3.12 Construction Impacts

3.12.1 Existing Conditions

Introduction

This section of the DEIS addresses potential short-term construction-related effects associated with the construction of the Project. The potential impacts to adjacent land uses and the local neighborhood are described, including the impacts to traffic on Buena Vista Avenue and local streets. A Construction Management Plan, which provides specific information regarding construction schedule and procedures, is attached as Appendix K.

Construction Schedule

According to the Project Sponsor, the Project will take approximately 24 months to complete. A detailed construction schedule has been prepared by the project construction manager and is provided in Appendix K - Construction Management Plan.

The project construction will involve three major stages: demolition, excavation, and building construction. A summary of the construction schedule is provided, below. Further detail is provided in the complete schedule (Appendix K).

- Erosion Controls (14 days - part of demolition task) Initially, the site will be secured with fencing and erosion controls will be installed per the Erosion Control Plan and project plans. A construction entrance will be installed on Buena Vista Avenue.
- Demolition (45 days total) existing buildings, debris and surface utilities will be removed. Portions of the existing Teutonia building facade will be stabilized for use in the project.
- Excavation and Site Preparation (30 days) Existing soils will be excavated and excess soil transported from the site. Excavation walls and shoring will be installed.
- Foundation Installation (120 days total) This task includes the pouring of the concrete foundation, waterproofing, and backfilling the foundation.
- Building Construction (approx. 16 months) Includes steel and concrete installation, utility installation, construction of underground parking garage, building interior finishing, driveway construction, landscaping and lighting.

During the third phase of the Project, construction of the new apartment building and rehabilitation of the existing multifamily building facades would take approximately 16 months. Utility connections, including water, sewer, stormwater, electrical and telecommunications would be made to existing utilities in Buena Vista Avenue (see Section 3.3 Utilities). Following the construction of the parking structure and the apartment foundation, the apartment building would be constructed. Construction and finishing work for the building - interior, exterior and landscaping - would occur in the final period of construction. Management (lease up and stabilization) would take approximately 12 months.

Construction Parking and Staging

Employee and construction vehicles will park in designated off-site parking lots. The applicant has identified two lots that will be used for parking and material staging. The lots are located at 56 and 60 Buena Vista Avenue, on the east side of the street adjacent to the three project controlled residences (Section 511, Lots 30 and 31). The lots are controlled by the City of

Yonkers and are currently vacant lots. The lots front onto Buena Vista and have no through access to Hawthorne Avenue to the east. At present, no other lots have been identified for construction parking or staging. If additional lots are needed for parking or material storage, they will be identified in consultation with the City of Yonkers.

3.12.2 Potential Impacts

Excavation and Foundation

Environmental Remediation

The initial phase of excavation will involve the remediation of impacted soils associated with the Brownfields Clean-up Program (BCP). The remediation work will be completed under a Remedial Action Workplan, reviewed and approved by the NYSDEC. Further discussion of remediation activities is provided in Section 11.0 Hazardous Materials, of the DEIS. A site specific Health and Safety Plan will also provide specific procedures for worker and public health and safety during this phase of the construction.

Some of the procedures are as follows:

A stabilized construction entrance will be installed at Buena Vista Avenue to ensure that soil is not tracked onto public streets. The traffic route for incoming and exiting trucks will be cleaned on an as-needed basis with a street sweeper and water truck. Truck tires will be cleaned as needed at the construction entrance, prior to leaving the site.

Erosion and sediment controls will be installed and maintained in accordance with the Soil Erosion Control Plan and the SWPPP (See discussion above).

Fixed air monitoring stations will be established at the perimeter of the site, and specifically near the Queen's Daughter's Day Care to monitor for particulates (dust) and for volatile organic compounds. Direct reading and recordable instruments with alarms will be used. The air monitoring will be operational during the entire period of remediation activities.

Dust from remediation activities will be minimized to the extent possible. Water trucks will be used on exposed soils when required. Any stockpiled soil will be covered and tarps and enclosures will be used on all trucks transporting soils.

