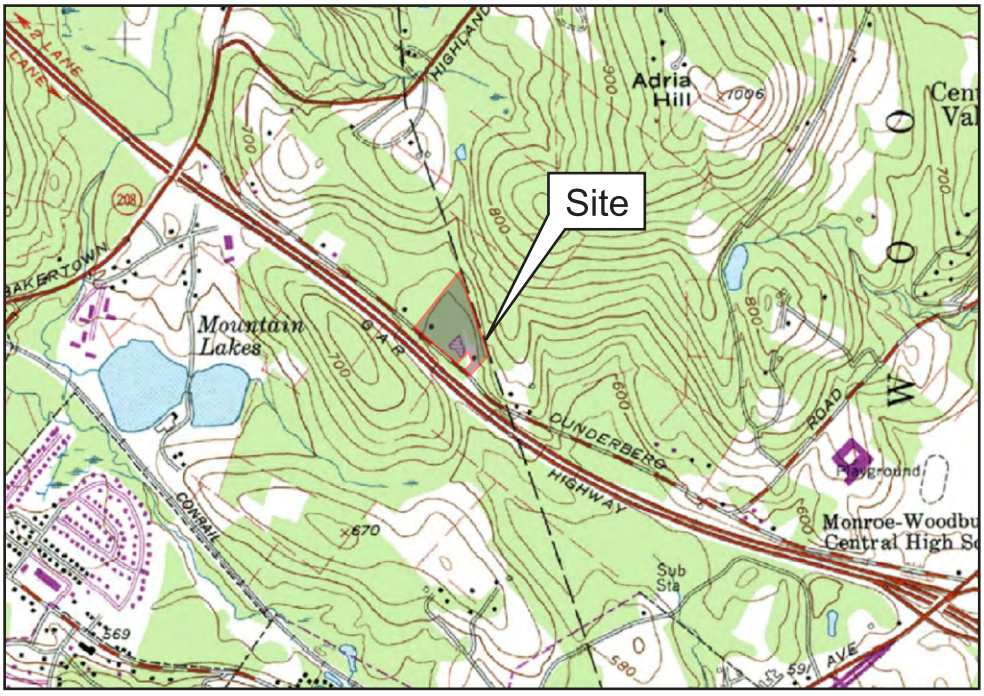
DRAFT ENVIRONMENTAL IMPACT STATEMENT



MONROE COMMONS

Nininger Road
Town of Monroe, Orange County, New York

Lead Agency:
Town of Monroe Planning Board

Project Sponsor:
Monroe Nininger, LLC

Prepared by:
Tim Miller Associates, Inc.

September 19, 2023

DRAFT ENVIRONMENTAL IMPACT STATEMENT

MONROE COMMONS

Nininger Road
Town of Monroe, Orange County, New York

Lead Agency: TOWN OF MONROE PLANNING BOARD
Bonnie Franson, Chair
1465 Orange Turnpike, Monroe, NY, 10950
Attention: Norrine McSweeney
(845) 783-1900 ext.115
The websites where SEQRA documents will be located:
https://monroeny.org/Resources/Document-Center >Planning Board>Planning Board Projects>Monroe Commons
https://timmillerassociates.com/monroe-commons

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Acceptance of DEIS for Public Review: **September 19, 2023**

Date, Time, and Location of Public Hearing: November 21, 2023, 6:00 p.m. Monroe Town Hall, 1465 Orange Turnpike, Monroe, NY, 10950

Comment period will extend for a minimum of 10 days following close of the Public Hearing

Submission Date: February 23, 2023
Revised: June 29, 2023, August 31, 2023 and,
September 19, 2023

MONROE COMMONS

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1.0 EXECUTIVE SUMMARY

1.1 Introduction, Purpose of Document

This Draft Environmental Impact Statement (DEIS) has been prepared in response to a Positive Declaration issued by the Town of Monroe on July 9, 2020, in connection with a Mixed-Use Site Plan application by Monroe Commons LLC, the "Applicant" and owner of the subject property. The proposed project is located on Nininger Road in the Town of Monroe, Orange County, New York.

In connection with a site plan application, after waiting the required 30 days and receiving no written objections from other involved agencies, on June 11, 2020 the Village of Monroe Planning Board identified the proposed development as a Type I Action and declared itself to be Lead Agency for a SEQRA coordinated review. The Planning Board adopted a Positive Declaration on July 9, 2020 and circulated the applicant's SEQRA Draft Scoping Document to all involved and interested agencies. A Public Scoping Session was held on September 10, 2020 with written comments on the Draft Scoping Document accepted until September 21, 2020. The Final Scoping Document was adopted on November 17, 2020. The adopted scoping outline is included as Appendix A of this DEIS.

This DEIS has been prepared to evaluate potential environmental impacts associated with the proposed mixed-use development. The DEIS has been prepared in accordance with the New York State Environmental Quality Review Act (SEQRA) and Part 617 of the regulations implementing SEQRA.

The Applicant is proposing a mixed-use commercial development in a single approximately 407,819 square foot (gross area) building with four floors. The proposed uses include a mix of retail, office uses, and a hotel. The development would include a total of 624 surface parking spaces and an area of 29 banked parking spaces has been provided, for a total of 653 spaces provided. The proposed development includes supporting utilities, stormwater management facilities, lighting, and landscaping.

1.2 Summary Description of the Project Site

The subject site is located on the north side of Nininger Road, approximately between County Route 105 to the northwest and Dunderberg Road to the southwest, as shown in Figure 2-1. The overall Project site consists of two parcels: 1) an approximate 18.2 acre property in the Town of Monroe identified as tax lot 2-1-10, and 2) and approximate 12.5 acre property in the Town/Village of Woodbury identified as tax lot Section 225, Block 1 Lot 30. Figure 2-2 shows the existing setting and character of the project site and surrounding area.

1.2.1 Project Site and its Environmental Setting

The Monroe Commons property is currently undeveloped vacant land and is a mix of mature woods and federally regulated wetland areas. A small pond is located in the southeast portion of the site within a mapped wetland area. Existing conditions on the property are shown in the Existing Conditions Plan in the Site Plan drawings. According to a review of historic aerial photos and site inspections by Team Environmental Consultants, Inc., the property has historically been a mostly undeveloped wooded parcel. An aerial photograph from 1958 shows the majority of the site as cleared of trees and apparent grading in the middle of the site (see Appendix H).

Topography on the project site generally slopes from northeast to southwest with a generally steep hillside located along the northwestern property border and lower elevations in the wetland are bordering Nininger Road. The highest elevations along the northeast property border at 700 feet sloping to the wetland area in the southeast corner of the site with elevations of 630 feet.

The Project site has approximately 900 feet of frontage on Nininger Road, where access to the development will be provided. In 2019 a gravel field road was installed to allow a water supply well to be drilled in the north central portion of the site. An older field road is located along the eastern property border extending up the hillside and paralleling a stone wall on the property line. The field road and former foundation described above are the only man-made features located on the property.

The project site is currently undeveloped mostly wooded, vacant land. The western property line borders the Village of Kiryas Joel/Town of Palm Tree. A residential project knowns as Veyoel Moshe Gardens (VMG) a 1,600-unit multi-family residential development is currently under construction on the adjoining property to the west. Property adjoining the site to the north is located in the Town/Village of Woodbury. The adjoining property to the north is currently an undeveloped wooded hillside. Property adjoining the site to the east is vacant wooded land located in the Town of Monroe. The southern property border adjoins Nininger Road and two smaller parcels which border Nininger Road. The property at 254 Nininger Road is a professional office building with parking. The property at 214 Nininger Road is currently used by the Village of Kiryas Joel/Town of Palm Tree for the parking of municipal garbage trucks.

1.3 List of Interested / Involved Agencies and Required Approvals

The proposed action will require Site Plan and Architectural review approval by the Town of Monroe Planning Board, which has been designated as lead agency for the required coordinated SEQRA review. The proposed action will also require a special permit for the hotel use and a local wetlands permit, from the Planning Board. The list of other approvals required to develop the proposed Project and "**Involve Agencies"** includes the following.

- HI Zoning Text Amendment (**Town of Monroe Town Board**): Specifically, the applicant has petitioned the Town Board to make the following amendments: (1) restore the maximum building height in the HI District to fifty feet (50 ft) from forty feet (40 ft.); (2) include the HI District in Section 57-47E (Method of determining off-street parking requirements) of the Zoning Code, so as to empower the Planning Board to reduce the otherwise applicable parking requirements by forty percent (40%); and (3) amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five (75%).
- Special Permit for Hotel Use (**Town of Monroe Planning Board**), whereby Article V of the Town Zoning Code applies.
- Site Plan and Architectural Approval (**Town of Monroe Planning Board**), whereby Article VI and Section 57-31 of the Town Zoning Code apply.
- Local Wetlands Permit (**Town of Monroe Planning Board**), whereby Chapter 56, Wetlands, of the Town Code applies.
- Stormwater Pollution Prevention Plan Approval (**Town of Monroe Planning Board**), whereby Section 46-12 of the Town Code, Stormwater, Soil Erosion and Sediment Control applies.
- *Potential* Area Variances for lot coverage, height, and parking and *potential variance* from Town Code Section 57-20(B)(6) related to a protective planting strip within a side yard adjacent to a residential district (**Town of Monroe Zoning Board of Appeals**).

- Highway Work Permit (**Orange County Department of Public Works**)
- Driveway Permit (**Orange County Department of Public Works**)
- Utility Permit (**Orange County Department of Public Works**)
- Orange County Sewer District No. 1 Sewer Use Permit (**Orange County Environmental Facilities and Services**)
- State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (**New York State Department of Environmental Conservation [NYSDEC], Region 3**)
- Nationwide Wetlands Permit (**U.S. Army Corps of Engineers**)
- Clearing & Grading Permit / Site Plan Approval for grading and tree clearing (**Village of Woodbury Planning Board**), whereby Section 310-45 of the Village of Woodbury Code applies.
- Water Connection to Village of Kiryas Joel/Town of Palm Tree municipal system (**Village of Kiryas Joel/Town of Palm Tree**)
- Site Plan Amendment for proposed driveway and pedestrian connections to the VMG property, grading and utility connections (**Village of Kiryas Joel/Town of Palm Tree Planning Board** [same Board for Village and Town]), whereby Section 155-21 of the Village of Kiryas Joel Zoning Law applies.

The agencies responsible for the above approvals, shown in parentheses, are identified as "Involved Agencies" pursuant to SEQRA.

"Interested Agencies" participating in review of the Proposed Action under SEQRA, include:

- New York State Department of Transportation, Region 8
- New York State Office of Parks, Recreation, and Historic Preservation (National Historic Preservation Act Section 106 Review, NYS Historic Preservation Act Section 14.09 Review, and other input as required for the SWPPP)
- NYSDEC Department of Fish & Wildlife
- NYSDEC Natural Heritage Program
- Orange County Department of Planning (General Municipal Law [GML] 239-m Referral, Review of proposed Local Law)
- Orange County Department of Public Works (GML 239-f Referral)
- Town of Monroe Building Department (Building Permit)
- Monroe Joint Fire District
- Village of Monroe
- Village of Harriman
- Monroe-Woodbury Central School District
- Village of Woodbury
- Town of Woodbury

1.4 Summary of Proposed Action and Proposed Project

1.4.1 Zoning Text Amendment, Variance, Site Plan and Special Permit Approvals

The proposed action will require Site Plan and Architectural review approval by the Town of Monroe Planning Board, which has been designated as lead agency for the required coordinated SEQRA review. The proposed action will also require a special permit for the hotel use and a local wetlands permit, from the Planning Board.

