23.1	C	413	
		R	0.25	14.9	B	93	R	0.38	16.9	B	142		R	0.38	16.9	B	142	
		Intersection		25.0	C		Intersection		26.7	C			Intersection		27.2	C		
44	**Vanderbilt Avenue and Tompkins Avenue**																	
	Eastbound	LTR	0.72	30.6	C	419	LTR	0.83	37.5	D	567		LTR	0.83	37.5	D	567	
	Westbound	LTR	0.74	37.4	D	386	LTR	0.93	50.2	D	485	+	LTR	0.93	47.9	D	503	+
	Northbound	LTR	0.96	72.3	E	469	LTR	0.98	77.8	E	487	+	LTR	0.98	77.8	E	487	+
	Southbound	LTR	0.62	37.9	D	319	LTR	0.62	38.0	D	320		LTR	0.62	38.0	D	320	
		Intersection		43.7	D		Intersection		50.4	D			Intersection		49.7	D		
45	**Bay Street and Vanderbilt Avenue**																	
	Eastbound	L	0.58	39.7	D	251	L	0.78	43.6	D	321		L	0.85	42.5	D	286	
		R	0.21	30.6	C	66	R	0.21	27.6	C	56		R	0.23	23.4	C	50	
	Northbound	LT	2.02	486.2	F	1314	LT	2.90	877.1	F	1628	+	LT	2.41	658.6	F	1567	+
	Southbound	T	0.90	9.4	A	106	T	0.98	16.4	B	98		T	0.94	18.0	B	213	
		R	0.34	2.1	A	10	R	0.44	2.4	A	11		R	0.43	6.7	A	61	
		Intersection		189.3	F		Intersection		338.0	F			Intersection		257.7	F		
47	**Bay Street and Edgewater Drive**																	
	Westbound	LR	0.40	34.1	C	174	LR	0.52	36.4	D	229		LR	0.52	36.4	D	229	
	Northbound	TR	0.56	8.5	A	55	TR	0.70	9.7	A	56		TR	0.70	9.7	A	56	
	Southbound	T	0.76	12.1	B	179	T	0.82	13.0	B	171		T	0.82	10.9	B	177	
	Northwestbound	R	0.59	12.9	B	112	R	0.63	18.7	B	162		R	0.63	18.7	B	162	
		Intersection		14.0	B		Intersection		16.2	B			Intersection		15.6	B		
48	**Bay Street and Hylan Boulevard**																	
	Eastbound	LTR	1.09	95.2	F	732	LTR	1.28	167.8	F	894	+	LTR	1.28	167.8	F	894	+
	Westbound	LTR	0.98	89.2	F	441	LTR	0.99	92.4	F	444	+	LTR	0.99	92.4	F	444	+
	Northbound	LTR	3.77	1260.4	F	938	LTR	5.10	1857.4	F	979	+	LTR	5.10	1857.5	F	1032	+
	Southbound	T	1.07	83.2	F	954	T	1.22	138.0	F	1149	+	T	1.22	136.9	F	1149	+
		R	0.50	15.4	B	186	R	0.60	17.7	B	246		R	0.60	17.1	B	246	
		Intersection		450.1	F		Intersection		682.7	F			Intersection		682.3	F		
49	**Bay Street and School Road**																	
	Eastbound	L	1.44	231.6	F	1326	L	1.68	338.0	F	1612	+	L	1.61	303.6	F	1584	+
		TR	0.11	2.0	A	17	TR	0.11	2.0	A	17		TR	0.11	1.8	A	16	
	Westbound	LTR	0.01	13.8	B	7	LTR	0.01	13.8	B	7		LTR	0.01	12.2	B	7	
	Northbound	LTR	0.16	24.6	C	85	LTR	0.17	24.8	C	86		LTR	0.19	27.0	C	90	
	Southbound	LTR	0.27	29.7	C	69	LTR	0.48	32.5	C	109		LTR	0.51	36.7	D	118	
		R	1.02	35.0	C	207	R	1.01	33.0	C	163		R	1.04	43.1	D	181	
		Intersection		126.7	F		Intersection		181.9	F			Intersection		168.8	F		

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-16 (con't): Signalized Level of Service Analysis – Saturday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
	Richmond Terrace and Franklin Avenue																	
	Eastbound	TR	0.70	18.2	B	502	TR	0.76	20.4	C	549		TR	0.76	20.4	C	549	
1	Westbound	LT	0.84	17.4	B	382	LT	1.00	33.8	C	477		LT	1.00	39.7	D	568	
	Northbound	LR	0.11	22.8	C	48	LR	0.11	22.9	C	49		LR	0.11	22.9	C	49	
		Intersection		18.0	B		Intersection		27.0	C			Intersection		29.9	C		
	Richmond Terrace and Jersey Street																	
	Eastbound	L	0.57	31.9	C	75	L	0.58	33.0	C	70		L	0.58	33.0	C	70	
		TR	0.74	6.7	A	51	TR	0.80	9.1	A	56		TR	0.80	9.1	A	56	
	Westbound	LT	1.09	73.0	E	676	LT	1.18	108.8	F	675	+						
		R	0.03	9.6	A	6	R	0.03	12.2	B	5							
2													L	0.21	13.2	B	14	
													TR	1.03	51.5	D	587	+
	Northbound	L	0.21	27.7	C	49	L	0.21	27.7	C	49		L	0.21	27.7	C	49	
		TR	0.24	27.1	C	73	TR	0.25	27.3	C	75		TR	0.25	27.3	C	75	
	Southbound	L	0.03	24.1	C	16	L	0.03	24.1	C	16		L	0.03	24.1	C	16	
		TR	0.44	30.4	C	139	TR	0.44	30.4	C	139		TR	0.44	30.4	C	139	
		Intersection		37.2	D		Intersection		51.6	D			Intersection		29.6	C		
	Richmond Terrace and Westervelt Avenue																	
	Eastbound	TR	0.79	15.7	B	266	TR	0.86	20.7	C	602		TR	0.86	20.7	C	602	
3	Westbound	LT	0.73	18.8	B	490	LT	0.88	30.2	C	604		LT	0.88	33.7	C	604	
	Northbound	LR	0.21	21.4	C	89	LR	0.22	21.5	C	90		LR	0.22	21.5	C	90	
		Intersection		17.6	B		Intersection		25.0	C			Intersection		26.5	C		
	Hamilton Avenue and Richmond Terrace																	
5	Northbound	LT	0.94	29.3	C	370	LT	1.02	50.2	D	419	+	LT	0.99	41.7	D	410	
	Southbound	TR	0.52	24.7	C	241	TR	0.57	25.2	C	264		TR	0.55	24.6	C	261	
		Intersection		27.3	C		Intersection		39.0	D			Intersection		34.0	C		
	Wall Street and Richmond Terrace																	
	Westbound	LTR	0.80	94.2	F	383	LTR	0.80	94.2	F	383		LTR	0.80	94.2	F	383	
		L	0.80	93.1	F	304	L	0.80	93.1	F	304		L	0.80	93.1	F	304	
7	Northbound	T	0.50	5.4	A	128	T	0.53	6.6	A	183		T	0.53	6.6	A	183	
		R	0.80	23.9	C	424	R	0.80	24.4	C	423		R	0.80	24.4	C	423	
	Southbound	LTR	0.67	59.9	E	72	LTR	0.74	62.0	E	167		LTR	0.74	62.1	E	164	
		Intersection		49.1	D		Intersection		49.4	D			Intersection		49.5	D		
	Richmond Terrace and Ferry Terminal (bus)																	
	Westbound	L	1.24	195.9	F	206	L	1.24	195.9	F	206		L	1.24	195.9	F	206	
8		R	0.44	48.3	D	63	R	0.44	48.3	D	63		R	0.44	48.3	D	63	
	Northbound	T	0.67	23.0	C	47	T	0.70	41.1	D	47		T	0.70	41.1	D	47	
	Southbound	T	0.76	25.7	C	192	T	0.80	43.5	D	207		T	0.80	43.6	D	207	
		Intersection		35.6	D		Intersection		51.6	D			Intersection		51.6	D		
	Richmond Terrace and Ferry Terminal (parking lot)																	
	Westbound	L	0.64	54.3	D	111	L	0.64	54.3	D	111		L	0.64	54.3	D	111	
		R	0.13	15.5	B	23	R	0.13	16.1	B	23		R	0.13	16.1	B	23	
	Northbound	T	1.03	67.4	E	394	T	1.08	77.3	E	437	+	T	1.08	77.3	E	437	+
9		R	0.21	2.5	A	5	R	0.21	2.8	A	5		R	0.21	2.8	A	5	
		R	0.29	3.2	A	3	R	0.29	3.5	A	3		R	0.29	3.5	A	3	
	Southbound	L	1.71	387.1	F	149	L	1.69	374.7	F	139		L	1.69	374.7	F	139	
		TR	1.24	126.9	F	1098	TR	1.30	155.4	F	1186	+	TR	1.30	155.4	F	1186	+
		Intersection		99.7	F		Intersection		115.4	F			Intersection		115.4	F		
	Bay Street and Slosson Terrace																	
	Eastbound	LR	0.09	23.6	C	35	LR	0.13	24.1	C	45		LR	0.14	25.8	C	47	
10	Northbound	L	0.34	14.3	B	25	L	0.40	16.4	B	28		L	0.40	16.4	B	44	
		T	0.80	13.3	B	188	T	0.83	13.9	B	198		T	0.80	26.0	C	494	
	Southbound	TR	1.25	139.5	F	816	TR	1.30	160.9	F	859	+	TR	1.24	133.6	F	836	
		Intersection		80.6	F		Intersection		91.7	F			Intersection		82.5	F		
	Victory Boulevard and Bay Street/St. Marks Place																	
	Eastbound	TR	0.48	13.7	B	206	TR	0.52	16.1	B	244		TR	0.52	16.2	B	243	
		R	0.43	12.8	B	151	R	0.50	15.4	B	188		R	0.50	15.4	B	187	
11	Westbound	T	0.84	74.7	E	367	T	0.92	77.5	E	398		T	0.92	63.4	E	424	
		L	0.12	15.2	B	22	L	0.13	16.2	B	19		L	0.13	7.2	A	8	
	Southbound	LT	0.33	27.6	C	104	LT	0.34	27.9	C	109		LT	0.34	28.0	C	109	
		R	0.24	27.3	C	72	R	0.26	27.8	C	74		R	0.26	27.8	C	74	
		Intersection		41.9	D		Intersection		44.3	D			Intersection		37.9	D		

Table 22-16 (con't): Signalized Level of Service Analysis – Saturday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
	Victory Boulevard and Bay Street																	
	Eastbound	L	0.62	18.2	B	54	L	0.82	34.9	C	250		L	0.75	42.6	D	261	
		LT	0.63	18.9	B	55	LT	0.79	30.7	C	247		LT	0.73	40.6	D	257	
	Westbound	LTR	0.23	24.2	C	72	LTR	0.76	49.2	D	194	+	LTR	0.68	37.3	D	171	
12	Northbound	L	3.48	1141.5	F	248	L	4.42	1567.7	F	237	+	L	1.78	382.8	F	238	
		TR	0.73	24.1	C	186	TR	0.76	23.7	C	172		TR	0.79	24.7	C	351	
	Southbound	LT	0.93	43.4	D	315	LT	1.06	68.7	E	321	+	LT	1.46	226.9	F	398	+
		R	0.57	13.5	B	70	R	0.65	23.1	C	103		R	0.77	11.7	B	0	
		Intersection		116.4	F		Intersection		165.6	F			Intersection		122.8	F		
	Bay Street and Hannah Street																	
	Eastbound	LTR	0.04	17.4	B	26	LTR	0.04	17.4	B	26		LTR	0.05	18.8	B	27	
	Westbound	LTR	0.60	10.3	B	52	LTR	0.78	15.4	B	88		LTR	0.90	38.3	D	394	
	Northbound	LTR	1.41	211.3	F	658	LTR	1.58	283.4	F	715	+						
13													L	0.46	19.0	B	29	
													TR	0.99	81.1	F	493	
	Southbound	L	3.21	1023.2	F	412	L	4.87	1766.8	F	471	+	L	1.79	381.8	F	272	
		T	0.72	11.1	B	142	T	0.77	13.4	B	153		T	1.01	36.2	D	336	
		R	0.17	3.0	A	5	R	0.20	3.6	A	4		R	0.28	6.6	A	23	
		Intersection		188.4	F		Intersection		307.4	F			Intersection		88.5	F		
	Front Street and Hannah Street																	
14	Eastbound	TR	0.38	10.5	B	0	TR	0.43	10.4	B	0		TR	0.43	14.1	B	82	
	Westbound	LT	0.05	12.9	B	30	LT	0.05	12.9	B	30		LT	0.05	12.9	B	30	
	Northbound	LR	0.52	23.1	C	242	LR	0.77	33.4	C	364		LR	0.77	33.4	C	364	
		Intersection		16.5	B		Intersection		21.3	C			Intersection		23.0	C		
	Bay Street and Swan Street/Van Duzer Street																	
	Eastbound	L	0.36	23.6	C	91	L	0.39	24.5	C	97		L	0.39	24.8	C	97	
		LTR	0.40	23.7	C	147	LTR	0.43	24.4	C	151		LTR	0.43	24.7	C	151	
15	Westbound	LTR	0.00	0.0	0.0	0	LTR	0.00	0.0	0.0	0		LTR	0.00	0.0	0.0	0	
	Northbound	LTR	0.67	59.2	E	266	LTR	0.73	63.0	E	328		LTR	0.73	14.5	B	174	
	Southbound	LTR	0.89	20.9	C	168	LTR	0.95	25.8	C	519		LTR	0.95	18.8	B	87	
		Intersection		35.6	D		Intersection		39.8	D			Intersection		17.9	B		
	Bay Street and Grant Street																	
	Eastbound												LTR	0.28	31.0	C	75	
18	Westbound												R	0.19	28.6	C	63	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.45	10.1	B	138	
	Southbound												T	1.46	239.0	F	1240	+
													Intersection		137.2	F		
	Van Duzer Street and Clinton Street																	
19	Westbound	TR	0.27	32.9	C	53	TR	0.29	33.5	C	56		TR	0.29	37.7	D	75	
	Northbound	LT	0.33	7.1	A	95	LT	0.34	7.2	A	98		LT	0.34	7.2	A	98	
		Intersection		12.6	B		Intersection		13.1	B			Intersection		14.0	B		
	Bay Street and Clinton Street																	
	Westbound	LTR	0.30	23.6	C	100	LTR	0.31	23.9	C	101		LTR	0.37	45.0	D	109	
	Northbound	L	0.34	19.0	B	10	L	0.38	19.6	B	10		L	0.38	13.7	B	8	
20		TR	0.62	17.3	B	146	TR	0.68	18.1	B	144		TR	0.63	9.8	A	197	
	Southbound	L	0.53	13.8	B	25	L	0.64	21.0	C	32		L	0.54	4.9	A	3	
		TR	1.43	217.8	F	1227	TR	1.55	268.3	F	1258	+	TR	1.43	211.1	F	369	
		Intersection		115.8	F		Intersection		140.8	F			Intersection		110.1	F		
	Bay Street and Baltic Street																	
	Eastbound												LTR	0.21	38.7	D	35	
21	Westbound												LTR	0.05	33.8	C	13	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.84	11.0	B	171	
	Southbound												LT	1.18	103.6	F	282	+
													Intersection		61.5	E		
	Bay Street and Wave Street																	
	Westbound	LTR	0.34	26.2	C	87	LTR	0.34	26.0	C	87							
													L	0.20	27.7	C	35	
													TR	0.32	30.6	C	62	
24	Northbound	LT	1.23	135.8	F	809	LT	1.40	210.4	F	941	+	LT	1.23	132.1	F	941	
		R	0.10	12.9	B	23	R	0.10	12.8	B	23		R	0.09	8.8	A	19	
	Southbound	L	0.82	39.9	D	16	L	0.79	37.6	D	15		L	0.81	32.3	C	10	
		TR	1.53	263.3	F	707	TR	1.66	318.4	F	721	+	TR	1.48	234.3	F	936	
		Intersection		196.6	F		Intersection		255.0	F			Intersection		179.1	F		
	Front Street and Wave Street																	
	Eastbound	LR	0.25	17.9	B	43	LR	0.27	18.4	B	44		LR	0.32	30.8	C	67	
25	Northbound	LT	0.74	8.5	A	29	LT	0.89	12.0	B	24		LT	0.75	9.8	A	63	
	Southbound	TR	0.39	10.4	B	125	TR	0.49	11.7	B	161		TR	0.41	10.5	B	182	
		Intersection		10.0	B		Intersection		12.3	B			Intersection		11.5	B		
	Front Street and Prospect Street																	
	Eastbound	LTR	0.62	34.7	C	123	LTR	0.63	35.2	D	125		LTR	0.61	41.4	D	116	
26	Westbound	LTR	0.53	27.5	C	113	LTR	0.54	27.7	C	113		LTR	0.59	41.6	D	163	
	Northbound	TR	1.04	80.6	F	380	TR	1.26	158.3	F	472	+	TR	0.96	48.0	D	522	
	Southbound	LT	1.83	410.8	F	345	LT	3.69	1241.5	F	459	+	LT	1.58	298.1	F	576	
		Intersection		172.3	F		Intersection		491.7	F			Intersection		130.5	F		

Table 22-16 (con't): Signalized Level of Service Analysis – Saturday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
27	**Van Duzer Street and Beach Street**																	
	Eastbound	LT	0.63	33.2	C	204	LT	0.69	36.4	D	231		LT	0.69	36.4	D	231	
	Westbound	TR	0.31	23.9	C	99	TR	0.33	24.1	C	103		TR	0.33	24.1	C	103	
	Northbound	L	0.28	12.0	B	118	L	0.28	12.1	B	121		L	0.28	12.1	B	121	
		TR	0.44	14.3	B	183	TR	0.45	14.5	B	189		TR	0.45	14.5	B	189	
		Intersection		19.8	B		Intersection		21.0	C			Intersection		21.0	C		
28	**Bay Street and Water Street**																	
	Westbound	LTR	0.27	26.2	C	82	LTR	0.27	26.2	C	82		LTR	0.44	37.6	D	96	
	Northbound	L	1.74	359.2	F	108	L	1.80	383.0	F	94	+	L	1.77	372.1	F	109	+
		T	1.05	60.7	E	196	T	1.19	104.0	F	187	+	T	1.02	57.5	E	256	
	Southbound	TR	1.45	234.1	F	1056	TR	1.56	284.5	F	1173	+	TR	1.33	172.0	F	1117	
		Intersection		165.8	F		Intersection		208.4	F			Intersection		130.9	F		
29	**Bay Street and Canal Street**																	
	Eastbound	L	0.49	133.4	F	137	L	0.48	132.0	F	136		L	0.69	120.3	F	184	
		TR	0.22	20.0	C	82	TR	0.22	20.1	C	82		TR	0.37	31.7	C	117	
	Westbound	LTR	0.15	121.7	F	50	LTR	0.21	125.2	F	65	+	LTR	0.32	70.4	E	94	
	Northbound	TR	1.16	92.5	F	81	TR	1.35	177.3	F	95	+	TR	1.12	70.9	E	71	
	Southbound	LT	3.56	1167.3	F	672	LT	3.88	1307.9	F	685	+	T	1.32	160.8	F	688	
		Intersection		605.2	F		Intersection		694.8	F			Intersection		113.5	F		
30	**Front Street and Canal Street**																	
	Eastbound	LR	0.63	28.5	C	108	LR	0.72	34.3	C	141		LR	0.56	28.6	C	122	
	Northbound	LT	0.53	12.8	B	165	LT	0.61	14.5	B	201		LT	0.63	21.2	C	302	
	Southbound	TR	0.44	10.4	B	63	TR	0.53	11.1	B	54		TR	0.55	14.9	B	107	
		Intersection		15.0	B		Intersection		17.0	B			Intersection		20.2	C		
31	**Bay Street and Broad Street**																	
	Eastbound	LR	0.29	24.9	C	124	LR	0.37	24.6	C	151							
													L	0.38	29.0	C	142	
													R	0.14	26.0	C	45	
	Northbound	LT	2.99	915.7	F	230	LT	3.38	1091.8	F	308	+	LT	2.95	896.9	F	298	
	Southbound	T	1.35	180.6	F	108	T	1.46	230.5	F	113	+	T	1.32	164.1	F	638	
		R	0.19	6.3	A	0	R	0.24	6.7	A	0		R	0.21	4.9	A	11	
		Intersection		440.6	F		Intersection		531.9	F			Intersection		425.7	F		
32	**Richmond Terrace and Clove Road**																	
	Eastbound	LT	0.75	19.2	B	330	LT	0.81	21.7	C	359		LT	0.81	21.7	C	359	
		R	0.13	6.8	A	38	R	0.13	7.0	A	38		R	0.13	7.0	A	38	
	Westbound	L	0.46	15.0	B	36	L	0.59	24.1	C	118		L	0.59	24.1	C	118	
		TR	0.69	12.2	B	176	TR	0.73	13.6	B	195		TR	0.73	13.6	B	195	
	Northbound	LTR	0.27	22.7	C	32	LTR	0.28	22.9	C	32		LTR	0.28	22.9	C	32	
		Intersection		15.8	B		Intersection		18.0	B			Intersection		18.0	B		
35	**Victory Boulevard and Cebra Avenue**																	
	Eastbound	L	0.27	29.4	C	47	L	0.28	29.8	C	47		L	0.37	37.6	D	52	
		TR	0.50	31.2	C	153	TR	0.50	31.2	C	153		TR	0.59	37.5	D	164	
	Westbound	L	0.31	29.2	C	65	L	0.33	29.7	C	69		L	0.42	36.5	D	75	
		TR	0.54	32.0	C	175	TR	0.57	32.8	C	183		TR	0.68	40.6	D	196	
	Northbound	LTR	0.92	37.0	D	658	LTR	0.98	49.4	D	734	+	LTR	0.91	32.6	C	689	
	Southbound	LTR	1.06	61.1	E	556	LTR	1.16	97.7	F	594	+	LTR	1.06	56.4	E	607	
		Intersection		44.5	D		Intersection		63.1	E			Intersection		43.3	D		
36	**Victory Boulevard and Jersey Street**																	
	Eastbound	L	0.72	34.3	C	39	L	1.03	84.6	F	88	+	L	0.82	40.9	D	45	
		T	1.00	42.6	D	508	T	1.06	58.0	E	506	+	T	1.00	39.5	D	551	
	Westbound	T	1.00	49.5	D	663	T	1.05	63.7	E	711	+	T	0.99	44.9	D	694	
		R	0.12	6.5	A	23	R	0.21	7.0	A	35		R	0.19	6.1	A	31	
	Southbound	LR	0.38	25.3	C	112	LR	0.59	31.7	C	156		LR	0.67	38.1	D	166	
		Intersection		42.1	D		Intersection		56.5	E			Intersection		40.0	D		
38	**Victory Boulevard and Forest Avenue**																	
	Eastbound	LR	0.57	29.4	C	161	LR	0.59	29.8	C	169		LR	0.64	32.5	C	175	
	Northbound	L	0.91	65.8	E	237	L	1.02	97.4	F	251	+	L	0.89	61.2	E	235	
		T	0.63	19.7	B	324	T	0.67	21.0	C	357		T	0.64	18.8	B	339	
	Southbound	T	0.78	64.2	E	445	T	0.82	78.4	E	536	+	T	0.78	65.8	E	460	
		R	0.32	3.0	A	37	R	0.34	3.1	A	38		R	0.33	2.8	A	36	
		Intersection		37.4	D		Intersection		44.4	D			Intersection		37.7	D		

Table 22-16 (con't): Signalized Level of Service Analysis – Saturday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
	Broad Street and Canal Street																	
41	Eastbound	L	0.23	8.8	A	54	L	0.25	9.2	A	56		L	0.25	9.2	A	56	
		TR	0.24	8.5	A	69	TR	0.29	9.2	A	91		TR	0.29	9.2	A	91	
	Westbound	TR	0.20	11.8	B	92	LTR	0.31	14.0	B	145		LTR	0.31	12.4	B	139	
	Northbound	L	0.25	24.7	C	67	L	0.25	24.7	C	67		L	0.25	24.7	C	67	
		TR	0.39	26.4	C	151	TR	0.39	26.4	C	151		TR	0.39	26.4	C	151	
	Southbound	LT	0.26	24.2	C	104	LT	0.26	24.2	C	104		LT	0.26	24.2	C	104	
		Intersection		16.9	B		Intersection		17.1	B			Intersection		16.7	B		
	Broad Street and Van Duzer Street																	
42	Westbound	L	0.66	68.4	E	173	L	0.70	66.8	E	176		L	0.70	66.8	E	177	
	Southbound	L	0.11	5.0	A	45	L	0.11	5.8	A	49		L	0.11	5.8	A	49	
		T	0.34	6.4	A	143	T	0.36	7.4	A	159		T	0.36	7.4	A	159	
		Intersection		22.1	C		Intersection		24.3	C			Intersection		24.3	C		
	Broad Street and Targee Street																	
43	Eastbound	LT	0.22	31.1	C	120	LT	0.22	30.2	C	120		LT	0.22	30.2	C	120	
	Westbound	TR	0.36	22.9	C	126	TR	0.42	24.1	C	156		TR	0.42	23.8	C	156	
	Northbound	LT	0.58	16.8	B	265	LT	0.58	17.0	B	270		LT	0.58	17.0	B	270	
		R	0.26	11.9	B	85	R	0.33	12.8	B	109		R	0.33	12.8	B	109	
		Intersection		18.9	B		Intersection		19.2	B			Intersection		19.1	B		
	Vanderbilt Avenue and Tompkins Avenue																	
44	Eastbound	LTR	0.79	30.9	C	432	LTR	0.86	36.7	D	493		LTR	0.86	36.7	D	493	
	Westbound	LTR	0.53	4.3	A	33	LTR	0.60	4.3	A	34		LTR	0.60	6.6	A	48	
	Northbound	LTR	0.81	43.0	D	259	LTR	0.84	45.3	D	279		LTR	0.84	45.3	D	279	
	Southbound	LTR	0.60	29.1	C	240	LTR	0.60	29.1	C	240		LTR	0.60	29.1	C	240	
		Intersection		26.8	C		Intersection		28.9	C			Intersection		29.5	C		
	Bay Street and Vanderbilt Avenue																	
45	Eastbound	L	0.38	28.8	C	127	L	0.48	30.6	C	155		L	0.54	34.6	C	164	
		R	0.20	26.6	C	52	R	0.20	26.8	C	49		R	0.23	30.0	C	52	
	Northbound	LT	8.12	3224.7	F	1210	LT	8.89	3572.6	F	1296	+	LT	7.57	2976.6	F	1261	
	Southbound	T	1.28	143.0	F	480	T	1.35	176.8	F	448	+	T	1.24	125.6	F	444	
		R	0.35	1.5	A	9	R	0.40	1.6	A	10		R	0.37	1.4	A	10	
		Intersection		1184.9	F		Intersection		1307.8	F			Intersection		1082.1	F		
	Bay Street and Edgewater Drive																	
47	Westbound	LR	0.30	22.5	C	105	LR	0.35	23.1	C	122		LR	0.36	23.9	C	124	
	Northbound	TR	0.59	16.7	B	85	TR	0.67	17.6	B	85		TR	0.66	16.5	B	82	
	Southbound	T	1.00	35.4	D	327	T	1.05	52.8	D	324	+	T	1.03	44.1	D	359	
	Northwestbound	R	0.37	3.8	A	25	R	0.39	5.6	A	42		R	0.39	5.8	A	43	
		Intersection		23.5	C		Intersection		30.5	C			Intersection		26.9	C		
	Bay Street and Hylan Boulevard																	
48	Eastbound	LTR	1.05	77.3	E	548	LTR	1.15	109.6	F	613	+	LTR	1.15	109.6	F	613	+
	Westbound	LTR	0.65	41.9	D	185	LTR	0.66	42.4	D	187		LTR	0.66	42.4	D	187	
	Northbound	LTR	4.27	1486.7	F	704	LTR	5.20	1902.4	F	719	+	LTR	5.20	1902.5	F	797	+
	Southbound	T	1.10	89.3	F	530	T	1.19	126.4	F	583	+	T	1.19	126.6	F	600	+
		R	0.63	18.8	B	179	R	0.67	19.4	B	191		R	0.67	19.4	B	197	
		Intersection		498.7	F		Intersection		651.5	F			Intersection		651.6	F		
	Bay Street and School Road																	
49	Eastbound	L	1.38	208.4	F	826	L	1.54	274.3	F	939	+	L	1.39	208.9	F	902	
		TR	0.09	8.3	A	28	TR	0.09	8.3	A	28		TR	0.08	7.1	A	25	
	Westbound	LTR	0.01	15.3	B	9	LTR	0.01	15.3	B	9		LTR	0.01	13.0	B	8	
	Northbound	LTR	0.10	13.9	B	46	LTR	0.10	13.9	B	46		LTR	0.11	16.3	B	50	
	Southbound	LTR	0.15	19.2	B	51	LTR	0.18	20.1	C	58		LTR	0.20	20.5	C	60	
		R	0.71	11.5	B	158	R	0.74	12.1	B	138		R	0.74	12.2	B	138	
		Intersection		97.2	F		Intersection		128.6	F			Intersection		99.8	F		

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-17: Unsignalized Level of Service Analysis – Weekday AM Peak Hour
No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
4	**Hamilton Avenue and Stuyvesant Place**																	
	Southbound	TR	0.54	21.2	C	78	TR	0.54	21.5	C	80		TR	0.54	21.5	C	80	
6	**Wall Street and Stuyvesant Place**																	
	Eastbound	R	0.44	18.6	C	56	R	0.44	18.7	C	56		R	0.44	18.7	C	56	
	Southbound	L	0.35	42.9	E	36	L	0.35	43.2	E	36		L	0.35	43.2	E	36	
16	**Van Duzer Street and St Julian Place**																	
	Westbound	R	0.03	15.7	C	2	R	0.03	16.1	C	2		R	0.03	16.1	C	2	
17	**Bay Street and St Julian Place**																	
	Eastbound	LTR	0.14	16.4	C	12	LTR	0.13	15.5	C	11		LTR	0.13	16.0	C	11	
	Westbound	LTR	0.02	10.3	B	2	LTR	0.02	10.0	B	2		LTR	0.02	10.2	B	2	
	Northbound	LTR	0.01	0.4	A	1	LTR	0.01	0.4	A	1		LTR	0.01	0.4	A	1	
18	**Bay Street and Grant Street**																	
	Eastbound	LTR	0.62	55.7	F	86	LTR	0.70	72.2	F	102	+	**Signalized**					
	Westbound	R	0.02	9.6	A	2	R	0.02	9.5	A	2							
21	**Bay Street and Baltic Street**																	
	Eastbound	LTR	0.45	58.1	F	49	LTR	0.99	244.8	F	110		**Signalized**					
	Westbound	LTR	0.06	67.5	F	5	LTR	0.22	271.6	F	16							
	Southbound	LT	0.00	0.0	--	0	LT	0.00	0.0	--	0							
22	**Bay Street and William Street**																	
	Eastbound	LR	0.57	47.9	E	76	LR	1.00	158.7	F	162	+	LR	1.37	317.6	F	215	+
	Northbound	LT	0.01	0.4	A	1	LT	0.02	0.7	A	2		LT	0.02	0.7	A	2	
23	**Bay Street and Congress Street**																	
	Eastbound	LR	0.04	23.0	C	3	LR	0.07	43.8	E	6		LR	0.10	60.7	F	8	
	Northbound	LT	0.01	0.3	A	1	LT	0.02	0.9	A	2		LT	0.02	0.9	A	2	
33	**Jersey Street and Brook Street**																	
	Westbound	LR	0.16	11.4	B	14	LR	0.17	12.0	B	16		LR	0.17	12.0	B	16	
	Southbound	LT	0.12	4.8	A	11	LT	0.13	4.8	A	11		LT	0.13	4.8	A	11	
34	**Pike Street and Brook Street**																	
	Westbound	LT	0.02	1.6	A	2	LT	0.02	1.6	A	2		LT	0.02	1.6	A	2	
37	**Pike Street and Victory Boulevard**																	
	Southbound	LR	0.14	20.6	C	12	LR	0.20	30.2	D	18		LR	0.21	30.9	D	19	
39	**Hudson Street and Cedar Street**																	
	Eastbound	LTR	0.03	10.3	B	3	LTR	0.03	10.3	B	3		LTR	0.03	10.3	B	3	
	Westbound	LTR	0.00	11.0	B	0	LTR	0.00	11.0	B	0		LTR	0.00	11.0	B	0	
	Northbound	LTR	0.01	1.0	A	1	LTR	0.01	1.0	A	1		LTR	0.01	1.0	A	1	
	Southbound	LTR	0.00	0.0	--	0	LTR	0.00	0.0	--	0		LTR	0.00	0.0	--	0	
40	**Broad Street and Cedar Street**																	
	Eastbound	LTR	0.05	1.3	A	4	LTR	0.05	1.3	A	4		LTR	0.05	1.3	A	4	
	Westbound	LT	0.00	0.1	A	0	LT	0.00	0.1	A	0		LT	0.00	0.1	A	0	
	Northbound	LTR	0.00	0.0	A	0	LTR	0.00	0.0	A	0		LTR	0.00	0.0	A	0	
	Southbound	LR	0.41	28.4	D	47	LR	0.46	33.9	D	56		LTR	0.46	33.9	D	56	
4	**Hamilton Avenue and Stuyvesant Place**																	
	Southbound	TR	0.25	13.6	B	25	TR	0.26	13.8	B	26		TR	0.26	13.8	B	26	
6	**Wall Street and Stuyvesant Place**																	
	Eastbound	R	0.31	13.4	B	34	R	0.32	13.5	B	34		R	0.32	13.5	B	34	
	Southbound	L	0.10	23.9	C	8	L	0.10	24.0	C	8		L	0.10	24.0	C	8	
16	**Van Duzer Street and St Julian Place**																	
	Westbound	R	0.04	14.2	B	3	R	0.04	15.0	C	3		R	0.04	15.0	C	3	
17	**Bay Street and St Julian Place**																	
	Eastbound	LTR	0.19	24.9	C	17	LTR	0.15	20.5	C	13		LTR	0.21	27.1	D	19	
	Westbound	LTR	0.04	11.0	B	3	LTR	0.04	10.3	B	3		LTR	0.05	11.7	B	4	
	Northbound	LTR	0.02	0.6	A	2	LTR	0.02	0.6	A	2		LTR	0.02	0.6	A	2	
18	**Bay Street and Grant Street**																	
	Eastbound	LTR	8.05	Err	F	Err	LTR	5.05	Err	F	Err		**Signalized**					
	Westbound	R	0.07	10.1	B	6	R	0.08	10.3	B	6							
21	**Bay Street and Baltic Street**																	
	Eastbound	LTR	2.87	1864.0	F	92	LTR	2.02	1218.3	F	86		**Signalized**					
	Westbound	LTR	Err	Err	F	Err	LTR	Err	Err	F	Err							
	Southbound	LT	0.02	2.5	A	2	LT	0.02	4.0	A	2							
22	**Bay Street and William Street**																	
	Eastbound	LR	4.21	Err	F	Err	LR	4.02	Err	F	Err		LR	8.90	Err	F	Err	
	Northbound	LT	0.14	23.5	C	12	LT	0.12	20.6	C	10		LT	0.29	128.5	F	23	+
23	**Bay Street and Congress Street**																	
	Eastbound	LR	0.33	198.5	F	25	LR	0.33	194.1	F	25		LR	0.82	653.1	F	42	
	Northbound	LT	0.00	0.0	--	0	LT	0.00	0.0	--	0		LT	0.00	0.0	--	0	
33	**Jersey Street and Brook Street**																	
	Westbound	LR	0.22	11.8	B	21	LR	0.28	14.4	B	29		LR	0.28	14.4	B	29	
	Southbound	LT	0.10	3.7	A	9	LT	0.12	3.9	A	10		LT	0.12	3.9	A	10	
34	**Pike Street and Brook Street**																	
	Westbound	LT	0.03	1.3	A	2	LT	0.03	1.3	A	2		LT	0.03	1.3	A	2	
37	**Pike Street and Victory Boulevard**																	
	Southbound	LR	0.46	57.3	F	51	LR	1.79	652.8	F	159		LR	1.79	652.8	F	159	
39	**Hudson Street and Cedar Street**																	
	Eastbound	LTR	0.02	9.4	A	1	LTR	0.02	9.4	A	1		LTR	0.02	9.4	A	1	
	Westbound	LTR	0.00	10.3	B	0	LTR	0.00	10.3	B	0		LTR	0.00	10.3	B	0	
	Northbound	LTR	0.01	1.1	A	1	LTR	0.01	1.1	A	1		LTR	0.01	1.1	A	1	
	Southbound	LTR	0.00	0.0	--	0	LTR	0.00	0.0	--	0		LTR	0.00	0.0	--	0	
40	**Broad Street and Cedar Street**																	
	Eastbound	LTR	0.04	1.2	A	3	LTR	0.04	1.2	A	3		LTR	0.04	1.2	A	3	
	Westbound	LT	0.03	0.9	A	2	LT	0.03	0.9	A	2		LT	0.03	0.9	A	2	
	Northbound	LTR	0.00	12.9	B	0	LTR	0.00	13.4	B	0		LTR	0.00	13.4	B	0	
	Southbound	LR	0.35	28.0	D	38	LR	0.40	33.3	D	46		LTR	0.40	33.3	D	46	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service, -- = Approach has no volume recorded during this peak hour, "+" implies a significant adverse impact, Err = v/c or delay exceeds the maximum limit reportable in the analysis software

Table 22-17 (con't): Unsignalized Level of Service Analysis – Weekday PM Peak Hour No-Action, With-Action, and Mitigated Conditions: Reduced Rezoning Area Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
4	**Hamilton Avenue and Stuyvesant Place**																	
	Southbound	TR	0.18	11.8	B	16	TR	0.19	11.9	B	17		TR	0.19	11.9	B	17	
6	**Wall Street and Stuyvesant Place**																	
	Eastbound	R	0.30	13.8	B	31	R	0.30	13.9	B	32		R	0.30	13.9	B	32	
	Southbound	L	0.14	23.3	C	12	L	0.14	23.4	C	12		L	0.14	23.4	C	12	
16	**Van Duzer Street and St Julian Place**																	
	Westbound	R	0.03	12.1	B	3	R	0.04	12.8	B	3		R	0.04	12.8	B	3	
17	**Bay Street and St Julian Place**																	
	Eastbound	LTR	0.12	19.5	C	10	LTR	0.11	18.6	C	9		LTR	0.13	21.9	C	11	
	Westbound	LTR	0.01	14.8	B	1	LTR	0.01	13.2	B	1		LTR	0.01	15.1	C	1	
	Northbound	LTR	0.01	0.2	A	1	LTR	0.01	0.3	A	1		LTR	0.01	0.3	A	1	
18	**Bay Street and Grant Street**																	
	Eastbound	LTR	5.43	Err	F	Err	LTR	11.09	Err	F	Err		**Signalized**					
	Westbound	R	0.08	9.8	A	7	R	0.08	9.8	A	7							
21	**Bay Street and Baltic Street**																	
	Eastbound	LTR	1.28	673.5	F	75	LTR	2.53	1605.6	F	90		**Signalized**					
	Westbound	LTR	1.06	2389.7	F	24	LTR	Err	Err	F	Err							
	Southbound	LT	0.00	0.2	A	0	LT	0.01	2.9	A	1							
22	**Bay Street and William Street**																	
	Eastbound	LR	3.00	Err	F	Err	LR	5.73	Err	F	Err	+	LR	10.88	Err	F	Err	+
	Northbound	LT	0.14	13.0	B	12	LT	0.28	70.5	F	24	+	LT	0.54	234.0	F	43	+
23	**Bay Street and Congress Street**																	
	Eastbound	LR	0.40	154.8	F	34	LR	0.50	210.0	F	40		LR	0.72	357.5	F	51	
	Northbound	LT	0.03	2.0	A	2	LT	0.05	9.5	A	4		LT	0.09	31.2	D	7	+
33	**Jersey Street and Brook Street**																	
	Westbound	LR	0.19	11.8	B	17	LR	0.22	13.2	B	21		LR	0.22	13.2	B	21	
	Southbound	LT	0.08	3.1	A	6	LT	0.09	3.0	A	7		LT	0.09	3.0	A	7	
34	**Pike Street and Brook Street**																	
	Westbound	LT	0.03	1.7	A	2	LT	0.03	1.7	A	2		LT	0.03	1.7	A	2	
37	**Pike Street and Victory Boulevard**																	
	Southbound	LR	0.30	35.2	E	29	LR	0.97	243.5	F	106		LR	0.97	243.5	F	106	
39	**Hudson Street and Cedar Street**																	
	Eastbound	LTR	0.02	9.0	A	2	LTR	0.02	9.0	A	2		LTR	0.02	9.0	A	2	
	Westbound	LTR	0.00	0.0	A	0	LTR	0.00	0.0	A	0		LTR	0.00	0.0	A	0	
	Northbound	LTR	0.01	1.7	A	1	LTR	0.01	1.7	A	1		LTR	0.01	1.7	A	1	
	Southbound	LTR	0.01	4.1	A	1	LTR	0.01	4.1	A	1		LTR	0.01	4.1	A	1	
40	**Broad Street and Cedar Street**																	
	Eastbound	LTR	0.02	0.8	A	2	LTR	0.02	0.7	A	2		LTR	0.02	0.7	A	2	
	Westbound	LT	0.01	0.2	A	1	LT	0.01	0.2	A	1		LT	0.01	0.2	A	1	
	Northbound	LTR	0.00	0.0	A	0	LTR	0.00	0.0	A	0		LTR	0.00	0.0	A	0	
	Southbound	LR	0.12	20.9	C	10	LR	0.15	24.9	C	13		LTR	0.15	24.9	C	13	
4	**Hamilton Avenue and Stuyvesant Place**																	
	Southbound	TR	0.15	11.8	B	13	TR	0.16	11.9	B	14		TR	0.16	11.9	B	14	
6	**Wall Street and Stuyvesant Place**																	
	Eastbound	R	0.17	11.0	B	15	R	0.17	11.0	B	15		R	0.17	11.0	B	15	
	Southbound	L	0.08	15.0	C	6	L	0.08	15.1	C	6		L	0.08	15.1	C	6	
16	**Van Duzer Street and St Julian Place**																	
	Westbound	R	0.04	11.7	B	3	R	0.04	12.2	B	3		R	0.04	12.2	B	3	
17	**Bay Street and St Julian Place**																	
	Eastbound	LTR	0.10	18.1	C	8	LTR	0.08	16.3	C	7		LTR	0.11	20.3	C	9	
	Westbound	LTR	0.03	13.3	B	2	LTR	0.02	11.9	B	2		LTR	0.03	14.5	B	2	
	Northbound	LTR	0.01	0.2	A	1	LTR	0.01	0.2	A	1		LTR	0.01	0.2	A	1	
18	**Bay Street and Grant Street**																	
	Eastbound	LTR	3.95	Err	F	Err	LTR	4.90	Err	F	Err		**Signalized**					
	Westbound	R	0.09	9.9	A	8	R	0.10	10.1	B	8							
21	**Bay Street and Baltic Street**																	
	Eastbound	LTR	1.35	648.5	F	85	LTR	2.09	1165.1	F	96		**Signalized**					
	Westbound	LTR	3.76	Err	F	Err	LTR	Err	Err	F	Err							
	Southbound	LT	0.00	0.0	--	0	LT	0.00	0.0	--	0							
22	**Bay Street and William Street**																	
	Eastbound	LR	1.77	543.2	F	216	LR	2.80	1057.5	F	278		LR	5.76	Err	F	Err	
	Northbound	LT	0.07	6.2	A	5	LT	0.08	11.0	B	7		LT	0.20	63.4	F	16	+
23	**Bay Street and Congress Street**																	
	Eastbound	LR	0.08	93.7	F	7	LR	0.12	135.8	F	9		LR	0.33	442.3	F	20	
	Northbound	LT	0.01	1.1	A	1	LT	0.02	2.1	A	1		LT	0.04	10.8	B	3	
33	**Jersey Street and Brook Street**																	
	Westbound	LR	0.15	10.6	B	13	LR	0.17	11.7	B	16		LR	0.17	11.7	B	16	
	Southbound	LT	0.05	2.3	A	4	LT	0.06	2.3	A	4		LT	0.06	2.3	A	4	
34	**Pike Street and Brook Street**																	
	Westbound	LT	0.02	1.4	A	1	LT	0.02	1.5	A	1		LT	0.02	1.5	A	1	
37	**Pike Street and Victory Boulevard**																	
	Southbound	LR	0.30	47.8	E	29	LR	0.73	181.1	F	73		LR	0.81	220.8	F	80	
39	**Hudson Street and Cedar Street**																	
	Eastbound	LTR	0.02	9.2	A	2	LTR	0.02	9.2	A	2		LTR	0.02	9.2	A	2	
	Westbound	LTR	0.00	9.1	A	0	LTR	0.00	9.1	A	0		LTR	0.00	9.1	A	0	
	Northbound	LTR	0.01	1.9	A	1	LTR	0.01	1.9	A	1		LTR	0.01	1.9	A	1	
	Southbound	LTR	0.00	0.0	--	0	LTR	0.00	0.0	--	0		LTR	0.00	0.0	--	0	
40	**Broad Street and Cedar Street**																	
	Eastbound	LTR	0.01	0.3	A	1	LTR	0.01	0.3	A	1		LTR	0.01	0.3	A	1	
	Westbound	LT	0.01	0.4	A	1	LT	0.01	0.4	A	1		LT	0.01	0.4	A	1	
	Northbound	LTR	0.01	17.7	C	1	LTR	0.01	19.3	C	1		LTR	0.01	19.3	C	1	
	Southbound	LR	0.14	20.7	C	12	LR	0.16	23.0	C	14		LTR	0.16	23.0	C	14	

Notes: L = Left Turn, T= Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service, -- = Approach has no volume recorded during this peak hour, "+" implies a significant adverse impact, Err = v/c or delay exceeds the maximum limit reportable in the analysis software

TRANSIT (SIR)

As shown in Table 22-18, the Reduced Rezoning Area Alternative would generate 33 and 17 fewer incremental SIR trips during the Weekday AM and PM peak hours, respectively, compared to the Proposed Actions. Since no significant adverse SIR impacts are expected as a result of the Proposed Actions, and the Reduced Rezoning Area Alternative would generate fewer SIR trips during the Weekday AM and PM peak hours, it can be concluded that the incremental trips generated under the Reduced Rezoning Area Alternative would not result in significant adverse SIR impacts during the Weekday AM and PM peak hours.

TRANSIT (BUS)

As shown in Table 22-11, the Reduced Rezoning Area Alternative would generate 91 and 150 additional incremental bus trips during the Weekday AM and PM peak hours, respectively, compared to the Proposed Actions. Since the Reduced Rezoning Area Alternative would generate more bus trips than the Proposed Actions, significant adverse bus impacts are expected on the northbound and southbound S51/81, S74/84, S76/86, and S78 buses during the Weekday AM and PM peak hours.

These significant adverse impacts could be fully mitigated by the addition of two to seven additional standard buses to each direction of each route during both peak hours, as shown in Table 22-18. Between two and six additional standard buses would be needed to fully mitigate the significant adverse bus impacts for the Proposed Actions. Therefore, the Reduced Rezoning Area Alternative would require one additional peak hour bus to mitigate the bus line haul impacts compared to the Proposed Actions. The general policy of NYCT is to provide additional bus service where demand warrants, taking into account financial and operational constraints.

Table 22-18: Reduced Rezoning Area Alternative:
Local Bus Line Haul Analysis

Route	Peak Direction	Maximum Load Point	Peak Hour Buses [1]	Peak Hour Passengers	Average Passengers Per Bus	Total Capacity [2]	Available Capacity	Additional Buses for Mitigation	Total Mitigated Peak Hours Buses	Available Capacity with Mitigation
Weekday AM										
S51/81	NB	Bay Street and Canal Street	7	660	94	378	-282	6	13	42
S51/81	SB	Bay Street and Victory Boulevard	4	335	84	216	-119	3	7	43
S74/84	NB	Bay Street and Victory Boulevard	6	509	85	324	-185	4	10	31
S74/84	SB	Richmond Road and Clove Road	4	334	84	216	-118	3	7	44
S76/86	NB	Bay Street and Victory Boulevard	7	713	102	378	-335	7	14	43
S76/86	SB	Richmond Road and Clove Road	6	424	71	324	-100	2	8	8
S78	NB	Bay Street and Victory Boulevard	6	560	93	324	-236	5	11	34
S78	SB	Hylan Boulevard and Clove Road	7	481	69	378	-103	2	9	5
Weekday PM										
S51/81	NB	Bay Street and Victory Boulevard	4	496	124	216	-280	6	10	44
S51/81	SB	Bay Street and Victory Boulevard	7	555	79	378	-177	4	11	39
S74/84	NB	Targee Street and DeKalb Street	4	321	80	216	-105	3	7	57
S74/84	SB	Bay Street and Victory Boulevard	5	406	81	270	-136	3	8	26
S76/86	NB	Bay Street and Victory Boulevard	4	438	110	216	-222	5	9	48
S76/86	SB	Bay Street and Victory Boulevard	5	519	104	270	-249	5	10	21
S78	NB	Hylan Boulevard and Clove Road	4	391	98	216	-175	4	8	41
S78	SB	Bay Street and Victory Boulevard	5	412	82	270	-142	3	8	20

Notes:
(1) Based on most currently available data from NYCT/MTA.
(2) Available capacity based on a maximum of 54 passengers per bus (40-foot standard buses).

PEDESTRIAN

The Reduced Rezoning Area Alternative is expected to generate 1,942, 3,347, 3,329, and 2,958 incremental pedestrians (SIR, bus, and walk-only) trips during the Weekday AM, MD, PM, and

Saturday MD peak hours, respectively. This represents an 11.4 to 34.9 percent increase compared to the pedestrian trips generated by the Proposed Actions, depending on the peak hour.

Corners

As shown in Table 22-19, all corners are expected to operate at LOS C or better during the With-Action condition under the Reduced Rezoning Area Alternative. In comparison, all corners are expected to operate at LOS B or better under the Proposed Actions. However, the Reduced Rezoning Area Alternative would not result in any significant adverse corner impacts.

Sidewalks

As shown in Table 22-20, five of the 28 sidewalks studied are expected to experience a significant adverse impact during the non-platoon conditions due to the addition of pedestrian trips generated by the Reduced Rezoning Area Alternative. These are the same sidewalks that would be impacted under the Proposed Actions. Based on a review of platoon conditions, 13 of the 28 sidewalks studied are expected to experience a significant adverse impact under the Reduced Rezoning Area Alternative, compared to the 11 sidewalk impacts under the Proposed Actions. The two sidewalks where new impacts were identified for the Reduced Rezoning Area Alternative under platoon conditions include:

- Bay Street and Swan Street, south leg, west sidewalk (Weekday MD)
- Bay Street and Hannah Street, south leg, east sidewalk (Weekday PM)

Due to the constrained right-of-way, mitigation measures to address the potential significant adverse pedestrian impacts for the 13 sidewalks would not feasible. Therefore, these sidewalks could not be mitigated and the impacts are considered significant and unavoidable, as shown in Table 22-21.

Table 22-19: Corner Conditions:
With-Action Reduced Rezoning Area Alternative

Location	Peak Hour Volume				Available Circulation Space (ft^2/p)				Corner Circulation LOS			
	Weekday			Sat	Weekday			Sat	Weekday			Sat
	AM	MD	PM	MD	AM	MD	PM	MD	AM	MD	PM	MD
Bay St and Victory Blvd (SE corner)	714	1381	1074	866	981	477	582	748	A	A	A	A
Bay St and Victory Blvd (SW corner)	610	1157	874	748	256	126	182	222	A	A	A	A
Bay St and Hannah St (NE corner)	444	1274	993	887	484	110	146	151	A	A	A	A
Bay St and Hannah St (SE corner)	729	1639	1343	1114	143	90.4	138	147	A	A	A	A
Bay St and Hannah St (NW corner)	251	711	551	532	439	103	135	170	A	A	A	A
Bay St and Swan St (SW corner)	291	719	573	499	532	210	315	328	A	A	A	A
Bay St and Clinton St (SW corner)	185	472	355	374	337	80.0	113	151	A	A	A	A
Bay St and Clinton St (NW corner)	185	445	381	359	287	118	131	167	A	A	A	A
Bay St and Wave St (NE corner)	540	1141	1039	1102	130	57.3	55.3	45.3	A	B	B	B
Bay St and Wave St (SE corner)	593	1029	1040	1077	117	58.4	40.3	42.6	A	B	B	B
Bay St and Wave St (SW corner)	304	770	719	734	187	56.4	44.8	54.0	A	B	B	B
Bay St and Wave St (NW corner)	300	809	699	724	246	81.9	71.3	83.9	A	A	A	A
Front St and Hannah St (SW corner)	444	1009	748	648	70.6	38.0	76.0	47.6	A	C	A	B
Front St and Hannah St (NW corner)	87	270	175	180	123	109	51.7	49.6	A	A	B	B
Jersey St and Victory Blvd (NE corner)	266	807	480	546	189	41.0	84.6	67.0	A	B	A	A
Bay St and Minthorne St (NE corner)*	416	1147	829	792								
Bay St and Minthorne St (SE corner)*	399	1142	822	787								

Note: * - Level of Service results cannot be generated for unsignalized intersections, "+" implies a significant adverse impact.

