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WATERSHED INSPECTOR GENERAL RESPONSES
10-22-25
NORTH EDGE REALTY CORP.

General Comments

1. Steep Slope Disturbance - As discussed in the May 1, 2025 WIG Comments, page 5-7 of the 2024 New York State Stormwater Management Design Manual (2024 Design Manual) states:

> Development on slopes with a grade of 15% or greater should be avoided, if possible, to limit soil loss, erosion, excessive stormwater runoff and the degradation of surface water. Excessive grading should be avoided on all slopes… as should the flattening of hills and ridges. Steep slopes should be kept in an undisturbed natural condition to help stabilize hillsides and soils. On steep slopes, new development, re-grading, or stripping of vegetation must be minimized.

For this Site which is within the New York City Watershed, the disturbance of any steep slopes creates a potential threat to water quality that should be avoided in accordance with the 2024 Design Manual.

The Constraints Map (Drawing C-1) for this project indicates regrading and building construction on portions of Housing Units 1 through 9, 22 through 25,

28 through 31, 47, 48, 72, 73, and the recreation building (21 buildings in total) are proposed on existing slopes between 15% and 25%. Portions of Housing Units 5 through 21, 32 and 33 (19 buildings) are proposed on existing slopes greater than 25%. Regrading of existing slopes greater than 25% is proposed immediately uphill of the proposed infiltration basins.

Soils within the proposed limits of disturbance are identified by the Natural Resources Conservation Service (NRCS) Web Soil Survey as predominantly Paxton, which typically has high groundwater (18" to 37" depths) at least seasonally. NRCS classifies Paxton soils that have slopes greater than 15% as having high to very high runoff potential. The proposed action requires approximately 13 acres of earthwork to be completed and stabilized within 24 months - through at least two freeze/thaw cycles.

It is unclear how the proposed layout avoids steep slope disturbance to the greatest extent practicable. More than half the areas sloping between 15% and 25% will be disturbed and nearly all the slopes greater than 25% will be disturbed. Typically, an EIS would present various alternative layouts to evaluate the relative amounts of steep slope disturbance,

among other things, for assessment of impacts on water quality. No such alternative layouts are presented in the Expanded EAF. Specific issues associated with the disturbance of these steep slopes are presented in the Erosion and Sediment Control Comments below.

Comment noted. During the time period that we have worked with the Town Board on this project, several alternatives have been presented to the Board. The current proposal was developed as a result of those discussions thus reducing the number of proposed units, road widths, road alignments, and alternate proposed development layouts. The current development plans resulted in the realignment of Street A, which shifted the road toward the Eastern property line. The road shift coupled with the road width reduction will allow for several of the proposed units to have less of an impact on the steep slopes than with prior options.

2. Drawing GP-1 indicates excavations will be 14 feet in some areas to achieve final grade. Such is the case between Housing Units 69 and 70 shown on Drawing GP-1. No test pits were excavated to a depth greater than 6 feet at the Site, according to available documentation. Bibbo states in the July 21, 2025 Responses that preliminary test pits were completed that encountered groundwater at 12 feet and no bedrock, however, no test pit logs were provided to support that assertion. Without test pit logs or locations, it is unclear how much groundwater and/or bedrock will be encountered during excavation. Associated adverse impacts to water quality cannot be fully assessed as a result. Additional information is necessary to demonstrate the project can be built (and will function when completed) without significant adverse environmental impacts.

Additional soil test pit excavations were performed and witnessed by our office, the locations have been shown on Drawing GP-1 and results included in the soil testing Appendix of the SWPPP. Test pits were excavated to depths ranging 15'-6" to 19'-0" which indicated ground water in some locations at a depth of 12'-0"

3. A recreation area is shown on Drawing LP-1 behind the recreation building near the Route 6 entrance. There is an unlabeled walking trail from this recreation area to the infiltration basin berms and access road. Bibbo's July 21, 2025 Responses indicate that the recreation area design will be part of the final design process for the project. However, estimates of the amount of clearing, grubbing, and the type of surfacing proposed for recreational facilities is needed for the purposes of stormwater management design, and to analyze water quality impacts. Therefore, activities anticipated for recreation areas need to be specified.

