

**SUPPLEMENTAL DRAFT
ENVIRONMENTAL IMPACT STATEMENT
River Club Apartments**

*Prepared pursuant to the requirements of the
New York State Environmental Quality Review Act (SEQRA)*

Proposed Project:

River Club Apartments

Project Location:

1105-1135 Warburton Avenue, City of Yonkers, Westchester County, NY

Project Summary:

Proposed Amended Site Plan of an approved project known as "River Club" for the development of a 330-unit residential apartment complex on a 4.6-acre site located at 1105-1135 Warburton Avenue in the northwest corner of the City of Yonkers, Westchester County, New York. This is an application for a substantially reduced-density project, consistent with the zoning regulations for the site. The site is served by municipal water and sewer services.

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August 20, 2012

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SUPPLEMENTAL DRAFT ENVIRONMENTAL IMPACT STATEMENT

River Club
City of Yonkers, New York

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1.0 EXECUTIVE SUMMARY

1.1 Project Description

The project sponsor has submitted an application for Amended Site Plan of an approved project known as "River Club" for the development of a 330-unit residential apartment complex on a 4.6-acre site located at 1105-1135 Warburton Avenue in the northwest corner of the City of Yonkers, Westchester County, New York. The Applicant is River Club LLC, an affiliate of GDC Properties, LLC.

This is an application for a substantially reduced-density project, consistent with the zoning regulations for the site. The site is served by municipal water and sewer services and is currently undeveloped except for a County sewer line that runs through the property.

Although the revised plan has far less impacts than the approved 353-unit plan, the City of Yonkers Planning Board determined that because various changes have occurred in the local environment (such as baseline traffic conditions and a change in site conditions), a Supplemental Draft EIS (SDEIS) should be prepared. This SDEIS evaluates a focused scope of potential environmental impacts of the Proposed Amended Site Plan. The scope was developed based on the prior history of the subject site and a scoping outline prepared by the applicant that was subject to a public hearing held by the Yonkers Planning Board on May 9, 2012 and was adopted by the Planning Board on June 13, 2012.

The proposed project will provide market rate rental apartments in close proximity to mass transit and adequate public infrastructure. The site is located in an area of North Yonkers that supports a number of other multifamily and high rise residential developments, which the proposed development would complement, not unlike the prior approved project. The revised project proposal, however, includes several additional benefits to the local neighborhood compared to the prior approved plan:

- **DENSITY:** Reduces density substantially while still adhering to the appropriate zoning goals for the site which is located near a mass transit rail station with direct connection to New York City. It is noted that the buildings to the north and south are constructed to a much higher density than the proposed project.
- **WETLANDS AND SITE COVERAGE:** Eliminates any wetland impact associated with the residential building and preserves more trees on the west side of the site. Also, the site coverage is significantly lower than the previously approved plan and lower than the buildings to the immediate north and south.
- **VIEWS:** Preserves view corridors for both 1085 and 1155 Warburton Avenue buildings (which were impacted by the previously approved 428 unit project) This was done by reducing the overall scale of the building and reorienting the buildings. The orientation of the proposed building parallel to the street opens up the view corridor to the north and south, which the prior approved building had obstructed. The applicant also proposes to create a permanent viewing station with a raised gazebo on the Old Croton Aqueduct Trail on private property (permission pending) just north of the Yonkers border with the Town of Greenburgh/Village of Hastings-on-Hudson where there are permanent views that will not be obstructed by construction or vegetation.
- **MASS TRANSIT:** Develops a pedestrian walkway for direct access from the project to the Greystone train station.

- **COUNTY TRUNK SEWER:** The prior approved plan left the sewer in place and built over it. The current plan does not have buildings over the trunk sewer and provides for its reconstruction with an improved alignment and appropriate site stabilization measures that ensure the protection of the trunk sewer and neighboring properties, in light of the severe damage from past storms.
- **TRAFFIC AND OTHER IMPACT AREAS:** The smaller project will generate less traffic, fewer school children, less demand on water and sewer services and have a lower parking demand than the prior approved plan. In almost all areas, impacts are reduced by the revised project.

The proposed facility will consist of two towers with ten residential stories above and three parking levels below Warburton Avenue. Vehicular access to the building will be from Warburton Avenue. The proposed north and south towers will be connected by a two-story component containing the main building entrance on the street level and a fitness center on the second floor along with other functions. The building will be oriented parallel to Warburton Avenue, leaving the west side of the property vegetated. Pool terrace amenities for the project residents will be built on the west side of the building one level below the garage. The development will provide a total of 332 off-street parking spaces and will meet the zoning requirements for parking.

The project plans call for a stormwater diversion system to collect and direct stormwater from the upgradient, off-site portion of the site drainage area (land to the east and adjacent portion of Warburton Avenue) via a pipe system around the north end of the site to a discharge point in the northwest corner of the on-site wetland. Stormwater collected from the building roof, front lawns, pavement areas and some surface runoff will be directed to a bio-retention basin at the northwest corner of the site, which will treat the stormwater before its discharge via infiltration to the on-site wetland. Other site areas that are vegetated will flow overland into the wetland. The stormwater systems are designed to conform to the applicable NYSDEC SPDES General Permit requirements.

Different from the approved plan, the revised site plan will avoid any direct impact to the onsite wetlands associated with the proposed residential building. It will, however, necessitate a smaller amount of fill in the wetland to facilitate relocation of the County Sewer Trunk and an associated retaining wall designed to fully stabilize the slope above the wetland. Although the prior plans included creation of off-site wetlands, for which a permit was obtained from the US Corps of Engineers, that plan will be abandoned in the revised proposal. The applicant anticipates assisting the County in applying to the Corps for permission to relocate the trunk line and stabilize the site with a wall. This work will include redirecting the overland flow of storm water from Warburton Avenue in the initial stage of project construction, since the sewer work cannot start until this is done. The applicant is also interested in implementing onsite wetland enhancement due to the degraded nature of the existing wetlands.

The Warburton Avenue streetscape will include street trees, foundation plantings at the building and decorative planters at the building's main entrance, as well as lighting.

Comparison with Prior Plans

Explanations of the various similarities and differences in particular areas of concern are provided in the SDEIS. Table 2-1 outlines the reductions in project impacts from the previously approved plan (site plan approved 2005) to the currently proposed plan. SDEIS Section 4.0 and

Table 4-2 provide a brief comparison of four prior site plans, and the figures in Appendix H illustrate four plan iterations for comparison: the 524-unit DEIS plan, 440-unit FEIS plan, 353-unit approved plan, and the currently proposed 330-unit plan.

1.2 Summary of Potential Environmental Impacts and Proposed Mitigation

Geology, Soils, and Topography

The original EIS prepared for 1105-1135 Warburton Avenue evaluated a site development plan that comprised approximately 4.1 and 3.8 acres of land disturbance, respectively. During the subsequent site plan review, a 353-unit plan was developed and approved comprising a development area of 3.8 acres. The current plan will reduce the development area to 3.5 acres, which is less disturbance to geology, soils and topography than previously approved.

Generally, grading will occur in the eastern portion of the site to excavate for the building foundation, storm drain lines and other utilities, and retaining walls to establish the finish grades for the driveway and landscaped areas. A stormwater basin is proposed for the northwest corner of the site, above the western on-site wetland area.

The proposed building will be set parallel with Warburton Avenue and built into the slope, with the garage levels essentially below grade. The proposed project includes the relocation of approximately 490 lineal feet of the County sewer trunk towards the west and down slope from its current location. Unlike the prior approved plan, relocation of the line and reorientation of the proposed building will avoid putting the building and pool over the line and will provide greater stability of the slopes in which the sewer is laid. The reconstructed line will be located entirely underground, unlike its current exposed situation, and several bends in the line will be eliminated, improving efficiency of the County system. A wide easement will be provided following the proposed alignment to allow permanent future access to the sewer line for repairs and maintenance.

A retaining wall is proposed to be constructed west of and parallel to the sewer line to minimize impacts to the wetland while providing stable conditions for the relocated sewer line. The wall will range from a few feet to approximately 16.5 feet at its highest point. There are several alternatives for retaining wall construction and foundation systems to address the structural limitations of the fill and organic soils in the vicinity of the proposed wall, which are discussed in a Geotechnical Report.

Essentially all of the area of the site with grades greater than 15 percent will be disturbed by this proposal. An erosion and sedimentation control plan has been prepared to minimize the potential for impacts to resources downslope from the area of construction disturbance -- the on-site wetlands and the Hudson River.

The current plan is estimated to result in total excavation ("cut") of approximately 17,036 cubic yards (cy) of earth material, including approximately 293 cy of rock excavation. The current plan will result in replacement of approximately 13,170 cy of "fill" material. The excess cut (some 3,866 cy) will need to be removed from the project to an approved receiving site. These numbers encompass all work associated with the sewer relocation, retaining wall construction, and building construction. Excavation for the building will require cuts of up to 34 feet while up 14 feet of fill will be required elsewhere.

The project is designed to address the steep slope zoning amendments being considered by the City. Unlike the prior plan, a geotechnical analysis addresses slope stability related specifically to the project site and includes recommendations and information necessary to protect sloped areas from construction-induced instability, limit soil erosion potential, stabilize fill placement, identify lateral earth pressures for use in the design of foundations, and control runoff. It describes methods of anchoring structures proposed on the property and protecting adjacent properties and structures. Specific areas of analysis include site preparation; foundation design; slopes, walls and excavations; rock excavation; and retaining walls.

A Soil Erosion and Sediment Control plan is provided to reduce and control soil erosion from areas exposed during construction and prevent silt from reaching the site wetland or the Hudson River. Soil erosion and sedimentation control practices will be designed in accordance with the latest NYSDEC standards: SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-10-001).

A limited amount of blasting is anticipated during the initial construction. Blasting operations will follow the blasting plan outlined in the original DEIS, and will additionally include a pre-construction survey of all structures within 200 feet of the site, and test blasting to allow adjustment of the blasting program to actual site conditions.

Permanent mitigation measures integral to the project design will also include established vegetative stabilization, conventional stormwater management practices and reconstruction of the County Sewer Trunk.

Wetlands

As part of the revisions to the site plan, the applicant proposes to relocate the existing County sewer trunk line as a permanent solution to the County's temporary repairs and slope stabilization. The applicant is currently coordinating this effort with the County. For slope stabilization, a retaining wall is proposed at the eastern edge of the wetland to support the slope and provide a stable bed for the sewer line. To make this construction possible, 4,600 square feet of wetland fill (0.11 acres) will be required, significantly less disturbance than the previously approved plan, which would impact 0.45 acres. An additional 3,700 square feet of wetland will likely be temporarily disturbed for the wall construction. After construction, this area will be graded and seeded. In total, approximately 8,300 square feet of the wetland will be disturbed to accomplish this sewer realignment.

The stormwater management plan designed for the project is not expected to have a long term affect on any wetland habitat that is currently used by local resident wildlife. As described in the original EIS, the site does not provide a high level of habitat value to species associated with wetlands and the Hudson River. The wetland is isolated from the River, of a freshwater nature (where the River is brackish), and of limited ecological function.

The applicant is will determine if new or additional wetland permits will be required to implement the current site plan.

The current plan incorporates several measures to offset the wetland loss and improve the wetland. (1) Relocation of the County sewer will stabilize the slopes above the wetland. (2) The project will capture runoff from the Warburton Avenue drainage area above the site and convey it around the site rather than allow it to flow unimpeded over the site as it does now. Both of these measures will reduce sediment loading to the wetland. Runoff from new impervious

surfaces will be captured in a water quality practice and treated prior to controlled discharge to the wetland.

(3) To improve wetland aesthetics for the project and its neighbors as well as site habitat and biodiversity, the applicant will implement an aggressive *Phragmites* eradication program, with the goal of reducing the *Phragmites* population so that native species on the site may recover and once again become the dominant wetland species. No permit from the ACOE is required for this activity.

Water Resources

Project construction will result in the disturbance of approximately 3.5 acres of the site, and 1.44 acres of impervious surface. The design for stormwater management generally consists of (1) an engineered system to collect and route off-site, upgradient stormwater around the site to a discharge point at the on-site wetland; and (2) a separate engineered system to capture and treat the 90-percent rainfall collected from the site development area and routed through an on-site bioretention facility prior to discharge to the wetland.

Stormwater runoff from Warburton Avenue and upgradient off-site drainage area that currently flows through the site will be rerouted to eliminate the excessive overland flow that caused the prior slope failure on the property. Following development, all stormwater runoff in the drainage area will continue to flow to the one existing on-site drainage discharge point, two 36-inch culverts that empty into the Hudson River. Post-development peak flow rates will increase somewhat compared to pre-development flow rates for which a waiver will be requested from NYSDEC.

A site-specific stormwater management plan (Stormwater Pollution Prevention Plan or SWPPP) has been prepared to the project in accordance with the current NYSDEC and City of Yonkers stormwater regulations.

The structural stormwater controls and management practices proposed for the project are designed to avoid or minimize potential impacts to stormwater quality. All of the stormwater flowing from impervious surfaces (100 percent) would be captured and treated compared with existing conditions where no stormwater is being detained or treated.

The current revised site plan would create approximately 1.44 acres of impervious surface, compared to 3.6 acres in the original site plan evaluated in the 2000 DEIS, and 2.5 acres in the plan that was most recently approved by the City.

The project includes a site-specific soil erosion and sediment control plan to minimize erosion of exposed soils and prevent transport of sediment off-site during the construction process in accordance with the current NYSDEC and City of Yonkers stormwater regulations. The plan includes temporary measures for implementation during the construction and permanent measures for site stabilization following the construction.

Transportation

The traffic study done for the original DEIS for a 524-unit project projected that 124 am and 156 pm trips would be generated. The applicant has significantly reduced the size of the project from the original proposal and the subsequent approved site plan. Under the current plan, the project will generate 85 am trips and 100 pm trips (assuming a mass transit credit because of

proximity to the Greystone train station). Although the project will generate significantly less traffic than the original proposal, the City of Yonkers requested that a revised traffic study be prepared for this SDEIS because background volumes and conditions have changed since 1999.

The key locations studied in 2012 are:

- Nepperhan Avenue and Executive Boulevard
- Executive Boulevard and North Broadway (Route 9)
- North Broadway and Odell Avenue
- North Broadway and St. John's Riverside Hospital
- Warburton Avenue and Odell Avenue
- Warburton Avenue and Harriman Avenue
- North Broadway and Odell Terrace
- Warburton Avenue and Proposed Site Access
- North Broadway and Roberts Avenue

To account for the increase in traffic that typically occurs from normal growth, the Existing Traffic Volumes were increased by a factor of 1.5 percent to the 2015 Design Year. In addition to the background growth factor, traffic from other proposed developments in the area was included in the analysis. The resulting Year 2015 No-Build Traffic Volumes are then utilized to assess the potential traffic impact of the proposed project at peak hours.

River Club would result in a total of 100 vehicles (25 entering vehicles and 75 exiting vehicles) during the Weekday Peak AM Highway Hour, a total of 118 vehicles (72 entering vehicles and 46 exiting vehicles) during the Weekday Peak PM Highway Hour and a total of 128 vehicles (73 entering vehicles and 55 exiting vehicles) during the Peak Saturday Hour. Existing traffic volumes and travel patterns on the surrounding roadway network were used to assign the site generated traffic to an arrival/departure distribution. The site-generated traffic volumes were then combined with the Year 2015 No-Build Traffic Volumes to obtain the Year 2015 Build Traffic Volumes (including the proposed project).

The capacity analyses of the "No Build" and "Build" Conditions resulted in the following future peak hour levels of service, described below for each study intersection. Proposed mitigation is also indicated.

1. Nepperhan Avenue and Executive Boulevard - this intersection will operate at an overall Level of Service "D" or better. The River Club traffic at this location would be approximately 2% to 3% of the total traffic through the intersection.
2. North Broadway and Executive Boulevard - with signal timing modifications, this intersection will operate at an overall Level of Service "C" or better. This mitigation is proposed.
3. North Broadway and Odell Avenue - with a new traffic signal, this intersection will operate at Level of Service "C" or better. This signal should be coordinated with the signals to the north and south on North Broadway. The efficiency of the intersection could be further improved by increasing the radius of the northwest corner of the intersection. These mitigation measures are proposed.

4. North Broadway and St. John's Riverside Hospital - this intersection will continue to operate at an overall Level of Service "C" or better. The project proposes to upgrade the signal controller and coordinate the signal timings with intersection number 3 above.
5. Warburton Avenue and Odell Avenue - with installation of a new traffic signal, this intersection will operate at an overall Level of Service "B" or better. This mitigation is proposed. A dedicated pedestrian phase may be included in the signal design at this location.
6. Warburton Avenue and Harriman Avenue - this intersection will continue to operate at a Level of Service "C" or better.
7. North Broadway and Odell Terrace - this intersection will continue to operate at a Level of Service "C" or better.
8. North Broadway and Roberts Avenue - with minor signal timing changes, this intersection will operate at an overall Level of Service "C." The project proposes to modify the signal timing.
9. Warburton Avenue and Proposed Site Access - all movements at the site access will operate at Level of Service "B" or better.

The traffic section discusses various concerns relative to the study roadways -- sight distance at the project access, school bus stops on Warburton Avenue, Odell Avenue as a snow emergency route, drainage on Warburton Avenue, use of Harriman Avenue, access the Old Croton Aqueduct Trail, emergency access to the site, and parking. The project proposes 332 on-site parking spaces to meet the City's parking requirement. A survey of on-street parking availability and use in the project area determined that upon completion of the project there will be parking spaces available such that River Club is not expected to adversely affect street parking in the vicinity.

The traffic section also discusses construction traffic on local roads, which is an unavoidable impact of the project. The engineer's plan set includes a traffic control and construction staging plan that identifies specific mitigation measures to be implemented during the construction period. Parking for construction workers will be arranged off-site. Temporary closure of the sidewalk along the west side of Warburton Avenue will be necessary for the duration of the proposed construction for public safety reasons. Brief lane closures on Warburton Avenue may be required as equipment and material is brought into or off of the property. Appropriate signage and traffic control measures, including a flag crew when needed, will be implemented for the safety of motorists and pedestrians, as well as to give emergency vehicles priority passage.

The current plan would result in approximately 28 percent less trip generation than the plan evaluated in the DEIS (based on Saturday peak totals). However, the applicant's commitments for off-site traffic mitigation identified in the original Findings for the larger project remain in the current proposal. As stated in the latest (2010) approval resolution adopted by the City, the applicant will fund its pro rata share of the traffic improvements.

Proposed off-site traffic mitigation measures at the study intersections are indicated above. In addition:

- The applicant will monitor the Warburton Avenue parking situation including on-street parking counts and a review of license plates on an annual basis, in cooperation with the City.

- The applicant will add speed warning signs along Odell Avenue between Warburton and North Broadway and add traffic control measures such as pavement reflectors or skid resistant pavement surface in the vicinity of the horizontal curve.

Aesthetics

Like the approved plan, development of the revised project will alter the visual character of the site from an essentially tree covered hillside to a substantially urban-like environment. Vegetative cover on the highest, eastern half of the property will be replaced by buildings and pavement that will be the most noticeable change to the property. Unlike the approved plan, the lower, western half will remain substantially wooded as viewed from the west.

The revised plan will not change the view from the most prominent vantage points in the study area identified on the Old Croton Aqueduct Trail. Reorientation of the building parallel and close to Warburton Avenue in the current plan, however, will result in a significant reduction to the vista from two identified points on the trail. Other study vantage points on the trail, most with intermittent views to the west, will remain substantially unchanged.

Like the approved plan, the existing wooded character of the site will be replaced by an urban streetscape with architectural elements including a decorative building main entrance with lighting, raised planters and ornamental plantings. Views to the river will be obscured by the new building except at the extreme north and south ends of the site where a new vista to the river and beyond will result from tree clearing in the site development.

The view of the project site from the Greystone railroad station platforms will change less for the current project than for the approved plan. The views from the River and western shoreline will not appear significantly different or out of character from other existing development along the Yonkers riverfront, like with the approved plan.

Unlike the prior plan, the current plan will reduce or eliminate the impacts of the approved plan on river views from the neighboring residence buildings.

Shadow studies were prepared to show the locations of shadows that would result from the revised building orientation at particular times of day and season. At the winter solstice (December 21), shadows from the project and adjacent buildings cover all or much of the site through the morning hours, past noon. In afternoon shadows from the project and adjacent buildings cover Warburton Avenue. At the summer solstice (June 21), morning shadows from the project move over the western portions of the site. Again in late afternoon, shadows from the project and adjacent buildings cover much of Warburton Avenue. Shadows from the project and adjacent buildings circle around the site between these two extremes throughout the rest of the year. Shadow studies for September 22 and March 20 show the noon condition at the autumnal and vernal equinox.

A conceptual lighting plan has been prepared for the revised plan that provide light levels appropriate for public spaces and adequate for pedestrian and vehicle safety. If necessary, light fixtures will be outfitted with light shields to avoid visibility of the light source and off-site glare. All lighting will be directed down to illuminate the ground surface and avoid stray light.

Consistency of the proposed project with visual policies identified in adopted planning documents is discussed.

A view comparison between the current and former site plans is discussed and shown graphically. The proposed design incorporates several improvements over the prior approved plan with regard to views. 1) The revised plan will reduce or eliminate effects on views from neighboring buildings. 2) The plan will minimize disturbance to the wetland woods on the west side of the site. 3) The revised development area has a significantly reduced overall mass compared to the approved site plan. The effect on the direct view from two points on the Old Croton Aqueduct Trail is unavoidable with the current plan, which places the building parallel to and close to Warburton Avenue and reduces the development "footprint" to avoid any direct impact to the on-site wetlands, which was an impact of the previous plans. Mitigation of the visual impacts is proposed by creating a permanent viewing station with a raised gazebo on the Trail on private property (permission pending) just north of the Yonkers border with the Town of Greenburgh/Village of Hastings-on-Hudson where there are permanent views that will not be obstructed by construction or vegetation. A design for the viewing station will be coordinated with the City of Yonkers and the Friends of the Old Croton Aqueduct organization.

