

### **III.K Construction Impacts**

#### **I. Former Project**

The Former Project had a construction schedule of approximately 18 to 21 months, starting with site preparation, and then followed by the demolition of the existing Stony Lodge Hospital buildings. Full build-out of the Former Project was to occur over a single phase. The majority of the construction for the Former Project was to take place in the upper elevations of the property, on the southern and eastern portions of the site. Subsequently, the building superstructure, mechanicals, interiors, and finishes were to follow. Subsequent to the adoption of the Proposed Zoning, the Former Project included a detailed Construction Management Plan that was prepared to Town specifications as part of the site plan review process.

Consistent with the Town Code, construction would only take place between the hours of 8:00 am and 8:00 pm Monday through Friday and occasionally between 9:00 am and 5:00 pm on Saturdays, Sundays, and Holidays. Construction access to the site would have been via the existing site driveway off Croton Dam Road.

#### **2. Proposed Project**

The Proposed Project will have a similar construction timeline to the Former Project. This chapter discusses the proposed construction sequence as well as the potential for adverse impacts that may occur as a result of the construction of the Proposed Project. As for any construction project, there is the potential for environmental impacts, such as those associated with soil erosion, traffic, noise, vibrations, and dust. This chapter documents the various activities that would be involved in construction sequence of the Proposed Project.

##### **i. Construction Sequence**

The Proposed Project will have a similar timeline for its construction sequence as the former project, 18 to 21 months, and would take place at times conforming to the Town Code, specifically, between 8:00 am and 8:00 pm from

Monday through Friday and occasionally between 9:00 am to 5:00 pm on Saturdays, Sundays, and Holidays. Construction impacts are similar to the Former Project.

Construction phases, their estimated duration and number of employees are depicted in Table III.K-I, below.

**Table III.K-I**  
**Construction Phasing**

| <b>Construction Phase</b>                                                         | <b>Duration</b> | <b>No. of Employees</b> |
|-----------------------------------------------------------------------------------|-----------------|-------------------------|
| Mobilization and Site Clearing                                                    | 2-3 months      | 20                      |
| Excavation                                                                        | 5-6 months      | 15                      |
| Foundations                                                                       | 3-4 months      | 28                      |
| Superstructure                                                                    | 3-4 months      | 30                      |
| Mechanicals                                                                       | 3-4 months      | 30                      |
| Interior and Finishes                                                             | 3-4 months      | 24                      |
| Cleaning and Final Fitting and Installation                                       | 2-3 months      | 24                      |
| <b>Notes:</b> Number of months are weather dependent<br><b>Source:</b> Glenco LLC |                 |                         |

The construction sequence will incorporate the following tasks:

- Pre-construction meeting(s) with the Town officials
- Installation of erosion and sediment control measures
- Demolition of all nine of the existing buildings on the property
- Clear vegetation on portions of the property to be developed
- Strip and stockpile topsoil
- Begin rough grading and construction of building and parking lot
- Install storm drain and sanitary sewer system complete (immediately install erosion & sediment control protection on all inlets)
- Install utilities (gas, electric and telephone)
- Install concrete and asphalt concrete pavement complete

- Finish grading, redistribute topsoil and establish vegetation and/or landscaping
- Clean pavements and storm drain system of all accumulated sediment in conjunction with the removal of all temporary sediment and erosion control devices.
- Complete site and building construction.

## ii. **Construction Truck Routes and Truck Traffic Volumes**

Construction of the Proposed Project will create construction-related traffic to and from the Project Site, including trips related to workers as well as delivery of materials and equipment. In addition, there will be truck traffic associated with removing construction debris and excavated materials from the Project Site.

Based on the topography of the Project Site, and in order to accommodate development in accordance with the proposed plan, the project would result in a net cut of approximately 14,943 cubic yards of excess material (Figure 3.C-5). Approximately 89 percent of the material to be excavated will be re-used on the Project Site as compacted fill, and the balance of the excavated material would be exported from the site. The excess material would be exported in accordance with all applicable regulations to appropriate location(s). These trips would be spread over 5 to 6 months during the earthwork period, such that the number of truck trips during a single day would be roughly 6.5 truck trips per work day, which equates to less than one trip per hour.