The recreation area shown on drawing LP-1 will be a natural path from the recreation building north below the infiltration basins and finally connect to the stormwater access path to return users to Street A in the vicinity of the northeastern guest parking area. The path will generally follow the existing grade and will be 5' wide and have a

woodchip surface. Minimal clearing and grubbing will be associated with the installation of the path.

Erosion and Sediment Control

4. While disturbance of all on-site slopes 15% and greater poses potential adverse impacts to water quality, the potential is highest where the slopes are 25% and greater. A portion of the Site with slopes greater than 25% runs linearly north to south on the western side of the Site for about 650 feet. The length of the slope (top to bottom) varies, but is generally about 50 feet. This entire area of steep slope will be disturbed by regrading the slope from about 30% to 50%, based on the provided cross sections (Drawing X-1). Units 6 through 21 will be located at the crest of the regraded slope and the proposed infiltration basins will be located at its base. Those infiltration basins are the only treatment proposed for the project. At the west end of Units 31 and 32, existing slopes of about 30% will also be regraded to 50% over a length of about 110 feet at the edge of the wetlands buffer.

   Regrading a 30% slope to a 50% slope poses potential slope stability issues both during the regrading process and in the post-development setting. This potential is heightened given the soil characteristics of both the fill material (which is highly erosive) and the material of the underlying soil (which has high to very high runoff potential, as described in the NRCS soil survey).

   Should the slope fail, all or part of the fill material will slip down the slope and discharge into the sediment basins (during construction) or infiltration basins (post-construction), or directly into the wetland buffer or the wetlands themselves at the foot of the existing slope. This would result in significant adverse water quality impacts. There are measures that can be implemented to minimize the potential for slope failure, but no such protective measures are proposed.

   As indicated by the additional deep tests conducted on this site, the soils on this site do not show the traditional characteristics generally associated with the NRCS descriptions for Paxton Soils (see further explanation in responses below), therefore the potential for erosion and slope failures are not as great of a concern as may be generally anticipated with Paxton soils. Slope stability will be managed through the implementation of erosion control matting and silt fence both during construction as fill is placed as well as following construction as a permanent stabilization. The construction sequence has been revised to include a Phase 2a, specifically dealing with the fill placement during construction. Phase 2a proposes placing the fill in 150-foot sections starting at Unit 5 working northward in 2-foot machine compacted lifts. Fill shall be placed only in existing dry soil conditions with the existing slope scarified to receive the fill. A minimum of three rows of silt fence are proposed (2 rows at the toe of the embankment surrounding the fill, & 1 row immediately uphill of the sediment basins), additionally at the time of fill placement the curbs on street A would have been installed further limiting the potential for run off to pass over

the embankment, the exposed fill will be managed through phase 2a and based on the owner's desire to continually place fill or in the event of a pause 7 days or greater additional steps have been included to stabilize exposed embankment edges. As this project progresses through the Town Planning Board Approval process, a landscape plan will be developed which will include native plant material to aid in the post construction slope stabilization.

5. Roof drains for Units 23 through 30 will discharge onto slopes between 15% and 25% in soils with a high runoff potential. Roof drains for Units 6 through 22 and 31 through 35 will discharge directly onto slopes greater than 25%. *See* Drawings GP-1 and GP-2. No pretreatment of these flows prior to discharge into the downslope infiltration basins is provided. The potential for these discharges to cause erosion of soils and sedimentation in the downslope infiltration basins is high, given the soil type and slope. Resulting sedimentation in the infiltration basins will compromise the ability of the basins to infiltrate stormwater.

Roof drains have been piped to the flow through the pretreatment units for Units 6 to 21, 23-30, and 31-35, they will no longer discharge to grade.

