APPENDIX M:
Conceptual Stand Alone Retail Analysis

APPENDIX M
CONCEPTUAL ANALYSIS OF STAND-ALONE RETAIL USE THROUGH NEW AUTHORIZATION

Introduction

As part of the comprehensive rezoning strategy for the Lower Concourse, the Special Harlem River Waterfront District (SHRWD) and zoning text are proposed for two blocks along the Harlem River waterfront between Exterior Street and the Harlem River, north of the prolongation of Park Avenue and south of East 149th Street. Within the special district, the zoning would change from M2-1 to R7-2/C2-4 and C4-4, which would facilitate new residential and commercial development.

In order to ensure a mix of uses on the waterfront, the proposed actions require that for every square foot of retail space, a square foot of other commercial, residential or community facility use must be provided. However, as noted in Chapter 1.0, "Project Description," the proposed actions also include a City Planning Commission (CPC) authorization to allow the flexibility for stand-alone retail buildings on the waterfront to account for the possibility that development may not proceed as projected in the Reasonable Worst Case Development Scenario (RWCDS) under the proposed actions. This authorization will require that certain criteria are met to ensure that retail development that might occur along the waterfront will provide for strong pedestrian connections and relate well to the waterfront open spaces.

This appendix contains a conceptual analysis of the potential effects of establishing this new CPC Authorization and considers the potential environmental effects as compared to those described for the proposed action. Because it is not possible to predict whether the authorization would be pursued on any one site in the future, and each authorization would require its own ULURP approvals, any time an authorization is applied for it will be subject to its own environmental review to ensure an accurate analysis of the future conditions and development in the area. However, it should be noted that the authorization is not anticipated to be widely used, if at all. Environmental review pursuant to each authorization would consider the impacts of the proposed retail development as well as the potential cumulative impacts associated with any previous development approved under the text.

The conclusions of the conceptual analysis find that, should any future application be submitted for the use of the authorization, there are several impact areas that would experience less environmental effects as compared to the proposed action, such as community facilities and shadows. Traffic impacts would worsen as result of the authorization, as compared to the proposed actions. Traffic volumes would be increased as compared to the proposed actions, and given that unmitigated significant traffic impacts were identified under the proposed action at the adjacent intersection of East 149th Street, River Avenue and Exterior Street, it can be assumed that these unmitigated impacts would grow worse under this stand-alone retail scenario as higher levels of traffic would proceed through this intersection. It is also reasonable to anticipate that the appreciably higher levels of traffic generated by stand-alone retail development would exacerbate certain other significant traffic impacts identified under the proposed action. In addition, a screening analysis shows that a detailed PM2.5 analysis would

be required at the 149th Street & Exterior Street intersection for the peak periods if RWCDS site #1 was developed as a stand-alone retail development. However, in the event that an authorization was pursued, the environmental review will analyze the site and surrounding future conditions in the context of the SHRWD as a whole, and would determine if there would be any additional significant adverse impacts and how, if at all, the mitigation measures identified under the proposed actions would be affected or would require revision as result of the new retail development.

Conceptual Analysis Methodology

The proposed authorization could be applied for in the future for any of the RWCDS sites within the SHRWD. It is not possible to predict with any certainty the exact type of retail that would be prescribed on a particular site or the number of businesses that may be located on any particular site, therefore any projection of development is somewhat speculative in nature. A representative site, RWCDS site #1, was evaluated for the conceptual analysis as a case study due to its size, access and location, which make it the most likely of the waterfront RWCDS sites to be developed for stand-alone retail development.

The provision would not facilitate the creation of residential towers on the development parcels. Buildings would be limited to the base (40-65 feet). Therefore, the retail-only buildings would not affect the potential uses, or allow development of more floor area than otherwise permitted under the proposed SHRWD.

The criteria for granting this Authorization (per Section 97-22 of the Zoning Resolution) are as follows:

(1) a superior site plan that enables safe and efficient pedestrian connectivity to and between establishments and the publicly accessible open areas;

(2) a superior parking and circulation plan that reduces conflicts between pedestrian and vehicular traffic, minimizes open parking fields, and limits conflicts between curb cuts;

(3) a design that enhances and is integrated with publicly accessible open areas including provision of a public entrance fronting on a waterfront public access area;

(4) a variety of retail establishments; and,

(5) uses shall not unduly affect the residential uses in the nearby area or conflict with future land use and development of adjacent areas.

Additionally, the CPC may prescribe appropriate conditions and safeguards to minimize adverse effects of any such uses on publicly accessible areas.

RWCDS site #1 is the largest development site among those that could potentially utilize the authorization. The following sections describe the anticipated environmental effects of development on RWCDS site #1 if it were to be developed for stand-alone retail pursuant to the

proposed new CPC Authorization. The potential environmental effects that would result on this site will be used as a basis for this conceptual analysis of potential environmental effects if the authorization were to be used throughout the SHRWD.