The property is located in the HI – Heavy Industry zoning district, according to the Town of Monroe Zoning Map. As part of the proposed action, the Applicant has requested from the Town Board, zoning text amendments related to building height, parking, and lot coverage. Specifically, the proposed zoning text amendments include:

1) Restore the maximum building height in the HI – Heavy Industry District to fifty feet (50 ft) from forty feet (40 ft.);
2) Include the HI District in Section 57-47E (Method of determining off-street parking requirements) of the Zoning Code, to empower the Town Planning Board to reduce the otherwise applicable parking requirements by forty percent (40%), and
3) Amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five (75%).

A copy of the Petition for Zoning Text Amendments is provided in Appendix B – Correspondence. The requested Amendments are currently under review by the Town Board.

Variances from the Town of Monroe Zoning Board of Appeals will be required, in the event that the Town Board does not adopt the proposed zoning amendments.

The proposed text amendments would affect other properties mapped in the HI zoning district in the Town of Monroe. This DEIS has evaluated the potential impacts of the proposed text amendments on other properties in HI zoning districts in the Town and this evaluation is described in Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendment. Two other undeveloped properties on Nininger Road are located in the eastern area of the HI zoning district and are shown in Figure 18-2 Properties in HI District - East (See Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendment).

1.4.2 Proposed Project

The Applicant is proposing a mixed-use commercial development in a single approximately 407,819 square foot (gross area) building with four floors. The proposed uses include a mix of retail, office uses, and a hotel. The development would include a total of 653 surface parking spaces and supporting utilities, stormwater management facilities, lighting, and landscaping. A total of 624 parking spaces will be constructed and an area with an additional 29 banked parking spaces is provided on the plans, for a total of 653 spaces. The banked parking spaces will be constructed if they are found to be necessary.

The Monroe Commons mixed-use commercial building will be approximately 407,819 square feet in size and four (4) stories in height. The square footage, as shown in the Site Plan drawings is the gross floor area and includes common areas and storage. The building will be set back from Nininger Road in the northwest portion of the site. The building is designed to fit the site's

topography and will have entrances and parking on different levels at the front (south) and rear (north) of the building.

The main building entrance area and access to the first floor will have three separate entrances for both retail and office uses. This main entrance will have a bus and taxi drop off area as well as designated handicapped parking areas. A retail entrance and access to the second floor is provided at the west side of the building. Separate entrances for hotel and office uses and access to the third floor is provided at the north side of the building, as well as associated parking for those uses.

There will be two driveway connections to the adjacent residential project known as Veyoel Moshe Gardens (VMG), a multi-family residential development that is currently under construction on the adjoining property to the west. Such a driveway connection would allow residents of VMG to access the Monroe Commons development without driving on Nininger Road, thereby relieving some project generated traffic from local roads and intersections.

Three pedestrian connections are proposed to the neighboring VMG residential development, as shown on the Site Plan drawings (see Site Plan 1 and 2). Sidewalks, six-feet in width will be provided at the lower and upper driveway connections and a third walkway near the northern building entrance. Sidewalks will allow residents of the VMG development to access the site at several points without the need for vehicles.

The Monroe Commons development will support a mix of uses in a modern, attractive building. The uses include approximately 168,690 square feet of retail space (gross area), located on the first and second floors. Potential retail tenants include a grocery store and other general retail tenants. Approximately 39,226 square feet of office space will be provided on the third floor of the building. A portion of the third floor will include a hotel with 39 rooms and lobby and meeting space. The fourth floor of the building will contain approximately 76,462 square feet of office space (gross area).

The building will have attractive modern architecture, including a varied outer façade of stone and glass with metal trim. Architectural canopies will be provided at the three building entrances as well as landscaped islands, and a clocktower is proposed at the southeast building corner (see Figures 15-8 through 15-10). Elevations of the four sides of the building are provided as full sized drawings with the Site Plan set, as well as preliminary floor plans for the building interior.

The development will be fully landscaped with street trees and native plantings, as shown in the attached Landscape Plan (see Site Plan drawings). The Landscaping Plan provides street trees along the property frontage on Nininger Road and around the two driveway entrances. Street trees and shrubs will be planted at the perimeter of the development and throughout the two main parking areas. Trees and shrubs are provided around the proposed building, especially at building entrance areas.

1.5 Purpose, Public Need and Benefits

The applicant, Monroe Nininger, LLC proposes a mixed-use retail, office and hotel building to provide needed retail, office, and hotel space for residents of the Town of Monroe, Village of Kiryas Joel/Town of Palm Tree, the Town/Village of Woodbury and surrounding communities and visitors to Monroe. The building will provide attractive retail and office space in a modern building at a location convenient to Route 17 / Route 6 and to Interstate 87, at the northern edge of the Town of Monroe. The proposed hotel will provide needed hotel rooms for visitors to the Town of

Monroe and Village of Kiryas Joel/Town of Palm Tree catering to business travelers and visitors attending weddings and special events in the community.

The proposed development will provide needed additional ratables and tax revenue to the Town of Monroe, and the various tax jurisdictions. The increase in taxes will offset the potential costs for the Town to service the site with emergency services such as police, fire and emergency medical service.

1.6 Summary of Potential Significant Adverse Impacts and Mitigation Measures

1.6.1 Land Use and Zoning

Potential Land Use Impacts

The project is consistent with the goals expressed in the County, Town and Villages' Comprehensive plans to encourage development in areas that are already developed and accessible to the locale or region intended to be served. The project is located on a major regional access road and is in the immediate vicinity of the neighborhoods it specifically seeks to serve. The mix of uses proposed are not unique for the Town, and the project is compatible with existing uses within ½ mile. Adjacency of commercial services and residential areas with linkages that encourage non-vehicular transportation also supports traffic and transportation goals to reduce congestion and GHG issues.

Location

Several of the Plans and Policies discussed in section 3.1.1 share a common land use strategy that steers development toward areas where development is already concentrated, serviced by existing infrastructure and accessible to the locale or region intended to be served. By directing growth to these areas, it is possible to protect natural and cultural resources elsewhere, as well as farmlands and habitat areas.

The Orange County Comprehensive Plan describes Priority Growth Areas (PGA's) and aligns these to the goals of the Hudson River Valley Greenway Act. The plans of the Town of Monroe and the Village of Woodbury, likewise mirror these principles. The Town of Monroe specifically supports PGA's and the Village of Woodbury seeks to promote economic growth through distinct local and regional development strategies emphasizing hotel placements in sites such as the selected location of the Project.

Transportation

The Orange County Transportation Plan highlights controlling for acceptable Levels of Service, Congestion and Air Quality and identifies specific traffic issues in the vicinity of the site, some of which have been at least partially addressed by improvements to Exit 131 from Route 17 for example. Monroe Commons is designed to accommodate bus circulation, and stops for local bus transit routes will be provided, internal to the site. The routes and schedules for bus routing will be determined in discussions with local transportation providers. The planning and accommodation for bus transit to and from the site will reduce vehicle trips and improve access to the site for individuals who may not drive.

The Project will increase traffic in the area and will employ recommended mitigations identified in the Traffic Study (Chapter 9) to keep LOS of impacted intersections within an acceptable rating

to minimize congestion issues to the maximum extent practicable. The proposed design to connect the Project site to VMG and the Village of Kiryas Joel aligns with best practices for Communities laid out in the Orange County Design Manual, by maximizing to the extent possible the ability for people to live, work, shop and recreate within walking distances. This reduces dependence on automobile and fosters social interaction.

Sustainability

The Mid-Hudson Regional Sustainability Plan highlights the need to ensure clean affordable energy, zero-waste materials management, and efficient water collection, treatment, and distribution systems. The Orange County Master Water Plan specifically highlights the need "for defining … water carrying capacities" and "to foster cooperation with municipalities including inter-connections among local systems where possible."

The Monroe Commons project acknowledges the need to plan sustainably for water supply and protect water resources.. As described in the Project Description (Section 2.0), the Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter indicating the Village's willingness to provide water service to the Monroe Commons development.

Land Use Mitigation Measures

Overall, the proposed action would be compatible with surrounding land use patterns in the vicinity of the project site. The construction of the proposed development would increase the availability of retail, office and hotel commercial space in the Town of Monroe and would serve to expand the Town tax base with additional ratables. No significant adverse impacts are expected from the proposed action on adjacent land uses.

No significant land use impacts are anticipated. In addition, the project is consistent with the goals of the Comprehensive Plans of the Town and County, and no impacts on public policy are anticipated. All necessary permits and approvals from the Town of Monroe, Orange County and other agencies will be secured prior to final site plan approval.

Potential Zoning Impacts

The Applicant has requested from the Town Board text amendments to the Town of Monroe zoning code to support the proposed mixed-use development plan. The Monroe Town Board has the responsibility to review and approve any changes to the zoning code, and a petition for the zoning text amendments were submitted in June, 2022. In summary, the following amendments have been proposed to the Town Board:

1) Restore the maximum building height in the HI – Heavy Industry District to fifty feet (50 ft) from forty feet (40 ft.);
2) Include the HI District in Section 57-47E (Method of determining off-street parking requirements) of the Zoning Code, so as to empower the Town Planning Board to reduce the otherwise applicable parking requirements by forty percent (25%), and
3) Amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five (75%).

The requested Amendments are currently under review by the Town Board. The proposed text amendments would apply to all other properties mapped in the HI zoning district in the Town of Monroe. A discussion of impacts related to the other properties is included in Section 18.

Variances from the Town of Monroe Zoning Board of Appeals will be required, in the event that the Town Board does not adopt the proposed zoning amendments.

Retail and office uses are permitted as of right in the HI zoning district. Hotels are special uses permitted subject to site plan approval and the requirements of Town Code chapter 57-13(L)(7), which requires a market analysis for a hotel. The Hotel Market Analysis is provided as Appendix K.

Section 57-49 of the Town Code provides the parking area requirements for non-residential uses, based on different uses. Section 57-47 of the Town Code provides the method of determining off-street parking requirements.

A Parking Generation Assessment was completed by the Applicant's Traffic Engineer. A summary of the Parking Generation Assessment is provided on page 25 of the Traffic Impact Study (see Appendix G). The Parking Generation Assessment examined parking rates at other similar mixed-use business centers in the Village of Kiryas Joel. Accounting for parking errors and additional space for effective parking supply, a minimum of 436 spaces (15% over weekday peak) is recommended for Monroe Commons. The full parking generation assessment can be found in Appendix E of the Traffic Impact Study.

As shown on the Site Plan drawings (attached as Appendix M), 624 parking spaces will be provided. An additional 29 spaces will be provided as banked parking at an area southeast of the building. The proposed spaces provided is 43 percent greater than the minimum spaces recommended by the Parking Generation Assessment. The Applicant proposes to landscape this banked parking area to provide for greater green and landscaped area for the development. If the additional land banked parking is needed in the future, the Applicant is committed and required by the zoning code to provide the parking.

The proposed project will be in compliance with all applicable special permit, site plan, and architectural review standards set forth by the Town of Monroe Code.

Zoning Mitigation Measures

The Applicant has requested from the Town Board text amendments to the Town of Monroe zoning code to support the proposed mixed-use development plan. The requested amendments relate to: maximum building height, minimum off-street parking spaces and maximum lot coverage. The requested Amendments are currently under review by the Town Board.

The potential impacts of the proposed amendments, and the mitigation measures related to those potential impacts are examined in this DEIS, including: parking (Section 9.0 Traffic and Transportation), building height (Section 15.0 Visual Resources and Community Character), and coverage (Section 2.0 Project Description, Section 4.0 Geology, Soils and Topography, Section 8.0 Stormwater Management).

The proposed text amendments would apply to all other properties mapped in the HI zoning district in the Town of Monroe. A discussion and analysis of impacts related to the other properties are included in Section 18 - Potential Impacts of Proposed HI Zoning Text Amendment. The

potential impacts of the proposed text amendments to other properties in the HI zoning district are limited by existing development and the limited size of other properties in the HI district.

No significant adverse impacts are expected from the proposed action to Town of Monroe zoning, or the effects from the proposed zoning amendments, and no mitigation measures are proposed.