Table 22-20: Sidewalk Conditions: With-Action Reduced Rezoning Area Alternative

Location	Total Width (ft)	Obstruc-tion Width (ft)	Effective Width (ft)	Available Circulation Space (ft^2/p) Weekday AM	Weekday MD	Weekday PM	Sat MD	Non-Platoon Conditions LOS Weekday AM	Weekday MD	Weekday PM	Sat MD	Platoon Conditions LOS Weekday AM	Weekday MD	Weekday PM	Sat MD
Bay St and Victory Blvd (S leg, E sidewalk)	20.0	11.5	8.5	172	78.7	84.9	65.4	A	A	A	A	B	C	C	C
Bay St and Hannah St (N leg, E sidewalk)	20.0	11.5	8.5	146	55.5	54.9	62.1	A	B	B	A	B	C	C	C
Bay St and Hannah St (E leg, N sidewalk)	5.0	4.5	0.5	16.0	2.9	10.5	8.4	D +	F +	E +	E +	E +	F +	F +	F +
Bay St and Hannah St (S leg, E sidewalk)	7.0	3.0	4.0	78.0	42.4	38.6	51.9	A	B	C	B	C	C	D +	C
Bay St and Hannah St (E leg, S sidewalk)	3.5	3.0	0.5	-2.4	-0.9	0.3	8.0	F +	F +	F +	F +	F +	F +	F +	F +
Bay St and Swan St (S leg, W sidewalk)	14.5	11.0	3.5	67.6	37.0	44.4	47.7	A	C	B	B	C	D +	C	C
Bay St and Clinton St (N leg, E sidewalk)	13.0	8.0	5.0	107	64.9	64.5	93.4	A	A	A	A	B	C	C	B
Bay St and Clinton St (N leg, W sidewalk)	8.5	6.8	1.8	108	40.3	40.6	45.8	A	B	B	B	B	C	C	C
Bay St and Baltic St (N leg, E sidewalk)	16.0	9.5	6.5	193	119	108	89.9	A	A	A	A	B	B	B	C
Bay St and Baltic St (N leg, W sidewalk)	4.5	3.5	1.0	75.9	27.5	28.7	30.5	A	C	C	C	C	D +	D +	D +
Bay St and Wave St (N leg, E sidewalk)	5.1	3.0	2.1	42.8	30.1	24.5	19.0	B	C	C	D	C	D	D +	E
Bay St and Wave St (S leg, E sidewalk)	7.3	3.0	4.3	63.4	56.3	44.6	39.7	A	B	B	C	C	C	C	D +
Bay St and Wave St (S leg, W sidewalk)	4.2	3.5	0.7	23.9	12.9	14.9	13.9	D +	E	E +	E	D +	E	E +	E
Bay St and Wave St (N leg, W sidewalk)	5.0	3.5	1.5	45.1	17.0	16.7	18.9	B	D	D +	D	C	E	E +	E
Front St and Hannah St (S leg, E sidewalk)	8.0	3.0	5.0	758	1267	1574	470	A	A	A	A	A	A	A	B
Front St and Hannah St (S leg, W sidewalk)	6.0	3.0	3.0	31.0	18.5	22.5	12.2	C	D +	D +	E +	D +	E +	E +	E +
Front St and Wave St (N leg, E sidewalk)	17.0	14.0	3.0	49.1	48.8	31.4	32.0	B	B	C	C	C	C	D +	D +
Front St and Wave St (N leg, W sidewalk)	12.0	6.0	6.0	198	96.7	306	75.6	A	A	A	A	B	B	B	C
Pike St and Brook St (W leg, S sidewalk)	6.0	3.0	3.0	842	201	767	662	A	A	A	A	A	B	A	A
Jersey St and Victory Blvd (N leg, E sidewalk)	10.0	6.3	3.8	315	132	180	159	A	A	A	A	B	B	B	B
Jersey St and Victory Blvd (E leg, N sidewalk)	8.0	3.0	5.0	181	48.0	80.0	71.0	A	B	A	A	B	C	C	C
Jersey St and Victory Blvd (E leg, S sidewalk)	4.0	3.0	1.0	190	39.5	44.2	64.1	A	C	B	A	B	D +	C	C
Bay St and Minthorne St (E leg, S sidewalk)	10.0	4.5	5.5	125	65.9	52.4	120	A	A	B	A	B	C	C	B
Minthorne St and Victory Blvd (S leg, E sidewalk)	5.0	3.0	2.0	2444	1629	4888	815	A	A	A	A	A	A	A	A
Minthorne St and Victory Blvd (E leg, S sidewalk)	8.5	3.0	5.5	747	640	840	747	A	A	A	A	A	A	A	A
Minthorne St and Victory Blvd (W leg, S sidewalk)	8.5	3.0	5.5	248	105	162	115	A	A	A	A	B	B	B	B
Front St and Baltic St (N leg, E sidewalk)	12.0	3.0	9.0	172	472	151	156	A	A	A	A	B	B	B	B
Front St and Baltic St (N leg, W sidewalk)	5.5	3.0	2.5	69.1	26.0	26.7	24.4	A	C	C	C	C	D +	D +	D +

Note: "+" implies a significant adverse impact.

Table 22-21: Sidewalk Conditions: With-Action With-Mitigation Reduced Rezoning Area Alternative

Location	Total Width (ft)	Obstruc-tion Width (ft)	Effective Width (ft)	Available Circulation Space (ft^2/p) Weekday AM	Weekday MD	Weekday PM	Sat MD	Non-Platoon Conditions LOS Weekday AM	Weekday MD	Weekday PM	Sat MD	Platoon Conditions LOS Weekday AM	Weekday MD	Weekday PM	Sat MD	Proposed Mitigation
Bay St and Victory Blvd (S leg, E sidewalk)	20.0	11.5	8.5	172	78.7	84.9	65.4	A	A	A	A	B	C	C	C	
Bay St and Hannah St (N leg, E sidewalk)	20.0	11.5	8.5	146	55.5	54.9	62.1	A	B	B	A	B	C	C	C	
Bay St and Hannah St (E leg, N sidewalk)	5.0	4.5	0.5	16.0	2.9	10.5	8.4	D +	F +	E +	E +	E +	F +	F +	F +	Unmitigatable
Bay St and Hannah St (S leg, E sidewalk)	7.0	3.0	4.0	78.0	42.4	38.6	51.9	A	B	C	B	C	C	D +	C	Unmitigatable
Bay St and Hannah St (E leg, S sidewalk)	3.5	3.0	0.5	-2.4	-0.9	0.3	8.0	F +	F +	F +	F +	F +	F +	F +	F +	Unmitigatable
Bay St and Swan St (S leg, W sidewalk)	14.5	11.0	3.5	67.6	37.0	44.4	47.7	A	C	B	B	C	D +	C	C	Unmitigatable
Bay St and Clinton St (N leg, E sidewalk)	13.0	8.0	5.0	107	64.9	64.5	93.4	A	A	A	A	B	C	C	B	
Bay St and Clinton St (N leg, W sidewalk)	8.5	6.8	1.8	108	40.3	40.6	45.8	A	B	B	B	B	C	C	C	
Bay St and Baltic St (N leg, E sidewalk)	16.0	9.5	6.5	193	119	108	89.9	A	A	A	A	B	B	B	C	
Bay St and Baltic St (N leg, W sidewalk)	4.5	3.5	1.0	75.9	27.5	28.7	30.5	A	C	C	C	C	D +	D +	D +	Unmitigatable
Bay St and Wave St (N leg, E sidewalk)	5.1	3.0	2.1	42.8	30.1	24.5	19.0	B	C	C	D	C	D	D +	E	Unmitigatable
Bay St and Wave St (S leg, E sidewalk)	7.3	3.0	4.3	63.4	56.3	44.6	39.7	A	B	B	C	C	C	C	D +	Unmitigatable
Bay St and Wave St (S leg, W sidewalk)	4.2	3.5	0.7	23.9	12.9	14.9	13.9	D +	E	E +	E	D +	E	E +	E	Unmitigatable
Bay St and Wave St (N leg, W sidewalk)	5.0	3.5	1.5	45.1	17.0	16.7	18.9	B	D	D +	D	C	E	E +	E	Unmitigatable
Front St and Hannah St (S leg, E sidewalk)	8.0	3.0	5.0	758	1267	1574	470	A	A	A	A	A	A	A	B	
Front St and Hannah St (S leg, W sidewalk)	6.0	3.0	3.0	31.0	18.5	22.5	12.2	C	D +	D +	E +	D +	E +	E +	E +	Unmitigatable
Front St and Wave St (N leg, E sidewalk)	17.0	14.0	3.0	49.1	48.8	31.4	32.0	B	B	C	C	C	C	D +	D +	Unmitigatable
Front St and Wave St (N leg, W sidewalk)	12.0	6.0	6.0	198	96.7	306	75.6	A	A	A	A	B	B	B	C	
Pike St and Brook St (W leg, S sidewalk)	6.0	3.0	3.0	842	201	767	662	A	A	A	A	A	B	A	A	
Jersey St and Victory Blvd (N leg, E sidewalk)	10.0	6.3	3.8	315	132	180	159	A	A	A	A	B	B	B	B	
Jersey St and Victory Blvd (E leg, N sidewalk)	8.0	3.0	5.0	181	48.0	80.0	71.0	A	B	A	A	B	C	C	C	
Jersey St and Victory Blvd (E leg, S sidewalk)	4.0	3.0	1.0	190	39.5	44.2	64.1	A	C	B	A	B	D +	C	C	Unmitigatable
Bay St and Minthorne St (E leg, S sidewalk)	10.0	4.5	5.5	125	65.9	52.4	120	A	A	B	A	B	C	C	B	
Minthorne St and Victory Blvd (S leg, E sidewalk)	5.0	3.0	2.0	2444	1629	4888	815	A	A	A	A	A	A	A	A	
Minthorne St and Victory Blvd (E leg, S sidewalk)	8.5	3.0	5.5	747	640	840	747	A	A	A	A	A	A	A	A	
Minthorne St and Victory Blvd (W leg, S sidewalk)	8.5	3.0	5.5	248	105.1	162	115	A	A	A	A	B	B	B	B	
Front St and Baltic St (N leg, E sidewalk)	12.0	3.0	9.0	172	472	151	156	A	A	A	A	B	B	B	B	
Front St and Baltic St (N leg, W sidewalk)	5.5	3.0	2.5	69.1	26.0	26.7	24.4	A	C	C	C	C	D +	D +	D +	Unmitigatable

Note: "+" implies a significant adverse impact.

Crosswalks

As shown in Table 22-22, the Reduced Rezoning Area Alternative would result in significant adverse impacts at four crosswalks, which are the same crosswalks that would be impacted under the Proposed Actions. All crosswalk impacts at unsignalized intersections are expected to operate at LOS A under the Reduced Rezoning Area Alternative shown in Table 22-23.

Table 22-22: Crosswalk Conditions at Signalized Intersections: With-Action Reduced Rezoning Area Alternative

Location	Length (ft)	Width (ft)	Available Circulation Space (ft^2/p)				Crosswalk Circulation LOS			
			Weekday			Sat	Weekday			Sat
			AM	MD	PM	MD	AM	MD	PM	MD
Bay St and Victory Blvd (S leg)	60.0	16.0	55.3	24.8	29.4	47.3	B	C	C	B
Bay St and Hannah St (N leg)	92.0	11.0	73.3	17.8	13.8	30.6	A	D +	E +	C
Bay St and Hannah St (E leg)	32.0	12.5	142	32.4	53.3	40.4	A	C	B	B
Bay St and Clinton St (N leg)	60.0	11.5	121	73.0	74.1	87.1	A	A	A	A
Bay St and Clinton St (S leg)	59.5	13.0	231	49.2	79.4	111	A	B	A	A
Bay St and Clinton St (W leg)	24.0	11.0	438	98.8	136	172	A	A	A	A
Bay St and Wave St (N leg)	35.5	10.0	134	35.0	20.4	34.5	A	C	D	C
Bay St and Wave St (E leg)	30.3	11.3	82.6	45.5	58.0	38.7	A	B	B	C
Bay St and Wave St (S leg)	36.8	10.0	140	32.7	16.7	28.4	A	C	D +	C
Bay St and Wave St (W leg)	21.3	10.6	175	64.8	92.8	69.3	A	A	A	A
Front St and Hannah St (W leg)	34.5	10.0	38.9	39.5	18.9	20.8	C	C	D +	D +
Jersey St and Victory Blvd (N leg)	36.0	10.0	289	77.5	168	137	A	A	A	A
Jersey St and Victory Blvd (E leg)	40.0	10.0	70.1	13.2	23.0	22.2	A	E +	D +	D +

Note: "+" implies a significant adverse impact.

Table 22-23: Crosswalk Conditions at Unsignalized Intersections: With-Action Reduced Rezoning Area Alternative

Location	Length (ft)	Width (ft)	Average Pedestrian Delay (s)				Crosswalk Circulation LOS			
			Weekday			Sat	Weekday			Sat
			AM	MD	PM	MD	AM	MD	PM	MD
Bay St and Grant St (W leg)	37.4	8.0	2.4	0.9	2.1	1.7	A	A	A	A
Bay St and Baltic St (W leg)	23.5	12.0	0.6	0.2	0.2	0.3	A	A	A	A
Bay St and Minthorne St (E leg)	29.5	10.0	5.0	3.6	2.4	2.3	A	A	A	A

EFFECTS OF TRAFFIC MITIGATION ON PEDESTRIAN CONDITIONS

Proposed traffic mitigation measures would potentially affect pedestrian conditions at a total of eight intersections during one or more peak hours, including the intersections at Bay Street with Grant Street and Bay Street with Baltic Street, where new traffic signals are proposed. At these intersections, it was assumed that as part of the new traffic signals, marked crosswalks across Bay Street would be added; the east crosswalk at the Bay Street and Baltic Street intersection was not included in the analysis as it is across an existing driveway.

In total, potential traffic mitigation measures would result in new significant adverse impacts at the same five crosswalks that were identified for the Proposed Actions:

- south crosswalk at the Bay Street and Victory Boulevard intersection,
- north and east crosswalks at the Bay Street and Hannah Street intersection,
- north and south crosswalks at the Bay Street and Wave Street intersection.

Table 22-24 shows conditions at these pedestrian elements with the proposed traffic mitigation measures.

Table 22-24: Crosswalk Conditions at Signalized Intersections with Vehicle Mitigation: With-Action With-Mitigation Reduced Rezoning Area Alternative

Location	Length (ft)	Width (ft)	Available Circulation Space (ft^2/p) Weekday AM	Weekday MD	Weekday PM	Sat MD	Crosswalk Circulation LOS Weekday AM	Weekday MD	Weekday PM	Sat MD
Bay St and Victory Blvd (S leg)	60.0	16.0	55.3	17.2	33.1	53.9	B	D +	C	B
Bay St and Hannah St (N leg)	92.0	11.0	142.0	17.8	26.1	21.8	A	D +	C	D +
Bay St and Hannah St (E leg)	32.0	12.5	69.3	14.2	18.9	18.6	A	E +	D +	D +
Bay St and Grant St (N leg)	59.0	10.0	81.6	60.6	35.1	55.8	A	A	C	B
Bay St and Grant St (S leg)	59.0	10.0	137	35.5	67.3	60.7	A	C	A	A
Bay St and Grant St (W leg)	21.0	7.0	247	51.7	106	92.8	A	B	A	A
Bay St and Clinton St (N leg)	60.0	11.5	74.1	39.7	30.5	47.2	A	C	C	B
Bay St and Clinton St (S leg)	59.5	13.0	139	25.1	29.0	56.9	A	C	C	B
Bay St and Clinton St (W leg)	24.0	11.0	438	98.8	136	172	A	A	A	A
Bay St and Baltic St (N leg)	37.0	11.0	103	24.9	40.3	36.1	A	C	B	C
Bay St and Baltic St (S leg)	36.0	22.0	176	24.1	44.4	50.1	A	C	B	B
Bay St and Baltic St (W leg)	23.5	12.0	481	143.1	26.0	182.4	A	A	C	A
Bay St and Wave St (N leg)	35.5	10.0	75.3	25.2	9.2	21.5	A	C	E +	D +
Bay St and Wave St (E leg)	30.3	11.3	99.0	51.7	67.5	45.0	A	B	A	B
Bay St and Wave St (S leg)	36.8	10.0	79.7	23.6	7.8	17.9	A	D +	F +	D +
Bay St and Wave St (W leg)	21.3	10.6	206	73.1	107	79.8	A	A	A	A
Front St and Hannah St (W leg)	34.5	10.0	39.8	40.3	19.3	21.2	C	B	D +	D +
Jersey St and Victory Blvd (N leg)	36.0	10.0	262	77.5	168	149	A	A	A	A
Jersey St and Victory Blvd (E leg)	40.0	10.0	78.7	13.2	23.0	16.2	A	E +	D +	D +

Note: "+" implies a significant adverse impact.

With the implementation of vehicle mitigation measures, seven of the 20 analyzed crosswalks would be significantly adversely impacted by the Proposed Actions during one or more peak hours. The pedestrian crosswalk impacts that were mitigated for the Reduced Rezoning Area Alternative used the same types of mitigation measures as the Proposed Actions (i.e., crosswalk widening). Tables 22-25 and 22-26 show the crosswalk widening necessary to address these impacts and their effectiveness. With the exception of the north crosswalk at Bay Street and Hannah Street and the east crosswalk at Jersey Street and Victory Boulevard, the proposed mitigation measures under the Reduced Rezoning Area Alternative would require additional widening beyond what would be necessary for the Proposed Actions.

Table 22-25: Crosswalk Conditions at Signalized Intersections: With-Action With-Mitigation Reduced Rezoning Area Alternative

Location	Length (ft)	Width (ft)	Available Circulation Space (ft^2/p) Weekday AM	Weekday MD	Weekday PM	Sat MD	Crosswalk Circulation LOS Weekday AM	Weekday MD	Weekday PM	Sat MD	Proposed Mitigation
Bay St and Victory Blvd (S leg)	60.0	22.1	77.3	24.1	46.5	75.2	A	C	B	A	Increase crosswalk width by 6.1'
Bay St and Hannah St (N leg)	92.0	14.7	190.2	24.1	35.4	29.4	A	C	C	C	Increase crosswalk width by 3.7'
Bay St and Hannah St (E leg)	32.0	20.2	114.7	24.1	31.9	31.2	A	C	C	C	Increase crosswalk width by 7.7'
Bay St and Grant St (N leg)	59.0	10.0	81.6	60.6	35.1	55.8	A	A	C	B	-
Bay St and Grant St (S leg)	59.0	10.0	137	35.5	67.3	60.7	A	C	A	A	-
Bay St and Grant St (W leg)	21.0	7.0	247	51.7	106	92.8	A	B	A	A	-
Bay St and Clinton St (N leg)	60.0	11.5	74.1	39.7	30.5	47.2	A	C	C	B	-
Bay St and Clinton St (S leg)	59.5	13.0	139	25.1	29.0	56.9	A	C	C	B	-
Bay St and Clinton St (W leg)	24.0	11.0	438	98.8	136	172	A	A	A	A	-
Bay St and Baltic St (N leg)	37.0	11.0	103	24.9	40.3	36.1	A	C	B	C	-
Bay St and Baltic St (S leg)	36.0	22.0	176	24.1	44.4	50.1	A	C	B	B	-
Bay St and Baltic St (W leg)	23.5	12.0	481	143.1	26.0	182.4	A	A	C	A	-
Bay St and Wave St (N leg)	35.5	17.2	131.4	45.1	16.9	38.4	A	B	D	C	Increase crosswalk width by 7.2'
Bay St and Wave St (E leg)	30.3	11.3	99.0	51.7	67.5	45.0	A	B	A	B	-
Bay St and Wave St (S leg)	36.8	22.4	182.0	55.7	19.1	42.7	A	B	D	B	Increase crosswalk width by 12.4'
Bay St and Wave St (W leg)	21.3	10.6	206	73.1	107	79.8	A	A	A	A	-
Front St and Hannah St (W leg)	34.5	12.3	49.4	50.1	24.2	26.5	B	B	C	C	Increase crosswalk width by 2.3'
Jersey St and Victory Blvd (N leg)	36.0	10.0	262	77.5	168	149	A	A	A	A	-
Jersey St and Victory Blvd (E leg)	40.0	17.1	137.8	24.1	41.5	29.1	A	C	B	C	Increase crosswalk width by 7.1'

Note: "-" implies that there is no proposed mitigation. Bay/Grant and Bay/Baltic are unsignalized in the No Action/With Action conditions and will be signalized in the Mitigation condition only.

Table 22-26: Crosswalk Conditions at Unsignalized Intersections: With-Action With-Mitigation Reduced Rezoning Area Alternative

Location	Length (ft)	Width (ft)	Average Pedestrian Delay (s)				Crosswalk Circulation LOS			
			Weekday			Sat	Weekday			Sat
			AM	MD	PM	MD	AM	MD	PM	MD
Bay St and Grant St (W leg)*										
Bay St and Baltic St (W leg)*										
Bay St and Minthorne St (E leg)	29.5	10.0	5.0	3.6	2.4	2.3	A	A	A	A

Note: * - Intersection becomes signalized in Mitigation condition.

PARKING

Tables 22-27 and 22-28 show the hourly net incremental change in parking demand for each land use for the Reduced Rezoning Area Alternative between the No-Action and With-Action conditions for the Weekday and Saturday conditions, respectively. The total parking demand of the Projected Development Sites on a typical Weekday would peak at 2,267 spaces between 10:00 PM and 11:00 PM. The total parking demand on a typical Saturday would peak at 2,235 spaces overnight between 11:00 PM and 7:00 AM. Comparatively, the peak parking demand for the Reduced Rezoning Area Alternative would be 2,081 spaces between 9:00 and 10:00 PM on typical weekdays and 2,080 spaces between 11:00 PM and 12:00 AM on a typical Saturday.

Table 22-27: Reduced Rezoning Area Alternative Net Incremental Weekday Hourly Parking Accumulation by Land Use

	Residential[1]			Local Retail[1]			Office[1]			Community Facility[2]			Restaurant[1]			Medical Office Building[3]			Total		
	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation
Before 12			2078			0			0			0			0			0			2078
12-1 AM	49	49	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	49	49	2078
1-2 AM	25	25	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	25	25	2078
2-3 AM	12	12	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	2078
3-4 AM	12	12	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	2078
4-5 AM	12	12	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	2078
5-6 AM	12	12	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	12	12	2078
6-7 AM	12	12	2078	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	13	13	2078
7-8 AM	24	189	1913	0	0	0	17	2	14	30	12	19	0	0	0	0	0	0	71	203	1945
8-9 AM	88	457	1544	5	5	0	192	15	192	42	21	40	7	9	-2	27	3	23	360	509	1797
9-10 AM	72	301	1315	1	1	0	184	21	355	49	65	24	5	2	1	50	25	49	362	415	1743
10-11 AM	74	209	1180	4	4	0	48	28	374	37	45	15	13	12	2	42	32	59	219	331	1631
11-12 PM	74	111	1143	7	7	0	39	78	336	40	42	13	29	7	24	42	47	54	229	291	1569
12-1 PM	111	74	1180	18	18	0	114	130	319	46	35	25	75	59	40	24	28	49	388	344	1613
1-2 PM	74	74	1180	24	24	0	61	37	343	39	24	39	19	22	37	34	40	44	251	221	1642
2-3 PM	102	78	1204	29	29	0	101	117	327	62	45	57	30	30	37	42	40	45	366	339	1670
3-4 PM	88	88	1204	5	5	0	22	29	320	35	26	66	45	34	48	36	31	51	231	212	1689
4-5 PM	209	128	1285	13	13	0	20	105	236	44	61	49	44	25	67	31	51	31	362	383	1668
5-6 PM	448	149	1585	15	15	0	5	234	8	30	58	21	60	61	66	43	47	26	602	565	1707
6-7 PM	344	185	1744	13	13	0	7	12	3	46	49	19	89	43	112	2	28	0	501	330	1877
7-8 PM	309	172	1880	9	9	0	2	7	0	24	38	5	94	63	143	0	0	0	438	288	2029
8-9 PM	148	62	1966	3	3	0	0	0	0	21	26	1	39	75	106	0	0	0	211	166	2074
9-10 PM	111	56	2021	2	2	0	0	0	0	0	1	0	8	56	59	0	0	0	120	115	2081
10-11 PM	132	82	2072	0	0	0	0	0	0	0	0	0	1	56	4	0	0	0	133	138	2077
11-12 PM	86	79	2077	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	86	83	2078

Notes:
1. New Stapleton Waterfront Development Plan Technical Memorandum (December, 2010). The peak hour temporal and directional distribution was adjusted to match factors used in trip generation.
2. Flushing Commons FEIS (2010), Table 14-37 and 14-38 for YMCA Component. The peak hour temporal and directional distribution was adjusted to match factors used in trip generation.
3. Information provided by NYCDOT via e-mail in January 2016. The peak hour temporal and directional distribution was adjusted to match factors used in trip generation.

Table 22-28: Reduced Rezoning Area Alternative Net Incremental Saturday Hourly Parking Accumulation by Land Use

	Residential[1]			Local Retail[1]			Office[1]			Community Facility[2]			Restaurant[1]			Medical Office Building[1]			Total		
	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation
Before 12			2078			0			0			0			0			0			2078
12-1 AM	38	38	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38	38	2078
1-2 AM	19	19	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	19	19	2078
2-3 AM	10	10	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	2078
3-4 AM	10	10	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	2078
4-5 AM	10	10	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	2078
5-6 AM	10	10	2078	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10	2078
6-7 AM	10	10	2078	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	2078
7-8 AM	19	152	1945	1	1	0	3	0	3	0	0	0	0	0	0	0	0	0	23	153	1948
8-9 AM	67	342	1669	2	2	0	34	3	34	22	10	13	4	1	4	27	3	23	155	360	1743
9-10 AM	57	238	1489	2	2	0	35	4	65	11	17	6	4	2	6	50	25	49	158	287	1614
10-11 AM	57	162	1384	8	8	0	7	5	66	11	16	2	12	8	10	42	32	59	137	230	1521
11-12 PM	57	86	1356	12	12	0	6	14	58	13	14	0	24	7	27	42	47	54	153	180	1495
12-1 PM	86	57	1384	27	27	0	19	24	53	17	11	6	65	50	42	24	28	49	238	198	1534
1-2 PM	25	25	1384	34	34	0	6	4	54	19	12	13	48	43	46	34	40	44	166	159	1541
2-3 PM	199	136	1447	20	20	0	25	30	50	16	16	13	44	44	46	42	40	45	346	286	1601
3-4 PM	72	72	1447	21	21	0	6	6	50	17	14	17	9	9	46	36	31	51	162	153	1610
4-5 PM	162	150	1458	23	23	0	6	25	31	11	16	12	20	16	51	43	46	47	265	276	1599
5-6 PM	337	135	1660	27	27	0	10	32	9	10	22	0	42	19	74	31	51	27	457	287	1771
6-7 PM	274	136	1799	15	15	0	1	10	2	0	0	0	59	35	98	2	29	0	352	225	1899
7-8 PM	231	142	1887	18	18	0	0	1	0	0	0	0	50	56	92	0	0	0	300	217	1979
8-9 PM	118	44	1962	9	9	0	0	0	0	0	0	0	36	58	70	0	0	0	163	110	2032
9-10 PM	87	37	2011	1	1	0	0	0	0	0	0	0	0	43	28	0	0	0	88	81	2039
10-11 PM	108	45	2074	1	1	0	0	0	0	0	0	0	0	24	4	0	0	0	109	70	2078
11-12 PM	60	50	2080	1	1	0	0	0	0	0	0	0	0	4	0	0	0	0	61	54	2080

Notes:
1. It is assumed that Saturday temporal and directional distribution would be same as Weekday. The peak hour temporal and directional distribution was adjusted to match factors used in trip generation.
2. Flushing Commons FEIS (2010), Table 14-37 and 14-38 for YMCA Component. The peak hour temporal and directional distribution was adjusted to match factors used in trip generation.

The parking demand that could not be accommodated on-site was assumed to increase the demand for the on-street parking spaces within the ¼-mile radius of the Study Area. As the peak parking demand generated by the Reduced Rezoning Area Alternative is expected to be less than the Proposed Actions, it follows that the utilization of on-street parking would also be expected to be less for the Reduced Rezoning Area Alternative than the Proposed Actions. While there are projected parking shortfalls within the St. George/Ferry Terminal (Weekday MD), Bay Street North (Weekday MD), and Bay Street South (Weekday PM, Weekday Overnight, and Saturday MD) subareas, the shortfalls are generally less than what were identified for the Proposed Actions. Furthermore, the total parking availability within the ¼-mile radius of the overall Study Area would also be sufficient to accommodate any shortfall within a specific subarea, as shown in Table 22-29. Therefore, the expected on-street parking deficits under the Reduced Rezoning Area Alternative would not be considered significant.

Table 22-29: With-Action ¼-Mile On-Street Parking Utilization Summary (Subareas & Total)

2030 With-Action	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
St. George/Ferry Terminal Area No-Action On-Street Capacity	1076	1076	1076	1076	1076
St. George/Ferry Terminal Area No-Action On-Street Demand	*876*	*1205*	*814*	*794*	*874*
St. George/Ferry Terminal Area Incremental Demand from With-Action Projected Development Sites[1]	*0*	*0*	*0*	*0*	*-2*
St. George/Ferry Terminal Area With-Action Total On-Street Demand	876	1205	814	794	872
St. George/Ferry Terminal Area Available Spaces	200	-129	262	282	204
St. George/Ferry Terminal Subarea: With-Action Utilization	***81%***	***112%***	***76%***	***74%***	***81%***
Bay Street North Area No-Action On-Street Capacity	1319	1319	1319	1319	1319
Bay Street North Area No-Action On-Street Demand	*922*	*1346*	*902*	*796*	*861*
54 Central Displaced Demand	*75*	*75*	*75*	*75*	*75*
Bay Street North Area Incremental Demand from With-Action Projected Development Sites[1]	*35*	*116*	*75*	*218*	*50*
Bay Street North Area With-Action Total On-Street Demand	1031	1537	1051	1089	986
Bay Street North Area Available Spaces	288	-218	268	230	333
Bay Street North Subarea: With-Action Utilization	***78%***	***117%***	***80%***	***83%***	***75%***
Victory Boulevard/Jersey Street Area No-Action On-Street Capacity	1295	1295	1295	1295	1295
Victory Boulevard/Jersey Street Area No-Action On-Street Demand	*776*	*752*	*778*	*820*	*790*
Victory Boulevard/Jersey Street Area Incremental Demand from With-Action Projected Development Sites[1]	*0*	*0*	*0*	*0*	*0*
Victory Boulevard/Jersey Street Area With-Action Total On-Street Demand	776	752	778	820	790
Victory Boulevard/Jersey Street Area Available Spaces	519	543	517	475	505
Victory Boulevard/Jersey Street Subarea: With-Action Utilization	***60%***	***58%***	***60%***	***63%***	***61%***
Canal Street Area No-Action On-Street Capacity	1363	1363	1363	1363	1363
Canal Street Area No-Action On-Street Demand	*951*	*1018*	*902*	*984*	*996*
Canal Street Area Incremental Demand from With-Action Projected Development Sites[1]	*0*	*0*	*0*	*0*	*0*
Canal Street Area With-Action Total On-Street Demand	951	1018	902	984	996
Canal Street Area Available Spaces	412	345	461	379	367
Canal Street Subarea: With-Action Utilization	***70%***	***75%***	***66%***	***72%***	***73%***
Bay Street South Area No-Action On-Street Capacity	1090	1090	1090	1090	1090
Bay Street South Area No-Action On-Street Demand	*757*	*774*	*655*	*819*	*747*
Bay Street South Area Incremental Demand from With-Action Projected Development Sites[1]	*431*	*264*	*502*	*757*	*397*
Bay Street South Area With-Action Total On-Street Demand	1188	1038	1157	1576	1144
Bay Street South Area Available Spaces	-98	52	-67	-486	-54
Bay Street South Subarea: With-Action Utilization	***109%***	***95%***	***106%***	***145%***	***105%***
Total No-Action Capacity	*6143*	*6143*	*6143*	*6143*	*6143*
Net Change in With-Action On-Street Parking Supply[2]	*0*	*0*	*0*	*0*	*0*
Total With-Action On-Street Capacity	6143	6143	6143	6143	6143
Total No-Action On-Street Demand	*4282*	*5094*	*4051*	*4213*	*4269*
Total 54 Central Displaced Demand	*75*	*75*	*75*	*75*	*75*
Total Incremental Demand from With-Action Projected Development Sites[1]	*466*	*380*	*577*	*975*	*445*
Total With-Action On-Street Demand	4823	5550	4703	5263	4789
Total Available Spaces	1320	593	1440	880	1354
Total With-Action Utilization	***79%***	***90%***	***77%***	***86%***	***78%***

Notes:
1. Excludes demand that would be accommodated on-site.
2. Assumed no lost spaces due to project curb cuts.

VEHICULAR AND PEDESTRIAN SAFETY ASSESSMENT

Two intersections were identified as high crash locations under the Proposed Actions condition. Similar to the Proposed Actions, the Reduced Rezoning Area Alternative would increase the vehicular and pedestrian activity at these intersections, which could exacerbate any potential safety issues at this location. The measures outlined in Chapter 14, "Transportation," which include altering the lane configuration and installing pedestrian count-down signals at the intersection of Richmond Terrace and Jersey Street and installing pedestrian count-down signals and optimizing signal timing at the intersection of St. Marks Place/Bay Street and Victory Boulevard are recommended for the Reduced Rezoning Area Alternative to improve safety at these intersections.

AIR QUALITY

MOBILE SOURCES

The Reduced Rezoning Area Alternative is predicted to result in slight changes to peak hour vehicle trips and delay times compared to the proposed action scenario. The Reduced Rezoning Area Alternative is predicted to result in a slight increase to the weekday and weekend midday (MD) peak hour vehicle trips (about 4 percent and 2 percent increase respectively), but a slight decrease to the weekday morning (AM) and afternoon (PM) peak hour vehicle trips (about 8 percent and 4 percent decrease respectively). On a daily basis, the vehicle trips are anticipated to remain similar or decrease slightly. Overall, intersection delay times are also anticipated to improve slightly (generally <10 percent decrease), however the delay times for some specific lane groups may increase. In general, based on these changes, the Reduced Rezoning Area Alternative is anticipated to show a slight improvement to the air quality levels at most of the intersections of study. It is possible that some intersections may show a slight increase to pollutant concentrations, but any increase is expected to be minimal, and remain below the relevant criteria. Therefore, no adverse air quality impacts are anticipated as a result of mobile source emissions with this alternative.

STATIONARY SOURCES

The majority of differences between the Proposed Actions and the Reduced Rezoning Area Alternative will not affect air quality from stationary sources. The exception to this is the modification to the Stapleton Waterfront Phase III Sites. Specifically, the total square footage for Site A of the Stapleton III development (referred to as Site "SA" in Chapter 15, "Air Quality") is increased by 100,000 sf with this alternative. This will have a direct impact on the HVAC system analysis conducted for this site. As described in Chapter 15, restrictions related to air quality for this site will be implemented through the disposition agreement between NYCEDC and the future developer. Under the Reduced Rezoning Area Alternative, the proposed restriction would require the exclusive use of natural gas for fossil fuel-fired heating and hot water systems and that heating and hot water systems stack(s) be located at least 140 feet above grade. With these requirements in place, the Reduced Rezoning Area Alternative, like the Proposed Actions, would not result in significant adverse air quality impacts.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

With fewer Projected Development Sites and less overall development than under the Proposed Actions, the Reduced Rezoning Area Alternative would have less energy use and would therefore result in fewer carbon dioxide equivalent emissions per year. Therefore, neither the Proposed Actions nor the Reduced Rezoning Area Alternative would result in significant greenhouse gas emission or climate change impacts.

NOISE

With the Reduced Rezoning Area Alternative, traffic volumes would be similar at mobile source noise analysis locations. Predicted noise levels under the Reduced Rezoning Area Alternative are not expected to change as compared to in the Proposed Actions. Therefore, similar to the Proposed Actions, (E) designations related to noise would be applied to all privately-held Projected and Potential Development Sites (25 Projected Development Sites and 19 Potential Development Sites) in the Bay Street Corridor Project Area. The (E) designations would specify the appropriate amount of window/wall attenuation required on each site in order to maintain acceptable interior noise levels (Chapter 17, "Noise"). Therefore, no significant adverse mobile source noise impacts are expected to occur under both the Proposed Actions and the Reduced Rezoning Area Alternative.

PUBLIC HEALTH

Similar to under the Proposed Actions, the Reduced Rezoning Area Alternative would not result in significant adverse public health impacts. Neither the Proposed Actions nor the Reduced Rezoning Area Alternative would result in unmitigated significant adverse impacts related to air quality, water quality, or hazardous materials.

NEIGHBORHOOD CHARACTER

As under the Proposed Actions, the Reduced Rezoning Area Alternative would not result in significant adverse impacts on neighborhood character. Because the Reduced Rezoning Area Alternative would result in identical building heights and bulk, and mix of uses as compared to the Proposed Actions, it would result in similar effects on land use, zoning, and public policy, socioeconomic conditions, shadows, urban design and visual resources, historic and cultural resources, and noise, and consequently would have similar effects on neighborhood character. The Reduced Rezoning Area Alternative would result in a slightly smaller residential population increment, as compared to the Proposed Actions, but would still facilitate a mix of residential, commercial, and community facility uses that would be consistent with existing trends, would facilitate new mixed-use development, and would improve connections to the waterfront and surrounding neighborhoods. The new residential development under the Reduced Rezoning Area Alternative, similar to under the Proposed Actions, would follow the strict height and street wall regulations under the proposed special district. In addition, under both the Proposed Actions and Reduced Rezoning Area Alternative, the anticipated development would include affordable housing units on sites within the MIH area, which would ensure that the new households have incomes that would more closely reflect existing incomes in the study area and help ensure that the neighborhoods continue to serve diverse housing needs.

Under both the Proposed Actions and the Reduced Rezoning Area Alternative, the scale of significant adverse impacts to open space and transportation would not affect any defining features of neighborhood character nor would a combination of moderately adverse impacts affect the neighborhood's defining features. Thus, as with the Proposed Actions, the changes in transportation due to the Reduced Rezoning Area Alternative would not result in significant adverse impacts on the neighborhood character.

CONSTRUCTION

The Reduced Rezoning Area Alternative would be constructed on the same Projected Development Sites as the Proposed Actions with the exception of sites in the Canal Street Corridor Project Area, which would not be developed as part of the Reduced Rezoning Area Alternative. Additionally, the land use program for the 54 Central Avenue and the Stapleton Waterfront Phase III Sites would be modified as part of the Reduced Rezoning Area Alternative. Despite those changes, the peak construction period would remain 2029 (Q1) and the workforce and truck deliveries would not change for the Reduced Rezoning Area Alternative compared to the Proposed Actions.

HISTORIC AND CULTURAL RESOURCES

The Reduced Rezoning Area Alternative, like the Proposed Actions, has the potential to result in significant adverse construction impacts on the S/NR-eligible 292 Van Duzer Street. However, unlike the Proposed Actions, the Reduced Rezoning Area Alternative would not result in any significant adverse construction-related impacts to the LPC-eligible and S/NR-eligible Stapleton Branch of the New York City Public Library (due to the elimination of the Canal Street Corridor Project Area, which encompasses Projected Development Site 20).

If resource 292 Van Duzer Street is designated or listed in the future, prior to the initiation of construction, the protective measures of NYCDOB's TPPN #10/88 would apply and indirect significant adverse impact from construction would be avoided. Should 292 Van Duzer Street remain undesignated/unlisted, however, the additional protective measures of TPPN #10/88 would not apply, and the potential for significant adverse construction-related impacts from developments within 90 feet (on Potential Development Site Q), would not be mitigated under either the Reduced Rezoning Area Alternative or the Proposed Actions.

CONSTRUCTION NOISE AND VIBRATION

The construction processes and phasing for the Projected Development Sites in the Reduced Rezoning Project Area are expected to be similar to those for the Proposed Actions. Therefore, it is anticipated that the predicted noise levels due to peak construction-related activities at these locations, with the exception of sites in the Canal Street Corridor Project Area, would be similar to the Proposed Actions. However, since the Reduced Rezoning Area Alternative would result in fewer Projected Development Sites, the extent of the significant adverse noise impacts under this alternative would be reduced when compared with those under the Proposed Actions.

In terms of potential vibration levels as a result of construction, the buildings and structures of most concern with regard to the potential for structural or architectural damage due to vibration would be buildings immediately adjacent to a Projected Development Site. Vibration levels at all of these

buildings and structures would be expected to be below the 0.50 inches/second PPV limit in both the Proposed Action and Reduced Rezoning Area Alternative. At locations further from Projected Development Sites, the distance between construction equipment and receiving buildings or structures is large enough to avoid vibratory levels that would approach the levels that would have the potential to result in architectural or structural damage. In terms of construction vibration levels that would be perceptible and annoying, in both the Proposed Actions and Reduced Rezoning Area Alternative, such construction equipment would only be in operation for limited periods of time at a particular location and, therefore, would not result in any significant adverse impacts.

Therefore, similar to the Proposed Action, there would be no significant adverse impacts from construction-related vibrations under the Reduced Rezoning Area Alternative.

CONSTRUCTION AIR QUALITY

Similar to the Proposed Action, in the Reduced Rezoning Area Alternative measures related to air quality would be taken to reduce pollutant emissions during construction in accordance with all applicable laws, regulations, and building codes. For the Proposed Actions, with the implementation of these emission reduction measures, the dispersion modeling analysis of construction-related air emissions for both on-site and off-site sources determined construction under the Proposed Actions would not result in significant adverse impacts. Therefore, since the Reduced Rezoning Area Alternative would result in a reduction in total development as compared to the Proposed Actions, construction under the Reduced Rezoning Area Alternative is not expected to result in significant adverse air quality impacts due to construction sources.

CONSTRUCTION TRANSPORTATION

Similar to the Proposed Actions, the Reduced Rezoning Area Alternative is not expected to result in any new significant impacts for traffic, transit, pedestrian or parking beyond those identified in Chapter 14, "Transportation." It is expected that the mitigation measures identified for 2030 operational traffic impacts would also be effective at mitigating any potential impacts from construction traffic during the peak construction condition.

F. A-TEXT ALTERNATIVE AS COMPARED TO THE PROPOSED ACTIONS

Since the issuance of the DEIS, DCP has prepared and filed an amended zoning text application (N190114(A) ZRR) that addresses issues raised after issuance of the DEIS consisting of modifications to the proposed zoning text amendments. HPD has also prepared and filed an amended disposition and UDAAP designation application (ULLURP No. C190179(A) HAR). The A-Text Alternative considers modifications to the proposed zoning text amendments related to the SSWD and the Proposed Special Bay Street Corridor District (SBSCD), as well as to the disposition terms of City Disposition Sites 2 (539 Jersey Street/100 Brook Street) and 3 (54 Central Avenue). Like the Proposed Actions, the A-Text Alternative would involve the same zoning map amendments to rezone the Bay Street Corridor and Canal Street Corridor Project Areas, zoning text amendments to create the Special Bay Street Corridor District (SBSCD), to modify the underlying building height regulations and existing streetwall requirements of the existing SSWD for Subareas A and B1, and to designate the Bay Street Corridor and Canal Street Corridor Project Areas as MIH areas, the disposition of three City-owned sites, Urban Development Action Area (UDAA) Designation and Project (UDAAP)

Approval, as well as a City Map amendment to demap the unimproved portions of Victory Boulevard Extension to facilitate development on City Disposition Site 3.

Under the A-Text Alternative, the SSWD regulations would be modified to allow buildings in Subareas A or B1 of the special district to waive from floor area calculation purposes up to 100,000 sf of community facility floor area for school use. This would increase the allowable density at the Stapleton Waterfront Phase III Sites and would affected building envelopes at the sites but would not alter the maximum building height permitted at either site.

The A-Text Alternative would also modify the proposed SBSCD to permit brewery uses throughout the new special district, as well as modify loading requirements and visual corridor design within the special district. Under the A-Text Alternative, breweries would be allowed to locate throughout the special district, provided that (1) the size of the brewery does not exceed 30,000 sf and (2) any brewery developed or enlarged after the date of enactment shall contain an accessory eating or drinking establishment. Additionally, the A-Text Alternative would modify the special visual corridor requirements to allow greater flexibility in terms of parking, access and amenities. These changes are expected to enhance the public realm of the special district. Furthermore, the A-Text Alternative would modify loading berth requirements to allow for greater flexibility in the layout of parking and loading areas and to reduce the need for developments to provide below-grade parking within the floodplain. This modification would better align the requirements for buildings containing commercial uses subject to different loading requirements such that each use in a mixed building would be subject to its respective loading requirement, instead of governed by the use with the highest loading requirement.

In addition, the A-Text Alternative would modify the disposition requirements for two of the three City Disposition Sites (City Disposition Sites 2 and 3), which would increase residential use, including affordable housing units, and community facility use, and reduce the amount of commercial use and parking proposed for the two disposition sites. As under the Proposed Actions, both City Disposition Sites 2 and 3 would be developed pursuant to the site's respective existing zoning.

Table 22-30 details the program assumptions changes for City Disposition Sites 2 and 3 under the Proposed Action, as compared to the A-Text Alternative. As shown in Table 22-30, the overall amount of development assumed at City Disposition Site 2 would increase, whereas the overall amount of development at City Disposition Site 3 would slightly decrease under the A-Text Alternative as compared to the Proposed Actions. The disposition terms of City Disposition Site 2 under the A-Text Alternative would include Affordable Independent Residences for Seniors (AIRS)[2]. The A-Text Alternative would also introduce community facility use at City Disposition Site 2 and reduce the amount of commercial use. As indicated in Table 22-30, with increased density at City Disposition Site 2, the maximum building height assumed for the site would increase by 15 feet from 40 feet under the Proposed Actions to 55 feet under the A-Text Alternative.

[2] Use Group 2 residence that requires a regulatory agreement with a City or State agency with a minimum term of 30 years. At least 90 percent of the space must be occupied by an elderly family, the head of which is 62 years or older. In addition, a minimum of four percent of the space must be dedicated to shared facilities for residents, like cafeterias and community rooms. Incomes are restricted to seniors making less than 80 percent of area median income (AMI).

While the disposition of City Disposition Site 3 is not included in the land use application at this time, the action is expected to be sought in the near future and thus is included in the environmental assessment. The modified assumptions for City Disposition Site 3 under the A-Text Alternative reflect the anticipated mixed-use residential and commercial program, as compared to a commercial office development assumed under the Proposed Actions.

Table 22-30: City Disposition Sites 2 and 3 under the Proposed Actions and A-Text Alternative

	City Disposition Site 2		City Disposition Site 3	
	Proposed Actions	A-Text Alternative	Proposed Actions	A-Text Alternative
Residential (sf)	***108,413***	***180,670 sf***	***0 sf***	***63,539 sf***
Unregulated Residential DUs	*54 DUs*	*33 DUs*	*0 DUs*	*0 DUs*
Affordable Residential DUs	*54 DUs*	*190 DUs[1]*	*0 DUs*	*64 DUs*
Total Residential DU	***108 DU***	***A223 DUs[1]***	***0 DUs***	***64 DUs***
Retail (sf)	*35,000 sf*	*10,800 sf*	*0 sf*	*8,768 sf*
Office (sf)	*0*	*0 sf*	*85,129 sf*	*8,768 sf*
Total Commercial (sf)	***35,000 sf***	***10,800 sf***	***85,129 sf***	***17,536 sf***
Total Community Facility (sf)	***0 sf***	***5,700 sf***	***0 sf***	***0 sf***
Building Area (sf)	***143,413 sf***	***197,170 sf***	***85,129 sf***	***81,075 sf***
Maximum Height	40 feet	55 feet	70 feet	70 feet

Notes: [1] Under the A-Text Alternative, City Disposition Site 2 would be redeveloped with 90 AIRS, and 133 family units, including 100 affordable units at or below 80 percent of Area Median Income (AMI) and 33 market-rate units.

The A-Text Alternative aims to reinforce the goals of the Bay Street Corridor Neighborhood Plan, primarily facilitating the creation of a walkable mixed-use corridor with greater access to housing, local retail uses, and services that will benefit the current and future residents of the area. The A-text Alternative would introduce a greater amount of residential dwelling units and community facility space, and reduce the amount of commercial use, as well as permit brewery uses throughout the proposed SBSCD. The changes proposed under the A-Text Alternative are in response to views expressed during the public review process, and are in appropriate areas of the district to allow continued consideration of appropriate building form and scale.

A key element of the Bay Street Corridor Neighborhood Plan is the creation of new housing, including prioritizing City-owned sites as generators of a greater number of affordable units than would otherwise be required through the MIH program. In response to comments expressed by the community to include additional educational and recreational amenities at the Stapleton Waterfront Phase III Sites, the A-Text Alternative would allow for the creation of up to 100,000 sf of community facility use for a school, while retaining the development potential of commercial and residential floor area to be developed in Subareas A and B1. The A-Text Alternative provides the ability to meet the objectives of the SSWD and Bay Street Corridor Neighborhood Plan as well as provide greater access to community-focused uses on the waterfront. In addition, the A-Text Alternative modifications to the disposition terms of City Disposition Sites 2 and 3 are intended to meet the Plan objectives of providing an increased number of housing units on City-owned sites in response to community desire to see a greater number of affordable housing units produced within the study area addressing a wider range of needs.

The A-Text Alternative modifications to the SBSCD to permit brewery uses throughout the corridor is intended to allow for greater flexibility of uses and jobs to be produced within the corridor. In

recent years, the number of breweries throughout NYC has continued to grow. The cost of land zoned for manufacturing and land available for this use pose a challenge for the creation of smaller breweries. The A-Text Alternative would allow for brewery uses up to 30,000 sf to be permitted as-of-right within the SBSCD, providing the ability for this use to tenant the ground floor of newly constructed mixed buildings or the reuse existing buildings within the area. To ensure that breweries uses contribute to the Plan's goal of creating a lively, walkable retail corridor, the A-text Alternative would require that any brewery use also includes an eating or drinking establishment.

The A-Text Alternative also aims to ensure that visual corridor regulations and loading requirements are enhancing the public realm and providing greater flexibility for development sites to comply with all zoning regulations, including the proposed SBSCD. The Proposed Actions require that Visual Corridors be mapped through select sites located to the east of Bay Street to break up the street wall and provide access to parking. The A-Text Alternative further defines the design standards for these Visual Corridors, allowing for these areas to serve as amenities to adjacent residential and commercial uses, provide seating and planting, further enhancing the public realm. The reduction in loading requirements proposed in the A-Text Alternative is intended to reflect the goals of the Plan to provide a variety of local retail uses and services and reduce the site planning constraints associated with the location of parking, high cost of providing structured parking, and the challenges of developing below-grade parking and loading within the flood zone. Similarly, the proposed modifications to the regulations governing the loading berth requirements for developments that contain uses subject to different requirements can present a conflict to the intent of the Bay Street Corridor Neighborhood Plan. The Proposed Actions would permit the creation of second story commercial uses and fully commercial office buildings within the SBSCD. Under current regulations, the loading requirement for all commercial uses would be subject to the highest requirement use located in a building, placing a challenge to development of commercial buildings that intend to develop with a mix of commercial uses. The A-Text Alternative aligns the underlying loading regulations with the goals of the Plan and encourages the creation of commercial uses and jobs within the area.

The A-Text Alternative is expected to strengthen the goals of the Bay Street Corridor Neighborhood Plan by providing a greater flexibility of uses, prioritizing City-owned land for the creation of affordable housing and community facilities, enhancing the public realm and promoting the creation of jobs and commercial uses within the Bay Street Corridor study area.

The A-Text Alternative would affect the same Project Area, including the Bay Street Corridor Project Area, Canal Street Corridor Project Area, three City Disposition Sites, and the Stapleton Waterfront Phase III Sites A and B1, as the Proposed Actions. Like the Proposed Actions, the A-Text Alternative includes 30 Projected and 23 Potential Development Sites. The A-Text Alternative would result in the same land uses, and consists of generally the same zoning actions sought under the Proposed Actions. The A-Text Alternative would include more projected development as compared to the Proposed Actions, and as shown in Table 22-31, would modify the development assumptions of four of the 30 Projected Development Sites, including Projected Development Site 5 in the Bay Street Corridor Project Area[3], City Disposition Sites 2 and 3, and the Stapleton Waterfront Phase III Site A. There

[3] Under the A-Text Alternative, the With-Action scenario for Projected Development Site 5 assumes a 10,000-sf brewery instead of 10,000 sf of restaurant uses (pursuant to the proposed modifications to SBSCD) for air quality analysis purposes. Like the Proposed Actions, the With-Action scenario for Projected Development Site 5 for all other CEQR technical analysis

would be no change to the amount of development, massing, or to the uses assumed on the remaining 26 Projected Development Sites. Additionally, none of the 23 Potential Development Sites would be affected by the A-Text Alternative.