The existing conditions of the RWCDS site #1 are described, as well as the projected conditions under the proposed actions with the authorization. The proposed action's environmental impacts are compared to those that could occur under the authorization option; however, as mentioned previously, each time the authorization would be used it would require a separate environmental review to ensure future conditions and development scenarios are accurately analyzed.

Existing Conditions
RWCDS site #1 (Block 2349, Lot 112) is currently an open-air concrete recycling facility. Located adjacent to the south of the 145th Street Bridge at 60 East 149th Street, the site is currently zoned M2-1. It contains 191,000 square feet (sf) of lot area and a 14,759-square foot building with a height of 15 feet (existing FAR of 0.08). The site is fenced in and largely obscured from public view, although large gravel storage mounds on the site are visible from area bridges. Cranes and trucks are active on this industrial site, generating dust and noise.

To the east of RWCDS site #1 is the elevated Major Deegan Expressway running on a viaduct above Exterior Street, with industrial uses further to the west. To the south is a bus repair and maintenance garage, on-site gas station and bus parking area, and several warehouse buildings housing wholesale food distribution and fabric distribution companies. Although adjacent to the waterfront, the presence of the Oak Point Rail link running just off-shore precludes waterfront access to this site. The site abuts the 145th Street Bridge to the south, with future open space associated with the Gateway Center at Bronx Terminal Market project to be located on the waterfront north of the bridge. Gateway Center retail buildings that are under construction extend further to the north. Cater corner to this site across East 149th Street and Exterior Street is Building D of the Bronx Terminal Market (River Avenue at East 149th Street), which is a National Register-eligible building that is being renovated for reuse as part of the new Gateway Center retail development.



RWCDS Site #1 viewed looking west from Exterior Street.

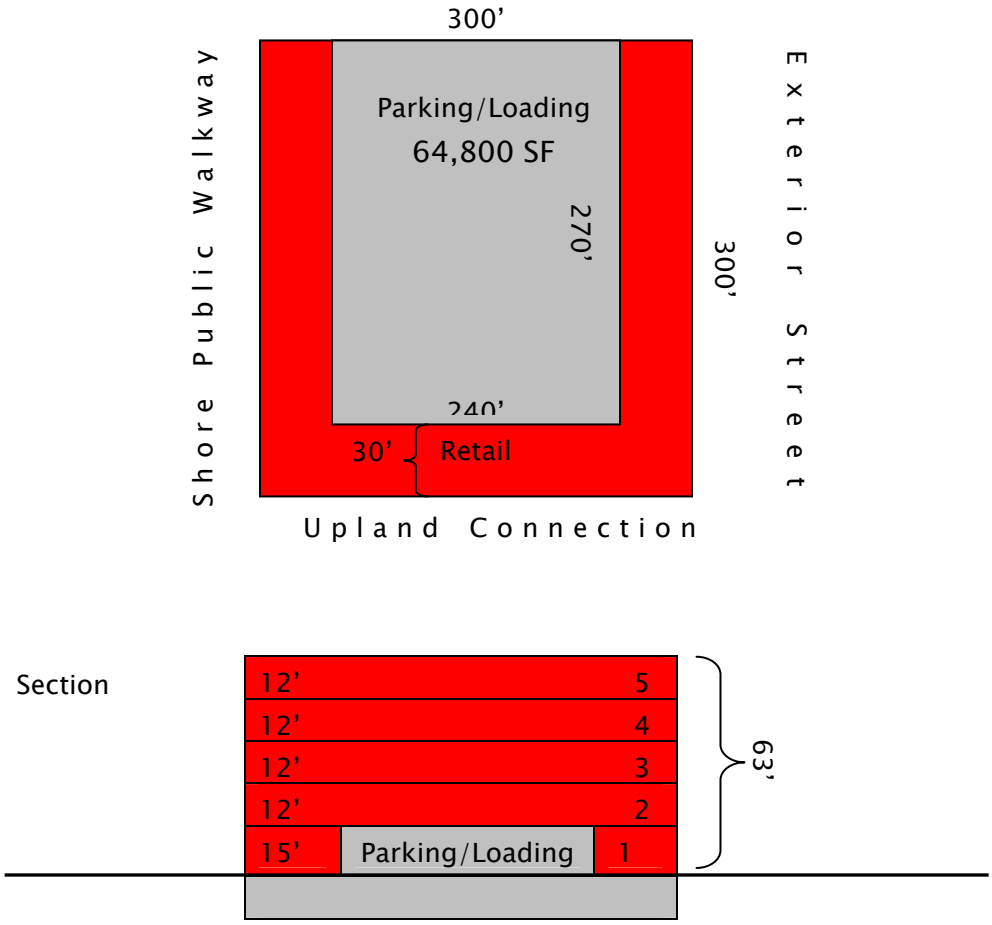
Future Conditions of RWCDS #1- Proposed Actions

Under future conditions with the proposed action, RWCDS site #1 would be expected to be developed with 143,250 sf of retail use in a mixed-use building containing 620,750 sf of residential space, with a total of 621 dwelling units (DUs), including 124 affordable DUs and 497 market rate DUs. The height of this projected development under the proposed action would be 400 feet. Adjacent to the south of RWCDS site #1 is the site of the proposed park and a required upland connection to East 146th Street.