1.6.2 Geology, Soils and Topography

A *Geotechnical Investigation Report* completed by Kevin Patton, P.E. provides detailed information regarding the geology, soils and topography on the property and the edges of the site on adjacent properties. The *Geotechnical Investigation Report* is provided as Appendix D.

Test pits were excavated in nineteen (19) locations on January 30 through February 1, 2023, using a mid-size tracked excavator. Most of the test pits were in proposed stormwater areas; standpipe piezometers ('monitoring wells') were installed in these test pits, and stormwater infiltration tests were performed in separate test pits, per Appendix D of the NYSDEC Stormwater Design Manual. Fourteen (14) soil borings were drilled on February 9, 10, 13 and 14, 2023. Borings were drilled by the hollow-stem auger method, using a track-mounted drill rig. All work was performed under the direction of Kevin Patton, P.E. The *Geotechnical Investigation Report* provides maps and charts with test pit and soil boring locations as well as soil boring logs and soil testing data.

Potential Geology, Soils and Topography Impacts

Geology and Bedrock

Given that bedrock was encountered at 80 feet in depth by an exploratory water supply well, bedrock is not expected to be encountered during grading. Bedrock outcrops were not observed on the project site. A single exploratory bedrock water supply well was drilled on-site in January, 2019. The well drilled in the central portion of the site encountered bedrock at 80 feet in depth. Above the bedrock was approximately 30 feet of sand and gravel and boulders followed by hardpan to weathered bedrock.

Soils

The borings and the test pits completed for the *Geotechnical Investigation Report* indicate that bedrock is probably deeper than the required excavation depths throughout the building area, however boulders in the soil resulted in limited data from the borings to confirm this conclusion. The geotechnical engineer recommends that prior to construction, one or more trial excavations (enlarged test pits,) including one near boring B11, should be made to verify that rock is deep.

The project site will be improved with a four-story building, parking areas, driveways, and landscaping. Grading is required to construct the internal driveway network, parking areas, install site utilities, prepare level areas for the commercial building, and to create a stormwater management system.

Based upon engineering estimates, development of the Site Plan would involve a **cut** of approximately 143,317 cubic yards of material and a **fill** of approximately 151,837 cubic yards for a net fill of 8,520 cubic yards of material to be imported to the site. The cut material will be utilized on-site, but additional material will require import to achieve designed grades across the site.

The limits of grading and vegetation removal area shown on the attached Grading Plan, in the Site Plan Drawings. Total disturbance for construction will involve 17.7 acres in total, including 15.2 acres in the Town of Monroe and 2.5 acres in the Village of Woodbury. Heavy equipment will be required to move soil in all areas to be graded and will not be used in undisturbed portions of the site, including undisturbed areas of wetland. Construction fencing will demarcate areas not to be disturbed by equipment. A Site Plan review and approval will be required from the Village of Woodbury Planning Board and that Board is an Involved Agency in the SEQRA review process.

The two proposed driveway connections and a pedestrian walkway connecting the Monroe Commons development to the adjacent Veyoel Moshe Gardens (VMG) development property will require grading in the Village of Kriyas Joel / Town of Palm Tree. Modifications to the site grading plan resulting from the driveways was limited to the immediate vicinity of the driveways along the western property boundary.

Stormwater Control Areas

The *Geotechnical Investigation Report* describes the excavation of test pits and the completion of infiltration tests in those locations, for the design of the Stormwater Management system. Test pits were excavated in four proposed stormwater control areas for infiltration systems to be installed under the pavement; referred to here as the northwest, northeast, southeast and southwest controls. Standpipe piezometers (monitoring wells) were installed at representative locations and infiltration tests for proposed stormwater controls were performed per NYSDEC Design Manual Appendix D, where conditions were acceptable.

Potential Soil Erosion

As a result of soil disturbance and vegetation removal, there is an increased potential for siltation to occur both on-site affecting on-site and in areas downgradient of the subject site. The control of stormwater runoff during construction will be important to minimize construction related soil erosion and sediment impacts especially downstream of the project site and to prevent any erosion to off-site properties. With proper construction, installation and maintenance, soil erosion control measures will minimize potential on-site and off-site impacts. The Soil Erosion Control Plan, provided with the Site Plan drawings was designed to comply with NYSDEC requirements, as well as Town Code Chapter 44 - Soil and Sediment Control.

Proposed Geology, Soils and Topography Mitigation Measures

The greatest potential impact associated with this project relative to site construction operations would be from erosion and sedimentation during construction. A Stormwater Pollution Prevention Plan (SWPPP) has been prepared by the project engineer and is attached as Appendix F. The SWPPP and accompanying project plans identify erosion and sediment control measures to be implemented during and after construction to minimize potential sediment and erosion impacts. The SWPPP addresses the proposed grading on the adjacent property located in the Village of Woodbury.

The primary objective of the plan is to reduce soil erosion from areas exposed during construction and prevent silt from reaching the on-site wetland areas and off-site site water bodies and areas downstream. All soil erosion and sediment control practices would be designed and installed in accordance with "best management practices" or "BMPs" recommended by the New York State Department of Environmental Conservation and integrated into the SWPPP. In adherence to the

project specific SWPPP construction stormwater will be maintained on-site to prevent off-site discharge.

Excavation and Building Construction Techniques

The *Geotechnical Investigation Report* provides detailed site specific construction recommendations. These recommendations primarily relate to the excavation for the building and the preparation of the subgrade for the building foundation.

Materials Management

The current grading plan provides for an essentially balanced site with potentially 434 cubic yards of soil to be imported. The soil will be transported to the site following all NY State requirements for materials transport. The gravel subgrade for the foundation and for paved areas will be compacted according to standard construction procedures.

Construction activities on the project site may generate airborne or fugitive dust during ground clearing and excavation activities. Throughout the construction period, passage of delivery trucks and other vehicles could also generate fugitive dust. On-site mitigation measures are proposed as part of the project during construction to limit the dispersal of dust. Construction mitigation measures are further described in Section 17.0 Construction.

1.6.3 Wetlands and Surface Water Resources

Potential Wetlands and Surface Water Impacts

According to the draft Nationwide US Army Corps permit for wetlands disturbance, 0.49 acres of Palustine wetland will be disturbed. As shown on the Preliminary Grading Plan, wetlands disturbance will occur primarily in the northwest portion of the site for the construction of the western parking lot and internal driveways. These wetlands include drainage channels and topographic low areas that drain towards the south and the larger wetland area and pond in the southern portion of the site. The large contiguous wetland area and pond will generally be avoided, by the construction of retaining walls at the northern and eastern edge of this wetland. All of the proposed wetland encroachment, consisting of 0.49 acres will be permanent, and off-set by the proposed on-site wetland mitigation.

As described, the proposed wetland disturbance will require a Nationwide #39 Permit from the US Army Corps of Engineers. The Joint Application will require review and a 401 Water Quality Certification from the NYSDEC. The proposed disturbance will require a wetland permit and conformance with all requirements of the Town of Monroe's Wetlands Ordinance (Chapter 56 of the Town Code).

Disturbance to the Palustrine wetland in the northern portion of the site are minimized to the extent practical to construct necessary access into the site and provide parking for the proposed commercial building.

Surface water drainage to the wetland area in the southern portion of the site will be altered by the development. As described in the Section 8.0 Stormwater Management, stormwater from impervious surface will be directed to two surface infiltration basins and two subsurface stormwater detention/infiltration chambers. Stormwater will continue to recharge the wetland area

on-site through infiltration near the wetland. The two infiltration basins are located within 50 to 60 feet of the wetland mitigation area and will continue to provide baseflow to the wetland. Overflow from the two infiltration basins will be piped to two locations at the edge of the pond. The southwestern basin will discharge between two existing intermittent stream channels. The northeastern basin, which collects drainage from the hillside at the northeastern portion of the site, will discharge to a location at the northeast side of the pond (see Utility Plan 4). Two subsurface stormwater chambers are also proposed to be located within approximately 50 feet of the wetland providing shallow groundwater contribution to the wetland.

Wetland Mitigation

The application to the US Army Corps of Engineers (ACOE) for a Nationwide permit explains that the project minimized, to the extent practical, the disturbance to and filling of 0.49 acres of Palustrine Forested/Emergent Wetland on the site. The wetlands consisting of intermittent stream channels cross from northwest to southeast through the site, limiting potential development. There is no option to avoid or further minimize direct impacts to the wetlands to develop the property. A Wetland Mitigation Plan has been developed to mitigate for the direct wetland impact.

The proposed Wetland Mitigation Plan provides the proposed on-site wetland mitigation areas. Five areas contiguous to the existing southern wetland will be graded to increase the area of the existing wetland and will be planted with native species of wetland vegetation. The total area of proposed wetland mitigation is 39,374 square feet or 0.9 acres.

Potential Development Impacts to Stormwater

The development of an undeveloped parcel and the creation of impervious surfaces, including parking areas, roofs, sidewalks etc., has the potential to add nutrients and other contaminants to the stormwater generated from the site. Specifically, nitrogen phosphorus, BOD and metals contamination are potential impacts if not appropriately captured and treated before discharge off site. Currently, water quality in the intermittent stream and in the pond is consistent with the NYSDEC and NYCDEP water quality guidance standards for Watershed streams. The goal of the proposed stormwater management practices is to maintain water quality for both on-site surface water resources (the wetland pond) and for downstream off-site surface water resources.

The SWPPP provides a plan to capture and treat all storm related runoff, and meets the requirements of the State's Stormwater General Permit. No potential impacts to off-site waterbodies are expected.

Proposed Wetlands and Surface Water Mitigation Measures

The proposed wetland disturbance will occur primarily in the northwest portion of the site for the construction of the western parking lot and internal driveways. These wetlands include drainage channels and topographic low areas that drain towards the south and the larger wetland area and pond in the southern portion of the site. The large contiguous wetland area and pond will generally be avoided, by the construction of retaining walls at the northern and eastern edge of this wetland. Disturbance to the Palustrine wetland in the northern portion of the site are minimized to the extent practical to construct necessary access into the site and provide parking for the proposed commercial building.

The SWPPP prepared for the development provides stormwater detention and treatment for run-off from the impervious surface introduced into the site. Stormwater will be directed to infiltration

basins and underground infiltration chambers. The SWPPP is designed to meet NYSDEC requirements for long-term stormwater management for the development, including maintenance requirements. As indicated in the Site Plans, no stormwater will be directly discharged to the existing wetland but directed to infiltration basins or chambers. Infiltration of stormwater will maintain water quality in the on-site wetland area and for off-site downstream water courses. Given the results of the water quality testing, no additional post-development water quality testing or other monitoring measures appear warranted.

The Wetland Mitigation Plan provides a robust area of wetland planting and enhancement, that over time will improve the existing wetland area and functions. The expansion and enhancement of the wetland area is feasible given the existing layout, topography and soils in the area proposed for mitigation. A cumulative total of 780 shrubs and 200 trees are proposed to be planted in the Wetland Mitigation area. The wetland mitigation area will provide the functions of the existing wetland including, flood attenuation, sediment stabilization, nutrient removal, groundwater recharge, and wildlife habitat.

1.6.4 Groundwater Resources

Potential Groundwater Resources Impacts

The Applicant is pursuing an alternative source of water for the development from the Village of Kiryas Joel / Town of Palm Tree municipal water system, given the apparent limited groundwater resources on the property and well constraints related to lot area and on-site wetlands. The Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter, whereby the Village has agreed to supply water for the Monroe Commons project at the required level, and expressing the Village's willingness to approve the connection. The potential impacts to local groundwater resources from the development would be reduced by utilizing municipal water, as compared to onsite wells. Therefore, the project as proposed, will not draw on local groundwater resources and will not potentially influence groundwater supplies available for other local water supply wells.