Tables III.K-2 and III.K-3 provide summaries of truck traffic by construction phase for infrastructure development and site grading, and building construction, respectively. The infrastructure development and site grading are anticipated to take approximately 6 to 8 months, and the building construction is anticipated to take approximately 10 to 11 months.

**Table III.K-2**  
**General Construction Truck Traffic for Site**  
**Grading and Infrastructure Development**

|                     | Truck Totals |
|---------------------|--------------|
| Lowbed              | 30           |
| Concrete Truck      | 28           |
| Material Delivery   | 242          |
| Trailer Load        | 158          |
| Dumpsters           | 40           |
| 10 Wheel Dump Truck | 747          |
| Haul Truck          | 100          |
| Miscellaneous       | 10           |

**Table III.K-3**  
**General Construction Truck Traffic for**  
**Building Demolition and Construction**

|                   | Truck Totals |
|-------------------|--------------|
| Lowbed            | 24           |
| Concrete Truck    | 281          |
| Material Delivery | 303          |
| Trailer Load      | 263          |
| Dumpsters         | 115          |

Most construction-related trucking will utilize NY 9A from the south, and NY 9 to NY 9A from the north. Trucks will exit NY 9A at its intersection with NY 134 (Croton Dam Road) and proceed along NY 134 to the existing site entrance, which will continue to be used. The Applicant does not believe that the construction traffic traveling to and from the Project Site will increase significantly over existing conditions because NY Routes 9 and 9A are major roadways and existing truck routes.

**iii. Construction Noise**

Construction of the Proposed Project will generate noise and vibration from construction equipment, construction vehicles, worker traffic, and delivery vehicles traveling to and from the Project Site. Noise levels caused by

construction activities will vary, depending on the phase of construction—demolition, excavation, foundation, building construction, etc.—and the specific task being undertaken. All construction activities will be conducted in compliance with existing regulations, including local day and hour construction limitations. As noted above, consistent with the Ossining Town Code, construction activity will only take place between the hours of 8:00 am and 8:00 pm Monday through Friday and occasionally between 9:00 am and 5:00 pm on Saturdays, Sundays and holidays.

Thus, construction equipment will meet specific noise emission standards. Usually, noise levels associated with construction and equipment are identified for a reference distance of 50 feet (see Table III.K-4).

Significant noise levels typically occur nearest the construction activities, and may reach as high as 90 A-weighted decibels (dBA) under worst-case conditions. The level of noise impacts at local receptors will depend on the noise characteristics of the equipment and activities involved, the hours of operation, and the location of sensitive noise receptors. Noise levels will decrease with distance from the construction site. These distances help to mitigate construction noise impacts. Increased noise levels due to construction activity may be most significant during the early construction phases such as clearing, demolition, and excavation, which will be relatively short in duration (approximately two to three months) and intermittent based on the equipment in use and the work being done.

Construction operations, for some limited time periods, will result in temporary increased noise levels. Therefore, these noise effects will be temporary in nature and will occur during noise-regulated hours. Therefore, no significant adverse noise impacts will be expected to occur.

Based on the findings of the geotechnical investigations, some blasting may be required. If so, blasting will be conducted in accordance with applicable local, state, and federal regulations, including Town Code Chapter 89, “Explosives.”

Chapter 89 requires that no person is to manufacture, sell, possess, store, use or detonate explosives within the Town unless a permit has been issued by the Building Inspector. Conditions of the permit include:

Inspection. Because of the compelling and overriding public safety issues involved in the handling and use of explosives, the Building Inspector, the Chief of Police, or their designee, may inspect any vehicle, structure, dwelling, construction site, workplace or other area where explosives are manufactured, sold, possessed, stored or used within the Town for the limited purpose of ascertaining and verifying compliance with Chapter 89.