Future Conditions of RWCDS Site #1 – Authorization Option

Given that there is no known development plan for RWCDS Site #1, a reasonable worst case assumption for stand-alone retail development was prepared. The retail-only development identified as the most likely scenario for RWCDS site #1 would include a five-story building with total floor area of 385,200 sf. The site's 90,000-square foot footprint would have a width and depth of 300 linear feet with 25,200 sf of ground floor retail wrapping around a 64,800-square foot parking and loading area. Ground floor retail would have a depth of 30 feet. Requirements for the waterfront public walkway and an upland connection would still apply under the stand-alone retail authorization. The following diagrams illustrate the configuration of the Ground Floor Plan and a Building Section.

Projected Site 1:
Ground Floor Plan



Source: New York City Department of City Planning, November 2008.

As illustrated above, stand-alone retail development on RWCDS site #1 would be expected to be five stories, or 63 feet, in height, with a combination of below-grade parking and ground floor parking and loading. 15-foot tall ground floor storefronts would be located on three sides of the building, excluding the building's northern side that would directly face the 145th Street Bridge. Floors two-to-five would have heights of 12 feet each.

With requirements of one parking space per 1,000 sf of retail development and 300 sf of area per parking space, 385 parking spaces would be required for this 2.01 FAR building (115,560 sf of parking area with 63,200 sf of parking on the ground floor and 52,360 sf of parking in basement levels). Four loading berths would be required, resulting in 1,600 sf of loading area on the ground floor.

Analyses

RWCDS site #1 is the largest development site among those that could potentially utilize the authorization. The following sections describe the anticipated environmental effects of development on RWCDS site #1 if it were to be developed for stand-alone retail pursuant to the proposed new CPC Authorization. The potential environmental effects that would result on this site will be used as a basis for the conceptual analysis of potential environmental effects, should any future application be submitted for the use of the authorization. The proposed action's environmental impacts will be compared to those that could occur under the authorization option; however, as mentioned previously, each time the authorization would be used it would require a separate environmental review to ensure changed conditions and development scenarios are accurately analyzed.

Land Use, Zoning, and Public Policy

New, mid-rise retail construction on RWCDS site #1 would result in a change in land use compared to existing and future conditions with and without the project, with retail development replacing an open industrial use. Compared to future conditions with the proposed action, such retail development would occur in place of high-rise mixed-use development and would be lower in scale and density, although the types of stores that would occupy the future space built pursuant to the new authorization would be expected to house more intensive retail uses drawing customers from a wider area. Through this authorization, anticipated retail development on RWCDS site #1 would more than double compared to the proposed action, from 143,250 sf of retail space on the ground floor of a high rise mixed-use building, to 385,200 sf of retail in a single-use structure.

The types of retail stores would likely be ones that would not directly compete with the future stores at Gateway Center, and could include food stores. Vertical malls such as the five-story stand-alone retail building on RWCDS site #1 are being developed in increasing numbers in dense urban areas and are an alternative to big box types of retail stores that are typically one-story in height and surrounded by surface parking. Recent examples of similar types of multi-level retail construction can be found in Flatbush, Brooklyn, with the Triangle Junction project, which includes a two-story Target store located above a Circuit City store. Another example can be found on Fordham Road in The Bronx with Acadia Realty Trust's planned multi-level retail development that will include a mix of tenants such as Best Buy and Walgreen's.

This type of retail on RWCDS site #1 would be expected to be a major draw for shoppers that would bring patrons and visitors to the waterfront area. With the future waterfront park located adjacent to the south and a shore public walkway required to be built as part of the stand-alone retail development, patrons would be able to take advantage of new waterfront amenities and the increase in activity would enliven the area during business hours. The benefits of bringing residential development to this site in terms of its round-the-clock activity and contribution to a new mixed-use neighborhood, however, would not be achieved on RWCDS site #1.

Regarding zoning and public policy, stand-alone retail uses would not advance the goal of

replacing underutilized industrial development with mixed-use development, although the effects of revitalization and reuse of an underutilized industrial waterfront site would be achieved. Creation of a Shore Public Walkway on this site would also be accomplished. The use of the site for stand-alone retail would be consistent with the proposed zoning, although requiring a discretionary approval by the CPC through the new Authorization.