Mitigation of visual impacts is taken into consideration in the proposed building appearance as a new visual element on Warburton Avenue. The building facade will reflect the contemporary flavor of the buildings nearby, incorporating red brick on the lower floors and a neutral, light color, stucco-like finish on the upper floors, with vertical undulations to soften the face, and parapet accents atop the facade. At the pedestrian level the proposed plan includes a series of decorative planters and new street trees along the sidewalk, and a courtyard at the main entrance.

Additionally, the appearance of the wetland on the western side of the site will be improved by removing the invasive *Phragmites* vegetation and vines, and replanting this area with a more diverse selection of native wetland plantings. This restoration work will not require a wetland permit.

Alternatives

Three alternatives to the proposed action are discussed:

- The "No Action" Alternative as required under 6 NYCRR 617.9.b.5
- Development of site at MG zone district density
- Alternatives to wetland loss or mitigation

The no action alternative was considered in the original DEIS.

The MG residence zone allows low density apartment house development. This zoning surrounds the project site, which is zoned A high density elevator apartments. Maximum permitted floor area ratio (FAR) in the MG zone is 1.20, compared to 3.00 in the A zone. Building coverage in either zone is 40 percent. The MG zoning stipulates a maximum average lot area per family as 1000 square feet; there is no such requirement in the A zone. Maximum building height in the MG zone is 3 story or 35 feet, while maximum building height in the A zone is 99 feet. Minimum GFA per apartment in either zone is 350 square feet. Using these criteria, the potential maximum number of units based on GFA is 200 in the MG District and 524 in the A District.

An alternative to wetland loss or mitigation is similar to the current Proposed Action, which does not disturb wetlands for the building construction, although the sewer line stabilization work that is necessary with or without the project will require a small amount of wetland disturbance. This

alternative was considered in the original DEIS for a building of 11 stories and a total of 548 rental residential units.

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 Introduction

The project sponsor, River Club LLC (the "Applicant"), an affiliate of GDC Properties, LLC, proposes to develop a 330-unit residential apartment complex on a 4.6-acre site located at 1105-1135 Warburton Avenue in the northwest corner of the City of Yonkers, Westchester County, New York. The location of the site within the region is shown on maps in Figures 2-1 and 2-2. The project is known as "River Club" (also referred to herein as "the Proposed Action"). The site is served by municipal water and sewer services and is currently undeveloped except for a County sewer line that runs through the property.

This Supplemental Draft Environmental Impact Statement (SDEIS) evaluates a focused scope of potential environmental impacts of the Proposed Action. The scope was developed based on the prior history of the subject site (see below) and a scoping outline prepared by the applicant that was subject to a public hearing held by the Yonkers Planning Board on May 9, 2012. Written comments on the scope were accepted until May 19, 2012. The scope was subsequently adopted by the Planning Board on June 13, 2012.

This Supplemental DEIS is prepared in accordance with Section 8-0101 of the New York State Environmental Conservation Law and the regulations promulgated by the New York State Department of Environmental Conservation (NYSDEC) thereunder, which appear at 6NYCRR Part 617 (known as the New York State Environmental Quality Review Act, SEQRA, or SEQR).

Procedural History of the Project

1105-1135 Warburton Avenue was the subject of a Draft Environmental Impact Statement (EIS) and Final EIS for a 524-unit apartment Site Plan Application submitted by the project sponsor on November 16, 1999. The City of Yonkers Planning Board established itself as SEQR lead agency. The project was subject to an environmental review under SEQR, as well as the National Environmental Policy Act (NEPA) since the project contained an affordable housing component that necessitated such federal review.

During the review several alternative density plans were evaluated and a preferred alternative plan was identified, consisting of 440 units. A combined Record of Decision (ROD) pursuant to NEPA¹ and Statement of Findings pursuant to SEQR was adopted by the lead agency in February 2003. The application was amended on April 25, 2003 as a 440-unit rental project, and the project Site Plan was subsequently approved on March 16, 2004, with 428 apartment units.

The Applicant received approval from the Corps of Engineers for wetland fill and a Water Quality Certification from the NYS Department of Environmental Conservation. The applicant also received a determination of coastal consistency on March 6, 2000 from the NY Department of State. No other project approval was received nor was any project construction initiated at the site. Table 2-1 at the end of this section outlines the reductions in project impacts from the 2005-approved plan to the currently proposed plan. Figures in Appendix H illustrate four plan iterations for comparison: 524-unit DEIS plan, 440-unit FEIS plan, 353-unit approved plan, and the currently proposed 330-unit plan.

¹ Elimination of the prior legal requirement for an affordable housing component makes further NEPA review unnecessary.

The project sponsor has made application for an Amended Site Plan pursuant to Articles IX and XV of the Yonkers Zoning Ordinance that would bring about a substantially reduced development footprint and relocate the structurally inferior County sewer line to a regraded and stabilized slope, thereby avoiding significant intrusion into the wetlands compared to the approved plan. The present application involves the development of 330 residential apartment units consistent with the regulations for the "A-Elevator Apartment" zoning district in which the site is located.

Although the revised plan has far less impacts than the approved 353-unit plan, the City of Yonkers Planning Board determined that because various changes have occurred in the local environment (such as baseline traffic conditions, the change in site conditions, etc.), a Supplemental Draft EIS (SDEIS) should be prepared. SEQR §617.9(a)(7) provides that a lead agency may require a supplemental EIS that is limited in scope to specific environmental issues that it determines are not adequately addressed in the prior environmental review that arise from a) changes proposed for the project, b) newly discovered information, or c) a change in circumstances related to the project. A supplement is subject to the full public review procedures of Part 617.

The City of Yonkers Planning Board reestablished itself as SEQR lead agency and adopted a Positive Declaration / Determination of Significance on February 8, 2012. The Planning Board held a public scoping meeting on May 9, 2012, and adopted the Scoping Document for the SDEIS on June 13, 2012. A copy of the adopted Scope is provided in Appendix A.

2.2 Project Purpose, Needs, and Benefits

Public Need and Benefits

The proposed project will provide market rate rental apartments in close proximity to mass transit and adequate public infrastructure, in conformance with the existing zoning for the property. The project will increase the City's housing inventory with opportunities that will accommodate a range of housing needs. The site is located in an area of North Yonkers that supports a number of other multifamily and high rise residential developments, which the proposed development would complement, not unlike the prior approved project. The revised project proposal, however, includes several additional benefits to the local neighborhood, compared to the prior approved plan:

- **DENSITY**: Reduces density substantially while still adhering to the appropriate zoning goals for the site which is located near a mass transit rail station with direct connection to New York City. It is noted that the buildings to the north and south are constructed to a much higher density than the proposed project.
- **WETLANDS AND SITE COVERAGE**: Eliminates any wetland impact associated with the residential building and preserves more trees on the west side of the site. Also, the site coverage is significantly lower than the previously approved plan and lower than the buildings to the immediate north and south.
- **VIEWS**: Preserves view corridors for both 1085 and 1155 Warburton Avenue buildings (which were impacted by the previously approved 428 unit project) This was done by reducing the overall scale of the building and reorienting the buildings. The orientation of the proposed building parallel to the street opens up the view corridor to the north and south, which the prior approved building had obstructed. The applicant also proposes to create a permanent viewing station with a raised gazebo on the Old Croton Aqueduct

Trail on private property (permission pending) just north of the Yonkers border with the Town of Greenburgh/Village of Hastings-on-Hudson where there are permanent views that will not be obstructed by construction or vegetation.

- MASS TRANSIT: Develops a pedestrian walkway for direct access from the project to the Greystone train station.
- COUNTY TRUNK SEWER: The prior approved plan left the sewer in place and built over it. The current plan does not have buildings over the trunk sewer and provides for its reconstruction with an improved alignment and appropriate site stabilization measures that ensure the protection of the trunk sewer and neighboring properties, in light of the temporary repair and temporary stabilization completed by the County.
- TRAFFIC AND OTHER IMPACT AREAS: The smaller project will generate less traffic, fewer school children, less demand on water and sewer services and have a lower parking demand than the prior approved plan. In almost all areas, impacts are reduced by the revised project.

As with the prior plans, the design of the River Club façade will be an attractive addition to the neighborhood, set back from the street similar to the neighboring buildings and with architectural interest and a streetscape design that will be compatible with its neighbors.

The applicant believes the current demand for rental units is favorable for this type of development and that the current market conditions will support additional rental housing opportunities. Further, the project site is situated in a prime location for housing with respect to existing transportation and other infrastructure.

The prior EIS established that the project would produce long-term economic benefits with respect to tax revenues from the property. The development would add considerably more property tax revenue to the various taxing jurisdictions over the long-term than the site currently generates.

Objectives of the Project Sponsor

The applicant's proposal intends to accomplish the following:

- To increase the City's housing stock and to help satisfy the high demand for rental units.
- To provide multi-family opportunities in an area of the City zoned for and well suited to support such land use, especially its location at a transportation hub (Metro-North train service and Westchester County Bus service).
- To realize the value of a property that has been owned by the applicant for the past 35 years by creating a viable project that takes advantage of views to the Hudson River and the Palisades, and is compatible with the character of the community and the long-range plans for the area.

The applicant has a notable and distinguished track record in the City of Yonkers, having built over 600 residential units in Northwest Yonkers including Riveredge, River Hill Condo, River Hill Towers, Riverview Condo and Esplanade Condo on similar terrain.

2.3 Site Location and Environmental Setting

Location of the Project

The project site, known as 1105-1135 Warburton Avenue, is located on the west side of Warburton Avenue overlooking the Hudson River, north of Harriman Avenue and south of the municipal boundary between the City of Yonkers and the Town of Greenburgh/ Village of Hastings-on-Hudson. The site is bounded on the east by Warburton Avenue, on the west by the Metro-North Hudson Line and Amtrak railroad tracks, on the north by the Riverview Club condominium complex, and immediately south by The Greystone apartment complex. Across Warburton Avenue are apartment/condominium complexes including the River Hill condominium complex to the northeast. The pedestrian platforms for the Greystone train station extend along the site's western property line approximately to the midway point of the property. The site is within easy walking distance to the train station.

Warburton Avenue provides the only road frontage of the subject property. The site is now comprised of a single tax lot: Lot 48 of Block 3570.²

Environmental Setting

The subject property is located within an area of urban development, as characterized by the existing facilities described above and shown in Figure 3.5-1. The land uses in the area are predominantly multi-family residential. The topographic setting of the property allows for notable views toward the west looking over the Hudson River and beyond to the spectacular Palisades rock escarpment on the opposite side of the river, approximately one mile away. The subject property slopes down abruptly from Warburton Avenue (some 75 feet above the river elevation) and the site is part of the larger, west-facing slopes that follow the eastern riverbank north and south of the site.

Historically, the use of the site area is not known prior to the 19th century. Warburton Avenue was apparently built sometime between 1872 and 1881; the railroad to the west and Croton Aqueduct to the east were built sometime in the first half of the 19th century.³ The earliest known map showing structures on the property is dated 1917, and shows one house in the northeast corner and three houses in the southeast area, all at Warburton Avenue. Several other houses are shown in the area on the 1917 map. Some time between 1957 and 1978, the multi-story residential buildings along Warburton Avenue were built. The single family houses on the project site have since been entirely removed except for remnants of their foundations.

The property contains approximately 2.65 acres of upland vegetation (urban volunteer woodland and brushland), 1.43 acres of wetland⁴, and 0.52 acre of building remnants and unvegetated areas (foundations, slabs, stone steps, rip-rap and gravel access drive). The Federally-regulated wetland occurs at the lowest elevations on the property along the western property edge near the train tracks. The vegetated areas provide limited habitat opportunities for

² Project site was consolidated under the prior approval from Lots 32, 38, 42, 47, 48, 50, 51, 53, 56, 115, 149 & 150 on the property known as 1105-1135 Warburton Avenue.

³ Greenhouse Consultants Incorporated, Stage 1A Archaeological/Historical Sensitivity Evaluation, January 2000: Appendix J in 1105-1135 Warburton Avenue Draft Environmental Impact Statement, November 2000.

⁴ Emergency repair to the sewer trunk line conducted by Westchester County resulted in approximately 0.02 acre of wetland fill (consistent with the existing ACOE permit).

terrestrial and semi-aquatic wildlife common to urban areas. (The descriptions of the natural resources on the site in the 2000 DEIS for the River Club site⁵ remain valid for current conditions at the site.)

Existing Structures, Utilities and Easements

In response to the 2007 slope failure on the site which resulted in damage to the County's sewer trunk line that runs through the property, the Westchester County Department of Environmental Facilities has repaired and restored the sewer line to a point that appears to be temporarily stable. The proposed project includes relocating the sewer in a new alignment across the site and placing fill over the sewer line to protect the integrity of the line. A relocated sanitary sewer easement is proposed from the southerly to northerly property line to provide for future access by the County to maintain and repair the line as needed.

The four houses that once existed on the east side of the project site have been entirely removed except for remnants of their foundations. Several utility and slope easements and an access right-of-way cross the property. A 20'-wide right-of-way extends north from Harriman Avenue across the site (proposed to be extinguished). A permanent easement extends westward onto the property from Warburton Avenue and turns north to the adjoining parcel. A slope easement also exists over a portion of the northwest corner of the site. A 16'-wide sanitary sewer easement follows irregular route from south to north across the property, within which a 48" County trunk sewer line runs. These site encumbrances are shown in Figure 3.1-3.

The site is serviced by municipal sewer and water services nearby.

Site Access

At the present time there is no formal access to the site from Warburton Avenue although the former residences on the property had curb cuts on Warburton Avenue and additional access from Harriman Avenue. There is an existing gravel access drive from Harriman Avenue built by the County for sewer line repairs. In the proposed plan, there will be no formal project access from Harriman Avenue but there will be provision for periodic vehicular access via the pedestrian walkway for site maintenance purposes, emergency vehicle access and County access to the sewer line.

2.4 Project Description, Proposed Uses, and Layout

Proposed Use of Site

Like the original approved site plan for this property, the revised proposal is for multi-family residence use with rental apartments and accessory facilities for the project residents. As a rental project, the revised proposal differs from the current approved site plan which is for condominium type ownership. Figure 2-3 illustrates the current proposed site plan. Additional architectural views are shown in Figures 2-6 and 2-7.

⁵ 1105-1135 Warburton Avenue Draft Environmental Impact Statement, November 2000.

Proposed Structures and Site Plan

Building Layout and Design

The residential units will be leased as market rate rental units.⁶ The proposed facility will consist of two towers with ten residential stories above and three parking levels below Warburton Avenue. Vehicular access to the garage will be from Warburton Avenue. The project will provide a total of 332 parking spaces on-site. Some additional tandem parking spaces will be available in the building for tenants with two vehicles.⁷

The proposed north and south towers will be connected by a two-story component containing the main building entrance on the street level and a fitness center on the second floor, along with other functions such as the management office, and an elevator connection to recreational facilities, which will include a swimming pool, terrace deck and bistro. Vehicular access will be taken from one curb cut in Warburton Avenue at the north end of the property, wrapping around the north end of the building to enter each of the parking garage levels as the driveway slopes downward. The building will be oriented parallel to Warburton Avenue, leaving the western side of the property vegetated. The pool terrace amenities for the project residents will be built on the west side of the building one level below the garage.

For the purposes of this discussion, the project is described as a ten-story structure, with respect to the reference grade at Warburton Avenue. The parking levels are essentially below grade and the pool terrace is one level lower. As viewed from the river and the train tracks, however, the building will be fourteen stories with a six-story break in the middle. The building will be set into the slope of the site with additional retaining walls on the western side. Architectural drawings and renderings of the proposed project are provided in Appendix F.

The north and south building floor plans are very similar in layout, with 17 units per floor in the north building and 16 units per floor in the south building, both with a central corridor, elevators, and stairwells.

Floor Area

The proposed complex has a floor area ratio of 1.86 (373,174 square feet). The maximum allowable floor area ratio for the high density apartment "A" zoning district along Warburton Avenue is 3.00. The minimum size of the proposed apartment units is approximately 600 square feet. The complex includes a mix of one- and two-bedroom apartments.

Building Use and Amenities

The proposed facility will be utilized exclusively for residential purposes. The recreational facilities incorporated into the project (listed above) are for exclusive use the residents of the complex.

Parking and Circulation

The development will provide a total of 332 off-street parking spaces: 318 spaces in the parking garage and 14 along the garage access driveway. The project will reduce on-street parking on

⁶ The prior legal requirement for an affordable housing component has been eliminated.

⁷ Tandem spaces (extra deep spaces) are not counted in the 333 total.

Warburton Avenue by eight (8) spaces due to the new curb cut for project access and a drop-off area at the building main entrance. A net loss of four spaces will result on the street, accounting for the spaces now available on Warburton Avenue that did not exist when the four single family houses on the site were occupied.

The City of Yonkers zoning requires a minimum of one parking space per residential unit at this site, as it is located close to the train station. The proposed site plan meets this requirement. Accounting for typical parking utilization of about 90 percent,⁸ visitor and staff parking spaces will be available in the garage as well as along the site driveway and will be controlled by the concierge.

On-site vehicular circulation associated with the project will be via a two-way driveway from Warburton Avenue leading to the three garage levels, each level with its own access point. There will be no need for vehicular connections between levels in the garage. The project access point onto the public street will afford sufficient sight lines for ingress and egress.

Drainage / Stormwater Management Plan

A preliminary stormwater management plan for the proposed development has been prepared by the project engineer for this DSEIS. The plan entails the various engineering site drawings in Appendix G (including grading, erosion controls, and construction details) and a stormwater pollution prevention plan report, or SWPPP, provided in Appendix C. The SWPPP is required to meet the regulatory requirements of NYSDEC and the City of Yonkers and, once approved in final form (as part of the final site plan approval after the conclusion of the SEQRA process), will govern all activities associated with site disturbance for construction and all permanent drainage measures required to comply with the applicable stormwater management regulations. DSEIS Section 3.3 provides a fuller description of the proposed stormwater management system.

Briefly, the project plans call for a stormwater diversion system to collect and direct stormwater from the upgradient, off-site portion of the site drainage area (land to the east and adjacent portion of Warburton Avenue) via a pipe system around the north end of the site to a discharge point in the northwest corner of the on-site wetland. Stormwater collected from the site development area (building roof, front lawns, pavement areas and some surface runoff) will be directed to a bio-retention basin at the northwest corner of the site, which will treat the stormwater before its discharge via infiltration to the on-site wetland. Other site areas that are vegetated will flow overland into the wetland. The Project Engineer has designed the system such that nutrient loads of the treated stormwater will conform to the applicable NYSDEC SPDES General Permit requirements. Treated stormwater will be discharged into the existing on-site wetland adjacent to the Metro-North Railroad tracks. This wetland drains into the Hudson River beneath the railroad tracks through two 36-inch steel culverts.

The stormwater management plan is designed to maintain post-development stormwater runoff flow rates slightly above pre-development rates for all design storms and treat collected stormwater from the site to mitigate against potential degradation of receiving waters (the Hudson River). Using accepted engineering practice, it is advantageous to discharge the project stormwater directly to the culverts in a time period that occurs before the surrounding area drains to them. In summary, the stormwater peak flows rates could be released to the Hudson River before the surrounding areas contribute storm flow and thus reduce the overall peak flow

⁸ BFJ Planning, *Hudson Park Parking Study*, June 2009.

to the culverts and the need for on-site detention. Additionally, the stormwater management plan is designed to maintain adequate hydrology to the on-site wetland.

The project engineer's stormwater management plan incorporates conventional, standard, best management practices for soil erosion and sedimentation control during construction and conventional permanent drainage controls designed specifically for this site.

Utilities (Water and Sewer for the project)

Like the approved project, the modified plan anticipates no impacts relating to water supply for domestic or fire fighting purposes. Water mains along Warburton Avenue would service the project and hydrants would be located along Warburton Avenue and within the facility as required by the City of Yonkers Fire Department.

As with the approved project, the wastewater from the modified plan would connect directly to the County sewer trunk which flows to the County Treatment Plant in southern Yonkers. According to the County, adequate capacity exists in the trunk and plant to service the project. No connection to the City sewer system is required.

Landscaping and Lighting

A landscape plan will be prepared for the project by a professional landscape architect. The plan will include the following components:

- The Warburton Avenue streetscape will include street trees, foundation plantings at the building and decorative planters at the building's main entrance.
- The perimeter of the site development will be suitably landscaped with ornamental, low maintenance species.
- The embankments on the west side of the project will be planted for permanent erosion control.
- The bioretention basin sideslopes will be planted with appropriate plants for wet areas.
- The wetland appearance will be improved by removing the invasive *Phragmites* and vines, and replanting this area with more attractive, native wetland plantings. This restoration work would not require a wetland permit.

A preliminary lighting plan has been prepared for the proposed complex and is provided in Appendix F. The lighting plan is designed to provide illumination to the project entrance driveway through the use of pole-mounted luminaires and building-mounted wall sconces. Lighting along Warburton Avenue will consist of decorative pole lights along the property line and possibly planter wall lighting. The building main entrance court will have a combination of pole, stair and entrance lights.

Reconstruction of the County Sewer Trunk

Different from the approved plan, the revised site plan will avoid any direct impact to the onsite wetlands associated with the proposed residential building. It will, however, necessitate a smaller amount of fill in the wetland to facilitate relocation of the temporarily stabilized County Sewer Trunk and an associated retaining wall designed to fully and permanently stabilize the slope above the wetland. Although the prior plans included creation of off-site wetlands, for

which a permit was obtained from the US Corps of Engineers, that plan will be abandoned in the revised proposal. The applicant anticipates assisting the County in applying to the Corps for permission to relocate the trunk line and stabilize the site with a wall. This work will include redirecting the overland flow of storm water from Warburton Avenue in the initial stage of project construction, since the sewer work cannot start until this is done. The applicant is also interested in implementing onsite wetland enhancement due to the degraded nature of the existing wetlands. DSEIS Section 3.2 further discusses this matter.

In a recent memorandum included in Appendix B, the project engineer recommends that the existing sewer main be replaced and relocated since the integrity of the existing sewer line and manhole structures is questionable and the slope remains unstable and susceptible to a future failure similar to the failure that occurred in 2007.