Building Excavation

The excavation and foundation bracing system, including the possible use of sheet piles, tiebacks or shoring as required, will be designed by a structural engineer for approval by the City of Yonkers engineering and building departments as part of the construction documentation. The design may require temporary or permanent easements that will be sought in conjunction with the building permit. It is anticipated that any required tiebacks will be below the utilities in the street and will be designed to avoid any impact to existing utilities.

Excavation side walls will be adequately braced in accordance with a design from the structural engineer to mitigate any potential steep slope issues. Currently, the only area of steep slope is located along the western edge of the site bordering the Metro North rail line. Grading and excavation of this slope will occur to lower the grade for the parking garage (see Drawing CS

Cross Sections). Any areas of steep slope remaining on-site following construction will be secured with either structural methods, such as retaining walls, or will be properly stabilized with vegetation.

The property on which the apartment building will be constructed borders the Metro North railroad line on the western side. The excavation required at the western edge of the property is less than on the eastern side of the property (Buena Vista Avenue) due to existing changes in grade. As per the proposed Grading Plan, between 4 and 14 feet of excavation will be required within twenty (20) feet of the western property line. An existing retaining wall which is located on or close to the property line will not be disturbed. The applicant will coordinate with Metro North to determine any conditions or requirements for excavation work adjacent to the Metro North tracks.

The proposed excavation design and implementation will consider the foundations of existing adjoining buildings to the north and to the south; the Trolley Barn and the Queen's Daughter Daycare, respectively. The design of the excavation retaining wall system will ensure that there is no damage to adjoining foundations. The retaining system will be properly installed, prior to any excavation for the proposed development.

Soil Erosion

The project engineer has prepared an Erosion and Sediment Control Plan as part of the Stormwater Pollution Prevention Plan (SWPPP) as required to obtain a NYSDEC General Permit for Stormwater Discharges from a Construction Activity (GP-0-10-001). The Erosion and Sediment Control Plan is provided in the SWPPP attached as Appendix E.

The accompanying drawings, SP-1 and SP-2 Stormwater Pollution Prevention Plan and D1 Sediment and Erosion Control Details, provide specific information regarding proposed site specific erosion control methods. The SWPPP provides a procedures for establishing erosion control features and methods at the Project Site. These procedures are further described in Section 3.12.3 Mitigation Measures, below.

The Buena Vista project site is typical of urban construction sites in that nearly the entire property will require grading and excavation, and that excavation for the foundation, and subsurface usable space (parking garage), will result in excavation with no direct stormwater outlet. There are no streams or drainage swales currently carrying stormwater from the site, and therefore the potential for soil erosion to impact off-site properties is minimal.

A double row of silt fencing will be placed along the western edge of the site adjacent to the Metro North rail line. The silt fencing will minimize the potential for sheet flow erosion to occur along the western edge of the site. Along the eastern, northern and southern edges of the site, excavation will occur which will result in those portions of the site being at a lower elevation than adjacent property during site grading and soil exposure.

Construction-Related Traffic

Construction of the development will result in construction-related traffic being added to City traffic over the duration of the construction process. Construction-related traffic will include: employee vehicles, material delivery, construction vehicles transported to and from the site, material and waste disposal (excess material, packaging, scrap materials) and the disposal of

excess excavated soil. The number of vehicles and type of construction-related traffic will vary considerably, depending upon the stage of construction.

Construction-related traffic will arrive and depart from Buena Vista Avenue since the street provides the only public access to the Project Site. A proposed construction route is provided as TR - Proposed Truck Route, in the site plan drawings. From the project site, construction vehicles will travel southbound to Prospect Street. Trucks will use Prospect Street to travel to Route 9, which connects to Interstate 87. Nearby streets connecting with Buena Vista Avenue, including Main Street, Hawthorne Avenue, and Hudson Street will not be used for Construction traffic. Construction traffic routing will be finalized in consultation with the City of Yonkers Department of Engineering, Traffic Engineering Division.

Construction truck traffic will be coordinated with child drop-offs and pickups at the adjacent Queen's Daughter's Daycare, located immediately south of the project site. If practical, material or large equipment deliveries will be scheduled between 9:00 AM and 3:00 PM to avoid conflicts with drop-off and pickup times at the daycare. If material deliveries or construction truck traffic is necessary between the hours of 7:00 AM and 9:00 AM or 3:00 PM and 5:00 PM, then a flagman will be used near the intersection of Prospect Street and Buena Vista Avenue, at the front of Queen's Daughter's Daycare. It is not anticipated that the construction in front of the daycare will result in intersection closure, but a flagman will assist in moving traffic through the intersection in an efficient manner.