Overall, no significant adverse land use effects would be anticipated as the retail use would be an appropriate extension of new retail construction occurring to the north at Gateway Center at the Bronx Terminal Market. This use would also be compatible with the adjacent proposed parkland, whose users would have an enhanced sense of security with the storefront windows directly facing the park to the north.

Socioeconomics

It is expected that most new development without use of the proposed new Authorization will consist of residential mixed-use development and that this Authorization would not be widely used. Therefore, it is not expected to result in significant retail development that would compete with existing retail developments in the surrounding area. The conceptual analysis has been completed in order to provide a conservative projection of retail development, and no socioeconomic impact from indirect business displacement is expected to occur as compared to the proposed action.

Community Facilities

Without the addition of 621 residential units otherwise expected on RWCDS site #1, the development scenario resulting from use of the new authorization on RWCDS site #1 would have lower demands on community facilities. As with the proposed action, this concept would not result in a significant adverse impact to schools, libraries, health care services, or police or fire services. Like the proposed action, there would still be impacts to publicly funded day care services. This potential increase in demand for publicly funded day care slots generated by the proposed Lower Concourse Rezoning and Related Actions could be offset by a number of factors. Private day care facilities and day care centers outside of the study area (e.g., closer to parent's place of work) are not included in this analysis. Some of the increased day care demand would likely be offset by parents who choose to take their children to day care centers outside of the study area (e.g., closer to work). Some of the Family Day Care Networks serve children residing in the study area could potentially absorb some of the demand. This new demand would also be considered in future ACS solicitations for contracted services. Finally, new capacity could potentially be developed as part of ACS's public-private partnership initiatives.

As development occurs over the next ten years as a result of the proposed action, ACS will monitor the need for publicly funded day care services in the area and identify the appropriate measures to mitigate the impact of an increase in the number of children eligible for publicly funded day care services in this area of the Bronx.

Open Space

With no added residents as a result of construction of stand-alone retail on RWCDS site #1, the development scenario with use of the new authorization would have lower demands on open space in the residential study area. Approximately 1,156 new workers would be expected to be employed at the new stores, increasing demand for passive open space in the non-residential open space study area. Offsetting this demand would be the presence of the proposed park adjacent to the new retail complex that would provide a lunchtime gathering place for workers, with connection to the new linear open space of the Shore Public Walkway. Neither the proposed action nor the development scenario with use of the new authorization would result in significant adverse open space impacts.

Shadows

At a fraction of the 385-foot building height of the mixed-use development that would otherwise be expected on RWCDS site #1 under the proposed action, the resulting five-story stand-alone retail development would have decreased shadow effects. For instance, shadows cast by this building would not reach the Harlem River Greenway during some early morning periods as would the proposed action with high-rise mixed-use development. Neither the high-rise, mixed-use building resulting from the proposed action, nor the mid-rise building expected under a stand-alone retail scenario, would be expected to have significant adverse shadow impacts.

Urban Design and Visual Resources

Urban design conditions on the waterfront south of the West 145th Street Bridge would differ under a scenario in which the new authorization for stand-alone retail use is applied. Projected high-rise mixed-use development on RWCDS site #1 would be expected to have a total building height of 385 feet. Alternative stand-alone retail use would be expected to have a building height of five stories, or a total building height of 63 feet. A maximum building base length of 300 feet would be permitted. While retail use would increase substantially, overall site density would significantly decrease, with a projected FAR of 2.01. Both the proposed action and stand-alone retail development would be required to adhere to Shore Public Walkway and Upland Connection requirements.

As with the proposed action, no significant urban design or visual impacts would result from the five-story retail development on RWCDS site #1. The active use of the site during business hours would complement the adjacent proposed waterfront park. The Upland Connection that would be provided would allow for waterfront views similar to the proposed action. The consistent streetwall of future development at the edge of the waterfront esplanade would be maintained, with high-rise development on other waterfront sites entailing towers above mid-rise building bases, with 60-foot building bases. As with the proposed action, the adjacent streets and sidewalks would be unaltered under the stand-alone retail scenario for RWCDS site #1. Greater security benefits of having "eyes-on-the-park" through adjacent high-rise mixed-use development might not result on RWCDS site #1 from this scenario, with no requirements indicated for upper floor glazing.

Neighborhood Character

For traffic to have an effect on neighborhood character, it must be a contributing element to the character of the neighborhood (either by its absence or its presence), and it must change substantially as a result of the action. The development of stand-alone retail on RWCDS site #1 would exacerbate traffic impacts, resulting in the need for more mitigation and additional unavoidable adverse impacts. With regard to transit and pedestrians, LOS for pedestrian conditions at the southwest sidewalk corner of the intersection of East 149th Street and Grand Concourse would likely deteriorate further due to the additional walking and subway trips generated by a stand-alone retail development on RWCDS site #1. Because of its greater impacts on transportation, stand-alone retail development on RWCDS site #1 would increase impacts on neighborhood character in comparison to the proposed action.