Table 22-31: RWCDS Projected Development Sites Affected by the A-Text Alternative

Projected Development Site	Block No.	Affected Lots	Changes to RWCDS under the A-Text Alternative
Projected Development Site 5[1]	488	53, 65	Development Program Changes- 10,000 sf of restaurant use assumed to be 10,000-sf brewery No changes to building envelope/massing
City Disposition Site 2 (539 Jersey Street/100 Brook Street)	34	1	Development Program Changes- increase in residential use (223 DUs including AIRS), decrease in commercial uses (10,800 sf), and addition of community facility space (5,700 sf) Max. Building Height Increases to 55 feet tall; increase in density
City Disposition Site 3 (54 Central Avenue)	6	20	Development Program Changes- addition of residential use (64 DUs), decrease in commercial uses (8,768 sf of retail and 8,768 sf of office) No changes to building envelope/massing
Stapleton Waterfront Phase III Site A	487	100	Development Program Changes- addition of 100,000 sf of community facility space for school use No change to max. building height; additional building segment

Notes: [1] Under the A-Text Alternative, the With-Action scenario assumes a 10,000-sf brewery instead of 10,000 sf of restaurant use (pursuant to the proposed modifications to SBSC) on Projected Development Site 5 for air quality analysis purposes. Like the Proposed Actions, the A-Text Alternative With-Action scenario for all other technical areas conservatively assumes retail and restaurant uses at Site 5.

To assess the effects of the proposed allowance of brewery use in the SBSCD, a 10,000-sf brewery use would occupy one building at Projected Development Site 5 in the With-Action under the A-Text Alternative.[4] To assess the effects of the proposed community facility waiver in SSWD, Stapleton Waterfront Phase III Site A is assumed to include an additional building segment comprised of 100,000 sf community facility use. To assess the effects of the disposition terms for City Disposition Sites, a modified building program is assumed for City Disposition Sites 2 and 3. City Disposition Site 2 assumes 223 DUs (a portion of which would be affordable and AIRS) with retail and community facility uses; and City Disposition Site 3 assumes 64 DUs of affordable housing with commercial retail and office uses.

As compared to the Proposed Actions, the A-Text Alternative would result in a net increase of approximately 180 DUs with a greater portion of affordable units and an introduction of AIRS units, a net increase of 105,700 gsf in community facility uses, and a net decrease of 91,800 gsf in commercial uses (see Table 22-32). The loss of commercial floor area under the A-Text Alternative results from an incremental decrease of approximately 15,400 gsf in retail and an incremental decrease of roughly 76,400 gsf in office on City Disposition Sites 2 and 3 as compared to the Proposed Actions. There would be no change in the increment of other commercial floor area.

areas conservatively assumes retail and restaurant uses. The proposed modification to SBSCD would not affect the amount of future development, increase density, or change the building envelope assumptions at Projected Development Site 5 beyond what was analyzed in the DEIS.

[4] While the A-Text Alternative would permit brewery uses up to 30,000 sf, given the ground floor site constraints on the Projected Development Sites throughout the Bay Street Corridor Project Area, 10,000 sf reflects a relatively large ground floor, which could be occupied by a brewery.

TABLE 22-32: Comparison of RWCDS for the 30 Projected Development Sites under the Proposed Actions and A-Text Alternative

Land Use	Proposed Actions			A-Text Alternative			Incremental Difference
	No-Action Condition	With-Action Condition	Increment	No-Action Condition	With-Action Condition	Increment	
Residential (dwelling units and square feet [gsf])							
Residential (gsf)	*15,386*	***2,568,971***	***2,553,585***	*15,386*	***2,704,767***	***2,689,381***	***135,796***
Total Residential DUs	*12*	***2,569***	***2,557***	*12*	***2,748***	***2,736***	***179***
Commercial (square feet [gsf])							
Retail	*194,183*	*230,644*	*36,461*	*194,183*	*215,212*	*21,029*	*-15,432*
Office	*99,179*	*316,939*	*217,760*	*99,179*	*240,578*	*141,399*	*-76,361*
Restaurant	*14,000*	*71,000*	*57,000*	*14,000*	*71,000*	*57,000*	*0*
Other Commercial	*35,873*	*0*	*-35,873*	*35,873*	*0*	*-35,873*	*0*
Total Commercial	***343,235***	***618,583***	***275,348***	***343,235***	***526,790***	***183,555***	***-91,793***
Community Facility (square feet [gsf])							
Total Community Facility	***37,879***	***84,678***	***46,799***	***37,879***	***190,378***	***152,499***	***105,700***
Parking (spaces)							
Total Parking Spaces	*481*	*1,771*	*1,290*	*481*	*1,616*	*1,135*	*-155*
Population							
Total Residents[1]	*31*	*6,602*	*6,571*	*31*	*7,062*	*7,031*	*460*
Total Workers[2]	*1,253*	*2,565*	*1,312*	*1,253*	*2,534*	*1,281*	*-31*

Notes:
[1] Assumes 2.57 residents per dwelling unit based on 2010- 2014 ACS Five-Year Estimates average household size of renter-occupied units for Staten Island Census Tracts 3, 7, 11, 21, and 27.
[2] Estimated workers are based on the following rates: 4 employees per 1,000 sf of office; 3 employs per 1,000 sf of retail/supermarket/restaurant uses; one employee per 25 dwelling units; 3 employees per 1,000 sf of community facility uses; and 1 employee per 50 parking spaces.

Except for City Disposition Site 2 and the Stapleton Waterfront Phase III Site A, the proposed building heights, massing, and bulk on the Projected and Potential Development Sites would be the same as under the Proposed Actions, and there would be no change to the amount of development or the building envelope assumed at any of the sites under the A-Text Alternative. The A-Text Alternative would include additional floor area on City Disposition Site 2 and the Stapleton Waterfront Phase III Site A, which would result in a building with a greater maximum height on City Disposition Site 2 and an additional building segment constructed on Stapleton Waterfront Phase III Site A as compared to the Proposed Actions. The maximum building heights at the Stapleton Waterfront Phase III Sites would be the same as under the Proposed Actions. Except for these massing changes on City Disposition Site 2 and the Stapleton Waterfront Phase III Site A, there would be no other changes to the rest of the building envelopes assumed for the Projected and Potential Development Sites.

LAND USE, ZONING, AND PUBLIC POLICY

As under the Proposed Actions, the A-Text Alternative would not result any significant adverse impacts on land use, zoning, or public policy. The A-Text Alternative would not adversely affect surrounding land uses, nor would it generate land uses that would be incompatible with existing

zoning and land uses in the study area. Development under this alternative would be consistent with existing and planned uses and is not expected to significantly affect the mix of existing uses in the area. Furthermore, the A-Text Alternative would not result in development that conflicts with adopted public policies. Like the Proposed Actions, the A-Text Alternative would bring benefits to the Project Area- including opportunities for new affordable housing, increased economic activity, and improved pedestrian conditions, as well as transform three City-owned sites with a mix of affordable housing. commercial and/or community facility uses.

As described earlier, the A-Text Alternative would include the same zoning actions (amendments to the zoning map, text and UDAAP) as the Proposed Actions, and would affect the same Project Area. The A-Text Alternative would also result in the mapping of the same contextual zoning districts in the Bay Street Corridor and Canal Street Corridor Project Areas, which would establish maximum building heights to maintain an appropriate scale. and would establish the SBSCD, as proposed under the Proposed Actions. As with the Proposed Actions, the A-Text Alternative would increase density along selected corridors, and like the Proposed Action, the highest permitted FAR of 4.60 for development for residential, office uses, and community facility uses, depending on location (i.e., in a Special District Subdistrict) and configuration of sites. Both the Proposed Actions and the A-Text Alternative would map new commercial overlays along the Bay Street Corridor Project Area to incentivize mixed-use development, facilitate active streetscapes, and to encourage local retail to support the expected residential development in the area. The A-Text Alternative would also increase development at Stapleton Waterfront Phase III Sites allowing up to 100,000 gsf of community facility space for use as a school, facilitate the construction of a fully affordable mixed-use development at City Disposition Site 3 and a larger mixed-use development at City Disposition Site 2, which would include a greater amount of residential use, including affordable units and AIRS, retail, and community facility space.

Like the Proposed Actions, the A-Text Alternative would provide opportunities for new housing, including substantial amounts of affordable housing, which would expand housing choices for current and future residents. With the zoning text amendments to establish MIH areas in the Bay Street Corridor and Canal Street Corridor Project Areas, both the Proposed Actions and the A-Text Alternative would require residential development provide permanently affordable housing to ensure that the Tompkinsville and St. George neighborhoods continue to serve diverse housing needs. The proposed zoning changes would unlock development opportunities and allow for a growing residential population. Like the Proposed Actions, the A-Text Alternative would also create new commercial and community facility space to support job creation and provide services.

As shown in Table 22-32, the A-Text Alternative would result in the same land uses as the Proposed Actions. Although breweries would be permitted as-of-right throughout the SBSCD up to 30,000 sf under the A-Text Alternative. Both the Proposed Actions and the A-Text Alternative would result in an overall increase in residential, commercial, and community facility uses compared to the No-Action Condition. As described above, the A-Text Alternative would result in a greater number of dwelling units, including more affordable units and AIRS, and more community facility space, but slightly less commercial space and fewer accessory parking spaces compared to the Proposed Actions. In addition, there would be an increase in total development under the A-Text Alternative.

The A-Text Alternative would support, to a greater degree, the housing goals of the Proposed Actions. Development in the A-Text Alternative RWCDS would introduce 2,736 incremental dwelling units to the Project Area (compared to 2,557 with the Proposed Actions), including 1,261 affordable dwelling units. The A-Text Alternative is intended to support the goals and initiatives of the Bay Street Corridor Neighborhood Planning Initiative, which are consistent with the City's housing policy of increasing the amount of housing, including affordable housing.

Similar to the Proposed Actions, the A-Text Alternative would be consistent with the public policies that affect the study areas, including the City's WRP and would further support the goals of *Housing New York*, ONENYC, and PLANYC. The A-Text Alternative, like the Proposed Actions, directly support the goals and principles outlined in *Housing New York* by promoting affordable housing development, encouraging economic development, creating pedestrian friendly streets, and introducing new community resources to foster a more equitable neighborhood. As the A-Text Alternative would result in more housing, this alternative would increase the supply of housing available over the No Action Condition and increase the supply of affordable housing to a greater degree than the Proposed Actions. Additionally, like the Proposed Actions, the A-Text Alternative would be consistent with the City's WRP and would support the applicable policies of the City's WRP.

The A-Text Alternative would be consistent with the goals of OneNYC. The alternative would result in an incremental difference in dwelling units, commercial floor area, and community facility floor area as compared with the Proposed Actions. Like the Proposed Actions, it would help create affordable housing and support the development of a vibrant neighborhood, make streets safer, improve commercial services and provide access to jobs. While all these goals are staples of OneNYC, one of the most important goals is to create new housing opportunities at a range of incomes. Under the A-Text Alternative, a net increase of 2,736 DUs would result. Similar to the Proposed Actions, the A-Text Alternative would continue to focus development in areas serviced by public transit, foster walkable commercial corridors, and support job grown and expand economic activity.

By facilitating new development in the Project Area, the A-Text Alternative, like the Proposed Actions, would address many of the elements of PlaNYC 2030 and therefore would be compatible with this public policy. Overall, the A-Text Alternative would result in development similar to the Proposed Actions and would therefore also be consistent with the PlaNYC's goals with respect to land use, open space, water quality, transportation, air quality, energy, natural resources, and solid waste.

SOCIOECONOMIC CONDITIONS

Neither the Proposed Actions nor the A-Text Alternative would result in significant adverse impacts to any of the five areas of socioeconomic concern: (1) direct residential displacement; (2) indirect residential displacement; (3) direct business displacement; (4) indirect business displacement; and (5) adverse effects on specific industries. Under the A-Text Alternative, development would occur on the same 30 Projected Development Sites as under the Proposed Actions. As noted above, compared to the Proposed Actions, the A-Text Alternative would affect the RWCDS assumed for four Projected Development Sites. The A-Text Alternative RWCDS would generate a greater amount of residential and community facility development, with a reduction of approximately 91,793 sf of commercial use, and an increase of approximately 105,700 sf of community facility use and 179 dwelling units on the Projected Development Sites.

Compared to the Proposed Actions, under the A-Text Alternative, 179 (approximately seven percent) more total housing units and 200 (nearly 19 percent) more affordable housing units would be introduced to the Project Area. The A-Text Alternative would introduce an increment of 2,736 housing units, including 1,261 affordable housing units, compared to the No-Action Condition. In addition, the A-Text Alternative would introduce 91,793 (approximately 33 percent) less commercial square footage, and an additional 105,700 sf of community facility uses as compared to the Proposed Actions. The A-Text Alternative would also introduce AIRS expanding the type of housing. The A-Text Alternative would increase employment by an estimated 1,281 jobs compared to the No-Action Condition, which represents a slight decrease in jobs compared to the Proposed Actions' increment of 1,312 workers.

The A-Text Alternative would result in the same amount of direct residential and direct business displacement because the number and location of Projected Development Sites would not change from the Proposed Actions. Like the Proposed Actions, five housing units located on portions of two Projected Development Sites (part of Sites 12 and 19), housing an estimated 13 residents, would be directly displaced with the A-Text Alternative.[5] This level of potential direct residential displacement does not exceed the threshold for potential significant adverse impacts due to direct residential displacement and therefore, as concluded for the Proposed Actions, this displacement would not substantially alter the socioeconomic character of the neighborhood.

Similar to the Proposed Actions, the A-Text Alternative could potentially directly displace 30 businesses, employing approximately 244 workers, from 14 Projected Development Sites. The 30 business represent retail, grocery, car repair, banking, and other services. The approximately 244 employees likely to be directly displaced represent roughly five percent of employees in the Study Area and approximately 0.26 percent of employees in Staten Island. None of the directly displaced businesses are of a type that directly support businesses in the study area or bring people to the area that form a customer base for local businesses. These businesses do not draw large volumes of customers to their locations relative to the overall consumer draw within the study area, nor are these firms relied upon exclusively for products or services by business establishments in the study area. In addition, the A-Text Alternative would not directly or indirectly displace residents, workers, or visitors who form a customer base for existing businesses in the study area.

The addition of commercial, housing, and community facility uses under the A-Text Alternative would not lead to significant direct or indirect residential displacement, nor direct or indirect business and institutional displacement. Like the Proposed Actions, the new commercial development would not constitute new economic activities in the study area or add to a concentration of a particular sector of the local economy enough to alter or accelerate commercial market trends in the study area. The Study Area has well-established residential and commercial markets. The A-Text Alternative would also not adversely affect business conditions in any industry or any category of businesses within or outside the Study Area, nor would the A-Text Alternative substantially reduce employment or impair the economic viability in an industry or category of businesses. The A-Text Alternative would add an increment of 2,736 dwelling units, including more

[5] Consistent with assumptions used to evaluate the Proposed Actions, the estimated number of residents who could be directly displaced is based on the U.S. Census Bureau's 2010-2014 Five-Year ACS estimates of the average household size (2.57) in Staten Island Community District 1.

permanently affordable units than the Proposed Action, which are expected to help ensure a range of household incomes in the study area.

Like the Proposed Actions, the A-Text Alternative would increase housing, community facility space, and commercial development within the Study Area, seeking to build upon existing place-based assets to accommodate growth and improve the quality of life for residents in the Study Area and surrounding neighborhoods. Like the Proposed Actions, the A-Text Alternative would expand the opportunities for additional housing and promote the development of permanently affordable housing within the Project Area. Additionally, like the Proposed Actions, the A-Text Alternative would serve to support housing growth and affordable housing by creating the opportunity to build residential housing units in areas that largely do not permit residential development or low-density areas to meet the existing gap in housing supply. The A-Text Alternative would introduce more dwelling units, including AIRS on City Disposition Site 2, as well as a greater percent of affordable housing units that are expected to serve a more diverse demographic within the Study Area. The additional housing units would also provide added supply to meet increasing housing demand in an area well served by transit to help relieve demand pressures. Like the Proposed Actions, the A-Text Alternative would provide additional housing in an area where demand is high and address unmet demand for new affordable housing in the Study Area.

COMMUNITY FACILITIES

The A-Text Alternative would introduce more residents to the study area as compared to the Proposed Actions, and therefore, has the potential to result in an increase in demand on area community facilities. Neither the Proposed Actions nor the A-Text Alternative would result in direct impacts to community facilities and services. Like the Proposed Actions, the A-Text Alternative does not exceed *CEQR Technical Manual* thresholds requiring analysis of health care facilities, or police or fire protection services, indicating that there would be no significant adverse impacts on these facilities.

Similar to under the Proposed Actions, the A-Text Alternative would exceed the thresholds for indirect analysis of public elementary, intermediate, and high schools; libraries; and publicly funded child care facilities. Similar to the Proposed Actions, the A-Text Alternative would result in significant adverse impacts on public elementary schools and child care facilities. Neither the Proposed Actions nor the A-Text Alternative would result in significant adverse impacts to public intermediate schools, public high schools, and libraries.

PUBLIC SCHOOLS

The A-Text Alternative would result in an additional 179 DUs as compared to the Proposed Actions for a total increment of approximately 2,736 DUs over the No Action Condition. Based on the newly released multipliers for student generation rates, the A-Text Alternative would introduce approximately 766 elementary school students and 301 intermediate school students to Sub-district

4 of CSD 31, and approximately 356 high school students to the borough of Staten Island (see Table 22-33).[6]

TABLE 22-33: Estimated Student Generation in the Future with the A-Text Alternative

Study Area	Proposed Incremental Housing Units (DUs)	Students Introduced by Proposed Development Sites		
		Elementary	Intermediate	High School
CSD 31, Sub-district 4	2,736	767	301	--
Staten Island	2,736	--	--	356

Source: The multipliers for primary and intermediate schools have been refined to reflect how many pupils are generated by new housing at the school district level (multipliers for high schools have been maintained at the borough level). As such, thresholds for determining when public schools analyses are necessary have changed. For elementary and intermediate schools in CSD 31 in Staten Island, if a project is anticipated to introduce more than 128 incremental residential units, an analysis is warranted. For high schools in Staten Island, the new threshold is 1,205 incremental residential units. The 2014 *CEQR Technical Manual* has not been updated to reflect these new thresholds. However, DCP as lead agency, in consultation with the Mayor's Office of Environmental Coordination (MOEC) has determined that the 2012-2016 American Community Survey (ACS) – Public Use Microdata Sample (PUMS) data should be utilized as the basis for determining the need for a public schools indirect CEQR analysis, to present a reasonable and accurate environmental assessment.

As shown in Table 22-34, under the A-Text Alternative, the total elementary school enrollment of Sub-district 4, CSD 31 would increase to 14,804 (137 percent utilization) with a deficit of 3,961 seats under the A-Text Alternative. The total intermediate school enrollment of Sub-district 4, CSD 31 would increase to 5,032 (88 percent utilization) with a surplus of 666 seats. The total high school enrollment for the borough of Staten Island would increase to 20,437 (131 percent utilization) with a deficit of 4,861 seats.

TABLE 22-34: 2030 Estimated With-Action Elementary, Intermediate and High School Enrollment, Capacity, and Utilization under the A-Text Alternative

Study Area	Projected 2030 Enrollment[1]	Students Introduced by the A-Text Alternative	Total With-Action Enrollment	Capacity[3]	Available Seats	Utilization (%)	Change in Utilization (%) from No-Action Condition
Elementary Schools							
CSD 31, Sub-district 4	14,038	767	14,804	10,843	-3,961	137	+8.0%
Intermediate Schools							
CSD 31, Sub-district 4	4,731	301	5,032	5,698	666	88	+5.0%
High Schools							
Staten Island	20,081	356	20,437	15,576	-4,861	131	+2.0%

Note(s): DOE *Enrollment Projections 2018-2026 by the Grier Partnership*; DOE, *Utilization Profiles: Enrollment/Capacity/Utilization, 2017-2018*, DOE *2020-2024 Proposed Five-Year Capital Plan,* February 2019; School Construction Authority (SCA); NYC SCA Projected New Housing Starts as used in 2018-2027 Enrollment Projections.

According to the *CEQR Technical Manual,* a significant adverse impact may occur if a proposed action would result in (i) a utilization rate of the elementary and/or intermediate schools that is equal to or greater than 100 percent in the future With-Action Condition; and (ii) an increase of five percentage points or more in the collective utilization rate between the No-Action and With-Action conditions.

[6] New Projected Public School Ratios data were released by the SCA as part of the documents used in drafting the New York City Department of Education (DOE)/SCA Fiscal Year (FY) 2020-2024 Capital Plan (February 2019). According to these data, multipliers for primary and intermediate schools have been refined to reflect how many pupils are generated by new housing at the school district level instead of the respective borough (multipliers for high schools have been maintained at the borough level).

For high schools, a significant adverse impact would be identified if the RWCDS would result in both of the following conditions: (1) a utilization rate of the high schools in the borough of Staten Island that is equal to or greater than 100 percent in the With-Action Condition; and (2) an increase of five percentage points or more in the collective utilization rate between the No Action and the With-Action Conditions.

Under the A-Text Alternative, intermediate schools would continue to operate with a surplus of seats (see Table 22-34). The increase in utilization attributable to the A-Text Alternative would be approximately five percentage points for intermediate schools. Although this increase in utilization would be equivalent to the five percentage-point-change threshold, the overall utilization rate of intermediate schools in CSC 31, Sub-district 4 would remain below 100 percent for intermediate schools. High schools within the borough of Staten Island would continue to operate with a shortfall of seats under the A-Text Alternative. However, the increase in utilization attributable to the A-Text Alternative would be approximately two percent, which is below the five percentage point-change threshold outlined in the *CEQR Technical Manual*. Therefore, in accordance with *CEQR Technical Manual* guidelines, the A-Text Alternative would not result in significant adverse impacts to public intermediate or high schools.

As shown in Table 22-34, under the A-Text Alternative, elementary school enrollment in CSD 31, Sub-district 4 would continue to exceed capacity. Elementary school enrollment would increase from 14,038 students in the No-Action Condition to 14,804 students under the A-Text Alternative. As such, the elementary school collective utilization rate for Sub-district 4, CSD 31 would increase from approximately 129 percent in the No Action Condition to approximately 137 percent under the A-Text Alternative (roughly an eight-percentage-point increase), with a deficit of approximately 3,961 elementary school seats. Therefore, similar to the Proposed Actions, the A-Text Alternative would result in a significant adverse impact on elementary schools, and would increase the estimated deficit by approximately 1.3 percent (51 seats), as compared to the deficit estimated for the Proposed Actions.

Mitigation

As the A-Text Alternative would result in similar impacts as under the Proposed Actions, similar mitigation would be needed to mitigate the elementary school impact as under the Proposed Actions.

To avoid the potential for a significant adverse impact on elementary school seats in CSD 31, Sub-district 4, the A-Text Alternative would need to create an additional 34 elementary school seats, for a total of 209 new elementary school seats, as compared to the need for 175 new elementary school seats under the Proposed Actions. Potential mitigation measures pertaining to public elementary schools has be explored by DCP and the SCA/DOE and discussed in detail in Chapter 21, "Mitigation". To eliminate this impact in Sub-district 4, CSD 31, the following mitigation measures could be applied in conjunction with the City's monitoring of capacity: a) restructure or reprogram existing school space under the DOE's control in order to make available more capacity in existing school buildings located within Sub-district 4, CSD 31; b) relocate administrative functions to another site, thereby freeing up space for classrooms; and/or c) create additional capacity in the area by constructing a new school(s), building additional capacity at existing schools, or leasing additional school space constructed as part of projected developments within Sub-district 4, CSD 31. In the current 2020-

2024 Five Year Capital Plan, 1,776 elementary/intermediate school seats have been funded to address exiting school seat needs in CSD 31, Sub-district 4. SCA is in the process of identifying appropriate sites to locate and construct these funded school seats. If the Bay Street Corridor Rezoning application is approved, a parcel within the Stapleton Waterfront Phase III development, which has been identified, will serve as the site for a new primary or pre-kindergarten through 8th grade school construction by the SCA. This action would take place in a future Five-Year Capital Plan, as the development associated with the Proposed Actions proceeds and should the need arise.

To mitigate the identified elementary school impact resulting from the A-Text Alternative, enrollment in CSD 31, Sub-district 4 will be monitored. If a need for additional capacity is identified, DOE will evaluate the appropriate timing and mix of measures, identified above, to address increased school enrollment. In coordination with the SCA, if additional school construction is warranted, and if funding is available, it will be identified in the Five-Year Capital Plan that covers the period in which the capacity need would occur.

DCP, as lead agency, will continue to explore possible mitigation measures with the SCA/DOE. If feasible mitigation measures cannot be identified to fully mitigate the impact, the impact will be identified as unavoidable.

CHILD CARE

The A-Text Alternative would increase the amount of affordable housing units eligible for publicly funded child care services by 110 DUs as compared to the Proposed Actions,[7] for a total increment of approximately 1,171 affordable dwelling units over the No Action Condition by 2030. Based on the *CEQR Technical Manual* child care multipliers, the A-Text Alternative would introduce approximately 106 children under the age of six who would be eligible for publicly-funded child care programs.

With the addition of these children, publicly-funded child care facilities in the study area would operate at approximately 128.2 percent utilization with a deficit of 108 slots under the A-Text Alternative (see Table 22-35). Total enrollment in the study area would increase to 491 children, compared to a capacity of 383 slots, which represents an increase in the utilization rate of more than 27 percentage points over the No Action Condition.

[7] The A-Text Alternative would introduce 200 new affordable units at City Disposition Sites 2 and 3. Under the A-Text Alternative, City Disposition Site 2 is assumed to be developed with 90 AIRS, and 100 affordable family units, as well as 33 market-rate units, as compared to 108 DUs under the Proposed Actions with 50 percent assumed to be affordable. City Disposition Site 3 is assumed to be 100 percent affordable under the A-Text Alternative, resulting in a net increase of 64 affordable units at the site. The 0.09 children-per-unit multiplier for the incremental affordable units eligible for publicly-funded child care services is based on Table 6-1b of the *CEQR Technical Manual*. In order to ensure a conservative analysis, it is assumed that all of the affordable housing units, with the exception of 90 AIRS units, would meet the financial and social eligibility criteria for publicly funded child care.

TABLE 22-35: Estimated Publicly-Funded Child Care Facility Enrollment, Capacity, and Utilization

	Enrollment	Capacity	Available Slots	Utilization Rate	Percentage Point Change in Utilization
No-Action Condition	386	383	-3	100.78%	-
A-Text Alternative With-Action Condition	491	383	-108	128.20%	27.42%

Source: New York City Administration for Children's Services (ACS)

Mitigation

Under the A-Text Alternative, publicly funded child care facilities in the study area would operate with a deficit of 108 slots and exhibit a 27.4 percentage point increase in the utilization rate, exceeding the five percent *CEQR Technical Manual* threshold for impacts. Similar to the Proposed Actions, the A-Text Alternative would result in a significant adverse impact on child care facilities, and would increase the estimated deficit of child care slots by approximately 10.2 percent (10 slots), as compared to the deficit estimated for the Proposed Actions.

To avoid the potential for a significant adverse impact on child care facilities, the A-Text Alternative would need to create an additional 11 child care slots, for a total of 83 new child care slots, as compared to the need for 72 new child care slots under the Proposed Actions. Like the Proposed Actions, the number of affordable dwelling units that could be developed on the identified Projected Developed Sites under the A-Text Alternative would have to be reduced to 210 affordable units from 1,171 affordable units—an approximately 82 percent reduction (961 fewer affordable units).

The projected increase in demand for child care slots under the A-Text Alternative could be offset by private day care facilities and day care centers outside of the Child Care Study Area, which are not included in this analysis; some parents may choose day care providers that are closer to their workplace rather than their home. While the CEQR analysis is limited to ACS-contracted child care facilities per the 2014 *CEQR Technical Manual*, DOE also contracts with childcare providers to provide additional publicly-funded early education opportunities that are available to all residents, regardless of family income. Since 2014, the City has made significant investments to provide free, full-day, high-quality early childhood education through Pre-K for All and 3-K for All, as part of a broader effort to create a continuum of high-quality early care and education programs for New York City children from birth to five years old. Furthermore, all programs previously managed by ACS will shift to management by DOE, enabling consistent high-quality standards under a single agency by the second half of 2019.

There are an additional ten DOE-operated or DOE-contracted sites in the study area that are available to all residents, regardless of family income, that are not included in the CEQR analysis.

In addition, the SCA plans to construct eight new 3K centers on Staten Island that would add an additional 965 slots childcare capacity, at least two of which would be located within the study area, anticipated to open by 2020. ACS will also monitor the demand and need for additional publicly funded day care services in the area and identify the appropriate measures to meet demand for additional slots. While these measures could offset or would serve to at least partially mitigate the identified impact, in the event that the significant adverse impact on publicly funded child care facilities is not completely eliminated, an unavoidable significant impact would result.

LIBRARIES

The A-Text Alternative would result in an increase in the number of residents demanding library services. The A-Text Alternative assumes an incremental increase of 179 DUs (or an additional 460 residents) as compared to the Proposed Action, for a total increment of approximately 2,736 DUs (or an additional 7,031 residents) over the No Action Condition.

Table 22-36 provides the population increase and the change in the holdings-per-resident ratio for the two library catchment areas located within a 0.75-mile radius (Library Study Area) of the Project Area. As compared to the Proposed Actions, only the catchment area population for the St. George Library Center would increase under the A-Text Alternative, as the additional housing units under this alternative would be introduced to City Disposition Sites 2 and 3, which are more proximate to the St. George Library Center. With this additional population, the St. George Library Center would serve 22,577 residents (approximately a 9.42 percent increase from No-Action Conditions). Under the A-Text Alternative, the holdings per resident ratio for the St. George Library Center catchment area would decrease from approximately 3.56 under the No-Action to 3.25.

TABLE 22-36: A-Text Alternative With-Action Condition: Library Catchment Area Population

Library Name	Catchment Area Population- Future Without the Proposed Actions	Population Increase due to the A-Text Alternative[1]	Catchment Area Population with the A-Text Alternative	Population Increase	Holdings Per Resident
NYPL- Stapleton Branch	32,848	5,087[2]	37,935	15.49%	1.16
St. George Library Center	20,633	1,944[3]	22,577	9.42%	3.25

Notes: [1]Projected Development Sites located within more than one library catchment area are assigned to the most proximate library/libraries. Stapleton Waterfront Phase III Site A's With-Action residents were split between the Stapleton and St. George Library Branch catchment areas.
[2] The NYPL Stapleton Brach catchment area is expected to serve Bay Street Corridor Projected Development Sites 1, 3, 4, 5, 6, 11, 12, 13, 14, 15, 16, and 17, all the Canal Street Corridor Projected Development Sites, Stapleton Waterfront Phase III Site B1, and part of Site A.
[3] The St. George Library Center is expected to serve Bay Street Corridor Projected Development Sites 2, 7, 8, 9, and 10, City Disposition Sites 2 and 3, and part of Stapleton Waterfront Phase III Site A.

Like the Proposed Actions, the catchment area population increases for both the Stapleton Branch and the St. George Library Center attributable to the A-Text Alternative would exceed the five percent point threshold cited in the *CEQR Technical Manual*. Therefore, the A-Text Alternative, like the Proposed Actions, could result in a noticeable change in the delivery of library services at these branches. However, although the population introduced by the A-Text Alternative would result in an increase of more than five percentage points compared to the No-Action, similar to the Proposed Actions, no significant adverse impacts on New York Public Library (NYPL) branches in the Library Study Area are anticipated. Although there are no additional public libraries within the immediate vicinity of the Project Area, residents in the Library Study Area would also have access to three additional NYPL branches located less than three miles from the Project Area, as well as the entire NYPL system through the interlibrary loan system, which delivers books to the nearest library branch. Therefore, there are more library resources available to Library Study Area residents than are reflected in the quantitative analysis. In addition, residents would have access to libraries near their place of work. Furthermore, it is anticipated that the trend toward increased electronic research, the SimplyE[8] mobile app, and the interlibrary loan system would make space available for

[8] SimplyE is a free e-reader mobile application that gives library cardholders the ability to browse, borrow, and read more than 300,000 free e-books from the NYPL.

increased patron capacity and programs to serve the future population. Therefore, like the Proposed Actions, the A-Text Alternative would not result in significant adverse impacts on library services.

OPEN SPACE

Neither the Proposed Actions nor the A-Text Alternative would result in a significant adverse direct open space impact. Both the A-Text Alternative and the Proposed Actions would introduce approximately 4.6 acres of open space (including 3.6 passive open space acres and 1 active open space acre) as part of the projected development at the Stapleton Waterfront Phase III Sites. The A-Text Alternative would not result in development on any new sites in the Project Area, and, as presented in the "Shadows," section, below, the A-Text Alternative would not result in any incremental shadow impacts on any open space resources.

Like the Proposed Actions, the A-Text Alternative would result in a significant adverse impact related to indirect effects to open space. Under the Proposed Actions and A-Text Alternative, both the total and active open space ratios for residents in the 0.5-mile Residential Study Area would fall short of the City's guidelines and would decrease by more than five percentage points compared to the No Action Condition. As the A-Text Alternative would introduce more residents than the Proposed Actions, the open space ratios for the Residential Study Area under the A-Text Alternative would be slightly lower than those under the Proposed Actions.

Under either the Proposed Actions or the A-Text Alternative scenario, the open space ratios for the Non-Residential (0.25-mile) Study Area would exceed the *CEQR Technical Manual* passive open space ratio guidance, and therefore daytime and residential users of open space would continue to be well-served by passive open space resources. As such, there would be no significant adverse indirect open space impacts in the Non-Residential Study Area as a result of either this alternative or the Proposed Actions.

However, under either the Proposed Actions or the A-Text Alternative, the reduction in the total and active open space ratios for the Residential Study Area compared to No Action Conditions would be considered a significant adverse impact, when considering the level of decreases in the open space ratios and the relationship of the ratios to *CEQR Technical Manual* open space ratio guidance. Specifically, under the A-Text Alternative, the residential total and active open space ratios would decrease by 7.80 and 10.36 percent, respectively, to 1.40 and 0.52 acres per 1,000 residents; this compares to respective reductions of 7.01 and 9.67 percent to 1.41 and 0.52 acres per 1,000 residents, respectively, under the Proposed Actions. The passive open space for the combined user population in the Residential Study Area would decrease by 6.21 percent from the No-Action Condition under the A-Text Alternative, as compared to a decrease of approximately 5.35 percent under the Proposed Actions.

Like the Proposed Actions, the total and active open space ratios for the Residential Study Area would be below the *CEQR Technical Manual* open space guidance for open space adequacy and citywide planning goals and the percent change from the No-Action Condition to the A-Text Alternative would exceed five percent. Therefore, like the Proposed Actions, the A-Text Alternative would similarly result in a significant adverse impact on total and active open space resources in the Residential Study Area.

Mitigation

To avoid the identified significant adverse Residential Study Area open space impact expected to occur under the A-Text Alternative, the number of residents that could be introduced on the Projected Development Sites would have to be reduced to less than 4,085 (or less than approximately 1,590 residential units). This would represent an approximately 58 percent reduction in the number of residential units anticipated under the A-Text Alternative RWCDS. Alternately, in order to avoid a significant adverse open space impact, the A-Text Alternative would have to provide approximately 6.6 acres of additional open space (2.0 acres more than the 4.6 acres provided in the With-Action), including 2.63 acres of active open space to the study area. This compares to a total of 6.15 acres of open space needed to mitigate the significant adverse open space impact anticipated under the Proposed Actions.

As presented in Chapter 21, "Mitigation," potential mitigation measures were explored in coordination with the lead agency, DCP, and the New York City Department of Parks and Recreation (DPR), New York City Department of Education (DOE), New York City Department of Transportation (DOT), New York City Economic Development Corporation (EDC), and DOE between the DEIS and FEIS. Based on these discussions, measures considered to mitigate significant adverse open space impacts, included: developing a new recreation center at the Lyons Pool site; making improvements to existing parks to allow for expanded programming and enhanced usability; making New York City public school playgrounds accessible to the community after school hours through the Schoolyards to Playgrounds program; and public realm improvements in the vicinity of the intersection of Victory Boulevard and Bay Street.

Based on these discussions, the public realm and pedestrian improvements at underutilized street space located at the intersection of Victory Boulevard and Bay Street have been identified for implement. These improvements will provide an enhanced pedestrian realm at a critical gateway to the Bay Street Corridor. They will consist of amenities such as benches, lighting, trees and planting to encourage pedestrian activity, support access to public transit, and improve the streetscape. The proposed public realm improvements are anticipated to total at least 0.13 acres.

Other measures have been identified that could substantially enhance and/or increase the amount of open space resources for the additional population introduced by the Proposed Actions and A-Text Alternative. If funded and implemented, these measures could further mitigate the significant adverse open space impact.

- Development of a new recreation center at the Lyons Pool site, as identified by NYC Parks in the recently completed North Shore Staten Island Recreation Center Feasibility Study: If implemented, this facility would provide a significant complement of active recreational amenities and could add approximately 1 acre of new active recreation.
- Creating a publicly accessible playground at a school proposed to be located at the Stapleton Waterfront site. This would provide new active open space to the community in close proximity to an area where significant residential development is projected at Stapleton Waterfront.
- Improvements to study area open space resources: Improvements to sites, such as converting Village Hall at Tappen Park to park use and/or enhancing park components at existing parks, could help to qualitatively improve open space for current and future residents. The scope of

improvements to study area open space resources would be contingent upon available funds and the deficiencies or needs specific to the open space resource.

Although these additional measures could substantially enhance and increase the usability of open space resources and partially mitigate the significant adverse open space impact, capital and expense of funding to build and maintain additional open space or park facilities has not been identified at this point in time. Consequently, the significant adverse indirect open space impact would not be completely eliminated and, as a result, an unavoidable significant adverse open space impacts would occur avenues to implement the measures identified along with other opportunities to create new publicly-accessible open space resources, improve existing open spaces, and/or provide additional programming within existing open spaces.

SHADOWS

The A-Text Alternative, like the Proposed Actions, would not result in significant adverse impacts to shadows. As described above, development under the A-Text Alternative would occur on the same 30 Projected Development Sites and 23 Potential Development Sites and would not result in development on any new sites. The A-Text Alternative would alter the massing of City Disposition Site 2 and would introduce an additional building segment at Stapleton Waterfront Phase III Site A. No other changes would occur to the RWCDS massing assumptions for the 28 remaining Projected Development Sites and all Potential Development Sites under the A-Text Alternative as compared to the Proposed Actions.

As described above, the exemption of up to 100,000 sf of community facility use in SSWD would alter the building envelopes at Stapleton Waterfront Phase III Site A. The additional floor area would be accommodated in an additional building segment on Site A. The A-Text Alternative would not modify the maximum building heights at Stapleton Waterfront Phase III compared to the Proposed Actions. While the Stapleton Waterfront Phase III Sites are adjacent to one existing sunlight-sensitive resource, the Upper New York Bay, the changes to the building's massing on Site A that would result under the A-Text Alternative are not expected to result in any increases to incremental shadow coverage or duration and would not result in any significant adverse shadow impacts.

In addition, at City Disposition Site 2, a mixed-use residential, community facility and commercial development that would include AIRS would be constructed under the A-Text Alternative, which would be a slightly larger development than what had been assumed under the Proposed Actions for the site. To accommodate the changes to residential, commercial, and community facility floor area under the A-Text Alternative, the building footprints on City Disposition Site 2 would also be slightly modified, but with no overall effect on the lot coverage of the proposed development. Although the additional density at City Disposition Site 2 would increase the maximum building height at the site by 15 feet, from 40 feet to 55 feet and result in minor changes to building footprints, a preliminary screening assessment determined that there are no sunlight sensitive resources within the expanded maximum shadow radius for City Disposition Site 2.[9]

[9] According to the *CEQR Technical Manual*, the longest shadow that a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. Under the A-Text Alternative, the maximum shadow radius for a 55-foot tall building at City Disposition Site 2 would be approximately 237 feet.

Like the Proposed Actions, the A-Text Alternative would not result in any incremental shadows being cast on sunlight-sensitive historic resources, except for Lyons Pool. The A-Text Alternative would result in same amount of incremental shadows being cast on five open space resources (including Lyons Pool-Entire Property, Lyons Pool- Main Pool, Tompkinsville Park, Tappen Park, and Canal Street Greenstreets) as well as one natural resource (Upper New York Bay) as the Proposed Actions. As under the Proposed Actions, incremental project-generated shadows under the A-Text Alternative would not substantially reduce or eliminate direct sunlight on any of the six sunlight-sensitive resources, and therefore would not have the potential to affect the utilization or enjoyment of any sunlight-sensitive resources. Although, the active recreation areas of Lyons Pool – Entire Property and Lyons Pool – Main Pool would receive sizable incremental shadow coverage during the summer analysis days, the pool would continue to receive direct sunlight throughout the late morning and early afternoon when utilization would be highest. Therefore, the incremental shadows on Lyons Pool – Entire Property and Lyons Pool – Main Pool would not result in a significant adverse impact on the usability of this resource. In addition, all five open space resources, would continue to receive a minimum of four- to six-hours of direct sunlight throughout the growing season and vegetation would not be affected. Therefore, like the Proposed Actions, the A-Text Alternative would not result in significant adverse shadows impacts on any sunlight-sensitive resources.

HISTORIC AND CULTURAL RESOURCES

As under the Proposed Actions, the A-Text Alternative would not result in any significant adverse direct or indirect (contextual impacts) to architectural resources, nor would it result in any shadow impacts on historic resources. Both the Proposed Actions and the A-Text Alternative would result in construction-related significant adverse impacts to architectural resources and direct impacts to archaeological resources.

ARCHAEOLOGICAL RESOURCES

The A-Text Alternative would affect the same Project Area and would not result in any new Projected or Potential Development Sites. As under the Proposed Actions, the A-Text Alternative could result in significant adverse archaeology impacts associated with potential prehistoric and nineteenth- to early twentieth-century waterfront archaeological features on Projected Development Site 5 in the Bay Street Corridor Project Area.

As discussed in Chapter 7, "Historic and Cultural Resources," a Phase 1A study of Projected Development Site 5 concluded that the archaeological area of potential effects (APE) has a moderate to high sensitivity for prehistoric resources on the western margin in the limited area of fast land, and a moderate to high sensitivity for nineteenth- to early-twentieth-century waterfront features (docks or piers) in the remainder of the southern archaeological-APE. The northern, narrow portion of the archaeological-APE was identified as having no to low sensitivity for shoreline features. Based on these findings, the Phase 1A study concluded that Phase 1B archaeological testing is necessary in advance of any future ground disturbing developments within the two areas of archaeological sensitivity on Site 5 to determine the absence or presence of these potential buried resources.

The development program changes on Projected Development Site 5 under the A-Text Alternative are not expected to change construction activity on the site. As Projected Development Site 5 is owned by a private entity, there is no mechanism in place to require a developer to conduct

archaeological testing or require the preservation or documentation of archaeological resources, should they exist. As such, like the Proposed Actions, the A-Text Alternative has the potential to result in significant adverse archaeological impacts on Projected Development Site 5.

The addition of 100,000 sf of community facility space on the Stapleton Waterfront Phase III Site A would result in an additional building segment constructed on the Projected Development Site (Block 487, Lot 100). As also described in Chapter 7, a Phase 1A archaeological documentary study was conducted for both the Stapleton Waterfront Phase III Sites to determine if archaeological resources may exist on the sites. LPC determined in a letter dated 4/3/2017, included in Appendix K that the sites have no potential archaeological significance and therefore no further analysis was warranted.

ARCHITECTURAL RESOURCES

Direct (Physical Impacts)

Development under the A-Text Alternative would occur on the same 30 Projected Development Sites and 23 Potential Development Sites. As there are no designated or eligible historic resources located on any Projected or Potential Development Sites, neither the Proposed Actions nor the A-Text Alternative would result in significant adverse direct impacts to historic resources.

Indirect (Contextual) Impacts

Similar to the Proposed Actions, Projected Development Sites 2, 7, 16, and 17 and Potential Development Sites O, P, and Q in the Bay Street Corridor Project Area are located in the vicinity of LPC-designated and S/NR-eligible historic landmarks in the A-Text Alternative, and the development anticipated on these sites would be at building heights and bulk identical to the Proposed Actions. Therefore, similar to the Proposed Actions, the development anticipated under the A-Text Alternative would not alter any historic resource's setting or its visual relationship to the streetscape so as to adversely impact the characteristics that make these resources historic. In addition, like the Proposed Actions, Projected Development Sites 20 and 22 and Potential Development Sites U and V in the Canal Street Corridor Project Area are located southwest of the S/NR-eligible and NYCL-eligible Stapleton Branch of the New York City Public Library, and the development anticipated on these sites would be at building heights and bulk identical to the Proposed Actions. Therefore, similar to the Proposed Actions, the development anticipated under the A-Text Alternative would create a new backdrop for the NYPL's Stapleton Branch when looking southwest along Canal Street, but would not alter any historic resource's setting or its visual relationship to the streetscape so as to adversely impact the characteristics that make these resources historic.

While the addition of 100,000 sf of community facility space on the Stapleton Waterfront Phase III Sites would result in changes to the massing on Site A with the addition of a new building segment, the change would not alter the context of any study area historic or cultural resource. As described in Chapter 7, there are no historic or cultural resources that are located within 400 feet of the Stapleton Waterfront Phase III Sites; therefore, the changes in Site A's massing under the A-Text Alternative would not alter the context of any study area historic or cultural resource. Moreover, the increase in the maximum building height on City Disposition Site 2 by 15 feet would also not alter the context of any study area historic or cultural resources under the A-Text Alternative With-Action Condition, given that there are no historic or cultural resources located within 400 feet of the site.

Therefore, like the Proposed Actions, no significant adverse indirect (contextual) impacts are anticipated on historic architectural resources under the A-Text Alternative. The additional development under the A-Text Alternative would not eliminate or screen publicly accessible views of historic resources, introduce an incompatible visual, audible, or atmospheric element to a historic resources setting.

Construction-Related Impacts

As the development program and/or density related changes to the four Projected Development Sites affected by the A-Text Alternative are not expected to change construction activity on those sites, the A-Text Alternative is expected to result in the same significant adverse impacts related to construction-related architectural and archaeological resources for the Proposed Actions.

Under both the Proposed Actions and the A-Text Alternative, all LPC-designated and/or S/NR-listed historic resources within 90 feet of Projected or Potential Development Sites that would undergo construction would be subject to the protections of DOB's TPPN #10/88. In both the Proposed Actions and A-Text Alternative, this would apply to (i) Tompkinsville (Joseph H. Lyons) Pool (LPC-designated NYCL; S/NR eligible), which is less than 90 feet from Projected Development Site 2; and (ii) the 120th Police Precinct Station House (LPC-designated NYCL; S/NR eligible) and the Staten Island Family Courthouse (LPC-designated NYCL; S/NR eligible), both of which are less than 90 feet from City Disposition Site 1.

Similar to the Proposed Actions, construction on Potential Development Site Q under the A-Text Alternative could result in significant adverse construction-related impacts to the S/NR-eligible 292 Van Duzer Street, which is located within 90 feet of the site. In addition, construction on Projected Development Site 20 could result in significant adverse construction-related impacts to the LPC-eligible and S/NR-eligible Stapleton Branch of the New York City Public Library under the Proposed Actions and A-Text Alternative.

Mitigation

As outlined above, as the A-Text Alternative would result in new development on the same Projected and Potential Development Sites as under the Proposed Actions, both scenarios have the potential to result in significant adverse archaeology impacts associated with prehistoric resources and nineteenth- to early twentieth-century waterfront features on Projected Development Site 5, which is expected to experience new in-ground disturbance compared to No-Action conditions. Projected Development Site 5 is privately-owned, and therefore, there are no mechanisms in place to require developers to conduct archaeological testing or require the preservation or documentation of archaeological resources, should they exist, in the future with the Proposed Actions. In the event that human remains are encountered during the construction of an as-of-right project, it is expected that the developer would contact the New York City Police Department (NYPD) and the New York City Office of the Chief Medical Examiner. However, because there is no mechanism to ensure that the potential impacts would be avoided or mitigated in full at Project Development Site 5, the significant adverse impact to archaeological resources would be considered unavoidable under the A-Text Alternative, as under the Proposed Actions.

The A-Text Alternative would also result in the same significant adverse construction-related impacts to two eligible architectural resources (S/NR-eligible 292 Van Duzer Street and the S/NR-eligible and NYCL-eligible Stapleton Branch of the New York City Public Library) that would occur under the Proposed Actions. Designated NYCL or S/NR-Listed architectural resources located within 90 feet of a projected or potential new construction site are subject to the protections of DOB's TPPN #10/88. The two resources listed above are not NYCLs or S/NR-Listed, therefore they would not be afforded any of the protections under TPPN #10/88. If the eligible resources are designated in the future prior to the initiation of construction, the protective measures of TPPN #10/88 would apply and significant adverse impacts from construction would be avoided. Should the resources remain undesignated/unlisted, the additional protective measures of TPPN #10/88 would not apply and the potential for significant adverse construction-related impacts would be unavoidable.

In order to make TPPN #10/88 or comparable measures applicable to the eligible historic resources in the absence of site-specific discretionary approval, a mechanism would have to be developed to ensure implementation and compliance, since it is not known and cannot be assumed that owners of these properties would voluntarily implement the mitigation. The viability of these or other mitigation measures as they relate to privately owned property were explored between the DEIS and FEIS and no feasible mitigation was identified; therefore, the significant adverse construction impact on the historic resources would be unavoidable.

Shadows

The A-Text Alternative, like the Proposed Actions, would not result in significant adverse impacts to shadows. As described above, development under the A-Text Alternative would occur on the same 30 Projected Development Sites and 23 Potential Development Sites and would not result in development on any new sites.

Like the Proposed Actions, the A-Text Alternative would not result in any incremental shadows being cast on sunlight-sensitive historic resources except for Lyons Pool, and would result in same amount of incremental shadows being cast on four open space resources (including Lyons Pool, Tompkinsville Park, Tappen Park, and Canal Street Greenstreets) as well as one natural resource (Upper New York Bay).

The A-Text Alternative would alter the massing of City Disposition Site 2 and would introduce an additional building segment at Stapleton Waterfront Phase III Site A. No other changes would occur to the RWCDS massing assumptions for the 28 remaining Projected Development Sites and all Potential Development Sites under the A-Text Alternative as compared to the Proposed Actions.

As described above, the exemption of up to 100,000 sf of community facility use in SSWD would alter the building envelopes at Stapleton Waterfront Phase III Site A. The additional floor area would be accommodated in an additional building segment on Site A. The A-Text Alternative would not modify the maximum building heights at Stapleton Waterfront Phase III compared to the Proposed Actions. While the Stapleton Waterfront Phase III Sites are adjacent to one existing sunlight-sensitive resource, the Upper New York Bay, the changes to the building's massing on Site A that would result under the A-Text Alternative are not expected to result in any increases to incremental shadow coverage or duration and would not result in any significant adverse shadow impacts.

In addition, at City Disposition Site 2, a mixed-use residential, community facility and commercial development that would include AIRS would be constructed under the A-Text Alternative, which would be a slightly larger development than what had been assumed under the Proposed Actions for the site. To accommodate the changes to residential, commercial, and community facility floor area under the A-Text Alternative, the building footprints on City Disposition Site 2 would also be slightly modified, but with no overall effect on the lot coverage of the proposed development. Although the additional density at City Disposition Site 2 would increase the maximum building height at the site by 15 feet, from 40 feet to 55 feet and result in minor changes to building footprints, a preliminary screening assessment determined that there are no sunlight sensitive resources within the expanded maximum shadow radius for City Disposition Site 2.[10]

URBAN DESIGN AND VISUAL RESOURCES

The A-Text Alternative, like the Proposed Actions, would not result in significant adverse impacts to urban design and visual resources. The A-Text Alternative would include nearly the same zoning text and map amendments, city map changes, and disposition actions and affect the same geographic area. However, the A-Text Alternative would include additional zoning text amendments to modify the SSWD regulations to allow buildings in Subareas A or B1 of the special district to waive from floor area calculation purposes up to 100,000 sf of community facility floor area for school use, modify SBSCD regulations to permit brewery uses throughout the proposed SBSCD, and to modify the SBSCD related to loading requirements and visual corridor design. In addition, the disposition terms of City Disposition Site 2 would include AIRS and modify the amount of community facility, commercial and parking. The modified assumptions for City Disposition Site 3 reflect the anticipated mixed-use residential and commercial program.