Setbacks and Buffer Treatments

The proposed site plan conforms to the zoning setback requirements and does not require any zoning variances. The site plan in Appendix F (sheet A01) identifies the minimum setback requirements specified in the Zoning Code and the setbacks provided in the revised plan.

The southern boundary of the property will have a minimum 30' building setback and vegetated buffer at the building. The western half of the site will remain in vegetated cover, preserving essentially the vegetated landscape that now exists. The northern boundary of the property will have a minimum 15' vegetated buffer at the site driveway; the building will be setback approximately 48' from the property line. The eastern side of the property will have a minimum 25' building setback from the street line.

The streetscape along Warburton Avenue will include landscaped areas, planter gardens, street trees, lighting, and a pedestrian sidewalk.

2.5 Comparison with Prior Plans

Table 2-1 at the end of this section outlines the reductions in project impacts from the previously approved plan (site plan approved 2005) to the currently proposed plan. Further explanation of the similarities and differences in particular areas of concern is provided in the SDEIS sections that follow. SDEIS Section 4.0 Alternatives provides a brief comparison of four prior site plans, and the figures in Appendix H illustrate four plan iterations for comparison: the 524-unit DEIS plan, 440-unit FEIS plan, 353-unit approved plan, and the currently proposed 330-unit plan. Figure 2-4 illustrates how the current proposed development area has a significantly reduced footprint compared to the approved 2005 site plan.

2.6 Construction and Operation

2.6.1 Construction

Construction Period Anticipated

The duration of the construction is anticipated to be approximately 24 months, beginning in late 2013. The project will be constructed as one continuous project. Construction activity will occur weekdays from 7:00 AM to 6:00 PM, in conformance with the City of Yonkers regulations. No construction activity will occur between 6:00 PM and 7:00 AM or on weekends or holidays. However, it is noted that the Yonkers Building Department can grant variances on the hours of

operations for specific construction activities. The Building Department variance, if granted for this project, would specify the hours of operation.

Construction Schedule, Phasing and Sequencing

The project plans encompass the work necessary to relocate and reconstruct the temporarily repaired County Sewer Trunk line, as recommended by the project engineer with concurrence from the County. Such reconstruction will improve the integrity of the sewer pipe that now zigzags through the property, and provide appropriate site stabilization measures that ensure the protection of the trunk sewer and neighboring properties, in light of the temporary repair and temporary stabilization completed by the County following the severe soil erosion from past storms. Construction of the proposed lower retaining wall, backfilling and slope stabilization, and installation of the County sewer are all necessary and integral to properly reconstruct the sewer, and this work will precede any building construction on the site.

At this time the applicant is in communication with the County to come to an agreement on which of two possible scenarios will be used for this work. The applicant proposes to design the sewer reconstruction for approval by the County and assist the County in preparing an application for federal wetland permit, and the County will apply for and obtain the requisite federal wetland permit. Then either the applicant will implement the sewer reconstruction plan (as designed by the applicant and approved by the County), or the County will reconstruct the trunk sewer.

Construction for this development is planned as one continuous phase, generally proceeding with the following possible schedule and construction sequence:

1. STAKEOUT/EROSION CONTROL PLACEMENT/SITE CLEARING - Stake out and fence limit of disturbance, identify material and equipment storage/staging areas, construction access and construction trailer location, install traffic barricades, striping and warning signs, mark and protect trees to be preserved, conduct tree clearing, install temporary erosion controls at site perimeter including stabilized construction entrance(s) and temporary sediment trap (Months 1-2).
2. STORM DRAINAGE DIVERSION/PRIMARY RETAINING WALL/COUNTY SEWER – Install diversion piping from Warburton, install foundation and western-most retaining wall, install backfill, install new sewer pipe (Months 3-6)
3. DEMOLITION – Remove existing County sewer, site grubbing, remove building remnant foundations and walls, remove curb and sidewalk at street (Months 7-8).
4. EARTHWORK - Strip and stockpile topsoil, earth excavation and stockpiling, trench excavation for foundations, rock excavation and removal from site, construct footings and foundation for building (Months 9-11).
5. GRADING/DRAINAGE/UTILITY INSTALLATION - rough grading for building pad and pavement areas, install stormwater systems and utility lines, construct retaining walls and other structural erosion control devices, slope stabilization with erosion controls including seeding of exposed soils (Months 12-15).
6. BUILDING CONSTRUCTION/PAVING – construct building structure, construct retaining walls at building and driveway, construct curbing and pavements around building, construct planters, curbing and sidewalk at street, stabilize exposed soil areas with seeding and mulch (Months 14-24).
7. SITE COMPLETION – Clean sediment control devices, remove erosion control devices as disturbed areas are stabilized, install site lighting and landscape plantings (Months 23-24).

Erosion and Sediment Controls During Construction

The project documents for permitting and construction will include detailed erosion and sedimentation control plans, details and notes designed in accordance with City and State requirements for stormwater management. Erosion and sediment controls will include implementation and maintenance of temporary measures throughout the duration of the construction activities and installation of structural measures for the permanent stabilization of the site.

Site excavation will entail significant earth movement and will require rock removal. A limited amount of blasting may be required; the extent of rock removal will be determined by further geotechnical evaluation for the project construction. Earthwork and rock removal will be conducted in accordance with applicable State and City requirements. Blasting would only be conducted by an experienced blasting contractor licensed to perform such work, using controlled blasting techniques and appropriate protections of property, personnel and the public to mitigate any potential impacts associated with the blasting operation.

A stabilized gravel construction access pad will be installed at all construction entrance points identified on the erosion control plans to limit soil transport onto the local roadways from trucks leaving the site. The project plan will specify measures to stabilize the steep slopes during and after construction and to divert clean runoff water away from the construction area.

Details of the proposed erosion and sediment controls are specified in the preliminary drawings in Appendix G and further described in Section 3.1.

Construction Equipment and Staging Areas

Construction material storage trailers, crane pads, and construction trailers are proposed as shown on the engineer's Traffic Control and Construction Staging Plan in Appendix G. Areas for equipment staging and soil stockpiling within the site will need to be designated prior to commencement of construction activities. Erosion controls will be utilized around all areas selected for material storage and equipment staging. The construction equipment entrance(s) will be stabilized with broken stone and perimeter silt fencing will be installed around all construction areas.

A limited number of contractor parking spaces will be provided on Warburton Avenue, as indicated on the Traffic Control and Construction Staging Plan (Appendix G).

Truck Traffic

Construction traffic will arrive at the beginning of the construction period, primarily consisting of trucks delivering equipment and building materials, and daily trips of construction workers. Large construction equipment will include bulldozers, graders, excavators and dump trucks. This equipment is typically brought to the site on tractor trailers and generally is kept at the site for the duration of site preparation activities.

While the construction activity is ongoing, supplies will be brought in throughout the construction period. Trucks will travel to and from the site to remove excess cut material and import construction materials. The project engineer estimates that approximately 3,866 cubic yards of earth material will need to be exported from the site for reuse as fill elsewhere.

Truck movement of earth material (in and out) will occur primarily during the initial earthwork operations, which are planned within the first 6 to 8 months of the construction period. This activity will require approximately four to eight truck trips per day to and from the site over such a period.

Construction Noise and Dust Suppression

Construction activities on the project site will have a potential impact on the ambient noise levels and local air quality during work hours. No changes in existing conditions or the general extent of anticipated noise and dust impacts from the project are anticipated between the approved plan and the current plan. These areas of concern were evaluated in the original DEIS (Sections 4.11 and 4.12).

Methods to control noise (as outlined in the DEIS) will include the following:

- limit construction activities to weekday, daylight hours in accordance with the City regulations;
- maintain construction vehicles and equipment according to manufacturers' recommendations including their noise attenuation controls;
- operate construction equipment in an efficient manner and without idling for long periods of time; and
- conduct blasting operations in strict conformance with applicable State and City regulations.

Methods to control dust (as outlined in the DEIS) will include the following:

- minimize the area of the site subject to disturbance at any one time;
- apply mulch or other temporary cover on exposed soil areas;
- limit the movement of trucks and construction equipment over exposed soil surfaces;
- cover haul trucks while in transit;
- thoroughly wet down debris before loading and while dumping into trucks and other containers;
- spray water on exposed soil areas subject to construction vehicle traffic during dry weather conditions;
- keep pavement areas clear of loose dirt that can be re-entrained into the air by vehicles; and
- use stone tracking pad or tire washing station at each access point.

With careful attention to demolition and earth-moving activities, impacts from fugitive dust can be maintained below the state or Federal AAQS at off-site locations. Although exhaust emissions from construction equipment is not as significant as fugitive dust generation, particulates from diesel exhaust emission can also be controlled through proper tuning of engines and maintenance of their air pollution controls.

Off-Site Parking During Construction

Parking for construction workers is planned at the former Boyce Thompson Institute property on North Broadway in Yonkers, less than one mile from the site. The applicant will come to an agreement with the City to use a limited portion of that site for parking and will provide a jitney van to transport workers to and from the construction site.

Construction Logistics with regard to nearby buildings

The excavation and stabilization of the site will be designed and implemented very carefully so as to not cause any disturbance to the neighboring properties. The prior storm drainage pattern that caused failure of the County Trunk Sewer will be rectified by the new design and the County Sewer will be stabilized before any building construction commences. These measures will be part of an agreement between the applicant and Westchester County.

Unlike the prior approved plan, a geotechnical report for River Club (prepared by a licensed professional engineer) addresses slope stability related specifically to the project site and includes recommendations and information necessary to protect sloped areas from construction-induced instability, stabilize fill placement, identify lateral earth pressures for use in the design of foundations, limit soil erosion potential and control runoff. It also describes methods of anchoring structures proposed on the property and protecting adjacent properties and structures. The project construction as presently designed will not go outside of the property line for any anchoring devices. There will be no construction near the railroad facilities.

2.6.2 Operation

On-site Management, Staff and Maintenance

As a residential facility, the proposed development will be occupied at all times. There will be a small office at the main entrance lobby that is expected to be staffed by several persons during normal business hours. It is anticipated that a staff of about ten (10) persons will include a property manager, concierge, fitness instructor, and maintenance supervisor, some of whom may reside on the property.

Ownership of the project and responsibility for long term maintenance of all facilities on the project site will be that of River Club, LLC.

Deliveries, Solid Waste Removal and Move-ins

Operational traffic to the development (other than resident traffic) will primarily entail daily deliveries of mail and packages to residents, daily taxi services, weekly trash and recyclables carting, periodic deliveries of maintenance supplies and heating oil and periodic moving trucks.

Deliveries to residents would be made to the lobby entrance on Warburton Avenue, as would taxi pickups and drop offs. Bulk deliveries and moving trucks would also utilize the main lobby entrance which provides ready access to the central building elevators. Two trash rooms are proposed on parking level 1, which will include a mechanized trash/recyclable separation system, recyclables storage bins and a trash compactor. Solid waste pick up would occur on this level via small trucks that will come down to the trash room from the street.

The volume of delivery vehicles (the operational traffic mentioned above) anticipated for the activities in this development is accounted for in the standardized trip generation rates used in the traffic study.

Lighting and Security

A lighting plan has been prepared for the project by the project architect and is provided in Appendix F.

The complex will be staffed by management personnel at all times. A security system will be installed in and around the buildings for the safety of the residents. This system will be designed to contact the police or fire department in the event of an emergency situation.

2.7 Approvals, Reviews and Permits

Approvals, reviews and/or permits required for the implementation of this project are listed below by issuing agency. These agencies are called Involved Agencies under SEQRA, and have approval authority over one or more aspects of this application.

Site Development Plan Approval, Building Permit, and Water Connection

City of Yonkers Planning Board
City Hall, 87 Nepperhan Avenue
Yonkers, NY 10701-3892

Water Connection and Sewer Connection

Westchester County Department of Health
145 Huguenot Street
New Rochelle, NY 10801

Reconstruction of County Sewer Trunk Line

Westchester County Department of Environmental Facilities
270 North Avenue
New Rochelle, NY 10801

SPDES General Permit for Stormwater, and Water Quality Certificate

NYS Department of Environmental Conservation
21 South Putt Corners Road
New Paltz, NY 12561

Federal Wetlands Permit (Clean Water Act, Section 404)

U. S. Army Corps of Engineers
Division of Regulatory Affairs, Eastern District
26 Federal Plaza
New York, NY 10278-0900

Project Description

August 20, 2012

The following list includes all involved agencies and interested parties known at this time for purposes of the SEQR distribution after SDEIS acceptance by the lead agency.

City of Yonkers Planning Board
Westchester County Department of Health
Westchester County Department of Environmental Facilities
NYS Department of Environmental Conservation
U. S. Army Corps of Engineers

City of Yonkers Planning Bureau, Lee Ellman, AICP, Director
City of Yonkers, City Engineer, Andrew Api, PE
City of Yonkers, Corporation Counsel, Edward P. Dunphy
City of Yonkers City Clerk, Jose Alvarado
City of Yonkers Traffic Engineering, Frank A. Filiciotto, PE, Director

Westchester County Department of Planning, Edward Buroughs, Commissioner
Westchester County Department of Public Works, Jay Pisco, Transportation Commissioner

New York State Department of Environmental Conservation, Region 3
New York State Department of Environmental Conservation, Albany
New York State Department of State, Division of Coastal Resources

Metro-North, Attn. John LaFond
Hastings-on-Hudson, Mayor Peter Swiderski

Table 2-1 Impacts of the Approved vs. Proposed Plans		
	Approved 353 Unit Plan (2005)	Current Proposed 330 Unit Plan
<i>Development Proposal</i>		
Building configuration	(2) 9-story perpendicular sections stepping to 4-story, (2) 4-story sections parallel with Warburton	(2) 10-story sections parallel with Warburton, center section 2-story
Total Residential Units	353	330
Ownership	For Sale Condo	Rental
Affordable Units	35	0
Total Floor Area (square feet)	542,522	373,174
Parking Spaces	572	332
Buildings & Impervious Surfaces (acres)	2.5	1.5
<i>Wetlands and Natural Resources</i>		
Wetlands (acres)	1.00	1.43
Permanent Wetland Disturbance	0.45	0.11
On-site Wetland Creation	1.00	0
Off-site Wetland Creation	0.45	0
Area Disturbed by Construction (acres)	3.8	3.5
Excess Excavated Material (cubic yards)	3,000	3,866
<i>Community Resources</i>		
Population Total/Students	634/27	593/25
AM Peak Hour Trips (enter/exit)	26 / 79	25 / 75
PM Peak Hour Trips (enter/exit)	76 / 48	72 / 46
Saturday Peak Hour Trips (enter/exit)	80 / 61	73 / 55
Water Demand (gallons per day)	77,660	72,600
Solid Waste (cubic yards per month)	32.3	30.2
<i>Source of data: Compiled by Tim Miller Associates, Inc. from information in the following documents</i>	<i>Env. Analysis of Modified Plan 1/2005 PE plan 6/6/05</i>	<i>SDEIS 6/2012 WMW plan 3/26/2012</i>

3.0 EXISTING CONDITIONS, POTENTIAL IMPACTS, & PROPOSED MITIGATION

3.1 Geology, Soils and Topography

The Draft Environmental Impact Statement (EIS) and Final EIS prepared for 1105-1135 Warburton Avenue evaluated a site development plan that comprised approximately 4.1 and 3.8 acres of land disturbance, respectively. The SEQR Findings that concluded that review indicated that the project could proceed without having significant adverse environmental impacts on geology, soils and topography. During the subsequent site plan review, a 353-unit plan was developed and approved comprising a development area of 3.8 acres.

The applicant has significantly reduced the size of the project from the prior plans. The current, revised plan will comprise a development area of 3.5 acres, which is less disturbance to geology, soils and topography than previously approved.

3.1.1 Existing Conditions

Geology

The project site is underlain by the Fordham gneiss, a metamorphic rock which underlies a major portion of Riverdale, Bronx, Yonkers and communities on the west side of the Hudson River to Ossining (New York State Geologic Map, Lower Hudson Sheet, The NYS Education Department, 1970). The Fordham gneiss is precambrian in age and varies in composition from gneiss to amphibolite. Based upon borings completed at the subject site, bedrock varies in depth from 18 to 26.5 feet.¹ According to the CDM geotechnical investigation a layer of decomposed bedrock was found below a layer of silt and sand at the base of the exploratory borings. The decomposed rock consisted of gray/black and white sand and gravel with mica, consistent with the composition of Fordham gneiss.

Topography

The River Club site is located in a portion of northwestern Yonkers where topography slopes generally from east to west toward the Hudson River (Figure 3.1-1, Topography of Site Vicinity). Slopes are generally tiered from areas with slope greater than 20 percent to flat plateaus, which are primarily the result of historic road construction and development.

Site topography is generally steep (greater than 15 percent) adjacent to Warburton Avenue and becomes flat at the on-site wetland/floodplain area in the western half of the site. Small areas with slopes of less than 15 percent are located in the eastern half of the site. Approximately 50 percent of the site has slopes that exceed 15 percent.

The City of Yonkers has drafted amendments to its Zoning Ordinance related to construction on sites containing steep slopes or slopes greater than 15 percent. These draft amendments include a new proposed section *43-105B. Standards of review for site plan approval - Steep Slope Sites*. The proposed amendments provide a number of recommendations and specific requirements related to construction in areas of steep slopes. A further discussion of the River Club project conformance with the goals of the steep slope amendments are provided under Potential Impacts, below.

¹ Camp, Dresser & McKee, *Memorandum: Field Exploration - Summary of Results Forensic Evaluation of Slope Failure and Remediation Recommendations*, December 19, 2008.

Soils

Soil resources at the project site were determined from maps prepared by the US Department of Agriculture Soil Conservation Service's *Soils Survey for Putnam and Westchester Counties* (1994) and confirmed through on-site investigation (Figure 3.1-2, Soils Map).

The *Soil Survey* identifies three soil types on the project site, as follows.

Riverhead Loam - 25 to 50 percent slopes (RhE). As the name implies, this soil is typically found along the sides of terraces and is exemplified by steep, deep, and well drained soils. The soil is mapped in the majority of the site, including the western and northern portion of the property.

The soil survey identifies the following properties for RhE soils:

Water table: At a depth of more than six feet throughout the year.

Permeability: Moderately rapid (2.0 to 6.0 inches/hour).

Surface runoff: Very rapid.

Depth to bedrock: More than 60 inches.

Erosion hazard: Very severe.

Urban land, Charlton- Chatfield complex (UiC) - This soil consists of Urban land, consisting of very deep, well drained Charlton soil and the moderately deep, well drained Chatfield soil. It is mapped on ridges or hillsides underlain by folded bedrock and generally has slopes ranging from 2 to 15 percent. On the property, UiC soils are mapped along the fill slope adjacent to Warburton Avenue, within 25 to 100 feet from the eastern edge of the property.

Charlton Chatfield complex, hilly, very rocky (CsD) - This soil consists of the very to moderately deep, well drained Chatfield and Charlton soil. It is mapped on hillsides and hilltops underlain by folded bedrock. Slopes range from 15 to 30 percent. On the project site, these soils are mapped in the southern edge of the property, generally within approximately 80 feet of the property line.

The soil survey identifies steep slopes as the main limitation for building development within the RhE soil unit. Building development limitations identified in the *Soil Survey* are not indicators of the feasibility of construction. Rather, they reflect the difficulty and relative costs of the corrective measures that may be necessary. The slope-related development limitations in the RhE soil unit can be overcome by appropriate building design and engineering measures.

The soil survey identifies small inclusions of Hinkley, Knickerbocker, Pompton, and Charlton soil types within the RhE complex. Each of these soil types are moderately well drained, with the exception of the somewhat poorly drained Pompton soils. Based on field observations, Pompton soils occur along the western side of the property within the level wetland area.

On-site soils and steep slope areas are shown on Drawing SP-5 in Appendix G.

Slope Failure in 2007

On or about the weekend of May 5-6, 2007, unusually heavy rains caused rock and mud slides in the project area at the proposed Millennium building, at the 1104 Warburton Avenue site and at the subject site. Soils on slopes in the center of the site came loose and moved down the hill. The slope failure or landslide resulted in failure of a Westchester County trunk sewer line that

runs through the approximate center of the property in a north/south direction. This pipe carries wastewater from the North Yonkers Sewer District to the Yonkers Sewage Treatment Plant south of the site. Some time after the storm a section of the concrete sewer was found to be broken and a release of sewage was discovered on the site.

Shortly following the discovery, a temporary repair was made to the sewer line, the spill was cleaned up and the slope was temporarily stabilized with rip-rap by the County. A subsurface French drain was installed at the toe of the slope to assist in drainage of the slope.

The engineering firm Camp, Dresser & McKee (CDM) was retained by the County to complete a forensic evaluation of the slope failure at the site, including a geotechnical investigation and topographic survey. The following discussion is based upon CDM's December 19, 2008 Memorandum: *Field Exploration - Summary of Results Forensic Evaluation of Slope Failure and Remediation Recommendations*.

The failed slope was approximately 80 feet high and was originally at a slope of 1.5 horizontal to 1 vertical. An approximately 45 foot section of the lower slope failed and slid towards the west damaging the sewer trunk.

CDM's investigation included a total of four (4) test borings completed in the area of the slope to characterize the soils and shallow groundwater conditions. The borings indicate that the soil on the slope consists of: 1) a 2 to 14 foot layer of fill, topsoil and sand with varying amounts of gravel silt clay, brick, cinder, asphalt and wood, 2) a 6.5 to 24.5 foot layer of loose to medium dense sand and silt, underlain by 3) 0.7 to 7 feet of weathered bedrock. The fill layer is generally thicker at the top of the slope ranging from approximately 8 to 14 feet and decreasing in the middle of the slope to a thickness of 2 to 4 feet.

Groundwater was encountered in two of the midslope borings at depths of approximately 15 to 20 feet which is in the natural sand and silt layer. Groundwater was not observed in the two borings near the top of the slope.

The report concluded that the failure was likely the result of the natural loose sand and silt found on the slope in combination with unusually heavy rainfall events in the weeks prior to the failure. Rainfall was recorded at approximately 8 inches over a two day period, of which 5 inches fell in one day. The rainfall for April 2007 did not exceed previously recorded monthly totals, but the rain over a such short period was unusually heavy.