6. Phase 2 of construction (Drawing PH-2) involves excavation and subsequent stockpiling of a substantial amount of material from the southeast portion of the Site along the crest of the existing 650-foot-long steep slope for dewatering, if necessary. Later in Phase 2, the stockpiled material is to be used to steepen the slope from 30% to 50%. When the stockpile is created, the steep slope below it will have been stripped of vegetation according to the sequence. NRCS soil descriptions for both the existing steep slopes and the material to be stockpiled at its crest for later use as fill have high runoff potential and may be seasonally wet. Although the plan calls for surrounding the stockpile with silt fencing and stabilizing it with temporary vegetation, water bleeding from the stockpiled material may accumulate and must be managed to prevent discharge down the erosive slope. Daylighting groundwater from the disturbed steep slope below the stockpile will potentially cause erosion of soils, and slopes that have not been adequately stabilized would transport the sediment-laden flow. This sediment will accumulate in the under-excavated infiltration basins serving as sediment basins during construction. *See* Comment 11 below. While sediment basins are there for that purpose, the possibility that these practices will be inundated by the potential sediment load must be considered. Frequent clean out of the sediment basins may be necessary, but additional clean out operations may compromise the ability of the basins to infiltrate stormwater in the post-development condition. This, in turn, would result in inadequately treated stormwater and adverse impacts to water quality.

The material to be stockpiled in Phase 2 as shown on Drawing PH-2 is not believed to have as great of a runoff potential as originally believed as shown by the additional soil test logs. Typical Paxton soils generally have high seasonal groundwater, soil test logs show no evidence of groundwater above 6' in soil test S-7 (adjacent to the wetland buffer) and at depths of 12' in holes D-3, D-4 and D-5 (west of proposed street A).

General cuts in the areas of tests D-3 through D-5 are at depths of 15 to 16' in the worst cases and therefore will potentially encounter some ground water. However, those test pit locations are within Phase 3 and the majority of the Phase 3 earthwork material will be removed from the site. Although the potential still exists that the material may be seasonally wet, the further detailed construction sequence Phase 2a has been developed to further mitigate the potential for erosion of the stockpiled material. Additionally, the deep test results yielded soils having a sand and gravel composition which would indicate a more well drained soil than generally found with traditional Paxton's. Based on the proposed design of the Temporary Sediment Basins, more frequent cleanout of the sediment basins will not have an adverse effect on the post construction infiltration basins, the under excavation of the basins during construction as well as the installation of the liner will protect the infiltration layer. As noted in other responses, the potential for sediment-laden runoff has been further mitigated by the installation of additional silt fence both at the base of the fill slope, 10' from the toe of slope as required by the New York State Standards and Specifications for Erosion and Sediment Control (Blue Book) and above the sediment basins, the fill to be placed in phase 2 will be done with a proposed finished embankment slope of 4H:1V, further reducing slope slippage and erosion concerns. Embankment seeding will be monitored through the growing season and reseeded as necessary.

7. Diversion swales will be required to divert stormwater and dewatering volume from a part of the 650-foot-long stockpile into the sediment basins. The diversion swales may be overwhelmed by slippage of the stockpile or the regraded (30% to 50%) slope. Resulting sedimentation may impact the wetlands below the sediment basins and not the sediment basins themselves, adversely impacting water quality.

Comment noted, however the diversion swales have been removed from the proposed plans. Through the implementation of Construction sequence 2a as well as proactive construction site monitoring the potential for concerns regarding the fill placement is greatly reduced.

8. Test pit logs in Appendix H of the SWPPP only include information near the proposed infiltration basins. The proposed project includes steep cut and fill sections in Paxton soils which typically exhibit high seasonal groundwater. The test pits included in Appendix H were excavated during a generally dry season (September) and the logs did not include details such as soil color, presence of mottling, changes in density, root depths, etc. Absent more detailed information for soil conditions throughout the Site, typical Paxton soil characteristics must be considered when designing erosion and sediment controls. The erosion control plans must include additional measures to protect both cut and fill slopes from erosion that could result from daylighting of groundwater or bleeding stockpiles on steep slopes.

As indicated above, additional soil test pit excavations were performed throughout the project area. As the conditions in September were dry particular attention was focused on the presence of mottled soils. Unless noted the soils exhibited very little mottling to the full depth of the proposed excavations. Soil Test Results can be found in appendix H of the SWPPP.

9. The 2016 edition of the "New York State Standards and Specifications for Erosion and Sediment Control" (2016 Blue Book) includes standards and specifications for silt fence beginning on page 5.54. For silt fencing on steep slopes, spacing of 100 feet or less (depending on silt fence type) is specified. The Site Plan Set shows silt fencing only at the toe of slope, which does not comply with the 2016 Blue Book.