No increases in the magnitude of impacts are expected for the other elements that combined establish an area's neighborhood character – specifically land use, socioeconomic conditions, historic resources, urban design and visual resources, and noise. However, in general, non-residential development on this site would not result in the same benefits of mixed-use development in terms of activating the streetscape and providing an enhanced sense of security on a round-the-clock basis at this location south of the 145th Street Bridge. During business hours, however, the adjacent waterfront park and Shore Public Walkway would receive increased use by patrons and workers at the expected stores. The mid-rise scale of development would be compatible with existing development, and would provide a transitionary scale from the generally mid-rise and low-rise development to the north and anticipated high-rise mixed-use development on RWCDS sites to the south.

Hazardous Materials

The development of stand-alone retail use on RWCDS site #1 would have the same requirements for hazardous material remediation as would development resulting from the proposed action. Significant adverse impacts would not result from this scenario.

Natural Resources

Like the proposed action, stand-alone retail development on RWCDS site #1 would not result in significant adverse impacts on natural resources.

Coastal Zone Compliance

While there would be a decrease in development density on RWCDS site #1 with stand-alone retail use, the site would still be fully disturbed, with its building footprint extending from Exterior Street to the Shore Public Walkway. An upland connection that would be paved and landscaped would run parallel to the southern side of the new five-story retail building, beyond which would be the proposed waterfront park. The Shore Public Walkway would back onto a five-story retail building as compared to new, high-rise, mixed-use development under the proposed action.

With no round-the-clock residential use facing the walkway, stand-alone retail use would be less compatible with the vision of the waterfront as mixed-use area that would have a round-the-clock activity in this location, although the storefronts facing the Shore Public Walkway and the Upland Connection would bring an enhanced sense of security for users of those adjacent facilities. If constructed with upper floor glazing, upper-story retail uses and their patrons would have direct views to the proposed future waterfront park. In terms of visual quality, mid-rise development would provide the adjacent future proposed park with greater light and air. The incremental increase in shadows generated by this use would be lower than that of high-rise residential development, although no significant adverse impact from proposed action shadows are anticipated. Like the proposed action's tower-on-a-base type development on RWCDS site #1, stand-alone retail development would be consistent with the City's LWRP policies that promote waterfront public access and views. Stand alone retail development on RWCDS site #1 would not be expected to have significant adverse effects on resources within the Coastal Zone.

Historic Resources

Like the proposed action, there would be no potential for disturbance of archaeological resources. There are no existing historic resources present on this site. With regard to indirect effects on historic resources, RWCDS site #1 is located cater-corner to Building D of the Bronx Terminal Market that is being reused as part of the Gateway Center at Bronx Terminal Market project. No significant adverse impacts on this historic resource are anticipated from the proposed action, and none would result from the scenario with stand-alone retail on RWCDS site #1. The wide separation of East 149th Street between Building D and RWCDS site #1, and the barriers of the West 145th Street Bridge and its approach, limit direct views between these sites, although the upper floors of high-rise development on RWCDS site #1 that would otherwise be available from the Building D site would not be noticeable under a mid-rise scenario.

Infrastructure

With the lower density of development and lack of residential units included in a stand-alone retail scenario for RWCDS site #1, this scenario would produce somewhat less demand on the City's utilities when compared to the proposed action and would not result in significant adverse impacts.

Water Supply and Wastewater Management

The elimination of residential use on RWCDS site #1 would significantly reduce demand for water supply, and would generate less wastewater compared to the proposed action. Water demand would be reduced from 216,996 gallons per day (gpd) for RWCDS site #1 to 130,968 gpd with stand-alone retail use, based on water demand rates from *CEQR Technical Manual* Table 3L-2. As with the proposed action, no significant adverse impacts on the City's water supply system or water pressure would be expected.

As with the proposed action, the conceptual analysis is anticipated to generate approximately

9.6 cubic feet per second (cfs) of stormwater runoff over the No Action conditions. Although there may not be a specified requirement for increased detention associated with the proposed action itself, stormwater Best Management Practices and sustainable design features could be incorporated into future development. These would serve to decrease the potential for an increase to CSO frequency or duration to the Harlem River. Therefore, it is expected that there would be some reduction in uncontrolled runoff from private development sites in the future with the proposed actions and with the conceptual analysis retail.

Based on the analysis pursuant to the *CEQR Technical Manual*, it is concluded that stand alone retail would not result in significant adverse impacts to the local water supply, sanitary wastewater treatment, or stormwater management infrastructure systems.