Permit revocation. The Building Inspector may revoke or modify a permit issued pursuant to the procedures and standards set forth by the Building Inspector where it appears that the permit holder has violated any local, state or federal rule, safety standard or regulation, including any regulation promulgated by the Building Inspector, or where such permit holder has made a false statement or representation on the application for a blasting permit or where the Building Inspector determines that public safety has been compromised. The Building Inspector may modify or revoke a permit.

The licensed blasting specialist will use care and caution to prevent excessive shock waves or stones and other material from flying off. The blasting of material near to any building or other structure will be conducted so as to prevent any damage. All blasting will be under the direct supervision of persons approved and licensed by New York State.

Blasting may be conducted when authorized by permit Monday through Friday between the hours of 9:00 a.m. and 5:00 p.m. Blasting is prohibited Saturdays, Sundays and legal holidays.

§89-9 states that the Building Inspector is to promulgate explosive and blasting regulations and standards deemed necessary or desirable to protect public health, safety and welfare. A copy of all such regulations and standards promulgated under this section are to be provided with each application for a permit.

**Table III.K-4**  
**Typical Noise Emission Levels For Construction Equipment**

| <b>Equipment Item</b>           | <b>Noise Level at 50 Feet (dBA)</b> |
|---------------------------------|-------------------------------------|
| Air Compressor                  | 81                                  |
| Asphalt Spreader (paver)        | 89                                  |
| Asphalt Truck                   | 88                                  |
| Backhoe                         | 85                                  |
| Bulldozer                       | 87                                  |
| Compactor                       | 80                                  |
| Concrete Plant                  | 83 <sup>(1)</sup>                   |
| Concrete Spreader               | 89                                  |
| Concrete Mixer                  | 85                                  |
| Concrete Vibrator               | 76                                  |
| Crane (derrick)                 | 76                                  |
| Delivery Truck                  | 88                                  |
| Diamond Saw                     | 90 <sup>(2)</sup>                   |
| Dredge                          | 88                                  |
| Dump Truck                      | 88                                  |
| Front End Loader                | 84                                  |
| Gas-driven Vibro-compactor      | 76                                  |
| Hoist                           | 76                                  |
| Jack Hammer (Paving Breaker)    | 88                                  |
| Line Drill                      | 98                                  |
| Motor Crane                     | 93                                  |
| Pile Driver/Extractor           | 101                                 |
| Pump                            | 76                                  |
| <b>Equipment Item</b>           | <b>Noise Level at 50 Feet (dBA)</b> |
| Roller                          | 80                                  |
| Shovel                          | 82                                  |
| Truck                           | 88                                  |
| Vibratory Pile Driver/Extractor | 89 <sup>(3)</sup>                   |

**Notes:**

- <sup>1</sup> Wood, E.W., and A.R. Thompson, Sound Level Survey, Concrete Batch Plant; Limerick Generating Station, Bolt Beranek and Newman Inc., Report 2825, Cambridge, MA, May 1974.
- <sup>2</sup> New York State Department of Environmental Conservation, *Construction Noise Survey, Report No. NC-P2*, Albany, NY, April 1974.
- <sup>3</sup> F.B. Foster Company, *Foster Vibro Driver/Extractors, Electric Series Brochure*, W-925-10-75-5M.

**Sources:** Patterson, W.N., R.A. Ely, And S.M. Swanson, *Regulation of Construction Activity Noise*, Bolt Beranek and Newman, Inc., Report 2887, for the Environmental Protection Agency, Washington, D.C., November 1974, except for notated items.