The silt fencing spacing has been revised to comply with the 2016 Blue Book to the greatest extent possible in areas of steep slopes. In many locations (i.e. adjacent to the wetland buffer, below soil stockpiles, as described in phase 2a fill placement sequence) a minimum of two rows of silt fence have been proposed, additionally, the proposed silt fence has been shown as close to the disturbed area as possible and where possible at least 10 feet from the toe of slopes steeper than 3H:1V (i.e. embankment slope behind units 48-51 and 70-73 in phase 1 and below the stockpile area in phases 2 and 3). Silt fence has also been proposed at the base of embankment slope above proposed swales (i.e. behind units 36-39 and 52-73. Additional silt fence will be added / relocated if necessary during routine site inspections as construction progresses.

10. All erosion and sediment controls shown on the detail sheets of the Site Plan Set must be in conformance with the 2016 Blue Book and must be located and/or spaced in accordance with its requirements. Show the locations of the practices on the Drawings PH-1 through PH-4 and EC-1, and provide a legend for those drawings indicating each type of practice.

All erosion and sediment control practices have been checked for 2016 Blue Book conformance as to detail and location.

11. The proposed infiltration basins will be used as sediment basins during construction. For this purpose, the basins will be "under-excavated." In this case, under-excavation entails excavation to a depth 2 feet above the projected bottom of the infiltration basin. A liner is also proposed for the sediment basin. The construction phasing drawings (PH-1 through PH-4) show the basins excavated to full depth and do not specify when or how the practices will be converted to infiltration basins. Therefore, it is unclear that the practices will be adequately protected from compaction and migration of fine sediments during construction that might compromise their ability to adequately treat and manage stormwater post construction.

Per GP 0-25-001 the sediment basins will be converted to the infiltration basins upon 80% tributary area stabilization (See Sequence, Phase 4).

Care shall be taken throughout construction to minimize compaction of the area. Throughout the construction, as sediment basin cleanout is needed, the use of long reach excavators operating from atop the basin berm shall be the preferred method of sediment cleanout, in the event it is necessary to enter the basin, smaller equipment shall be utilized to minimize any potential impact to the infiltrative surface. The liner will prevent fine soils from migrating to the final infiltrative surface. The under excavation of the basins is also intended as a measure to protect against compaction of the infiltrative layer below the basins final elevations.

12. Bibbo's July 21, 2025 Responses state that winter stabilization and winter shutdown will be considered in the SWPPP. Criteria for winter stabilization and shutdown are necessary to demonstrate how adverse water quality impacts can be avoided during freeze/thaw cycles and is therefore necessary under SEQRA. Provide criteria for winter stabilization and shutdown.

    Winter stabilization and winter shutdown measures have been included in sections 3.3 and 4.3 of the SWPPP.

13. Sizing calculations are now provided for the sediment basins in Appendix L of the SWPPP. Basin sizing does not comply with the requirements of the 2016 Blue Book. For example, the 2016 Blue Book requires a sediment storage zone based on 1000 cubic feet (CF) of storage per disturbed acre contributing to the basin. The minimum depth of this zone is 1 foot. Above the sediment storage zone is the dewatering zone, which is based on 3600 CF of volume per acre tributary to the practice. The minimum depth of the dewatering zone is 3 feet. Therefore, the depth of a sediment basin must be at least 4 feet regardless of the contributing acreage. Based on the elevations included on the "Temporary Sediment Basin Outlet Control Configuration" detail on Drawing D-4, sediment basins are less than 2 feet in total depth. Further, the sizing calculations do not include two zones, as described above, of 1000 CF/acre and 3600 CF/acre. Instead, a single zone of 3600 CF/acre is shown. These practices are undersized for the Site.

    Basin sizing calculations and the basin sizes have been revised per the 2016 Blue Book.

14. Section 3.1 of the SWPPP lists temporary erosion and sediment control practices specified for the project. Several of the practices (for example, diversion channels and water bars) are not shown on the plans and no details are provided. The location, sizes, and the specific criteria requiring the implementation of these practices must be included in the project documents.