Stormwater Management

RWCDS site #1 would be covered with impervious surface under a retail scenario similar to the proposed action. As with the proposed action, this would not increase the amount of impervious surface in the study area or increase the volume of stormwater runoff. No significant adverse impacts on the City's stormwater management system would be expected.

Solid Waste and Sanitation Services

Although the amount of solid waste generated by stand-alone retail use on RWCDS site #1 would increase from 67,242 pounds (lbs) per week under the proposed action to 91,324 lbs per week with stand alone retail use, demand for New York City Department of Sanitation services for solid waste pickup would be eliminated, as commercially-generated solid waste is disposed of by private carters. As with the proposed action, no significant adverse solid waste/sanitation impacts would occur under a stand-alone retail scenario for RWCDS site #1.

Energy

As with the proposed action, no significant adverse energy impacts would occur under a stand-alone retail scenario for RWCDS site #1. The annual incremental demand on an hourly basis would represent a small fraction of the City's forecasted peak summer load of 13,085 MW in 2018, and an infinitesimal amount of the City's forecasted annual energy requirements for 2018. Demand for energy from stand-alone retail building would not be large enough to significantly impact the ability of the City's energy systems to deliver electricity and would not constitute a significant adverse impact.

Traffic and Parking

A stand-alone retail development on RWCDS site #1 as analyzed herein would significantly increase the volume of vehicle trips generated by the site during the weekday midday, PM and Saturday midday peak hours in comparison to the proposed action. Specifically, it is projected that redeveloping the site with a stand-alone retail development would generate approximately 560, 540 and 800 additional vehicle trips during the weekday midday, PM and Saturday midday

peak hours, respectively, relative to the proposed action during the same respective hours. Given that unmitigated significant traffic impacts were identified under the proposed action at the adjacent intersection of East 149th Street, River Avenue and Exterior Street, it can be assumed that these unmitigated impacts would grow worse under this scenario as higher levels of traffic would proceed through this intersection. It is also reasonable to anticipate that the appreciably higher levels of traffic generated by stand-alone retail development would exacerbate certain other significant traffic impacts identified under the proposed action, such as at the intersections of East 138th Street with Exterior Street and East 138th Street with the northbound Major Deegan Expressway exit ramp, just south of RWCDS site #1, and also at the intersection of West 145th Street with Lenox Avenue, just west of RWCDS site #1. It may also possibly generate new significant traffic impacts as compared to the proposed action at other locations in the study area. However, as mentioned previously, should any future application be submitted for the use of the authorization, it would require a separate environmental review to ensure future conditions and development scenarios are accurately analyzed and, where feasible, mitigation or partial mitigation measures are identified. Additionally, the subsequent environmental review would analyze the site and surrounding future conditions in the context of the SHRWD as a whole, and would determine how, if at all, the mitigation measures identified under the proposed actions would be affected or require revision as result of the new retail development.

Transit and Pedestrians

A stand-alone retail development on RWCDS site #1 would also increase the volume of subway and bus passenger trips generated by the site during the weekday midday, PM and Saturday midday peak hours in comparison to the proposed action; however, it is not expected to result in significant adverse impacts to transit and pedestrians. It would also generate more walking trips during the PM and Saturday midday peak hours, the volume of which would be elevated further since bus and subway passengers use the sidewalk elements of the study area. It is projected that bus passenger trips would increase by approximately 500, 520 and 700 passengers during the weekday midday, PM and Saturday midday peak hours, respectively, in comparison to the proposed action. Subway passenger trips would increase by approximately 750, 650 and 1010 passengers during these same analysis hours in comparison to the proposed action.

Sidewalk elements in the vicinity of RWCDS site #1 are lightly utilized. However, most people traveling to and from RWCDS site #1 would utilize the 149th Street/Grand Concourse subway station, which is more heavily utilized than the more remote 138th Street/Grand Concourse station. The southwest sidewalk corner of the intersection of East 149th Street and Grand Concourse is projected to operate at LOS E during the weekday midday time period. The LOS for this sidewalk element would likely deteriorate further due to the additional walking and subway trips generated by a stand-alone retail development on RWCDS site #1. The southwest corner stairways of the 149th Street/Grand Concourse subway station are projected to operate at LOS A/B under the proposed action, and no significant deterioration in operations would be anticipated to these subway stairways with a stand-alone retail development on RWCDS site #1.

The two closest bus routes to RWCDS site #1 are the Bx1 and Bx19. Both are projected to have

appreciable available capacity under the proposed action and would likely be able to absorb the additional bus passengers generated by a stand-alone retail development on RWCDS site #1 under current bus service levels.

In summary, should any future application be submitted for the authorization, even though there would be increased subway and bus passengers and pedestrians as a result of the retail use it is not expected that the environmental review would identify new significant adverse impacts as compared to the proposed actions. However, each time the authorization would be used it would require a separate environmental review to ensure future conditions and development scenarios are accurately analyzed and, where feasible, mitigation or partial mitigation measures are identified.