Police may be required on a short-term basis during any required street closures of Buena Vista Avenue. Traffic would be rerouted with detour signs, placed in consultation with the City of Yonkers Traffic Engineering Division. Buena Vista Avenue would only be closed for the delivery of large building material, such as steel or the arrival and staging of large construction equipment, such as a construction crane. Any request for police assistance would be scheduled in advance in accordance with City policy.

After the excavation and grading activities are completed, the greatest number of construction vehicle trips are expected to occur at the beginning of the building construction phase when building materials are transported to the Project Site.

Noise Levels

Noise impacts associated with construction of the proposed project are addressed in Section 3.9 of the DEIS. Local daytime ambient noise levels will increase both on- and off- of the project site during construction. Construction activities and the operation of construction equipment are an expected and required consequence of any new construction project and cannot be avoided. Noise resulting from construction activities is a temporary impact, and will cease upon completion of the project.

For sensitive receptors such as residences and the adjacent Queen's Daughter's Daycare center, the level of impact from construction noise sources depends upon the type and number of pieces of construction equipment being operated, the duration of the construction activities, as well as the distance of the receptor from the construction sites. The construction manager will notify the Queen's Daughter's Daycare Center regarding activities that are expected to produce high noise levels. If necessary, the use of a temporary noise barrier may reduce some of the impacts related to construction to the Queen's Daughter's Daycare Center. Elevated noise occurrences are typically sporadic during the construction period. After completion of the

garage structure, between months 8 and 13 of construction, noise levels will be attenuated to a large extent by the garage structure will block noise from construction activities to the north. Noise is anticipated to be a short-term construction-related adverse impact which cannot be avoided.

Given the depth to bedrock at the site, blasting and rock removal are not anticipated for the project.

Air Quality

Potential short-term air quality impacts that may result from the proposed project include fugitive dust and particulate matter from the project site, and emissions from construction equipment and vehicles.

The construction of the proposed Buena Vista Teutonia PUR will involve grading activities that may result in the release of fugitive dust and particulate matter from the Project Site. During this period, dust and particulate matter may be released into the air and carried off-site by wind. Construction-related air emissions will result from the use of diesel fuel as a source of energy for construction vehicles and equipment. Mitigation measures are proposed as a part of the project during construction to limit dispersal of particulate matter. Such increases in fugitive dust will be temporary.

Following project construction, unvegetated areas on the site currently exposed to wind would be either developed or landscaped, thereby reducing the potential for dust generation from the project area long-term.

3.12.3 Mitigation Measures

The DEIS incorporates various mitigation measures, as described in other chapters of the document, to address construction-related impacts. The following provides an overview of mitigation measures described elsewhere in the DEIS.

Soil Erosion Control

The development will require a NYSDEC General Permit for Stormwater Discharges from a Construction Activity (GP-0-10-001) as the project involves the disturbance of more than one (1) acre of land. The purpose of the Permit is to ensure that potential soil erosion impacts are mitigated through the preparation and implementation of an erosion and sediment control plan.

Erosion and sedimentation will be controlled during the construction period by temporary devices in accordance with the Erosion Control Plan developed specifically for this project site and shown on the site plan drawings. The Erosion and Sediment Control Plan is a component of the Stormwater Pollution Prevention Plan (SWPPP - see Appendix E).

The erosion control plan addresses erosion control and slope stabilization during all construction phases of the project. These plans were developed in accordance with the Erosion and Sediment Control Guidelines promulgated by the NYSDEC.

The following is a summary of erosion and sediment control measures described in the SWPPP:

- Step 1: Preconstruction Activities A construction entrance will be established on Lot 21 in the southern portion of the site to minimize sediment being tracked onto nearby streets. If sediment is tracked onto streets, it will be cleaned on a daily basis.

  Erosion and sediment perimeter controls will be installed prior to site clearing and building demolition. Silt fencing will be installed along the western edge of the site, as shown in the plans (Drawing SP-1). Security and construction fencing will be installed as necessary.