Following development, stormwater from impervious surface will be directed to stormwater management facilities and allowed to infiltrate into one-site soils and unconsolidated material above the bedrock aquifer. Stormwater will be directed to either infiltration basins or to underground storage chambers and allowed to infiltrate to groundwater resources. Therefore, the project is not expected to substantially reduce the overall groundwater recharge volume that currently occurs on-site.

Pesticides will not be used on a regular basis for landscape maintenance and will only be used for specific infestations of insects or plant blight, on a limited basis. De-icing materials along with routing snow plowing will be used for vehicle and pedestrian safety. The proposed stormwater management facilities include infiltration practices designed to treat driveway and parking lot run-off.

Petroleum Leaks and Spills

Petroleum leaks and spills have the potential to impact both surface water and groundwater (aquifer) resources. The Monroe Commons development does not propose to use underground or aboveground petroleum storage tanks and therefore, petroleum leaks and spills are limited to cars and trucks accessing the property.

Petroleum leaks or spills from vehicles typically occur during vehicle accidents where fuel storage tanks are damaged. These spills would be responded to by emergency service responders

including The Town of Monroe Fire Department and the spill would be contained to the pavement to the extent possible. The stormwater run-off from pavement, including minor drips and leaks of petroleum from vehicles would be treated in the proposed stormwater management facilities, which are designed to treat this run-off. The proposed development is not expected to increase the risk to local aquifers from petroleum leaks and spills.

A commercial well database shows one well within one-quarter mile of the site and three others within one-half mile. A well completion report filed with the NYSDEC was obtained for the adjacent Brach and Mann office building water supply well. The well log indicates the well construction including steel casing and grouting from the surface to solid rock at 235 feet in depth. The proposed mixed-use development is not expected to impact the local shallow or bedrock aquifers' water quality. Given the construction of the Brach and Mann well to NYSDEC standards, the proposed development is not expected to impact the water quality for that well.

Proposed Groundwater Resources Mitigation Measures

The proposed Monroe Commons development will not withdraw groundwater for potable water supply, but will utilize the municipal water supply from the Village of Kiryas Joel/Town of Palm Tree.

Following development, stormwater from impervious surface will be directed to stormwater management facilities and allowed to infiltrate into one-site soils and unconsolidated material above the bedrock aquifer. Stormwater will be directed to either infiltration basins or to underground storage chambers and allowed to infiltrate to groundwater resources.

No petroleum or hazardous materials will be stored in the proposed commercial building, with the potential to impact the underlying shallow or bedrock aquifers. The proposed stormwater **management** facilities for the proposed mixed-use commercial building and parking areas are designed to treat the stormwater run-off from new pavement, including minor leaks of petroleum from vehicles onto pavement.

The applicant proposes to access potable water from the Village of Kiryas Joel / Town of Palm Tree. Groundwater is not proposed as a potable water supply source for the development. Given that the well is no longer proposed for use, characterizing groundwater water quality at the site is no longer relevant to public health and safety (Surface water sampling is discussed in Section 5.0 Wetlands and Surface Water). Moreover, as explained above, the proposed development is not expected to impact the water quality of the Brach and Mann well.

No further groundwater mitigation measures are required or proposed for the planned commercial development.

1.6.5 Vegetation and Wildlife

As required for compliance with the State Environmental Quality Review Act (SEQRA) process by the Village of Monroe, an ecological assessment was completed to determine if habitats conducive to the existence of state and/or federally-listed Endangered, Threatened and/or Rare (ETR) species of flora and fauna exist on the subject property. North Country Ecological Services, Inc. (NCES) was retained by the Applicant to assess the property for the presence of individual ETR species and/or other significant ecological communities, as identified by direct consultation with the New York State Department of Environmental Conservation (DEC) Natural Heritage Office (NHO) and the United States Fish and Wildlife Service (USFWS).

Potential Vegetation and Wildlife Impacts

The project will result in the clearing and grading of a total of 17.7 acres, on both the Monroe and Woodbury parcels with a total area of 30.5 acres or 58 percent of the entire site. By clustering the development, the remaining portions of the Site (12.8± acres or 42%) will remain undisturbed.

The proposed development has also been designed to avoid the on-site aquatic resources as much as possible. However, complete avoidance of the aquatic resources was infeasible, as the wetland area extends through the entire parcel, thus essentially bisecting the Site. In order to access all developable components of the property, crossing the wetlands was required. Based on the site plan, a total of 0.49± acres of permanent impact to the on-site wetlands are proposed by the project. The project will include grading and planting for the creation of 0.9 acres of wetland mitigation area.

The overall Project Area and the extent of the permanent and temporary impacts to the existing ecological communities are shown on Grading Plan. The Grading Plan provides a limits of disturbance line and essentially all vegetation within the disturbance limits line will be removed. Vegetation outside of the disturbance line will be preserved, including in the wetland area in the southwest portion of the site and in the wooded hillside in the northeast portion of the site. The *Existing Tree Survey* drawing shows the limits of disturbance and provides a list of those trees to be removed and trees to be preserved.

The proposed development will alter the wetland buffer around the existing pond and the stormwater drainage that reaches the pond through overland flow, as well as shallow groundwater recharge. As described below, a Wetland Mitigation Plan is proposed to enhance the wetland edge vegetation and habitat. Stormwater from developed portions of the site will continue to discharge to the pond wetland area through shallow groundwater flow from stormwater infiltration structures and overflow from the two infiltration basins to the east and northwest of the pond wetlands.

The on-site wetlands and wetland vegetation will be altered by the development, including the buffer. A proposed Wetland Mitigation Plan is proposed that will include extensive planting in the buffer area surrounding the existing pond.

The impacts to the existing ecological communities will result in the displacement of nearly all indigenous fauna. With the development proposed, nearly the entire Site will be transformed from undeveloped forested land to impervious surface associated with the commercial building and/or asphalt parking areas. With the exception of the open water pond community and areas of abutting Palustrine wetland, all other habitats found within the Site will be largely eliminated. The elimination of these habitats will prohibit the continued usage of the Site by the majority of the indigenous species of fauna that were documented on the property. The remaining habitat in the southeast portion of the site will be changed to a lower quality suburban habitat, adjoining the development.

Wildlife that currently inhabit or utilize the site will be required to relocate to adjacent, undeveloped forested uplands that are located to the north and south of the property. Nininger Road and the four-lane NY Route 17 highway separates the site from undeveloped wooded land to the south.

The development will also result in the loss of habitat that has been identified as potentially suitable for two state and federally listed species; the Indiana Bat and the Northern Long-eared Bat. The Northern Long-eared Bat was recently upgraded to endangered by the USFWS. A total

of 17.2± acres of forested land that provides both potential roosting and foraging habitat for Indiana and Northern Long-eared bats will be eliminated. This includes approximately 14.9 acres in the Town of Monroe and 2.5 acres of woods in the Village of Woodbury.

Proposed Vegetation and Wildlife Mitigation Measures

To eliminate the potential for direct harm to listed bat species, the Applicant is willing to comply with the time-of-year restrictions relative to the clearing of forested habitats on the Site. As is standard DEC and USFWS directive when potential summer roosting habitat for listed bats is present, a time-of-year restriction would likely be required to be implemented by the regulatory agencies, whereas any tree clearing activities would be restricted to occur between October 1 and March 31 of any given year. This is the duration of the year when bats are not located within summer habitats, and therefore, would not be subject to direct impact by the removal of trees.

By felling trees during winter months, protected bat species are not present (they are confined to overwintering hibernacula's) and thus cannot be impacted by tree clearing activities. As a result, direct harm to individual bats is eliminated and a separate Article 11 incidental take permit is not required. In complying with the time-of-year restriction, it has been determined that direct impact to both *Indiana* and *Northern Long-eared Bats* would likely be avoided and no further mitigative measures or coordination with the regulatory agencies are required.

As currently designed, the commercial building and associated attendant features have been "clustered" to the greatest extent practicable, thus limiting the overall footprint of the development. The project will result in the clearing and grading of a total of 17.7 acres, on both the Monroe and Woodbury parcels with a total area of 30.5 acres or 58 percent of the entire site. By clustering the development, the remaining portions of the Site (12.8± acres or 42%) will remain undisturbed. The applicant has no plans to develop the adjoining property in the Town of Woodbury.

The proposed development includes a *Landscape Plan* that will include the planting of native and ornamental deciduous and evergreen trees and shrubs, grasses, and perennial plants. The *Landscape Plan* (sheets 26-28) is included in the Site Plan set (attached as Appendix M). The *Landscape Plan* provides tables of the trees to be removed and the trees to be planted, as well as a schedule of other plantings. Extensive planting will be provided at the proposed building entrances, at the south side of the building, in addition to the landscaping in and at the edges of the parking lot. The proposed project landscaping will provide food and cover for local and transient bird species.

The Wetland Mitigation Plan provides a robust area of wetland planting and enhancement, that over time will improve the existing wetland area and functions. A cumulative total of 780 shrubs and 200 trees are proposed to be planted in the Wetland Mitigation area as well as native grasses. The wetland mitigation area will provide the functions of the existing wetland including, flood attenuation, sediment stabilization, nutrient removal, groundwater recharge, and wildlife habitat for birds, small mammals and the amphibians that currently utilize the area. As part of the wetland mitigation planting, any invasive species encountered in the wetland mitigation area will be removed from the site. Routine follow-up inspections of the Wetland Mitigation area are required to ensure the health and vitality of the planted material. During those inspections, any invasive species encountered will be removed.

1.6.6 Stormwater Management

Potential Stormwater Management Impacts

The existing site and adjacent areas that drain through the site include 1.77 acres of impervious surfaces; the proposed development would increase this area by 10.65 acres, for a total of 12.42 acres.

If stormwater management practices and erosion control plans are not included in the development of a project there is significant potential for impacts to onsite and downstream receiving waters and wetlands. With increases in impervious surfaces, stormwater runoff volumes and flow rates also increase. These increases can result in flooding of downstream areas, scouring of existing channels due to the increased rate of flow and eroding of existing infrastructure. Impervious surfaces also contribute to increases in nutrient, sediment and other contaminant loading into receiving streams and wetlands. This may result in degradation of water quality and habitat value.

Erosion from exposed soil surfaces in the watershed under development can contribute silts and sediment loading to waterbodies and streams, altering water chemistry and light penetration, and reduce the capacity of ponds and wetlands areas to store floodwaters in larger storms. When used for roads and parking areas, impervious surfaces may contribute automotive chemicals, metals and salt to receiving waters if not properly captured and treated. The stormwater quantity and quality control measures provided in the SWPPP prevent and minimize the potential impacts to stormwater resulting from the development.

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the site development, and includes a drainage study as well as a maintenance program to inspect, repair, and clean out proposed stormwater management facilities on an ongoing basis. The post-development site watersheds have been divided into 10 subcatchments as described in the SWPPP.

The stormwater water quality and runoff reduction for this project has been designed in accordance with the New York State Department of Environmental Conservation Stormwater Management Design Manual (SMDM) of January 2015. The five-step planning process outlined in the SMDM has been incorporated in the design of this project. These five steps include:

1. Site planning to preserve natural features and reduce impervious cover.
2. Calculation of the Water Quality Volume for the site.
3. Incorporation of Runoff Reduction Techniques and Standard SMPs with Runoff Reduction Volume (RRv) capacity.
4. Use of Standard SMPs, where applicable, to treat the portion of Water Quality Volume not addressed by runoff reduction techniques and Standard SMPs with RRv capacity.
5. Design of volume and peak rate control practices where required.

Step one of the planning process includes the preservation of natural features and reduction of impervious covers. This goal has been accomplished by revising the project layout to maintain the natural wooded area in the southeast portion of the Town of Monroe parcel. The project proposes to reduce the provided parking to the anticipated parking needs of the project uses with a Planning Board waiver of 40 percent of the required parking, and banking an additional 29 spaces for future construction, if required. The majority of the project improvements are located in uplands, maintaining the large pocket of Federally Regulated wetlands located in the southern corner of the Town of Monroe parcel. A federal wetland disturbance of 0.49 acres is proposed to

be mitigated by expanding the preserved larger pocket of federally regulated wetlands with a 1 to 1.8 disturbance to mitigation ratio.