Air Quality

Based on the expected additional traffic generated by stand-alone retail development described above, a qualitative evaluation of potential mobile source air quality impacts indicates that stand-alone retail development would not be expected to result in exceedances of the NAAQS 8-hour carbon monoxide standard at the locations modeled for the proposed action. However, should any future application be submitted for the use of the authorization for RWCDS site #1, the application should be accompanied by a detailed analysis for the peak periods at the intersections identified under the traffic analysis described above to ensure that significant adverse impacts to mobile source air quality would not result.

For mobile source $PM_{2.5}$, given the conceptual nature of this analysis and trip generation assumptions, all of the traffic is assumed to be at the 149th Street and Exterior Street intersection, which is the nearest to the proposed retail location. The screening analysis shows that a detailed $PM_{2.5}$ analysis would be required at the 149th Street & Exterior Street intersection for the peak periods if the RWCDS site #1 was developed as a stand-alone retail development as described herein. Therefore, should any future application be submitted for the use of the authorization, the application should be accompanied by a screening analysis and, if necessary, a detailed mobile source $PM_{2.5}$ analysis for the peak periods where increases in traffic volumes are substantial enough to change the mobile air quality predicted for the proposed action.

For stationary source air quality, the development of stand-alone retail use on RWCDS site #1 with a height of 63 feet would be shorter than the proposed mixed-use structure under the proposed action. As such, with a proposed size of 385,000 sf, boiler emissions could potentially affect the adjacent proposed residential development at RWCDS site # 2. The authorization would likely have to incorporate conditions specifying fuel type and stack setbacks at RWCDS site #1 in order not to cause any violations of the NAAQS and or have any significant adverse environmental impacts on air quality. However, the exact restrictions would be determined during the subsequent environmental review process for the site, should any future application be submitted for the use of the authorization.

At all other potential and projected development sites, the air quality impact issues would be the same as those that were addressed for the proposed action.

Noise

Although use of the retail authorization for stand-alone retail development could result in noticeable increases in traffic volume at some noise locations during peak periods, it is not expected that the additional traffic would result in a doubling of passenger car-equivalents. Therefore, significant adverse impacts due to mobile source noise would not result. With respect to window/wall attenuation for potential and projected development sites, should any future application be submitted for the use of the authorization, the application should be accompanied by a detailed noise attenuation analysis for the peak periods at locations where increases in traffic volumes are substantial enough to change the attenuation predicted for the proposed action.

Construction Impacts

A lower duration and magnitude of construction activities would be expected with mid-rise retail construction compared to the proposed action. Because of the lower amount of development anticipated, temporary construction disruptions would decrease when compared to the proposed action.

Public Health

The stand-alone retail scenario would not result in significant adverse public health impacts, as it would not significantly impact the various technical areas that comprise public health, namely, air quality, hazardous materials, solid waste management, and noise. Similar to the proposed action, a building constructed pursuant to the new CPC Authorization for stand-alone retail use would also incorporate noise attenuation, air quality, and hazardous materials testing and remediation requirements due to proposed (E) designations.

Mitigation

The additional vehicle trips that would be generated by a stand-alone retail development on RWCDS site #1 may increase the number of locations requiring traffic mitigation in the study area. The high entrance/exit turnstiles at the 149th Street/Grand Concourse subway station may require mitigation due to the additional volume of passengers that would use this station with a stand-alone retail development on RWCDS site #1. Other mitigation identified for the proposed action would similarly apply to a scenario involving stand-alone retail development on RWCDS site #1. All feasible and practicable mitigation measures would be identified through the environmental review process for an authorization for stand-alone retail use, should any future application be submitted for the use of the authorization. Additionally, the subsequent environmental review would analyze the site and surrounding future conditions in the context of the SHRWD as a whole, and would determine how, if at all, the mitigation measures identified under the proposed actions would be affected or would require revision as result of the new retail development.

Unavoidable Adverse Impacts

Unavoidable adverse impacts resulting from the proposed action, associated with community facilities, historic resources and traffic, would similarly result from development of stand-alone retail development on RWCDS site #1, in tandem with development on other RWCDS sites elsewhere in the rezoning area that would not change in comparison to the proposed action. Some increased impacts would result, related to traffic and transit and pedestrians. Operations of the intersection elements with unmitigated significant adverse traffic impacts at the intersection of East 149th Street with River Avenue and Exterior Street as well as at the intersections of East 138th Street with Exterior Street and East 135th Street with Madison Avenue would likely deteriorate further with a stand-alone retail development on RWCDS site #1. However as mentioned previously, should any future application be submitted for the use of the authorization, the environmental review process would identify all feasible mitigation measures, as well as any unavoidable significant adverse impacts.