The limited soil investigation determined that the subsurface profile of the eastern half of the project site generally consists of fill material, silty sand, and bedrock (from top to bottom). In the western half of the project site the subsurface profile generally consists of: fill material; organic silt; silty sand; and bedrock. Depth to bedrock on the project site is highly variable and ranges from approximately 18.0 and 26.5 feet below existing grades in the slope directly below Warburton Avenue.

Figure 3.1-3 shows the site topography after the 2007 incident.

3.1.2 Potential Impacts

The construction of the proposed building will impact approximately 3.5 acres, according to the current grading plan. Generally, grading will occur in the eastern portion of the site to excavate for the building foundation, storm drain lines and other utilities, and retaining walls to establish

the finish grades for the driveway and landscaped areas. A stormwater basin is proposed for the northwest corner of the site, above the western on-site wetland area.

The proposed building will be set parallel with Warburton Avenue and built into the slope, with the garage levels essentially below grade. The lobby and first floor apartments are at grades similar to that of Warburton Avenue (77 feet). An outdoor pool area and deck will be located on the west side of the building with an elevation of approximately 34 feet. Building sections showing the relationship of these various elevations, and both existing and proposed grades, are provided in the site plan set (Appendix G).

The proposed project includes the relocation of approximately 490 lineal feet of the County sewer trunk towards the west and down slope from its current location (a maximum of approximately 55 feet). Relocation of the sewer and reorientation of the proposed building will avoid putting the building and pool over the line (as in the prior approved plan) and will provide permanent means of stability of the slopes in which the sewer is laid. The reconstructed line will be located entirely underground, unlike its current exposed situation, and several bends in the line will be eliminated, improving efficiency of the County system. A retaining wall is proposed to be constructed west of and parallel to the sewer line to provide a permanent and stable slope above the on-site wetland. Additionally, a wide easement will be provided following the proposed alignment to allow permanent future access to the sewer line for repairs and maintenance.

The constructed retaining wall will vary from a few feet at its ends to approximately 16.5 feet at its highest point. The site engineer has provided several alternatives for retaining wall construction and foundation systems to address the structural limitations of the fill and organic soils in the vicinity of the proposed wall foundation. Wall construction is further discussed in the Geotechnical Review Report (see discussion below). The wall has been designed to minimize impacts to the wetland, while providing stable conditions for the relocated sewer line.

Engineered retaining walls are also proposed on the western side of the proposed driveway access to the parking garage, as well as on the western side of the proposed pool deck. These walls will vary in height with a maximum height of approximately 13 feet.

Essentially all of the area of the site with grades greater than 15 percent will be disturbed by this proposal. The erosion and sedimentation control plan, described below in the mitigation section, has been prepared to minimize the potential for impacts to resources downslope from the area of construction disturbance -- the on-site wetlands and the Hudson River. Given the site's hydrological connection to the Hudson River, maintaining on-site erosion controls will be critical to ensure that any suspended materials generated during construction will remain on-site and be removed in the temporary settling basin that will be built for this purpose.

The project engineer estimates the current proposed plan will result in total excavation ("cut") of approximately 17,036 cubic yards (cy) of earth material. Approximately 293 cy of that will be rock excavation. The current plan will result in replacement of approximately 13,170 cy of "fill" material. The excess cut (some 3,866 cy) will need to be removed from the project to an approved receiving site. These numbers encompass all work associated with the sewer relocation, retaining wall construction, and building construction.

Geotechnical Report

A Geotechnical Review Report for Proposed River Club Development has been prepared by SESI Consulting Engineers, PC (SESI) (July 25, 2012). The findings and recommendations in the Geotechnical Review Report, which is provided in its entirety in Appendix E, are summarized below. It should be noted that the findings and recommendations in the report are preliminary and are likely to be revised as the project design is progressed.

Based upon the technical evaluation, the report recommends the proposed building be supported by a shallow foundation with moderate bearing capacity. Significant cuts and fills will be required for a majority of the building pad due to the existing steep slopes on the property. Excavation for the garage will require cuts of up to 34 feet while up 14 feet of fill will be required elsewhere.

Based upon soil boring information, only a limited amount of rock excavation will be required for the building footings, mostly along the eastern building wall parallel to Warburton Avenue. The four test borings completed by CDM for the slope failure evaluation (described above) indicated a depth to bedrock of between 18.0 and 26.5 feet below existing grades in the slope directly below Warburton Avenue. Rock excavation may involve controlled blasting. The duration of the blasting is likely to occur intermittently over approximately a four week period. Blasting protocols are described below in the Proposed Blasting Plan in Section 3.1.3.

According to the Geotechnical Review Report a temporary excavation support system will be required for the construction of the eastern building foundation along Warburton Avenue. Several geotechnical construction options are described, including: 1) soldier beam and lagging wall, 2) soil nailing and 3) open cut. Further details of temporary excavation support are provided in the Geotechnical Review Report (see Appendix E). Rock stabilization may also be required due to the fractured nature of the bedrock surface at the site. Rock stabilization may include rock bolting or the use of shotcrete.

The Geotechnical Review Report provides a discussion and options for the construction of retaining walls for the project. Based upon the proposed plan, retaining walls will be required at the western edge of the site development area (at the wetland) to stabilize the relocated County sewer line, and along the western side of the building for the proposed driveway and pool area.

Comparison with Prior Plans

Below is a summary of the geotechnical differences related to geology, soils and topography between the previous approved development plan and the current proposed development plan, highlighting the improvements of the current plan. (Refer to Table 2-1 for additional quantitative information.) The primary areas of impact in the approved plan are related to the following:

Development Footprint of Impervious Surfaces -- The previous development proposed to construct a building with a notably larger "footprint" of development/disturbance area, including significantly greater area of resulting impervious surfaces. By comparison, the current development plan has reduced the building's impervious footprint and proposes to restore the eroded slopes on the property with structural walls and gentler, vegetated slopes.

Building Constructed in the Wetlands -- The previous development proposed to construct a building significantly into the wetlands area, requiring it to be pile-supported and creating a significant and permanent wetlands disturbance. By comparison, the current development plan

has eliminated the building in the wetlands area and only requires a small amount of wetlands disturbance (described further in SDEIS Section 3.2) to construct a retaining wall that will support and stabilize the County sewer trunk line. This wall will likely be mini-pile-supported. The proposed building will be supported entirely on spread/strip footings.

Building Constructed over the Sewer Trunk Line -- The previous development proposed to construct a building over the existing sanitary trunk line providing very limited access to the sewer line for future repairs. In a much improved design, the current development plan will avoid building over the trunk line, and will replace and straighten the sewer line and provide access to the sewer line via a wide access easement. In addition, the current development plan will stabilize the slope immediately below the sewer line by constructing a retaining wall so that a slope failure and pipe break, like what occurred in 2007, cannot occur.

Building Excavation -- The previous development proposed to construct the building along Warburton Avenue with the lowest floor elevation of +40. By comparison, the current development plan has raised the lowest floor elevation to approximately +43 to lessen the amount of excavation and rock removal/blasting. This will result in the excavation support system along Warburton Avenue having a reduced height from the previous development plans.

Conformance with the goal of the steep slope amendments

In light of the recent slope failures in the project area, the City is considering draft amendments to its Zoning Ordinance related to construction on steep slopes. Unlike the prior plan, the 2012 geotechnical report for River Club (prepared by a licensed professional engineer) addresses slope stability related specifically to the project site and includes recommendations and information necessary to protect sloped areas from construction-induced instability, limit soil erosion potential, stabilize fill placement, identify lateral earth pressures for use in the design of foundations, control runoff, and it describes methods of anchoring structures proposed on the property and protecting adjacent properties and structures. Specific areas of analysis include site preparation procedures; foundation design criteria; slopes, walls and excavations; rock excavation; and retaining walls.

The structures on the proposed plan have been designed to fit into the hillside rather than alter the hillside to fit the structures.

3.1.3 Mitigation

The proposed construction would result in disturbance to soils and slopes, and require measures to avoid impacts associated with erosion and sedimentation. A Soil Erosion and Sediment Control plan is provided in the set of engineering site plans (see Drawing SP-6 in Appendix G). The primary aim of this plan is to reduce and control soil erosion from areas exposed during construction and prevent silt from reaching the site wetland or the Hudson River.

All soil erosion and sedimentation control practices will be installed in accordance with the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity (Permit No. GP-0-10-001). Prior to the commencement of any phase of this project that will result in the disturbance of soils, erosion and sediment control measures will be placed in accordance with the approved drawings and NYSDEC standards. These will be maintained in good condition until upgradient areas are stabilized, including permanent vegetative cover is established.

The objectives of the Soil Erosion and Sediment Control Plan are the following:

- ◆ control erosion at its source with temporary control structures,
- ◆ minimize the amount of sediment-laden runoff from areas of disturbance, and control the runoff prior to discharge to off-site areas by the use of sediment traps.
- ◆ dissipate and distribute stormwater runoff through natural vegetation or structural means before discharge to critical zones such as wetlands.

The developer will be required to install all sediment and erosion control measures and maintain them throughout the entire construction process. These measures will be monitored during construction by the Applicant, and representatives of the City. Erosion control facilities will be inspected on a routine basis, and following each storm event. In the event that sedimentation and erosion control measures prove ineffective, as determined by the City designated construction inspector, the Applicant will be responsible to promptly repair or replace these erosion control devices.

Grading limits are provided on the Soil Erosion and Sediment Control plan. This plan will minimize the areal extent of soil exposure to the greatest extent practicable in accordance with the guidelines in Appendix E of the NYSDEC SPDES Permit No. GP-0-10-001.

Following construction, erosion will be prevented by the established vegetation and by the stormwater management devices shown on the plans. Construction of the permanent stormwater management system will commence as part of the building construction so that this system will be functional as early as possible in the construction period. A specific construction sequencing plan for the site will be developed as building plans are finalized.

The erosion and sediment control plan utilizes sediment traps, stabilized construction entrances and the diversion of the relatively clean stormwater flows entering the site. Stockpiled soil will be surrounded by filter fabric fencing upon establishment and seeded or otherwise stabilized if left in place for more than 14 days. The erosion and sediment control plan also specifies measures for dust control to minimize such impacts to adjacent properties during the construction period.

Proposed Blasting Plan

A limited amount of blasting is anticipated to be required during the initial construction period. The proposed blasting plan outlined in the original DEIS, which was developed to eliminate or minimize the potential impacts to nearby properties and the Westchester County sewer line from the blasting, remains applicable to the proposed project.

The site engineer's recommendations to minimize the potential impacts of blasting are provided in the Geotechnical Review Report. A pre-construction survey of all structures within 200 feet of the site will be completed prior to blasting to document existing conditions. This survey will be conducted by a professional retained by the licensed blasting contractor. Test blasting will be initiated at the northern end of the project, at the furthest distance from the sewer line. Test blasting will allow adjustment of the blasting program as the blasting moves from north to south.

3.2 Wetlands

The Draft Environmental Impact Statement (EIS) and Final EIS prepared for 1105-1135 Warburton Avenue evaluated a site development plan that required approximately 0.92 and 0.45 acres of wetland disturbance, and approximately 1.97 and 1.0 acres of wetland creation respectively. The SEQR Findings that concluded that review indicated that the project could proceed without having significant adverse environmental impacts on wetlands. During the subsequent site plan review, a 353-unit plan was developed and approved comprising 0.45 acres of wetland disturbance and 1.45 acres of wetland creation.

The applicant has significantly reduced the size of the project from the prior plans. The current, revised plan will comprise a wetland disturbance area of 0.11 acres, which is less disturbance to wetlands than previously approved. Wetland impact mitigation is proposed in the form of wetland improvement measures rather than wetland creation.

3.2.1 Existing Conditions

The River Club site includes an area of wetlands under the jurisdiction of the US Army Corps of Engineers (ACOE) pursuant to Section 404 of the Clean Water Act (wetland boundaries are shown on the site topographic survey, see Figure 3.1-3). This wetland is approximately 1.45 acres in size. The following text is taken from the original DEIS prepared for this site, and verified by subsequent site observations.

The wetland occupies the lower elevations of the property along the western side near the train tracks. Two existing 36" culverts that drain to the Hudson River run beneath the tracks at the lowest elevation point on the project site. The end of the culverts at the project site are located below grade at an elevation of -3.6 feet National Geodetic Vertical Datum, NGVD. The elevation of the wetland near this end of the culverts is 4 feet NGVD. The remainder of the wetland is at elevation 6 feet NGVD or higher. Small pockets of standing water occur near the end of the culverts on the project site, which drain slowly during periods of low tide through the culverts. The mean high tide water level of the Hudson River in Yonkers is 2 feet NGVD. The elevation of the end of the culverts within the Hudson River is -6 feet NGVD.

The culverts are owned by Metro-North and at one time were clogged by silt and other materials, which affected the drainage of the project site and likely contributed to the size of the wetland on the site. After the culverts were cleaned by Metro-North in 2000, groundwater dropped immediately in the wetland. The existing soils in this area are gray fine to medium sands that were deposited by storm flows from the adjacent slopes and road runoff, and drain quickly. With the culverts clear there is a small area around the culverts that is influenced by tidal changes.

Due to the uncontrolled drainage from Warburton Avenue, siltation has affected the herbaceous layer as evidenced by areas devoid of vegetation along the bottom of the hillside where layers of silt have accumulated. Thus the herbaceous layer is dominated in the open areas with *Phragmites australis*, an opportunistic invasive species that quickly colonizes disturbed areas if it goes unchecked.

The site wetlands include both a second growth wooded component and a portion that is overgrown with invasive vegetation. The original delineation of the wetlands was completed in September 1999, and was verified by the ACOE in October 1999. An updated delineation was

completed in 2008 after the temporary repairs to and temporary stabilization of the County sewer line completed by the County.

It is noted that upland vegetation is becoming established in areas that were previously saturated. The evolution of parts of this wetland is tending to upland characteristics rather than wetland conditions.

Regulatory History

The wetland delineation on the River Club site originally confirmed by the ACOE in 1999 was the subject of a federal individual wetland permit application, pursuant to Section 404 of the Clean Water Act, for activities proposed in the prior project plans. This permit was approved by ACOE in 2002, with extensions granted in 2005, 2008 and 2011. The current permit is scheduled to expire on December 31, 2012, concurrent with the associated Water Quality Certification issued by the New York State Department of Environmental Conservation (NYSDEC).

This permit allowed for the filling of 0.64 acres of the 1.45 acre site wetland if strict conditions were met and extensive mitigation measures completed. Fill was to be placed at the eastern side of the wetland to accommodate building construction. The approved mitigation plans included creation of 0.21 acres of new wetland on site, restoration of the 0.81 acres of remaining wetland (especially the eradication of the existing *Phragmites*), and creation of 1.0 acres of new wetland off-site at Westchester County's Tibbetts Brook Park.

Following the issuance of the federal permit, some exploratory work was conducted on the site by the applicant, including soil borings for the building foundation design and restoration and expansion of the existing driveway into the site from Harriman Avenue (behind the Greystone Station railroad utility building). Several existing dwellings and garages on the site were also removed with permission from the City of Yonkers. These activities were completed under and are consistent with the prior City of Yonkers approvals and ACOE permit.

In early May of 2007, unusually heavy rains caused rock and mud slides in the project area, including on the subject site. Damage to the County sewer trunk line that crosses the site resulted from the slides. (This event is further described in SDEIS Section 3.1.1.) In response to that emergency, Westchester County expanded the gravel road from Harriman Avenue for repair to the trunk line. Less than 0.02 acre of wetland was disturbed by these activities (consistent with the existing ACOE permit), based on the delineations that were done before and after the sewer repair work. Since that time, the area of the landslide has been temporarily restored and stabilized with riprap and subsurface drainage to alleviate future occurrences.

All activities performed on the site to date occurred within the limits of disturbance approved by the City's site plan approval and the ACOE's wetland permit. No wetland areas outside of the permit area have been disturbed either by initial evaluations by the applicant or by the emergency activities of the County. The remaining wetland vegetation, although still dominated by invasive species, is still healthy. The two culverts under the Metro-North tracks are clear and continue to flow without obstruction.

Wetland Vegetation & Hydrology

Vegetation found within the wetland is the same mix as was identified in the original DEIS, as listed in the table below.

Table 3.2-1 Existing Wetland Vegetation		
Common Name	Scientific Name	Wetland Indicator Status
Silver Maple	<i>Acer sacharinum</i>	Facultative-Wet
Red Maple	<i>Acer rubrum</i>	Facultative
Pin Oak	<i>Quercus palustris</i>	Facultative-Wet
Speckled Alder	<i>Alnus rugosa</i>	Facultative-Wet (+)
Black Willow	<i>Salix nigra</i>	Facultative-Wet (+)
Weeping Willow	<i>Salix babylonica</i>	Facultative-Wet (-)
Spicebush	<i>Lindera benzoin</i>	Facultative-Wet (-)
Ailanthus	<i>Ailanthus altissima</i>	No Indicator Status
Poison Ivy	<i>Toxicodendron radicans</i>	Facultative
Common reed	<i>Phragmites australis</i>	Facultative-Wet
Silky Dogwood	<i>Cornus amomum</i>	Facultative-Wet
NOTE: Facultative-Wet (-) and Facultative-Wet (+) species are considered Hydrophytic Vegetation Source: Tim Miller Associates, Inc. 2000, 2012		

The wooded area along the eastern and southern portion of the wetland supports red and silver maples at higher elevations (+/- 8 ft. NGVD.) The understory includes speckled alder and spicebush. At lower elevations, vegetation is dominated by black and weeping willows, with silky dogwood in the understory. Poison ivy and other viny undergrowth is present throughout. Poison ivy, however, is the dominant groundcover.

The remainder of the wetland area, on the southern and western part of the wetland (closest to the train tracks), is considered a "degraded" or "disturbed" wetland since the vegetative species composition has become dominated by common reed (*Phragmites australis*). The source of this disturbance is most likely due to the local drainage conditions (possibly the clogging of the Metro-North culverts), but may also have been due in part to the construction of the concrete platforms at the train station.

Hydrology to the wetlands is provided by direct precipitation, hillside seepage from shallow groundwater flows and runoff from Warburton Avenue. The Warburton Avenue flows enter the site from a catch basin in the road and discharge from a pipe below the sleeved sewer line in the center of the site. There is an existing drainage channel, and several other seepage points, that drain down the hill toward the wetland.

Based on field observations and salinity tests in 2000, the wetland proper shows no signs of tidal influence or a hydrologic interchange with the Hudson River. Therefore, the on-site wetlands are not tidal wetlands. As noted, there is a small area immediately around the culverts that is influenced by tidal changes.

Soils in the wetland are further described in Section 3.1, Soils and Topography.

Wetland Functions

Wetlands generally perform a number of functions which are the basis for their regulatory protection. The functions the River Club wetland performs are discussed in the following paragraphs.

The primary function of this wetland is the control of stormwater flows and pollution reduction of non-point nutrient and sediment loadings to the Hudson River. The geometry of the wetland allows for the detention of these uncontrolled flows, which results in the settling of silts and sediments, and the biological uptake and treatment of nutrients during the growing season. Phosphorus, for example, tends to adhere to sediment particles, and is thus removed when these sediments are trapped by the wetland.

The wetland also provides open space to the local neighborhood and wildlife habitat, as does the upland portion of the undeveloped site. As open space, the size and location of the wetland offers limited opportunities for passive recreation (i.e. bird watching) to nearby residents and commuters standing on the Greystone Station train platform. The wildlife habitat function of the wetland is notably limited by its size, the invasion of *Phragmites*, and location in the urban environment. A variety of birds and small terrestrial and semi-aquatic animals have been sighted on the project site during the course of site investigations. These include urban-tolerant species such as rabbits, raccoons, squirrels, chipmunks, and frogs. However, due to its location in an urban environment, the wetland is impacted by the urban runoff from development above it.

3.2.2 Potential Impacts

As part of the revisions to the site plan, the applicant proposes to relocate the existing County sewer trunk line to improve its structural integrity and its alignment across the property. The applicant is currently coordinating this effort with the County. In order to accomplish this realignment, approximately 8,300 square feet of the site wetland will be disturbed, a portion temporarily for the construction and a portion permanently due to the required fill to stabilize the slope in which the sewer will be located.

It is proposed to erect a retaining wall at the eastern edge of the wetland to support the slope and provide a stable bed for the sewer line. Built from precast concrete modular blocks, the wall will range from 12.5 to a maximum of 16.5 feet above the wetland. The proposed location of the wall will allow for a straight run of the sewer to connect two existing manholes with 480 linear feet of 48" reinforced concrete pipe. To make this construction as straight as possible, a portion of the wetland along its eastern edge will be filled. This 4,600 square feet of disturbance (0.11 acres) is significantly less disturbance than the previously approved plan, which impacted 0.45 acres, and all of the current impact is related to the relocation of the County's sewer line rather than the building construction.

The engineering method being considered at this time for the wall foundation is a series of mini-piles connected with a cap, upon which the concrete blocks for the wall will be lowered into place from above. A temporary construction access (10 feet wide) at the bottom of the wall is anticipated to facilitate this construction, so an additional 3,700 square feet of wetland will likely be temporarily disturbed during construction. After construction, this area will be cleaned out, scarified and re-planted as described in the mitigation section below.

The stormwater management plan for the site considers the collection of on- and off-site waters and the continued provision of hydrology to the wetland. Water will enter the wetland from outlet structures in several different locations, similar to the existing condition. Because of the vertical topographic separation between the development area and the wetland, any wetland habitat that is currently being provided for local resident wildlife is not expected to be affected long term. As described in the original EIS, the site does not provide a high level of habitat value to species associated with wetlands and more specifically the Hudson River.

Although the wetland has been determined to be "adjacent to the Hudson River" by the ACOE, it nonetheless has been isolated from the river for over 100 years by distance (approximately 100 feet) and the structure created by the construction of the Metro-North railroad tracks. The wetland itself remains isolated, of a freshwater nature (where the River in this area is brackish), and of limited ecological function. Observations of the site during the fall and spring migration periods found no migratory waterfowl using the wetland; its lower reaches have heavy infestation of *Phragmites*, and it does not provide high-quality habitat.