Step two of the planning process is to calculate the Water Quality Volume (WQv) required for the project site using the criteria in Chapter 4 of the Stormwater Management Design Manual (SMDM). The required Water Quality Volume calculated for this project is 1.239 acre-feet.

Step three of the process involves Runoff Reduction by incorporating the Runoff Reduction Techniques and Standard SMPs with RRv capacity outlined in the SMDM. The goal of this step is to reduce the total required Water Quality Volume (WQv) by applying the RRv techniques and standard SMPs with RRv capacity to the project design. The Incorporation of Runoff Reduction Techniques by way of two (2) Standard SMPs with Runoff Reduction Volume (RRv) capacity, underground infiltration units, have been utilized to provide the appropriate Runoff Reduction of the required Water Quality Volume for this project.

Proposed Stormwater Management Mitigation Measures

Various measures have been incorporated into project plans which are intended to offset potential impacts to surface water resources. These relate specifically to the temporary mitigation practices during construction period and to the constructed project elements as long-term mitigation, incorporated into the following:

1. Stormwater quantity and quality control measures designed in accordance with the *NYS Stormwater Design Manual* so as to appropriately manage stormwater in the built project. These measures are specified in the project-specific Stormwater Management Plan.

2. Erosion control measures appropriate to the proposed construction activities shall be specified in accordance with the *NY Standards and Specifications for Erosion and Sediment Control* so as to minimize erosion during the construction phase.

Runoff Reduction Techniques by way of two (2) Standard SMPs with Runoff Reduction Volume (RRv) capacity, underground infiltration units, have been utilized to provide the appropriate Runoff Reduction of the required Water Quality Volume for this project. The stormwater management practices have been designed in accordance with the requirements of the NYS Stormwater Design Manual and are described above.

One of the goals of the drainage design for this project is to ensure that there are no adverse impacts to downstream areas. To meet this goal, two (2) Standard SMPs with Runoff Reduction Volume (RRv) capacity, underground infiltration units, and two (2) dry detention ponds will be utilized to treat stormwater runoff and provide peak flow attenuation for the affected design point studied for the project. A HydroCAD TR-20 analysis was performed for both the existing and proposed conditions for the Channel Protection (1 year), Overbank Flood (10 year), and Extreme Storm (100 year) storm events to ensure that no adverse impacts will occur to downstream areas.

Each of these stormwater practices have been designed with overflow outlet pipes, set above the peak water elevation of the Channel Protection Storm, which allows the practices to utilize the excess storage in each practice to provide some stormwater attenuation prior to releasing the Overbank Flood and Extreme Storm events.

The proposed peak flow runoff from the project site has been mitigated to ensure that no adverse impacts will occur at the design points studied due to the proposed project's construction.

Sedimentation and Erosion Control

Full pollution prevention measures are to be implemented and maintained throughout the construction of the project to minimize the discharge of pollutants and prevent a violation of the water quality standards.

Structural sediment and erosion control features include: the construction of temporary swales, earthen dikes and use of temporary sediment basins for control of stormwater. Temporary construction accesses will be provided, and a sequencing plan that includes the use of silt fence, inlet protection, temporary soil stockpiles and other practices is described in the SWPPP. At the conclusion of construction, the sediment basins will be cleaned and all sediment will be properly disposed.

The discharge of pollutants is to be minimized from equipment and vehicle washing, wheel wash water, and other wash waters that use clean water only, by ensuring that the wash water runoff enters the designed sedimentation traps via the temporary swales and drainage system utilized in the erosion and sediment control design.

To help protect groundwater quality and recharge, the underground infiltration system described above will be used to effectively discharge all runoff up to and in excess of the water quality volume (WQv) into the ground. Flows in excess of this volume will be detained within the system to reduce the offsite flow rate and then be discharged to the same design points as pre-development. These runoff volumes from the higher intensity storms will be pre-treated and therefore flow offsite as clean surface runoff.

Stormwater drainage from the site during construction will be strictly managed to avoid off-site impacts. A key aspect in the maintenance of stormwater quality and the control of soil erosion is the proper sequencing of construction. All structural sediment and erosion control features will be installed prior to the commencement of grading and earthwork.

1.6.7 Traffic and Transportation

Potential Traffic and Transportation Impacts

Trip Generation

Trip generation determines the quantity of traffic expected to travel to or from the project site. The Institute of Transportation Engineers (ITE) Trip Generation, 11th edition, is the industry standard used for estimating trip generation for proposed land uses. However, the Kiryas Joel community has several unique transportation characteristics, which are not reflected in the ITE data. To account for this, local trip generation data was collected at two business centers which are similar in character to the Monroe Commons project. Specifically, driveway counts were conducted at the approximate 112,200 SF business center located at 51 Forest Road, and the approximate 140,000 SF business center located at 48-52 Bakertown Road. The entering and exiting traffic volumes were then used to calculate peak hour vehicle trip generation rates in terms of trips per 1,000 square-feet (KSF) for each of the two business centers.

Due to the variance in local trip generation rates observed and per the final scoping document, peak hour trip generation estimates were prepared for the proposed Monroe Commons project using the ITE Land Use Codes (LUC).

Based on the ITE data shown above, the proposed development will generate a total of 734 new vehicle trips during the AM peak hour, 975 new vehicle trips during the PM peak hour, and 624 new vehicle trips during the Sunday peak hour. The ITE trip rate equates to 4.28 trips per KSF in the AM peak hour, 7.17 trips per KSF during the PM peak hour, 4.60 trips per KSF during the Sunday peak hour. As shown above, the ITE trip generation rates are generally comparable to the average of the trip rates found from the local business center data collection for the Sunday peak hour, but are 35% and 79% higher during the AM and PM peak hours, thus providing a very conservative estimate. Further, the ITE rates do not account for the unique travel characteristics of the Kiryas Joel/Palm Tree community; the local data accounts for person walking trips (not driving), further confirming the ITE rates as conservative. In addition, the project is on a KJ transit line which will help reduce the vehicle traffic generation of the site.

Trip Distribution

Trip distribution describes where traffic originates or where traffic is destined. Traffic generated by the proposed project was distributed based on existing travel patterns and probable travel routes of residents to and from the site. In general, it is expected that approximately 10% of the site generated traffic will travel to and from the south on CR 105 while 50% travels to and from the north on CR 105; however 15% cuts through the VMG site via a cross connection between the projects. Likewise, 25% is anticipated to travel to and from the south on NY Route 32 while 5% travels to and from the north on NY Route 32 with the remaining 10% traveling to the north on Dunderberg Road (CR 95).

2024 Build Traffic Volumes

The results of the site generated trip assignment of the proposed project was added to the 2024 No-Build traffic volumes to develop the 2024 Build traffic volumes.

The relative impact of the proposed project can be determined by comparing the level of service during the design years for the No-Build and Build traffic volume conditions. Table 9-5 and 9-6 generally represent existing and future conditions without improvements, the exception being the Nininger Road/Dunderberg Road intersection and the CR 105/Bakertown Road/Austra Parkway intersection. The analysis of the Woodbury Junction project and the VMG project indicated the construction of a southbound right turn lane on Dunderberg Road, widening Nininger Road for an eastbound left turn lane, and the installation of a traffic signal at completion of those projects. The VMG project is also responsible for adding turning lanes and a traffic signal at the CR 105/Bakertown Road/Austra Parkway intersection; therefore, those improvements are included in the 2024 No-build and subsequent analysis conditions.

School Impacts

The project's potential impact to neighboring school operations, specifically the Monroe / Woodbury School District campus at Nininger Road and Dunderburg Road, are generally limited to the presence of additional traffic, which is mitigated with the implementation of intersection improvements. As provided in Table 9-10 above, the Dunderburg Road / CR 64 (Nininger Road) intersection will operate at a LOS C in the a.m. peak period and LOS B in the p.m. and Sunday

peak periods. It is anticipated that the peak periods for shopping at the Monroe Commons development will not coincide with the middle school and high school start and dismissal times which range from approximately 6:45 a.m. to 8:00 a.m in the morning and 2:00 to 3:00 p.m. in the afternoon. The project will not generate any additional traffic to/from the school.

On-site Vehicle Circulation

As described, the Monroe Commons development will have two driveways on Nininger Road, a northern and a southern driveway, approximately 400 feet apart. The southern driveway will be the main driveway with right and left turn exits lanes. The southern driveway will provide access to the western parking lot and will circulate around the building to the upper (eastern) parking lot. Delivery vehicles will primarily use the main southern driveway which provides access to the loading area. The southern access drive also provides access to the main first floor retail entrance and a vehicle drop-off / pick-up area at that entrance.

Two driveway connections will be provided to the adjoining Veyoel Moshe Gardens (VMG) residential development to the north. The lower (western) driveway connection is located near the Brach and Mann office building and the upper (eastern) driveway provides access to the upper hotel / office parking area. Sidewalks will be provided at these driveways for pedestrian access to and from Monroe Commons.

Truck turning diagrams for buses, fire trucks, and 53-foot delivery trucks (WB-67) movements through the site are shown in the attached Turning Movement Diagrams.

Transit, Pedestrian, and Bicycle Modes

There are no known changes to the transit, pedestrian, and bicycle facilities adjacent to the project as a result of other projects. However, the VMG project will be building a pedestrian bridge across CR 105 at the Bakertown Road intersection. The Monroe Commons project is expected to generate a substantial amount of person trips to the facility from the surrounding neighborhood. As such, pedestrian connections are provided to the adjacent VMG project which will allow residents to walk between the project and other points in the Village. Sidewalks will be provided at three locations between Monroe Commons and the adjoining VMG residential development: two at the upper and lower driveways and a third at the northwest corner of the building accessing the northern building entrance

Transit accommodations are also provided on site to accommodate any KJ/PT transit needs. The Potential Bus Routing Plan in Figure 9-3 shows potential transit routes into and through the Monroe Commons site for New York City buses, Village of Kiryas Joel buses and Village Transit buses. Two potential bus stop/ shelter areas are shown on the Figure, but bus routing and stopping locations will require coordination with the transit operators. The Applicant will consult with transit operators in KJ/PT and Town of Monroe to potentially provide regular service to Monroe Commons for patrons and workers.

Parking Generation Assessment

Section 57-49 of the Town Code provides the parking area requirements for non-residential uses, based on different uses. The project engineer calculated the required parking spaces based upon the uses (retail, office, and hotel), and the proposed building square footage and number of hotel rooms. A total of 1,088 parking spaces are required by Town Code requirements.

A parking generation assessment was conducted for Monroe Commons, a mixed-use commercial building similar to other business centers in the Village of Kiryas Joel. Existing parking counts at the 51 Forest and 48-52 Bakertown business centers were conducted to calculate comparable parking demand rates that can be applied to Monroe Commons. It was found that the average peak period parking demand rates at the two business centers were 2.03 spaces/KSF during a typical weekday and 1.77 spaces/KSF on a Sunday. This equates to a projected peak parking demand of 379 vehicles during a typical weekday and 331 vehicles on a Sunday at the Monroe Commons project. Accounting for parking errors and additional space for effective parking supply, a minimum of 436 spaces (15% over weekday peak) is recommended for Monroe Commons.

As shown on the Site Plan drawings, 624 parking spaces will be provided. An additional 29 spaces will be provided as banked parking at an area southeast of the building. The number of proposed spaces is 43 percent greater than the minimum spaces recommended by the Parking Generation Assessment. The applicant proposes an additional 29 banked parking spaces and the location of those spaces at the south east side of the building is shown on the plans. The Applicant proposes to landscape this banked parking area to provide for greater green and landscaped area for the development. If the additional land banked parking is needed in the future, the Applicant is committed and required by the zoning code to provide the parking.