  Dust will be controlled throughout the construction process, including during the initial building demolition and site clearing phase. Dust control methods are provided in the discussion of air, below.

- Step 2 Runoff and Drainage Control All efforts will be made during construction to ensure that stormwater runoff will be controlled within the project boundaries. All runoff from exposed soils will be diverted to the interior of the site to minimize potential impacts to downstream waters. The post-development drainage has been designed to capture all run-off from developed portions of the site and direct that flow to the subsurface cistern storage system.

- Step 3 Grading Initial clearing and grading will be limited to that necessary to install sediment control measures. Later phases of grading and excavation will occur with sediment and erosion control devices installed and maintained.

- Step 4 Erosion Control Erosion and sedimentation controls will be installed in accordance with the *2005 New York State Standards and Specifications for Erosion and Sediment Control* prior to site clearing and in locations shown in the site plan drawings. Controls include the installation of silt fencing, diversion of stormwater towards the interior of the site and installation of a construction entrance. Any areas of exposed soil will be stabilized as soon as practical but within 14 days after active construction activity in any one area. Exposed or stockpiled soil will be stabilized with temporary seeding, mulch or synthetic cover.

- Step 5 Maintenance and Inspection Erosion control structures and methods will be inspected and maintained throughout the construction process to ensure their effectiveness. A qualified inspector, a professional engineer licensed in New York State, will conduct routine inspections at the site to ensure control activities are completed according to project plans. During construction and for three months after project completion, all sedimentation and erosion controls will be inspected every seven calendar days. A log of inspections will be maintained at the site. Maintenance of structures and controls will be performed, as determined by the construction inspector. Written reports of such inspections will be submitted to the City Engineer of Yonkers within three business days of each inspection.

- Step 6 Finalize Stabilization Final grading and stabilization will be completed according to project plans. Timely planting of new permanent vegetation such as trees, shrubs and ground cover will reduce potential soil erosion and provide long-term stabilization. Silt fencing and perimeter controls will only be removed after the establishment of permanent vegetation.

- Step 7 Post Construction Controls Permanent stormwater controls for the site have been designed to prevent soil erosion. As described in Section 3.2 Surface Water Resources and Stormwater Management, stormwater from developed portions of the site will be directed to a subsurface cistern storage system. Potential impacts to the City combined stormwater/sewer system will be minimized.

With these mitigation measures in place, potential impacts grading and excavation will be minimized.

Construction-Related Traffic

The increase in construction-related vehicular trips will be a temporary and unavoidable effect of building construction. A construction traffic routing plan will be finalized in consultation with the City of Yonkers Department of Engineering, Traffic Engineering Division. To limit impacts to the roadway levels of service in the project vicinity, deliveries of construction material will be scheduled to avoid peak hour traffic periods to the maximum extent practicable. The site plan includes a suggested routing plan.

Noise

Noise levels generated by construction activities are mitigated by limiting the hours of construction operation. Construction activities would be conducted in accordance with City regulations as follows:

- In the City of Yonkers, the operation of any tool used in construction, repair, demolition or excavation is prohibited between the hours of 6:00 pm and 7:00 am, on weekends, and on legal holidays.
- All equipment used for construction must be operated with a muffler.

With these limitations in place, short-term noise impacts would not be significant.

Air

Mitigation measures are proposed to limit fugitive dust. Methods to control dust will include:

- minimizing vehicle movement over areas of exposed soil, and covering all trucks transporting soil;
- unpaved areas subject to traffic would be sprayed with water to reduce dust generation;
- truck vehicle washing pads would be constructed at the construction entrance to avoid the tracking of soil onto paved surfaces.

During dry weather conditions, spraying water on unpaved areas subject to heavy construction vehicle traffic will help control dust.

Fugitive dust impacts will be limited in duration, and will be minimal once the building foundation is set in place.

Although exhaust emissions from construction equipment is not as significant as fugitive dust generation, particulate matter from diesel exhaust emission will also be controlled through proper tuning of the engine and maintenance of the air pollution controls. This will minimize additional contribution to site generated particulate emissions during construction.