    The erosion sediment practices indicated in the SWPPP now match the practices shown and detailed on the Plans.

15. The Expanded EAF states that construction is estimated to last for 24 months to "stabilize grade and subbase pavement." Full build-out of all the housing units is estimated to last 3

to 5 years, depending on the housing market. The plan must be specific as to how grades will be stabilized if construction of some housing units is delayed. Currently, there is insufficient detail to demonstrate that the Site will be stabilized if the housing market slows.

The phasing plans as well as the Construction Site Management notes work indirectly but in conjunction with the housing market. The construction site management notes state that part of the Site Superintendent site management responsibilities will include identification of sections in a work phase where active site work will not occur over the next 7 days. If disturbed earth is present, the superintendent will direct the spreading of rye grass seed for a temporary protective cover to stabilize the site. Temporary seeding will be monitored from growing season to growing season. In the event work has paused for longer than one growing season, permanent seeding shall be implemented. Permanent seeding shall be in accordance with the seeding notes located on the Erosion Control Detail Plan. Furthermore, if at any time the Owner decides to permanently pause construction for greater than a period of 2 years temporary sediment basins shall be converted to infiltration basins and a revised HydroCAD confirming basin volumes and post development peak flows will be provided to the Town of Somers. Note: care must be taken at that time to ensure if construction continues at any time the infiltration basins can again revert to act as temporary sediment basins (i.e. not excavating to full depth, possible removal and reinstallation of the basin liner). Prior to implementing the above "interim" infiltration measures a discussion with the Town should occur as pauses in work are not abnormal in the construction industry, subdivisions continue for many years under temporary conditions until such time that roads are dedicated, etc. NYSDEC General Permit compliance is implied under the temporary conditions until such time that full final stabilization occurs and the Notice of Termination is filed. A note has been added to the Erosion Control Plan regarding temporary seeding and a prolonged pause in construction.

Construction Sequencing

16. Erosion control details are now included in the plan but there is little to no indication on the phasing plans (Drawings PH-1 through PH-4) regarding where and when these controls will be implemented. For example, a detail titled "Erosion Blankets Installation" is included on Drawing D-4, but no indication is provided regarding where the practices will be installed or when they will be installed in the construction sequence. This detail does not comply with the 2016 Blue Book.

Erosion controls associated with each phasing plan are shown and on the specific plan and either labeled where proposed on the plans or by legend on each phasing plan. The erosion control details are now

referenced in the sequencing and the details have been revised to comply with the 2016 Blue Book.

17. All erosion and sediment controls shown on the detail sheets of the Site Plan Set must be in conformance with the 2016 Blue Book, including its location and spacing requirements. Include installation of all erosion and sediment control practices in the sequencing.

See response to No. 10 above.

18. Construction sequencing on Drawings PH-1 through PH-4 indicates that tree clearing throughout the Site will occur in Phase 1, but that tree grubbing will occur separately for each phase. Clarify whether tree clearing includes removing the felled trees from the site. If this is proposed to occur completely in Phase 1, disturbance associated with removal of the trees, particularly in steeply sloping areas, must be considered and appropriate erosion controls incorporated in the plan.

The felled trees will not all be removed upon cutting, they will remain until such time that the phase of which they are in is begun.

19. Construction Sequence Note #5 on Drawing PH-1 states that future infiltration basins will be located and protected at this point in the sequence. Later in Phase 1, the basins will be under-excavated to be used as sediment basins. However, as noted in Comment 11 above, the sequence does not indicate when these practices will be converted from sediment basins to infiltration practices. Drawings PH-1 through PH-4 and EC-1 must provide significantly more detail to demonstrate when these practices will be converted and how these infiltration basins will be protected during construction.

See response to No. 11 above.

Water Quality

20. As noted in WIG Comments 4, 5 and 19 above, it is unclear when the infiltration basins will be constructed. The proposed project depends almost exclusively on these infiltration basins providing post-construction stormwater treatment and management. Details and specifications that demonstrate how these basins can be adequately protected from sedimentation until the tributary areas have been permanently stabilized must be provided. Otherwise, it is unclear how post-development water quality goals can be achieved.