The geotechnical investigation also concluded that rock chipping may be used where appropriate as an alternative to blasting. A hydraulic hammer would be used to chip and break the rock apart, without the use of blasting. The impacts of rock ripping and chipping are ground vibrations in the immediate vicinity of the ripping and chipping machinery, and potential fly-off rock fragments occurring in the immediate vicinity of the ripping and chipping operation. While there is little that can be done to mitigate ground vibrations, there are steps that can be taken to mitigate the impacts of fly-off rock fragments. In the first instance, the impacts of fly-off rock fragments are mitigated by providing the operator of the machinery working within an enclosed cab and/or wearing protective eye gear. Impacts of fly-off rock fragments on other persons and/or off-site will be mitigated by limiting accessibility to the area of the ripping and chipping operation with signage and fencing, and installing controls—such as protective screening—would help ensure that any potential fly-off rock fragments remain in the immediate vicinity on-site.

Lead-based paint and asbestos surveys may need to be performed before demolition of the buildings commences. As is often found in older homes and buildings, any lead-based paint and asbestos found as part of this investigation will be removed in accordance with current regulations. Demolition will then proceed by disconnecting utility connections from the existing buildings and removing appurtenances. This will include removing existing buildings and

structures, light fixtures and conduits, walkways, oil tanks, and sanitary sewage systems. The type of construction equipment will include track mounted demolition equipment, hammers, buckets, and grapples. Material will be loaded into containers and removed from the site on a regular basis. Building debris will be removed from the site to licensed disposal facilities. Dust control and erosion control measures will be implemented as needed.

Airborne dust may be created by the chipping and demolition operations, which may be mitigated by wetting of the material being ripped or demolished.

The potential impacts associated with construction include sediment deposition and erosion, and the potential for causing turbidity within receiving water bodies. To prevent the potential negative effects of soil erosion, the Proposed Project will conform to the requirements of NYSDEC State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges Associated with Construction Activity Permit No. GP-0-20-001, and the “New York State Standards and Specifications for Erosion and Sediment Control”, November 2016. This permit requires that projects disturbing more than one acre of land must develop a Stormwater Pollution Prevention Plan (SWPPP) (see Volume 2 Appendix), containing both temporary erosion control measures during construction and post-construction stormwater management practices to avoid flooding and water quality impacts in the long-term (see Appendix Volume 2).

The following practices will be used throughout construction to minimize the potential erosion and sedimentation impacts associated with the disturbance, and will be coordinated with the final SWPPP.

Stabilized Construction Entrance/Exit (SCE) – The construction entrance/exit will have a stabilized aggregate pad underlain with filter cloth to prevent

construction vehicles from tracking sediment off-site. Stabilized construction entrances will be located at specific transition areas between concrete/asphalt to exposed earth.

Silt Fence – Silt fencing will be installed on the down-gradient edge of disturbed areas parallel to existing or proposed contours or along the property line as perimeter control. Silt fencing will be used where stakes can be driven into the ground as per the Silt Fence detail in the New York State Standards and Specifications for Erosion and Sediment Control (ECS) and as shown on the Drawings attached to this DEIS. Silt fencing controls sediment runoff where the soil has been disturbed by slowing the flow of water and encouraging the deposition of sediment before the water passes through the straw bale or silt fence. Built-up sediment will be removed from silt fencing when it has reached one-third the height of the bale/fence and properly disposed.

Storm Drain Inlet Protection – Inlet protection will be installed at all inlets where the surrounding area has been disturbed. The inlet protection will be constructed in accordance with NYSDEC Standards and Specifications for Erosion and Sediment Control. Typically, they will be constructed to pass stormwater through, but prevent silt and sediment from entering the drainage system.

Stockpile Detail – Stockpiled soil will be protected, stabilized, and sited in accordance with the Soil Stockpile Detail, as shown on the detail sheets. Soil stockpiles and exposed soil will be stabilized by seed, mulch, or other appropriate measures, when activities temporarily cease during construction for seven days or more in accordance with NYSDEC requirements.

Dust Control – During the demolition and construction process, debris and any disturbed earth will be wet down with water, if necessary, to control dust. After demolition and construction activities, all disturbed areas will be covered and/or

vegetated to provide for dust control on the site.