The A-Text Alternative would not result in development on any new sites in the Project Area. The proposed building heights and bulk on Projected and Potential Development Sites within the Bay Street Corridor Project Area and the Canal Street Corridor Project Area would be the same as under the Proposed Actions. Both the Proposed Actions and the A-Text Alternative would result in development at a greater density than currently permitted as-of-right under the existing zoning and represent a notable change in the urban design character of the Project Area. Both the Proposed Actions and A-Text Alternative would facilitate residential and mixed-used development that is expected to provide for a concentration of new development, which would create greater cohesiveness in streetscape design and improved pedestrian experience. Neither the Proposed Actions nor the A-Text Alternative would result in any change to the existing street patterns, street hierarchy, or block forms that characterize the Project Area. Additionally, neither the Proposed Actions nor the A-Text Alterative would result in any significant adverse impacts to visual resources or view corridors.

Changes to building bulk and massing at Projected Development Sites under the A-Text Alternative would be minor and would be limited to City Disposition Site 2 and Stapleton Waterfront Phase III Site A. No other building envelope or massing changes would occur to the 28 remaining Projected

[10] According to the *CEQR Technical Manual*, the longest shadow that a structure will cast in New York City, except for periods close to dawn or dusk, is 4.3 times its height. Under the A-Text Alternative, the maximum shadow radius for a 55-foot tall building at City Disposition Site 2 would be approximately 237 feet.

Development Sites and 23 Potential Development Sites under the A-Text Alternative, as compared to the Proposed Actions.

Under the A-Text Alternative, the massing of With-Action development would be slightly altered on Stapleton Waterfront Phase III Site A with an additional building segment comprised of 100,000 sf community facility use. Both Stapleton Waterfront Phase III Sites A and B would maintain a maximum building height of 125 feet. In addition, the massing of development on City Disposition Site 2 would slightly change. Under the A-Text Alternative, the maximum building height on City Disposition Site 2 would increase by 15 feet to 55 feet tall. However, like the Proposed Actions, the A-Text Alternative would not change the height or bulk permitted as-of-right on City Disposition Site 2 under the site's existing zoning regulations.[11]

These minor modifications to building envelopes on two Projected Development Sites under the A-Text Alternative are not expected to significantly modify buildings or affect visual resources in the Study Area, nor would they significantly affect the pedestrian's experience of public space. Moreover, the A-Text Alternative would not result in development that would obstruct views to any significant visual resources. Like the Proposed Actions, the A-Text Alternative is expected to promote a more vibrant and walkable neighborhood character, and enhance the pedestrian experience along Bay Street and Canal Street corridors, and in the area adjacent to the Stapleton Waterfront Phase III development and the three City Disposition Sites.

Therefore, under both the A-Text Alternative and the Proposed Actions, new development would not result in an adverse impact on visual resources, the resources' visual context, and the urban design character of the primary study area.

NATURAL RESOURCES

Neither the Proposed Actions nor the A-Text Alternative would result in significant adverse impacts to groundwater, floodplains, water quality, aquatic biota, wetlands, terrestrial natural resources, or threatened or endangered species within or near the respective study areas.

The A-Text Alternative, similar to the Proposed Actions, comprises a predominantly urbanized area of Staten Island that contains limited natural resources, including wooded corridors and occasional vacant wooded lots found along the SIR tracks and Tompkinsville Park; and the Stapleton waterfront that includes tidal wetlands. All of these areas could provide habitat for aquatic and/or terrestrial organisms, including, but not limited to, birds, small mammals, fish, and native plants. The A-Text Alternative would result in new development on the same development sites as compared to the Proposed Actions. Therefore, similar to the Proposed Actions, development in the A-Text Alternative would not result in significant adverse impacts to natural resources, and would not diminish Upper New York Bay's current ability to provide critical ecological functions and values or recreational and scenic resource values.

[11] City Disposition Site 2 is zoned R5 with a C2-2 commercial overlay and is mapped within the Special Hillsides Preservation District (SHPD).

HAZARDOUS MATERIALS

Like the Proposed Actions, the A-Text Alternative would not result in significant adverse hazardous materials impacts with the implementation of preventive and remedial measures outlined in (E) designations for privately-owned development sites and other comparable measures for City-owned properties (such as disposition agreements or Memorandum of Understandings [MOU]). With the A-Text Alternative, the same (E) designations would be mapped on 25 Projected Development Sites and all 23 Potential Developments Sites, and comparable measures would be applied to the City-owned City Disposition Sites 1 and 2, and the two Stapleton Waterfront Phase III Sites.

WATER AND SEWER INFRASTRUCTURE

Similar to the Proposed Actions, the A-Text Alternative is not expected to result in significant adverse impacts to the City's water and sewer infrastructure. Although the A-Text Alternative would not result in development on any new sites in the Project Area, it would result in massing changes to two of the 30 Projected Development Sites (Stapleton Waterfront Phase III Sit 1 and City Disposition Site 2). Under the A-Text Alternative, the 100,000 sf of community facility space on Stapleton Waterfront Phase III Site A, would be accommodated within an additional building segment, which would change to building footprints on the site and would increase the amount of impervious area resulting on the site. Minor changes to the building footprint at City Disposition Site 2 to accommodate the addition density assumed under the A-Text Application would not be substantive enough to alter the previous analysis.

The A-Text Alternative would result in more projected water demand as compared to the Proposed Actions. As shown in Table 22-37, the A-Text Alternative would result in a projected water demand of approximately 939,905 gallons per day (gpd) in the Project Area, representing roughly a five percent increase in water demand as compared to the Proposed Actions. As compared to the No-Action Condition, the A-Text Alternative would result in an incremental increase of approximately 804,775 gpd of water, which would represent approximately 0.08 percent of the City's average daily water supply of approximately one billion gpd, and would be less than the 1,000,000 gpd *CEQR Technical Manual* threshold that necessitates a detailed analysis of water supply in the City. As such, like the Proposed Actions, the A-Text Alternative would not result in significant adverse impacts on water infrastructure.

The A-Text Alternative would also generate more wastewater than the Proposed Actions. As shown in Table 22-37, based on wastewater generation rates in the *CEQR Technical Manual,* the A-Text Alternative would generate approximately 817,987 gpd of wastewater in the Project Area, resenting an approximately six percent increase in wastewater generation as compared to the Proposed Actions.

TABLE 22-37: A-Text Alternative Water and Wastewater Generation

Land Use	Water Consumption and Wastewater Generation Rates	Area (SF)/ Residential Units (DUs)	Domestic Water/ Wastewater Generation (gpd) [1]	Air Conditioning (gpd) [1]
Residential[2]	257 gpd/ DU[2]	2,736 DUs	706,200	-
Retail[3]	Domestic: 0.24 gpd/SF; A/C: 0.17 gpd/SF	78,029 SF	68,691	48,656
Commercial/Office[4]	Domestic: 0.10 gpd/SF; A/C: 0.17 gpd/SF	105,526 SF	24,058	40,898
Community Facility[5]	Domestic: 0.10 gpd/SF; A/C: 0.17 gpd/SF	152,499 SF	19,038	32,364
Total Water Demand (gpd)			939,905	
A-Text Alternative Incremental Water Demand (No-Action to With-Action Incremental Water Demand) (gpd)			804,775	
Total Wastewater Generation (gpd)			817,987	
A-Text Alternative Incremental Wastewater Generation (No-Action to With-Action Incremental Wastewater Generation) (gpd)			747,646	

Source: *Consumption rates obtained from the CEQR Technical Manual, Table 13-2*
Notes: [1] Gallons per day (gpd)
[2] Approximately 2.57 residents per DU within Staten Island Community District 1 (100 gpd per resident).
[3] Land use includes retail, supermarket, restaurant.
[4] Land use includes commercial office and other commercial uses.
[5] Commercial/office rate, includes all community facility uses.

Like the Proposed Actions, the Project Area spans four subcatchment areas as well as a direct drainage area. Under the A-Text Alternative, Subcatchment PR-013 and the direct drainage area would experience slight increases in wastewater generation as compared to the Proposed Actions. Because of development program changes to City Disposition Sites 2 and 3 under the A-Text Alternation, Subcatchment PR-013 would experience an increase in sewage generation as compared Proposed Actions. The direct drainage area would also experience an increase in sewage generation under the A-Text Alternative, as compared to the Proposed Actions, with the addition of 100,000 sf of community facility development on the Stapleton Waterfront Phase III Sites. As shown in Table 22-38, the A-Text Alternative would result in a projected sanitary sewage generation of approximately 817,987; this would include approximately 3,768 gpd in Subcatchment PR-011, approximately 127,843 gpd in Subcatchment PR-013, approximately 433,044 gpd in Subcatchment PR-014, approximately 71,912 gpd in Subcatchment PR-031, and approximately 181,420 gpd in a direct drainage area.

TABLE 22-38: A-Text Alternative Wastewater Generation by Subcatchment Area

Subcatchment Area	Wastewater Generated (gpd)[1]
PR-011	3,768
PR-013	127,843
PR-014	433,044
PR-031	71,912
Direct Drainage	181,420
Total	***817,987***

Source: Consumption rates obtained from the *CEQR Technical Manual* (2014), Table 13-2, "Water Usage and Sewage Generation Rates for Use in Impact Assessment."
Notes: [1] Gallons per day (gpd).

Like the Proposed Actions, this increase in sanitary sewage generation in the Project Area under the A-Text Alternative is not expected to result in a significant increase in average daily flow to the Port Richmond Waste Water Treatment Plant (WWTP), which serves the Project Area, and would not result in an exceedance of the plant's permitted capacity of 60 million gallons per day (mgd), or

otherwise affect the plant's treatment efficiency. As such, the A-Text Alternative would not result in significant adverse impacts on water and sewer infrastructure.

As described above, the A-Text Alternative would not result in development on any new sites in the Project Area and except for changes to building footprints at the Stapleton Waterfront Phase III Site A, located in the direct drainage area, no changes to the stormwater flows projections within Subcatchment areas PR-011, PR-013, PR-014, and PR-031 would result under the A-Text Alternative as compared to the Proposed Actions. Although the A-Text Alternative would increase in floor area at City Deposition Site 2, the minor changes to the building footprint at City Disposition Site 2 are not expected to be substantive enough to alter the stormwater analysis in Subcatchment PR-013 under the Proposed Actions.

Under the A-Text Alternative, rain volume flow within the direct drainage area would increase compared to the Proposed Actions. Table 22-38a provides a comparison of the combined stormwater runoff and wastewater generation from the Stapleton Waterfront Phase III Sites in the direct drainage area under the Proposed Actions and the A-Text Alternative. However, as with the Proposed Actions, Best Management Practices (BMPs) to reduce sanitary flow and stormwater runoff volumes would be implemented to create opportunities for Projected Development Sites to incorporate on-site stormwater source controls during site planning and building design phases of development. For both the Proposed Actions and the A-Text Alternative, the incorporation of appropriate sanitary flow and stormwater source control BMPs as part of the DEP site connection approval process would reduce the overall volume of sanitary sewer discharge and stormwater runoff as well as the peak stormwater runoff rate from the Stapleton Waterfront Phase III Sites. Like the Proposed Actions, the A-Text Alternative is not expected to result in any potentially significant adverse impacts to New York City's stormwater infrastructure or treatment facilities.

Table 22-38a: Comparison of Combined Stormwater Runoff and Wastewater Generation from the Stapleton Waterfront Phase III Sites in the Direct Drainage Area–Proposed Actions vs. A-Text Alternative

Rainfall (inches)	Duration (hours)	Total Area (Acres)	Proposed Actions				A-Text Alternative			
			Weighted Runoff Coefficient[3]	Storm-water Runoff (mg)[2]	Sanitary to CSS[1] (mg)[2]	Total Volume to CSS[1] (mg)[2]	Weighted Runoff Coefficient[3]	Storm-water Runoff (mg)[2]	Sanitary to CSS[1] (mg)[2]	Total Volume to CSS[1] (mg)[2]
0.00	3.80	7.21	0.64	0.00	0.02	0.02	0.73	0.00	0.03	0.03
0.40	3.80			0.05	0.02	0.02		0.06	0.03	0.03
1.20	11.30			0.15	0.08	0.08		0.17	0.09	0.09
2.50	19.50			0.31	0.13	0.13		0.36	0.15	0.15

Notes: [1] Combined sewer system (CSS)
[2] Million gallons (mg)
[3] Runoff coefficients for each surface area (i.e., rooftop/building area, pavement/walkways, and grass/softscape areas) are defined by DEP, and the calculated weighted coefficient is based on the amount of rooftop/building area, pavement/walkways, and grass/softscape areas expected to occupy the development site. Under the A-Text Application, the weighted runoff coefficient for the direct drainage area would increase as compared to the Proposed Actions, as a result of an additional building segment at the Stapleton Waterfront Phase III Site A.

SOLID WASTE AND SANITATION SERVICES

Neither the Proposed Actions nor the A-Text Alternative would result in significant adverse impacts to solid waste or sanitation services. The A-Text Alternative would generate higher incremental solid waste as compared to the Proposed Actions.

As shown in Table 22-39, it is anticipated that development on the Projected Development Sites in the A-Text Alternative would generate approximately 117.69 tons of solid waste per week, which would represent an approximately 81.73 ton per week increase in solid waste generation over the No-Action condition, as compared to approximately 116.24 tons of solid waste per week (approximately 80.28 ton per week increase over the No-Action) under the Proposed Actions.

Table 22-39: Weekly Solid Waste Generation- No-Action, A-Text Alternative, and the Proposed Actions

Solid Waste Generation (tons/week)	Proposed Actions			A-Text Alternative			Difference in Incremental between the Proposed Actions and A-Text Alternative
	No-Acton Condition	With-Action Condition	Increment	No-Acton Condition	With-Action Condition	Increment	
Solid Waste Handled by DSNY	3.54	53.93	50.40	3.53	59.19	55.66	5.26
Solid Waste Handled by Private Carters	32.43	62.61	29.88	32.43	58.50	26.07	-3.81
Total	35.96	116.24	80.28	35.96	117.69	81.73	1.45

Development under the A-Text Alternative would result in 179 additional dwelling units and approximately 105,700 sf more of community facility space as compared to the Proposed Actions. As a result, the solid waste to be processed by DSNY would increase by approximately 5.26 tons per week, compared to the Proposed Actions. Based on the average DSNY truck capacity of approximately 12.5 tons, the A-Text Alternative would require approximately five additional truckloads per week as compared to No-Action Conditions, whereas under the Proposed Actions only four additional DSNY truckloads per week would be required compared to the No-Action Condition.

Incremental development under the A-Text Alternative would result in approximately 91,793 sf less of commercial floor area as compared to the Proposed Actions. This reduction in commercial floor area would result in a decrease of approximately 3.81 tons per week of solid waste to be processed by private carters in the A-Text Alternative, compared to the Proposed Actions. Based on the average private carter truck capacity of between approximately 12 and 15 tons, both the A-Text Alternative and the Proposed Actions would require approximately two additional truckloads per week as compared to the No-Action Condition.

Therefore, under both the Proposed Actions and the A-Text Alternative, the net incremental solid waste generated is not expected to overburden DSNY or private carter's collection services or the greater waste management system.

ENERGY

Both the Proposed Actions and the A-Text Alternative would not result in significant adverse impacts to energy. The A-Text Alternative would result in a higher increment in energy usage as compared to the Proposed Actions.

As shown in Table 22-40, anticipated energy usage in the A-Text Alternative would be approximately 504.37 MBtu, which would represent an approximately 419.17 MBtu increase over the No-Action

condition as compared to an increase of approximately 395.33 MBtu under the Proposed Actions. Therefore, the A-Text Alternative would result in an approximately 23.84 MBtu increase in incremental energy usage as compared to the Proposed Actions.

Table 22-40: A-Text Alternative Annual Energy Consumption for the Projected Development Sites, compared to Proposed Actions

Use	A-Text Alternative Floor Area (sf)	Average Annual Energy Use Rate (MBtu/sf) [1,2]	A-Text Alternative Annual Energy Use (million MBtu)	A-Text Alternative's Incremental Annual Energy Use (MBtu)	Proposed Action's Incremental Annual Energy Use (MBtu)[4]
Commercial[3]	526,790	216.3	113.9	39.70	59.56
Industrial	0	554.3	0	0	0
Institutional	190,378	250.7	47.7	38.23	11.73
Large Residential (>4 Family)	2,704,767	126.7	342.69	342.69	325.49
Small Residential (1-4 Family)	0	94.0	0	-1.45	-1.45
		Total	**504.4**	**419.17**	**395.33**

Notes: *[1] MBtu = 1,000 Btu.*
[2] CEQR Technical Manual, Chapter 15, Table 15-1.
[3] Includes retail supermarket, restaurant, and office.
[4] 1 million MBtu = 1 billion Btu.

It is anticipated that the increase in energy consumption in both the Proposed Actions and A-Text Alternative would not result in significant adverse impacts to energy.

TRANSPORTATION

As discussed above, the A-Text Alternative would result in changes to the size and types of land uses proposed at the Stapleton Waterfront Phase III Site A, and the City Disposition Sites 2 (539 Jersey Street/100 Brook Street) and 3 (54 Central Avenue). Table 22-41 provides a comparison of incremental peak hour trips by mode for the Proposed Actions RWCDS and A-Text Alternative RWCDS. Additional detailed travel demand forecast and trip generation tables for the A-Text Alternative are included in Appendix M.

As under the Proposed Actions, it is anticipated that the A-Text Alternative would result in similar significant adverse traffic, bus, and pedestrian impacts, but no significant SIR station or subway line haul impacts. Additionally, neither the Proposed Actions nor the A-Text Alternative would result in significant adverse parking impacts based on *CEQR Technical Manual* criteria.

**Table 22-41: Comparison of Incremental Peak Hour Trips by Mode—
Proposed Actions vs. A-Text Alternative**

Scenario	Vehicle Trips					Person Trips			
	Auto	Taxi	Truck	School Bus	Total	SIR	Bus	Walk/Other	School Bus
Weekday AM									
Proposed Actions	949	14	22	0	985	433	860	673	50
A-Text Alternative	1159	12	22	4	1197	432	940	1609	0
Net Difference	***210***	***-2***	***0***	***4***	***212***	***-1***	***80***	***936***	***50***
Weekday Midday									
Proposed Actions	699	64	16	0	779	373	621	2130	41
A-Text Alternative	821	52	14	4	891	341	679	2469	0
Net Difference	***122***	***-12***	***-2***	***4***	***112***	***-32***	***58***	***339***	***41***
Weekday PM									
Proposed Actions	1233	64	2	0	1299	578	1093	1752	10
A-Text Alternative	1237	60	2	0	1299	573	1144	1846	0
Net Difference	***4***	***-4***	***0***	***0***	***0***	***-5***	***51***	***94***	***10***
Saturday Midday									
Proposed Actions	625	70	0	0	695	487	846	1819	0
A-Text Alternative	641	64	0	0	705	487	900	1636	0
Net Difference	***16***	***-6***	***0***	***0***	***10***	***0***	***54***	***-183***	***0***

TRAFFIC

As presented above in Table 22-41, compared to the Proposed Actions, the A-Text Alternative would generate approximately 212, 112 and 10 more incremental vehicle trips during the weekday AM, weekday midday and Saturday midday peak hours, respectively, while the same number of total vehicle trips would be generated under both the Proposed Actions and the A-Text Alternative. Compared to the Proposed Actions, this represents increases of approximately 21.5, 14.4, and 1.4 percent in the weekday AM, weekday midday and Saturday midday peak hours, respectively. Study area intersections were therefore evaluated to determine if there would be additional significant traffic impacts under the A-Text Alternative, and if those impacts could be mitigated.

Table 22-42 presents the number of lane groups and intersections where significant adverse traffic impacts are expected due to the A-Text Alternative compared to the Proposed Actions, and the number of lane groups and intersections where those impacts could be fully mitigated. Table 22-43 compares the lane groups and intersections where significant adverse traffic impacts are expected for the Proposed Actions versus the A-Text Alternative for the signalized intersections. No changes to significant traffic impacts are expected at the unsignalized study intersections. The results of the analyses are summarized below:

Table 22-42: Impacted Lane Groups and Intersections with Significant Adverse Impacts—Proposed Actions vs. A-Text Alternative

Peak Hour	Development Scenario	With-Action			With-Action With Mitigation		
		Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections With No Significant Impacts	Lane Groups/ Intersections With Significant Impacts	Lane Groups/ Intersections Analyzed	Lane Groups/ Intersections With No Significant Impacts	Lane Groups/ Intersections With Significant Impacts[1]
Weekday AM	Proposed Action	191 / 49	155 / 25	36 / 24	195 / 49	185 / 43	10 / 6
	A-Text Alternative	191 / 49	154 / 24	37 / 25	195 / 49	176 / 39	19 / 10
Weekday MD	Proposed Action	188 / 49	145 / 28	43 / 21	194 / 49	170 / 38	24 / 11
	A-Text Alternative	188 / 49	145 / 28	43 / 21	194 / 49	170 / 37	24 / 12
Weekday PM	Proposed Action	189 / 49	130 / 23	59 / 26	195 / 49	149 / 28	46 / 21
	A-Text Alternative	189 / 49	130 / 22	59 / 27	195 / 49	149 / 28	46 / 21
Saturday MD	Proposed Action	188 / 49	151 / 29	37 / 20	194 / 49	180 / 40	14 / 9
	A-Text Alternative	188 / 49	151 / 29	37 / 20	194 / 49	180 / 40	14 / 9

Notes:
(1) Represents unmitigated impacts.

- For the Weekday AM peak hour, the A-Text Alternative would result in new significant impacts for five lane groups at the following intersections:
  - Richmond Terrace and Ferry Terminal (bus) (southbound through)
  - Front Street and Hannah Street (westbound left-turn/through)
  - Bay Street and Swan Street/Van Duzer Street (eastbound left-turn/through/right-turn)
  - Bay Street and Broad Street (southbound through)
  - Victory Boulevard and Cebra Avenue (southbound left-turn/through/right-turn)

  Significant traffic impacts identified due to the Proposed Actions would no longer be impacted for four lane groups at the following intersections:
  - Bay Street and Slosson Terrace (northbound left-turn)
  - Victory Boulevard and Bay Street (eastbound left-turn)
  - Bay Street and Swan Street/Van Duzer Street (eastbound left-turn)
  - Broad Street and Targee Street (northbound through/left-turn)

- Overall, the A-Text Alternative would result in the one additional impacted lane group and one additional impacted intersection compared to the Proposed Actions during the Weekday AM peak hour.

- For the Weekday Midday peak hour, the A-Text Alternative would result in new significant impacts for two lane groups at the following intersections:
  - Bay Street and Hannah Street (westbound left-turn/through/right-turn)
  - Bay Street and Canal Street (westbound left-turn/through/right-turn)

Table 22-43: Signalized Level of Service Analysis – Weekday AM Peak Hour
Proposed Actions compared to A-Text Alternative

#	Intersection & Approach	With-Action Conditions						With-Action Conditions (A-Text Alternative)						New Impact?	No Longer Impacted?
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)			
8	**Richmond Terrace and Ferry Terminal (bus)**														
	Westbound	L	0.47	45.7	D	173		L	0.47	45.7	D	173			
		R	0.41	45.5	D	108		R	0.41	45.5	D	108			
	Northbound	T	0.47	18.0	B	80		T	0.48	21.3	C	80			
	Southbound	T	0.67	88.0	F	512		T	0.69	89.2	F	530	+	Yes	
		Intersection		52.4	D			Intersection		54.4	D				
10	**Bay Street and Slosson Terrace**														
	Eastbound	LR	0.13	33.3	C	52		LR	0.14	33.6	C	57			
	Northbound	L	1.07	89.9	F	328	+	L	0.78	37.7	D	186			Yes
		T	0.72	14.9	B	315		T	0.73	14.9	B	310			
	Southbound	TR	0.74	22.2	C	467		TR	0.75	23.5	C	479			
		Intersection		27.5	C			Intersection		21.1	C				
12	**Victory Boulevard and Bay Street**														
	Eastbound	L	0.82	49.9	D	328	+	L	0.75	43.1	D	288			Yes
		LT	0.77	43.5	D	320		LT	0.70	38.5	D	265			
	Westbound	LTR	0.40	39.2	D	115		LTR	0.39	38.5	D	114			
	Northbound	L	1.15	97.3	F	142	+	L	1.32	173.6	F	207	+		
		TR	0.75	19.6	B	230		TR	0.74	19.4	B	225			
	Southbound	LT	0.68	9.3	A	48		LT	0.69	9.4	A	50			
		R	0.38	7.1	A	32		R	0.43	7.6	A	32			
		Intersection		28.0	C			Intersection		35.0	C				
14	**Front Street and Hannah Street**														
	Eastbound	TR	0.36	3.9	A	63		TR	0.41	3.8	A	66			
	Westbound	LT	0.09	13.2	B	45		LT	0.09	13.2	B	45			
	Northbound	LR	0.77	32.1	C	381		LR	1.08	92.6	F	554	+	Yes	
		Intersection		20.0	B			Intersection		51.5	D				
15	**Bay Street and Swan Street/Van Duzer Street**														
	Eastbound	L	1.11	128.3	F	449	+	L	1.08	125.5	F	431			Yes
		LTR	1.06	127.8	F	467		LTR	1.03	128.8	F	449	+	Yes	
	Westbound	LTR	0.03	30.0	C	11		LTR	0.03	29.7	C	11			
	Northbound	LTR	0.57	9.4	A	48		LTR	0.56	8.9	A	48			
	Southbound	LTR	0.48	10.7	B	105		LTR	0.48	10.6	B	103			
		Intersection		41.5	D			Intersection		40.7	D				
31	**Bay Street and Broad Street**														
	Eastbound	LR	0.44	42.3	D	235		LR	0.47	42.4	D	250			
	Northbound	LT	1.04	69.0	E	691	+	LT	1.16	107.6	F	777	+		
	Southbound	T	0.92	39.2	D	404		T	0.96	55.9	E	828	+	Yes	
		R	0.18	11.8	B	52		R	0.20	11.9	B	58			
		Intersection		48.1	D			Intersection		69.1	E				
35	**Victory Boulevard and Cebra Avenue**														
	Eastbound	L	0.56	57.5	E	96		L	0.58	58.9	E	96			
		TR	0.82	60.2	E	304		TR	0.82	60.2	E	304			
	Westbound	L	0.74	76.0	E	152	+	L	0.74	76.0	E	152	+		
		TR	0.71	51.3	D	300		TR	0.72	51.8	D	305			
	Northbound	LT	0.76	19.8	B	421		LT	0.75	19.4	B	407			
		R	0.12	10.0	B	33		R	0.12	10.1	B	33			
	Southbound	LTR	0.93	42.2	D	649		LTR	1.02	62.5	E	725	+	Yes	
		Intersection		38.9	D			Intersection		44.5	D				
43	**Broad Street and Targee Street**														
	Eastbound	LT	0.56	53.7	D	336	+	LT	0.56	55.1	E	336	+		
	Westbound	TR	0.47	41.3	D	249		TR	0.50	41.2	D	262			
	Northbound	LT	1.00	58.7	E	868	+	LT	0.98	54.2	D	844			Yes
		R	0.51	20.1	C	225		R	0.53	20.8	C	239			
		Intersection		48.2	D			Intersection		46.0	D				

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-43 (con't): Signalized Level of Service Analysis – Weekday MD Peak Hour Proposed Actions compared to A-Text Alternative

Int #	Intersection & Approach	With-Action Conditions						With-Action Conditions (A-Text Alternative)						New Impact?	No Longer Impacted?
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)			
10	**Bay Street and Slosson Terrace**														
	Eastbound	LR	0.38	28.2	C	109		LR	0.23	25.6	C	71			
	Northbound	L	0.89	50.0	D	90	+	L	0.70	33.5	C	63			Yes
		T	0.93	17.3	B	287		T	0.88	13.3	B	162			
	Southbound	TR	1.21	122.1	F	724	+	TR	1.22	126.6	F	735	+		
		Intersection		69.4	E			Intersection		71.7	E				
13	**Bay Street and Hannah Street**														
	Eastbound	LTR	0.07	17.9	B	35		LTR	0.07	17.9	B	36			
	Westbound	LTR	0.93	30.9	C	359		LTR	1.09	60.8	E	75	+	Yes	
	Northbound	LTR	2.04	488.8	F	853	+	LTR	2.00	470.8	F	837	+		
	Southbound	L	5.97	2255.1	F	426	+	L	6.44	2467.8	F	469	+		
		T	0.79	14.5	B	141		T	0.77	14.5	B	142			
		R	0.41	8.9	A	26		R	0.43	9.0	A	25			
		Intersection		439.6	F			Intersection		473.9	F				
29	**Bay Street and Canal Street**														
	Eastbound	L	0.64	161.1	F	165		L	0.62	157.6	F	151			
		TR	0.24	20.8	C	73		TR	0.24	20.8	C	73			
	Westbound	LTR	0.28	144.2	F	66		LTR	0.47	150.6	F	108	+	Yes	
	Northbound	TR	1.39	196.5	F	71	+	TR	1.42	208.9	F	74	+		
	Southbound	LT	3.64	1201.2	F	642	+	LT	3.59	1178.7	F	639	+		
		Intersection		643.7	F			Intersection		625.5	F				
36	**Victory Boulevard and Jersey Street**														
	Eastbound	L	1.42	235.8	F	98	+	L	1.43	241.4	F	99	+		
		T	1.08	68.2	E	493	+	T	1.08	65.0	F	495	+		
	Westbound	T	1.14	103.6	F	796	+	T	1.15	105.2	F	799	+		
		R	0.34	16.8	B	95		R	0.29	15.4	B	89			
	Southbound	LR	0.93	67.5	E	263	+	LR	0.73	39.0	D	200			Yes
		Intersection		88.2	F			Intersection		84.6	F				

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-43 (con't): Signalized Level of Service Analysis – Weekday PM Peak Hour Proposed Actions compared to A-Text Alternative

Int #	Intersection & Approach	With-Action Conditions						With-Action Conditions (A-Text Alternative)						New Impact?	No Longer Impacted?
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)			
12	**Victory Boulevard and Bay Street**														
	Eastbound	L	0.90	83.1	F	351	+	L	0.92	88.1	F	362	+		
		LT	0.88	95.2	F	363	+	LT	0.90	98.1	F	371	+		
	Westbound	LTR	2.61	756.6	F	863	+	LTR	2.64	768.9	F	866	+		
	Northbound	L	3.75	1255.3	F	246	+	L	3.34	1073.2	F	235	+		
		TR	0.73	17.8	B	204		TR	0.73	18.2	B	205			
	Southbound	LT	1.08	55.4	E	172	+	LT	1.05	43.2	D	138			Yes
		R	0.89	27.9	C	108		R	0.85	21.0	C	78			
		Intersection		210.2	F			Intersection		200.5	F				
14	**Front Street and Hannah Street**														
	Eastbound	TR	0.55	4.0	A	72		TR	0.56	4.0	A	72			
	Westbound	LT	0.10	13.4	B	47		LT	0.11	13.5	B	47			
	Northbound	LR	0.83	37.5	D	424		LR	0.90	47.2	D	461	+	Yes	
		Intersection		18.4	B			Intersection		22.5	C				

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-44: Proposed Traffic Mitigation Table: A-Text Alternative

1 — Richmond Terrace and Franklin Avenue

Impacts	Weekday AM Peak Hour	Weekday MD Peak Hour	Weekday PM Peak Hour	Saturday MD Peak Hour
Movement	WB LT	WB LT	WB LT	WB LT
No-Action	37.3 D	11.8 B	81.4 F	18.0 B
With-Action	95.5 F +	42.4 D	260.2 F +	38.6 D
Mitigated	41.8 D	42.2 D	76.5 E	32.2 C
Mitigation Description	Shift 3 seconds from NB phase to EB / WB phase. Change offset from 56 seconds to 28 seconds.	Shift 1 second from NB phase to EB / WB phase. Change offset from 60 seconds to 51 seconds.	Shift 7 seconds from NB phase to EB / WB phase.	Shift 1 seconds from NB phase to EB / WB phase.

Signal Timing Mitigation	Weekday AM Peak Hour				Weekday MD Peak Hour			
	No-Action/With-Action				No-Action/With-Action			
	G	A	R		G	A	R	
EB / WB	79.0	3.0	2.0		79.0	3.0	2.0	
NB	31.0	3.0	2.0		31.0	3.0	2.0	
Offset	56	sec			60	sec		
Cycle Length	120	sec			120	sec		
	Mitigated				Mitigated			
	G	A	R		G	A	R	
EB / WB	82.0	3.0	2.0		80.0	3.0	2.0	
NB	28.0	3.0	2.0		30.0	3.0	2.0	
Offset	28	sec			51	sec		
Cycle Length	120	sec			120	sec		

Signal Timing Mitigation	Weekday PM Peak Hour				Saturday MD Peak Hour			
	No-Action/With-Action				No-Action/With-Action			
	G	A	R		G	A	R	
WB / EB	79.0	3.0	2.0		WB / EB	79.0	3.0	2.0
NB	31.0	3.0	2.0		NB	31.0	3.0	2.0
Offset	60	sec			Offset	60	sec	
Cycle Length	120	sec			Cycle Length	120	sec	
	Mitigated					Mitigated		
	G	A	R			G	A	R
EB / WB	86.0	3.0	2.0		EB / WB	80.0	3.0	2.0
NB	24.0	3.0	2.0		NB	30.0	3.0	2.0
Offset	60	sec			Offset	60	sec	
Cycle Length	120	sec			Cycle Length	120	sec	

2 — Richmond Terrace and Jersey Street

Impacts	Weekday AM Peak Hour	Weekday MD Peak Hour	Weekday PM Peak Hour	Saturday MD Peak Hour
Movement	EB L	WB LT	EB L	WB LT
No-Action	87.4 F	227.7 F	39.2 D	78.1 E
With-Action	245.9 F +	361.0 F +	47.8 D +	112.5 F +
Mitigated	79.8 E		31.8 C	
Movement	WB LT	WB R	WB LT	WB R
No-Action	68.6 E	8.5 A	163.2 F	9.9 A
With-Action	118.9 F +	8.1 A	357.8 F +	12.5 B
Mitigated				
Movement	WB R	WB L	WB R	WB L
No-Action	7.7 A		11.1 B	
With-Action	9.0 A		9.9 A	
Mitigated		18.1 B		19.0 B
Movement	WB L	WB TR	WB L	WB TR
No-Action				
With-Action				
Mitigated	10.9 B	51.8 D	76.9 E +	13.7 B
Movement	WB TR		WB TR	
No-Action				
With-Action				
Mitigated	52.2 D			44.4 D
Mitigation Description	Re-stripe WB approach as one 10' L lane and one 11' TR lane for 100'. Shift 4 seconds from NB / SB phase to EB / WB phase. Shift 1 second from NB / SB to EBL lead phase. Change offset from 97 seconds to 80 seconds.	Re-stripe WB approach as one 10' L lane and one 11' TR lane for 100'. Shift 6 seconds from NB / SB phase to EB / WB phase. Shift 1 second from EBL lead phase to EB / WB phase. Change offset from 34 seconds to 113 seconds.	Partial mitigation: re-stripe WB approach as one 10' L lane and one 11' TR lane for 100'. Shift 2 seconds from NB / SB phase to EB / WB phase. Change offset from 34 seconds to 31 seconds.	Re-stripe WB approach as one 10' L lane and one 11' TR lane for 100'.

Signal Timing Mitigation	Weekday AM Peak Hour				Weekday MD Peak Hour			
	No-Action/With-Action				No-Action/With-Action			
	G	A	R		G	A	R	
EBL	10.0	3.0	2.0		9.0	3.0	2.0	
EB / WB	65.0	3.0	2.0		64.0	3.0	2.0	
NB / SB	30.0	3.0	2.0		32.0	3.0	2.0	
Offset	97	sec			34	sec		
Cycle Length	120	sec			120	sec		
	Mitigated				Mitigated			
	G	A	R		G	A	R	
EBL	11.0	3.0	2.0		8.0	3.0	2.0	
EB / WB	69.0	3.0	2.0		71.0	3.0	2.0	
NB / SB	25.0	3.0	2.0		26.0	3.0	2.0	
Offset	80	sec			113	sec		
Cycle Length	120	sec			120	sec		

Signal Timing Mitigation	Weekday PM Peak Hour				Saturday MD Peak Hour			
	No-Action/With-Action				No-Action/With-Action			
	G	A	R		G	A	R	
EBL	8.0	3.0	2.0		EBL	10.0	3.0	2.0
EB / WB	67.0	3.0	2.0		EB / WB	40.0	3.0	2.0
NB / SB	30.0	3.0	2.0		NB / SB	25.0	3.0	2.0
Offset	34	sec			Offset	60	sec	
Cycle Length	120	sec			Cycle Length	90	sec	
	Mitigated					Mitigated		
	G	A	R			G	A	R
EBL	8.0	3.0	2.0		EBL	10.0	3.0	2.0
EB / WB	69.0	3.0	2.0		EB / WB	40.0	3.0	2.0
NB / SB	28.0	3.0	2.0		NB / SB	25.0	3.0	2.0
Offset	31	sec			Offset	60	sec	
Cycle Length	120	sec			Cycle Length	90	sec	

3 — Richmond Terrace and Westervelt Avenue

Impacts	Weekday AM Peak Hour	Weekday MD Peak Hour	Weekday PM Peak Hour	Saturday MD Peak Hour
Movement			EB TR	
No-Action			25.8 C	
With-Action			50.7 D +	
Mitigated			29.7 C	
Movement	WB LT	WB LT	WB LT	
No-Action	47.0 D	71.4 E	78.1 E	
With-Action	97.3 F +	87.9 F +	116.5 F +	
Mitigated	45.3 D	59.4 E	79.4 F	
Mitigation Description	Shift 3 seconds from NB phase to EB / WB phase.	Mitigation measures at nearby intersections resolved the potential impact.	Shift 3 seconds from NB phase to EB / WB phase. Change offset from 23 seconds to 51 seconds.	

Signal Timing Mitigation	Weekday AM Peak Hour				Weekday MD Peak Hour			
	No-Action/With-Action				No-Action/With-Action			
	G	A	R		G	A	R	
EB / WB	73.0	3.0	2.0		73.0	3.0	2.0	
NB	37.0	3.0	2.0		37.0	3.0	2.0	
Offset	93	sec			23	sec		
Cycle Length	120	sec			120	sec		
	Mitigated				Mitigated			
	G	A	R		G	A	R	
EB / WB	76.0	3.0	2.0		73.0	3.0	2.0	
NB	34.0	3.0	2.0		37.0	3.0	2.0	
Offset	93	sec			23	sec		
Cycle Length	120	sec			120	sec		

Signal Timing Mitigation	Weekday PM Peak Hour				Saturday MD Peak Hour			
	No-Action/With-Action				No-Action/With-Action			
	G	A	R		G	A	R	
EB / WB	73.0	3.0	2.0					
NB	37.0	3.0	2.0					
Offset	23	sec						
Cycle Length	120	sec						
	Mitigated							
	G	A	R					
EB / WB	73.0	3.0	2.0					
NB	37.0	3.0	2.0					
Offset	51	sec						
Cycle Length	120	sec						

Table 22-44 (con't): Proposed Traffic Mitigation Table: A-Text Alternative

Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
5 Hamilton Avenue and Richmond Terrace	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
														NB LT	31.4 C	53.2 D +	44.2 D
	Mitigation Description	Shift 1 second from the pedestrian phase to NB / SB phase.															
	Signal Timing Mitigation	No-Action/With-Action															
			G	A	R										G	A	R
														NB / SB	45.0	3.0	2.0
														All Peds	35.0	3.0	2.0
														Offset		60	sec
														Cycle Length		90	sec
		Mitigated															
			G	A	R												
														NB / SB	46.0	3.0	2.0
														All Peds	34.0	3.0	2.0
														Offset		60	sec
														Cycle Length		90	sec
8 Richmond Terrace and Ferry Terminal (bus)	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
						WB L	134.0 F	139.4 F +	139.4 F +								
										NB T	75.4 E	79.9 F +	79.9 F +				
		SB T	85.6 E	89.2 F +	88.3 F	SB T	65.2 E	83.2 F +	83.2 F +	SB T	80.1 F	87.5 F +	87.5 F +	SB T	27.3 C	46.0 D +	46.1 D +
	Mitigation Description	Change offset at Richmond Terrace & Schulyer St from 0 to 30 seconds. Shift 1 second from WB phase to NB / SB phase to mitigate impact at intersection #9.				Unmitigable				Unmitigable				Unmitigable			
	Signal Timing Mitigation	No-Action/With-Action															
			G	A	R										G	A	R
		WB	27.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		NB / SB	55.0	3.0	2.0												
		Offset		21	sec												
		Cycle Length		120	sec												
		Mitigated															
			G	A	R												
		WB	26.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		NB / SB	56.0	3.0	2.0												
		Offset		21	sec												
		Cycle Length		120	sec												
		No-Action/With-Action															
			G	A	R										G	A	R
		WB	10.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		NB / SB	42.0	3.0	2.0												
		Offset		45	sec												
		Cycle Length		90	sec												
		Mitigated															
			G	A	R												
		WB	10.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		NB / SB	42.0	3.0	2.0												
		Offset		45	sec												
		Cycle Length		90	sec												
		No-Action/With-Action															
			G	A	R										G	A	R
		WB	27.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		NB / SB	55.0	3.0	2.0												
		Offset		95	sec												
		Cycle Length		120	sec												
		Mitigated															
			G	A	R												
		WB	27.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		NB / SB	55.0	3.0	2.0												
		Offset		95	sec												
		Cycle Length		120	sec												
		No-Action/With-Action															
			G	A	R										G	A	R
		WB	10.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		NB / SB	42.0	3.0	2.0												
		Offset		45	sec												
		Cycle Length		90	sec												
		Mitigated															
			G	A	R												
		WB	10.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		NB / SB	42.0	3.0	2.0												
		Offset		45	sec												
		Cycle Length		90	sec												
9 Richmond Terrace and Ferry Terminal (parking lot)	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		NB T	39.0 D	58.5 D +	37.7 C	NB T	64.6 E	94.0 F +	95.1 F +	NB T	208.0 F	257.3 F +	258.3 F +	NB T	70.9 E	77.4 E +	77.4 E +
						SB TR	69.4 E	99.1 F +	99.1 F +	SB TR	55.7 E	64.4 E +	64.4 E +	SB TR	130.3 F	158.4 F +	158.4 F +
	Mitigation Description	Shift 1 second from SB / WB R phase and 1 second from WB / NB R phase to NB / SB R phase.				Unmitigable				Unmitigable				Unmitigable			
	Signal Timing Mitigation	No-Action/With-Action															
			G	A	R										G	A	R
		WB / NB R	27.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		SB / WB R	24.0	3.0	2.0												
		NB / SB R	26.0	3.0	2.0												
		Offset		21	sec												
		Cycle Length		120	sec												
		Mitigated															
			G	A	R												
		WB / NB R	26.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		SB / WB R	23.0	3.0	2.0												
		NB / SB R	28.0	3.0	2.0												
		Offset		21	sec												
		Cycle Length		120	sec												
		No-Action/With-Action															
			G	A	R										G	A	R
		WB / NB R	10.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		SB / WB R	8.0	3.0	2.0												
		NB / SB R	29.0	3.0	2.0												
		Offset		45	sec												
		Cycle Length		90	sec												
		Mitigated															
			G	A	R												
		WB / NB R	10.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		SB / WB R	8.0	3.0	2.0												
		NB / SB R	29.0	3.0	2.0												
		Offset		45	sec												
		Cycle Length		90	sec												
		No-Action/With-Action															
			G	A	R										G	A	R
		WB / NB R	27.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		SB / WB R	21.0	3.0	2.0												
		NB / SB R	29.0	3.0	2.0												
		Offset		95	sec												
		Cycle Length		120	sec												
		Mitigated															
			G	A	R												
		WB / NB R	27.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		SB / WB R	21.0	3.0	2.0												
		NB / SB R	29.0	3.0	2.0												
		Offset		95	sec												
		Cycle Length		120	sec												
		No-Action/With-Action															
			G	A	R										G	A	R
		WB / NB R	10.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		SB / WB R	9.0	3.0	2.0												
		NB / SB R	28.0	3.0	2.0												
		Offset		45	sec												
		Cycle Length		90	sec												
		Mitigated															
			G	A	R												
		WB / NB R	10.0	3.0	2.0												
		All Peds	23.0	3.0	2.0												
		SB / WB R	9.0	3.0	2.0												
		NB / SB R	28.0	3.0	2.0												
		Offset		45	sec												
		Cycle Length		90	sec												

Table 22-44 (con't): Proposed Traffic Mitigation Table: A-Text Alternative

10 — Bay Street and Slosson Terrace

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
									NB T	46.1 D	64.2 E +	27.4 C				
					SB TR	103.1 F	126.6 F +	99.0 F	SB TR	95.5 F	127.8 F +	91.5 F	SB TR	142.3 F	163.1 F +	135.3 F
Mitigation Description					Shift 2 seconds from EB phase to NB / SB phase. Shift 1 second from EB phase to NB L lead phase.				Shift 4 seconds from the NB L lead phase to NB / SB phase. Change offset from 48 to 52 seconds.				Shift 2 seconds from EB phase to NB / SB phase.			

Signal Timing Mitigation

No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R
EB	34.0	3.0	2.0	EB	34.0	3.0	2.0	EB	27.0	3.0	2.0	EB	24.0	3.0	2.0	EB	34.0	3.0	2.0	EB	33.0	3.0	2.0	EB	27.0	3.0	2.0	EB	25.0	3.0	2.0
NB L	12.0	3.0	2.0	NB L	23.0	3.0	2.0	NB L	8.0	3.0	2.0	NB L	9.0	3.0	2.0	NB L	12.0	3.0	2.0	NB L	9.0	3.0	2.0	NB L	8.0	3.0	2.0	NB L	8.0	3.0	2.0
NB / SB	59.0	3.0	2.0	NB / SB	48.0	3.0	2.0	NB / SB	40.0	3.0	2.0	NB / SB	42.0	3.0	2.0	NB / SB	59.0	3.0	2.0	NB / SB	63.0	3.0	2.0	NB / SB	40.0	3.0	2.0	NB / SB	42.0	3.0	2.0
Offset		98	sec	Offset		98	sec	Offset		65	sec	Offset		65	sec	Offset		48	sec	Offset		52	sec	Offset		65	sec	Offset		65	sec
Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec

11 — Victory Boulevard and Bay Street/St. Marks Place

Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
									WB T	37.6 D	62.3 E +	60.3 E +				
									SB R	84.4 F	100.2 F +	100.2 F +				
Mitigation Description	Change offset from 13 seconds to 3 seconds as part of mitigation for intersection #12.								Unmitigable.							

Signal Timing Mitigation

No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R
EB / WB	74.0	3.0	2.0	EB / WB	74.0	3.0	2.0	EB / WB	74.0	3.0	2.0	EB / WB	74.0	3.0	2.0
LPI	5.0	2.0	0.0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0
SB	29.0	3.0	2.0	SB	29.0	3.0	2.0	SB	29.0	3.0	2.0	SB	29.0	3.0	2.0
Offset		13	sec	Offset		3	sec	Offset		60	sec	Offset		60	sec
Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		120	sec

12 — Victory Boulevard and Bay Street

Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
					EB L	31.5 C	55.4 E +	95.4 F +	EB L	72.0 E	88.1 F +	87.8 F +				
					EB LT	30.6 C	36.8 D	57.9 E +	EB LT	72.9 E	98.1 F +	94.6 F +				
					WB LTR	26.7 C	212.0 F +	354.5 F +	WB LTR	57.8 E	768.9 F +	581.8 F +	WB LTR	24.2 C	49.2 D +	37.3 D
	NB L	32.8 C	173.6 F +	64.8 E +	NB L	829.5 F	1330.9 F +	402.3 F	NB L	577.1 F	1073.2 F +	554.1 F	NB L	##### F	##### F +	376.8 F
	SB LT	7.1 A	9.4 F +	61.9 E +	SB LT	41.9 D	122.0 F +	137.4 F +	SB LT	14.1 B	55.4 E +	164.0 F +	SB LT	43.6 D	71.9 E +	230.8 F +
					SB R	93.8 F	91.7 F	145.3 F +	SB R	11.9 B	21.0 C	66.5 F +				
Mitigation Description	Partial mitigation: Re-allocate 23 seconds from NB / SB phase to create a leading NB left-turn phase and shift 2 seconds from NB / SB phase to EB / WB phase. Change offset from 100 seconds to 0 seconds.				Partial mitigation: Re-allocate 7 seconds from NB / SB phase and 4 seconds from EB / WB phase to create a leading NB left-turn phase. Change the offset from 45 seconds to 4 seconds.				Partial mitigation: Re-allocate 11 seconds from NB / SB phase to create a leading NB left-turn phase and shift 4 seconds from NB / SB phase to EB / WB phase. Change the offset from 48 seconds to 80 seconds.				Partial mitigation: Re-allocate 11 seconds from NB / SB phase to create a leading NB left-turn phase and shift 2 seconds from NB / SB phase to EB / WB phase. Change the offset from 45 seconds to 0 second.			