Parking and Road Maintenance

The Monroe Commons property owner will be responsible for the long-term maintenance of the internal driveways, parking lots and sidewalks. This maintenance includes winter site maintenance and the removal of snow and ice from driveways, parking areas and sidewalks for on-site visitor safety. Two proposed snow storage areas are shown on Site Plan 1near the northern driveway.

Traffic Conclusions, Recommendations and Mitigation Measures

The following summary of conclusions and recommendations are offered:

1. Based on ITE data and accounting for pass-by trips, the proposed project is estimated to generate a total of 734 new vehicle trips in the AM peak hour, 975 new vehicle trips during the PM peak hour and 624 new vehicle trips in the Sunday peak hour upon full build out. These estimates are conservative given the unique characteristics of the community and the project's access to pedestrian and transit services.

2. A sight distance analysis indicated that all intersection and stopping sight distance measurements at the two proposed sight driveways were met for a 60-mph operating vehicle speed, with the exception of the distance looking right for a vehicle making a left turn out of the west site driveway and the stopping sight distance for vehicles traveling eastbound on CR 64 for the west site driveway. Potential mitigation options include widening Nininger Road to provide a center left turn lane to allow stopped vehicles waiting to turn left to not impede through traffic. A "no left turn" restriction out of the west site driveway could also be implemented, and left turns out of the site can be accommodated by the east site driveway, particularly if a traffic signal is provided.

3. At the CR 105/Bakertown Road/Austra Pkwy intersection, there will be a significant increase in traffic resulting from other developments and additional delay increases as a result of the proposed project. Development of a new connector road between Daj

Boulevard and CR 105 at Nininger Road is recommended to increase the points of access to and from the village. After the implementation of the connector road and geometry at the intersection, it improves to LOS C during the AM peak hour, LOS C during the PM peak hour, and LOS B during the Sunday peak hour.

4. The CR 105/CR 64 (Nininger Road) intersection experiences significant increases in delays as part of background traffic growth, which will continue to worsen with the proposed project. With the Daj Boulevard connector and geometry improvements, traffic will be more distributed to and from the village and the intersection improves to LOS C in the AM peak hour and LOS D in the PM and Sunday peak hours.

5. The CR 105/Spring St (CR 105)/Day Care Center Drwy intersection experiences an increase in delays as a result of this project during the PM and Sunday peak hours. With signal timing adjustments and widening, the intersection will improve to LOS C during all peak hours.

6. As unsignalized intersections, the two site driveways will generally operate at LOS F with high vehicle delays at the southbound left turn movement. Given the overall operating conditions, it is recommended that Nininger Road be widened to provide a center left turn lane and a traffic signal be installed at the East Site Driveway. Drivers will be able to use the signal at the East Site Driveway to avoid long delays at the unsignalized driveway.

7. After the implementation of a traffic signal at the intersection of CR 64/CR 95 under the No-Build condition, the intersection is expected to operate at LOS F during the AM peak, LOS E during the PM, and LOS D during the Sunday peak hours. Under Build conditions, the intersection operates at LOS F during the AM and PM peak hour, and LOS E during the Sunday peak hour. With the implementation of signal timing improvements and widening the westbound approach for a separate through/right turn lane, Table 4.3 indicates that the intersection will operate at overall LOS C or lower during all peak hours.

8. The intersection of CR 64/NY Route 32 currently operates at an overall LOS A/B during all peak hours but will degrade to LOS F in the No-Build and Build conditions. It is noted that there is projected to be a significant increase in volumes on the northbound left turn movement. It is likely that as traffic increases over time, delays will balance themselves as some drivers will find it quicker to make a right turn off of NY Route 32 into the Nininger Road Extension roundabout (near Woodbury Commons) and pass under NY Route 32 and through the other Nininger Road roundabout.

9. For the remaining three intersections, the intersection either operates adequately and will continue to do so through Build and Build with Improvement conditions, or currently operates with high delays which will be mitigated through signal timing improvements.

The above analysis indicates that the traffic impacts from the *Monroe Commons* project will have traffic impacts that can be adequately mitigated with the recommended improvements.

1.6.8 Historic and Cultural Resources

Potential Historic and Cultural Resources Impacts

As described, no historic sites, structures or districts on the National Register of Historic Places are located in the vicinity of the project site. Based upon on-site soils, historic aerial photographs and site topography and conditions, it appears that a majority of the project site has been graded and disturbed. Therefore, undisturbed archeological resources are not expected to be located on the subject property.

In a letter dated January 25, 2023, the NYS Office of Parks Recreation and Historic Preservation (OPRHP) has determined that the project will have no effect on historic or archeological resources. A copy of the letter of determination is provided in Appendix B – Correspondence.

Historic and Cultural Resources Mitigation Measures

To date, no historic or archeological resources have been identified on or in the vicinity of the site. The NYS Office of Parks Recreation and Historic Preservation (OPRHP) has determined that the project will have no effect on historic or archeological resources. No mitigation is warranted or proposed.

1.6.9 Community Facilities and Services

Potential Community Facilities and Services Impacts

Potential Impacts Police Protection

The development of commercial area on the project site could create a demand for additional police services. The proposed project consists of construction of 189,062 square feet of leasable new retail and office space, plus a boutique hotel, which will result in an increase in the Villages number of employees.

There are several multipliers available to estimate the number of employees generated by non-residential development. The Institute of Transportation Engineers (ITE) Parking Generation[1] estimates 3.4 jobs per 1,000 square foot of office building space. The ITE Trip Generation Handbook[2] indicates approximately 3.3 employees per 1,000 square foot of Office Space. A multiplier of 3.3 jobs per 1,000 square foot has been used for the purpose of this analysis to estimate the number of jobs that could be generated.

Utilizing the 3.3 employees per 1,000 square foot, the proposed 189,062 square foot of leasable commercial space at Monroe Commons has the potential to add approximately 624 new jobs to the Town's employment base.

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[2] ITE Parking Generation (4th Edition 2010. Page 201)
[3] ITE Trip Generation for Land Use 710. General Office Building

The proposed project site is neighbors with the Troop F, Zone 2 Barracks, located at 369 Nininger Road, which has a heliport on site. Discussion with Staff Sargent of the Troop F, indicate the helipad is heavily used, particularly by the residents of the Town of Palm Tree.[3] The Sargent indicated that any operational conflicts with the existing helicopter pad are not anticipated. In a phone conversation[4] with the Zone 2 Commander, there are sufficient staff and resources to provide police protection to the proposed project and the NYS Police had no objections to the development. He did not see any conflict between the proposed project and the Troops Helipad operation.

Based on the analysis documented above, no adverse impact is to police services is expected.

Potential Impacts Fire Protection

Calls for fire/medical emergencies from the proposed development would be routed through the emergency 911 system, where dispatchers would notify the Monroe Joint Fire Department. The closest station, Mombasha Station located at 526 Route 17M is approximately 1.8 miles from the project site. Based upon location, response time to the project site is estimated to be approximately 3 to 5 minutes. The proposed building is proposed to be 49' high. A ladder truck is available at the Mombasha Station to accommodate this building height. All proposed retail, office and hotel spaces would be constructed with sprinklers and all operations would be permitted in accordance with the provisions of the State Fire Prevention Code. Buildings and operations of the development are subject to inspection by the Town's Building Inspector to evaluate the adequacy of construction materials used, building design and material storage practices.

Fire flow rates, water system capacity and the location of fire hydrants would be assessed by the Fire Department during the site plan approval process. A preliminary assessment by Brooker Engineering indicates adequate pressure for fire service from future water service lines on the adjoining VMG property (see Appendix B February 27, 2023 letter). The Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter, whereby the Village has agreed to supply water for the Monroe Commons project at the required level, and expressing the Village's willingness to approve the connection.

As noted above, the Proposed Action would potentially increase the Towns employee population by 624 persons. Based on planning standards contained in the Urban Land Institute's Development Impact Handbook, it is estimated that 1.65 fire personnel and 0.2 vehicles per 1,000 population is required to serve a new population. The anticipated increase in population of 624 employees could generate a demand for 1 additional fire personnel and approximately 0.13 additional fire vehicles. Based on the multipliers presented above, which assume no existing services, it is the Applicant's opinion that the proposed project will not result in a significant adverse impact on fire protection services.

The Applicant met with the Monroe Joint Fire District Chief in March, 2023 to review the Site Plan and discuss any concerns regarding the proposed development. No concerns were raised at the meeting. The Monroe Joint Fire District will be fully involved with the review of the Site Plan, including site access, water pressure and the location of fire hydrants, as the Site Plan details are developed.

[3] Phone Call February 9, 2023 to NYS Police Barracks Troop F, Zone 2.

[4] Phone call February 13, 2023 with Commander Captain Peter Cirigliano.

Potential Impacts Emergency Medical Services

Ambulance

As discussed above the Monroe Volunteer Ambulance Corp (MVAC) provides emergency ambulance service to the project area. The MVAC facility is located at 100 Ramapo Street in Monroe, approximately 2 miles from the project site. Based upon the site location, the estimated response time to the site from the MVAC facility is approximately five to seven minutes.

Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute, 36.5 calls per 1,000 population per year would be the multiplier used to project the increase in Emergency Medical Service (EMS) calls for new development. Based upon the ULI multiplier, the projected 624 employees that are expected to work at the Monroe Commons could increase EMS calls by approximately 23 annually.

The ULI multipliers assume no existing services, thus the actual demand on EMS personnel and vehicles is expected to be insignificant.

Hospital

Based on planning standards contained in the Development Impact Assessment Handbook, four (4.0) hospital beds should be provided per 1,000 persons. Based on this standard, the projected 624 employee population associated with the proposed development has the potential to increase the need for beds in hospitals serving area by less than 2.5 beds. This is not considered a significant impact.

Potential Impacts Recreational Services

Minimal impacts from the proposed Monroe Commons are anticipated to recreational resources. No mitigation is expected to be needed and none is proposed.

Potential Impacts Solid Waste

Monroe Commons will be a private commercial development with waste generated from retail, office, and hotel tenants. It is anticipated that waste from the development will be collected by a private waste contractor which will collect waste on a regular basis, based upon the tenant mix and waste generated.

The Applicant anticipates that approximately 19 tons of solid waste per month would be generated by this development.. However, it is more likely that the private contractor would service Monroe Commons once or twice a week. Any methods to reduce solid waste and/or increase recycling or repurposing will be utilized to the reasonable extent practicable.

Since the solid waste collection will be done by a private contractor, no impact to municipal waste services is anticipated. A single trash compactor for the building will be located in the loading dock area at the south side of the building.

Potential Impacts School Facilities

Minimal impacts from the proposed Monroe Commons are anticipated to the Monroe Woodbury School District since the development does not include a residential component. Potential indirect demand on the Monroe Woodbury School District could result if some of the future permanent employees of the Project choose to relocate to reside in, and enroll their children in the District. This number is not expected to be significant. Annual revenues to the Monroe-Woodbury School District would be approximately $845,663. The proposed commercial development will generate $839,335 above current taxes, without incurring additional cost to the School District. No mitigation is expected to be needed and none is proposed.

Community Facilities and Services Mitigation Measures

No significant impacts related to Community Services have been identified or are anticipated, and therefore, no mitigation measures are warranted or proposed.

1.6.10 Fiscal and Economic Impacts

Potential Fiscal and Economic Impacts

Current and Projected Assessed Value of the Project Site

The Monroe Commons development proposal is contained on the Town of Monroe tax parcel Section 2 Block 1 lot 10.

The current assessed value of the project site is $45,000. The property is located in the area that is the Town, outside the Village. According to a review of the 2022 tax bills for the subject parcel, the municipal taxes paid to the Town of Monroe are $1,009. The municipal taxes paid to Orange County are $818. Thus, the combined municipal taxes paid are $1,827 while the annual property taxes currently paid to the Monroe-Woodbury School District are $6,328.