The applicant is currently in discussions with the ACOE and NYSDEC to determine if new or additional permits will be required to implement the current site plan.

3.2.3 Mitigation

A total of 4,600 square feet of permanent wetland disturbance will result from the current plan. Several measures are proposed that will offset this wetland loss and have a beneficial effect on the wetlands.

Portions of the site have historically been unstable, with high levels of sediment loading to the wetland persisting over the long term and particularly in the 2007 landslide incident. Relocation of the County sewer will include work to stabilize the easterly slopes of the site with the building, retaining structures and new vegetative cover. In addition, the proposed development has been designed to capture the runoff from the Warburton Avenue drainage area above the site and safely convey it to the wetland through an engineered stormwater system and stabilized outlet. Both of these measures will reduce the future sediment loading to the wetland. Runoff from new impervious surfaces will be captured in a water quality practice and treated prior to discharge to the wetland.

To improve wetland aesthetics for the project and its neighbors as well as site habitat and biodiversity, the applicant will implement an aggressive *Phragmites* eradication program, with the goal of reducing the *Phragmites* population so that native species on the site may recover and once again become the dominant wetland species. *Phragmites* will be removed by hand using small gasoline powered brush cutters. Cutting will be conducted late in the growing season before seed heads can set, forcing the plants to use stored energy to produce new growth. This weakens the plant and over time, with several cuttings, is an effective method in significantly reducing the monoculture that is typical of this species. No permit from the ACOE is required for this activity. Following this treatment appropriate wetland seed will be used over the entire area, thereby restoring more than one acre of the existing wetland. With the improvements that have been made to the stormwater outlet under the Metro-North tracks and the restoration of the site vegetation, this wetland will provide better functions relative to vegetation diversity, wildlife and stormwater control than in the existing condition.

3.3 Water Resources

The Draft Environmental Impact Statement (EIS) and Final EIS prepared for 1105-1135 Warburton Avenue evaluated a site development plan that comprised approximately 3.6 and 2.6 acres of impervious surfaces, respectively. The SEQR Findings that concluded that review indicated that the project could proceed without having significant adverse environmental impacts on water resources. During the subsequent site plan review, a 353-unit plan was developed and approved comprising impervious surfaces on 2.5 acres.

The applicant has significantly reduced the size of the project from the prior plans. The current, revised plan will comprise an impervious area of 1.44 acres, which is notably less impact to water resources than previously approved.

3.3.1 Existing Conditions

Existing Drainage Patterns and Surface Water Features

The project site is located within the Hudson River drainage basin. Drainage patterns within a quarter-mile radius of the project site generally follow surface topography, which is generally east to west toward the River.

On site drainage flows through the subject property primarily as sheet flow from higher elevations at Warburton Avenue and further east to the wetland adjacent to the Metro-North train tracks. Discharge of an existing storm drain from Warburton Avenue flows through an eroded channel through the center of the site and enters the site wetland just below the existing sewer main. This wetland system is described in detail in Section 3.2 of this SDEIS. The site drains to the Hudson River through two 36" culverts under the Metro-North tracks at the western boundary of the site. All site drainage flows to this point.

Based upon the existing conditions drainage analysis for the site completed by SESI Consulting Engineers, P.C., the overall watershed drainage area for the project site consists of eight (8) drainage subareas. The total drainage area to the site is 15.48 acres, including approximately 10.58 acres off-site. One drainage subarea, totaling approximately 4.9 acres, includes the entire site. Stormwater from off-site and on-site areas drains in a westerly direction mostly overland to the wetland in the western portion of the site.

An "Existing Condition Watershed Drainage Area Map" is provided in Appendix C.

Discharge Points

This site has one existing point of discharge. On-site stormwater runoff flows overland to the onsite wetlands, then through a pair of 36" culvert pipes that drain to the Hudson River, which is tidally influenced at this location.

Stormwater Runoff Quantity

Existing runoff from the site has been calculated for the 2-year, 5-year, 10-year, 25-year, and 100-year storm events. Runoff quantity was calculated using the hydrologic/hydraulic modeling software that utilizes NRCSTR-20/TR-55, "Autodesk's Storm and Sanitary Analysis 2011" software. The existing flow rates are presented in the Stormwater Pollution Prevention Plan prepared for the project (Appendix C) and are reproduced below:

Table 3.3-1 Existing Flow Rates ¹ River Club						
Watershed	Size (ac.)	2-year storm	5-year storm	10-year storm	25-year storm	100-year storm
Total Drainage Area	15.48	6.24	13.26	17.29	26.07	40.55
Source: SESI Consulting Engineers, P.C., 2012						
¹ Cubic Feet per Second						

Stormwater Quality

Under existing conditions, stormwater is not treated and therefore likely contains pollutants typical of urban stormwater run-off, including phosphorus, nitrogen, dissolved solids, metals and pathogens including coliform and E. coli. A water quality volume analysis was completed by the project engineer according to the NYS *Stormwater Management Design Manual (August 2010)*. Sizing for Water Quality Control (WQv) is used to design water quality structures to treat 90 percent of the average annual stormwater run-off volume (Chapter 4 of the *Design Manual*). Water quality volume is directly related to the impervious cover on the site. The site currently has approximately 0.21 acres of impervious surface, and generates a stormflow in the two year storm of 6.24 cfs. Post-development impervious surface and stormwater quality is described below.

3.3.2 Potential Impacts

Stormwater Runoff Quantity and Treatment Methods

Stormwater runoff at the site will be impacted during construction and post-construction with the introduction of impervious surface and by changes to the on-site drainage pattern. Project construction will result in the disturbance of approximately 3.5 acres of the site, according to engineer's estimates. Approximately 1.44 acres of impervious surface will result from the construction of the proposed building, driveways and pool terrace. Post-construction, drainage will be divided into twenty-five (25) drainage sub-areas as shown in the "Proposed Condition Watershed Drainage Area Map" (see Appendix C).

Runoff from the building rooftops, interior driveway areas, and lawn area at the front of the building will be captured, collected and conveyed in 15 to 18 inch pipes to the bioretention basin in the northwest corner of the site. Stormwater flow is first directed to an impact pad that will be surrounding by a 3-foot gabion basket. This pad will absorb the energy from the flow and act as pre-treatment before the runoff flows into a proposed bioretention facility.

The bioretention facility is designed to capture and treat the entire 90-percent rainfall event, per NYSDEC requirements. The basin will allow for ponding and vertical flow through a soil media providing stormwater quality treatment. Following treatment the stormwater is captured by an underdrain system and eventually drains to the adjacent existing wetlands. An overflow spillway is provided for large storm events, discharging to the wetland.

Runoff from unpaved portions of the site, including south and west of the proposed building will travel generally west as sheet flow through landscaped areas to the on-site wetland. Stormwater

runoff from Warburton Avenue and upgradient off-site drainage area that currently flows through the site will be directed to a new set of stormwater catchbasins in Warburton Avenue and then piped along the northern edge of the site and eventually discharged to the wetland at the northwest corner of the site (see Appendix C - Proposed Condition Watershed Drainage Area Map). Drainage control structures will be used to slow flow rates across the change in elevation from Warburton Avenue to the down slope wetland. Following development, all stormwater runoff in the drainage area will continue to flow to the one existing on-site drainage discharge point, the 36-inch culverts that empty into the Hudson River.

Stormwater flow rate calculations for the proposed conditions are presented in the stormwater report (Appendix C) and in Table 3.3-2 below.

Table 3.3-2 Peak Flow Rate Comparison River Club						
Watershed	Size (ac.)	2-year Storm	5-year Storm	10-year Storm	25-year Storm	100-year Storm
Pre-Development	15.48	6.24	13.26	17.29	26.07	40.55
Post-Development	15.48	7.46	13.84	17.61	28.51	43.19
Net change in discharge		1.16	0.58	0.32	2.44	2.64
Source: SESI Consulting Engineers, P.C., 2012						
¹ Cubic Feet per Second						

As indicated, post-development peak flow rates will increase somewhat compared to pre-development flow rates due to a slight increase in the area of captured flow from Warburton Avenue and the proposed increase in impervious surface on the site. Attenuation of the 100-year storm runoff can be waived if the site discharges directly to a tidal water, according to the NYS *Stormwater Management Design Manual (August 2010)*. The Hudson River is tidally influenced at Yonkers and the twin 36-inch culverts are directly connected to the Hudson River. It is the opinion of the SESI Consulting Engineers, P.C. that the project meets the criteria of the waiver conditions.

Stormwater Runoff Quality

Adding pavement and impervious surfaces to the project area has the potential to increase pollutant contributions to stormwater runoff, such as sand, silt, salts, oil and grease. The addition of pavement and stormwater collection systems also has the potential to increase the rate of stormwater flow from the site. These potential impacts are being avoided or mitigated by structural stormwater controls and maintenance practices, which are discussed below.

Under the post-development condition, approximately 29 percent of the site will be impervious surface (mostly rooftop surfaces and some pavement) and approximately 71 percent will remain pervious surface. All of the stormwater flowing from impervious surfaces (100 percent) would be captured and treated compared with existing conditions where no stormwater is being detained or treated.

The water quality volume estimates analyzed the entire site and 100 percent of the post-development impervious cover or 1.44 acres. Based upon the analysis, 0.132 acre-feet or

43,012 gallons of storage is required to detain the 90-percent rainfall event from disturbed areas.

Stormwater from the 1-year through the 100-year storms will be captured and detained in a combination of swale and bioretention system eventually overflowing into the onsite wetland. The proposed bioretention storage system is designed consistent with Chapter 8 - Stormwater Management Design Examples in *NYS Stormwater Management Design Manual (August 2010)*.

The Stormwater Pollution Prevention Plan will require review and approval by the City of Yonkers and will comply with the requirements of Article XVII - Stormwater Control, of the City of Yonkers Zoning Chapter. Once approved by the City of Yonkers, the applicant will submit a Notice of Intent (NOI) to the NYSDEC for a SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-10-001). A determination of conformance with the General Permit from the NYSDEC is required for the project.

Proposed stormwater management infrastructure is shown on the full size engineering plans provided with this SDEIS.

Current and Former Site Plan Comparison

The original site plan for the River Club property evaluated in the 2000 DEIS included a 524-unit apartment building which would create 3.6 acres of impervious surfaces for building and parking/road surfaces. Several previous plans were reviewed by the City of Yonkers between the original application and the 2005 approved plan, all of which reduced the unit count and also reduced the impervious surfaces impact. The plan that was most recently approved by the City for 353 units would create 2.5 acres of impervious surfaces. By comparison, the current revised site plan would create approximately 1.44 acres of impervious surface.

3.3.3 Mitigation Measures

Erosion Control Measures During Construction

The purpose of the soil erosion and sediment control plan is to minimize the erosion of exposed areas of soils and to prevent the transportation of sediment off-site during construction process. All soil erosion and sediment control practices shall be installed in accordance with the *New York State Guidelines for Urban Erosion and Sediment Control (April 1997)*, as well as in accordance with the *New York State Stormwater Management Design Manual (August 2010)*, and the NYSDEC SPDES General Permit for Stormwater Discharge from Construction Activity, Permit No. GP-0-10-001.

Temporary measures are specified on the soil erosion and sediment control plan for the project to minimize soil erosion and sediment transport during the construction process, including stabilized construction entrances, erosion control barriers (i.e., silt fences and hay bale filters), dust control, temporary soil stockpile, and stone inlet protection barrier. The construction manager will be required to ensure that all sediment and erosion control measures are in place and functioning throughout the entire construction process. Such measures will be implemented at the initiation of construction activities and will be monitored by a City representative. These systems will have the following formations:

- *Construction Entrances* - The construction entrances will consist of filter fabric cloth spread over the entire area that will be covered with aggregate. The aggregate will be 2-inch stone or recycled concrete at a minimum thickness of 6-inches.
- *Erosion Control Barriers* - Silt fences and/or hay bale filters will be installed at all critical slopes where erosion is likely and adjacent to protected wetlands.
- *Stone Inlet Protection Barrier* - Concrete block surrounding by wire mesh and crushed stone will be placed around catch basins once they have been installed to protect the catch basins from sedimentation. During construction this crushed stone will be replaced as necessary to ensure proper function of the structure.
- *Temporary Soil Stockpile* - If necessary materials such as topsoil will be temporarily stockpiled onsite during the construction process. This stockpile area will be located away from storm drainage and will be protected from erosion by a surrounding straw bales or silt fence barrier.
- *Dust Control* - Existing vegetation will be preserved wherever possible and temporary soil stabilization practices, such as mulching, seeding and spraying (water), will be utilized to control dust.

Ownership and Maintenance

Ownership of the project and responsibility for long term maintenance of all facilities on the project site will be that of River Club, LLC. Post-construction inspection and maintenance of the on-site stormwater management facilities is identified in the SWPPP, encompassing the following activities:

- The stormwater management system will be inspected quarterly and after each significant rainfall event to maintain proper operation.
- All catch basin sumps will be cleaned when they have filled to 50% of their capacity.
- All drainage areas damaged by erosion will be repaired and re-stabilized with vegetation and or appropriately sized riprap.
- Any slopes or embankments that have cracks and damaged vegetation will be repaired and reseeded as necessary.
- Rip-rap at pipe outfalls shall be cleaned or replaced when it becomes overburdened with silt or sediment.
- Debris shall be removed from channels, and outlet structures to allow unobstructed flow of stormwater.
- Silt or sediment accumulations will be removed from the surface sand filter when it reaches a depth of 6-inches above the bottom of the structure.
- Trash and debris shall be removed from surface sand and filter as necessary.
- All drainage swales shall be kept free of debris and sediment accumulations.
- Vegetation shall be maintained to allow unobstructed flow of stormwater.

3.4 Transportation

3.4.1 Existing Conditions

1105-1135 Warburton Avenue was the subject of a Draft Environmental Impact Statement (EIS) and Final EIS for a 524-unit apartment Site Plan Application submitted by the project sponsor on November 16, 1999. The City of Yonkers Planning Board established itself as SEQR lead agency. The project was subject to an environmental review under SEQR, as well as the National Environmental Policy Act (NEPA) since the project contained an affordable housing component that necessitated such federal review. The SEQR Findings that concluded that review indicated that the project could proceed without having significant adverse environmental impacts on traffic.

During the review several alternative density plans were evaluated and a preferred alternative plan was identified, consisting of 440 units. A combined Record of Decision (ROD) pursuant to NEPA and Statement of Findings pursuant to SEQR was adopted by the lead agency in February 2003.

Traffic studies done for the 524-unit project projected that 124 am and 156 pm trips would be generated. The applicant has significantly reduced the size of the project from the 1999 and 2003 proposals. Under the current plan for 330 rental apartments, the project will generate 85 am trips and 100 pm trips (both assume a mass transit credit because of proximity to the Greystone train station). Although the project will generate significantly less traffic than the original proposal, because background volumes and conditions have changed since 1999, the City of Yonkers has requested that a revised traffic study be prepared for this SEIS.

Traffic and Parking

River Club (hereinafter "the Project") is proposed to be constructed on property located at 1105-1135 Warburton Avenue between the River Hill Tower and the Greystone apartment complexes. The Project is proposed to consist of 330 rental apartment units and access to the site is proposed via a driveway connection to Warburton Avenue. The Project is expected to be constructed and completed within the next few years, however, for the purpose of analysis, a conservative Design Year of 2015 has been considered in the Traffic and Parking study prepared for the proposed project by John Collins Engineering and provided in Appendix D. The study provides detailed transportation-related information which is reiterated below. The Traffic and Parking study and this transportation section update the information provided in the original DEIS for the River Club project. The site location in relation to area roadways is shown on Figure 3.4-1.

Area Roadways and Parking

Warburton Avenue - is a generally north/south roadway consisting of one travel lane per direction. In the vicinity of the study area, Warburton Avenue intersects with Odell Avenue and Harriman Avenue at unsignalized intersections. This section of Warburton Avenue provides access to several apartment complexes including River Hill Tower, The Greystone, The Tower at Greystone and River Hill Condominiums as well as the Palisades Boat Club and the Riverview Restaurant. Parking is provided along both sides of this section of roadway. (A detailed evaluation of parking conditions along Warburton Avenue is provided at the end of this section.) This section of Warburton Avenue has a posted speed limit of 30 mph.

Harriman Avenue - is a two lane roadway which intersects with Warburton Avenue at an unsignalized intersection and provides access to the Greystone Train Station parking lot and a parking lot for residents of The Greystone. There are also 31 metered parking spaces along the north side of this roadway.

Odell Avenue - is a generally east/west roadway which connects Warburton Avenue (unsignalized intersection) and North Broadway (signalized intersection). Odell Avenue also provides access for the Riverside Gardens Nursing Home as well as for employee parking and emergency access to St. John's Riverside Hospital. The roadway generally consists of one lane per direction with parking allowed in the westerly portion. Odell Avenue is characterized by relatively steep grades and the speed limit is reduced in the vicinity of a series of sharp horizontal curves near the west end. The curves restrict sight distances both eastbound and westbound and existing conditions would be improved somewhat by some additional speed warning signs and other traffic control measures. Odell Avenue is designated as a snow emergency route.

North Broadway (Route 9) - is a major north/south roadway which runs throughout the City of Yonkers. In the vicinity of the study area, North Broadway intersects with Executive Boulevard (signalized intersection), Odell Terrace (unsignalized intersection), Odell Avenue (signalized intersection) and St. John's Riverside Hospital (signalized intersection). The roadway generally operates as one travel lane per direction with turning lanes at the major intersections. The posted speed limit along North Broadway is 30 mph.

Odell Terrace - intersects with North Broadway at a "stop" controlled "T" intersection, which currently operates as right in/right out. It continues as a two lane roadway in an easterly direction and connects with Executive Boulevard (via Enterprise Boulevard). It provides access to the Southern Westchester Executive Park (SWEP).

Executive Boulevard - is a generally east/west roadway which intersects with North Broadway, Enterprise Boulevard, Nepperhan Avenue and the Saw Mill River Parkway. The roadway generally consists of one lane per direction plus turning lanes with multilane in the easterly portion. The posted speed limit along Executive Boulevard is 30 mph. A major widening of Executive Boulevard at the intersections with Nepperhan Avenue and Truman Avenue are proposed as part of the expansion of SWEP. The widening includes the addition of a through lane eastbound from Truman Avenue to Nepperhan Avenue.

Roberts Avenue - is a generally east/west roadway which intersects Saw Mill River Road (via Old Nepperhan Avenue), Nepperhan Avenue and North Broadway all at signalized intersections. The roadway is characterized by relatively steep grades and sections of the roadway have a reduced speed limit.

Accident data for the area roadways were obtained from the New York Department of Motor Vehicles for the three most recent years. A summary of the accident data is contained in Appendix D.

Study Intersections

In order to identify existing traffic conditions, turning movement traffic counts were conducted during April 2012 at key locations in the vicinity of the site to determine the Weekday AM, Weekday PM and Saturday Peak Hours.

Based upon a review of this information, the peak hours were identified as follows:

- Weekday Peak AM Hour - 8:00 AM to 9:00 AM
- Weekday Peak PM Hour - 5:00 PM to 6:00 PM
- Peak Saturday Hour - 12:00 AM to 1:00 PM

The key locations studied are listed below:

- Nepperhan Avenue and Executive Boulevard
- Executive Boulevard and North Broadway (Route 9)
- North Broadway and Odell Avenue
- North Broadway and St. John's Riverside Hospital
- Warburton Avenue and Odell Avenue
- Warburton Avenue and Harriman Avenue
- North Broadway and Odell Terrace
- Warburton Avenue and Proposed Site Access
- North Broadway and Roberts Avenue

The Year 2012 Existing Traffic Volumes are shown on Figures 3.4-2, 3.4-3, and 3.4-4 for each of the peak hours, respectively.

Capacity Analyses

In order to determine existing traffic operating conditions it was necessary to perform capacity analyses. The following paragraphs briefly describe the analysis method utilized in the traffic study.

Signalized Intersection Capacity Analysis: The capacity analysis for a signalized intersection was performed in accordance with the procedures described in the 2010 Highway Capacity Manual, published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. In order to identify an intersection's Level of Service the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection. A Level of Service "A" represents the best condition and a Level of Service "F" represents the worst condition. A Level of Service "C" is generally used as a design standard while a Level of Service "D" is acceptable during peak periods. A Level of Service "E" represents an operation near capacity.

Unsignalized Intersection Capacity Analysis: The unsignalized intersection capacity analysis was also performed in accordance with the procedures described in the Highway Capacity Manual. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement to the intersection as well as for the overall intersection.

Additional information concerning signalized and unsignalized Levels of Service can be found in the traffic study.

Results of Analysis: The current peak traffic hour levels of services for the intersections analyzed are shown on Table 3.4-1 in the "2012 - Existing Condition" columns. Copies of the capacity analysis are contained in Appendix D.