Signal Timing Mitigation

No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R
EB / WB	35.0	3.0	2.0	EB / WB	37.0	3.0	2.0	EB / WB	29.0	3.0	2.0	EB / WB	25.0	3.0	2.0	EB / WB	35.0	3.0	2.0	EB / WB	39.0	3.0	2.0	EB / WB	29.0	3.0	2.0	EB / WB	31.0	3.0	2.0
LPI	5.0	2.0	0.0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0
NB L				NB L	18.0	3.0	2.0	NB L				NB L	6.0	3.0	2.0	NB L				NB L	6.0	3.0	2.0	NB L				NB L	6.0	3.0	2.0
NB / SB	68.0	3.0	2.0	NB / SB	43.0	3.0	2.0	NB / SB	44.0	3.0	2.0	NB / SB	37.0	3.0	2.0	NB / SB	68.0	3.0	2.0	NB / SB	53.0	3.0	2.0	NB / SB	44.0	3.0	2.0	NB / SB	31.0	3.0	2.0
Offset		100	sec	Offset		0	sec	Offset		45	sec	Offset		4	sec	Offset		48	sec	Offset		80	sec	Offset		45	sec	Offset		0	sec
Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec

Table 22-44 (con't): Proposed Traffic Mitigation Table: A-Text Alternative

13 — Bay Street and Hannah Street

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
	WB LTR	56.7 E	190.6 F +	87.3 E +	WB LTR	15.2 B	60.8 F +	92.4 F +	WB LTR	58.9 E	143.2 F +	61.9 E				
	NB LTR	82.4 F	148.3 F +		NB LTR	394.1 F	470.8 F +		NB LTR	118.7 F	204.8 F +		NB LTR	217.9 F	290.2 F +	
	NB L			45.1 D	NB L			67.3 E	NB L			42.7 D	NB L			28.3 C
	NB TR			96.8 F +	NB TR			85.6 F	NB TR			89.7 F	NB TR			58.7 E
	SB L	284.4 F	920.5 F +	396.7 F	SB L	##### F	2467.8 F +	737.4 F	SB L	711.6 F	##### F +	685.1 F	SB L	##### F	##### F +	529.8 F
Mitigation Description	Partial mitigation: Reconfigure south leg of the intersection - NB approach: add a permanent curb extension, one 5' bike lane, two 11' TR lanes, one 11' L lane (75' turn bay) and eliminate parking to Swan Street (125', approximately 6 parking spaces) - SB direction: modify DOT proposed pavement markings and create permanent curb extension. Re-allocate 15 seconds from NB / SB phase to create a lagging NB / SB left-turn phase. Shift 8 second from NB / SB phase to EB / WB phase. Change offset from 101 seconds to 108 seconds.				Reconfigure south leg of the intersection - NB approach: add a permanent curb extension, one 5' bike lane, two 11' TR lanes, one 11' L lane (75' turn bay) and eliminate parking to Swan Street (125', approximately 6 parking spaces) - SB direction: modify DOT proposed pavement markings and create permanent curb extension. Re-allocate 10 seconds from NB / SB phase and 1 second from EB / WB phase to create a lagging NB / SB left-turn phase. Change offset from 53 seconds to 50 seconds.Westbound approach remains unmitigated.				Reconfigure south leg of the intersection - NB approach: add a permanent curb extension, one 5' bike lane, two 11' TR lanes, one 11' L lane (75' turn bay) and eliminate parking to Swan Street (125', approximately 6 parking spaces) - SB direction: modify DOT proposed pavement markings and create permanent curb extension. Re-allocate 17 seconds from NB / SB phase to create a lagging NB / SB left-turn phase. Shift 8 second from NB / SB phase to EB / WB phase. Change offset from 15 seconds to 23 seconds.				Reconfigure south leg of the intersection - NB approach: add a permanent curb extension, one 5' bike lane, two 11' TR lanes, one 11' L lane (75' turn bay) and eliminate parking to Swan Street (125', approximately 6 parking spaces) - SB direction: modify DOT proposed pavement markings and create permanent curb extension. Re-allocate 9 seconds from NB / SB phase and 2 seconds from EB / WB phase to create a lagging NB / SB left-turn phase. Change offset from 53 seconds to 45 seconds.			
Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated			
		G	A	R		G	A	R		G	A	R		G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	45.0	3.0	2.0	EB / WB	35.0	3.0	2.0	EB / WB	34.0	3.0	2.0
	NB / SB	73.0	3.0	2.0	NB / SB	50.0	3.0	2.0	NB / SB	45.0	3.0	2.0	NB / SB	35.0	3.0	2.0
	NB L / SB L				NB L / SB L	10.0	3.0	2.0	NB L / SB L				NB L / SB L	6.0	3.0	2.0
	Offset		101	sec	Offset		108	sec	Offset		53	sec	Offset		50	sec
	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
	NB LR	23.9 C	92.6 F +	40.7 D	NB LR	23.1 C	165.0 F +	42.4 D	NB LR	25.2 C	47.2 D +	39.7 D				
Mitigation Description	Introduce a 10 second leading ped phase.				Introduce a 10 second leading ped phase.				Introduce a 10 second leading ped phase.							
Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated			
		G	A	R		G	A	R		G	A	R		G	A	R
	EB / WB	43.0	3.0	2.0	LPI	5.0	3.0	2.0	EB / WB	43.0	3.0	2.0	LPI	5.0	3.0	2.0
	NB	37.0	3.0	2.0	EB / WB	32.0	3.0	2.0	NB	37.0	3.0	2.0	EB / WB	32.0	3.0	2.0
					NB	38.0	3.0	2.0					NB	38.0	3.0	2.0
	Offset		0	sec	Offset		0	sec	Offset		0	sec	Offset		0	sec
	Cycle Length		90	sec	Cycle Length		90	sec	Cycle Length		90	sec	Cycle Length		90	sec

14 — Front Street and Hannah Street

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
	EB L								EB L	70.6 E	114.6 F +	115.9 F +				
	EB LTR	125.2 F	128.8 F +	104.3 F					EB LTR	65.9 E	115.2 F +	116.4 F +				
Mitigation Description	Shift 6 seconds from NB / SB phase to EB / WB phase. Change offset from 95 seconds to 80 seconds.								Unmitigable							
Signal Timing Mitigation	No-Action/With-Action				Mitigated								No-Action/With-Action			
		G	A	R		G	A	R						G	A	R
	EB / WB	37.0	3.0	2.0	EB / WB	43.0	3.0	2.0					EB / WB	37.0	3.0	2.0
	NB / SB	73.0	3.0	2.0	NB / SB	67.0	3.0	2.0					NB / SB	73.0	3.0	2.0
	Offset		95	sec	Offset		80	sec					Offset		21	sec
	Cycle Length		120.0	sec	Cycle Length		120.0	sec					Cycle Length		120.0	sec

15 — Bay Street and Swan Street/Van Duzer Street

Table 22-44 (con't): Proposed Traffic Mitigation Table: A-Text Alternative

Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
18 Bay Street and Grant Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		EB LTR			42.8 D	EB LTR			28.5 C	EB LTR			40.8 D	EB LTR			29.8 C
		WB R			36.4 D	WB R			28.6 C	WB R			38.1 D	WB R			29.1 C
		NB TR			6.7 A	NB TR			5.7 A	NB TR			6.1 A	NB TR			10.8 B
		SB T			77.4 E +	SB T			263.3 F +	SB T			231.6 F +	SB T			232.6 F +
	Mitigation Description	Partial mitigation: Signalize intersection. Signal warrant #4 is met.				Partial mitigation: Signalize intersection. Signal warrant #4 is met.				Partial mitigation: Signalize intersection. Signal warrant #4 is met.				Partial mitigation: Signalize intersection. Signal warrant #4 is met.			
	Signal Timing Mitigation	No-Action/With-Action	Mitigated			No-Action/With-Action	Mitigated			No-Action/With-Action	Mitigated			No-Action/With-Action	Mitigated		
		Unsignalized		G A R		*Unsignalized*		G A R		*Unsignalized*		G A R		*Unsignalized*		G A R	
			EB / WB	28.0 3.0 2.0			EB / WB	22.0 3.0 2.0			EB / WB	29.0 3.0 2.0			EB / WB	22.0 3.0 2.0	
			NB / SB	82.0 3.0 2.0			NB / SB	58.0 3.0 2.0			NB / SB	81.0 3.0 2.0			NB / SB	58.0 3.0 2.0	
			Offset	99 sec			Offset	88 sec			Offset	23 sec			Offset	65 sec	
			Cycle Length	120 sec			Cycle Length	90 sec			Cycle Length	120 sec			Cycle Length	90 sec	
20 Bay Street and Clinton Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
										WB LTR	117.0 F	710.4 F +	83.7 F				
		SB TR	33.8 C	69.5 E +	33.2 C	SB TR	188.1 F	233.8 F +	169.6 F	SB TR	89.3 F	179.3 F +	67.2 E	SB TR	222.8 F	272.7 F +	217.3 F
	Mitigation Description	Change offset from 76 seconds to 117 seconds. Shift 4 seconds from WB phase to NB / SB phase.				Shift 5 seconds from WB phase to NB / SB phase.				Change offset from 40 seconds to 17 seconds. Shift 15 seconds from WB phase to NB / SB phase.				Shift 4 seconds from WB phase to NB / SB phase.			
	Signal Timing Mitigation	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated
			G A R				G A R				G A R				G A R		
		WB	37.0 3.0 2.0		WB	33.0 3.0 2.0	WB	31.0 3.0 2.0	WB	26.0 3.0 2.0	WB	37.0 3.0 2.0	WB	22.0 3.0 2.0	WB	31.0 3.0 2.0	WB	27.0 3.0 2.0
		NB / SB	73.0 3.0 2.0		NB / SB	77.0 3.0 2.0	NB / SB	49.0 3.0 2.0	NB / SB	54.0 3.0 2.0	NB / SB	73.0 3.0 2.0	NB / SB	88.0 3.0 2.0	NB / SB	49.0 3.0 2.0	NB / SB	53.0 3.0 2.0
		Offset	76 sec		Offset	117 sec	Offset	0 sec	Offset	0 sec	Offset	40 sec	Offset	17 sec	Offset	0 sec	Offset	0 sec
		Cycle Length	120 sec		Cycle Length	120 sec	Cycle Length	90 sec	Cycle Length	90 sec	Cycle Length	120 sec	Cycle Length	120 sec	Cycle Length	90 sec	Cycle Length	90 sec
21 Bay Street and Baltic Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		EB LTR			38.7 D	EB LTR			39.6 D	EB LTR			44.2 D	EB LTR			38.9 D
		WB LTR			35.3 C	WB LTR			35.2 D	WB LTR			39.5 D	WB LTR			33.8 C
		NB TR			15.7 B	NB TR			11.3 B	NB TR			39.9 D	NB TR			7.9 A
		SB LT			32.4 C	SB LT			134.7 F +	SB LT			122.5 F +	SB LT			95.6 F +
	Mitigation Description	Signalize intersection. Signal warrant #4 is met.				Signalize intersection. Signal warrant #4 is met.				Signalize intersection. Signal warrant #4 is met.				Signalize intersection. Signal warrant #4 is met.			
	Signal Timing Mitigation	No-Action/With-Action	Mitigated			No-Action/With-Action	Mitigated			No-Action/With-Action	Mitigated			No-Action/With-Action	Mitigated		
		Unsignalized		G A R		*Unsignalized*		G A R		*Unsignalized*		G A R		*Unsignalized*		G A R	
			EB / WB	29.0 3.0 2.0			EB / WB	14.0 3.0 2.0			EB / WB	23.0 3.0 2.0			EB / WB	14.0 3.0 2.0	
			NB / SB	81.0 3.0 2.0			NB / SB	66.0 3.0 2.0			NB / SB	87.0 3.0 2.0			NB / SB	66.0 3.0 2.0	
			Offset	113 sec			Offset	3 sec			Offset	19 sec			Offset	3 sec	
			Cycle Length	120 sec			Cycle Length	90 sec			Cycle Length	120 sec			Cycle Length	90 sec	

Table 22-44 (con't): Proposed Traffic Mitigation Table: A-Text Alternative

Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
22 Bay Street and William Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		EB LR	48.6 E	163.0 F +	413.3 F +	EB LR	Err F	Err F	Err F	EB LR	Err F	Err F +	Err F +	EB LR	568.0 F	##### F	Err F
						NB LT	25.8 D	22.4 C	146.5 F +	NB LT	13.8 B	75.4 F +	248.4 F +	NB LT	6.5 A	12.1 B	72.6 F +
	Mitigation Description	Unmitigable. Intersection operations degrade due to mitigation measures applied at adjacent intersections. Resulting impact is unmitigable.				Unmitigable. Intersection operations degrade due to mitigation measures applied at adjacent intersections. Resulting impact is unmitigable.				Unmitigable. Intersection operations degrade due to mitigation measures applied at adjacent intersections. Resulting impacts are unmitigable.				Unmitigable. Intersection operations degrade due to mitigation measures applied at adjacent intersections. Resulting impacts are unmitigable.			
	Signal Timing Mitigation	No-Action/With-Action		Mitigated		No-Action/With-Action		Mitigated		No-Action/With-Action		Mitigated		No-Action/With-Action		Mitigated	
		Unsignalized		*Unsignalized*		*Unsignalized*		*Unsignalized*		*Unsignalized*		*Unsignalized*		*Unsignalized*		*Unsignalized*	
23 Bay Street and Congress Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
										NB LT	2.1 A	10.1 B	34.4 D +				
	Mitigation Description									Unmitigable. Intersection operations degrade due to mitigation measures applied at adjacent intersections. Resulting impact is unmitigable.							
	Signal Timing Mitigation									No-Action/With-Action		Mitigated					
										Unsignalized		*Unsignalized*					
24 Bay Street and Wave Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
										WB LTR	37.1 D	34.6 D					
										WB L			52.9 D +				
										WB TR			59.3 E +				
						NB LT	204.3 F	269.2 F +	96.8 F	NB LT	84.0 F	219.7 F +	146.2 F +	NB LT	141.6 F	215.9 F +	76.5 E
										SB L	17.7 B	99.4 F +	11.1 B				
		SB TR	23.5 C	77.6 E +	18.3 B	SB TR	215.4 F	260.3 F +	100.6 F	SB TR	110.2 F	192.9 F +	119.5 F +	SB TR	268.3 F	323.4 F +	171.3 F
	Mitigation Description	Re-stripe WB approach as one 10' L lane (70' turn bay) and one 10' TR lane. Modify parking regulation on WB approach to "No Standing Anytime" for 95' from the stop bar (4 parking spaces will be removed). Change offset from 0 second to 9 seconds. Shift 11 seconds from WB phase to NB / SB phase.				Re-stripe WB approach as one 10' L lane (70' turn bay) and one 10' TR lane. Modify parking regulation on WB approach to "No Standing Anytime" for 95' from the stop bar (4 parking spaces will be removed). Shift 14 seconds from WB phase to NB / SB phase.				Partial mitigation: Re-stripe WB approach as one 10' L lane (70' turn bay) and one 10' TR lane. Modify parking regulation on WB approach to "No Standing Anytime" for 95' from the stop bar (4 parking spaces will be removed). Shift 9 seconds from WB phase to NB / SB phase.				Re-stripe WB approach as one 10' L lane (70' turn bay) and one 10' TR lane. Modify parking regulation on WB approach to "No Standing Anytime" for 95' from the stop bar (4 parking spaces will be removed). Shift 12 seconds from WB phase to NB / SB phase.			
	Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated			
			G	A	R		G	A	R		G	A	R		G	A	R		G	A	R		G	A	R
		WB	37.0	3.0	2.0	WB	26.0	3.0	2.0	WB	31.0	3.0	2.0	WB	17.0	3.0	2.0	WB	30.0	3.0	2.0	WB	21.0	3.0	2.0	WB	31.0	3.0	2.0	WB	19.0	3.0	2.0
		NB / SB	73.0	3.0	2.0	NB / SB	84.0	3.0	2.0	NB / SB	49.0	3.0	2.0	NB / SB	63.0	3.0	2.0	NB / SB	80.0	3.0	2.0	NB / SB	89.0	3.0	2.0	NB / SB	49.0	3.0	2.0	NB / SB	61.0	3.0	2.0
		Offset		0	sec	Offset		9	sec	Offset		0	sec	Offset		0	sec	Offset		0	sec	Offset		0	sec	Offset		0	sec	Offset		0	sec
		Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec

Table 22-44 (con't): Proposed Traffic Mitigation Table: A-Text Alternative

Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
25 Front Street and Wave Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
										NB LT	7.3 A	88.4 F +	15.8 B				
	Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.				Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.				Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.				Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.			
	Signal Timing Mitigation	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated
			G A R			G A R			G A R			G A R			G A R			G A R
		EB	19.0 3.0 2.0		EB	29.0 3.0 2.0		EB	19.0 3.0 2.0		EB	28.0 3.0 2.0		EB	19.0 3.0 2.0		EB	21.0 3.0 2.0		EB	19.0 3.0 2.0		EB	26.0 3.0 2.0
		NB / SB	31.0 3.0 2.0		NB / SB	51.0 3.0 2.0		NB / SB	31.0 3.0 2.0		NB / SB	52.0 3.0 2.0		NB / SB	31.0 3.0 2.0		NB / SB	59.0 3.0 2.0		NB / SB	31.0 3.0 2.0		NB / SB	54.0 3.0 2.0
		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec
		Cycle Length	60 sec		Cycle Length	90 sec		Cycle Length	60 sec		Cycle Length	90 sec		Cycle Length	60 sec		Cycle Length	90 sec		Cycle Length	60 sec		Cycle Length	90 sec
26 Front Street and Prospect Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		NB TR	41.6 D	121.7 F +	46.2 D +	NB TR	72.5 E	177.6 F +	27.3 C	NB TR	194.0 F	341.5 F +	104.1 F	NB TR	80.4 F	150.2 F +	45.2 D
		SB LT	31.7 C	402.6 F +	82.9 F +	SB LT	231.4 F	##### F +	81.3 F	SB LT	##### F	4102.2 F +	##### F	SB LT	410.8 F	1119.2 F +	271.8 F
	Mitigation Description	Partial mitigation: Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.				Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.				Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.				Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.			
	Signal Timing Mitigation	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated
			G A R			G A R			G A R			G A R			G A R			G A R			G A R			G A R
		EB	13.0 3.0 2.0		EB	16.0 3.0 2.0		EB	13.0 3.0 2.0		EB	15.0 3.0 2.0		EB	13.0 3.0 2.0		EB	18.0 3.0 2.0		EB	13.0 3.0 2.0		EB	20.0 3.0 2.0
		WB	13.0 3.0 2.0		WB	23.0 3.0 2.0		WB	13.0 3.0 2.0		WB	17.0 3.0 2.0		WB	13.0 3.0 2.0		WB	16.0 3.0 2.0		WB	13.0 3.0 2.0		WB	18.0 3.0 2.0
		NB / SB	19.0 3.0 2.0		NB / SB	36.0 3.0 2.0		NB / SB	19.0 3.0 2.0		NB / SB	43.0 3.0 2.0		NB / SB	19.0 3.0 2.0		NB / SB	41.0 3.0 2.0		NB / SB	19.0 3.0 2.0		NB / SB	37.0 3.0 2.0
		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec
		Cycle Length	60 sec		Cycle Length	90 sec		Cycle Length	60 sec		Cycle Length	90 sec		Cycle Length	60 sec		Cycle Length	90 sec		Cycle Length	60 sec		Cycle Length	90 sec
27 Van Duzer Street and Beach Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		EB LT	57.7 E	75.7 E +	58.0 E					EB LT	49.3 D	88.6 F +	53.0 D				
	Mitigation Description	Install No-Standing 7 to 9 AM for 120' along the east curb of the NB approach to create a right-turn only lane. Shift 3 second from NB phase to EB / WB phase.								Shift 5 seconds from NB phase to EB / WB phase.							
	Signal Timing Mitigation	No-Action/With-Action			Mitigated					No-Action/With-Action			Mitigated				
			G A R								G A R						
		EB / WB	43.0 3.0 2.0		EB / WB	44.0 3.0 2.0				EB / WB	43.0 3.0 2.0		EB / WB	48.0 3.0 2.0			
		NB	67.0 3.0 2.0		NB	66.0 3.0 2.0				NB	67.0 3.0 2.0		NB	62.0 3.0 2.0			
		Offset	76 sec		Offset	76 sec				Offset	6 sec		Offset	6 sec			
		Cycle Length	120 sec		Cycle Length	120 sec				Cycle Length	120 sec		Cycle Length	120 sec			
28 Bay Street and Water Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		NB L	24.5 C	457.2 F +	25.7 C	NB L	348.4 F	373.4 F +	362.7 F +	NB L	921.0 F	##### F +	##### F +	NB L	359.2 F	394.9 F +	374.1 F +
		NB T	24.7 C	73.8 E +	7.6 A	NB T	63.8 E	113.6 F +	62.6 E	NB T	74.3 E	146.4 F +	138.2 F +	NB T	61.3 E	108.0 F +	63.5 E
		SB TR	67.8 E	81.1 F +	45.4 D	SB TR	204.5 F	245.1 F +	150.4 F	SB TR	174.3 F	263.3 F +	261.2 F +	SB TR	240.6 F	290.6 F +	211.8 F
	Mitigation Description	Shift 11 seconds from WB phase to NB / SB phase. Change offset from 0 seconds to 25 seconds.				Partial mitigation: Shift 8 seconds from WB phase to NB / SB phase. Change offset from 0 seconds to 81 seconds.				Unmitigable				Partial mitigation: Shift 6 seconds from WB phase to NB / SB phase. Change offset from 0 seconds to 83 seconds.			
	Signal Timing Mitigation	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated	No-Action/With-Action			Mitigated
			G A R			G A R			G A R			G A R			G A R			G A R			G A R			G A R
		WB	36.0 3.0 2.0		WB	25.0 3.0 2.0		WB	27.0 3.0 2.0		WB	19.0 3.0 2.0		WB	36.0 3.0 2.0		WB	36.0 3.0 2.0		WB	27.0 3.0 2.0		WB	21.0 3.0 2.0
		NB / SB	74.0 3.0 2.0		NB / SB	85.0 3.0 2.0		NB / SB	53.0 3.0 2.0		NB / SB	61.0 3.0 2.0		NB / SB	74.0 3.0 2.0		NB / SB	74.0 3.0 2.0		NB / SB	53.0 3.0 2.0		NB / SB	59.0 3.0 2.0
		Offset	0 sec		Offset	25 sec		Offset	0 sec		Offset	81 sec		Offset	0 sec		Offset	0 sec		Offset	0 sec		Offset	83 sec
		Cycle Length	120 sec		Cycle Length	120 sec		Cycle Length	90 sec		Cycle Length	90 sec		Cycle Length	120 sec		Cycle Length	120 sec		Cycle Length	90 sec		Cycle Length	90 sec

Table 22-44 (con't): Proposed Traffic Mitigation Table: A-Text Alternative

Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
29 Bay Street and Canal Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
						WB LTR	141.3 F	150.6 F +	141.8 F								
		NB TR	8.2 A	57.4 E +	25.2 B	NB TR	119.4 F	208.9 F +	85.0 E	NB TR	84.1 F	228.7 F +	226.2 F +	NB TR	97.7 F	180.0 F +	73.5 E
						SB LT	##### F	1178.7 F +	119.4 F	SB LT	##### F	1604.3 F +	234.9 F	SB LT	##### F	##### F +	162.6 F
	Mitigation Description	Prohibit SB left turns. (Note: mitigated condition includes detoured traffic due to turn prohibition)				Shift 10 seconds from EB / WB phase to NB / SB phase. Prohibit SB left turns. (Note: mitigated condition includes detoured traffic due to turn prohibition)				Partial mitigation: Change offset from 82 seconds to 99 seconds. Prohibit SB left turns. (Note: mitigated condition includes detoured traffic due to turn prohibition)				Shift 9 seconds from EB / WB phase to NB / SB phase. Prohibit SB left turns. (Note: mitigated condition includes detoured traffic due to turn prohibition)			
	Signal Timing Mitigation	No-Action/With-Action: EB / WB G 37.0 A 3.0 R 2.0; NB / SB G 73.0 A 3.0 R 2.0; Offset 34 sec; Cycle Length 120 sec			Mitigated: EB / WB G 37.0 A 3.0 R 2.0; NB / SB G 73.0 A 3.0 R 2.0; Offset 34 sec; Cycle Length 120 sec	No-Action/With-Action: EB / WB G 35.0 A 3.0 R 2.0; NB / SB G 45.0 A 3.0 R 2.0; Offset 12 sec; Cycle Length 90 sec			Mitigated: EB / WB G 25.0 A 3.0 R 2.0; NB / SB G 55.0 A 3.0 R 2.0; Offset 12 sec; Cycle Length 90 sec	No-Action/With-Action: EB / WB G 37.0 A 3.0 R 2.0; NB / SB G 73.0 A 3.0 R 2.0; Offset 82 sec; Cycle Length 120 sec			Mitigated: EB / WB G 37.0 A 3.0 R 2.0; NB / SB G 73.0 A 3.0 R 2.0; Offset 99 sec; Cycle Length 120 sec	No-Action/With-Action: EB / WB G 35.0 A 3.0 R 2.0; NB / SB G 45.0 A 3.0 R 2.0; Offset 12 sec; Cycle Length 90 sec			Mitigated: EB / WB G 26.0 A 3.0 R 2.0; NB / SB G 54.0 A 3.0 R 2.0; Offset 12 sec; Cycle Length 90 sec
30 Front Street and Canal Street	Impacts																
	Mitigation Description	Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.				Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.				Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.				Increased proposed cycle length from 60 seconds to 90 seconds for consistency with proposed mitigation at adjacent intersections on Front Street.			
	Signal Timing Mitigation	No-Action/With-Action: EB G 19.0 A 3.0 R 2.0; NB / SB G 31.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 60 sec			Mitigated: EB G 25.0 A 3.0 R 2.0; NB / SB G 55.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 90 sec	No-Action/With-Action: EB G 19.0 A 3.0 R 2.0; NB / SB G 31.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 60 sec			Mitigated: EB G 35.0 A 3.0 R 2.0; NB / SB G 45.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 90 sec	No-Action/With-Action: EB G 19.0 A 3.0 R 2.0; NB / SB G 31.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 60 sec			Mitigated: EB G 32.0 A 3.0 R 2.0; NB / SB G 48.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 90 sec	No-Action/With-Action: EB G 19.0 A 3.0 R 2.0; NB / SB G 31.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 60 sec			Mitigated: EB G 35.0 A 3.0 R 2.0; NB / SB G 45.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 90 sec
31 Bay Street and Broad Street	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
										EB LR	37.5 D	115.6 F +					
										EB L			44.3 D				
										EB R			40.5 D				
		NB LT	18.9 B	107.6 F +	57.9 D +	NB LT	##### F	##### F +	##### F	NB LT	##### F	##### F +	##### F +	NB LT	##### F	##### F +	999.0 F
		SB T	11.0 F	55.9 E +	36.1 C	SB T	136.3 F	194.3 F +	109.2 F	SB T	62.0 E	125.7 F +	80.1 F +	SB T	180.6 F	229.5 F +	128.4 F
	Mitigation Description	Partial mitigation: Re-stripe EB approach as one 14' L lane (100' turn bay) and one 11' TR lane. Extend " No Parking Anytime" regulation on EB approach by 75' (3 parking spaces will be removed). Shift 3 seconds from EB phase to NB / SB phase.				Re-stripe EB approach as one 14' L lane (100' turn bay) and one 11' TR lane. Extend " No Parking Anytime" regulation on EB approach by 75' (3 parking spaces will be removed). Shift 7 seconds from EB phase to NB / SB phase.				Partial mitigation: Re-stripe EB approach as one 14' L lane (100' turn bay) and one 11' TR lane. Extend " No Parking Anytime" regulation on EB approach by 75' (3 spaces will be removed). Shift 6 seconds from EB phase to NB / SB phase.				Re-stripe EB approach as one 14' L lane (100' turn bay) and one 11' TR lane. Extend " No Parking Anytime" regulation on EB approach by 75' (3 parking spaces will be removed). Shift 8 seconds from EB phase to NB / SB phase.			
	Signal Timing Mitigation	No-Action/With-Action: LPI G 2.0 A 3.0 R 2.0; EB G 33.0 A 3.0 R 2.0; NB / SB G 70.0 A 3.0 R 2.0; Offset 26 sec; Cycle Length 120 sec			Mitigated: LPI G 2.0 A 3.0 R 2.0; EB G 30.0 A 3.0 R 2.0; NB / SB G 73.0 A 3.0 R 2.0; Offset 26 sec; Cycle Length 120 sec	No-Action/With-Action: LPI G 2.0 A 3.0 R 2.0; EB G 27.0 A 3.0 R 2.0; NB / SB G 46.0 A 3.0 R 2.0; Offset 6 sec; Cycle Length 90 sec			Mitigated: LPI G 2.0 A 3.0 R 2.0; EB G 20.0 A 3.0 R 2.0; NB / SB G 53.0 A 3.0 R 2.0; Offset 6 sec; Cycle Length 90 sec	No-Action/With-Action: LPI G 2.0 A 3.0 R 2.0; EB G 33.0 A 3.0 R 2.0; NB / SB G 70.0 A 3.0 R 2.0; Offset 90 sec; Cycle Length 120 sec			Mitigated: LPI G 2.0 A 3.0 R 2.0; EB G 27.0 A 3.0 R 2.0; NB / SB G 76.0 A 3.0 R 2.0; Offset 90 sec; Cycle Length 120 sec	No-Action/With-Action: LPI G 2.0 A 3.0 R 2.0; EB G 27.0 A 3.0 R 2.0; NB / SB G 46.0 A 3.0 R 2.0; Offset 6 sec; Cycle Length 90 sec			Mitigated: LPI G 2.0 A 3.0 R 2.0; EB G 19.0 A 3.0 R 2.0; NB / SB G 54.0 A 3.0 R 2.0; Offset 6 sec; Cycle Length 90 sec

Table 22-44 (con't): Proposed Traffic Mitigation Table: A-Text Alternative

35 — Victory Boulevard and Cebra Avenue

Weekday AM Peak Hour																							
Movement	No-Action			With-Action				Mitigated				Movement	No-Action			With-Action				Mitigated			
WB L	60.5	E		76.0	E	+		76.0	E	+		NB LTR	35.4	D		51.0	D	+		50.9	D	+	
SB LTR	19.7	B		62.5	E	+		61.6	E	+		SB LTR	105.3	F		178.5	F	+		178.5	F	+	
Mitigation Description	Unmitigable											Unmitigable											
Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated										
		G	A	R		G	A	R		G	A	R		G	A	R							
	LPI	5.0	2.0	0.0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0							
	EB / WB	31.0	3.0	2.0	EB / WB	31.0	3.0	2.0	EB / WB	26.0	3.0	2.0	EB / WB	26.0	3.0	2.0							
	NB / SB	72.0	3.0	2.0	NB / SB	72.0	3.0	2.0	NB / SB	47.0	3.0	2.0	NB / SB	47.0	3.0	2.0							
	Offset		112	sec	Offset		112	sec	Offset		0	sec	Offset		0	sec							
	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec							

Weekday MD Peak Hour																							
Movement	No-Action			With-Action				Mitigated															
NB LTR	35.4	D		51.0	D	+		50.9	D	+													
SB LTR	105.3	F		178.5	F	+		178.5	F	+													
Mitigation Description	Unmitigable																						
Signal Timing Mitigation	No-Action/With-Action				Mitigated																		
		G	A	R		G	A	R															
	LPI	5.0	2.0	0	LPI	5.0	2.0	0															
	EB / WB	26.0	3.0	2.0	EB / WB	26.0	3.0	2.0															
	NB / SB	47.0	3.0	2.0	NB / SB	47.0	3.0	2.0															
	Offset		0	sec	Offset		0	sec															
	Cycle Length		90	sec	Cycle Length		90	sec															

Weekday PM Peak Hour																							
Movement	No-Action			With-Action				Mitigated				Movement	No-Action			With-Action				Mitigated			
EB L	150.8	F		260.0	F	+		260.0	F	+		WB TR	76.6	E		96.8	F	+		96.8	F	+	
NB LTR	40.8	D		201.2	F	+		201.3	F	+		SB LT	47.0	D		107.4	F	+		107.3	F	+	
Mitigation Description	Unmitigable											Unmitigable											
Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated										
		G	A	R		G	A	R		G	A	R		G	A	R							
	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0	LPI	5.0	2.0	0							
	EB / WB	29.0	3.0	2.0	EB / WB	29.0	3.0	2.0	EB / WB	26.0	3.0	2.0	EB / WB	22.0	3.0	2.0							
	NB / SB	74.0	3.0	2.0	NB / SB	74.0	3.0	2.0	NB / SB	47.0	3.0	2.0	NB / SB	51.0	3.0	2.0							
	Offset		57	sec	Offset		57	sec	Offset		0	sec	Offset		0	sec							
	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec							

Saturday MD Peak Hour																							
Movement	No-Action			With-Action				Mitigated															
NB LTR	37.7	D		51.6	D	+		33.7	D														
SB LTR	65.3	E		110.3	F	+		62.6	E														
Mitigation Description	Shift 4 seconds from EB / WB phase to NB / SB phase.																						
Signal Timing Mitigation	No-Action/With-Action				Mitigated																		
		G	A	R		G	A	R															
	LPI	5.0	2.0	0	LPI	5.0	2.0	0															
	EB / WB	26.0	3.0	2.0	EB / WB	22.0	3.0	2.0															
	NB / SB	47.0	3.0	2.0	NB / SB	51.0	3.0	2.0															
	Offset		0	sec	Offset		0	sec															
	Cycle Length		90	sec	Cycle Length		90	sec															

36 — Victory Boulevard and Jersey Street

Weekday AM Peak Hour																							
Movement	No-Action			With-Action				Mitigated				Movement	No-Action			With-Action				Mitigated			
SB LR	40.9	D		56.5	D	+		48.6	D	+		EB L	43.6	D		241.4	F	+		241.4	F	+	
												EB T	39.7	D		65.0	E	+		65.1	E	+	
												WB T	70.0	E		105.2	F	+		105.4	F	+	
Mitigation Description	Partial Mitigation: Shift 3 seconds from EB / WB phase to SB phase.											Unmitigable											
Signal Timing Mitigation	No-Action/With-Action				Mitigated				No-Action/With-Action				Mitigated										
		G	A	R		G	A	R		G	A	R		G	A	R							
	EB / WB	76.0	3.0	2.0	EB / WB	73.0	3.0	2.0	EB / WB	49.0	3.0	2.0	EB / WB	49.0	3.0	2.0							
	SB	34.0	3.0	2.0	SB	37.0	3.0	2.0	SB	31.0	3.0	2.0	SB	31.0	3.0	2.0							
	Offset		103	sec	Offset		103	sec	Offset		0	sec	Offset		0	sec							
	Cycle Length		120	sec	Cycle Length		120	sec	Cycle Length		90	sec	Cycle Length		90	sec							

Weekday MD Peak Hour																							
Movement	No-Action			With-Action				Mitigated															
EB L	43.6	D		241.4	F	+		241.4	F	+													
EB T	39.7	D		65.0	E	+		65.1	E	+													
WB T	70.0	E		105.2	F	+		105.4	F	+													
Unmitigable																							
No-Action/With-Action				Mitigated																			
	G	A	R		G	A	R																
LPI	5.0	2.0	0	LPI	5.0	2.0	0																
EB	27.0	3.0	2.0	EB	24.0	3.0	2.0																
NB / SB	46.0	3.0	2.0	NB / SB	49.0	3.0	2.0																
Offset		0	sec	Offset		0	sec																
Cycle Length		90	sec	Cycle Length		90	sec																

Weekday PM Peak Hour																							
Movement	No-Action			With-Action				Mitigated				Movement	No-Action			With-Action				Mitigated			
EB L	66.3	E		690.3	F	+		690.3	F	+		EB L	36.0	D		105.5	F	+		110.2	F	+	
												EB T	42.9	D		57.9	E	+		59.8	E	+	
WB T	79.3	E		94.0	F	+		93.8	F	+		WB T	50.2	D		63.6	E	+		63.3	E	+	
SB LR	43.3	D		65.9	E	+		66.3	E	+													
Unmitigable												Unmitigable											
No-Action/With-Action				Mitigated								No-Action/With-Action				Mitigated							
	G	A	R		G	A	R						G	A	R								
LPI	5.0	2.0	0	LPI	5.0	2.0	0					LPI	5.0	2.0	0								
EB	29.0	3.0	2.0	EB	28.0	3.0	2.0					EB	27.0	3.0	2.0								
NB / SB	74.0	3.0	2.0	NB / SB	75.0	3.0	2.0					NB / SB	46.0	3.0	2.0								
Offset		77	sec	Offset		77	sec					Offset		0	sec								
Cycle Length		120	sec	Cycle Length		120	sec					Cycle Length		90	sec								

Saturday MD Peak Hour																							
Movement	No-Action			With-Action				Mitigated															
Unmitigable																							
No-Action/With-Action				Mitigated																			
	G	A	R		G	A	R																
LPI	5.0	2.0	0	LPI	5.0	2.0	0																
EB	27.0	3.0	2.0	EB	25.0	3.0	2.0																
NB / SB	46.0	3.0	2.0	NB / SB	48.0	3.0	2.0																
Offset		0	sec	Offset		0	sec																
Cycle Length		90	sec	Cycle Length		90	sec																

38 — Victory Boulevard and Forest Avenue

Weekday AM Peak Hour																							
Movement	No-Action			With-Action				Mitigated				Movement	No-Action			With-Action				Mitigated			
												NB L	52.2	D		99.2	F	+		49.2	D		
												SB T	75.8	E		80.0	F	+		73.8	E		
Mitigation Description												Shift 3 seconds from EB phase to NB / SB phase.											
Signal Timing Mitigation									No-Action/With-Action				Mitigated										
										G	A	R		G	A	R							
									LPI	5.0	2.0	0	LPI	5.0	2.0	0							
									EB	27.0	3.0	2.0	EB	24.0	3.0	2.0							
									NB / SB	46.0	3.0	2.0	NB / SB	49.0	3.0	2.0							
									Offset		0	sec	Offset		0	sec							
									Cycle Length		90	sec	Cycle Length		90	sec							

Weekday MD Peak Hour																							
Movement	No-Action			With-Action				Mitigated															
Shift 3 seconds from EB phase to NB / SB phase.																							
No-Action/With-Action				Mitigated																			
	G	A	R		G	A	R																
LPI	5.0	2.0	0	LPI	5.0	2.0	0																
EB	27.0	3.0	2.0	EB	24.0	3.0	2.0																
NB / SB	46.0	3.0	2.0	NB / SB	49.0	3.0	2.0																
Offset		0	sec	Offset		0	sec																
Cycle Length		90	sec	Cycle Length		90	sec																

Weekday PM Peak Hour																							
Movement	No-Action			With-Action				Mitigated				Movement	No-Action			With-Action				Mitigated			
NB L	30.4	C		57.2	E	+		48.2	D	+		NB L	67.8	E		99.1	F	+		63.0	E		
SB T	74.1	E		77.8	E	+		76.3	E	+		SB T	64.8	E		78.6	E	+		67.0	E		
Partial mitigation: Shift 1 second from EB phase to NB / SB phase.												Shift 2 seconds from EB phase to NB / SB phase.										
No-Action/With-Action				Mitigated								No-Action/With-Action				Mitigated							
	G	A	R		G	A	R						G	A	R								
LPI	5.0	2.0	0	LPI	5.0	2.0	0					LPI	5.0	2.0	0								
EB	29.0	3.0	2.0	EB	28.0	3.0	2.0					EB	27.0	3.0	2.0								
NB / SB	74.0	3.0	2.0	NB / SB	75.0	3.0	2.0					NB / SB	46.0	3.0	2.0								
Offset		77	sec	Offset		77	sec					Offset		0	sec								
Cycle Length		120	sec	Cycle Length		120	sec					Cycle Length		90	sec								

Saturday MD Peak Hour																							
Movement	No-Action			With-Action				Mitigated															
Shift 2 seconds from EB phase to NB / SB phase.																							
No-Action/With-Action				Mitigated																			
	G	A	R		G	A	R																
LPI	5.0	2.0	0	LPI	5.0	2.0	0																
EB	27.0	3.0	2.0	EB	25.0	3.0	2.0																
NB / SB	46.0	3.0	2.0	NB / SB	48.0	3.0	2.0																
Offset		0	sec	Offset		0	sec																
Cycle Length		90	sec	Cycle Length		90	sec																

Table 22-44 (con't): Proposed Traffic Mitigation Table: A-Text Alternative

43 — Broad Street and Targee Street

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Movement	No-Action		With-Action		Mitigated		Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
EB LT	47.4	D	55.1	D +	27.8	C												
Mitigation Description	Change offset from 10 seconds to 92 seconds.																	

Signal Timing Mitigation

No-Action/With-Action	G	A	R	Mitigated	G	A	R
EB / WB	43.0	3.0	2.0	EB / WB	42.0	3.0	2.0
NB	67.0	3.0	2.0	NB	68.0	3.0	2.0
Offset	10	sec		Offset	92	sec	
Cycle Length	120	sec		Cycle Length	120	sec	

44 — Vanderbilt Avenue and Tompkins Avenue

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Movement	No-Action		With-Action		Mitigated		Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
EB LTR	40.4	D	57.9	D +	57.9	D +	EB LTR	63.3	E	90.9	E +	90.9	E +					
NB LTR	177.2	F	221.0	F +	221.0	F +	NB LTR	162.3	F	176.5	F +	176.5	F +	WB LTR	37.2	D	50.0	D +	49.2	D +				
SB LTR	99.8	F	114.5	F +	114.4	F +								NB LTR	79.9	E	88.3	F +	88.3	F +				
Mitigation Description	Unmitigable						Unmitigable				Unmitigable							

Signal Timing Mitigation

No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R
EB / WB	62.0	3.0	2.0	EB / WB	62.0	3.0	2.0	EB / WB	42.0	3.0	2.0	EB / WB	42.0	3.0	2.0	EB / WB	61.0	3.0	2.0	EB / WB	61.0	3.0	2.0
LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0	LPI	2.0	3.0	2.0
NB / SB	41.0	3.0	2.0	NB / SB	41.0	3.0	2.0	NB / SB	31.0	3.0	2.0	NB / SB	31.0	3.0	2.0	NB / SB	42.0	3.0	2.0	NB / SB	42.0	3.0	2.0
Offset	25	sec		Offset	25	sec	Offset	0	sec		Offset	0	sec		Offset	0	sec		Offset	0	sec			
Cycle Length	120	sec		Cycle Length	120	sec	Cycle Length	90	sec		Cycle Length	90	sec		Cycle Length	120	sec		Cycle Length	120	sec			

45 — Bay Street and Vanderbilt Avenue

Intersection	Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
Movement	No-Action		With-Action		Mitigated		Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
NB LT	13.9	B	46.1	D +	37.5	D	NB LT	#####	F	#####	F +	#####	F	NB LT	508.0	F	924.5	F +	842.0	F +	NB LT	#####	F	#####	F +	#####	F
							SB T	105.3	F	122.6	F +	75.3	F								SB T	145.4	F	180.9	F +	140.4	F
Mitigation Description	Shift 1 second from EB phase to NB / SB phase.						Shift 4 seconds from EB phase to NB / SB phase.				Partial mitigation: Shift 1 second from EB phase to NB / SB phase.				Shift 3 seconds from EB phase to NB / SB phase.			

Signal Timing Mitigation

No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R	No-Action/With-Action	G	A	R	Mitigated	G	A	R
EB	37.0	3.0	2.0	EB	36.0	3.0	2.0	EB	35.0	3.0	2.0	EB	31.0	3.0	2.0	EB	37.0	3.0	2.0	EB	36.0	3.0	2.0	EB	35.0	3.0	2.0	EB	32.0	3.0	2.0
NB / SB	73.0	3.0	2.0	NB / SB	74.0	3.0	2.0	NB / SB	45.0	3.0	2.0	NB / SB	49.0	3.0	2.0	NB / SB	73.0	3.0	2.0	NB / SB	74.0	3.0	2.0	NB / SB	45.0	3.0	2.0	NB / SB	48.0	3.0	2.0
Offset	1	sec		Offset	1	sec	Offset	52	sec		Offset	52	sec		Offset	115	sec		Offset	115	sec		Offset	52	sec		Offset	52	sec		
Cycle Length	120	sec		Cycle Length	120	sec	Cycle Length	90	sec		Cycle Length	90	sec		Cycle Length	120	sec		Cycle Length	120	sec		Cycle Length	90	sec		Cycle Length	90	sec		

Table 22-44 (con't): Proposed Traffic Mitigation Table: A-Text Alternative

Intersection		Weekday AM Peak Hour				Weekday MD Peak Hour				Weekday PM Peak Hour				Saturday MD Peak Hour			
47 Bay Street and Edgewater Drive	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
														SB T	36.9 D	55.9 E +	38.1 D
	Mitigation Description													Shift 2 seconds from WB / NWB phase to NB / SB phase.			
	Signal Timing Mitigation													No-Action/With-Action: WB / NWB G 31.0 A 3.0 R 2.0; NB / SB G 49.0 A 3.0 R 2.0; Offset 45 sec; Cycle Length 90 sec			Mitigated: WB / NWB G 29.0 A 3.0 R 2.0; NB / SB G 51.0 A 3.0 R 2.0; Offset 45 sec; Cycle Length 90 sec
48 Bay Street and Hylan Boulevard	Impacts					EB LTR	81.1 F	112.7 F +	112.7 F +	EB LTR	95.8 F	175.2 F +	175.2 F +	EB LTR	77.9 E	110.3 F +	111.0 F +
		WB LTR	100.6 F	104.2 F +	104.2 F +					WB LTR	89.2 F	92.4 F +	92.4 F +				
		NB LTR	176.2 F	774.8 F +	777.4 F +	NB LTR	##### F	2463.6 F +	##### F +	NB LTR	##### F	1869.2 F +	##### F +	NB LTR	##### F	##### F +	##### F +
		SB T	39.1 D	76.3 E +	76.1 E +	SB T	97.0 F	138.7 F +	138.8 F +	SB T	85.3 F	140.5 F +	139.8 F +	SB T	90.6 F	128.0 F +	128.8 F +
	Mitigation Description	Unmitigable				Unmitigable				Unmitigable				Unmitigable			
	Signal Timing Mitigation	No-Action/With-Action: SBR / EBL G 13.0 A 3.0 R 2.0; EB / WB G 31.0 A 3.0 R 2.0; LPI G 2.0 A 3.0 R 2.0; NB / SB G 54.0 A 3.0 R 2.0; Offset 55 sec; Cycle Length 120 sec			Mitigated: SBR / EBL G 13.0 A 3.0 R 2.0; EB / WB G 31.0 A 3.0 R 2.0; LPI G 2.0 A 3.0 R 2.0; NB / SB G 54.0 A 3.0 R 2.0; Offset 55 sec; Cycle Length 120 sec	No-Action/With-Action: SBR / EBL G 9.0 A 3.0 R 2.0; EB / WB G 22.0 A 3.0 R 2.0; LPI G 2.0 A 3.0 R 2.0; NB / SB G 37.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 90 sec			Mitigated: SBR / EBL G 9.0 A 3.0 R 2.0; EB / WB G 22.0 A 3.0 R 2.0; LPI G 2.0 A 3.0 R 2.0; NB / SB G 37.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 90 sec	No-Action/With-Action: SBR / EBL G 13.0 A 3.0 R 2.0; EB / WB G 31.0 A 3.0 R 2.0; LPI G 2.0 A 3.0 R 2.0; NB / SB G 54.0 A 3.0 R 2.0; Offset 61 sec; Cycle Length 120 sec			Mitigated: SBR / EBL G 13.0 A 3.0 R 2.0; EB / WB G 31.0 A 3.0 R 2.0; LPI G 2.0 A 3.0 R 2.0; NB / SB G 54.0 A 3.0 R 2.0; Offset 61 sec; Cycle Length 120 sec	No-Action/With-Action: SBR / EBL G 9.0 A 3.0 R 2.0; EB / WB G 22.0 A 3.0 R 2.0; LPI G 2.0 A 3.0 R 2.0; NB / SB G 37.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 90 sec			Mitigated: SBR / EBL G 9.0 A 3.0 R 2.0; EB / WB G 22.0 A 3.0 R 2.0; LPI G 2.0 A 3.0 R 2.0; NB / SB G 37.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 90 sec
49 Bay Street and School Road	Impacts	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated	Movement	No-Action	With-Action	Mitigated
		EB L	93.1 F	151.0 F +	94.2 F	EB L	195.2 F	251.8 F +	189.1 F	EB L	233.4 F	345.4 F +	310.6 F +	EB L	210.7 F	280.1 F +	199.5 F
	Mitigation Description	Shift 6 seconds from NB / SB phase to EB / WB phase.				Shift 4 seconds from NB / SB phase to EB / WB phase.				Partial mitigation: Shift 3 seconds from NB / SB phase to EB / WB phase. Change offset from 116 seconds to 36 seconds.				Shift 5 seconds from NB / SB phase to EB / WB phase.			
	Signal Timing Mitigation	No-Action/With-Action: EB / WB G 45.0 A 3.0 R 2.0; NB / SB G 65.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 120 sec			Mitigated: EB / WB G 51.0 A 3.0 R 2.0; NB / SB G 59.0 A 3.0 R 2.0; Offset 0 sec; Cycle Length 120 sec	No-Action/With-Action: EB / WB G 38.0 A 3.0 R 2.0; NB / SB G 42.0 A 3.0 R 2.0; Offset 25 sec; Cycle Length 90 sec			Mitigated: EB / WB G 42.0 A 3.0 R 2.0; NB / SB G 38.0 A 3.0 R 2.0; Offset 25 sec; Cycle Length 90 sec	No-Action/With-Action: EB / WB G 63.0 A 3.0 R 2.0; NB / SB G 47.0 A 3.0 R 2.0; Offset 116 sec; Cycle Length 120 sec			Mitigated: EB / WB G 66.0 A 3.0 R 2.0; NB / SB G 44.0 A 3.0 R 2.0; Offset 36 sec; Cycle Length 120 sec	No-Action/With-Action: EB / WB G 38.0 A 3.0 R 2.0; NB / SB G 42.0 A 3.0 R 2.0; Offset 25 sec; Cycle Length 90 sec			Mitigated: EB / WB G 43.0 A 3.0 R 2.0; NB / SB G 37.0 A 3.0 R 2.0; Offset 25 sec; Cycle Length 90 sec

Table 22-45: Signalized Level of Service Analysis – Weekday AM Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions				
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)
1	**Richmond Terrace and Franklin Avenue**																
	Eastbound	TR	0.77	9.2	A	332	TR	0.81	11.0	B	363		TR	0.78	17.7	B	459
	Westbound	LT	0.88	37.3	D	634	LT	1.13	95.5	F	635	+	LT	0.99	41.8	D	826
	Northbound	LR	0.25	37.1	D	112	LR	0.26	37.2	D	114		LR	0.29	40.1	D	119
		Intersection		22.7	C		Intersection		49.3	D			Intersection		29.5	C	
2	**Richmond Terrace and Jersey Street**																
	Eastbound	L	1.07	87.4	F	197	L	1.44	245.9	F	380	+	L	1.05	79.8	E	284
		TR	0.70	7.4	A	332	TR	0.75	8.8	A	440		TR	0.71	12.6	B	619
	Westbound	LT	1.06	68.6	E	941	LT	1.20	118.9	F	946	+					
		R	0.00	7.7	A	1	R	0.00	9.0	A	1						
													L	0.13	11.4	B	17
													TR	0.95	46.6	D	878
	Northbound	L	0.09	35.6	D	37	L	0.09	35.6	D	37		L	0.11	39.9	D	40
		TR	0.26	38.3	D	102	TR	0.30	39.0	D	111		TR	0.35	44.3	D	118
	Southbound	L	0.01	34.0	C	11	L	0.01	34.3	C	11		L	0.02	38.0	D	11
		TR	0.08	35.3	D	43	TR	0.08	35.3	D	43		TR	0.10	39.5	D	45
		Intersection		45.9	D		Intersection		89.0	F			Intersection		37.6	D	
3	**Richmond Terrace and Westervelt Avenue**																
	Eastbound	TR	0.78	13.9	B	231	TR	0.84	17.9	B	308		TR	0.81	10.9	B	185
	Westbound	LT	0.71	47.0	D	636	LT	0.96	97.3	F	874	+	LT	0.87	45.3	D	800
	Northbound	LR	0.37	35.0	D	158	LR	0.38	35.3	D	163		LR	0.42	38.3	D	169
		Intersection		29.9	C		Intersection		54.0	D			Intersection		28.6	C	
5	**Hamilton Avenue and Richmond Terrace**																
	Northbound	LT	0.71	13.2	B	139	LT	0.84	21.8	C	153		LT	0.84	21.6	C	155
	Southbound	TR	0.39	9.0	A	87	TR	0.43	9.8	A	106		TR	0.43	9.4	A	106
		Intersection		11.2	B		Intersection		16.4	B			Intersection		16.1	B	
7	**Wall Street and Richmond Terrace**																
	Westbound	LTR	0.18	28.8	C	75	LTR	0.18	28.8	C	75		LTR	0.18	28.8	C	75
		L	0.23	29.9	C	71	L	0.23	29.9	C	71		L	0.23	29.9	C	71
	Northbound	T	0.48	11.7	B	134	T	0.55	13.8	B	378		T	0.55	12.5	B	191
		R	0.29	10.9	B	63	R	0.29	11.1	B	64		R	0.29	10.2	B	57
	Southbound	LTR	0.46	7.4	A	43	LTR	0.52	7.7	A	46		LTR	0.52	7.2	A	46
		Intersection		11.4	B		Intersection		12.3	B			Intersection		11.5	B	
8	**Richmond Terrace and Ferry Terminal (bus)**																
	Westbound	L	0.47	45.7	D	173	L	0.47	45.7	D	173		L	0.49	47.2	D	175
		R	0.41	45.5	D	108	R	0.41	45.5	D	108		R	0.42	46.9	D	109
	Northbound	T	0.41	13.2	B	80	T	0.48	21.3	C	80		T	0.48	14.8	B	83
	Southbound	T	0.63	85.6	F	478	T	0.69	89.2	F	530	+	T	0.68	88.3	F	511
		Intersection		50.2	D		Intersection		54.4	D			Intersection		51.4	D	
9	**Richmond Terrace and Ferry Terminal (parking lot)**																
	Westbound	L	0.74	55.7	E	315	L	0.74	55.7	E	315		L	0.77	58.7	E	336
		R	0.20	11.8	B	47	R	0.20	12.0	B	47		R	0.21	12.6	B	50
	Northbound	T	0.78	39.0	D	257	T	0.94	58.5	E	379	+	T	0.88	37.7	D	355
		R	0.35	16.1	B	209	R	0.35	16.4	B	226		R	0.34	19.6	B	272
		R	0.32	15.4	B	121	R	0.32	15.8	B	129		R	0.31	18.8	B	156
	Southbound	L	5.82	2211.1	F	573	L	5.70	2155.9	F	574		L	5.82	2209.2	F	574
		TR	0.55	2.6	A	5	TR	0.61	4.0	A	26		TR	0.61	3.9	A	23
		Intersection		285.6	F		Intersection		266.0	F			Intersection		267.3	F	
10	**Bay Street and Slosson Terrace**																
	Eastbound	LR	0.10	32.7	C	41	LR	0.14	33.6	C	57		LR	0.14	33.6	C	57
	Northbound	L	0.69	30.0	C	158	L	0.78	37.7	D	186		L	0.59	36.4	C	184
		T	0.66	14.1	B	254	T	0.73	14.9	B	310		T	0.73	20.2	C	382
	Southbound	TR	0.71	19.9	B	314	TR	0.75	23.5	C	479		TR	0.93	21.4	D	577
		Intersection		18.4	B		Intersection		21.1	C			Intersection		22.1	C	
11	**Victory Boulevard and Bay Street/St. Marks Place**																
	Eastbound	TR	0.35	6.2	A	56	TR	0.43	8.7	A	94		TR	0.43	12.0	B	140
		R	0.36	6.3	A	43	R	0.44	8.9	A	75		R	0.44	12.2	B	109
	Westbound	T	0.44	16.8	B	248	T	0.53	40.6	D	230		T	0.53	41.0	D	320
		L	0.07	4.9	A	11	L	0.08	4.8	A	10		L	0.08	4.9	A	10
	Southbound	LT	0.44	42.8	D	166	LT	0.45	43.0	D	169		LT	0.45	43.0	D	169
		R	0.35	41.9	D	115	R	0.36	42.3	D	116		R	0.36	42.3	D	116
		Intersection		16.6	B		Intersection		25.1	C			Intersection		26.8	C	

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday AM Peak Hour
No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