Conclusion

A representative site, RWCDS site #1, was evaluated for the conceptual analysis as a case study due to its size, access and location, which make it the most likely of the waterfront RWCDS sites to be developed for stand-alone retail development. However, it should be noted that the authorization is not anticipated to be widely used, if at all, and there is no known development plan for the site.

A stand-alone retail development on RWCDS site #1 constructed pursuant to the proposed new Authorization would significantly increase the volume of vehicle trips generated by RWCDS site #1 during the weekday midday, PM and Saturday midday peak hours in comparison to the proposed action. Given that unmitigated significant traffic impacts were identified under the proposed action at the adjacent intersection of East 149th Street, River Avenue and Exterior Street, it can be assumed that these unmitigated impacts would grow worse under this scenario as higher levels of traffic would proceed through this intersection. It is also reasonable to anticipate that the appreciably higher levels of traffic generated by stand-alone retail development would exacerbate certain other significant traffic impacts identified under the proposed action. Operations of the intersection elements with unmitigated significant adverse traffic impacts at the intersection of East 149th Street with River Avenue and Exterior Street as well as at the intersections of East 138th Street with Exterior Street and East 135th Street with Madison Avenue would likely deteriorate further with a stand-alone retail development on RWCDS site #1. A stand-alone retail development on RWCDS site #1 would also significantly increase the volume of subway and bus passenger trips generated by the site during the weekday midday, PM and Saturday midday peak hours in comparison to the proposed action. The additional vehicle trips that would be generated by a stand-alone retail development on RWCDS site #1 may increase the number of locations requiring traffic mitigation in the study area. The high entrance/exit turnstiles at the 149th Street/Grand Concourse subway station may also require mitigation due to the additional volume of passengers that would use this station with a stand-alone retail development on RWCDS site #1.

Based on the expected additional traffic that would generated by a stand-alone retail

development on RWCDS site #1 , a qualitative evaluation of potential mobile source air quality impacts indicates that stand-alone retail development would not be expected to result in exceedances of the 8-hour carbon monoxide standard at the locations modeled for the proposed action. However, should any future application be submitted for the use of the authorization for RWCDS site #1, the application should be accompanied by a detailed analysis for the peak periods at the intersections identified under the traffic analysis described above to ensure that significant adverse impacts to mobile source air quality would not result. For mobile source $PM_{2.5}$, the screening analysis shows that a detailed $PM_{2.5}$ analysis would be required at the 149th Street & Exterior Street intersection for the peak periods if the RWCDS site #1 was developed as a stand-alone retail development as described herein. Therefore, should any future application be submitted for the use of the authorization, the application should be accompanied by a screening analysis and, if necessary, a detailed mobile source $PM_{2.5}$ analysis for the peak periods where increases in traffic volumes are substantial enough to change the mobile air quality predicted for the proposed action.

For stationary source air quality, boiler emissions could potentially affect the adjacent proposed residential development at RWCDS site # 2. Restrictions specifying fuel type and stack setbacks would likely be required at RWCDS site # 1 in order not to cause any violations of the NAAQS or have any significant adverse environmental impacts on air quality; however, the exact conditions would be determined during the subsequent environmental review, should any future application be submitted for the use of the authorization. At all other potential and projected development sites, the air quality impact issues would be the same as those that were addressed for the proposed action.

With regard to noise impacts, although use of the retail Authorization for stand-alone retail development could result in noticeable increases in traffic volume at some noise locations during peak periods, it is not expected that the additional traffic would result in a doubling of passenger car-equivalents. Therefore, significant adverse impacts due to mobile source noise would not result. With respect to window/wall attenuation for potential and projected development sites, should any future application be submitted for the use of the Authorization, the application should be accompanied by a detailed noise attenuation analysis for the peak periods at locations where increases in traffic volumes are substantial enough to change the attenuation predicted for the proposed action.

Environmental impacts related to other specific areas of assessment for a stand-alone retail development on RWCDS site #1 would be generally lower than those of the proposed action. Elimination of future residential development in particular would eliminate impacts related to community facilities as they relate to RWCDS site #1, and would slightly lower the degree of such impacts overall. Infrastructure and other population-related impacts would be lower compared to the proposed action.

Similar waterfront amenities would be required, resulting in Shore Public Walkway and Upland Connections on this site, promoting LWRP goals. Although round-the-clock activity along this segment would not be expected with retail-only development, a five-story retail building would still attract visitors to the waterfront and would enhance the perception of security for users of the Shore Public Walkway and the future waterfront park. The mid-rise

scale of development would be compatible with the existing mid-rise context to the north and in upland areas, and would create a transitionary scale between areas to the north and the future anticipated high-rise development on RWCDS sites to the south.