The proposed Monroe Commons consists of a total of approximately 408,000 square foot of mixed-use space including a grocery store, a 39-room boutique hotel, additional retail space and office space. The net Leasable Area as shown on the plans is 189,062 square feet. Using an income based approach to assess the value of the proposed commercial development, the market value of the project, is projected to be $39,903,463. Using the current 2022 equalization rate of 15.07 percent, the total Assessed Value of the project used for this analysis is $6,013,452.

Current and Projected Revenues

According to the Town of Monroe's annual budget, the Town's tax rate includes governmental services, Justice Court, police protection, Sewer, and water capital expenses, refuse collection, street maintenance, public parking, lighting, and parks & recreation.

Upon completion of the proposed development, at today's tax rates, annual revenues to the Town of Monroe would be approximately $134,524. The project-generated annual revenues to Orange County would be approximately $109,324 annually.

Annual revenues to the Monroe-Woodbury School District would be approximately $845,663. The proposed commercial development will generate $839,335 above current taxes, without incurring additional cost to the School District.

Projected Employees at Proposed Site

There are several multipliers available to estimate the number of employees generated by non-residential development. Contrasting different methods, the projected number of employees at the site is estimated to be in the range of 624 to 682 employees.

The Institute of Transportation Engineers (ITE) Parking Generation[5] estimates 3.4 jobs per 1,000 square feet of office building space. The ITE Trip Generation Handbook[6] indicates approximately 3.3 employees per 1,000 square feet of Office Space. A multiplier of 3.3 jobs per 1,000 square feet has been used for the purpose of this analysis to estimate the number of jobs that could be generated.

Utilizing the 3.3 employees per 1,000 square feet multiplier, the proposed 189,062 square feet of leasable commercial space at Monroe Commons has the potential to add up to 624 new jobs to the Town's employment base.

Municipal Costs Associated with the Proposed Project

An approximate estimate of costs to the Town of Monroe associated with the Monroe Commons development may be determined by obtaining a reasonable composite of current costs per employee and multiplying this amount by the anticipated number of new employees from the proposed project.

The majority of municipal expenses are attributable to the resident population. Non-residential costs are typically only a fraction of per capita municipal service cost expenditures. The Proportional Valuation Method assumes that municipal costs increase with the intensity of land use, and the change in real property value is a reasonable estimate for change in intensity of use.

Commercial assessed valuation equals $15,317,000 which represents 6.7% of the Town total assessed valuation. Applying this percentage to the cost of non-residential expenditures raised by the tax levy results in $51,833 of the tax levy spent on municipal services to commercial establishments. Per the US Census, there are 7,307 total employees in the Town. Assuming at least one third of the employees work in commercial ventures the cost per employee is estimated to be approximately $21 per employee.

As stated earlier, the proposed Monroe Commons development includes approximately 189,062 square feet of leasable commercial space, used for this analysis, and is anticipated to generate approximately a range of 624 to 682 full-time employees. Based on a per employee expenditure of $21, the additional costs to the Town of Monroe are projected to be up to approximately $13,104 to $14,322. As presented in Table 12-5, the revenues to the Town from the proposed Monroe Commons would increase by $133,515 to an estimated $134,524 annually, thus the project will result in a net benefit to the Town between $120,202 and $121,420.

Monroe Woodbury School District Costs

Annual revenues to the Monroe-Woodbury School District would be approximately $845,663. The proposed commercial development will generate $839,335 above current taxes, without incurring

[5] ITE Parking Generation (4th Edition 2010. Page 201)

[6] ITE Trip Generation for land use 710. General Office Building

additional cost to the School District, thus the project will be net benefit to the Monroe Woodbury School District.

Fiscal Benefits

In the long-term, the projected new employee population would introduce consumer demand for retail and service establishments located within the Town of Monroe, as well as the larger commercial area within the region.

In the short term, the project will induce construction employment. The construction value of the proposed project would total more than $55 million. Construction of the project would require a commitment of person hours of labor, which can be viewed as beneficial to the community, the local economy, and the construction industry with respect to the generation of jobs. Based on labor hour estimates published by the Urban Land Institute, and accounting for secondary employment resulting from the construction, this project would generate approximately 325 full time equivalent jobs in the various construction trades associated with this project.

It is anticipated that a number of construction workers would come from Orange 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.

Sales Tax

Sales taxes are an important source of revenue for New York State's local governments. This revenue stream has helped local governments cope with the rising cost of providing services and mitigate property tax increases. The degree to which local governments depend on sales taxes varies, but their overall reliance has increased over the past 10 years

Sales and use tax rates in New York State reflect a combined statewide rate of 4%, plus the local rate in effect in the jurisdiction, which is 3.75% in Orange County. Retail sales and Hotel occupancy will generate substantial additional revenue resulting in an increase in sales tax dollars. These dollars are used as revenue for the respective general funds of NY State and Orange County which pay for roads and other infrastructure, education and other general services including the NYS police. In addition, there is a 0.375% surcharge imposed to fund regional mass transportation.

Sales Tax Revenue

The proposed Monroe Commons includes a total of approximately 408,000 square feet of space, of which approximately 125 square feet is net leasable retail area. This will provide local shopping opportunities that will serve to capture sales tax dollars in Orange County. Sales tax in the Town of Monroe is comprised of 4% New York State tax, 3.75% Orange County tax plus $0.38% in tax to Orange County Transit.

Based upon an average annual revenue of $300 per square foot[7], sales expected from the 125,000 square foot retail portion of the proposed development, would be approximately $37.5 million. Applying the 8.13 percent sales tax to the proposed retail use, future sales tax revenues generated from the proposed development, would be more than $3 million annually. Of this total

[7] Simon Properties Annual Report.

1.5 million would go to New York State taxes, $1.4 million would go to Orange County and approximately $142,500 would go directly to Orange County Transit.

Proposed Fiscal and Economic Impacts Mitigation Measures

The Proposed project is expected to result in taxes generated to the Town, County and School jurisdictions of approximately $1,089,511. No mitigation measures are required.

1.6.11 Noise

Potential Noise Impacts

Monroe Commons will generate noises typical of commercial properties with retail, office and hotel uses. Noise from the operation of the commercial development will result from both mobile sources (vehicles) and stationary sources (equipment). These project related noise sources may affect nearby sensitive receptors to varying degree, including: future residences in the adjacent VMG residential development in the Village of Kiryas Joel and residences east of the site in the Woodbury Villas with homes on Catskill High Rail. Further to the east, the Monroe Woodbury School District campus was identified as a potential noise receptor given its proximity to Nininger Road.

Mobile Off-site Traffic Noise

The primary operational noise resulting from the Monroe Commons development will be vehicles entering and exiting the development. The majority of the vehicle trips will be passenger cars, but trucks will enter and exit the site for deliveries. Current and future residents (sensitive receptors) in the vicinity of Nininger Road may experience an incremental increase in noise as traffic volumes increase.

The potential increase in traffic related to the Monroe Commons development is described in Section 9.0 Traffic and Transportation. Traffic on Nininger Road is projected to increase substantially in the No-Build condition, without the project and increase further with the project. Future noise levels within approximately 50 feet of Nininger Road were estimated using an FHWA provided traffic noise model. The estimated increase in noise on Nininger Road in 2024 without the project and with the project is estimated to be approximately 1.0 dBA, or increasing from 72.4 dBA to 73.4 dBA in the PM peak hour and from 71.2 dBA to 71.9 dBA in the Sunday peak hour. Noise increases of 0 to 3 dBA should have no appreciable effect on receptors[8].

Since the traffic noise increase along Nininger Road in the future with the proposed project was calculated to be less than 3 dBA, no significant adverse noise impacts to residential receptors within 50 feet of Nininger Road are anticipated.

The “No-Build” condition noise levels of 71.9 dBA near Nininger Road on Sundays would be reduced by noise loss over distance to:

- 60.3 dBA at Location 1 for southern VMG residents
- 59.9 dBA at Location 3 for homes on Catskill High Rail
- 62.5 dBA at Location 4 on Dunderberg Road

[8] *Assessing and Mitigating Noise Impacts* NYSDEC Program Policy (Rev. Feb. 2001)

These projected off-site noise levels in the future with the proposed project are below the 65 dBA HUD standard for residential uses, therefore, in the applicant's opinion, traffic noise increases related to the proposed project would not result in a significant adverse noise impact on nearby residential uses interior to the VMG development (Location 1), nearby residential uses on Catskill High Rail (Location 3), and the Monroe-Woodbury Middle School on Dunderberg Road (Location 4).

Residents in the VMG development buildings that front onto Nininger Road and US Route 17/US Route 6 may experience noise levels above the HUD standard with open windows or on porches in the No-Build and in the Build Condition. As indicated, the Monroe Commons development traffic would increase noise levels on Nininger Road from No-Build conditions by an estimated 1.0 dBA.

On-site Operational Noise

On-site operational noise will result from both the mobile sources of vehicles circulating in driveways and parking areas, as well as stationary sources, specifically heating ventilation and cooling (HVAC) equipment for the building.

Stationary Sources

The heating, ventilation, and cooling equipment (HVAC) for the proposed building will be a stationary source of noise for nearby receptors. Commercial HVAC systems for multi-floor buildings will vary in design and in the location of the heating and cooling units. Many commercial units are placed on building roofs for aesthetics and maintenance. The HVAC equipment will likely be located on the roof of the building and screened from view with a low parapet wall. The design of the building HVAC system has not yet been completed.

Such equipment is not expected to create substantial or excessive noise for nearby sensitive receptors. A sound level of 80 dBA at one meter would be reduced to less than 50 dBA over a distance of a minimum 135 feet (41 meters) between the proposed building and the nearest VMG residential building.

Deliveries to the development will be limited to daytime periods to reduce potential truck traffic before and after typical business hours (7:00 a.m. to 6:00 p.m.). The truck delivery area is located at the southeast side of the mixed-use building, opposite the adjoining VMG residential buildings. Delivery trucks will utilize the southern driveway and will not access the driveway adjacent to the VMG development. Given that the mixed-use building will be between the loading area and adjacent residences, noise from trucks and loading activity will be reduced for the nearest residences in the VMG development.

Parking Lot Noise

Operational noise resulting from the Monroe Commons development will include noise from vehicles entering and exiting the development and circulating in the parking areas and driveways. The majority of the vehicle trips will be passenger cars, but trucks will enter and exit the site for deliveries. This increase in traffic will increase noise on the project site and incrementally on nearby local roads including Nininger Road.

The increase in activity and circulating vehicle traffic on the site will increase noise levels for sensitive receptors near the site, primarily the adjacent VMG residential development. Noise from the parking lot may increase noise levels for the closest residents on Catskill High Rail, but those residences are located on the opposite side of a hill, which will reduce levels from the site. The overall noise levels from on-site traffic is mitigated somewhat by the necessarily low speeds of vehicles circulating on-site and parking. Noise from traffic is substantially affected by vehicle speed.

Potential Noise Increases for Nearby Receptors

The sensitive noise receptors closest to the subject property are: the future adjoining VMG residential development northwest of the site and the residents on Catskill High Rail east of the site. The proposed development plan provides the two main parking areas to the northeast and to the southwest of the mixed-use building. Therefore, it is anticipated that average noise levels in the range of 59.1 dBA will occur along the shared property line with VMG.

A noise level of 59.1 dBA is 1.0 to 5.0 dBA higher than the daytime levels measured at Location 1, which coincides with the upper parking lot. The lower parking lot (southwest of the building) is closer to NY Route 17 and Nininger Road and therefore that location is more affected by off-site traffic noise. An increase of 1.0 to 5.0 dBA is considered “unnoticeable to tolerable” according to the NYSDEC Noise Assessment Policy (2001). The noise level of 59.1 dBA is below the 65 dBA HUD standard for residential uses.