12	**Victory Boulevard and Bay Street**																	
	Eastbound	L	0.58	31.3	C	197	L	0.75	43.1	D	288		L	0.71	36.5	D	273	
		LT	0.58	31.4	C	198	LT	0.70	38.5	D	265		LT	0.66	32.9	D	252	
	Westbound	LTR	0.09	31.8	C	45	LTR	0.39	38.5	D	114		LTR	0.35	36.0	D	110	
	Northbound	L	0.88	32.8	C	123	L	1.32	173.6	F	207	+	L	0.96	64.8	E	180	+
		TR	0.67	17.6	B	243	TR	0.74	19.4	B	225		TR	0.76	13.9	B	231	
	Southbound	LT	0.53	7.1	A	43	LT	0.69	9.4	A	50		LT	1.05	61.9	B	493	+
		R	0.36	7.0	A	30	R	0.43	7.6	A	32		R	0.78	37.0	B	211	
		Intersection		17.1	B		Intersection		35.0	C			Intersection		37.3	D		
13	**Bay Street and Hannah Street**																	
	Eastbound	LTR	0.09	30.2	C	57	LTR	0.09	30.3	C	57		LTR	0.08	24.7	C	51	
	Westbound	LTR	0.86	56.7	E	518	LTR	1.31	190.6	F	840	+	LTR	1.05	87.3	F	744	+
	Northbound	LTR	1.09	82.4	F	352	LTR	1.26	148.3	F	810	+						
													L	0.64	45.1	D	97	
													TR	0.98	96.8	F	673	+
	Southbound	L	1.52	284.4	F	436	L	2.97	920.5	F	666	+	L	1.79	396.7	F	424	+
		T	0.39	8.2	A	104	T	0.42	9.8	A	138		T	0.61	34.8	C	253	
		R	0.17	2.1	A	16	R	0.20	3.1	A	19		R	0.30	15.9	B	49	
		Intersection		71.8	E		Intersection		195.2	F			Intersection		105.4	F		
14	**Front Street and Hannah Street**																	
	Eastbound	TR	0.32	4.0	A	61	TR	0.41	3.8	A	66		TR	0.49	6.0	A	87	
	Westbound	LT	0.08	13.2	B	45	LT	0.09	13.2	B	45		LT	0.12	20.3	B	58	
	Northbound	LR	0.56	23.9	C	264	LR	1.08	92.6	F	554	+	LR	0.87	40.7	D	479	
		Intersection		15.0	B		Intersection		51.5	D			Intersection		25.4	C		
15	**Bay Street and Swan Street/Van Duzer Street**																	
	Eastbound	L	0.94	125.1	F	362	L	1.08	125.5	F	431		L	0.92	116.8	F	388	
		LTR	1.09	125.2	F	488	LTR	1.03	128.8	F	449	+	LTR	0.88	104.3	F	407	
	Westbound	LTR	0.03	30.0	C	11	LTR	0.03	29.7	C	11		LTR	0.02	25.3	C	10	
	Northbound	LTR	0.45	6.8	A	46	LTR	0.56	8.9	A	48		LTR	0.60	29.3	C	304	
	Southbound	LTR	0.45	11.2	B	111	LTR	0.48	10.6	B	103		LTR	0.53	18.6	B	154	
		Intersection		42.4	D		Intersection		40.7	D			Intersection		46.9	D		
18	**Bay Street and Grant Street**																	
	Eastbound												LTR	0.36	42.8	D	123	
	Westbound												R	0.05	36.4	D	26	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.40	6.7	A	113	
	Southbound												T	0.97	77.4	E	981	+
													Intersection		43.4	D		
19	**Van Duzer Street and Clinton Street**																	
	Westbound	TR	0.22	41.1	D	60	TR	0.28	44.2	D	75		TR	0.28	37.1	D	87	
	Northbound	LT	0.64	13.8	B	305	LT	0.65	14.2	B	317		LT	0.65	14.2	B	317	
		Intersection		16.5	B		Intersection		17.8	B			Intersection		17.0	B		
20	**Bay Street and Clinton Street**																	
	Westbound	LTR	0.11	30.6	C	59	LTR	0.12	31.1	C	60		LTR	0.14	34.0	D	63	
	Northbound	L	0.07	20.3	C	17	L	0.24	28.6	C	31		L	0.17	5.9	A	4	
		TR	0.41	24.6	C	305	TR	0.49	26.8	C	381		TR	0.47	5.4	A	47	
	Southbound	L	0.17	12.3	B	51	L	0.21	16.0	B	54		L	0.19	3.8	A	6	
		TR	0.84	33.8	C	563	TR	0.97	69.5	E	953	+	TR	0.92	33.2	C	357	
		Intersection		29.0	C		Intersection		47.5	D			Intersection		19.8	B		
21	**Bay Street and Baltic Street**																	
	Eastbound												LTR	0.19	38.7	D	61	
	Westbound												LTR	0.02	35.3	D	12	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.73	15.7	B	346	
	Southbound												LT	0.98	32.4	C	922	
													Intersection		25.0	C		
24	**Bay Street and Wave Street**																	
	Westbound	LTR	0.18	28.4	C	53	LTR	0.25	29.0	C	59							
													L	0.17	40.8	D	54	
													TR	0.19	41.3	D	60	
	Northbound	LT	0.54	18.7	B	264	LT	0.67	17.6	B	297		LT	0.58	13.0	B	368	
		R	0.11	14.0	B	43	R	0.13	11.9	B	33		R	0.11	7.7	A	37	
	Southbound	L	0.26	7.0	A	23	L	0.36	9.6	A	26		L	0.25	2.0	A	3	
		TR	0.85	23.5	C	807	TR	1.08	77.6	E	1026	+	TR	0.94	18.3	B	42	
		Intersection		20.8	C		Intersection		48.9	D			Intersection		16.3	B		
25	**Front Street and Wave Street**																	
	Eastbound	LR	0.30	19.3	B	68	LR	0.33	20.1	C	62		LR	0.32	26.4	C	79	
	Northbound	LT	0.66	5.0	A	29	LT	0.94	13.7	B	44		LT	0.86	18.6	B	113	
	Southbound	TR	0.40	10.7	B	116	TR	0.66	15.7	B	222		TR	0.60	17.5	B	282	
		Intersection		8.7	A		Intersection		15.0	B			Intersection		18.8	B		
26	**Front Street and Prospect Street**																	
	Eastbound	LTR	0.26	21.8	C	47	LTR	0.33	23.2	C	59		LTR	0.41	38.8	D	100	
	Westbound	LTR	0.83	45.1	D	227	LTR	0.84	45.7	D	228		LTR	0.71	41.0	D	257	
	Northbound	TR	0.77	41.6	D	218	TR	1.16	121.7	F	684	+	TR	0.92	46.2	D	488	+
	Southbound	LT	0.83	31.7	C	301	LT	1.82	402.6	F	888	+	LT	1.08	82.9	F	557	+
		Intersection		37.9	D		Intersection		204.4	F			Intersection		58.3	E		

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday AM Peak Hour
No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

	Van Duzer Street and Beach Street																	
	Eastbound	LT	0.87	57.7	E	391	LT	0.97	75.7	E	448	+	LT	0.89	58.0	E	420	
	Westbound	TR	0.25	28.9	C	106	TR	0.31	30.1	C	130		TR	0.29	27.6	C	125	
27	Northbound	L	0.32	15.5	B	172	L	0.33	15.7	B	179		L	0.35	17.5	B	191	
		TR	0.88	37.0	D	731	TR	0.91	41.1	D	778		T	0.85	36.1	D	680	
													R	0.11	14.5	B	44	
		Intersection		37.2	D		Intersection		43.8	D			Intersection		36.3	D		
	Bay Street and Water Street																	
	Westbound	LTR	0.20	32.9	C	85	LTR	0.21	33.0	C	85		LTR	0.31	44.8	D	98	
28	Northbound	L	0.56	24.5	C	73	L	1.88	457.2	F	177	+	L	0.73	25.7	C	19	
		T	0.60	24.7	C	277	T	0.74	73.8	E	419	+	T	0.64	7.6	A	111	
	Southbound	TR	0.81	67.8	E	299	TR	1.04	81.1	F	877	+	TR	0.91	45.4	D	426	
		Intersection		47.0	D		Intersection		98.0	F			Intersection		30.5	C		
	Bay Street and Canal Street																	
	Eastbound	L	0.34	38.1	D	112	L	0.37	39.3	D	119		L	0.37	37.8	D	119	
		TR	0.20	32.2	C	89	TR	0.20	32.3	C	89		TR	0.22	32.6	C	99	
29	Westbound	LTR	0.18	29.8	C	49	LTR	0.50	39.6	D	95		LTR	0.50	43.1	D	137	
	Northbound	TR	0.61	8.2	A	81	TR	0.81	57.4	E	105	+	TR	0.81	25.2	B	210	
	Southbound	LT	0.71	71.9	E	694	LT	0.95	74.8	E	757		T	0.94	49.6	D	858	
	Intersection			40.6	D		Intersection		62.4	E			Intersection		38.2	C		
	Front Street and Canal Street																	
	Eastbound	LR	0.39	24.1	C	79	LR	0.57	25.1	C	106		LR	0.65	38.8	D	169	
30	Northbound	LT	0.42	11.0	B	122	LT	0.56	13.3	B	178		LT	0.48	11.7	B	199	
	Southbound	TR	0.55	10.9	B	92	TR	0.75	11.7	B	78		TR	0.63	4.8	A	73	
		Intersection		13.0	B		Intersection		14.5	B			Intersection		12.9	B		
	Bay Street and Broad Street																	
	Eastbound	LR	0.34	41.0	D	186	LR	0.47	42.4	D	250							
													L	0.31	36.9	D	144	
													R	0.31	37.7	D	116	
31	Northbound	LT	0.62	18.9	B	332	LT	1.16	107.6	F	777	+	LT	0.99	57.9	C	713	+
	Southbound	T	0.71	11.0	B	221	T	0.96	55.9	E	828	+	T	0.92	36.1	C	380	
		R	0.12	6.9	A	35	R	0.20	11.9	B	58		R	0.19	10.4	B	52	
		Intersection		16.8	B		Intersection		69.1	E			Intersection		41.8	D		
	Richmond Terrace and Clove Road																	
	Eastbound	LT	0.89	27.9	C	895	LT	0.93	33.7	C	962		LT	0.93	33.7	C	962	
		R	0.16	4.4	A	27	R	0.16	4.5	A	27		R	0.16	4.5	A	27	
32	Westbound	L	0.56	25.1	C	56	L	0.69	43.0	D	100		L	0.69	43.0	D	100	
		TR	0.57	12.4	B	284	TR	0.66	15.6	B	403		TR	0.66	15.6	B	403	
	Northbound	LTR	0.44	38.4	D	193	LTR	0.47	39.2	D	208		LTR	0.47	39.2	D	208	
		Intersection		22.5	C		Intersection		26.9	C			Intersection		26.9	C		
	Victory Boulevard and Cebra Avenue																	
	Eastbound	L	0.55	56.2	E	95	L	0.58	58.9	E	96		L	0.58	58.9	E	96	
		TR	0.82	60.2	E	304	TR	0.82	60.2	E	304		TR	0.82	60.2	E	304	
	Westbound	L	0.59	60.5	E	112	L	0.74	76.0	E	152	+	L	0.74	76.0	E	152	+
35		TR	0.69	50.2	D	292	TR	0.72	51.8	D	305		TR	0.72	51.8	D	305	
	Northbound	LT	0.66	16.2	B	284	LT	0.75	19.4	B	407		LT	0.75	19.5	B	407	
		R	0.11	10.0	A	30	R	0.12	10.1	B	33		R	0.12	10.0	B	33	
	Southbound	LTR	0.68	19.7	B	473	LTR	1.02	62.5	E	725	+	LTR	1.02	61.6	E	725	+
		Intersection		31.8	C	0	Intersection		44.5	D			Intersection		44.2	D		
	Victory Boulevard and Jersey Street																	
	Eastbound	L	0.18	8.1	A	27	L	0.24	9.4	A	36		L	0.25	11.3	B	41	
		T	0.68	12.1	B	238	T	0.77	14.6	B	340		T	0.80	17.9	B	375	
36	Westbound	T	0.50	21.2	C	303	T	0.57	20.2	C	326		T	0.59	24.7	C	346	
		R	0.10	13.3	B	47	R	0.17	12.6	B	63		R	0.18	16.3	B	77	
	Southbound	LR	0.47	40.9	D	172	LR	0.77	56.5	E	302	+	LR	0.70	48.6	D	267	+
		Intersection		18.0	B		Intersection		22.0	C			Intersection		23.9	C		
	Victory Boulevard and Forest Avenue																	
	Eastbound	LR	0.72	44.1	D	253	LR	0.76	45.9	D	271		LR	0.76	45.9	D	271	
	Northbound	L	0.24	14.5	B	74	L	0.27	15.2	B	76		L	0.27	15.2	B	76	
38		T	0.58	74.4	E	373	T	0.65	75.6	E	439		T	0.65	75.6	E	439	
	Southbound	T	0.40	21.3	C	186	T	0.47	24.9	C	222		T	0.47	24.9	C	222	
		R	0.32	4.1	A	22	R	0.35	4.2	A	27		R	0.35	4.2	A	27	
		Intersection		41.0	D		Intersection		42.6	D			Intersection		42.6	D		

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday AM Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

	Broad Street and Canal Street																	
	Eastbound	L	0.24	12.3	B	97	L	0.26	12.3	B	90		L	0.26	10.2	B	90	
		TR	0.47	15.9	B	219	TR	0.54	16.3	B	238		TR	0.54	14.2	B	266	
41	Westbound	LTR	0.16	16.9	B	86	LTR	0.23	15.8	B	103		LTR	0.26	16.8	B	113	
	Northbound	L	0.47	44.2	D	102	L	0.50	46.2	D	103		L	0.50	46.2	D	103	
		TR	0.54	41.2	D	199	TR	0.53	41.1	D	198		TR	0.53	41.1	D	198	
	Southbound	LT	0.39	37.2	D	161	LT	0.47	39.3	D	187		LT	0.47	39.3	D	187	
		Intersection		26.5	C		Intersection		26.1	C			Intersection		25.4	C		
	Broad Street and Van Duzer Street																	
	Westbound	L	0.74	91.9	F	225	L	0.79	88.6	F	247		L	0.79	30.0	C	269	
42	Southbound	L	0.27	6.4	A	122	L	0.29	8.8	A	148		L	0.29	8.8	A	148	
		T	0.50	8.8	A	301	T	0.53	12.3	B	371		T	0.54	12.3	B	371	
		Intersection		22.0	C		Intersection		27.7	C			Intersection		15.2	B		
	Broad Street and Targee Street																	
	Eastbound	LT	0.55	47.4	D	336	LT	0.56	55.1	E	336	+	LT	0.56	27.8	C	276	
43	Westbound	TR	0.36	41.7	D	193	TR	0.50	41.2	D	262		TR	0.50	38.5	D	280	
	Northbound	LT	0.98	52.5	D	834	LT	0.98	54.2	D	844		LT	0.98	54.2	D	844	
		R	0.45	18.5	B	188	R	0.53	20.8	C	239		R	0.53	20.8	B	239	
		Intersection		44.4	D		Intersection		46.0	D			Intersection		40.8	D		
	Vanderbilt Avenue and Tompkins Avenue																	
	Eastbound	LTR	0.88	40.4	D	741	LTR	0.99	57.9	E	876	+	LTR	0.99	57.9	E	876	+
44	Westbound	LTR	0.43	15.2	B	145	LTR	0.55	16.4	B	146		LTR	0.55	16.9	B	149	
	Northbound	LTR	1.26	177.2	F	476	LTR	1.38	221.0	F	532	+	LTR	1.38	221.0	F	532	+
	Southbound	LTR	1.08	99.8	F	587	LTR	1.12	114.5	F	618	+	LTR	1.12	114.4	F	618	+
		Intersection		79.8	E		Intersection		96.4	F			Intersection		96.5	F		
	Bay Street and Vanderbilt Avenue																	
	Eastbound	L	0.44	24.7	C	96	L	0.70	28.9	C	158		L	0.72	29.9	C	161	
		R	0.44	24.9	C	89	R	0.44	25.4	C	78		R	0.45	26.1	C	80	
45	Northbound	LT	0.74	13.9	B	235	LT	0.99	46.1	D	646	+	LT	0.96	37.5	D	630	
	Southbound	T	0.63	28.8	C	491	T	0.82	36.0	D	555		T	0.81	34.6	C	572	
		R	0.25	5.9	A	77	R	0.34	9.6	A	102		R	0.34	8.5	A	99	
		Intersection		20.2	C		Intersection		32.8	C			Intersection		30.1	C		
	Bay Street and Edgewater Drive																	
	Westbound	LR	0.42	34.5	C	182	LR	0.52	36.4	D	230		LR	0.52	36.4	D	230	
47	Northbound	TR	0.37	8.5	A	70	TR	0.47	9.5	A	63		TR	0.47	9.5	A	63	
	Southbound	T	0.69	12.3	B	361	T	0.86	24.0	C	593		T	0.86	24.0	C	614	
	Northwestbound	R	0.19	0.5	A	0	R	0.20	0.6	A	0		R	0.20	0.6	A	0	
		Intersection		14.9	B		Intersection		20.2	C			Intersection		20.2	B		
	Bay Street and Hylan Boulevard																	
	Eastbound	LTR	0.73	29.8	C	208	LTR	0.89	44.3	D	536		LTR	0.89	44.3	D	536	
	Westbound	LTR	1.02	100.6	F	449	LTR	1.04	104.2	F	453	+	LTR	1.04	104.2	F	271	+
48	Northbound	LTR	1.31	176.2	F	696	LTR	2.67	774.8	F	817	+	LTR	2.67	777.4	F	929	+
	Southbound	T	0.82	39.1	D	546	T	1.06	76.3	E	880	+	T	1.06	76.1	E	880	+
		R	0.26	10.0	A	67	R	0.39	12.2	B	95		R	0.39	12.1	B	95	
		Intersection		85.5	F		Intersection		266.9	F			Intersection		267.6	F		
	Bay Street and School Road																	
	Eastbound	L	1.06	93.1	F	660	L	1.22	151.0	F	801	+	43	1.08	94.2	F	747	
		TR	0.14	13.3	B	48	TR	0.14	13.3	B	48		TR	0.13	11.3	B	43	
49	Westbound	LTR	0.00	23.5	C	7	LTR	0.01	23.5	C	8		LTR	0.00	20.0	B	8	
	Northbound	LTR	0.09	13.6	B	47	LTR	0.09	13.6	B	47		LTR	0.10	16.7	B	52	
	Southbound	LTR	0.09	6.4	A	20	LTR	0.18	5.6	A	25		LTR	0.20	10.5	B	35	
		R	0.70	3.9	A	30	R	0.78	5.3	A	22		R	0.80	6.3	A	46	
		Intersection		37.9	D		Intersection		58.5	E			Intersection		39.0	D		

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

		No-Action Conditions					With-Action Conditions					With-Action With Mitigation Conditions					
Int #	Intersection & Approach	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
1	**Richmond Terrace and Franklin Avenue**																
	Eastbound	TR	0.66	11.7	B	366	TR	0.71	13.2	B	403	TR	0.70	11.8	B	421	
	Westbound	LT	0.91	11.8	B	129	LT	1.06	42.4	D	113	LT	1.02	42.2	D	1026	
	Northbound	LR	0.19	36.2	D	81	LR	0.20	36.3	D	83	LR	0.20	37.2	D	84	
		Intersection		12.8	B		Intersection		29.1	C		Intersection		28.5	C		
2	**Richmond Terrace and Jersey Street**																
	Eastbound	L	0.66	37.6	D	111	L	0.66	36.5	D	102	L	0.52	16.1	B	57	
		TR	0.78	27.1	C	558	TR	0.84	32.0	C	612	TR	0.78	38.0	D	821	
	Westbound	LT	1.44	227.7	F	1256	LT	1.75	361.0	F	1241						
		R	0.02	8.5	A	4	R	0.02	8.1	A	3						
												L	0.36	18.1	B	52	
												TR	0.91	51.8	D	450	
	Northbound	L	0.10	34.5	C	37	L	0.10	34.5	C	37	L	0.13	39.8	D	40	
		TR	0.18	35.4	D	83	TR	0.21	35.9	D	94	TR	0.25	41.5	D	101	
	Southbound	L	0.02	32.8	C	13	L	0.02	32.8	C	13	L	0.02	37.4	D	14	
		TR	0.33	37.8	D	131	TR	0.33	37.8	D	131	TR	0.40	44.3	D	141	
		Intersection		118.0	F		Intersection		180.1	F		Intersection		42.0	D		
3	**Richmond Terrace and Westervelt Avenue**																
	Eastbound	TR	0.81	20.9	C	346	TR	0.88	25.3	C	849	TR	0.88	32.6	C	889	
	Westbound	LT	0.80	71.4	E	424	LT	0.98	87.9	F	938	LT	0.98	59.4	E	938	
	Northbound	LR	0.45	37.0	D	186	LR	0.47	37.3	D	191	LR	0.47	38.4	D	191	
		Intersection		44.9	D		Intersection		54.3	D		Intersection		45.1	D		
5	**Hamilton Avenue and Richmond Terrace**																
	Northbound	LT	0.90	22.7	C	526	LT	0.99	37.4	D	602	LT	0.99	37.2	D	602	
	Southbound	TR	0.43	12.1	B	153	TR	0.47	13.1	B	177	TR	0.47	12.2	B	177	
		Intersection		18.3	B		Intersection		27.1	C		Intersection		26.7	C		
7	**Wall Street and Richmond Terrace**																
	Westbound	LTR	0.86	66.0	E	376	LTR	0.86	66.7	E	376	LTR	0.86	66.7	E	376	
		L	0.98	93.5	F	350	L	0.98	95.3	F	350	L	0.98	95.3	F	350	
	Northbound	T	0.56	10.4	B	337	T	0.60	13.1	B	373	T	0.60	12.2	B	377	
		R	0.51	11.5	B	292	R	0.51	12.4	B	288	R	0.51	11.5	B	291	
	Southbound	LTR	0.59	14.6	B	95	LTR	0.66	15.7	B	101	LTR	0.66	17.1	B	101	
		Intersection		27.4	C		Intersection		28.3	C		Intersection		28.3	C		
8	**Richmond Terrace and Ferry Terminal (bus)**																
	Westbound	L	0.98	134.0	F	165	L	0.98	139.4	F	165	L	0.98	139.4	F	165	+
		R	0.46	51.0	D	63	R	0.46	51.0	D	63	R	0.46	51.0	D	63	
	Northbound	T	0.66	19.0	B	57	T	0.71	38.3	D	57	T	0.71	38.1	D	57	
	Southbound	T	0.88	65.2	E	521	T	0.93	83.2	F	578	T	0.93	83.2	F	578	+
		Intersection		47.1	D		Intersection		64.3	E		Intersection		64.2	E		
9	**Richmond Terrace and Ferry Terminal (parking lot)**																
	Westbound	L	0.53	48.4	D	95	L	0.53	48.4	D	95	L	0.53	48.4	D	95	
		R	0.11	15.8	B	19	R	0.11	16.6	B	19	R	0.11	16.6	B	19	
	Northbound	T	0.98	64.6	E	429	T	1.05	94.0	F	477	T	1.05	95.1	F	478	+
		R	0.18	17.0	B	58	R	0.18	16.7	B	59	R	0.18	16.8	B	59	
		R	0.20	17.5	B	32	R	0.20	17.2	B	32	R	0.20	17.3	B	32	
	Southbound	L	1.80	425.3	F	92	L	1.76	402.8	F	89	L	1.76	402.8	F	89	
		TR	1.11	69.4	E	882	TR	1.18	99.1	F	894	TR	1.18	99.1	F	894	+
		Intersection		74.0	E		Intersection		97.1	F		Intersection		97.6	F		
10	**Bay Street and Slosson Terrace**																
	Eastbound	LR	0.17	24.7	C	56	LR	0.23	25.6	C	71	LR	0.27	28.5	C	75	
	Northbound	L	0.61	31.2	C	61	L	0.70	33.5	C	63	L	0.65	21.8	C	58	
		T	0.90	15.7	B	180	T	0.88	13.3	B	162	T	0.89	30.4	C	495	
	Southbound	TR	1.17	103.1	F	689	TR	1.22	126.6	F	735	TR	1.16	99.0	F	707	
		Intersection		59.8	E		Intersection		71.7	E		Intersection		63.5	E		
11	**Victory Boulevard and Bay Street/St. Marks Place**																
	Eastbound	TR	0.42	18.5	B	188	TR	0.50	21.5	C	225	TR	0.50	21.5	C	225	
		R	0.45	18.6	B	167	R	0.54	21.0	C	194	R	0.54	21.0	C	194	
	Westbound	T	0.81	89.8	F	382	T	0.95	85.8	F	327	T	0.95	58.0	E	55	
		L	0.11	18.8	B	18	L	0.12	17.5	B	12	L	0.12	4.4	A	3	
	Southbound	LT	0.53	31.9	C	171	LT	0.54	32.3	C	174	LT	0.54	32.3	C	174	
		R	0.49	33.3	C	107	R	0.53	35.5	D	111	R	0.53	35.5	D	111	
		Intersection		50.2	D		Intersection		50.4	D		Intersection		38.5	D		

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday MD Peak Hour
No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

12	**Victory Boulevard and Bay Street**																
	Eastbound	L	0.62	31.5	C	186	L	0.87	55.4	E	266	L	1.01	95.4	F	292	+
		LT	0.61	30.6	C	144	LT	0.74	36.8	D	247	LT	0.85	57.9	E	277	+
	Westbound	LTR	0.35	26.7	C	93	LTR	1.36	212.0	F	396	LTR	1.69	354.5	F	429	+
	Northbound	L	2.78	829.5	F	176	L	3.90	1330.9	F	181	L	1.85	402.3	F	184	
		TR	0.86	26.3	C	172	TR	0.89	25.6	C	156	TR	0.81	20.1	C	337	
	Southbound	LT	0.90	41.9	D	318	LT	1.18	122.0	F	330	LT	1.27	137.4	F	408	+
		R	0.90	93.8	F	225	R	1.05	91.7	F	227	R	1.28	145.3	F	290	+
		Intersection		98.4	F		Intersection		180.7	F		Intersection		136.2	F		
13	**Bay Street and Hannah Street**																
	Eastbound	LTR	0.07	17.8	B	35	LTR	0.07	17.9	B	36	LTR	0.08	18.6	B	36	
	Westbound	LTR	0.67	15.2	B	76	LTR	1.09	60.8	E	75	LTR	1.13	92.4	F	465	+
	Northbound	LTR	1.82	394.1	F	799	LTR	2.00	470.8	F	837						
												L	0.92	67.3	E	100	
												TR	1.13	85.6	F	597	
	Southbound	L	4.65	1675.8	F	429	L	6.44	2467.8	F	469	L	2.59	737.4	F	373	
		T	0.73	11.9	B	142	T	0.77	14.5	B	142	T	1.00	32.5	C	308	
		R	0.30	3.0	A	1	R	0.43	9.0	A	25	R	0.60	14.6	B	65	
		Intersection		321.1	F		Intersection		473.9	F		Intersection		140.1	F		
14	**Front Street and Hannah Street**																
	Eastbound	TR	0.38	10.2	B	0	TR	0.47	10.2	B	0	TR	0.55	13.2	B	4	
	Westbound	LT	0.10	13.4	B	47	LT	0.11	13.4	B	48	LT	0.17	21.0	C	52	
	Northbound	LR	0.52	23.1	C	243	LR	1.27	165.0	F	564	LR	0.88	42.4	D	457	
		Intersection		16.2	B		Intersection		81.9	F		Intersection		27.3	C		
15	**Bay Street and Swan Street/Van Duzer Street**																
	Eastbound	L	0.61	31.9	C	185	L	0.67	35.3	D	205	L	0.67	36.3	D	205	
		LTR	0.60	31.6	C	177	LTR	0.66	35.0	D	195	LTR	0.66	36.1	D	195	
	Westbound	LTR	0.00	17.5	B	5	LTR	0.01	17.5	B	7	LTR	0.01	17.5	B	7	
	Northbound	LTR	0.71	64.5	E	309	LTR	0.77	66.4	E	392	LTR	0.77	31.0	C	401	
	Southbound	LTR	0.83	17.3	B	146	LTR	0.89	19.1	B	168	LTR	0.89	13.2	B	75	
		Intersection		37.5	D		Intersection		39.7	D		Intersection		23.5	C		
18	**Bay Street and Grant Street**																
	Eastbound											LTR	0.15	28.5	C	46	
	Westbound											R	0.17	28.6	C	55	
	Northbound	**Unsignalized**					**Unsignalized**					TR	0.51	5.7	A	69	
	Southbound											T	1.52	263.3	F	1355	+
												Intersection		148.1	F		
19	**Van Duzer Street and Clinton Street**																
	Westbound	TR	0.36	34.4	C	62	TR	0.36	34.2	C	60	TR	0.36	34.2	C	64	
	Northbound	LT	0.50	9.3	A	152	LT	0.51	9.5	A	158	LT	0.51	9.5	A	158	
		Intersection		14.2	B		Intersection		14.3	B		Intersection		14.3	B		
20	**Bay Street and Clinton Street**																
	Westbound	LTR	0.29	23.7	C	89	LTR	0.30	23.8	C	90	LTR	0.38	29.3	C	99	
	Northbound	L	0.41	20.1	C	11	L	0.41	20.2	C	10	L	0.41	18.2	B	9	
		TR	0.66	18.0	B	138	TR	0.72	18.6	B	137	TR	0.65	13.0	B	144	
	Southbound	L	0.35	7.9	A	12	L	0.41	10.1	B	12	L	0.33	8.8	A	7	
		TR	1.37	188.1	F	1236	TR	1.47	233.8	F	1307	TR	1.34	169.6	F	147	
		Intersection		101.7	F		Intersection		124.8	F		Intersection		91.0	F		
21	**Bay Street and Baltic Street**																
	Eastbound											LTR	0.21	39.6	D	32	
	Westbound											LTR	0.09	35.2	D	17	
	Northbound	**Unsignalized**					**Unsignalized**					TR	0.88	11.3	B	144	
	Southbound											LT	1.27	134.7	F	59	+
												Intersection		77.1	E		
24	**Bay Street and Wave Street**																
	Westbound	LTR	0.31	25.4	C	77	LTR	0.36	26.4	C	93						
												L	0.50	47.4	D	61	
												TR	0.40	42.9	D	46	
	Northbound	LT	1.38	204.3	F	826	LT	1.53	269.2	F	924	LT	1.16	96.8	F	842	
		R	0.13	13.6	B	26	R	0.13	13.4	B	26	R	0.09	4.9	A	14	
	Southbound	L	0.84	41.2	D	17	L	0.82	38.8	D	17	L	0.42	8.9	A	11	
		TR	1.43	215.4	F	658	TR	1.53	260.3	F	663	TR	1.19	100.6	F	249	
		Intersection		196.0	F		Intersection		245.1	F		Intersection		93.1	F		
25	**Front Street and Wave Street**																
	Eastbound	LR	0.28	18.7	B	47	LR	0.29	19.0	B	47	LR	0.30	23.9	C	69	
	Northbound	LT	0.65	6.2	A	12	LT	0.86	13.4	B	17	LT	0.77	8.8	A	66	
	Southbound	TR	0.47	11.4	B	154	TR	0.69	16.0	B	263	TR	0.62	17.2	B	322	
		Intersection		9.4	A		Intersection		15.0	B		Intersection		13.6	B		
26	**Front Street and Prospect Street**																
	Eastbound	LTR	0.20	21.5	C	43	LTR	0.25	22.2	C	54	LTR	0.33	37.8	D	80	
	Westbound	LTR	0.29	22.4	C	65	LTR	0.29	22.5	C	65	LTR	0.34	35.5	D	94	
	Northbound	TR	1.00	72.5	E	369	TR	1.31	177.6	F	496	TR	0.86	27.3	C	501	
	Southbound	LT	1.43	231.4	F	380	LT	3.63	1208.1	F	606	LT	1.10	81.3	F	610	
		Intersection		133.2	F		Intersection		620.4	F		Intersection		52.6	D		

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday MD Peak Hour
No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

27	**Van Duzer Street and Beach Street**																
	Eastbound	LT	0.77	41.3	D	215	LT	0.82	46.7	D	252	LT	0.82	46.7	D	252	
	Westbound	TR	0.35	24.8	C	105	TR	0.42	26.0	C	124	TR	0.42	26.0	C	124	
	Northbound	L	0.41	13.9	B	171	L	0.41	13.9	B	172	L	0.41	13.9	B	172	
		TR	0.69	21.0	C	326	TR	0.72	22.0	C	345	TR	0.72	22.0	C	345	
		Intersection		24.3	C		Intersection		26.3	C		Intersection		26.3	C		
28	**Bay Street and Water Street**																
	Westbound	LTR	0.28	26.8	C	81	LTR	0.28	26.7	C	80	LTR	0.41	36.5	D	92	
	Northbound	L	1.72	348.4	F	89	L	1.77	373.4	F	82	L	1.75	362.7	F	92	+
		T	1.10	63.8	E	187	T	1.21	113.6	F	170	T	1.07	62.6	E	299	
	Southbound	TR	1.38	204.5	F	897	TR	1.47	245.1	F	987	TR	1.27	150.4	F	1050	
		Intersection		147.8	F		Intersection		189.1	F		Intersection		119.5	F		
29	**Bay Street and Canal Street**																
	Eastbound	L	0.73	171.3	F	186	L	0.62	157.6	F	151	L	0.94	147.1	F	212	
		TR	0.24	20.9	C	73	TR	0.24	20.8	C	73	TR	0.41	32.3	C	109	
	Westbound	LTR	0.20	141.3	F	51	LTR	0.47	150.6	F	108	LTR	0.73	141.8	F	107	
	Northbound	TR	1.22	119.4	F	59	TR	1.42	208.9	F	74	TR	1.15	85.0	F	60	
	Southbound	LT	3.31	1052.7	F	618	LT	3.59	1178.7	F	639	T	1.22	119.4	F	630	
	Intersection			547.2	F	Intersection			625.5	F	Intersection			103.7	F		
30	**Front Street and Canal Street**																
	Eastbound	LR	0.60	27.5	C	98	LR	0.78	39.6	D	153	LR	0.59	29.7	C	124	
	Northbound	LT	0.60	14.1	B	189	LT	0.71	17.5	B	249	LT	0.74	25.1	C	371	
	Southbound	TR	0.49	11.7	B	60	TR	0.70	15.9	B	42	TR	0.72	17.3	B	177	
		Intersection		15.4	B		Intersection		20.6	C		Intersection		22.5	C		
31	**Bay Street and Broad Street**																
	Eastbound	LR	0.25	26.7	C	107	LR	0.33	25.5	C	146						
												L	0.37	32.3	C	135	
												R	0.13	29.7	C	43	
	Northbound	LT	3.71	1234.7	F	239	LT	4.14	1430.5	F	307	LT	3.40	1097.5	F	391	
	Southbound	T	1.25	136.3	F	114	T	1.38	194.3	F	135	T	1.20	109.2	F	411	
		R	0.20	14.3	B	15	R	0.27	14.5	B	22	R	0.23	10.4	B	39	
		Intersection		574.6	F		Intersection		669.9	F		Intersection		496.5	F		
32	**Richmond Terrace and Clove Road**																
	Eastbound	LT	0.65	18.4	B	539	LT	0.69	20.0	C	569	LT	0.69	20.0	C	569	
		R	0.13	2.3	A	26	R	0.13	2.5	A	28	R	0.13	2.5	A	28	
	Westbound	L	0.35	21.1	C	98	L	0.42	24.2	C	118	L	0.42	24.2	C	118	
		TR	0.85	37.6	D	826	TR	0.89	40.7	D	899	TR	0.89	40.7	D	899	
	Northbound	LTR	0.47	39.4	D	202	LTR	0.50	40.1	D	214	LTR	0.50	40.1	D	214	
		Intersection		28.0	C		Intersection		30.1	C		Intersection		30.1	C		
35	**Victory Boulevard and Cebra Avenue**																
	Eastbound	L	0.30	31.8	C	43	L	0.32	32.9	C	44	L	0.32	32.9	C	44	
		TR	0.76	42.7	D	240	TR	0.76	42.7	D	240	TR	0.76	42.7	D	240	
	Westbound	L	0.69	51.5	D	120	L	0.69	51.0	D	119	L	0.69	51.0	D	119	
		TR	0.73	40.2	D	262	TR	0.76	42.4	D	292	TR	0.76	42.4	D	292	
	Northbound	LTR	0.90	35.4	D	616	LTR	0.99	51.0	D	713	LTR	0.99	50.9	D	713	+
	Southbound	LTR	1.17	105.3	F	579	LTR	1.34	178.5	F	625	LTR	1.34	178.5	F	625	+
		Intersection		62.9	E		Intersection		95.8	F		Intersection		95.7	F		
36	**Victory Boulevard and Jersey Street**																
	Eastbound	L	0.78	43.6	D	36	L	1.43	241.4	F	99	L	1.43	241.4	F	99	+
		T	0.98	39.7	D	485	T	1.08	65.0	F	495	T	1.08	65.1	E	495	+
	Westbound	T	1.05	70.0	E	700	T	1.15	105.2	F	799	T	1.15	105.4	F	799	+
		R	0.19	13.8	B	67	R	0.29	15.4	B	89	R	0.29	15.5	B	89	
	Southbound	LR	0.50	28.3	C	146	LR	0.73	39.0	D	200	LR	0.73	39.0	D	200	
		Intersection		50.1	D		Intersection		84.6	F		Intersection		84.7	F		
38	**Victory Boulevard and Forest Avenue**																
	Eastbound	LR	0.45	27.5	C	138	LR	0.48	27.9	C	147	LR	0.54	31.3	C	155	
	Northbound	L	0.78	52.2	D	171	L	0.98	99.2	F	191	L	0.77	49.2	D	170	
		T	0.69	22.1	C	366	T	0.75	24.6	C	414	T	0.70	20.6	C	382	
	Southbound	T	0.83	75.8	E	349	T	0.90	80.0	E	460	T	0.84	73.8	E	373	
		R	0.39	2.9	A	10	R	0.41	3.1	A	11	R	0.40	2.7	A	9	
		Intersection		39.2	D		Intersection		43.6	D		Intersection		38.6	D		

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

	Broad Street and Canal Street																
	Eastbound	L	0.31	10.4	B	65	L	0.31	11.7	B	75	L	0.31	11.7	B	75	
		TR	0.34	9.8	A	95	TR	0.39	11.6	B	140	TR	0.39	11.5	B	136	
41	Westbound	LTR	0.30	20.0	C	144	LTR	0.35	22.9	C	182	LTR	0.40	23.0	C	186	
	Northbound	L	0.49	33.0	C	98	L	0.47	31.8	C	97	L	0.47	31.8	C	97	
		TR	0.63	33.6	C	211	TR	0.62	32.9	C	207	TR	0.62	32.9	C	207	
	Southbound	LT	0.37	26.2	C	136	LT	0.35	25.8	C	130	LT	0.35	25.8	C	130	
		Intersection		22.6	C		Intersection		22.8	C		Intersection		22.8	C		
	Broad Street and Van Duzer Street																
42	Westbound	L	0.78	56.0	E	168	L	0.83	54.2	D	205	L	0.83	54.2	D	205	
	Southbound	L	0.18	8.9	A	76	L	0.19	9.7	A	76	L	0.19	9.7	A	76	
		T	0.60	14.3	B	314	T	0.63	16.1	B	319	T	0.63	16.1	B	319	
		Intersection		25.0	C		Intersection		26.7	C		Intersection		26.7	C		
	Broad Street and Targee Street																
	Eastbound	TR	0.33	29.8	C	155	TR	0.35	29.8	C	157	TR	0.35	29.8	C	157	
43	Westbound	TR	0.58	29.9	C	227	TR	0.67	32.8	C	272	TR	0.67	32.6	C	272	
	Northbound	LT	0.77	24.7	C	355	LT	0.78	25.4	C	363	LT	0.78	25.4	C	363	
		R	0.40	14.3	B	113	R	0.49	16.1	B	144	R	0.49	16.1	B	144	
		Intersection		24.6	C		Intersection		25.8	C		Intersection		25.7	C		
	Vanderbilt Avenue and Tompkins Avenue																
	Eastbound	LTR	1.00	63.3	E	552	LTR	1.09	90.9	E	625	LTR	1.09	90.9	F	625	+
44	Westbound	LTR	0.78	9.9	A	71	LTR	0.96	17.7	B	408	LTR	0.96	33.6	C	414	
	Northbound	LTR	1.25	162.3	F	463	LTR	1.28	176.5	F	485	LTR	1.28	176.5	F	485	+
	Southbound	LTR	0.99	69.1	E	497	LTR	0.98	67.3	E	489	LTR	0.98	67.3	E	489	
		Intersection		72.3	E		Intersection		83.1	F		Intersection		87.4	F		
	Bay Street and Vanderbilt Avenue																
	Eastbound	L	0.48	27.1	C	106	L	0.63	29.7	C	138	L	0.72	33.7	C	148	
		R	0.21	24.2	C	36	R	0.21	24.5	C	34	R	0.24	27.6	C	36	
45	Northbound	LT	5.20	1912.8	F	1176	LT	7.39	2894.2	F	1244	LT	3.46	1128.3	F	1130	
	Southbound	T	1.20	105.3	F	458	T	1.23	122.6	F	312	T	1.13	75.3	E	310	
		R	0.37	1.5	A	10	R	0.49	2.0	A	13	R	0.46	1.5	A	13	
		Intersection		730.2	F		Intersection		1033.9	F		Intersection		416.5	F		
	Bay Street and Edgewater Drive																
	Westbound	LR	0.36	23.2	C	124	LR	0.45	24.4	C	158	LR	0.45	24.4	C	158	
47	Northbound	TR	0.59	16.9	B	74	TR	0.67	17.6	B	74	TR	0.67	17.6	B	74	
	Southbound	T	0.96	28.7	C	328	T	0.99	32.0	C	327	T	0.99	32.4	C	372	
	Northwestbound	R	0.25	0.6	A	0	R	0.27	0.8	A	0	R	0.27	0.8	A	0	
		Intersection		20.8	C		Intersection		22.5	C		Intersection		22.6	C		
	Bay Street and Hylan Boulevard																
	Eastbound	LTR	1.03	81.1	F	534	LTR	1.13	112.7	F	603	LTR	1.13	112.7	F	603	+
	Westbound	LTR	0.90	66.8	E	300	LTR	0.92	69.9	E	302	LTR	0.92	69.9	E	302	
48	Northbound	LTR	4.89	1762.1	F	751	LTR	6.45	2463.6	F	776	LTR	6.45	2463.6	F	850	+
	Southbound	T	1.12	97.0	F	572	T	1.22	138.7	F	660	T	1.22	138.8	F	660	+
		R	0.58	18.0	B	170	R	0.66	18.9	B	200	R	0.66	18.9	B	200	
		Intersection		587.6	F		Intersection		817.9	F		Intersection		818.0	F		
	Bay Street and School Road																
	Eastbound	L	1.35	195.2	F	786	L	1.48	2518	F	880	L	1.34	189.1	F	844	
		TR	0.12	12.1	B	39	TR	0.12	12.1	B	39	TR	0.10	10.2	B	35	
	Westbound	LTR	0.01	15.2	B	8	LTR	0.01	15.2	B	8	LTR	0.01	13.0	B	7	
49	Northbound	LTR	0.22	15.2	B	83	LTR	0.22	15.2	B	83	LTR	0.24	17.9	B	91	
	Southbound	LTR	0.08	16.7	B	23	LTR	0.08	17.0	B	21	LTR	0.09	17.9	B	22	
		R	0.71	6.7	A	325	R	0.71	7.2	A	326	R	0.71	7.2	A	325	
		Intersection		82.1	F		Intersection		106.4	F		Intersection		814	F		

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday PM Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
1	**Richmond Terrace and Franklin Avenue**																	
	Eastbound	TR	0.75	28.8	C	738	TR	0.85	35.2	D	845		TR	0.78	21.9	C	720	
	Westbound	LT	1.14	81.4	F	278	LT	1.53	260.2	F	688	+	LT	1.12	76.5	E	1149	
	Northbound	LR	0.14	35.3	D	67	LR	0.15	35.5	D	70		LR	0.19	41.7	D	76	
		Intersection		56.4	E		Intersection		150.1	F			Intersection		50.4	D		
2	**Richmond Terrace and Jersey Street**																	
	Eastbound	L	0.72	39.2	D	106	L	0.81	47.8	D	91	+	L	0.70	31.8	C	84	
		TR	0.83	28.1	C	598	TR	0.93	36.6	D	955		TR	0.91	33.2	C	947	
	Westbound	LT	1.29	163.2	F	1186	LT	1.74	357.8	F	1092	+						
		R	0.01	11.1	B	4	R	0.01	9.9	A	3							
													L	0.40	19.0	B	39	
													TR	0.96	76.9	E	602	+
	Northbound	L	0.20	39.5	D	42	L	0.20	39.5	D	42		L	0.23	42.4	D	44	
		TR	0.19	37.0	D	88	TR	0.21	37.6	D	94		TR	0.22	39.2	D	96	
	Southbound	L	0.04	34.7	C	23	L	0.04	34.7	C	23		L	0.05	36.4	D	23	
		TR	0.68	49.9	D	255	TR	0.68	49.9	D	255		TR	0.72	54.4	D	261	
		Intersection		85.2	F		Intersection		166.5	F			Intersection		51.6	D		
3	**Richmond Terrace and Westervelt Avenue**																	
	Eastbound	TR	0.88	25.8	C	409	TR	0.99	50.7	D	470	+	TR	0.95	29.8	C	119	
	Westbound	LT	0.78	78.1	E	344	LT	1.14	116.5	F	950	+	LT	0.98	79.4	F	887	
	Northbound	LR	0.52	38.5	D	223	LR	0.52	38.6	D	225		LR	0.28	43.2	D	234	
		Intersection		47.6	D		Intersection		74.4	E			Intersection		53.6	D		
5	**Hamilton Avenue and Richmond Terrace**																	
	Northbound	LT	0.87	21.5	C	371	LT	0.99	36.9	D	610		LT	0.99	36.9	D	610	
	Southbound	TR	0.48	34.0	C	331	TR	0.55	33.5	C	370		TR	0.55	29.8	C	370	
		Intersection		26.8	C		Intersection		35.4	D			Intersection		33.8	C		
7	**Wall Street and Richmond Terrace**																	
	Westbound	LTR	0.66	185.5	F	312	LTR	0.66	185.5	F	312		LTR	0.66	185.5	F	312	
		L	0.62	175.4	F	273	L	0.62	177.9	F	273		L	0.62	177.9	F	273	
	Northbound	T	0.55	4.5	A	38	T	0.60	5.1	A	51		T	0.60	5.1	A	51	
		R	0.51	5.6	A	32	R	0.51	6.1	A	39		R	0.51	6.1	A	39	
	Southbound	LTR	0.61	8.3	A	73	LTR	0.72	11.8	B	93		LTR	0.72	11.8	B	93	
		Intersection		45.1	D		Intersection		44.1	D			Intersection		44.1	D		
8	**Richmond Terrace and Ferry Terminal (bus)**																	
	Westbound	L	0.67	57.7	E	174	L	0.67	57.7	E	174		L	0.67	57.7	E	174	
		R	0.34	44.1	D	84	R	0.34	44.1	D	84		R	0.34	44.1	D	84	
	Northbound	T	0.72	75.4	E	65	T	0.78	79.9	E	63	+	T	0.78	79.9	E	63	+
	Southbound	T	0.90	80.1	F	712	T	0.99	87.5	F	840	+	T	0.99	87.5	F	840	+
		Intersection		75.5	E		Intersection		87.1	F			Intersection		81.1	F		
9	**Richmond Terrace and Ferry Terminal (parking lot)**																	
	Westbound	L	0.77	58.0	E	286	L	0.77	58.0	E	286		L	0.77	58.0	E	286	
		R	0.16	13.2	B	40	R	0.16	13.2	B	40		R	0.16	13.2	B	40	
	Northbound	T	1.38	208.0	F	695	T	1.49	257.3	F	771	+	T	1.49	258.3	F	771	+
		R	0.26	2.1	A	12	R	0.26	2.9	A	19		R	0.26	3.1	A	23	
		R	0.30	3.2	A	6	R	0.30	4.1	A	10		R	0.30	4.3	A	11	
	Southbound	L	4.16	1457.1	F	350	L	4.16	1450.9	F	312		L	4.16	1450.9	F	312	
		TR	0.91	55.7	E	332	TR	1.01	64.4	E	1025	+	TR	1.01	64.4	E	1025	+
		Intersection		206.2	F		Intersection		220.9	F			Intersection		221.3	F		
10	**Bay Street and Slosson Terrace**																	
	Eastbound	LR	0.20	34.4	C	80	LR	0.27	35.7	D	102		LR	0.28	36.7	D	103	
	Northbound	L	0.57	32.6	C	89	L	0.64	33.3	C	92		L	0.79	41.9	D	89	
		T	0.86	46.1	D	381	T	0.91	64.2	E	407	+	T	0.89	27.4	C	521	
	Southbound	TR	1.13	95.5	F	928	TR	1.20	127.8	F	1030	+	TR	1.13	91.5	F	985	
		Intersection		69.9	E		Intersection		93.8	F			Intersection		60.1	E		
11	**Victory Boulevard and Bay Street/St. Marks Place**																	
	Eastbound	TR	0.39	12.6	B	157	TR	0.43	13.5	B	180		TR	0.43	13.5	B	178	
		R	0.33	11.9	B	105	R	0.42	13.3	B	135		R	0.42	13.3	B	134	
	Westbound	T	0.74	37.6	D	151	T	0.88	62.3	E	221	+	T	0.88	60.3	E	147	+
		L	0.08	3.2	A	3	L	0.08	5.3	A	4		L	0.08	6.6	A	5	
	Southbound	LT	0.56	46.6	D	209	LT	0.58	47.4	D	215		LT	0.58	49.2	D	215	
		R	0.91	84.4	F	263	R	0.98	100.2	F	278	+	R	0.98	100.2	F	278	+
		Intersection		34.9	C		Intersection		46.9	D			Intersection		46.3	D		

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday PM Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