Temporary Seeding and Stabilization – In areas where demolition and construction activities, clearing, and grubbing have ceased, temporary seeding or permanent landscaping will be performed to control sediment-laden runoff and provide stabilization to control erosion during storm events. This temporary seeding/stabilization or permanent landscaping will be in place no later than 14 days after demolition and construction activity have ceased.

Sump Pit – Depending on the results of the geotechnical investigations, a temporary pit may be necessary to trap and filter water for pumping to a suitable discharge area. The purpose will be to remove excessive water from excavations. Sump pits will be constructed when water collects during the excavation phase of construction.

Dewatering – Depending on the results of the geotechnical investigations, there may be areas of construction where the groundwater table will be intercepted and dewatering activities would take place. Site-specific practices and appropriate filtering devices will be employed by the contractor so as to avoid discharging turbid water to the surface waters of the State of New York.

Temporary Sediment Trap – The purpose of a sediment trap is to intercept sediment-laden runoff and filter the sediment laden stormwater runoff leaving the disturbed area to protect drainage ways, properties, and rights-of-way below the sediment trap. The trap will be installed down gradient of construction operations which expose critical areas to soil erosion. The trap will be maintained until the disturbed area is protected against erosion by permanent stabilization.

Materials Handling – The Contractor will store construction and waste materials as far as practical from any environmentally sensitive areas. Where possible,

materials will be stored in a covered area to minimize any potential runoff. The Contractor will incorporate storage practices to minimize exposure of the materials to stormwater, and spill prevention and response where practicable. Prior to commencing any construction activities, the contractor will obtain necessary permits or verify that all permits have been obtained.

A continuing maintenance program will be implemented for the control of sediment transport and erosion control after construction and throughout the useful life of the project.

**iv. Mitigation Measures**

The practices discussed above including implementation of the Erosion and Sediment Control Plan, Best Practices, and construction management techniques will reduce potential temporary conditions related to erosion and sedimentation. Since a landscape plan will be implemented, all temporary site disturbances would ultimately be restored and landscaped.

The proposed Developer/Contractor will have a qualified professional conduct an assessment of the site prior to the commencement of demolition/construction and certify that the appropriate erosion and sediment controls, as shown on the Sediment and Erosion Control Plans, have been adequately installed to ensure overall preparedness of the site to begin demolition/construction. In addition, the Developer/Contractor will have a qualified professional conduct one site inspection at least every seven calendar days and at least two site inspections every seven calendar days when greater than five acres of soil is disturbed at any one time. It should be noted that any disturbance at any given time over 5 acres requires a “5-acre waiver” from the Municipal Separate Storm Sewer System (MS4).

The Contractor will take every precaution to minimize and control all odors, smoke, noise, dust, nuisance, vibration or disturbances caused by machinery,

pumping, compressing, blasting, trucking or by any of the Contractor's or subcontractors' operations, and the Contractor will be liable for all damage therefore or for violations of any and all present and future laws, ordinances or regulations relating to same until completion of the work.

The Contractor will schedule and conduct operations to minimize erosion of soil and to prevent muddying of streams, rivers, impoundments and lands adjacent to or affected by the work. Construction of drainage facilities and other work which will contribute to the control of erosion and sedimentation is to be carried out in conjunction with earthwork operations or as soon thereafter as practicable so that the area of bare soil exposed at any one time by construction operations will be kept to a minimum. The conduct of all work to be performed is to be carried out in accordance with all laws, ordinances and regulations relating to soil erosion and water pollution control, and the Contractor will be held liable for violation of any and all such laws, ordinances and regulations.

The Town of Ossining has the authority to enforce compliance with the approved SWPPP. Should compliance not be maintained, the Town can place a stop work order on the project and/or fine the parties found responsible for violations.

To ensure that construction takes place as efficiently as possible, the Applicant has prepared a Construction Management Plan as illustrated at the end of this section and within Appendix E.

Based on the foregoing technical analysis, it is the Applicant's conclusion that construction of the Proposed Project will not result in any significant adverse impacts.