Table 3.4-1 Level of Service Summary and Vehicle Delays (in seconds)									
Location	2012 - Existing Condition			2015 - No Build Condition			2015 - Build Condition		
	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
Nepperhan Ave. & Executive Boulevard - Signalized									
EB	C [20.8]	C [28.0]	C [25.3]	C [21.6]	C [32.9]	C [25.6]	C [21.8]	C [33.1]	C [25.7]
WB	D [37.4]	A [9.3]	A [7.3]	D [51.8]	B [12.9]	A [7.4]	D [52.2]	B [13.1]	A [7.5]
NB	C [32.6]	C [32.4]	C [31.8]	D [45.9]	D [35.5]	C [31.8]	D [46.2]	D [35.9]	C [31.8]
SB	D [53.7]	E [58.6]	D [52.1]	E [58.5]	E [61.0]	D [52.5]	E [58.8]	E [61.6]	D [53.2]
Overall	C [32.6]	C [26.5]	C [24.4]	D [42.0]	C [30.3]	C [24.5]	D [42.2]	C [30.5]	C [24.6]
North Broadway & Executive Boulevard - Signalized									
WB	B [16.8]	B [13.6]	A [9.8]	B [19.2]	C [21.4]	A [9.9]	B [19.9]	C [24.5]	B [10.3]
NB	C [26.9]	C [26.7]	C [25.8]	C [29.1]	C [27.3]	C [26.0]	C [31.0]	C [27.7]	C [26.5]
SB	C [27.7]	B [19.5]	B [18.3]	D [39.6]	C [21.5]	B [18.3]	D [40.4]	C [21.6]	B [18.5]
Overall	C [23.1]	B [19.0]	B [16.8]	C [28.4]	C [23.2]	B [16.9]	C [29.5]	C [24.9]	B [17.3]
North Broadway & Odell Avenue - Signalized									
EB	C [24.8]	C [27.3]	C [22.2]	C [27.7]	C [28.8]	C [22.4]	C [34.6]	C [32.8]	C [22.4]
NB	B [12.9]	B [10.1]	A [8.7]	B [16.8]	B [11.2]	A [8.9]	B [16.8]	B [11.2]	A [8.9]
SB	C [26.9]	B [19.9]	B [14.9]	C [32.2]	C [32.4]	B [15.2]	C [31.8]	C [31.5]	B [14.9]
Overall	C [20.6]	B [17.0]	B [13.4]	C [24.5]	C [23.5]	B [13.6]	C [25.9]	C [24.0]	B [14.1]
North Broadway & St. John's Hospital - Signalized									
EB	C [32.0]	C [33.6]	C [31.3]	C [32.1]	C [33.7]	C [31.3]	C [32.1]	C [33.7]	C [31.3]
WB	C [30.7]	C [30.7]	C [31.6]	C [30.7]	C [30.7]	C [31.6]	C [30.7]	C [30.7]	C [31.6]
NB	B [17.1]	B [16.0]	B [14.1]	C [21.6]	B [17.4]	B [14.2]	C [21.6]	B [17.4]	B [14.2]
SB	B [12.0]	B [16.9]	B [12.5]	B [12.5]	C [21.4]	B [12.7]	B [12.5]	C [21.4]	B [12.7]
Overall	B [16.1]	B [17.6]	B [15.1]	B [19.1]	C [17.6]	B [15.3]	B [19.1]	C [17.6]	B [15.3]
Warburton Ave. & Odell Avenue. - Unsignalized									
WB	C (20.7)	C (17.4)	B (11.7)	C (24.0)	C (19.9)	B (11.8)	E (35.5)	D (27.1)	B (12.9)
SB	A (8.6)	A (8.1)	A (7.8)	A (8.7)	A (8.1)	A (7.9)	A (9.0)	A (8.1)	A (8.0)
With new signal:	--	--	--	B [15.7]	B [17.5]	B [14.3]	B [18.2]	B [19.5]	B [15.6]
Overall									
Warburton Ave. & Harriman Ave.									
EB	C (16.9)	C (15.9)	B (10.5)	C (17.6)	C (16.6)	B (10.6)	C (18.1)	C (17.3)	B (10.8)
NB	A(8.0)	A (8.0)	A (7.6)	A(8.0)	A (8.1)	A (7.6)	A(8.0)	A (8.1)	A (7.6)
North Broadway & Odell Terrace - Unsignalized									
WB	C (19.3)	C (17.9)	B (13.7)	C (23.4)	C (21.8)	B (13.9)	C (24.9)	C (22.9)	B (14.4)
Warburton Ave. & Site Access - Unsignalized									
EB	--	--	--	--	--	--	B (11.2)	B (10.7)	B (10.1)
NB	--	--	--	--	--	--	A (7.9)	A (7.9)	A (7.8)

Notes: (1) the above represents the overall level of service and overall vehicle delay in seconds, B [10.9] for the Signalized Intersections and the levels of service and average total delays in seconds, B (10.9), for each approach for the Unsignalized Intersections.
(2) At these intersections, the traffic signal improvements are required even without the River Club development
NB = Northbound, EB = Eastbound, WB = Westbound, SB = Southbound, L = Left, R = Right.

Table 3.4-1 (Continued)									
Level of Service Summary and Vehicle Delays (in seconds)									
Location	2012 - Existing Condition			2015 - No Build Condition			2015 - Build Condition		
	AM	PM	SAT	AM	PM	SAT	AM	PM	SAT
North Broadway & Roberts Avenue/Roberts Lane									
EB	B [13.0]	B [12.8]	B [12.9]	B [13.0]	B [12.8]	B [12.9]	B [13.0]	B [12.8]	B [12.9]
WB	C [27.1]	B [16.3]	B [15.7]	C [28.0]	B [16.5]	B [15.8]	C [28.0]	B [16.5]	B [15.8]
NB	B [18.1]	B [18.0]	B [13.7]	B [22.9]	B [19.5]	B [13.8]	C [23.1]	B [19.8]	B [13.9]
SB	B [14.0]	C [26.5]	B [15.1]	B [14.8]	E [60.7]	B [15.4]	B [15.0]	E [64.8]	B [15.5]
Overall	B [19.7]	C [20.8]	B [14.7]	B [22.0]	D [36.3]	B [14.9]	C [22.1]	D [38.1]	B [15.0]
EB	--	--	--	--	B [14.7]	--	--	B [14.7]	--
WB	--	--	--	--	B [19.6]	--	--	B [19.6]	--
NB	--	--	--	--	B [16.1]	--	--	B [16.2]	--
SB	--	--	--	--	C [32.3]	--	--	C [33.9]	--
With new timing:	--	--	--	--	C [23.5]	--	--	C [24.2]	--
Overall									
Notes: (1) the above represents the overall level of service and overall vehicle delay in seconds, B [10.9] for the Signalized Intersections and the levels of service and average total delays in seconds, B (10.9), for each approach for the Unsignalized Intersections. (2) At these intersections, the traffic signal improvements are required even without the River Club development NB = Northbound, EB = Eastbound, WB = Westbound, SB = Southbound, L = Left, R = Right.									

Summarized in the following paragraphs is a brief description of the existing geometrics (including lane widths), traffic control and a descriptive summary of the existing Levels of Service.

1. Nepperhan Avenue and Executive Boulevard

Nepperhan Avenue and Executive Boulevard intersect to form a full movement signalized intersection. The Nepperhan Avenue northbound approach consists of three lanes in the form of a separate left turn lane, a separate through lane and a separate right turn lane and the Nepperhan Avenue southbound approach consists of two lanes in the form of a separate left turn lane and a shared/through right turn lane. The Executive Boulevard eastbound approach consists of four lanes in the form of a separate left turn lane, two through lanes and separate right turn lane and the Executive Boulevard westbound approach consists of three lanes in the form of a separate left turn, a separate through lane and a shared through/right turn lane. Associated with the SWEP expansion, improvements are currently being completed at this intersection that will modify the eastbound approach such that the separate right turn lane will become a shared through/right turn lane and will extend the storage length for this lane. The traffic signal at this intersection as well as the Executive Boulevard/Saw Mill River Parkway intersection will be upgraded to provide better coordination and therefore improve traffic flow through this area especially during peak periods. For the purposes of analysis, it was assumed that these improvements have already been completed.

Capacity analysis conducted utilizing the Year 2012 Existing Traffic Volumes indicates that with the existing signal phasing and timings this intersection is currently operating at an overall Level of Service "C" during the Weekday AM, Weekday PM and Saturday Peak Hours. However, due

to the existing queuing on the Saw Mill River Parkway approach, the intersection operation is impacted by vehicles blocking the intersection.

2. North Broadway and Executive Boulevard

Executive Boulevard intersects with North Broadway at a full movement, "T" shaped signalized intersection. The North Broadway northbound approach consists of three lanes in the form of two through lanes and a separate channelized right turn lane and the North Broadway southbound approach consists of two lanes in the form of a shared left/through lane and a separate through lane. The Executive Boulevard westbound approach consists of two lanes in the form of a separate left turn lane and a separate right turn lane.

Capacity analysis conducted utilizing the Year 2012 Existing Traffic Volumes indicate that with the existing signal phasing and timings this intersection is currently operating at an overall Level of Service "C" or better during the Weekday AM and Weekday Peak PM Hours and Saturday Peak Hour.

3. North Broadway and Odell Avenue

Odell Avenue intersects with North Broadway at a "T" shaped pre-timed signalized intersection. The North Broadway northbound approach presently consists of two lanes in the form of a separate left turn lane and a separate through lane and the North Broadway southbound approach consists of two lanes in the form of a separate through lane and a separate right turn lane. The Odell Avenue eastbound approach consists of one wide lane for left and right turn movements.

Capacity analysis conducted utilizing the Year 2012 Existing Traffic Volumes indicates that with the existing signal phasing and timings this intersection is currently operating at an overall Level of Service of "C" or better.

4. North Broadway and St. John's Riverside Hospital

St. John's Riverside Hospital intersects with North Broadway opposite the driveway to the Chase Building at a full movement pre-timed signalized intersection. The North Broadway northbound approach consists of two lanes in the form of separate left turn lane into St. John's Hospital and a shared/through right turn lane and the North Broadway southbound approach consists of a separate left turn lane into the Chase driveway, a separate through lane and a separate right turn lane into St. John's Hospital. The St. John's Hospital approach (eastbound approach) consists of one lane for left, through and right turn movements and the Chase driveway (westbound approach) also consists of one lane for left, through and right turn movements.

Capacity analysis conducted utilizing the Year 2012 Existing Traffic Volumes indicates that with the existing signal phasing and timings this intersection is currently operating at an overall Level of Service "B" or better during the Weekday AM, Weekday PM and Saturday Peak Hours.

5. Warburton Avenue and Odell Avenue

Odell Avenue intersects Warburton Avenue at an unsignalized "T" shaped intersection. The Warburton Avenue northbound approach consists of one wide lane for through and right turn movements and the Warburton Avenue southbound approach consists of one lane for left and through movements. The Odell Avenue westbound approach consists of one lane for left and right turn movements and is presently "stop" sign controlled. Sight distance is somewhat restricted at this intersection due to the on-street parking along Warburton Avenue. (This has been taken into consideration in the capacity analysis.)

Capacity analysis conducted utilizing the Year 2012 Existing Traffic Volumes indicates that the Warburton Avenue southbound left turn (major movement) is currently operating at a Level of Service "A" or better and the Odell Avenue westbound approach (minor movement) is currently operating at a Level of Service "C" or better during each of the peak hours.

6. Warburton Avenue and Harriman Avenue

Harriman Avenue intersects with Warburton Avenue to form a "T" shaped unsignalized intersection. The Warburton Avenue northbound approach consists of one lane for left and through movements and the Warburton Avenue southbound approach consists of one lane for through and right turn movements. The Harriman Avenue eastbound approach consists of one lane for left and right turn movements and is presently "stop" sign controlled. Parking is available along both sides of Warburton Avenue and parking is also available along the north side of Harriman Avenue. (Appendix D provides a detailed evaluation of parking conditions along Warburton Avenue.)

Capacity analysis conducted utilizing the Year 2012 Existing Traffic Volumes indicates that the Warburton Avenue northbound left turn (major movement) is currently operating at a Level of Service "A" or better and the Harriman Avenue eastbound approach (minor movements) is currently operating at a Level of Service "C" or better during each of the peak hours.

7. North Broadway and Odell Terrace

Odell Terrace intersects with North Broadway to form an unsignalized "T" shaped intersection. The North Broadway northbound approach consists of one wide lane for through and right turn movements and the North Broadway southbound approach consists of one wide lane for through movements. The Odell Terrace westbound approach consists of one lane for right turn movements and is presently controlled by a "stop" sign.

Capacity analysis conducted utilizing the Year 2012 Existing Traffic Volumes indicates that Odell Terrace westbound is currently operating at a Level of Service "C" or better during each of the peak hours.

8. North Broadway and Roberts Avenue

The intersection of North Broadway and Roberts Avenue intersects at a full movement, signalized intersection. Existing Traffic Volumes indicates that overall the intersection is currently operating at a Level of Service "D" or better during each of the peak hours.

Site Access and Safety Issues

Currently there is no improved vehicular access to the project site. A gravel driveway on the south side of the property is accessible from Harriman Avenue. As there is currently no vehicular use of the project site, there are no existing traffic-related safety issues.

Transit and Pedestrian Environment

Mass Transit

Bus Service in the area is provided by the Westchester County Bee-Line Bus System operated by the Westchester County Department of Transportation. Local service is provided along Warburton Avenue via the Route 1C, 1T and 1W buses.

The Route 1C Bus is a full service route operating in both directions Monday through Friday between the West 242nd Street Subway Station in the Bronx and the White Plains Transit Center, with service to Yonkers, Hastings, Dobbs Ferry, Ardsley, Elmsford, Westchester Community College and the Westchester Medical Center.

The Route 1T Bus is a full service route operating in both directions seven days a week between the west 242nd Street Subway Station in the Bronx and Tarrytown Train Station, with service to Yonkers, Hastings, Dobbs Ferry and Irvington.

The Route 1W Bus is a full service route operating in both directions Monday through Saturday between the west 242nd Street Subway Station and White Plains with service to Yonkers, Dobbs Ferry, Irvington, Tarrytown and Elmsford.

The area is also served by the Metro-North Railroad (Hudson Line) and the immediate area is serviced via the Greystone Train Station which is located on Harriman Avenue. Service is provided to both New York City and Poughkeepsie during peak and off peak hours for both Weekdays and Weekends.

Pedestrians

Pedestrian sidewalks are located along both sides of Warburton Avenue and on the lower portion of Odell Avenue. Pedestrian activity along Warburton consists primarily of residents and visitors accessing vehicles parked along Warburton Avenue, or recreational walking. This is substantiated by a review of the parking utilization shown in Table 3.4-1. Parking utilization in those areas close to currently occupied residential buildings is higher than the utilization of the areas closer to the undeveloped River Club site. There are limited origins or destinations for pedestrians other than the residential buildings along Warburton.

Based upon anecdotal information, trail users occasionally park their vehicles on Warburton Avenue or along the lower portion of Odell Avenue and walk up Odell Avenue to access the walking trail along the Old Croton Aqueduct State Park.

Parking Availability

There is currently no parking on the project site. On-street parking is available in the project vicinity. A traffic and parking study was prepared for the proposed project by John Collins Engineering and is provided in Appendix D. Detailed parking-related information is located in the traffic study and is summarized below.

A review of current on-street parking conditions indicates the area parking demand is a combination of residents, visitors and commuter use at the Greystone Station and thus, the peaking characteristics vary day by day. Based on a review of the overall area there is available on-street parking throughout the day. Some parking is more convenient to the residential areas and other spaces, especially along Harriman Avenue and south of Harriman Avenue, are heavily utilized by commuters. It should also be noted that the on-street parking is signed for alternate side of the street parking between the hours of 1:00 PM and 3:00 PM on Fridays (on the east side of Warburton Avenue) and on Tuesdays (on the west side of Warburton Avenue) (refer to Figure 3.4-22).

Parking conditions for an approximately one-half mile section of Warburton Avenue were recently surveyed during the weekday hours of 6:00 AM to 10:00 AM and 3:00 PM to 6:30 PM.

Eight separate parking areas in proximity of the site were surveyed. The various parking areas surveyed for each of the time periods are shown on Figure 3.4-22. There are a total of 214 parking spaces in these areas. Of this total, 126 spaces are located within a five minute walk of the subject site (Areas #3 and #5). The total available off-site parking spaces observed during the survey are provided in Table 3.4-1A. At any one time, there were a minimum of 23 parking spaces available within a five minute walk of the subject site, and on average there were approximately 40 spaces available in the immediate project area.

Table 3.4-1A Parking Inventory									
Location (see Figure 3.4-22)	#1	#2	#3	#4	#5	#6	#7	#8	Total
Total Parking Spaces	15	16	76	2	50	25	0	30	214
Available Parking Spaces (average)									
Weekday Morning (6:00 AM to 10:00 AM)	7	4	26	0	11	3	0	29	81
Weekday Evening (3:00 PM to 6:30 PM)	1	2	29	0	12	5	0	27	75

Source: John Collins Engineers, May 2012, Table prepared by Tim Miller Associates, 2012

3.4.2 Potential Impacts

Future "No-build Condition" Traffic

In order to account for an increase in traffic due to normal traffic growth in the area, the Year 2012 Existing Traffic Volumes were increased by a growth factor of 1.5 percent to the 2015 Design Year. In addition to the background growth factor, traffic from other proposed developments in the area was included in the analysis as summarized below:

- Elizabeth Seton Pediatric Center
- Southern Westchester Executive Park (vacant space)
- Millennium Tower (Lalazarian) - 95 Apartment Units
- Boyce Thompson Institute Building

The resulting Year 2015 No-Build Traffic Volumes are shown on Figures 3.4-11, 3.4-12, and 3.4-13 for each of the peak hours, respectively.

Site Generated Added Peak Hour Traffic

The Hourly Trip Generation Rates and Anticipated Site Generated Traffic Volumes were developed for the Weekday AM, Weekday PM and Saturday Peak Hours based on information published by the Institute of Transportation Engineers (ITE) as contained in their report entitled, "Trip Generation", 8th Edition, 2008. These rates are based on ITE Land Use 222 - High Rise Apartment.

Due to the proximity of the Greystone Train Station (Harriman Avenue), it is expected that a significant number of residents will use the commuter rail line and or available bus service. A review of census data for the area indicates approximately a 15 percent mass transit utilization for work trips. Table 3.4-2 shows the reduction in vehicle trips which should be expected as a result of mass transit use. While it is likely that at least a 15 percent reduction in vehicle trips would occur, based on the census data; In order to provide the most conservative projections, the traffic analysis is based on the full trip generation with no credit taken for mass transit use.

The 15 percent reduction is considered “conservatively low” since the mass transit is so readily accessible and higher utilization is expected. In fact, at the adjacent River Hill Tower apartment complex approximately 38 percent of the residents utilize mass transit.

As shown in Table 3.4-2, the River Club would result in a total of 100 vehicles (25 entering vehicles and 75 exiting vehicles) during the Weekday Peak AM Highway Hour, a total of 118 vehicles (72 entering vehicles and 46 exiting vehicles) during the Weekday Peak PM Highway Hour and a total of 128 vehicles (73 entering vehicles and 55 exiting vehicles) during the Peak Saturday Hour.

Table 3.4-2 Trip Generation Rates and Projected Trip Volumes				
330 Rental Apartment Units	Entry		Exit	
	HTGR*	Volume	HTGR*	Volume
Weekday Peak AM Hour	0.08	25	0.23	75
With 15% Mass-Transit Credit	--	21	--	64
Weekday Peak PM Hour	0.22	72	0.14	46
With 15% Mass-Transit Credit	--	61	--	39
Peak Saturday Hour	0.22	73	0.17	55
With 15% Mass-Transit Credit	--	62	--	47

* Hourly Trip Generation Rates (HTGR)
 Notes: The HTGR are based on data published by the Institute of Transportation Engineers (ITE) as contained in the trip generation handbook, 8th Edition, 2008. Land Use 222 - High Rise Apartments. Due to the proximity of the Greystone Train Station, it is expected that a significant number of residents will use the commuter rail line and/or available bus service, however no deduction was taken for mass transit use.

Distribution of Project Generated Traffic

In order to assign the site generated traffic volumes to the roadway network an arrival/departure distribution was established based upon a review of the existing traffic volumes and travel patterns on the surrounding roadway network. This distribution is shown on Figures 3.4-14 and 3.4-15.

Future "Build Condition" Traffic

The site generated traffic volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting site generated traffic volumes are shown on Figures 3.4-16, 3.4-17, and 3.4-18. These volumes were then combined with the Year 2015 No-Build Traffic Volumes to obtain the Year 2015 Build Traffic Volumes (with the proposed project). The Year 2015 Build Traffic Volumes are shown on Figures 3.4-19, 3.4-20, and 3.4-21 for each of the peak hours, respectively.

Capacity Analysis of "No Build" and "Build" Conditions

The future peak traffic hour levels of services and recommended improvements for the study intersections are described in the following paragraphs and shown on Table 3.4-1 in the "2015 - No-Build Condition" and "2015 - Build Condition" columns, respectively.

1. Nepperhan Avenue and Executive Boulevard

Capacity analysis conducted utilizing the Year 2015 No-Build and Year 2015 Build Traffic Volumes indicates that with the completion of the improvements associated with Southern Westchester Executive Park (SWEP) and the Elizabeth Seton Pediatric Center, including the widening of Executive Boulevard and traffic signal synchronization, this intersection will operate at an overall Level of Service "D" or better during each of the peak hours. It should be noted that the River Club generated traffic at this location would equate to approximately 2% to 3% of the total traffic through the intersection.

2. North Broadway and Executive Boulevard

Capacity analysis conducted utilizing the Year 2015 No-Build and Year 2015 Build Traffic Volumes indicates that with signal timing modifications this intersection will operate at an overall Level of Service "C" or better during each of the peak hours. (Mitigation is proposed at this intersection -- see section 3.4.3.)

3. North Broadway and Odell Avenue

In order to improve the operation of this intersection, a new upgraded fully actuated traffic signal is recommended. With a new fully actuated traffic signal, this intersection is expected to operate at an improved Level of Service "C" during the Weekday AM Peak Hour, at an improved Level of Service "C" during the Weekday PM Peak Hour and at an improved Level of Service "B" during the Saturday Peak Hour. It is also recommended that this signal be coordinated with the signals located to the north and south on North Broadway. Furthermore, while not required to provide the above Levels of Service a review of the intersection geometry indicates that the efficiency of the intersection could be further improved by increasing the radius of the northwest corner of the intersection. (Mitigation is proposed at this intersection -- see section 3.4.3.)

4. North Broadway and St. John's Riverside Hospital

Capacity analysis conducted utilizing the Year 2015 No-Build and Year 2015 Build Traffic Volumes indicates that this intersection will continue to operate at an overall Level of Service "C" or better during each of the peak hours. As indicated in Item 3, the signal timings should be coordinated with the new actuated signal at the North Broadway/Odell Avenue intersection. (Mitigation is proposed at this intersection -- see section 3.4.3.)