12	**Victory Boulevard and Bay Street**																	
	Eastbound	L	0.84	72.0	E	320	L	0.92	88.1	F	362	+	L	0.85	87.8	F	343	+
		LT	0.84	72.9	E	325	LT	0.90	98.1	F	371	+	LT	0.83	94.6	F	351	+
	Westbound	LTR	0.75	57.8	E	204	LTR	2.64	768.9	F	866	+	LTR	2.21	581.8	F	831	+
	Northbound	L	2.23	577.1	F	222	L	3.34	1073.2	F	235	+	L	2.17	554.1	F	358	
		TR	0.70	16.7	B	262	TR	0.73	18.2	B	205		TR	0.78	29.5	C	493	
	Southbound	LT	0.86	14.1	B	130	LT	1.05	43.2	D	138		LT	1.32	164.0	F	637	+
		R	0.76	11.9	B	70	R	0.85	21.0	C	78		R	1.12	66.5	E	255	+
		Intersection		60.2	E		Intersection		200.5	F			Intersection		188.6	F		
13	**Bay Street and Hannah Street**																	
	Eastbound	LTR	0.11	30.5	C	64	LTR	0.12	30.7	C	64		LTR	0.09	25.0	C	57	
	Westbound	LTR	0.88	58.9	E	529	LTR	1.19	143.2	F	714	+	LTR	0.94	61.9	E	616	
	Northbound	LTR	1.18	118.7	F	740	LTR	1.38	204.8	F	867	+						
													L	0.57	42.7	D	102	
													TR	0.94	89.7	F	626	
	Southbound	L	2.51	711.6	F	666	L	4.22	1461.5	F	730	+	L	2.47	685.1	F	532	
		T	0.55	24.3	C	374	T	0.65	22.1	C	327		T	0.98	39.0	D	399	
		R	0.29	7.6	A	67	R	0.36	10.1	B	62		R	0.59	16.3	B	87	
		Intersection		141.5	F		Intersection		296.6	F			Intersection		144.9	F		
14	**Front Street and Hannah Street**																	
	Eastbound	TR	0.45	3.7	A	67	TR	0.56	4.0	A	72		TR	0.61	5.5	A	95	
	Westbound	LT	0.10	13.3	B	47	LT	0.11	13.5	B	47		LT	0.17	19.3	B	58	
	Northbound	LR	0.61	25.2	C	289	LR	0.90	47.2	D	461	+	LR	0.84	39.7	D	436	
		Intersection		13.8	B		Intersection		22.5	C			Intersection		20.6	C		
15	**Bay Street and Swan Street/Van Duzer Street**																	
	Eastbound	L	0.63	70.6	E	192	L	0.68	114.6	F	202	+	L	0.68	115.9	F	202	+
		LTR	0.61	65.9	E	215	LTR	0.67	115.2	F	230	+	LTR	0.67	116.4	F	230	+
	Westbound	LTR	0.00	0.0	0.0	0	LTR	0.00	0.0	0.0	0		LTR	0.00	0.0	0.0	0	
	Northbound	LTR	0.55	20.5	C	262	LTR	0.61	22.1	C	322		LTR	0.61	15.5	B	200	
	Southbound	LTR	0.67	5.9	A	41	LTR	0.79	7.6	A	41		LTR	0.79	16.4	B	88	
		Intersection		20.8	C		Intersection		27.8	C			Intersection		29.9	C		
18	**Bay Street and Grant Street**																	
	Eastbound												LTR	0.31	40.8	D	110	
	Westbound												R	0.2	38.1	D	73	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.46	6.1	A	89	
	Southbound												T	1.42	231.6	F	1691	+
													Intersection		122.2	F		
19	**Van Duzer Street and Clinton Street**																	
	Westbound	TR	0.28	37.4	D	79	TR	0.32	38.3	D	87		TR	0.32	41.1	D	89	
	Northbound	LT	0.39	9.2	A	146	LT	0.40	9.3	A	151		LT	0.40	9.3	A	151	
		Intersection		15.1	B		Intersection		15.8	B			Intersection		16.5	B		
20	**Bay Street and Clinton Street**																	
	Westbound	LTR	0.39	117.0	F	153	LTR	0.41	710.4	F	154	+	LTR	0.83	83.7	F	212	
	Northbound	L	0.33	11.4	B	5	L	0.40	10.2	B	5		L	0.41	11.8	B	2	
		TR	0.53	5.7	A	113	TR	0.62	5.9	A	101		TR	0.52	4.0	A	42	
	Southbound	L	0.31	9.7	A	20	L	0.40	11.3	B	16		L	0.28	4.9	A	9	
		TR	1.14	89.3	F	1319	TR	1.35	179.3	F	1685	+	TR	1.12	67.2	E	161	
		Intersection		54.8	D		Intersection		136.7	F			Intersection		40.5	D		
21	**Bay Street and Baltic Street**																	
	Eastbound												LTR	0.16	44.2	D	37	
	Westbound												LTR	0.01	39.5	D	9	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.88	39.9	D	53	
	Southbound												LT	1.24	122.5	F	1199	+
													Intersection		85.2	F		
24	**Bay Street and Wave Street**																	
	Westbound	LTR	0.40	37.1	D	74	LTR	0.44	34.6	C	57							
													L	0.33	52.9	D	62	+
													TR	0.46	59.3	E	83	+
	Northbound	LT	1.11	84.0	F	944	LT	1.43	219.7	F	1276	+	LT	1.27	146.2	F	1192	+
		R	0.06	7.7	A	16	R	0.07	7.9	A	16		R	0.06	4.3	A	11	
	Southbound	L	0.30	17.7	B	28	L	1.08	99.4	F	35	+	L	0.45	11.1	B	15	
		TR	1.17	110.2	F	1011	TR	1.36	192.9	F	1025	+	TR	1.22	119.5	F	431	+
		Intersection		93.9	F		Intersection		194.7	F			Intersection		124.9	F		
25	**Front Street and Wave Street**																	
	Eastbound	LR	0.22	16.0	B	41	LR	0.25	17.4	B	33		LR	0.38	36.2	D	66	
	Northbound	LT	0.82	7.3	A	21	LT	1.16	88.4	F	28	+	LT	0.82	15.8	B	46	
	Southbound	TR	0.49	11.6	B	161	TR	0.67	15.2	B	250		TR	0.52	10.1	B	241	
		Intersection		9.6	A		Intersection		53.7	D			Intersection		14.4	B		
26	**Front Street and Prospect Street**																	
	Eastbound	LTR	0.53	28.6	C	81	LTR	0.56	29.4	C	83		LTR	0.61	44.5	D	146	
	Westbound	LTR	0.41	24.6	C	90	LTR	0.42	24.8	C	90		LTR	0.53	41.9	D	134	
	Northbound	TR	1.34	194.0	F	889	TR	1.69	341.5	F	1080	+	TR	1.15	104.1	F	680	
	Southbound	LT	7.14	2797.4	F	906	LT	10.05	4102.2	F	1181	+	LT	4.21	1469.9	F	882	
		Intersection		1048.1	F		Intersection		1681.5	F			Intersection		600.0	F		

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday PM Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

27	**Van Duzer Street and Beach Street**																	
	Eastbound	LT	0.77	49.3	D	286	LT	1.00	88.6	F	407	+	LT	0.84	53.0	D	356	
	Westbound	TR	0.46	33.0	C	195	TR	0.50	34.0	C	214		TR	0.44	29.3	C	199	
	Northbound	L	0.42	17.1	B	208	L	0.44	17.3	B	214		L	0.47	20.9	C	237	
		TR	0.58	20.9	C	316	TR	0.60	21.4	C	331		TR	0.65	26.1	C	366	
		Intersection		27.9	C		Intersection		37.7	D			Intersection		31.3	C		
28	**Bay Street and Water Street**																	
	Westbound	LTR	0.28	79.6	E	109	LTR	0.28	74.9	E	109		LTR	0.28	49.5	D	109	
	Northbound	L	3.00	921.0	F	177	L	3.21	1013.4	F	143	+	L	3.21	1012.3	F	132	+
		T	1.01	74.3	E	737	T	1.25	146.4	F	750	+	T	1.25	138.2	F	755	+
	Southbound	TR	1.31	174.3	F	1338	TR	1.52	263.3	F	1576	+	TR	1.52	261.2	F	1672	+
		Intersection		176.8	F		Intersection		250.2	F			Intersection		245.0	F		
29	**Bay Street and Canal Street**																	
	Eastbound	L	0.89	82.7	F	268	L	0.88	80.8	F	263		L	0.88	80.9	F	263	
		TR	0.25	33.8	C	91	TR	0.25	33.8	C	91		TR	0.32	35.3	D	121	
	Westbound	LTR	0.25	40.6	D	66	LTR	0.42	45.9	D	89		LTR	0.34	38.2	D	85	
	Northbound	TR	1.13	84.1	F	140	TR	1.45	228.7	F	154	+	TR	1.45	226.2	F	100	+
	Southbound	LT	3.86	1303.9	F	1227	LT	4.53	1604.3	F	1261	+	T	1.47	234.9	F	296	
		Intersection		627.9	F		Intersection		810.6	F			Intersection		211.6	F		
30	**Front Street and Canal Street**																	
	Eastbound	LR	0.59	18.6	B	65	LR	0.73	22.4	C	75		LR	0.63	33.2	C	184	
	Northbound	LT	0.76	19.7	B	303	LT	0.89	29.5	C	417		LT	0.86	31.0	C	559	
	Southbound	TR	0.46	10.9	B	36	TR	0.63	12.3	B	36		TR	0.61	13.6	B	58	
		Intersection		16.5	B		Intersection		21.9	C			Intersection		24.8	C		
31	**Bay Street and Broad Street**																	
	Eastbound	LR	0.29	37.5	D	150	LR	0.43	115.6	F	217	+						
													L	0.45	44.3	D	200	
													R	0.14	40.5	D	59	
	Northbound	LT	3.39	1091.2	F	763	LT	5.20	1902.5	F	874	+	LT	4.66	1664.2	F	882	+
	Southbound	T	1.07	62.0	E	45	T	1.23	125.7	F	50	+	T	1.14	80.1	F	217	+
		R	0.17	0.8	A	0	R	0.24	1.0	A	0		R	0.22	3.5	A	8	
		Intersection		483.8	F		Intersection		867.0	F			Intersection		741.4	F		
32	**Richmond Terrace and Clove Road**																	
	Eastbound	LT	0.74	17.1	B	647	LT	0.83	23.3	C	786		LT	0.83	23.3	C	786	
		R	0.17	3.1	A	27	R	0.17	3.6	A	32		R	0.17	3.6	A	32	
	Westbound	L	0.43	14.3	B	85	L	0.64	29.0	C	153		L	0.64	29.0	C	153	
		TR	0.75	19.3	B	708	TR	0.80	22.3	C	786		TR	0.80	22.3	C	786	
	Northbound	LTR	0.35	36.2	D	157	LTR	0.36	36.5	D	165		LTR	0.36	36.5	D	165	
		Intersection		18.3	B		Intersection		22.9	C			Intersection		22.9	C		
35	**Victory Boulevard and Cebra Avenue**																	
	Eastbound	L	0.99	150.8	F	129	L	1.30	260.0	F	143	+	L	1.30	260.0	F	143	+
		TR	0.72	54.2	D	252	TR	0.72	54.2	D	252		TR	0.72	54.2	D	252	
	Westbound	L	0.70	68.4	E	160	L	0.73	72.2	E	170		L	0.73	72.2	E	170	
		TR	0.93	76.6	E	407	TR	1.02	96.8	F	460	+	TR	1.02	96.8	F	460	+
	Northbound	LTR	0.91	40.8	D	851	LTR	1.37	201.2	F	1206	+	LTR	1.37	201.3	F	1206	+
	Southbound	LT	1.05	47.0	D	1036	LT	1.20	107.4	F	1112	+	LT	1.20	107.3	F	1111	+
		R	0.04	3.7	A	4	R	0.04	3.9	A	4		R	0.04	3.8	A	4	
		Intersection		52.8	D		Intersection		131.3	F			Intersection		131.3	F		
36	**Victory Boulevard and Jersey Street**																	
	Eastbound	L	0.94	66.3	E	63	L	2.48	690.3	F	135	+	L	2.48	690.3	F	135	+
		T	0.90	27.6	C	445	T	0.96	28.4	C	290		T	0.96	28.4	C	290	
	Westbound	T	0.91	79.3	E	986	T	1.00	94.0	F	1141	+	T	1.00	93.8	F	1141	+
		R	0.10	7.4	A	40	R	0.18	8.2	A	70		R	0.18	8.3	A	70	
	Southbound	LR	0.53	43.3	D	176	LR	0.85	65.9	E	288	+	LR	0.85	66.3	E	289	+
		Intersection		54.6	D		Intersection		101.7	F			Intersection		101.6	F		
38	**Victory Boulevard and Forest Avenue**																	
	Eastbound	LR	0.51	42.2	D	181	LR	0.56	43.2	D	197		LR	0.58	44.5	D	200	
	Northbound	L	0.59	30.4	C	131	L	0.78	57.2	E	182	+	L	0.73	48.2	D	175	+
		T	0.52	16.1	B	324	T	0.59	17.7	B	384		T	0.58	17.0	B	374	
	Southbound	T	0.82	74.1	E	453	T	0.89	77.8	E	593	+	T	0.87	76.3	E	565	+
		R	0.37	7.0	A	61	R	0.41	7.9	A	75		R	0.40	7.4	A	70	
		Intersection		41.8	D		Intersection		44.8	D			Intersection		43.8	D		

Table 22-45 (con't): Signalized Level of Service Analysis – Weekday PM Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

	Broad Street and Canal Street																	
	Eastbound	L	0.22	8.3	A	50	L	0.25	13.1	B	80		L	0.25	13.1	B	80	
		TR	0.22	7.8	A	70	TR	0.29	12.4	B	143		TR	0.29	12.4	B	143	
41	Westbound	LTR	0.27	16.7	B	113	LTR	0.37	17.3	B	149		LTR	0.42	19.4	B	171	
	Northbound	L	0.44	43.1	D	101	L	0.43	42.8	D	101		L	0.43	42.8	D	101	
		TR	0.61	44.0	D	223	TR	0.65	45.7	D	239		TR	0.65	45.7	D	239	
	Southbound	LT	0.45	38.4	D	177	LT	0.44	38.3	D	175		LT	0.44	38.3	D	175	
		Intersection		27.4	C		Intersection		27.5	C			Intersection		28.0	C		
	Broad Street and Van Duzer Street																	
42	Westbound	L	0.75	77.9	E	175	L	0.80	66.9	E	180		L	0.80	67.1	E	180	
	Southbound	L	0.12	6.0	A	55	L	0.13	7.8	A	64		L	0.13	7.8	A	64	
		T	0.44	8.5	A	284	T	0.47	11.2	B	336		T	0.47	11.2	B	336	
		Intersection		25.0	C		Intersection		26.8	C			Intersection		26.9	C		
	Broad Street and Targee Street																	
	Eastbound	LT	0.22	44.9	D	163	LT	0.23	44.5	D	162		LT	0.23	44.5	D	162	
43	Westbound	TR	0.39	28.7	C	192	TR	0.50	35.0	D	270		TR	0.50	37.5	D	273	
	Northbound	LT	0.65	22.8	C	403	LT	0.66	23.3	C	418		LT	0.66	23.3	C	418	
		R	0.26	15.0	B	96	R	0.40	17.2	B	150		R	0.40	17.2	B	150	
		Intersection		25.3	C		Intersection		26.8	C			Intersection		27.4	C		
	Vanderbilt Avenue and Tompkins Avenue																	
	Eastbound	LTR	0.74	31.8	C	433	LTR	0.86	41.2	D	600		LTR	0.86	41.2	D	600	
44	Westbound	LTR	0.74	37.2	D	384	LTR	0.93	50.0	D	488	+	LTR	0.93	49.2	D	497	+
	Northbound	LTR	0.99	79.9	E	485	LTR	1.02	88.3	F	518	+	LTR	1.02	88.3	F	518	+
	Southbound	LTR	0.65	39.0	D	337	LTR	0.65	38.8	D	333		LTR	0.65	38.8	D	333	
		Intersection		45.9	D		Intersection		53.9	D			Intersection		53.6	D		
	Bay Street and Vanderbilt Avenue																	
	Eastbound	L	0.58	39.1	D	236	L	0.79	42.7	D	307		L	0.81	44.7	D	313	
		R	0.21	30.2	C	63	R	0.21	27.2	C	53		R	0.22	28.0	C	54	
45	Northbound	LT	2.07	508.0	F	1327	LT	3.01	924.5	F	1666	+	LT	2.82	842.0	F	1647	+
	Southbound	T	0.91	9.7	A	110	T	0.99	18.1	B	101		T	0.97	18.7	B	147	
		R	0.34	2.2	A	10	R	0.45	2.5	A	12		R	0.44	4.2	A	31	
		Intersection		197.5	F		Intersection		358.6	F			Intersection		328.4	F		
	Bay Street and Edgewater Drive																	
	Westbound	LR	0.40	34.1	C	174	LR	0.52	36.3	D	229		LR	0.52	36.3	D	229	
47	Northbound	TR	0.56	8.5	A	54	TR	0.71	9.9	A	56		TR	0.71	9.8	A	56	
	Southbound	T	0.77	12.1	B	178	T	0.83	13.2	B	172		T	0.83	13.6	B	183	
	Northwestbound	R	0.59	12.9	B	111	R	0.63	18.4	B	160		R	0.63	18.4	B	160	
		Intersection		14.0	B		Intersection		16.2	B			Intersection		16.3	B		
	Bay Street and Hylan Boulevard																	
	Eastbound	LTR	1.09	95.8	F	734	LTR	1.30	175.2	F	908	+	LTR	1.30	175.2	F	908	+
	Westbound	LTR	0.98	89.2	F	441	LTR	0.99	92.4	F	444	+	LTR	0.99	92.4	F	444	+
48	Northbound	LTR	3.91	1326.7	F	946	LTR	5.13	1869.2	F	975	+	LTR	5.15	1879.6	F	890	+
	Southbound	T	1.08	85.3	F	964	T	1.22	140.5	F	1156	+	T	1.22	139.8	F	1156	+
		R	0.51	15.4	B	188	R	0.60	17.6	B	244		R	0.60	17.3	B	244	
		Intersection		471.8	F		Intersection		688.2	F			Intersection		693.3	F		
	Bay Street and School Road																	
	Eastbound	L	1.44	233.4	F	1331	L	1.70	345.4	F	1633	+	L	1.62	310.6	F	1605	+
		TR	0.11	2.0	A	17	TR	0.11	2.0	A	17		TR	0.11	1.8	A	16	
49	Westbound	LTR	0.01	13.8	B	7	LTR	0.01	13.8	B	7		LTR	0.01	12.2	B	7	
	Northbound	LTR	0.16	24.7	C	86	LTR	0.17	24.9	C	86		LTR	0.19	27.1	C	91	
	Southbound	LTR	0.32	30.3	C	82	LTR	0.50	32.7	C	113		LTR	0.53	15.7	B	95	
		R	1.00	29.6	C	190	R	1.02	37.0	D	165		R	1.05	41.6	D	418	
		Intersection		125.7	F		Intersection		187.4	F			Intersection		170.0	F		

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-45 (con't): Signalized Level of Service Analysis – Saturday MD Peak Hour
No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

Int #	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
1	**Richmond Terrace and Franklin Avenue**																	
	Eastbound	TR	0.71	18.4	B	506	TR	0.76	20.7	C	554		TR	0.75	19.8	B	547	
	Westbound	LT	0.86	18.0	B	382	LT	1.02	38.6	D	487		LT	0.97	32.2	C	577	
	Northbound	LR	0.11	22.8	C	48	LR	0.11	22.9	C	49		LR	0.11	23.6	C	50	
		Intersection		18.4	B		Intersection		29.5	C			Intersection		26.0	C		
2	**Richmond Terrace and Jersey Street**																	
	Eastbound	L	0.58	33.7	C	77	L	0.58	32.9	C	70		L	0.58	32.9	C	70	
		TR	0.75	6.9	A	52	TR	0.81	9.5	A	60		TR	0.81	9.5	A	60	
	Westbound	LT	1.10	78.1	E	687	LT	1.19	112.5	F	666	+						
		R	0.03	9.9	A	6	R	0.03	12.5	B	5							
													L	0.23	13.7	B	14	
													TR	1.00	44.4	D	564	
	Northbound	L	0.21	27.7	C	49	L	0.21	27.7	C	49		L	0.21	27.7	C	49	
		TR	0.24	27.1	C	73	TR	0.25	27.3	C	75		TR	0.25	27.3	C	75	
	Southbound	L	0.03	24.1	C	16	L	0.03	24.1	C	16		L	0.03	24.1	C	16	
		TR	0.44	30.4	C	139	TR	0.44	30.4	C	139		TR	0.44	30.4	C	139	
		Intersection		39.3	D		Intersection		53.1	D			Intersection		27.2	C		
3	**Richmond Terrace and Westervelt Avenue**																	
	Eastbound	TR	0.79	16.2	B	270	TR	0.87	20.1	C	612		TR	0.87	21.3	C	612	
	Westbound	LT	0.74	19.2	B	495	LT	0.89	32.1	C	614		LT	0.89	42.7	D	614	
	Northbound	LR	0.21	21.4	C	89	LR	0.22	21.5	C	90		LR	0.22	21.5	C	90	
		Intersection		17.9	B		Intersection		26.1	C			Intersection		30.8	C		
5	**Hamilton Avenue and Richmond Terrace**																	
	Northbound	LT	0.95	31.4	C	376	LT	1.03	53.2	D	425	+	LT	1.00	44.2	D	416	
	Southbound	TR	0.53	24.8	C	244	TR	0.57	25.2	C	266		TR	0.56	24.7	C	264	
		Intersection		28.5	C		Intersection		40.6	D			Intersection		35.4	D		
7	**Wall Street and Richmond Terrace**																	
	Westbound	LTR	0.80	94.2	F	383	LTR	0.80	94.2	F	383		LTR	0.80	94.2	F	383	
		L	0.80	93.1	F	304	L	0.80	93.1	F	304		L	0.80	93.1	F	304	
	Northbound	T	0.50	5.5	A	133	T	0.54	6.8	A	190		T	0.54	6.8	A	190	
		R	0.80	23.9	C	424	R	0.80	24.6	C	424		R	0.80	24.6	C	424	
	Southbound	LTR	0.67	60.0	E	73	LTR	0.75	62.2	E	171		LTR	0.75	62.4	E	168	
		Intersection		49.0	D		Intersection		49.5	D			Intersection		49.6	D		
8	**Richmond Terrace and Ferry Terminal (bus)**																	
	Westbound	L	1.24	195.9	F	206	L	1.24	195.9	F	206		L	1.24	195.9	F	206	
		R	0.44	48.3	D	63	R	0.44	48.3	D	63		R	0.44	48.3	D	63	
	Northbound	T	0.67	25.0	C	48	T	0.71	42.9	D	47		T	0.71	43.0	D	47	
	Southbound	T	0.77	27.3	C	193	T	0.81	46.0	D	208	+	T	0.81	46.1	D	208	+
		Intersection		37.2	D		Intersection		53.6	D			Intersection		53.6	D		
9	**Richmond Terrace and Ferry Terminal (parking lot)**																	
	Westbound	L	0.64	54.3	D	111	L	0.64	54.3	D	111		L	0.64	54.3	D	111	
		R	0.13	15.5	B	23	R	0.13	16.3	B	23		R	0.13	16.3	B	23	
	Northbound	T	1.03	70.9	E	398	T	1.09	77.4	E	440	+	T	1.09	77.4	E	440	+
		R	0.21	2.5	A	5	R	0.21	2.8	A	6		R	0.21	2.8	A	6	
		R	0.29	3.2	A	3	R	0.29	3.5	A	3		R	0.29	3.5	A	3	
	Southbound	L	1.71	386.7	F	147	L	1.69	374.4	F	138		L	1.69	374.4	F	138	
		TR	1.24	130.3	F	1108	TR	1.31	158.4	F	1194	+	TR	1.31	158.4	F	1194	+
		Intersection		102.5	F		Intersection		116.8	F			Intersection		116.8	F		
10	**Bay Street and Slosson Terrace**																	
	Eastbound	LR	0.09	23.6	C	35	LR	0.13	24.1	C	45		LR	0.14	25.8	C	47	
	Northbound	L	0.34	14.3	B	25	L	0.40	16.3	B	28		L	0.40	16.5	B	44	
		T	0.81	13.4	B	188	T	0.84	14.0	B	198		T	0.81	25.5	C	486	
	Southbound	TR	1.26	142.3	F	822	TR	1.30	163.1	F	865	+	TR	1.24	135.3	F	842	
		Intersection		82.1	F		Intersection		93.0	F			Intersection		83.3	F		
11	**Victory Boulevard and Bay Street/St. Marks Place**																	
	Eastbound	TR	0.48	13.7	B	206	TR	0.52	16.1	B	243		TR	0.52	16.1	B	243	
		R	0.43	12.7	B	151	R	0.50	15.2	B	185		R	0.50	15.2	B	185	
	Westbound	T	0.84	74.7	E	365	T	0.92	77.6	E	399		T	0.92	63.8	E	431	
		L	0.12	15.2	B	22	L	0.13	16.2	B	19		L	0.13	7.4	A	8	
	Southbound	LT	0.33	27.6	C	105	LT	0.34	27.9	C	109		LT	0.34	27.9	C	109	
		R	0.24	27.3	C	72	R	0.26	27.8	C	74		R	0.26	27.8	C	74	
		Intersection		42.0	D		Intersection		44.3	D			Intersection		38.1	D		

Table 22-45 (con't): Signalized Level of Service Analysis – Saturday MD Peak Hour
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12	**Victory Boulevard and Bay Street**																	
	Eastbound	L	0.62	18.2	B	54	L	0.81	34.5	C	250		L	0.75	41.8	D	260	
		LT	0.63	18.9	B	55	LT	0.79	30.6	C	248		LT	0.73	40.0	D	258	
	Westbound	LTR	0.23	24.2	C	72	LTR	0.76	49.2	D	194	+	LTR	0.68	37.3	D	171	
	Northbound	L	3.55	1171.5	F	247	L	4.38	1549.4	F	254	+	L	1.77	376.8	F	261	
		TR	0.74	24.2	C	185	TR	0.76	23.8	C	171		TR	0.80	22.9	C	383	
	Southbound	LT	0.93	43.6	D	315	LT	1.06	71.9	E	322	+	LT	1.47	230.8	F	399	+
		R	0.57	13.6	B	68	R	0.65	23.0	C	102		R	0.77	11.5	B	3	
		Intersection		119.1	F		Intersection		163.8	F			Intersection		122.9	F		
13	**Bay Street and Hannah Street**																	
	Eastbound	LTR	0.04	17.4	B	26	LTR	0.04	17.4	B	26		LTR	0.04	18.7	B	27	
	Westbound	LTR	0.60	10.3	B	52	LTR	0.76	14.9	B	90		LTR	0.81	25.2	C	370	
	Northbound	LTR	1.43	217.9	F	666	LTR	1.59	290.2	F	718	+						
													L	0.55	28.3	C	32	
													TR	0.94	58.7	E	475	
	Southbound	L	3.30	1064.7	F	410	L	4.86	1760.6	F	461	+	L	2.12	529.8	F	295	
		T	0.72	11.2	B	141	T	0.77	13.5	B	153		T	0.96	29.8	C	334	
		R	0.17	3.1	A	0	R	0.20	3.5	A	0		R	0.26	8.6	A	29	
		Intersection		194.8	F		Intersection		306.5	F			Intersection		93.2	F		
14	**Front Street and Hannah Street**																	
	Eastbound	TR	0.38	10.5	B	0	TR	0.43	10.4	B	0		TR	0.49	12.9	B	6	
	Westbound	LT	0.05	12.9	B	30	LT	0.05	12.9	B	30		LT	0.07	17.7	B	36	
	Northbound	LR	0.52	23.1	C	242	LR	0.74	32.0	C	326		LR	0.71	30.7	C	315	
		Intersection		16.5	B		Intersection		20.6	C			Intersection		21.4	C		
15	**Bay Street and Swan Street/Van Duzer Street**																	
	Eastbound	L	0.66	33.6	C	178	L	0.71	36.6	D	188		L	0.71	37.8	D	188	
		LTR	0.17	19.9	B	66	LTR	0.19	20.2	C	69		LTR	0.19	20.3	C	69	
	Westbound	LTR	0.00	0.0	0.0	0	LTR	0.00	0.0	0.0	0		LTR	0.00	0.0	0.0	0	
	Northbound	LTR	0.68	62.1	E	273	LTR	0.73	63.1	E	336		LTR	0.73	26.3	C	345	
	Southbound	LTR	0.90	21.4	C	480	LTR	0.95	26.6	C	525		LTR	0.95	27.0	C	84	
		Intersection		37.8	D		Intersection		41.2	D			Intersection		27.5	C		
18	**Bay Street and Grant Street**																	
	Eastbound												LTR	0.24	29.8	C	74	
	Westbound												R	0.21	29.1	C	64	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.46	10.8	B	196	
	Southbound												T	1.47	232.6	F	1239	+
													Intersection		133.8	F		
19	**Van Duzer Street and Clinton Street**																	
	Westbound	TR	0.27	33.1	C	53	TR	0.29	33.5	C	57		TR	0.29	32.8	C	60	
	Northbound	LT	0.33	7.1	A	95	LT	0.34	7.2	A	98		LT	0.34	7.2	A	98	
		Intersection		12.6	B		Intersection		13.1	B			Intersection		12.9	B		
20	**Bay Street and Clinton Street**																	
	Westbound	LTR	0.30	23.6	C	100	LTR	0.31	23.9	C	101		LTR	0.37	29.3	C	109	
	Northbound	L	0.34	19.0	B	10	L	0.38	19.6	B	10		L	0.39	19.0	B	9	
		TR	0.63	17.4	B	147	TR	0.69	18.2	B	144		TR	0.64	13.5	B	156	
	Southbound	L	0.54	14.2	B	25	L	0.65	21.4	C	32		L	0.55	8.0	A	9	
		TR	1.45	222.8	F	1228	TR	1.56	272.7	F	1261	+	TR	1.44	217.3	F	607	
		Intersection		118.3	F		Intersection		143.0	F			Intersection		113.9	F		
21	**Bay Street and Baltic Street**																	
	Eastbound												LTR	0.22	38.9	D	37	
	Westbound												LTR	0.05	33.8	C	13	
	Northbound	**Unsignalized**					**Unsignalized**						TR	0.85	7.9	A	132	
	Southbound												LT	1.18	95.6	F	39	+
													Intersection		55.8	E		
24	**Bay Street and Wave Street**																	
	Westbound	LTR	0.34	26.2	C	87	LTR	0.34	25.9	C	87							
													L	0.28	36.6	D	39	
													TR	0.45	42.0	D	67	
	Northbound	LT	1.24	141.6	F	820	LT	1.41	215.9	F	951	+	LT	1.10	76.5	E	859	
		R	0.10	12.9	B	22	R	0.10	12.7	B	23		R	0.08	5.7	A	14	
	Southbound	L	0.81	38.7	D	16	L	0.79	37.6	D	15		L	0.68	21.4	C	11	
		TR	1.54	268.3	F	707	TR	1.67	323.4	F	722	+	TR	1.34	171.3	F	875	
		Intersection		201.4	F		Intersection		260.0	F			Intersection		123.6	F		
25	**Front Street and Wave Street**																	
	Eastbound	LR	0.25	17.9	B	43	LR	0.27	18.5	B	44		LR	0.30	26.0	C	63	
	Northbound	LT	0.74	8.5	A	29	LT	0.87	11.4	B	24		LT	0.75	9.9	A	65	
	Southbound	TR	0.39	10.4	B	125	TR	0.48	11.5	B	156		TR	0.41	11.0	B	183	
		Intersection		10.0	B		Intersection		11.9	B			Intersection		11.5	B		
26	**Front Street and Prospect Street**																	
	Eastbound	LTR	0.62	34.7	C	123	LTR	0.63	35.0	C	124		LTR	0.61	41.3	D	116	
	Westbound	LTR	0.53	27.5	C	113	LTR	0.54	27.7	C	113		LTR	0.59	41.6	D	163	
	Northbound	TR	1.04	80.4	F	380	TR	1.24	150.2	F	463	+	TR	0.94	45.2	D	511	
	Southbound	LT	1.83	410.8	F	345	LT	3.42	1119.1	F	449	+	LT	1.52	271.8	F	563	
		Intersection		172.3	F		Intersection		445.7	F			Intersection		120.3	F		

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27	**Van Duzer Street and Beach Street**																	
	Eastbound	LT	0.65	33.9	C	212	LT	0.71	37.4	D	253		LT	0.71	37.4	D	253	
	Westbound	TR	0.31	23.9	C	99	TR	0.33	24.2	C	105		TR	0.33	24.2	C	105	
	Northbound	L	0.29	12.1	B	121	L	0.30	12.2	B	125		L	0.30	12.2	B	125	
		TR	0.44	14.3	B	184	TR	0.45	14.5	B	189		TR	0.45	14.5	B	189	
		Intersection		20.1	C		Intersection		21.3	C			Intersection		21.3	C		
28	**Bay Street and Water Street**																	
	Westbound	LTR	0.31	27.3	C	84	LTR	0.31	27.3	C	84		LTR	0.41	34.7	C	93	
	Northbound	L	1.74	359.2	F	107	L	1.82	394.9	F	94	+	L	1.78	374.1	F	103	+
		T	1.06	61.3	E	200	T	1.20	108.0	F	190	+	T	1.08	63.5	E	309	
	Southbound	TR	1.46	240.6	F	1067	TR	1.57	290.6	F	1183	+	TR	1.41	211.8	F	1221	
		Intersection		169.3	F		Intersection		213.7	F			Intersection		154.2	F		
29	**Bay Street and Canal Street**																	
	Eastbound	L	0.62	145.5	F	163	L	0.62	145.2	F	161		L	0.93	144.8	F	231	
		TR	0.25	20.8	C	85	TR	0.25	20.7	C	84		TR	0.40	30.3	C	120	
	Westbound	LTR	0.20	134.0	F	52	LTR	0.25	134.8	F	64		LTR	0.38	86.2	F	88	
	Northbound	TR	1.17	97.7	F	77	TR	1.35	180.0	F	86	+	TR	1.12	73.5	E	83	
	Southbound	LT	3.56	1167.3	F	664	LT	3.88	1309.0	F	677	+	T	1.32	162.6	F	609	
		Intersection		606.5	F		Intersection		697.7	F			Intersection		117.3	F		
30	**Front Street and Canal Street**																	
	Eastbound	LR	0.65	30.2	C	110	LR	0.73	35.1	D	141		LR	0.56	29.5	C	122	
	Northbound	LT	0.53	12.8	B	165	LT	0.61	14.4	B	200		LT	0.63	21.1	C	300	
	Southbound	TR	0.44	10.4	B	63	TR	0.52	11.1	B	55		TR	0.54	14.8	B	109	
		Intersection		15.3	B		Intersection		17.1	B			Intersection		20.2	C		
31	**Bay Street and Broad Street**																	
	Eastbound	LR	0.30	25.2	C	127	LR	0.38	25.1	C	155							
													L	0.44	33.2	C	151	
													R	0.19	29.7	C	56	
	Northbound	LT	3.24	1024.5	F	244	LT	3.95	1343.8	F	189	+	LT	3.18	999.0	F	139	
	Southbound	T	1.35	180.6	F	108	T	1.46	229.5	F	112	+	T	1.24	128.4	F	246	
		R	0.20	6.3	A	0	R	0.24	6.6	A	0		R	0.21	3.4	A	8	
		Intersection		482.3	F		Intersection		630.6	F			Intersection		449.8	F		
32	**Richmond Terrace and Clove Road**																	
	Eastbound	LT	0.76	19.4	B	333	LT	0.81	22.1	C	368		LT	0.81	22.1	C	368	
		R	0.13	6.8	A	38	R	0.13	7.0	A	38		R	0.13	7.0	A	38	
	Westbound	L	0.47	15.6	B	37	L	0.60	25.6	C	121		L	0.60	25.6	C	121	
		TR	0.69	12.3	B	177	TR	0.73	13.8	B	197		TR	0.73	13.8	B	197	
	Northbound	LTR	0.27	22.7	C	31	LTR	0.28	22.9	C	32		LTR	0.28	22.9	C	32	
		Intersection		16.0	B		Intersection		18.3	B			Intersection		18.3	B		
35	**Victory Boulevard and Cebra Avenue**																	
	Eastbound	L	0.27	29.4	C	47	L	0.29	30.2	C	48		L	0.38	38.6	D	52	
		TR	0.50	31.2	C	153	TR	0.50	31.2	C	153		TR	0.59	37.5	D	164	
	Westbound	L	0.32	29.5	C	68	L	0.35	30.2	C	73		L	0.45	37.4	D	79	
		TR	0.55	32.1	C	176	TR	0.59	33.6	C	190		TR	0.71	42.2	D	203	
	Northbound	LTR	0.92	37.7	D	663	LTR	0.99	51.6	D	743	+	LTR	0.91	33.7	D	698	
	Southbound	LTR	1.07	65.3	E	561	LTR	1.18	110.3	F	613	+	LTR	1.08	62.6	E	566	
		Intersection		46.3	D		Intersection		68.6	E			Intersection		46.2	D		
36	**Victory Boulevard and Jersey Street**																	
	Eastbound	L	0.74	36.0	D	40	L	1.10	105.5	F	99	+	L	1.10	110.2	F	107	+
		T	1.00	42.9	D	509	T	1.06	57.9	E	500	+	T	1.06	59.8	E	555	+
	Westbound	T	1.00	50.2	D	664	T	1.05	63.6	E	710	+	T	1.05	63.3	E	710	+
		R	0.12	6.4	A	24	R	0.19	6.9	A	34		R	0.19	6.9	A	34	
	Southbound	LR	0.38	25.4	C	112	LR	0.56	30.1	C	154		LR	0.56	30.1	C	154	
		Intersection		42.6	D		Intersection		57.5	E			Intersection		58.5	E		
38	**Victory Boulevard and Forest Avenue**																	
	Eastbound	LR	0.57	29.4	C	162	LR	0.59	29.9	C	170		LR	0.64	32.5	C	175	
	Northbound	L	0.92	67.8	E	238	L	1.03	99.1	F	252	+	L	0.90	63.0	E	236	
		T	0.63	19.8	B	326	T	0.67	21.1	C	361		T	0.64	19.0	B	341	
	Southbound	T	0.78	64.8	E	448	T	0.82	78.6	E	538	+	T	0.79	67.0	E	462	
		R	0.33	3.0	A	37	R	0.34	3.1	A	38		R	0.33	2.9	A	36	
		Intersection		37.7	D		Intersection		44.6	D			Intersection		38.2	D		

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	Broad Street and Canal Street																	
	Eastbound	L	0.27	9.5	A	65	L	0.28	9.7	A	64		L	0.28	9.7	A	64	
		TR	0.25	8.6	A	70	TR	0.29	9.2	A	89		TR	0.29	9.2	A	89	
41	Westbound	LTR	0.28	13.4	B	120	LTR	0.33	14.2	B	144		LTR	0.37	12.7	B	138	
	Northbound	L	0.28	25.8	C	68	L	0.28	25.8	C	68		L	0.28	25.8	C	68	
		TR	0.41	26.9	C	158	TR	0.42	27.0	C	160		TR	0.42	27.0	C	160	
	Southbound	LT	0.29	24.7	C	113	LT	0.30	24.9	C	117		LT	0.30	24.9	C	117	
		Intersection		17.8	B		Intersection		17.7	B			Intersection		17.4	B		
	Broad Street and Van Duzer Street																	
	Westbound	L	0.66	68.3	E	173	L	0.70	66.6	E	177		L	0.70	66.7	E	177	
42	Southbound	L	0.11	5.1	A	45	L	0.11	5.9	A	49		L	0.11	5.9	A	49	
		T	0.34	6.5	A	144	T	0.36	7.5	A	161		T	0.36	7.5	A	161	
		Intersection		22.4	C		Intersection		24.5	C			Intersection		24.5	C		
	Broad Street and Targee Street																	
	Eastbound	LT	0.22	30.9	C	119	LT	0.22	30.2	C	120		LT	0.22	30.2	C	120	
43	Westbound	TR	0.37	23.3	C	137	TR	0.43	24.6	C	163		TR	0.43	24.2	C	163	
	Northbound	LT	0.58	16.8	B	265	LT	0.59	17.0	B	272		LT	0.59	17.0	B	272	
		R	0.27	12.0	B	89	R	0.33	12.8	B	112		R	0.33	12.9	B	112	
		Intersection		19.0	B		Intersection		19.3	B			Intersection		19.3	B		
	Vanderbilt Avenue and Tompkins Avenue																	
	Eastbound	LTR	0.81	32.3	C	445	LTR	0.88	38.6	D	502		LTR	0.88	38.6	D	502	
44	Westbound	LTR	0.53	4.4	A	33	LTR	0.60	4.5	A	35		LTR	0.60	8.3	A	58	
	Northbound	LTR	0.83	44.8	D	273	LTR	0.86	48.2	D	304		LTR	0.86	48.2	D	304	
	Southbound	LTR	0.61	29.6	C	248	LTR	0.61	29.7	C	248		LTR	0.61	29.7	C	248	
		Intersection		27.9	C		Intersection		30.4	C			Intersection		31.3	C		
	Bay Street and Vanderbilt Avenue																	
	Eastbound	L	0.38	28.7	C	124	L	0.47	30.4	C	150		L	0.52	33.3	C	156	
		R	0.20	26.6	C	51	R	0.20	26.6	C	48		R	0.22	29.0	C	50	
45	Northbound	LT	8.16	3246.2	F	1218	LT	8.99	3616.1	F	1306	+	LT	7.98	3162.5	F	1277	
	Southbound	T	1.28	145.4	F	483	T	1.36	180.9	F	475	+	T	1.28	140.4	F	569	
		R	0.35	1.5	A	9	R	0.40	1.7	A	10		R	0.37	1.4	A	10	
		Intersection		1195.9	F		Intersection		1332.5	F			Intersection		1159.0	F		
	Bay Street and Edgewater Drive																	
	Westbound	LR	0.30	22.5	C	105	LR	0.35	23.0	C	121		LR	0.37	24.7	C	126	
47	Northbound	TR	0.60	16.8	B	84	TR	0.68	17.6	B	85		TR	0.65	15.5	B	78	
	Southbound	T	1.01	36.9	D	328	T	1.06	55.9	E	324	+	T	1.02	38.1	D	336	
	Northwestbound	R	0.37	3.8	A	25	R	0.39	5.6	A	42		R	0.40	6.0	A	43	
		Intersection		24.1	C		Intersection		31.7	C			Intersection		24.4	C		
	Bay Street and Hylan Boulevard																	
	Eastbound	LTR	1.06	77.9	E	551	LTR	1.15	110.3	F	614	+	LTR	1.15	111.0	F	614	+
	Westbound	LTR	0.65	41.9	D	185	LTR	0.66	42.4	D	187		LTR	0.66	42.4	D	187	
48	Northbound	LTR	4.39	1540.4	F	709	LTR	5.23	1909.6	F	720	+	LTR	5.23	1916.8	F	814	+
	Southbound	T	1.10	90.6	F	529	T	1.20	128.0	F	580	+	T	1.20	128.8	F	615	+
		R	0.63	18.8	B	179	R	0.68	19.5	B	190		R	0.68	19.4	B	202	
		Intersection		515.8	F		Intersection		657.8	F			Intersection		657.9	F		
	Bay Street and School Road																	
	Eastbound	L	1.39	210.7	F	831	L	1.55	280.1	F	946	+	L	1.37	199.5	F	901	
		TR	0.09	8.3	A	28	TR	0.09	8.3	A	28		TR	0.08	6.8	A	25	
49	Westbound	LTR	0.01	15.3	B	9	LTR	0.01	15.3	B	10		LTR	0.01	12.5	B	9	
	Northbound	LTR	0.10	13.9	B	46	LTR	0.10	13.9	B	46		LTR	0.11	16.9	B	51	
	Southbound	LTR	0.19	19.9	B	65	LTR	0.20	20.3	C	63		LTR	0.23	21.0	C	65	
		R	0.70	11.3	B	153	R	0.74	12.2	B	137		R	0.74	12.2	B	137	
		Intersection		98.3	F		Intersection		131.3	F			Intersection		95.8	F		

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn, LOS = Level of Service, "+" implies a significant adverse impact.

Table 22-46: Unsignalized Level of Service Analysis – Weekday AM Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
4	**Hamilton Avenue and Stuyvesant Place**																	
	Southbound	TR	0.54	21.2	C	78	TR	0.54	21.5	C	80		TR	0.54	21.5	C	80	
6	**Wall Street and Stuyvesant Place**																	
	Eastbound	R	0.44	18.6	C	56	R	0.45	18.7	C	56		R	0.45	18.7	C	56	
	Southbound	L	0.35	42.9	E	36	L	0.35	43.4	E	36		L	0.35	43.4	E	36	
16	**Van Duzer Street and St Julian Place**																	
	Westbound	R	0.03	15.7	C	2	R	0.03	16.1	C	2		R	0.03	16.1	C	2	
17	**Bay Street and St Julian Place**																	
	Eastbound	LTR	0.14	16.4	C	12	LTR	0.13	15.4	C	11		LTR	0.13	15.4	C	11	
	Westbound	LTR	0.02	10.3	B	2	LTR	0.02	10.0	A	2		LTR	0.02	10.3	B	2	
	Northbound	LTR	0.01	0.4	A	1	LTR	0.01	0.4	A	1		LTR	0.01	0.4	A	1	
18	**Bay Street and Grant Street**																	
	Eastbound	LTR	0.62	56.1	F	86	LTR	0.71	73.8	F	104	+	**Signalized**					
	Westbound	R	0.02	9.6	A	2	R	0.02	9.5	A	1							
21	**Bay Street and Baltic Street**																	
	Eastbound	LTR	0.45	58.9	F	49	LTR	0.98	241.8	F	109		**Signalized**					
	Westbound	LTR	0.06	68.3	F	5	LTR	0.26	312.2	F	18							
	Southbound	LT	0.00	0.0	--	0	LT	0.00	0.0	--	0							
22	**Bay Street and William Street**																	
	Eastbound	LR	0.58	48.6	E	77	LR	1.01	163.0	F	163	+	LR	1.57	413.3	F	236	+
	Northbound	LT	0.01	0.4	A	1	LT	0.02	0.8	A	2		LT	0.02	0.9	A	2	
23	**Bay Street and Congress Street**																	
	Eastbound	LR	0.04	23.2	C	3	LR	0.08	44.6	E	6		LR	0.12	66.6	F	10	
	Northbound	LT	0.01	0.3	A	1	LT	0.02	1.0	A	2		LT	0.03	1.1	A	2	
33	**Jersey Street and Brook Street**																	
	Westbound	LR	0.16	11.4	B	14	LR	0.17	12.0	B	16		LR	0.17	12.0	B	16	
	Southbound	LT	0.12	4.8	A	11	LT	0.13	4.7	A	11		LT	0.13	4.7	A	11	
34	**Pike Street and Brook Street**																	
	Westbound	LT	0.02	1.6	A	2	LT	0.02	1.6	A	2		LT	0.02	1.6	A	2	
37	**Pike Street and Victory Boulevard**																	
	Southbound	LR	0.14	20.6	C	12	LR	0.22	32.6	D	20		LR	0.23	33.6	D	21	
39	**Hudson Street and Cedar Street**																	
	Eastbound	LTR	0.03	10.4	B	3	LTR	0.03	10.4	B	3		LTR	0.03	10.4	B	3	
	Westbound	LTR	0.00	11.0	B	0	LTR	0.00	11.0	B	0		LTR	0.00	11.0	B	0	
	Northbound	LTR	0.01	1.0	A	1	LTR	0.01	1.0	A	1		LTR	0.01	1.0	A	1	
	Southbound	LTR	0.00	0.0	--	0	LTR	0.00	0.0	--	0		LTR	0.00	0.0	--	0	
40	**Broad Street and Cedar Street**																	
	Eastbound	LTR	0.05	1.4	A	4	LTR	0.05	1.4	A	4		LTR	0.05	1.4	A	4	
	Westbound	LT	0.00	0.1	A	0	LT	0.00	0.1	A	0		LT	0.00	0.1	A	0	
	Northbound	LTR	0.00	0.0	A	0	LTR	0.00	0.0	A	0		LTR	0.00	0.0	A	0	
	Southbound	LR	0.46	33.0	D	55	LR	0.55	44.4	E	72		LTR	0.55	44.4	E	67	

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service, -- = Approach has no volume recorded during this peak hour, "+" implies a significant adverse impact, Err = v/c or delay exceeds the maximum limit reportable in the analysis software

Table 22-46 (con't): Unsignalized Level of Service Analysis – Weekday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions					With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
4	**Hamilton Avenue and Stuyvesant Place**																
	Southbound	TR	0.25	13.6	B	25	TR	0.26	13.8	B	26	TR	0.26	13.8	B	26	
6	**Wall Street and Stuyvesant Place**																
	Eastbound	R	0.31	13.4	B	34	R	0.32	13.5	B	34	R	0.32	13.5	B	34	
	Southbound	L	0.10	23.9	C	8	L	0.10	24.0	C	8	L	0.10	24.0	C	8	
16	**Van Duzer Street and St Julian Place**																
	Westbound	R	0.04	14.2	B	3	R	0.04	15.0	C	3	R	0.04	15.0	C	3	
17	**Bay Street and St Julian Place**																
	Eastbound	LTR	0.19	24.4	C	17	LTR	0.16	21.1	C	14	LTR	0.22	28.6	D	20	
	Westbound	LTR	0.04	10.8	B	3	LTR	0.04	10.4	B	3	LTR	0.05	11.9	B	4	
	Northbound	LTR	0.02	0.7	A	2	LTR	0.02	0.6	A	2	LTR	0.02	0.6	A	2	
18	**Bay Street and Grant Street**																
	Eastbound	LTR	8.60	Err	F	Err	LTR	5.23	Err	F	Err	**Signalized**					
	Westbound	R	0.08	10.1	B	6	R	0.08	10.4	B	6						
21	**Bay Street and Baltic Street**																
	Eastbound	LTR	3.03	Err	F	Err	LTR	2.11	1284.3	F	87	**Signalized**					
	Westbound	LTR	Err	Err	F	Err	LTR	Err	Err	F	Err						
	Southbound	LT	0.02	2.8	A	2	LT	0.02	4.0	A	2						
22	**Bay Street and William Street**																
	Eastbound	LR	4.41	Err	F	Err	LR	4.19	Err	F	Err	LR	8.47	Err	F	Err	
	Northbound	LT	0.15	25.8	D	12	LT	0.13	22.4	C	11	LT	0.31	146.5	F	32	+
23	**Bay Street and Congress Street**																
	Eastbound	LR	0.35	213.2	F	27	LR	0.35	208.5	F	27	LR	0.91	732.3	F	45	
	Northbound	LT	0.00	0.0	--	0	LT	0.00	0.0	--	0	LT	0.00	0.0	--	0	
33	**Jersey Street and Brook Street**																
	Westbound	LR	0.22	11.9	B	21	LR	0.25	13.0	B	25	LR	0.25	13.0	B	25	
	Southbound	LT	0.10	3.7	A	9	LT	0.11	3.7	A	9	LT	0.11	3.7	A	9	
34	**Pike Street and Brook Street**																
	Westbound	LT	0.03	1.3	A	2	LT	0.03	1.3	A	2	LT	0.03	1.3	A	2	
37	**Pike Street and Victory Boulevard**																
	Southbound	LR	0.47	59.7	F	52	LR	1.12	295.8	F	124	LR	1.12	295.8	F	124	
39	**Hudson Street and Cedar Street**																
	Eastbound	LTR	0.02	10.1	B	2	LTR	0.02	9.9	A	2	LTR	0.02	9.9	A	2	
	Westbound	LTR	0.00	10.5	B	0	LTR	0.00	10.4	B	0	LTR	0.00	10.4	B	0	
	Northbound	LTR	0.01	1.1	A	1	LTR	0.01	1.1	A	1	LTR	0.01	1.1	A	1	
	Southbound	LTR	0.00	0.0	--	0	LTR	0.00	0.0	--	0	LTR	0.00	0.0	--	0	
40	**Broad Street and Cedar Street**																
	Eastbound	LTR	0.05	1.6	A	4	LTR	0.05	1.5	A	4	LTR	0.05	1.5	A	4	
	Westbound	LT	0.03	0.9	A	2	LT	0.03	0.9	A	2	LT	0.03	0.9	A	2	
	Northbound	LTR	0.00	13.0	B	0	LTR	0.00	13.5	B	0	LTR	0.00	13.5	B	0	
	Southbound	LR	0.68	80.0	F	92	LR	0.67	76.3	F	90	LTR	0.67	76.3	F	90	

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Table 22-46 (con't): Unsignalized Level of Service Analysis – Weekday PM Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions						With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
4	**Hamilton Avenue and Stuyvesant Place**																	
	Southbound	TR	0.18	11.8	B	16	TR	0.19	11.9	B	17		TR	0.19	11.9	B	17	
6	**Wall Street and Stuyvesant Place**																	
	Eastbound	R	0.30	13.8	B	31	R	0.30	13.9	B	32		R	0.30	13.9	B	32	
	Southbound	L	0.14	23.3	C	12	L	0.14	23.4	C	12		L	0.14	23.4	C	12	
16	**Van Duzer Street and St Julian Place**																	
	Westbound	R	0.03	12.1	B	3	R	0.04	12.8	B	3		R	0.04	12.8	B	3	
17	**Bay Street and St Julian Place**																	
	Eastbound	LTR	0.11	19.3	C	10	LTR	0.11	18.4	C	9		LTR	0.13	22.3	C	11	
	Westbound	LTR	0.01	14.7	B	1	LTR	0.01	13.1	B	1		LTR	0.02	15.4	C	1	
	Northbound	LTR	0.01	0.2	A	1	LTR	0.01	0.0	A	1		LTR	0.01	0.3	A	1	
18	**Bay Street and Grant Street**																	
	Eastbound	LTR	5.65	Err	F	Err	LTR	11.82	Err	F	Err		**Signalized**					
	Westbound	R	0.08	9.7	A	7	R	0.08	9.8	A	7							
21	**Bay Street and Baltic Street**																	
	Eastbound	LTR	1.30	683.4	F	76	LTR	2.69	1721.9	F	91		**Signalized**					
	Westbound	LTR	1.17	2659.2	F	25	LTR	Err	Err	F	Err							
	Southbound	LT	0.00	0.2	A	0	LT	0.01	3.0	A	1							
22	**Bay Street and William Street**																	
	Eastbound	LR	3.01	Err	F	Err	LR	6.06	Err	F	Err	+	LR	11.83	Err	F	Err	+
	Northbound	LT	0.14	13.8	B	12	LT	0.28	75.4	F	24	+	LT	0.56	248.4	F	44	+
23	**Bay Street and Congress Street**																	
	Eastbound	LR	0.40	155.2	F	34	LR	0.52	226.6	F	42		LR	0.77	394.4	F	53	
	Northbound	LT	0.03	2.1	A	2	LT	0.05	10.1	B	4		LT	0.10	34.4	D	8	+
33	**Jersey Street and Brook Street**																	
	Westbound	LR	0.19	11.8	B	17	LR	0.21	12.6	B	19		LR	0.21	12.6	B	19	
	Southbound	LT	0.08	3.0	A	6	LT	0.08	2.9	A	7		LT	0.08	2.9	A	7	
34	**Pike Street and Brook Street**																	
	Westbound	LT	0.03	1.7	A	2	LT	0.03	1.7	A	2		LT	0.03	1.7	A	2	
37	**Pike Street and Victory Boulevard**																	
	Southbound	LR	0.30	35.6	E	30	LR	0.86	191.7	F	97		LR	0.86	190.3	F	97	
39	**Hudson Street and Cedar Street**																	
	Eastbound	LTR	0.03	9.3	A	2	LTR	0.02	9.2	A	2		LTR	0.02	9.2	A	2	
	Westbound	LTR	0.00	0.0	A	0	LTR	0.00	0.0	A	0		LTR	0.00	0.0	A	0	
	Northbound	LTR	0.01	1.7	A	1	LTR	0.01	1.8	A	1		LTR	0.01	1.8	A	1	
	Southbound	LTR	0.01	4.1	A	1	LTR	0.01	4.2	A	1		LTR	0.01	4.2	A	1	
40	**Broad Street and Cedar Street**																	
	Eastbound	LTR	0.02	0.9	A	2	LTR	0.02	0.8	A	2		LTR	0.02	0.8	A	2	
	Westbound	LT	0.01	0.2	A	1	LT	0.01	0.2	A	1		LT	0.01	0.2	A	1	
	Northbound	LTR	0.00	0.0	A	0	LTR	0.00	0.0	A	0		LTR	0.00	0.0	A	0	
	Southbound	LR	0.17	28.8	D	15	LR	0.20	32.8	D	18		LTR	0.20	32.8	D	18	

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service, -- = Approach has no volume recorded during this peak hour, "+" implies a significant adverse impact, Err = v/c or delay exceeds the maximum limit reportable in the analysis software

Table 22-46 (con't): Unsignalized Level of Service Analysis – Saturday MD Peak Hour No-Action, With-Action, and Mitigated Conditions: A-Text Alternative

#	Intersection & Approach	No-Action Conditions					With-Action Conditions					With-Action With Mitigation Conditions					
		Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	Lane Group	v/c Ratio	Delay (sec)	LOS	Queue Length (ft)	
4	**Hamilton Avenue and Stuyvesant Place**																
	Southbound	TR	0.15	11.8	B	13	TR	0.16	12.0	B	14	TR	0.16	12.0	B	14	
6	**Wall Street and Stuyvesant Place**																
	Eastbound	R	0.17	11.0	B	15	R	0.17	11.0	B	15	R	0.17	11.0	B	15	
	Southbound	L	0.08	15.0	C	6	L	0.08	15.1	C	6	L	0.08	15.1	C	6	
16	**Van Duzer Street and St Julian Place**																
	Westbound	R	0.04	11.7	B	3	R	0.04	12.1	B	3	R	0.04	12.1	B	3	
17	**Bay Street and St Julian Place**																
	Eastbound	LTR	0.09	17.9	C	8	LTR	0.08	15.8	C	6	LTR	0.10	19.8	C	9	
	Westbound	LTR	0.02	13.2	B	2	LTR	0.02	11.7	B	2	LTR	0.03	14.4	B	2	
	Northbound	LTR	0.01	0.2	A	1	LTR	0.01	0.2	A	1	LTR	0.01	0.2	A	1	
18	**Bay Street and Grant Street**																
	Eastbound	LTR	4.08	Err	F	Err	LTR	5.05	Err	F	Err	**Signalized**					
	Westbound	R	0.09	9.9	A	8	R	0.10	10.2	B	8						
21	**Bay Street and Baltic Street**																
	Eastbound	LTR	1.39	675.4	F	86	LTR	2.18	1219.8	F	98	**Signalized**					
	Westbound	LTR	5.02	Err	F	Err	LTR	Err	Err	F	Err						
	Southbound	LT	0.00	0.0	--	0	LT	0.00	0.0	--	0						
22	**Bay Street and William Street**																
	Eastbound	LR	1.81	568.0	F	219	LR	2.92	1118.7	F	283	LR	5.65	Err	F	Err	
	Northbound	LT	0.07	6.5	A	6	LT	0.09	12.1	B	7	LT	0.21	72.6	F	17	+
23	**Bay Street and Congress Street**																
	Eastbound	LR	0.09	96.7	F	7	LR	0.13	140.5	F	10	LR	0.38	481.2	F	22	
	Northbound	LT	0.01	1.2	A	1	LT	0.02	141.2	A	1	LT	0.04	10.8	B	3	
33	**Jersey Street and Brook Street**																
	Westbound	LR	0.15	10.6	B	13	LR	0.16	11.1	B	14	LR	0.16	11.1	B	14	
	Southbound	LT	0.05	2.2	A	4	LT	0.05	2.2	A	4	LT	0.05	2.2	A	4	
34	**Pike Street and Brook Street**																
	Westbound	LT	0.02	1.4	A	1	LT	0.02	1.5	A	1	LT	0.02	1.5	A	1	
37	**Pike Street and Victory Boulevard**																
	Southbound	LR	0.31	48.4	E	30	LR	0.57	117.0	F	59	LR	0.57	117.0	F	59	
39	**Hudson Street and Cedar Street**																
	Eastbound	LTR	0.02	9.6	A	2	LTR	0.02	9.5	A	2	LTR	0.02	9.5	A	2	
	Westbound	LTR	0.00	9.2	A	0	LTR	0.00	9.2	A	0	LTR	0.00	9.2	A	0	
	Northbound	LTR	0.01	2.0	A	1	LTR	0.01	2.0	A	1	LTR	0.01	1.9	A	1	
	Southbound	LTR	0.00	0.0	--	0	LTR	0.00	0.0	--	0	LTR	0.00	0.0	--	0	
40	**Broad Street and Cedar Street**																
	Eastbound	LTR	0.01	0.4	A	1	LTR	0.01	0.3	A	1	LTR	0.01	0.3	A	1	
	Westbound	LT	0.01	0.4	A	1	LT	0.01	0.4	A	1	LT	0.01	0.0	A	1	
	Northbound	LTR	0.01	19.1	C	1	LTR	0.03	21.7	C	1	LTR	0.02	21.7	C	1	
	Southbound	LR	0.21	30.3	D	19	LR	0.22	31.6	D	20	LTR	0.22	31.6	D	20	

Notes: L = Left Turn, T = Through, R = Right Turn, DefL = Defacto Left Turn; LOS = Level of Service, -- = Approach has no volume recorded during this peak hour, "+" implies a significant adverse impact, Err = v/c or delay exceeds the maximum limit reportable in the analysis software

TRANSIT (SIR)

As shown in Table 22-41, the A-Text Alternative would generate one and five fewer incremental SIR trips during the Weekday AM and PM peak hours, respectively, compared to the Proposed Actions. Since no significant adverse SIR impacts are expected as a result of the Proposed Actions, and the A-Text Alternative would generate fewer SIR trips during the Weekday AM and PM peak hours, it can be concluded that the incremental trips generated under the A-Text Alternative would not result in significant adverse SIR impacts during the Weekday AM and PM peak hours.