The seeding and occupancy section of the SWPPP indicates the conversion of the Sediment Basins to Infiltration Basins, in accordance with the Stormwater Design Manual requirements the basin conversion will not occur until such time that the tributary disturbed areas have achieved at least 80% final stabilization.

21. Bibbo's July 21, 2025 Responses indicate that the riparian buffer (which was formerly proposed as an area reduction practice to decrease runoff from a portion of the tributary

drainage area for the project) has been replaced with alternative green practices. It is understood that the plan has been revised to redirect some of the runoff that was originally tributary to the riparian buffer to Infiltration Basin 1. However, it is unclear what alternative green practices have been incorporated. Clarify which green practices are proposed and provide details.

The current plan revisions no longer incorporate additional green practices into the project. The two proposed SMP's with RRv capacity provide sufficient treatment for the proposed onsite impervious surfaces as well as an additional 1.6 ac. +/- of offsite existing impervious surface.

22. Although most of the runoff from proposed sidewalk along Route 6 will now flow to the Infiltration Basin 1 for treatment, no treatment for the Route 6 project entrance is proposed. Provide stormwater treatment details for the Route 6 project entrance to meet the goals of GP0-25-001 and the 2024 Design Manual.

As mentioned in comment 21 above, the stormwater treatment proposed for this project provides for treatment of existing impervious areas of 1.6 ac +/- which far exceeds the impervious area associated with the Route 6 entrance of 0.04 ac +/- of untreated impervious surface. Therefore, we believe the goals of GP 0-25-001 have been met.

23. The Expanded EAF states that construction is estimated to last for 24 months to "stabilize grade and subbase pavement." Full build-out of all the housing units is estimated to last 3 to 5 years, depending on the housing market. It is unclear whether the post-development hydrology can be fully achieved if bulk grading is accomplished, but housing units are not fully built out.

See response to 15 above.

24. This project is located within the Amawalk Reservoir Watershed. The Amawalk Reservoir is a "phosphorus restricted basin" due to an overabundance of phosphorus, which stimulates algae growth and contributes to the formation of algal blooms. Algal blooms adversely impact drinking water quality. Stormwater entering the Amawalk Reservoir from construction and development activities is of great concern to the WIG Office.

To assess the threats to drinking water quality posed by potential stormwater pollutants, a pollutant loading analysis (PLA) has been provided for the project to estimate the existing and proposed total phosphorus (TP) load at the project Site. However, the analysis is poorly documented and flawed. For example, although the document references 3 sources used to estimate the removal rates for the proposed practices, it does not indicate which sources were used to estimate the TP loads. This information must be provided. It is recommended that recently published sources, such as the National Stormwater Quality Database which provides detailed statistical data on pollutant loading measurements as well as pollutant removal rates for various stormwater practices, be used for this analysis. More recently published data regarding removal rates should also be considered.

With regard to the analysis itself, removal credit was taken for the hydrodynamic separators that are actually pre-treatment for infiltration practices. As these are essentially parts of the infiltration practices, separate removal credit cannot be calculated for the units. There also appear to be numerical and/or input errors in the tables presented in Appendix A of the document. Due to these errors, the WIG Office completed a PLA using the undocumented sources of TP loading proposed by Bibbo. Where Bibbo calculated a net decrease of 2.95 lbs of TP load for the Site in the post- development condition after treatment (20.19 lbs to 17.24 lbs, a 14.6% decrease), the WIG Office calculations show a net increase in TP of 12.37 lbs in the post-development condition after treatment (20.15 lbs to 32.51 lbs, an increase of 61%).

This is a substantial increase in TP loading in a reservoir basin that already exhibits an overabundance of phosphorus. The plan must be revised to eliminate the increase in TP load that would result from the project's completion. This may be accomplished by incorporating measures into the design that will maximize TP removal in the proposed practices, by incorporating additional runoff reduction and/or treatment practices in the design, or by a combination of these measures.

See updated Pollutant Loading Analysis.

25. Infiltration test results are included in Appendix H of the SWPPP. However, the elevations at which the tests were completed are not provided. Relevant elevations must be included in the appendix to demonstrate that the testing results are representative of conditions at the appropriate depths.

Relevant existing ground elevations at the soil test sites have been added to Appendix H.