5. Warburton Avenue and Odell Avenue

Capacity analysis conducted utilizing the Year 2015 No-Build Traffic Volumes indicates that the Warburton Avenue southbound left turn will operate at a Level of Service "B" or better and the Odell Avenue westbound approach is expected to operate at Level of Service "C" during the Weekday AM Peak Hour and at a Level of Service "C" or better during the Weekday PM and a Level of Service "B" during Saturday Peak Hours.

Capacity analysis conducted utilizing the Year 2015 Build Traffic Volumes indicates that the Warburton Avenue southbound left turn will operate at a Level of Service "A" or better and the Odell Avenue westbound approach is expected to operate at Level of Service "E" during the Weekday AM Peak Hour and at a Level of Service "D" or better during the Weekday PM and a Level of Service "B" during Saturday Peak Hours. It should be noted that a Level of Service "E" is not uncommon during peak periods since it can normally be expected that the uncontrolled major traffic stream (Warburton Avenue) will experience favorable operating conditions while the side street (Odell Avenue) may experience delays when turning left or crossing the major traffic stream.

To improve the operation of the Odell Avenue approach to the intersection, the installation of a traffic signal would be required. A review of the existing and future traffic volumes at this intersection indicates that traffic signal warrants will be met during both the Weekday AM and Weekday PM Peak Hours. Therefore it is recommended a signal should be installed. Upon installation of the signal, this intersection will operate at an overall Level of Service "B" or better during peak hours. A dedicated pedestrian phase may be included in the signal design at this location in order to improve safety to students and pedestrians wishing to access the Old Croton Aqueduct Trail. (Mitigation is proposed at this intersection -- see section 3.4.3.)

6. Warburton Avenue and Harriman Avenue

Capacity analysis conducted utilizing the Year 2015 No-Build and Year 2015 Build Traffic Volumes indicates that the Warburton Avenue northbound left turn will continue to operate at a Level of Service "A" or better and the Harriman Avenue eastbound approach will continue to operate at a Level of Service "C" or better.

7. North Broadway and Odell Terrace

Capacity analysis conducted utilizing the Year 2015 No-Build and Year 2015 Build Traffic Volumes indicates that the Odell Terrace will continue to operate at a Level of Service "C" or better.

8. North Broadway and Roberts Avenue

The intersection of North Broadway and Roberts Avenue intersects at a full movement, signalized intersection. Based on the anticipated arrival/departure distribution for the River Club, it is expected that approximately 10% of the River Club generated traffic would pass through this intersection.

This would equate to some 13 cars during the Weekday Peak AM Hour, some 15 cars during the Weekday Peak PM Hour and some 18 cars during the Saturday Peak Hour. Based on a review of the existing traffic volumes at this intersection, the River Club traffic would equate to some 1%-2% of the total traffic at this intersection which is not expected to significantly change the operation of the intersection. Minor traffic signal timing changes during the PM Peak Hour will accommodate the added volumes at this intersection at an overall Level of Service "C." (Mitigation is proposed at this intersection -- see section 3.4.3.)

9. Warburton Avenue and Proposed Site Access

Access to the site is proposed via a driveway to Warburton Avenue and all approaches to the intersection will consist of one lane. Capacity analysis conducted utilizing the Year 2015 Build Traffic Volumes indicates that all movements to the intersection will operate at a Level of Service "B" or better. In addition, based on the capacity analysis there will not be any significant queues expected at the driveway. With the driveway construction on-street parking on either side of the driveway will have to be restricted to provide adequate sight distance.

Safety Concerns Regarding Existing Roadways

To ensure adequate sight distance at the proposed access driveway onto Warburton Avenue from the proposed project, on-street parking on either side of the driveway will need to be restricted. This will result in the elimination of several parking spaces. Appropriate signage and/or striping would be used to indicate the limits of the parking restricted areas.

The closest school bus stop to the project site is at the intersection of Odell Avenue and Warburton Avenue. This school bus stop services students for all grades. There are no school

bus routes that pass by the project site along Warburton Avenue. Likewise, there are no school bus routes along Harriman Avenue. A dedicated pedestrian phase may be included in the signal design at this location, subject to the approval of the City Traffic Engineer, to improve student safety.

Odell Avenue, Warburton Avenue and North Broadway is designated as a snow emergency route. Based on the provision of adequate parking on site for residents it is not anticipated that any increase in parking on Odell Avenue will occur as a result of the River Club project.

Given the low speed limits on local roads and the improved operation of the study area intersections with the proposed mitigation (see Section 3.4-3), the potential for accidents on local roads is not expected to be adversely impacted by the development.

Likewise, the proposed development is not expected to adversely impact local roads with respect to rain, snow, or flooding. Drainage along Warburton Avenue will not be adversely affected by the development. At present, rainfall within the portion of Warburton Avenue adjacent to the project site drains westward through the project site. Under the proposed conditions, this water will be captured and diverted to discharge on the west side of the site. (see Section 3.3 for detailed information).

Harriman Avenue, located to the south of the River Club site, will provide a secondary means of access to the River Club development for periodic maintenance vehicles and emergency access. Harriman Avenue will not experience any significant increase in traffic as a result of the proposed project.

Direct pedestrian access to the Greystone Metro North train station will be made available from River Club, thus minimizing the need for River Club residents to use parking at the Greystone Station via Harriman Avenue.

Emergency Access to Site

Two points of access would allow emergency vehicle access to the site. The main entrance would be off of Warburton Avenue and a second service/emergency accessway would extend from Harriman Avenue. No formal driveway is proposed from Harriman Avenue.

Off-Site Parking

Upon completion there will be 209 available parking spaces in proximity to the proposed River Club project. In order to provide adequate sight lines on either side of the site access drive, approximately five existing on-street parking spaces will need to be eliminated.

On-Site Parking

As per the zoning requirements, the City of Yonkers Code Section 43-138 stipulates that one parking space per unit is required for multifamily housing if the site is located within 1/4 mile of an active train station. The proposed 330-unit project is located within 1/4 mile of the Metro-North Greystone train station. The River Club is proposing some 332 on-site parking spaces to meet the applicable requirement.

The majority of parking spaces are located within a three level underground garage structure. There are 14 surface parking spaces along the west side of the north building. As previously

described, each residential unit would be provided with one parking space as part of the rental lease agreement. Some additional tandem parking spaces (not counted in the total above) will be available in the building for tenants with two vehicles. Based on the parking survey, off-site parking is available to accommodate additional parking demand as needed.

The project will reduce on-street parking on Warburton Avenue by eight (8) spaces due to the new curb cut for project access and a drop-off area at the building main entrance. A net loss of four spaces will result on the street, accounting for the spaces now available on Warburton Avenue that did not exist when the four single family houses on the site were occupied. A substantial amount of on-street parking is currently available (between 75 and 81 spaces during times surveyed). Therefore, the loss of these spaces is not expected to adversely affect street parking in the vicinity.

Commuter Rail Parking

The Applicant is proposing a pedestrian walkway for River Club residents only to connect the residential buildings with the Greystone Metro-North Railroad Station, thereby eliminating any need for vehicle access or parking by the residents at the station. Metro-North is desirous of increasing its ridership and will add additional trains to service an increase in ridership as necessary. Any increase in ridership on the Hudson Line as a result of the River Club project would be seen as a beneficial impact to Metro-North. Indeed, one of the reasons for Metro-North extending the train platforms was to accommodate existing and future commuters from residential development in the area.

Odell Avenue Parking

The City of Yonkers has designated Odell Avenue as a "Snow Emergency Route". The proposed project would not result in any significant increase in parking on Odell Avenue or otherwise affect the use of Odell Avenue for emergencies.

Based upon the River Club's immediate proximity to the Old Croton Aqueduct Trail, any increase in the use of the trail by project residents will not cause an increased parking need for access. As discussed earlier, a dedicated pedestrian phase may be included in the signal design of the new traffic signal to be installed at this location in order to improve safety to pedestrians wishing to access the Old Croton Aqueduct Trail from Warburton Avenue.

Construction Traffic on Local Roads

Construction traffic will consist primarily of construction equipment arriving at the beginning and end of the construction period, trucks periodically carrying materials to and from the site, and daily trips of construction workers.

Construction workers typically arrive and depart prior to standard peak hours of traffic as would the initial construction vehicles. It is estimated that some eight to ten truck trips per day will be required to export earth material during two months of the construction period. Trucks moving materials would be arriving and leaving periodically during each workday.

The engineer's plan set includes a traffic control and construction staging plan that identifies specific mitigation measures to be implemented during the construction period. Parking for construction workers will be arranged off-site as described in the Project Description.

Construction Traffic Impacts on Pedestrians

The project site does not currently provide any public access to the train station or waterfront area. Therefore, the proposed construction activities will not impact any pedestrian use of the site. Sidewalks are available along both sides of Warburton Avenue to the east of the project site. Temporary closures of the sidewalk along the west side of Warburton Avenue will occur for the duration of the proposed construction for public safety reasons. Appropriate signage will be posted to inform motorists and pedestrians of any temporary road and sidewalk safety measures so that no significant adverse impacts to pedestrian safety or access to the train station, the Old Croton Aqueduct Trail (which has access off of Odell Avenue), or any other destination in the vicinity of the site are anticipated. Construction traffic can be anticipated to utilize the streets in the area in a safe manner without jeopardizing pedestrian safety.

Construction Traffic and Site Traffic Impacts on Emergency Vehicles

The project is not expected to result in any road closures at any point during the construction period. Brief lane closures on Warburton Avenue may be required as equipment and material is brought into or off of the property. Appropriate signage and traffic control personnel (i.e. flag crew) will be utilized to inform and direct pedestrian and vehicular traffic along Warburton Avenue during these brief lane closures. Emergency vehicles will be given priority passage by personnel directing traffic along Warburton Avenue.

Comparison to Previous Plans

The current development proposal for the River Club project is for 330 residential rental units, compared to a previously approved plan for 353 residential condominium units. The project continues to have primary access at Warburton Avenue, although unlike the prior plans that had a secondary access at Harriman Avenue, the current plan has only a service access. The proposed project continues to provide a pedestrian walkway for project residents only to connect the River Club directly with the Metro-North train station. Based upon the reductions in unit counts of the prior plans, the anticipated trip generation has declined with each successive plan -- the current plan would have reduced trip generation by approximately 28 percent from the plan evaluated in the DEIS (based on Saturday peak totals).

The applicant's commitments for off-site traffic mitigation identified in the original Findings for a larger project size remain in the current proposal. These measures are described in Section 3.4.3, as supplemented based on the latest traffic study. A comparison of trip generation for each of the successive projects is provided in Table 2-1.

3.4.3 Mitigation Measures

Previous Mitigation Commitment

A larger proposal for the River Club project was previously reviewed and approved by the City. The traffic mitigation measures established in the prior SEQRA Findings and outlined in the prior approvals for the River Club project are listed below.

- A new signal will be installed at Odell Avenue and Warburton Avenue.
- Improvements will be made at Odell Avenue and North Broadway including pavement, striping and guide rails.

- The signal controller at Odell Avenue and North Broadway and at North Broadway and St. John's Hospital will be upgraded or replaced.
- Pavement surface, pavement markings and traffic signing will be upgraded on Odell Avenue between Warburton Avenue and North Broadway, particularly in the vicinity of the Old Croton Aqueduct.
- Direct pedestrian access to the Greystone Station area and/or Harriman Avenue from the rear of the applicant's property will be provided. This will allow for overnight use of Harriman Avenue commuter spaces and the City of Yonkers Parking Authority commuter lot.
- The applicant agreed to monitor the [Warburton Avenue] parking situation including on-street parking counts and a review of license plates on an annual basis, in cooperation with the City.

Proposed Traffic Mitigation Measures

The traffic mitigation measures established in the prior SEQR Findings and outlined in the prior approvals for the River Club project continue to be proposed under this revised plan. As stated in the most recent approval resolution adopted by the City of Yonkers, the applicant will fund its pro rata share of substantial traffic improvements at area intersections and roadways and address concerns regarding parking, as listed below. The portions in brackets [] are mitigation measures which supplement the original findings based on the latest traffic study.

North Broadway and Executive Boulevard -

- [Coordinate signal timing with the new actuated signal at the North Broadway/Odell Avenue intersection.]

North Broadway and Odell Avenue -

- Install a new fully actuated traffic signal and coordinate with the signals located to the north and south on North Broadway.
- Pavement surface, pavement markings and traffic signing will be upgraded.
- [Increase the radius of the northwest corner of the intersection.]

North Broadway and St. John's Riverside Hospital -

- Upgrade the signal controller and coordinate signal timing with the new actuated signal at the North Broadway/Odell Avenue intersection.

Warburton Avenue and Odell Avenue -

- Install a new traffic signal [which can accommodate a dedicated pedestrian phase].

North Broadway and Roberts Avenue -

- [modify signal timing.]

Warburton Avenue at Site -

- [Pavement and curb markings along site frontage to provide for adequate sight distance at the site driveway, a curbside dropoff area at building main entrance, and no parking at hydrants.]
- The applicant will monitor the Warburton Avenue parking situation including on-street parking counts and a review of license plates on an annual basis, in cooperation with the City.

Additionally, while not needed as mitigation for the proposed development, the following improvements at Odell Avenue between Warburton and North Broadway were proposed in 2005 and remain part of the current proposal to improve existing conditions:

Odell Avenue Between Warburton and North Broadway -

- add speed warning signs along this section of Odell Avenue and add traffic control measures such as pavement reflectors or skid resistant pavement surface in the vicinity of the horizontal curve.

Parking Mitigation

The proposed project conforms with the applicable City parking requirement. With the inclusion of an on-site parking space as part of the tenants' rental agreements, no parking impacts are anticipated. Therefore, no parking-related mitigation measures are proposed.

Evaluation of off-site parking within 1/2-mile of the site determined that, upon completion, there will be 209 total off-site parking spaces in proximity to the proposed River Club project. On average there are approximately 40 available parking spaces along Warburton Avenue in immediate proximity to the project site.

Mass Transit and Pedestrian Mitigation

The Applicant is proposing a direct pedestrian access walkway to connect the residential building with the Greystone Metro-North Railroad Station, thereby eliminating any need for vehicle access or parking by the residents. Metro-North is desirous of increasing its ridership. Any increase in ridership on the Hudson Line as a result of the River Club project would be seen as a beneficial impact to Metro-North.

The Westchester Bee-line Bus System has available capacity on each of the routes servicing the Yonkers area. The Bee-line System is also desirous of increasing ridership and will adjust the scheduling and timing of the various routes to accommodate ridership increases.

Responsibility For Improvements

In accordance with the latest (2010) approval of the River Club project, the applicant will be responsible for its pro rata share of the off-site traffic improvements. The project sponsor is willing to contribute towards the recommended improvements to the extent that the project would be responsible for future declines in operation of the intersections. The project sponsor will work directly with the City of Yonkers to address the appropriate level of contribution towards the recommended improvements. Similarly, it is expected that the City will also receive appropriate contributions towards these improvements from other area developments anticipated to add traffic to these intersections. Maintenance of the proposed traffic mitigation measures after implementation by the applicant would be the responsibility of the City of Yonkers.

3.5 Aesthetic Resources

The Draft Environmental Impact Statement (EIS) and Final EIS prepared for 1105-1135 Warburton Avenue evaluated a site development plan that comprised approximately 3.6 and 2.6 acres of development footprint, respectively. The previously issued SEQR Findings that concluded that review indicated that the project could proceed without having significant adverse environmental impacts on water resources. During the subsequent site plan review, a 353-unit plan was developed and approved comprising a footprint of 2.5 acres.

The applicant has significantly reduced the size of the project from the prior plans. The current, revised plan will comprise a footprint of 1.5 acres, which will have notably less impact to neighboring viewers than the previously approved plans.

3.5.1 Existing Conditions

Project Site Location - Visual Context

The site is located in the northwest corner of the City of Yonkers on the west side of Warburton Avenue, bordered by high rise residential development of similar character to the proposed development on three sides: the north, east and south. On the south side, the site is bounded by the Greystone apartment building, an 8-story brick building situated at its frontage on Warburton Avenue.¹ On the north side is the Riverview Club condominiums, an 11-story concrete building situated perpendicular to Warburton Avenue. To the east of the project site is the River Hill Condominiums, a long, 5-story building perched on a rock terrace some 25 feet above Warburton Avenue and oriented parallel to the street. 1100 Warburton Avenue, another residence building, is located to the southeast. Several other multi-story residential buildings are located on Warburton Avenue in the site area. See Figure 3.5-1.

To the west of the project site are the Metro-North/Amtrak railroad tracks and the pedestrian platforms for the Greystone station, and further west is the Hudson River. The northern portion of these platforms are adjacent to the site. The Hudson River is about one mile wide in this area and dominates any view to the west. The visually prominent Palisades escarpment is located directly across the river.

In the immediate site vicinity, Warburton Avenue is a substantially developed street situated on the west-facing sideslope of the river valley. A significant topographic change occurs between Warburton Avenue and the Hudson River, affording views to the River and the New Jersey Palisades from Warburton Avenue where they are not blocked by buildings or vegetation, and from the residential buildings in the area. The valley sideslope further inland continues to rise in elevation, providing westward views from some locations as well.

No potential views of the project site or westward were identified from Broadway, which is the next primary north/south street east of Warburton Avenue.

Views of the project site and views over the site to the River and beyond were assessed in the 2002 DEIS and reviewed again during a site area visit in April 2012. The key study views are:

- The Warburton Avenue street corridor, which is primarily experienced by passing motorists, pedestrians and local residents as they leave from and return to their homes. Westward

¹ Building heights are expressed as number of stories above the elevation of Warburton Avenue.

views are partially obscured by the present condition due to the vegetation on the site (see Figures 3.5-2 to 3.5-4). River views are mostly obstructed during the warmer months when leaves are on the trees.

- A public pedestrian trail located over the Old Croton Aqueduct is approximately 70 feet above the elevation of Warburton Avenue. Figures 3.5-5 to 3.5-8 show photographs taken from the Old Croton Aqueduct Trail north of Odell Avenue, in the vicinity of the project site. Most views from the trail are partially obscured due to the intervening vegetation during the winter months and nearly obscured when leaves are on the trees. View points 5 and 12 on the trail are the only points in the immediate project area with unobstructed, publicly-accessible views to the river. View point 11 also affords an unobstructed view, although it is actually located on private property.
- View from Greystone Station platform looking toward the project site, shown in Figure 3.5-9.
- View from the West -- A field investigation in May 2012 found no clear view of the Yonkers Riverfront from the Palisades Interstate Parkway when leaves are on the trees. The density of the tree cover provides little if any opportunity even for intermittent views from the Parkway at times of year when leaves are off the trees.
- Views from adjacent residential buildings from dwelling units that face the site (refer to Figure 3.5-1). The views vary, depending on the window orientation and elevation. Many of the windows also have visual access to the Hudson River and beyond, looking over the site.

Specific viewing points considered to be most important to the community are further discussed below and illustrated in Figures 3.5-2 through 3.5-9 (photographs taken in April 2012, with the views designated N, E, S or W according to the direction of the view -- North, East, South or West). A key to the locations of the view points is shown in Figure 3.5-10.

3.5.2 Potential Impacts

Like the approved plan, development of the project will alter the visual character of the site from an essentially tree covered hillside to a substantially urban-like environment. Vegetative cover on the highest, eastern half of the property will be replaced by buildings and pavement that, due to their topographic position, will be the most noticeable change to the property when viewed from any study location mentioned above. Unlike the approved plan, the lower, western half will remain substantially wooded as viewed from the west.

The proposed building will be located immediately adjacent to Warburton Avenue at the highest position on the site, and oriented parallel to the river and Warburton Avenue such that its largest facades will face west and east. Elevations of the building facades are shown in architectural drawings provided in Appendix F, Figure A-4. The project architect has prepared several cross sections taken east/west through the site to illustrate the topographic position of the proposed building relative to its position in the greater landscape. See Figures A-5 through A-7 in Appendix F.

View from the Aqueduct Trail

The revised plan will not change the view from the most prominent vantage points identified on the Old Croton Aqueduct Trail in the study area, view points 11 and 12. Reorientation of the building parallel and close to Warburton Avenue in the current plan, however, will result in a

significant reduction to the vista from certain vantage points on the trail (see Figure 3.5-12). The revised plan will obstruct the view from view points 5 and 6 on the trail. Cross Section 1 on Appendix F, Figure A-6, illustrates the elevation of points 5 and 6 relative to the proposed building elevation. For a person standing at one of these points the river will no longer be prominent in the view. Other study vantage points on the trail, most with intermittent views to the west, will remain substantially unchanged.

View from the Street Corridor

The most notable change to the visual environment will be as viewed from the street corridor, much like the approved plan. In the near view, the existing wooded character of the site will be replaced by an urban streetscape with architectural elements including a decorative building main entrance with lighting, raised planters and ornamental plantings. Views to the river will be obscured by the new building except at the extreme north and south ends of the site. At the northern-most and southern-most ends of the proposed building, a new vista to the river and beyond will result from tree clearing in the site development.

View from Greystone Station

The view of the project site from the railroad station platforms will change less for the current project than for the approved plan. The upper portion of the existing wooded hillside will be developed with a building structure not unlike the existing adjacent buildings to the north and south, and located a foreground of existing woods in the wetland that will remain. In summer the density of tree cover will largely obscure the bulk of the new building with its upper floors appearing above the trees.

View from the West

The views to the project site from western shoreline vantage points and from the River itself are distant, panoramic views encompassing a broad riverfront landscape in which the site is a small part. As with the approved plan, the visual character of the site will change from a wooded hillside to a developed site behind the existing vegetation that will remain, covering half of the project site closest to the river. This change will be minor in the overall panorama and will not appear significantly different or out of character from other existing development along the Yonkers riverfront.

View From Adjacent Residential Buildings

Some residents of the adjacent high rise buildings have views looking down on the wooded slopes on the site. Unlike the prior plans for this site, reorientation of the building parallel and close to Warburton Avenue in the current proposed plan will reduce or eliminate the impacts on river views from the neighboring residence buildings of the approved plan (see Figure 3.5-12). The location of the proposed building at the east side of the site will be out of the direct line of sight to the river from most of the adjacent residential windows.