TRANSIT (BUS)

As shown in Table 22-41, the A-Text Alternative would generate 80 and 150 additional incremental bus trips during the Weekday AM and PM peak hours, respectively, compared to the Proposed Actions. Since the A-Text Alternative would generate more bus trips than the Proposed Actions, significant adverse bus impacts are expected on the northbound and southbound S51/81, S74/84, S76/86, and S78 buses during the Weekday AM and PM peak hours.

These significant adverse impacts could be fully mitigated by the addition of two to seven additional standard buses to each direction of each route during both peak hours, as shown in Table 22-47. Between two and six additional standard buses would be needed to fully mitigate the significant adverse bus impacts for the Proposed Actions. Therefore, the A-Text Alternative would require one additional peak hour bus to mitigate the bus line haul impacts compared to the Proposed Actions. The general policy of NYCT is to provide additional bus service where demand warrants, taking into account financial and operational constraints.

Table 22-47: A-Text Alternative:
Local Bus Line Haul Analysis

Route	Peak Direction	Maximum Load Point	Peak Hour Buses [1]	Peak Hour Passengers	Average Passengers Per Bus	Total Capacity [2]	Available Capacity	Additional Buses for Mitigation	Total Mitigated Peak Hours Buses	Available Capacity with Mitigation
Weekday AM										
S51/81	NB	Bay Street and Canal Street	7	660	94	378	-282	6	13	42
S51/81	SB	Bay Street and Victory Boulevard	4	340	85	216	-124	3	7	38
S74/84	NB	Bay Street and Victory Boulevard	6	522	87	324	-198	4	10	18
S74/84	SB	Richmond Road and Clove Road	4	343	86	216	-127	3	7	35
S76/86	NB	Bay Street and Victory Boulevard	7	713	102	378	-335	7	14	43
S76/86	SB	Richmond Road and Clove Road	6	428	71	324	-104	2	8	4
S78	NB	Bay Street and Victory Boulevard	6	573	95	324	-249	5	11	21
S78	SB	Hylan Boulevard and Clove Road	7	485	69	378	-107	2	9	1
Weekday PM										
S51/81	NB	Bay Street and Victory Boulevard	4	500	125	216	-284	6	10	40
S51/81	SB	Bay Street and Victory Boulevard	7	555	79	378	-177	4	11	39
S74/84	NB	Targee Street and DeKalb Street	4	329	82	216	-113	3	7	49
S74/84	SB	Bay Street and Victory Boulevard	5	417	83	270	-147	3	8	15
S76/86	NB	Bay Street and Victory Boulevard	4	442	110	216	-226	5	9	44
S76/86	SB	Bay Street and Victory Boulevard	5	520	104	270	-250	5	10	20
S78	NB	Hylan Boulevard and Clove Road	4	395	99	216	-179	4	8	37
S78	SB	Bay Street and Victory Boulevard	5	423	85	270	-153	3	8	9

Notes:
(1) Based on most currently available data from NYCT/MTA.
(2) Available capacity based on a maximum of 54 passengers per bus (40-foot standard buses).

PEDESTRIAN

The A-Text Alternative is expected to generate 2,981, 3,489, 3,563, and 3,023 incremental pedestrian (SIR, bus, and walk-only) trips during the Weekday AM, MD, PM, and Saturday MD peak hours, respectively. This represents a 51.6, 11.7, and 4.1 percent increase in the Weekday AM, MD, and PM peak hours, respectively, and a 3.4 percent decrease in the Saturday MD peak hour compared to the pedestrian trips generated by the Proposed Actions.

Corners

As shown in Table 22-48 all corners are expected to operate at LOS C or better during the With-Action condition under the A-Text Alternative. In comparison, all corners are expected to operate at LOS B or better under the Proposed Actions. However, the A-Text Alternative would not result in any significant adverse corner impacts.

Sidewalks

As shown in Table 22-49, eight of the 28 sidewalks studied are expected to experience a significant adverse impact during the non-platoon conditions due to the addition of pedestrian trips generated by the A-Text Alternative, compared to the six sidewalk impacts under the Proposed Actions. The two sidewalks where new impacts were identified for the A-Text Alternative under non-platoon conditions include:

- Front St and Wave St, north leg, east sidewalk (Weekday AM)

- Front St and Baltic St, north leg, west sidewalk (Weekday AM, MD, PM)

Based on a review of platoon conditions, ten of the 28 sidewalks studied are expected to experience a significant adverse impact under the A-Text Alternative, compared to the 11 sidewalk impacts under the Proposed Actions. The following sidewalk would no longer experience a significant adverse impact under platoon conditions as a result of the A-Text Alternative:

- Jersey St and Victory Blvd, east leg, south sidewalk

Due to the constrained right-of-way, mitigation measures to address the potential significant adverse pedestrian impacts for the ten sidewalks would not feasible. Therefore, these sidewalks could not be mitigated and the impacts are considered significant and unavoidable.

Table 22-48: Corner Conditions:
With-Action A-Text Alternative

	Peak Hour Volume				Available Circulation Space (ft^2/p)				Corner Circulation LOS			
	Weekday			SAT	Weekday			SAT	Weekday			Sat
Location	AM	MD	PM	MD	AM	MD	PM	MD	AM	MD	PM	MD
Bay St and Victory Blvd (SE corner)	881	1490	1100	857	783.4	435.3	568.8	756	A	A	A	A
Bay St and Victory Blvd (SW corner)	779	1268	903	741	191.8	113.2	175.5	224.3	A	A	A	A
Bay St and Hannah St (NE corner)	610	1381	1019	878	346	100.3	140.1	152.8	A	A	A	A
Bay St and Hannah St (SE corner)	793	1541	1175	1026	147.1	92.7	157	159.7	A	A	A	A
Bay St and Hannah St (NW corner)	420	822	580	524	258.1	88.6	127.1	172.3	A	A	A	A
Bay St and Swan St (SW corner)	252	634	509	470	658.1	247.7	373	358.7	A	A	A	A
Bay St and Clinton St (SW corner)	185	472	355	374	337	80	113.2	151.2	A	A	A	A
Bay St and Clinton St (NW corner)	185	445	381	359	287.4	117.7	131.4	167.1	A	A	A	A
Bay St and Wave St (NE corner)	540	1141	1039	1102	129.8	57.3	55.3	45.3	A	B	B	B
Bay St and Wave St (SE corner)	593	1029	1040	1077	116.8	58.4	40.3	42.6	A	B	B	B
Bay St and Wave St (SW corner)	304	770	719	734	186.8	56.4	44.8	54	A	B	B	B
Bay St and Wave St (NW corner)	300	809	699	724	245.7	81.9	71.3	83.9	A	A	A	A
Front St and Hannah St (SW corner)	677	1018	607	552	44.7	40.1	83.2	56.2	B	B	A	B
Front St and Hannah St (NW corner)	255	379	201	172	28.6	77.4	44	52.6	C	A	B	B
Jersey St and Victory Blvd (NE corner)	236	390	303	328	205.1	102	139.1	120.4	A	A	A	A
Bay St and Minthorne St (NE corner)*	401	1121	807	783								
Bay St and Minthorne St (SE corner)*	383	1116	801	779								

Note: - *Level of Service cannot be generated for unsignalized intersections, "+" implies a significant adverse impact.

Table 22-49: Sidewalk Conditions: With-Action A-Text Alternative

Location	Total Width (ft.)	Obstruction Width (ft.)	Effective Width	Available Circulation Space (ft^2/p)				Non-Platoon Conditions LOS				Platoon Conditions LOS			
				Weekday			Sat	Weekday			Sat	Weekday			Sat
				AM	MD	PM	MD	AM	MD	PM	MD	AM	MD	PM	MD
Bay St and Victory Blvd (S leg, E sidewalk)	20	11.5	8.5	124.5	71.5	82.2	66.2	A	A	A	A	B	C	C	C
Bay St and Hannah St (N leg, E sidewalk)	20	11.5	8.5	111.1	51.5	53.7	62.8	A	B	B	A	B	C	C	C
Bay St and Hannah St (E leg, N sidewalk)	5	4.5	0.5	7.2	0.7	9.5	8.8	F +	F +	E +	E +	E +	F +	F +	F +
Bay St and Hannah St (S leg, E sidewalk)	7	3	4	97.5	54.0	49.2	58.7	A	B	B	B	B	C	C	C
Bay St and Hannah St (E leg, S sidewalk)	3.5	3	0.5	-4.2	0.7	4.3	11.3	F +	F +	F +	E +	F +	F +	F +	E +
Bay St and Swan St (S leg, W sidewalk)	14.5	11	3.5	77.0	41.3	48.9	50.0	A	B	B	B	C	C	C	C
Bay St and Clinton St (N leg, E sidewalk)	13	8	5	106.5	64.9	64.5	93.4	A	A	A	A	B	C	C	B
Bay St and Clinton St (N leg, W sidewalk)	8.5	6.8	1.8	108.1	40.3	40.6	45.8	A	B	B	B	B	C	C	C
Bay St and Baltic St (N leg, E sidewalk)	16	9.5	6.5	192.6	118.7	108.4	89.9	A	A	A	A	B	B	B	C
Bay St and Baltic St (N leg, W sidewalk)	4.5	3.5	1	75.9	27.5	28.7	30.5	A	C	C	C	C	D +	D +	D +
Bay St and Wave St (N leg, E sidewalk)	5.1	3	2.1	42.8	30.1	24.5	19.0	B	C	C	D +	C	D +	D +	E +
Bay St and Wave St (S leg, E sidewalk)	7.3	3	4.3	63.4	56.3	44.6	39.7	A	B	B	C	C	C	C	D +
Bay St and Wave St (S leg, W sidewalk)	4.2	3.5	0.7	23.9	12.9	14.9	13.9	D +	E +	E +	E +	D +	E +	E +	E +
Bay St and Wave St (N leg, W sidewalk)	5	3.5	1.5	45.1	17.0	16.7	18.9	B	D +	D +	D +	C	E +	E +	E +
Front St and Hannah St (S leg, E sidewalk)	8	3	5	812.0	1557.6	1787.5	460.5	A	A	A	A	A	A	A	B
Front St and Hannah St (S leg, W sidewalk)	6	3	3	19.4	18.3	28.8	15.3	D +	D +	C	D +	E +	E +	D +	E +
Front St and Wave St (N leg, E sidewalk)	17	14	3	23.4	34.3	28.1	33.0	D +	C	C	C	D +	D +	D +	D +
Front St and Wave St (N leg, W sidewalk)	12	6	6	79.0	68.9	269.9	78.3	A	A	A	A	C	C	B	C
Pike St and Brook St (W leg, S sidewalk)	6	3	3	619.4	206.1	552.2	540.0	A	A	A	A	A	B	A	A
Jersey St and Victory Blvd (N leg, E sidewalk)	10	6.3	3.8	316.3	231.6	236.9	230.6	A	A	A	A	B	B	B	B
Jersey St and Victory Blvd (E leg, N sidewalk)	8	3	5	197.4	104.0	127.8	121.5	A	A	A	A	B	C	B	B
Jersey St and Victory Blvd (E leg, S sidewalk)	4	3	1	236.1	82.6	78.0	106.4	A	A	A	A	B	C	C	B
Bay St and Minthorne St (E leg, S sidewalk)	10	4.5	5.5	125.6	66.3	52.6	120.8	A	A	B	A	B	C	C	B
Minthorne St and Victory Blvd (S leg, E sidewalk)	5	3	2	2444.0	1629.3	4887.9	814.6	A	A	A	A	A	A	A	A
Minthorne St and Victory Blvd (E leg, S sidewalk)	8.5	3	5.5	746.7	640.0	840.1	746.7	A	A	A	A	A	A	A	A
Minthorne St and Victory Blvd (W leg, S sidewalk)	8.5	3	5.5	249.3	105.9	162.7	115.3	A	A	A	A	B	B	B	B
Front St and Baltic St (N leg, E sidewalk)	12	3	9	170.4	448.5	148.9	156.8	A	A	A	A	B	B	B	B
Front St and Baltic St (N leg, W sidewalk)	5.5	3	2.5	13.8	16.0	21.1	26.0	E +	D +	D +	C	E +	E +	E +	D +

Note: "+" implies a significant adverse impact.

Crosswalks

As shown in Table 22-50, the A-Text Alternative would result in significant adverse impacts at five crosswalks, which are the same crosswalks that would be impacted under the Proposed Actions.

Table 22-50: Crosswalk Conditions at Signalized Intersections: With-Action A-Text Alternative

Location	Length (ft.)	Width (ft.)	Available Circulation Space (ft^2/p)				Crosswalk Circulation LOS			
			Weekday			SAT	Weekday			Sat
			AM	MD	PM	MD	AM	MD	PM	MD
Bay St and Victory Blvd (S leg)	60	21.5	75.1	33.8	40.1	64.2	A	C	B	A
Bay St and Hannah St (N leg)	92	11	35.6	14.5	13.1	31.3	C	E +	E +	C
Bay St and Hannah St (E leg)	32	12.5	108	30	52.4	41	A	C	B	B
Bay St and Clinton St (N leg)	60	11.5	120.8	73	74.1	87.1	A	A	A	A
Bay St and Clinton St (S leg)	59.5	13	231.3	49.2	79.4	110.9	A	B	A	A
Bay St and Clinton St (W leg)	24	11	437.7	98.8	135.5	172.2	A	A	A	A
Bay St and Wave St (N leg)	35.5	10	133.6	35	20.4	34.5	A	C	D +	C
Bay St and Wave St (E leg)	30.3	11.3	82.6	45.5	58	38.7	A	B	B	C
Bay St and Wave St (S leg)	36.8	10	136.4	32.1	16.6	28.4	A	C	D +	C
Bay St and Wave St (W leg)	21.3	10.6	175.5	64.8	92.8	69.3	A	A	A	A
Front St and Hannah St (W leg)	34.5	10	10	25.7	16.4	22.1	E +	C	D +	D +
Jersey St and Victory Blvd (N leg)	36	10	346.6	160.5	237.4	137	A	A	A	A
Jersey St and Victory Blvd (E leg)	40	10	69.9	33.4	39.4	22.2	A	C	C	D +

Note: "+" implies a significant adverse impact.

PARKING

Tables 22-51 and 22-52 show the hourly net incremental change in parking demand for each land use for the A-Text Alternative between the No-Action and With-Action conditions for the Weekday and Saturday conditions, respectively. Under the A-Text Alternative, the total parking demand of the Projected Development Sites on a typical Weekday would peak at 2,389 spaces between 10:00 PM and 11:00 PM, compared to 2,267 as a result of the Proposed Actions. The total parking demand on a typical Saturday would peak at 2,360 spaces overnight between 11:00 PM and 7:00 AM under the A-Text Alternative, compared to 2,235 as a result of the Proposed Actions.

Table 22-51: A-Text Alternative Net Incremental Weekday Hourly Parking Accumulation by Land Use

	Residential[1]			Local Retail[1]			Office[1]			Community Facility[2]			Restaurant[1]			Medical Office Building[3]			Total		
	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation
Before 12			2360			0			0			0			0			0			2360
12-1 AM	57	57	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	57	57	2360
1-2 AM	28	28	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	28	28	2360
2-3 AM	14	14	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	2360
3-4 AM	14	14	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	2360
4-5 AM	14	14	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	2360
5-6 AM	14	14	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	2360
6-7 AM	14	14	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14	2360
7-8 AM	27	222	2165	0	0	0	33	2	30	64	2	62	0	0	0	0	0	0	124	226	2257
8-9 AM	107	528	1744	1	1	0	181	14	198	7	4	65	7	10	-3	34	4	30	336	560	2035
9-10 AM	87	357	1474	0	0	0	202	20	380	10	14	61	5	2	1	64	32	62	369	425	1978
10-11 AM	89	254	1309	0	0	0	46	27	400	8	9	60	20	14	7	55	41	76	219	345	1851
11-12 PM	90	134	1264	1	1	0	38	72	366	8	9	60	51	17	41	54	61	69	242	293	1799
12-1 PM	138	95	1307	2	2	0	104	125	345	10	7	62	101	67	75	31	36	64	386	333	1852
1-2 PM	90	90	1307	1	1	0	59	34	370	8	5	65	34	30	79	44	52	56	236	211	1877
2-3 PM	119	88	1338	3	4	0	93	110	353	13	62	16	30	30	79	54	52	58	313	346	1845
3-4 PM	110	105	1343	-1	-1	0	22	28	347	7	5	18	30	29	80	47	40	65	214	205	1853
4-5 PM	258	158	1444	1	1	0	20	124	243	9	14	14	28	20	88	40	65	40	357	382	1829
5-6 PM	516	173	1787	3	3	0	5	220	28	6	18	3	60	61	88	55	61	34	645	535	1939
6-7 PM	408	223	1973	2	2	0	7	32	3	10	10	2	77	44	120	3	36	0	506	347	2099
7-8 PM	374	210	2138	2	2	0	2	5	0	6	7	1	79	57	142	0	0	0	463	280	2281
8-9 PM	176	81	2233	0	0	0	0	0	0	7	6	0	27	74	95	0	0	0	211	162	2328
9-10 PM	132	61	2304	0	0	0	0	0	0	0	0	0	3	57	41	0	0	0	134	118	2345
10-11 PM	151	73	2382	0	0	0	0	0	0	0	0	0	1	34	7	0	0	0	152	107	2389
11-12 PM	108	130	2360	0	0	0	0	0	0	0	0	0	0	7	0	0	0	0	108	137	2359

Notes:
1. New Stapleton Waterfront Development Plan Technical Memorandum (December, 2010). The peak hour temporal and directional distribution was adjusted to match factors used in trip generation.
2. Flushing Commons FEIS (2010), Table 14-37 and 14-38 for YMCA Component. The peak hour temporal and directional distribution was adjusted to match factors used in trip generation.
3. Information provided by NYCDOT via e-mail in January 2016. The peak hour temporal and directional distribution was adjusted to match factors used in trip generation.

Table 22-52: A-Text Alternative Net Incremental Saturday Hourly Parking Accumulation by Land Use

	Residential[1]			Local Retail[1]			Office[1]			Community Facility[2]			Restaurant[1]			Medical Office Building[1]			Total		
	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation	IN	OUT	Accumulation
Before 12			2360			0			0			0			0			0			2360
12-1 AM	44	44	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	44	44	2360
1-2 AM	22	22	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22	22	2360
2-3 AM	11	11	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	2360
3-4 AM	11	11	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	2360
4-5 AM	11	11	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	2360
5-6 AM	11	11	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	2360
6-7 AM	11	11	2360	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	11	11	2360
7-8 AM	22	175	2208	0	0	0	3	0	2	0	0	0	0	0	0	0	0	0	25	175	2210
8-9 AM	77	392	1891	0	0	0	33	2	33	5	2	3	4	1	4	34	4	30	153	402	1959
9-10 AM	66	275	1681	0	0	0	32	4	61	2	4	1	4	2	6	64	32	62	168	316	1811
10-11 AM	66	187	1560	1	1	0	6	5	62	2	3	0	12	8	10	55	41	76	141	245	1708
11-12 PM	67	99	1527	1	1	0	5	13	54	3	3	0	25	7	28	54	61	69	155	184	1679
12-1 PM	98	66	1560	11	11	0	16	24	47	4	2	1	72	55	45	31	36	64	232	194	1717
1-2 PM	30	30	1560	-4	-4	0	5	4	49	4	3	3	54	43	55	44	52	56	133	128	1722
2-3 PM	229	159	1630	5	5	0	23	27	45	3	2	4	44	44	55	54	52	58	358	288	1792
3-4 PM	83	83	1630	-1	-1	0	5	5	45	4	3	5	12	12	55	47	40	65	150	143	1799
4-5 PM	190	174	1646	3	3	0	6	23	27	2	3	4	20	16	60	55	60	60	276	279	1797
5-6 PM	398	143	1899	4	4	0	10	29	8	2	6	0	42	19	83	40	65	35	496	266	2025
6-7 PM	299	165	2033	1	1	0	1	8	2	0	0	0	59	36	106	3	37	0	363	247	2142
7-8 PM	260	159	2134	2	2	0	0	1	0	0	0	0	44	51	99	0	0	0	307	214	2233
8-9 PM	128	59	2203	2	2	0	0	0	0	0	0	0	21	55	65	0	0	0	151	115	2269
9-10 PM	98	44	2258	0	0	0	0	0	0	0	0	0	0	42	24	0	0	0	99	86	2282
10-11 PM	120	55	2323	0	0	0	0	0	0	0	0	0	0	21	3	0	0	0	121	76	2326
11-12 PM	81	45	2359	0	0	0	0	0	0	0	0	0	0	3	0	0	0	0	82	48	2360

Notes:
1. It is assumed that Saturday temporal and directional distribution would be same as Weekday. The peak hour temporal and directional distribution was adjusted to match factors used in trip generation.
2. Flushing Commons FEIS (2010), Table 14-37 and 14-38 for YMCA Component. The peak hour temporal and directional distribution was adjusted to match factors used in trip generation.

The parking demand that could not be accommodated on-site was assumed to increase the demand for the on-street parking spaces within the ¼-mile radius of the Study Area. Similar to the Proposed Actions, the A-Text Alternative would result in parking shortfalls within the St. George/Ferry Terminal (Weekday MD), Bay Street North (Weekday MD), and Bay Street South (Weekday PM, Weekday Overnight, and Saturday MD) subareas. Although these shortfalls at the subarea level would be slightly higher than those identified for the Proposed Actions, the total parking availability within the ¼-mile radius of the overall Study Area would be sufficient to accommodate any shortfall within a specific subarea, as shown in Table 22-53. Therefore, the expected on-street parking deficits under the A-Text Alternative would not be considered significant.

Table 22-53: A-Text Alternative With-Action ¼-Mile On-Street Parking Utilization Summary (Subareas & Total)

2030 With-Action With Mitigation	Weekday AM	Weekday MD	Weekday PM	Weekday Overnight	Saturday MD
St. George/Ferry Terminal Area With-Action On-Street Capacity	*1076*	*1076*	*1076*	*1076*	*1076*
St. George/Ferry Terminal Area Net Change in With-Action With Mitigation On-Street Parking Supply [1]	*0*	*0*	*0*	*0*	*0*
St. George/Ferry Terminal Area With-Action With Mitigation On-Street Capacity	*1076*	*1076*	*1076*	*1076*	*1076*
St. George/Ferry Terminal Area With-Action Total On-Street Demand	877	1209	814	794	870
St. George/Ferry Terminal Area Available Spaces	199	-133	262	282	206
St. George/Ferry Terminal Subarea: With-Action With Mitigation Utilization	***82%***	***112%***	***76%***	***74%***	***81%***
Bay Street North Area With-Action On-Street Capacity	*1319*	*1319*	*1319*	*1319*	*1319*
Bay Street North Area Net Change in With-Action With Mitigation On-Street Parking Supply [1]	*-6*	*-6*	*-6*	*-6*	*-6*
Bay Street North Area With-Action With Mitigation On-Street Capacity	*1313*	*1313*	*1313*	*1313*	*1313*
Bay Street North Area With-Action Total On-Street Demand	1073	1597	1047	1089	989
Bay Street North Area Available Spaces	240	-284	266	224	324
Bay Street North Subarea: With-Action With Mitigation Utilization	***82%***	***122%***	***80%***	***83%***	***75%***
Victory Boulevard/Jersey Street Area With-Action On-Street Capacity	*1295*	*1295*	*1295*	*1295*	*1295*
Victory Boulevard/Jersey Street Area Net Change in With-Action With Mitigation On-Street Parking Supply [1]	*0*	*0*	*0*	*0*	*0*
Victory Boulevard/Jersey Street Area With-Action With Mitigation On-Street Capacity	*1295*	*1295*	*1295*	*1295*	*1295*
Victory Boulevard/Jersey Street Area With-Action Total On-Street Demand	776	752	778	820	790
Victory Boulevard/Jersey Street Area Available Spaces	519	543	517	475	505
Victory Boulevard/Jersey Street Subarea: With-Action With Mitigation Utilization	***60%***	***58%***	***60%***	***63%***	***61%***
Canal Street Area With-Action On-Street Capacity	*1363*	*1363*	*1363*	*1363*	*1363*
Canal Street Area Net Change in With-Action With Mitigation On-Street Parking Supply [1]	*-3*	*-3*	*-3*	*-3*	*-3*
Canal Street Area With-Action With Mitigation On-Street Capacity	*1360*	*1360*	*1360*	*1360*	*1360*
Canal Street Area With-Action Total On-Street Demand	1001	1049	955	1074	1035
Canal Street Area Available Spaces	359	311	405	286	325
Canal Street Subarea: With-Action With Mitigation Utilization	***74%***	***77%***	***70%***	***79%***	***76%***
Bay Street South Area With-Action On-Street Capacity	*1090*	*1090*	*1090*	*1090*	*1090*
Bay Street South Area Net Change in With-Action With Mitigation On-Street Parking Supply [1]	*-5*	*-5*	*-5*	*-5*	*-5*
Bay Street South Area With-Action With Mitigation On-Street Capacity	*1085*	*1085*	*1085*	*1085*	*1085*
Bay Street South Area With-Action Total On-Street Demand	1186	1051	1162	1576	1147
Bay Street South Area Available Spaces	-101	34	-77	-491	-62
Bay Street South Subarea: With-Action With Mitigation Utilization	***109%***	***97%***	***107%***	***145%***	***106%***
Total With-Action Capacity	*6143*	*6143*	*6143*	*6143*	*6143*
Net Change in With-Action With Mitigation On-Street Parking Supply [1]	*-14*	*-14*	*-14*	*-14*	*-14*
Total With-Action With Mitigation On-Street Capacity	6129	6129	6129	6129	6129
Total With-Action On-Street Demand	4913	5658	4755	5353	4831
Total Available Spaces	1216	471	1374	776	1298
Total With-Action With Mitigation Utilization	***80%***	***92%***	***78%***	***87%***	***79%***

Note:
1. Parking spaces lost due to mitigation measures

VEHICULAR AND PEDESTRIAN SAFETY ASSESSMENT

Two intersections were identified as high crash locations under the Proposed Actions condition. Similar to the Proposed Actions, the A-Text Alternative would increase the vehicular and pedestrian activity at these intersections, which could exacerbate any potential safety issues at this location. The measures outlined in Chapter 14, "Transportation," which include altering the lane configuration and installing pedestrian count-down signals at the intersection of Richmond Terrace and Jersey Street and installing pedestrian count-down signals and optimizing signal timing at the intersection of St. Marks Place/Bay Street and Victory Boulevard are recommended for the A-Text Alternative to improve safety at these intersections.

MITIGATION

If the proposed mitigation measures are deemed infeasible by DOT and no other alternative mitigation measures can be identified, those impacts would be unmitigated.

Proposed Schedule for Implementation of Traffic and Pedestrian Mitigation Measures for the A-Text Alternative

Similar to the Proposed Actions, subject to the approval of NYCDOT, the mitigation measures summarized in Table 22-44 would be implemented to mitigate the significant adverse traffic impacts resulting from full build-out of the A-Text Alternative in 2030. However, as the development of the A-Text Alternative would be expected to occur over an approximately 11-year period, it is possible that some of the significant adverse traffic impacts could occur prior to full build-out. In collaboration, DCP (the lead agency) and DOT have developed a Traffic Monitoring Program (TMP) that would be implemented if the A-Text Alternative is approved, in order to verify the need and effectiveness of the proposed mitigation measures.

If the modified Proposed Actions associated with the A-Text Alternative are adopted, additional measures will be included in the Traffic Monitoring Program (TMP), to ensure safety and operations mitigation measures associated with the school are implemented appropriately.

Prior to the opening of the future school to be located at Stapleton Waterfront Phase III Site A, the City will perform and submit the following: Detailed plans including site plans showing all entrances, pick up and drop off locations, sidewalk widths, proposed signs, adjacent street geometry (as per AASHTO, MUTCD and NYCDOT specifications), catchment area and walking routes to/from school, etc. A travel demand survey of an existing school located in a similar setting will also be performed prior to opening of the new school to determine trip generation, modal split of students and staff separately (classified by grades pre-kindergarten-2, 3-5, and 6-8 separately), as well as arrival and departure patterns in 15-minute increments, and how many students are accompanied by parents. SCA/DOE should provide the catchment area in order to determine the origin of the students. Staff origin/modal split should be based on the latest Census reverse-journey-to-work information. Based on the detailed plans to be provided and the findings of the survey, the traffic and pedestrian locations to be analyzed will be selected. New ATRs, turning movement and pedestrian counts will be performed, as well as traffic and pedestrian analyses, and will assess whether the traffic control devices or other mitigation measures require modification. An updated safety assessment will also be performed based on the new crash data. Once the school is built and occupied, the City should perform follow-up counts and analyses to determine whether any traffic and pedestrian mitigation measures are needed. The City is responsible for all costs associated with the monitoring plan, development of mitigation measures, and the design and construction of mitigation measures requiring capital funding. Before commencing any monitoring plan, the scope of work will be submitted to DOT for review and approval.

AIR QUALITY

MOBILE SOURCE

A comparison of incremental peak hour traffic for the A-Text Alternative and the Proposed Actions was made. At Site 1, Bay Street and Canal Street, the project-generated trips are estimated to increase by 116 vehicles in total across all analyzed traffic periods, while for Site 2 (Bay Street and Hannah Street) and Site 3 (Bay Street and Wave Street), the project-generated trips are estimated to decrease

by 7 and 38 vehicles in total across all analyzed traffic periods, respectively. At Site 4, Bay Street and Hylan Boulevard, the project-generated trips are estimated to increase by 62 vehicles in total across all analyzed traffic periods. Overall, these changes in traffic would not result in any significant adverse air quality impacts with respect to emissions of carbon monoxide or fine particulate matter less than 10 microns in diameter (PM_{10}), as well as fine particulate matter less than 2.5 microns in diameter ($PM_{2.5}$). Note for annual average $PM_{2.5}$ concentrations, which was identified as the primary pollutant and time period of concern, impacts were determined using a grid analysis of Sites 1, 2 and 3, which determined neighborhood-scale concentrations based on the combined effect of these intersections. As the overall number of vehicles at these intersections would increase by less than ten percent under the A-Text Alternative, annual average $PM_{2.5}$ incremental concentrations increase slightly compared with the Proposed Actions, but any increase would be expected to be minimal, and, like the Proposed Actions, would be below the *de minimis* impact criteria.

Overall, given (1) the relatively minor nature of any increases in the vehicle volumes anticipated during some of the analyzed peak periods at the four mobile source air quality analysis intersections; and (2) the results of the detailed analysis for the Proposed Actions in Chapter 15, "Air Quality" of this FEIS, which were well below the NAAQS and *de minimis* impact criteria, no new significant adverse mobile source air quality impacts would occur under the A-Text Alternative. As such, similar to the Proposed Actions, no adverse air quality impacts are anticipated as a result of mobile source emissions with the A-Text Alternative.

STATIONARY SOURCE

Overall, the air quality impacts from fossil fuel-fired heating and hot water systems associated with the Projected and Potential Development Sites under the A-Text Alternative would be identical to the Proposed Actions except for Stapleton Waterfront Phase III Site A and City Disposition Site 2, since these two sites would have additional floor area compared to the Proposed Actions, and City Disposition Site 3, since it would have affordable mixed-use development, reducing the amount of commercial use, and would introduce residential and community facility uses. The total square footage would increase by 100,000 sf at the Stapleton Waterfront Phase III Site A, by an additional 53,757 sf at City Disposition Site 2 and decrease slightly by 4,054 sf at City Disposition Site 3 with the A-Text Alternative. As discussed in Chapter 15, "Air Quality," the City-owned parcel located at Stapleton Waterfront Phase III Site A (referred to as Site "SA" in Chapter 15) would require the implementation of restrictions through the disposition agreement between EDC and the future developer for the Proposed Actions. Similarly, analysis performed for the A-Text Alternative determined that all uses on this site would require the exclusive use of natural gas for fossil fuel-fired heating and hot water systems and that heating and hot water systems stack(s) be located at least 140 feet above grade. Similar to the Proposed Actions, under the A-Text Alternative, City Disposition Sites 2 and 3 would require the implementation of restrictions through the disposition agreement between the City and the future developer(s), which would require the exclusive use of natural gas for fossil fuel-fired heating and hot water systems.

As discussed above, under the A-Text Alternative, to assess the effects of the proposed allowance of brewery use, the commercial restaurant use in the With-Action scenario for Projected Development Site 5 assumes 10,000-sf brewery instead of 10,000 sf of commercial restaurant uses. Using the methodology described in the DEIS, an industrial source analysis was performed for this site. For the

brewery source, pollutants were assumed to be emitted from a single rooftop stack. For particulate matter ($PM_{2.5}$) emissions, the maximum concentration results were combined with the results of the analyzed heating and hot water system for the Site 5. As described in the DEIS, an (E) Designation has been applied to this site for the Proposed Actions with respect to the type of fuel usage and placement of the heating and hot water systems stack(s), which remains unchanged with the A-Text Alternative. Under the A-Text Alternative, the proposed (E) Designation for Projected Development Site 5 would also require that any new brewery operating on this site must ensure that the process exhaust stack(s) discharges at a height of at least 3 feet above the proposed development height of 85 feet for this Projected Development Site (total of 88 feet above grade) (see Appendix H). A summary of the proposed (E) designations that would be modified by the A-Text Alternative is presented in Appendix H.

With these requirements in place, the A-Text Alternative, like the Proposed Actions, would not result in significant adverse air quality impacts.

GREENHOUSE GAS EMISSIONS AND CLIMATE CHANGE

Like the Proposed Actions, the A-Text Alternative would not result in significant adverse impacts associated with greenhouse gas emissions (GHG) and their effect on climate change. As discussed below, the A-Text Alternative would result in more development and it also would result in more GHG emissions as compared to the Proposed Actions. In terms of energy efficiency and other measures to reduce emissions, the A-Text Alternative and Proposed Actions would be the same, and neither would implement any specific reduction measures. In addition, like the Proposed Actions, the A-Text Alternative would not implement any specific resilience measures beyond the building code, which would address potential future flooding conditions given that most of the development sites are not controlled by the City. Additionally, since implementing specific resilience measures for each development site prior to design while considering local street and utility elevations and the effect on existing buildings is not practicable, addressing resilience through the A-Text Alternative is not practicable. Resilience for the Project Area is addressed.

The A-Text Alternative and Proposed Actions would include zoning actions that would affect the same Project Area. Portions of the Project Area are located within the 100- and 500-year flood zones, there therefore, are susceptible to storm surge and coastal flooding. Portions of the rezoning area are also located within the 100- and 500-year projections developed by the New York City Panel on Climate Change (NPCC) for the 2050s. No new vulnerable, critical, or potentially hazardous features would be facilitated in areas that would flood from future mean higher high water (MHHW) under either scenario. New vulnerable and critical features within the current one percent annual chance floodplain would be designed with flood-resistant construction standards, and neither the A-Text Alternative nor the Proposed Actions would inhibit the ability of new vulnerable features locate within the future one percent annual chance floodplain to be made resilient through future adaptive actions, like retrofits.

Regarding the impact of the A-Text Alternative on resilience in the area and on other environmental effects as they may be affected by climate change, the Proposed Actions would not result in any development in the water or on the waterfront, and therefore other considerations identified in WRP Policy 6.2 such as providing protection to avoid coastal erosion, protecting other properties, and

other design considerations for waterfront areas, are not relevant for the A-Text Alternative. The A-Text Alternative would also not adversely affect other resources (including ecological systems, public access, visual quality, water-dependent uses, infrastructure, and adjacent properties) due to climate change.

As discussed above, the A-Text Alternative RWCDS assumptions for City Disposition Sites 2 and 3 and the Stapleton Waterfront Phase III Site A in the With-Action condition would result in a net increase of building floor area compared to the Proposed Actions. This net increase in overall floor area would result in an increase in energy consumption and ensuing GHG emissions associated with the construction and operation of buildings in the A-Text Alternative.

Following the methodology described in Chapter 16, "Greenhouse Gas Emissions and Climate Change" and per the *CEQR Technical Manual* guidance, the A-Text Alternative would result in GHG emissions from annual building operations that would be approximately 1,236 annual metric tons more than the building operation emissions from the Proposed Actions. The A-Text Alternative would result in annual GHG emissions from mobile sources that would be approximately 55 metric tons less than those expected from the Proposed Actions. As such, the A-Text Alternative would result in annual GHG emissions that would be approximately 1,181 metric tons more than those expected from the Proposed Actions. While the A-Text Alternative would have higher annual GHG emissions (approximately 41,228 metric tons, compared to approximately 40,047 metric tons under the Proposed Actions), this would represent approximately 0.08 percent of the of the City's overall 2015 GHG emissions of approximately 52 million metric tons, and would therefore not result in significant adverse impacts associated with GHG emissions and their effect on climate change.

Like the Proposed Actions, the A-Text Alternative would be consistent with the City's applicable emissions reduction goals of transit-oriented development and construction of new resource- and energy-efficient buildings. As with the Proposed Actions, some developments under the A-Text Alternative would be subject to current and/or future flood risks, with flood depth increasing in the future as sea levels rise and flood hazard areas expand. The A-Text Alternative, as with the Proposed Actions, would not affect resilience in the area or other environmental effects as they may be affected by climate change.

NOISE

As presented in the "Transportation" section, above, the A-Text Alternative would result in slightly greater vehicle volumes than projected under the Proposed Actions at some analyzed locations. At many analyzed locations, the A-Text Alternative would result in less vehicle volumes than projected under the Proposed Actions. Like the Proposed Actions, the A-Text Alternative would not be anticipated to result in any significant adverse impacts due to noise given the relatively small predicted increase in traffic volumes.

NOISE FROM THE SCHOOL PLAYGROUND

A detailed site plan is not available for Stapleton Waterfront Phase III Site A. Therefore, the location of the general playground area was assumed to be potentially anywhere on the site, and playground noise levels were calculated at all surrounding projected and existing buildings.

The *CEQR Technical Manual* provides the following guidance to determine sound effects of the proposed playground at Stapleton Waterfront Phase III Site A:

> *"…based upon noise measurements made at 10 school playground sites in 1987, it may be assumed the $L_{eq(1)}$ noise levels at the boundary would be 75 dB(A), 15 feet from the boundary would be 73 dB(A), 30 feet from the boundary would be 70 dB(A), and the noise level would decrease by 4.5 dB(A) per doubling of distance beyond 30 feet."*

The analysis of the proposed playground consisted of the following procedure:

- Existing noise measurements were made at receptor sites 2, 6, and 7;
- The distances between the playground boundary and nearby noise-sensitive buildings were determined;
- Play area noise levels were predicted at each nearby noise receptor using the *CEQR Technical Manual* guidance outlined above;
- Play area noise levels were combined with the predicted A-Text Alternative traffic noise levels to determine total future noise levels with the A-Text Alternative; and
- Total future noise levels with the A-Text Alternative were compared to the predicted No-Action noise levels for purposes of impact determination.

A-Text Alternative noise levels for receptor sites 2 and 7, which represent the nearest existing residential receptors and includes noise from the proposed school playground on the Stapleton Waterfront Phase III Site A as well as noise from vehicular traffic on adjacent roadways, are shown in Table 22-54.

TABLE 22-54
2030 A-Text Alternative Condition Noise Levels-Receptor Sites 2 and 7 (in dBA)

Receptor	Location	Time	No-Action $L_{eq(1)}$	With-Action Traffic $L_{eq(1)}$	With-Action Playground $L_{eq(1)}$	Total With-Action $L_{eq(1)}$	$L_{eq(1)}$ Change	Total With-Action $L_{10(1)}$
2	Grant Street and Bay Street	AM	70.4	70.7	53.3	70.8	0.4	73.6
		MD	72.4	72.5	53.3	72.8	0.2	75.4
		PM	73.4	73.7	53.3	73.7	0.3	76.5
7	Van Duzer Street and St. Julian Place	AM	63.4	63.5	51.1	63.7	0.3	66.5
		MD	66.0	66.1	51.1	66.2	0.2	69.0
		PM	65.2	65.3	51.1	65.5	0.3	68.3

In 2030, the maximum increase in $L_{eq(1)}$ noise levels for the A-Text Alternative condition compared to the No-Action condition at receptor sites 2 and 7 would be 0.4 dBA. Changes of this magnitude would be imperceptible and would not constitute a significant adverse noise impact according to *CEQR Technical Manual* impact criteria.

Table 22-55 shows the results of the playground noise analysis at Projected Development Sites with a line of sight to the playground.

TABLE 22-55
Noise Levels due to the School Playground (in dBA)

Analysis Location	Time	Approximate Distance (feet)	A-Text Alternative Traffic $L_{eq(1)}$	A-Text Alternative Playground $L_{eq(1)}$	A-Text Alternative Total $L_{eq(1)}$	Predicted $L_{10(1)}$[1]
Projected Development Site 1	AM	90	70.7	62.8	71.4	74.2
	MD		72.5	62.8	72.9	75.7
	PM		73.7	62.8	74.0	76.8
Projected Development Site 5	AM	90	70.7	62.8	71.4	74.2
	MD		72.5	62.8	72.9	75.7
	PM		73.7	62.8	74.0	76.8
Projected Development Site 10	AM	300	70.8	55.0	70.9	73.7
	MD		72.2	55.0	72.3	75.1
	PM		74.7	55.0	74.7	77.5

Notes:
[1] Predicted $L_{10(1)}$ is calculated by adding 2.8 dBA to the predicted combined $L_{eq(1)}$ based on SCA Playground Noise Study, AKRF, Inc., October 23, 1992.

Predicted playground $L_{10(1)}$ noise levels at Projected Development Sites 1, 5, and 10 were used to determine building attenuation requirements at those locations.

NOISE ATTENUATION MEASURES

With the incorporation of noise attenuation requirements set forth in the Noise (E) designation for privately held Projected and Potential Development Sites and required through disposition agreements or similar binding mechanisms between the City of New York and the future developer(s) for City-owned development sites from the DEIS, the A-Text Alternative would not result in any significant adverse noise impacts. The same window-wall attenuation requirements required under the Proposed Actions would be required with the A-Text Alternative. Like the Proposed Actions, the Projected and Potential Development Sites assessed in the A-Text Alternative would require up to 43 dBA window/wall attenuation to meet applicable *CEQR Technical Manual* interior noise level requirements. These attenuation requirements would be included in a Noise (E) designation for privately held Projected and Potential Development Sites. The attenuation requirements for City-owned sites would be required through disposition agreements or similar binding mechanisms between the City of New York and the future developer(s). With these attenuation measures, the A-Text Alternative, like the Proposed Actions, would not result in significant adverse impacts related to noise.

PUBLIC HEALTH

Like the Proposed Actions, the A-Text Alternative would not result in significant adverse public health impacts. Neither the Proposed Actions nor the A-Text Alternative would result in unmitigated significant adverse impacts related to air quality, water quality, or hazardous materials.

NEIGHBORHOOD CHARACTER

As under the Proposed Actions, the A-Text Alternative would not result in significant adverse impacts on neighborhood character. Although the A-Text Alternative would result in an increase in development as compared to the Proposed Actions, it would affect the same geographic area and have the same number of development sites. The A-Text Alternative would result in a larger residential population increment and a greater amount of community facility space, as compared to the Proposed Actions, but would still facilitate a mix of residential, commercial, and community facility uses that would be consistent with existing trends and is expected to improve connections to the waterfront and surrounding neighborhoods. Under this alternative, a substantial amount of affordable housing, including AIRS, would be introduced to the Project Area. The affordable housing units are expected to ensure that the new households have incomes that would more closely reflect existing incomes in the study area and help ensure that the neighborhoods continue to serve diverse housing needs. The proposed commercial overlays under both the Proposed Actions and the A-Text Alternative are intended to improve walkability connecting neighborhood streets by promoting continuous retail and community facility uses, thereby improving the neighborhood character, as compared to No-Action conditions.

Compared to the Proposed Actions, the A-Text Alternative would result in similar impacts to community facilities, open space, historic resources, transportation, and construction noise while also resulting in similar effects to land use, zoning, public policy, socioeconomic conditions, shadows, and urban design and visual resources. Therefore, the effects to the neighborhood character with the A-Text Alternative would be similar to the effects of the Proposed Actions.

CONSTRUCTION

The construction phasing, activities, and estimates under the A-Text Alternative are expected to be similar to those under the Proposed Actions. Like the Proposed Actions, the construction schedule for the A-Text Alternative would be spread out over a period of approximately eleven years throughout the Project Area involving 30 Projected Development Sites, and construction of most of the Projected Development Sites would be short-term (i.e., lasting up to 24 months). Neither the Proposed Actions nor the A-Text Alternative would result in significant adverse construction impacts with respect to land use and neighborhood character, socioeconomic conditions, community facilities, open space, hazardous materials, air quality, or vibration. However, like the Proposed Actions, construction activities related to the A-Text Alternative would result in historic and cultural resources impacts and temporary noise impacts.

As discussed in detail above, like the Proposed Actions, the A-Text Alternative would result in significant adverse impacts to architectural and archaeological resources. The A-Text Alternative RWCDS is expected to result in the same significant adverse impacts related to construction-related architectural and archaeological resources as the development program and/or density related changes to the four Projected Development Sites under the A-Text Alternative are not expected to change construction activity on those sites.

Like the Proposed Actions, trips generated due to construction activity associated with the A-Text Alternative would peak in the first quarter of 2029. The net cumulative number of construction trips and operational trips in 2029 under the A-Text Alternative would be generally comparable to the

number under the Proposed Actions during the 6-7 AM and 3-4 PM construction peak hours and the 7:30-8:30 AM and 4:30-5:30 PM operational peak hours. Under both the Proposed Actions and A-Text Alternative, however, the cumulative construction and operational travel demand in 2029 would be less than with full build-out of either the Proposed Actions or the A-Text Alternative in 2030. Consequently, there would be less likelihood of significant adverse transportation impacts in 2029 compared to 2030, and the mitigation measures identified for 2030 operational transportation impacts under the A-Text Alternative would also be effective at mitigating any potential impacts from combined operational and construction demand in 2029.

The construction phasing and activities under the A-Text Alternative are expected to be similar or identical to those for the Proposed Actions. Accordingly, it is anticipated that the predicted noise levels due to peak construction-related activities at nearby sensitive receptor locations under the A-Text Alternative would be similar or identical to those predicted for the Proposed Actions. Therefore, the A-Text Alternative would result in similar significant adverse impacts related to construction noise as those identified for the Proposed Actions.

Mitigation

The A-Text Alternative would result in similar significant adverse impacts related to construction noise as those identified for the Proposed Actions. Mitigation measures to address the identified construction noise impacts were explored between the DEIS and FEIS. It was found that there are no reasonable means to ensure measures be employed that would mitigate, partially or fully, the significant adverse construction noise impacts; therefore, the significant adverse construction noise impacts identified in the A-Text Alternative, like the Proposed Actions, would be unavoidable.