Shadow Studies

Shadow studies were prepared to show the locations of shadows that would result from the revised building orientation at particular times of day and season. Each study figure (provided at the end of this section) represents a static simulation of a shadow condition that changes

minute by minute throughout every sunny day, allowing the movement of shadows around the new buildings to be interpolated between the dawn, noon, and sunset time periods.

The study dates are as follows:

- December 21 at 8:00 am, 10:00 am, 12:00 pm, and 4:00 pm (winter solstice)
- June 21 at 8:00 am, 12:00 pm, and 4:00 pm (summer solstice)
- September 22 / March 20 at 12:00 pm (autumnal and vernal equinox)

At the winter solstice (see DEC21 studies, Figures 3.5-13 to 3.5-16), when the sun is lower in the sky than any other day of the year, shadows from the project and adjacent buildings cover all or much of the site through the morning hours, past noon. Note that the entire site and its adjacent properties are entirely cast in shadow on winter mornings until the sun rises over the hill to the east around 8:40 am. In afternoon shadows from the project and adjacent buildings cover Warburton Avenue.

At the summer solstice (see JUNE21 studies, Figures 3.5-17 to 3.5-19), when the sun is higher in the sky than any other day of the year, morning shadows from the project move over the western portions of the site. Again in late afternoon, shadows from the project and adjacent buildings cover much of Warburton Avenue.

Shadows from the project and adjacent buildings circle around the site between these two extremes throughout the rest of the year. The SEPT22/MAR20 study (Figure 3.5-20) shows the noon condition at the autumnal and vernal equinox.

Lighting Impacts

A conceptual lighting plan has been prepared for the revised site plan that shows the locations and types of lighting fixtures and lighting levels on the ground. All site lighting will be designed to provide light levels appropriate for public spaces and adequate for pedestrian and vehicle safety. If necessary, light fixtures will be outfitted with light shields to avoid visibility of the light source and off-site glare. All lighting will be directed down to illuminate the ground surface and avoid stray light.

Consistency with Visual Policies

Three adopted planning documents outline policies and goals applicable to development in the northern waterfront area of Yonkers and identify considerations that are generally applicable to the project proposal. These documents do not identify site-specific consistency criteria, but are intended to provide overall guidance (on a regional and subregional scale) for land planning decisions. Consistency of the proposed project with visual policies identified in these plans, to the extent such policies are outlined, are described below.

Connections: The Yonkers Comprehensive Plan of September 2000 is the city's formal guidance document that considers a comprehensive planning approach to a number of urban issues, and forms the basis for the City's zoning regulations. Specific to visual/aesthetic resource issues, the plan, identifies three strategies relative to public views from the Old Croton Aqueduct Trail (under its discussion of the northern waterfront area²) that warrant consideration for the subject project, given the existing views to the Hudson River from points on the trail in

² City of Yonkers, *Connections: The Yonkers Comprehensive Plan*, September 2000. Page 48.

the immediate project area as described above. These strategies are: capitalize on views along the northern waterfront area; limit development height to protect upland views; and, discourage development that would block views from upland public sites. Conforming to the development height limit applicable to the A District zoning regulations for the subject property, the current plan will impact the view from two specific view points on the Old Croton Aqueduct trail, while views from other study vantage points on the trail will remain substantially unchanged. To capitalize on the most prominent river view in the study area from the trail, view points 11 and 12, the applicant proposes to create a permanent viewing station, as further described in the mitigation section below.

Westchester 2025/plan together, was adopted by the Westchester County Planning Board in 2008 and amended in January 2010. *Westchester 2025* expresses land use policies important to the County and sets out a framework for a planning partnership between the County and its municipalities. There are no visual consistency policies stated in this document.

Lastly, the project site and its environs are located within New York State's coastal area boundary.³ The NYS Department of State has not designated the local area as a scenic area of statewide significance. If the project requires a permit or other regulatory approval from a federal agency or involves federal financial assistance, the Department of State will need to conduct a consistency review of the Project. The City of Yonkers has not adopted a Local Waterfront Revitalization Program/Plan that defines local visual policy goals for the riverfront.

Comparison between the current and former site plans

All of the prior project plans were designed to take advantage of the potential view toward the Hudson River and beyond, while conforming to the zoning for the site that allows a building height up to 99 feet. During the prior SEQR and site plan review process, adjustments were made to the building designs to afford increased visibility to the river from the immediately adjacent buildings to the north and south, and from the Old Croton Aqueduct Trail. The 2001 FEIS included a comparative figure showing the differences in visibility of the river from a point located directly east of the project site between the DEIS plan and the FEIS plan. (FEIS Figure 26 is replicated herein as Figure 3.5-11.) A similar graphic has been prepared to show the differences in visibility from the same trail vantage point between the Approved 353-unit plan and the current Proposed 330-unit plan -- Figure 3.5-12.

In the FEIS plan, a vista (narrow or framed view) from a point located directly east of the project site on the Old Croton Aqueduct Trail would be maintained through a separation between the north and south buildings, thereby allowing for limited views through the site to the river and to the Palisades beyond (see Figure 3.5-11). The building was reduced in height (from the DEIS plan) to 10 stories at Warburton Avenue and stepped down toward the west to 4 stories. This stepped elevation would allow wider views of the river from the trail as well as from the neighboring apartment buildings. In the 353-unit approved plan, a similar building design was maintained while in the current plan, reorientation of the building parallel and close to Warburton Avenue will result in a significant reduction to the vista from the trail and a significant expansion of the potential river views from the neighboring residence buildings (see Figure 3.5-12).

In all of these plans, the frontage along Warburton Avenue would be given significant attention to create an appropriate streetscape treatment in scale with other existing area development so that the new project would be compatible with the characteristics of the neighborhood.

³ New York State Coastal Management Program, Coastal Area Map Number 37, January 1981.

3.5.3 Proposed Mitigation

The proposed redesign of the site plan incorporates several improvements over the prior approved plan with regard to views. 1) The revised plan will reduce or eliminate effects on views from neighboring buildings. 2) The plan will minimize disturbance to the wetland woods on the west side of the site. 3) The revised development area has a significantly reduced overall mass compared to the approved site plan (illustrated in Figure 2-4).

The effect of the proposed building on the direct view from points 5 and 6 on the Old Croton Aqueduct Trail is unavoidable with the current project plan, which places the building parallel to and close to Warburton Avenue and reduces the development "footprint" to avoid any direct impact to the on-site wetlands, which was an impact of the previous plans. The bulk and height of the proposed project remains consistent with the Yonkers zoning regulations for this property.

Mitigation of the visual impacts is proposed by the applicant by creating a permanent viewing station with a raised gazebo on the Old Croton Aqueduct Trail on private property (permission pending) just north of the Yonkers border with the Town of Greenburgh/Village of Hastings-on-Hudson where there are permanent views that will not be obstructed by construction or vegetation. A design for the viewing station will be coordinated with the City of Yonkers and the Friends of the Old Croton Aqueduct organization.

Architectural Design, Landscaping and Lighting

Mitigation of visual impacts is also taken into consideration in the proposed building appearance as a new visual element on Warburton Avenue. The proposed building facade will reflect the contemporary flavor of the buildings nearby, incorporating red brick on the lower floors and a neutral, light color, stucco-like finish on the upper floors, with vertical undulations to soften the face, and parapet accents atop the facade. The building will appear as separate, twin buildings, separated by a low profile connection in the middle. At the pedestrian level the proposed plan includes a series of decorative planters and new street trees along the sidewalk, and a courtyard at the main entrance.

Refer to SDEIS Figures 2-5 and 2-6 showing a 3D illustration of the proposed building and streetscape as envisioned by the applicant.

Exterior lighting is planned along the street with classic style lamp posts, accented by the entrance area lighting in the center of the site frontage. Lighting in the entry courtyard will include post lamps and low level accents (such as walk lighting mounted in the planter walls). Other lighting will include illumination for the driveway and light posts along the pedestrian pathway to the train station. A site lighting plan is included in the preliminary plan set provided in Appendix F, showing the general locations and spacing of the 12' high post lamps and wall-mounted sconce fixtures, and illumination levels around each fixture. Low energy-use LED lighting is proposed, and all exterior lighting will be installed with light sensors or timers to activate the lighting only when natural light is insufficient for safe light levels.

All site lighting will be designed to provide light levels appropriate for public spaces and adequate for pedestrian and vehicle safety. If necessary, light fixtures will be outfitted with light shields to avoid visibility of the light source and off-site glare. All lighting will be directed down to illuminate the ground surface and avoid stray light. A uniform style of light post and fixture will be selected for use throughout the site.

Aesthetic Resources

August 20, 2012

To replace the vegetation that will be removed to develop the eastern half of the site, new landscaping is planned for all areas that are not otherwise developed with building or "hardscape", featuring new street trees and raised planters across the front of the project, and a complement of decorative and functional plantings on all sides of the building. Plant species will be selected for function, hardiness and low maintenance characteristics.

Additionally, the appearance of the wetland on the western side of the site will be improved by removing the invasive *Phragmites* vegetation and vines, and replanting this area with a more diverse selection of native wetland plantings. This restoration work will not require a wetland permit.

4.0 ALTERNATIVES

The New York State Environmental Quality Review Act (SEQRA) requires a discussion of alternatives to the proposed action. The approved Scoping Document for the River Club SDEIS indicates the SDEIS will evaluate and compare the following alternatives to the proposed action:

- The “No Action” Alternative as required under 6 NYCRR 617.9.b.5
- Development of site at MG zone district density
- Alternatives to wetland loss or mitigation

No Action (No Build Alternative)

The no action alternative considers the scenario that would occur if no development were to take place at the site. This alternative was considered in the original DEIS. The site would remain in its current undeveloped, unstabilized, and underutilized state.

Development of site at MG zone district density

The MG residence zone allows low density apartment house development. This zoning surrounds the project site, which is zoned A high density elevator apartments.

Maximum permitted floor area ratio (FAR) in the MG zone is 1.20, compared to 3.00 in the A zone. Building coverage in either zone is 40 percent. The MG zoning stipulates a maximum average lot area per family as 1000 square feet; there is no such requirement in the A zone. Maximum building height in the MG zone is 3 story or 35 feet, while maximum building height in the A zone is 1.5 times the width of the street right-of-way on its frontage – 66 x 1.5 = 99 feet for the project site. Minimum GFA per apartment in either zone is 350 square feet. Using these criteria, the following table summarizes the potential yield of the project site under each zoning designation.

Table 4-1 Potential Site Yield by Zone					
	FAR	Maximum GFA (square feet)	Maximum Number of Families by Lot Area	Maximum Building Height	Potential Maximum Number of Units Based on GFA *
MG District	1.20	240,334	200	35' / 3.5 story	200
A District	3.00	600,834	NA	99'	524

* Assumes 1200sf average living space + common + utility space per apartment.

Alternative to Wetland Loss or Mitigation

This alternative is similar to the current Proposed Action, which does not disturb wetlands for the building construction, although the sewer line stabilization work that is necessary with or without the project will require a small amount of wetland disturbance. This alternative was considered in the original DEIS for a building of 11 stories and a total of 548 rental residential units.

Comparison with Prior Plans

Table 4-2 outlines the primary similarities and differences between the currently proposed plan, the previously approved plan, the DEIS and FEIS plans, and the No Action alternative. Figures in Appendix H illustrate the four plan iterations for comparison: the 524-unit DEIS plan, 440-unit FEIS plan, 353-unit approved plan, and the currently proposed 330-unit plan.

These prior plans are briefly compared below.

DEIS 524 Unit Plan (2000)

The DEIS evaluated a plan designed to include two 11-story buildings with a total of 524 residential units. All of the units under that plan were proposed as rental units with 58 units designated as affordable. The plan provided a one story central lobby and common area.

The DEIS plan differed from the current SDEIS plan in a number of ways. In general, the DEIS plan involved considerably greater residential density, scale and overall disturbance to the site. The DEIS plan proposed two 11-story buildings perpendicular to Warburton Avenue, with a one-story main lobby. It also included a courtyard with at-grade parking as well as a driveway for parking garages below the buildings. Six levels of parking were proposed below the lobby/ first floor elevations. Three curb-cuts at Warburton Avenue were proposed as well as a direct driveway connection to Harriman Avenue, adjacent to the Greystone Train Station.

The currently proposed SDEIS plan provides for two 10 story buildings, oriented parallel to Warburton Avenue and a single driveway for parking garage access at the north end of the site. In the current plan, three levels of parking are proposed. A primary difference between the former DEIS plan and the proposed SDEIS plan is that the original plan involved 0.92 acres of direct wetland impact to the federal regulated wetland, while the current proposal involves no direct wetland disturbance. The total area of disturbance has been reduced by approximately 0.5 acre.

FEIS 440 Unit Plan (2001)

Following review of the DEIS by the lead agency, the applicant developed a plan with 440 residential units. The building configuration for this plan was modified somewhat from the DEIS plan to allow for a lower building height than the DEIS plan (11-stories, 99 feet in height). The 440 unit plan had two 10-story buildings with a total height of 93 feet. The main buildings were stepped to 4-story buildings parallel to Warburton Avenue. On the west side buildings the residential units were stepped at 4 stories, 7 stories and 9 stories. The plan provided the basis for the Planning Board's Findings Statement in February 2003.

The currently proposed SDEIS plan has reduced environmental impacts, as compared to the previous 440 unit plan. The number of units is reduced by 110, reducing the project's impacts on community services and facilities resulting from its estimated population and number of school age children. The primary difference between the 440 unit plan and the current SDEIS plan relative to natural resources is the reorientation of the building thereby avoiding direct impacts to wetlands. The 440 unit plan resulted in the direct disturbance of 0.45 acres of on-site regulated wetland, while the current plan avoids all direct wetland disturbance. Additionally, the current project being studied accounts for only 330 units as opposed to 440 units.

Approved 353 Unit Plan (2005)

The applicant originally proposed rental apartment units, during the SEQRA environmental review process. Subsequent to the approval of a 428 residential rental unit plan (which was very similar to the FEIS plan), the applicant proposed to modify the plan to a for-sale, condominium project. This proposed change in ownership type allowed for increased tax revenue for the City, while providing a further reduction in the number of residential units (87 units from the FEIS plan) and thereby reducing the project's density.

The modified 353-unit plan had the same building layout and footprint of the prior plan and therefore the physical impacts of the proposal were essentially the same, including area of disturbance (3.8 acres), impacts to wetlands (0.45 acres) and stormwater treatment. The ceiling height of the condominium units was raised to 9 feet and this design change resulted in the elimination of 2 floors and an increase in the overall building height of 8.5 feet, to a total height of 97 feet (above Warburton Avenue).

Given the reduction in the number of residential units, the potential demographic impacts of the 353-unit plan were decreased, including a lower projected population, and lower estimated number of school age children, as compared to the prior plans. The proposed SDEIS plan further reduces the number of units and therefore its projected population-related impacts.

Table 4-2 provides a comparison of the applicant's project proposals and plan modifications.

Table 4-2 Alternative Plans - Comparative Impacts					
	No Action	DEIS 524 Unit Plan	FEIS 440 Unit Preferred Plan	Approved 353 Unit Plan	Current Proposed 330 Unit Plan
<i>Development Proposal</i>					
Building configuration	Vacant site	(2) 11-story sections perpendicular to Warburton, center section 1-story	(2) 10-story perpendicular sections stepping to 4-story, (2) 4-story sections parallel with Warburton, center section 1-story	(2) 9-story perpendicular sections stepping to 4-story, (2) 4-story sections parallel with Warburton	(2) 10-story sections parallel with Warburton, center section 2-story
Total Residential Units	0	524	440	353	330
Ownership	Vacant	Rental	75% rental, 25% for sale	For Sale Condo	Rental
Affordable Units	0	58	47	35	0
Total Floor Area (square feet)	0	602,978	557,785	542,522	373,174
Parking Spaces	0	698	648	572	332
Buildings & Impervious Surfaces (ac)	0.5	3.6	2.6	2.5	1.5
<i>Wetlands and Natural Resources</i>					
Wetlands (acres)	1.45	0.70	1.00	1.00	1.43
Permanent Wetland Disturbance	0	0.92	0.45	0.45	0.11
On-site Wetland Creation	0	0.17	0.00	1.00	0
Off-site Wetland Creation	0	1.80	1.00	0.45	0
Area Disturbed by Construction (acres)	0	4.1	3.8	3.8	3.5
Excess Excavated Material (cu.yds.)	0	2,000	3,000	3,000	3,866
<i>Community Resources</i>					
Population Total/Students	0	793/10	678/10	634/27	593/25
AM Peak Hour Trips (enter/exit)	0	31 / 103	33 / 99	26 / 79	25 / 75
PM Peak Hour Trips (enter/exit)	0	94 / 62	94/60	76 / 48	72 / 46
Saturday Peak Hour Trips (enter/exit)	0	103 / 76	100 / 76	80 / 61	73 / 55
Water Demand (gallons per day)	0	115,500	96,800	77,660	72,600
Solid Waste (cubic yards per month)	0	48	40.3	32.3	30.2
<i>Source of data: Compiled by Tim Miller Associates, Inc. from information in the following documents</i>		<i>DEIS 11/2000 WMW plan c3/2000</i>	<i>FEIS 6/2001 WMW plan 5/10/2001</i>	<i>Env. Analysis of Modified Plan 1/2005 PE plan 6/6/05</i>	<i>SDEIS 6/2012 WMW plan 3/26/2012</i>

5.0 UNAVOIDABLE ADVERSE IMPACTS

The development of the proposed project will result in some adverse environmental impacts which cannot be avoided. Though these impacts cannot be avoided, many can, to some extent, be mitigated as noted in each of the preceding chapters. Some of these impacts will be temporary or short term impacts associated with the construction phase of the project, while others will be long term impacts associated with occupancy of the residences.

Short Term Impacts

- The presence of construction and delivery vehicles on the site and surrounding roads during the construction period. Section 2.7.1 describes the various arrivals and departures anticipated by construction workers, construction vehicles and equipment, and material delivery trucks.
- Loss of existing on-street parking on Warburton Avenue for the duration of construction.
- Localized increase in noise levels due to operation of construction vehicles and equipment.
- Increased susceptibility to erosion as vegetation is removed and site is regraded.

Long Term Impacts

- small amount of permanent fill in the wetland required for stabilization of the County sewer trunk line that is necessary with or without the project. Stabilization of the County sewer trunk line will be a permanent improvement to the municipal infrastructure.
- incremental increase in traffic on local roads. Traffic improvements will improve future traffic conditions at specific intersections.
- change in views from local vantage points.

6.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

Once completed, the project site will be committed to the proposed residential use. Once committed to this use, the site will be unavailable for other uses for the foreseeable future.

Implementation of the project will result in the development of approximately 3.5 acres of the 4.6 acre site. After completion of the proposed development, the remainder of the site will consist of wooded and wetland open space areas that will provide habitat opportunities for wildlife.

The finite resources that will be irretrievably committed by implementation of the proposed action are the materials and energy required for construction and for maintenance of the development afterward. Construction will involve the commitment of a variety of natural resources. These include, but are not necessarily limited to, concrete, asphalt, steel, lumber, paint products, and other building materials. However it should be noted that many of the materials accumulated for construction may at some time be recycled or reused. The operation of construction equipment will result in consumption of fossil fuels and other finite energy sources. When completed, the project will require electricity and the use of fossil fuels either directly as heating fuel or indirectly as electricity the project will also require drinking water to be allotted for use for the proposed operation. There will also be solid waste disposal requirements associated with the project.

Construction of the project will require a commitment of labor, which can be beneficial to the community, the regional economy, and the construction industry with respect to the generation of jobs. The project is expected to generate approximately 100 full time equivalent jobs during the anticipated construction period.

It is anticipated that the majority of the construction-related workers at the site will come from the City of Yonkers and the immediately surrounding area. These workers are expected to have a positive impact on existing local businesses providing such services as food convenience shopping, gasoline, etc.

In addition to direct employment, total employment resulting from construction expenditures on this project would include the creation of jobs in business establishments providing goods and services to the project contractors. A secondary effect multiplier of 1.5 has been cited, meaning that each new construction job could generate 0.5 additional secondary jobs in the region.

Other manpower commitments, which would be incidental if required for an emergency, would include the services of the police, fire department, or ambulance corps.

7.0 GROWTH INDUCING IMPACTS

The regulations implementing SEQRA require that the DEIS consider the likelihood that a proposed action will trigger further development. As indicated in previous sections of the document, the Project will add approximately 593 persons to the population of the City of Yonkers.

The project site's environs are served by public water and sewer service. Although certain improvements will be required, the Project in and of itself will not result in the creation of infrastructure that would induce future growth since the surrounding area is presently developed and served already by these utilities.

No significant growth in the area's utilities, community services or facilities is expected as a result of this project. A modest increase in area commercial services can be expected as a result of the development. Future residents of the project site are anticipated to utilize a variety of local retail establishments and professional services. Nearby businesses provide many of the goods and services that future residents are likely to utilize. The increased population from the project will help sustain these local businesses.

The project will generate construction employment in the short-term. It is expected that construction workers would come from the City of Yonkers, Westchester County, and nearby counties in the region. These workers are expected to have a positive impact on existing local businesses that provide such services as food convenience shopping, gasoline, etc. In the long-term, the new resident population would generate retail demand for retail and service uses located in the immediate project vicinity of the City of Yonkers and in Westchester County generally.

8.0 EFFECTS ON ENERGY

Energy consumption will occur during construction and occupancy of the proposed development, but this energy use will not be significant. During construction, energy will be used for power equipment and various construction vehicles. Once construction is completed and the residences occupied, energy will be required for space heating, air conditioning, and the use of household appliances and electrical equipment.

The specific energy conversion systems have not yet been designed in sufficient detail to permit examination of the extent of energy consumption or conservation. However, the design and plans for the development will take into account the New York State Energy Code.

As described in previous applications of this development, the State does not consider the size of the heating and hot water system equipment for a development of this size to have any significant air emissions, regardless of the use of natural gas or heating oil. Subsequently, the State and local environmental agencies do not regulate this equipment. Because air emissions from heating and hot water systems are considered to be insignificant, a quantitative analysis of air quality impacts from these systems was not performed.