The VMG residential buildings adjacent to the Monroe Commons property have not yet been constructed and the timing of occupancy of those buildings is not known. The projected increase in noise along the northern property line is provided as a comparison from existing conditions to future conditions, although no residents currently live along the northern property border.

Existing noise levels for residents on Catskill High Rail (Location 3) are similar to Location 1, ranging from 52.3 dBA to 59.3 dBA during daytime periods. The large parking lots are approximately 1,000 feet from the nearest residences on Catskill High Rail, and opposite a hill. Therefore, due to noise loss over distance and intervening topography, the residents on Catskill High Rail will not experience an increase in noise due to the Monroe Commons parking lot activity

Proposed Noise Mitigation Measures

Deliveries to the development will be limited to daytime periods to reduce potential truck traffic before and after typical business hours (7:00 a.m. to 6:00 p.m.). The truck delivery area is located at the southeast side of the mixed-use building, opposite the adjoining VMG residential building, thereby reducing noise for future VMG residents from delivery truck activity.

The on-site HVAC equipment will likely be located on the roof of the building and screened from view with a low parapet wall. The design of the building HVAC system has not yet been completed. Shielding the HVAC equipment will reduce the equipment noise for nearby residential receptors.

1.6.12 Air Quality

Potential Air Quality Impacts

Air quality impacts from the Monroe Commons project may result from heating and cooling equipment at the site (stationary sources) and from project induced traffic (mobile sources).

Stationary Sources

The primary generator of air emissions from the proposed mixed use commercial development includes heating and cooling equipment for the on-site building. Air contaminants typically of concern with respect to heating and hot water systems are sulfur dioxide and inhalable particulate matter related to the use of fuel oil and particulate matter and nitrogen dioxide related to use of natural gas. The proposed building will utilize natural gas and electrical service for heating and cooling and will not use fuel oil.

New York City's *City Environmental Quality Review* (CEQR) *Technical Manual* (2021) provides screening methodologies and nomographs to assess for potential air quality impacts from a facility's heating and hot water boiler systems. Impacts from boiler emissions are a function of fuel type, stack height, minimum distance from the source to the nearest receptor (building), and square footage of development. .

Based on the CEQR screening nomograph for commercial and other non-residential facilities using natural gas heating and hot water boiler systems, the minimum stack setback distance required for a building with a gross square footage (gsf) of approximately 400,000 square feet, such as Monroe Commons, is approximately 275 feet. Although the mechanical equipment has not yet been designed, this minimum distance between the exhaust stack and the nearest buildings of similar or greater height (i.e., those in the proposed Veyoel Moshe Gardens [VMG] development to the west) will be maintained.

In addition, the heating and cooling system for the commercial building is anticipated to be modern energy efficient equipment with minimal emissions. As indicated, the Monroe Commons building will be heated and cooled with a combination of natural gas and electricity and not heating oil. The building heating and cooling system will be designed to be energy efficient and result in low emissions and will be designed to eliminate any potential significant adverse air quality impact to the greatest extent practicable. Since the facility is committed to using natural gas and electricity for building heating, cooling and hot water needs and will also maintain the minimum required stack setback distance from buildings of similar or greater height, there is no potential for significant adverse air quality impact from the building heating and cooling systems.

Mobile Sources

The primary generator of air emissions from the Monroe Commons project will be the operation of passenger vehicles travelling to and from the site and utilizing proposed surface parking lots. CO and PM are the primary pollutants of concern from mobile emission sources, including roadways and parking facilities.

Intersection Analysis

Since the project is located in an EPA-designated attainment area for CO, Transportation Conformity Rule (TCR) requirements do not apply for CO. Absent any other federal or state

requirements, the potential localized CO impact from project-generated traffic was evaluated using the New York State Department of Transportation (NYSDOT) Environmental Procedures Manual (EPM) Chapter 1, Section 9, Projects Needing Air Quality Analysis (January, 2001). According to the NYSDOT EPM, signalized intersections with level of service C or better, do not require air quality analysis. Further, the NYSDOT EPM concludes that non-signalized intersections controlled by stop signs are not expected to require air quality analyses and were not evaluated.

Three signalized intersections examined in the traffic analyses (Chapter 11) were found to operate at LOS D or worse in the Build condition with recommended traffic improvements during one or more peak traffic hours.

Intersections with predicted levels of service of D, E, or F in the Build condition may be further screened using NYSDOT's capture screening criteria. The screening criteria, which are used to determine the need for a microscale CO analysis, are as follows:

- 10 percent or more reduction in the source-receptor distance;
- 10 percent or more increase in traffic volume on affected roadways between the No Build and Build scenarios;
- 10 percent or more increase in vehicle emissions;
- Any increase in the number of queued lanes; and,
- 20 percent reduction in speed.

Based on a comparison of 2024 No Build and 2024 Build with Improvements traffic volumes, as provided within the traffic analysis (Chapter 11), the proposed project will not exceed the criteria of adding 10 percent or more traffic volume to any of the three intersections listed above.

None of the other NYSDOT capture screening criteria are anticipated to be met at these intersections; therefore, a microscale hot-spot CO analysis is not warranted, and vehicular traffic generated by implementation of the Proposed Action would not result in a significant mobile source CO impact.

Parking Analysis

Pursuant to *CEQR Technical Manual* guidelines, projects that result in sensitive uses adjacent to parking facilities have the potential to result in mobile source air quality impacts. The Proposed Action will create multiple open-air, surface parking lots adjacent to a new multifamily 1600-unit residential development to the west of the site along Nininger Road. According to the *CEQR Technical Manual*, CO and PM are the primary pollutants of concern for unenclosed, at-grade parking lots used by automobiles.

The latest version of the USEPA's Motor Vehicle Emission Simulator (MOVES3) was used to calculate emissions associated with proposed surface parking lots. The model was executed in inventory mode for Orange County. Both idle emissions and traveling emissions at an estimated speed of 5 miles per hour (mph) were used in the parking analysis, per *CEQR Technical Manual* guidelines. As detailed within Appendix E of the Draft Traffic Impact Study, May 25, 2023, a total of 621 parking spaces would be provided within the proposed surface lots. As a conservative approach, the air quality parking assessment conservatively assumes the lots will be filled and emptied each hour of the day. Per *CEQR Technical Manual* guidelines, the traveling distance of vehicles within the lot was assumed to be two-thirds of the maximum distance from the

entrance/exit to the furthest parking space. Automobiles were all assumed to idle for approximately one minute before traveling to parking lot exits.

The USEPA's CAL3QHC dispersion model was subsequently used to predict CO and $PM_{2.5}$ concentrations at sensitive uses adjacent to the proposed surface lots. Receptors were modeled at a breathing height of 1.83 meters (6 feet) above ground. Maximum modeled CO and $PM_{2.5}$ concentrations were added to appropriate background concentrations. Maximum total concentrations from proposed surface parking lots would not exceed the CO and $PM_{2.5}$ NAAQS.

Proposed Air Quality Mitigation Measures

Based on results of the stationary and mobile source air quality assessments, the Proposed Action is not anticipated to result in significant adverse air quality impacts to the surrounding existing community. The proposed building will utilize natural gas and electrical service for heating and cooling and will locate the HVAC and hot water heater exhaust stack at a minimum of 275 feet from buildings of similar or greater height as the proposed exhaust stack. In addition, the building heating and cooling system will be designed to be energy efficient and result in low emissions. In addition, the project would primarily generate gasoline vehicle traffic through project-affected intersections but would result in less than a 10% increase in traffic volumes between the future No Build and Build with Improvements conditions. Peak hourly gasoline vehicle trips into and out of the proposed surface parking lots would not result in exceedances of the CO and $PM_{2.5}$ NAAQS.

Based upon the described air quality analysis, no air quality mitigation measures are warranted or proposed.

1.6.13 Visual Resources and Community Character

Potential Visual Resources and Community Character Impacts

The proposed Monroe Commons development would convert the existing vacant, wooded parcel to a four-story, modern mixed-use building with supporting parking areas, utilities and stormwater management areas. The proposed mixed-use development would change the visual character of the site. The clearing of trees and grading for construction and the addition of a four-story building would allow views of the proposed development from Nininger Road and NY Route 17/ US Route 6.

The proposed four-story building will have an irregular shape and is designed to fit in with the site's topography with lower elevations and entrances on the ground floor and parking and entrance at a higher elevation at the rear of the building. Three entrances are provided for the retail uses on the first floor, an entrance provided on the second floor at the northwest side of the building and an entrance will be provided for the office and hotel uses on the third floor at the rear of the building. The building will be set back approximate 500 feet from Nininger Road and this will reduce the scale of the building for drivers passing the property on Nininger Road and NY Route 17.

The proposed building has an average height of 49 feet as shown in the Building Height Elevations drawing prepared by the project engineer. As shown in the Section, the adjoining residential buildings will have a higher roof line than the proposed Monroe Commons building.

The proposed building will have a varied façade and window treatment and a stone and glass exterior. Architectural renderings of the proposed building are provided in Figures 15-7 through 15-9. A triangular canopy will be provided at the main drop-off entrance at the center of the ground floor, as well as the northern entrance and the rear hotel entrance. Landscaping and planting will be provided around the building as shown in the Landscape Plan (see Figure 15-10). The architectural renderings are provided as illustrations of the proposed building architecture.

Elevations of the proposed building façade are provided in the attached Architectural Plans, prepared by Gut & Vann Architecture and Contracting. The elevations show the varied materials, windows and architectural elements for the building. The elevations show the relative scale and height of the different building sides, with the front of the building higher than the rear of the building. Building finishes, including precast stone, stucco, curtain glass and aluminum.

Site Lighting

The introduction of lighting on the property will change the nighttime visual character of the Property. Currently the property is undeveloped The closest properties to the site the office building at the western edge of the site and the garage at the eastern edge of the site currently have 24-hour safety lighting. The property directly east of the site is undeveloped and has no lighting. The VMG residential development to the west of the site on Nininger Road has lighting around the completed residential buildings. The largest nearby current source of nighttime lighting is the Harriman Commons shopping center southeast of the site. The shopping center has large parking lots and multiple retail buildings with lighting.

A Lighting Plan for the development has been prepared and is provided in the Site Plan drawings. The lighting plan was developed to address the standards and requirements of Town Code § 57-21.6 “Lighting”. The full-scale Lighting Plan provides the lighting levels (in footcandles) at the property line. The goal of the lighting plan is to minimize off-site lighting spillage and provide the lighting necessary for visitor safety and circulation around the site. Proposed lighting is provided on pole mounted lights at the perimeter of the parking areas, along driveways and pole mounted lights interior to the site. The light poles proposed will be either 30 or 39 feet in height. Wall mounted lighting will be provided on the building and these will be downward directed with “cut-offs” to prevent off-site glare. All pole mounted lighting will be downward directed and “night-sky” compliant.

The full-scale lighting plan shows that light from poles at the perimeter of the parking areas will be limited to the site and will minimally extend off-site along the northern property border and around the two site entrances on Nininger Road.

Landscape Plan

A Landscape Plan has been prepared for the Monroe Commons development and is provided with the Site Plan drawings. The plan was developed to meet the requirements of Town of Monroe Environmental and Design Standards (Chapter 57, Article VII, §57- 21.5). The plan provides for the planting of a mix of deciduous and evergreen trees and shrubs, as well as decorative grasses and perennial plantings across developed portions of the site. Deciduous trees are provided along the Nininger Road property frontage and along the two entrance driveways to soften and enhance the views into the site from Nininger Road and NY Route 17/ US Route 6. Deciduous trees are proposed for islands in the parking areas and along the driveway south of the commercial building. A single row of evergreen trees is proposed along the shared property

border with the VMG property to the northwest. Extensive mixed plantings of trees and shrubs are provided at the three building entrances.

The wetland mitigation plan includes deciduous trees and shrubs that will, over time, grow at the edge of the wetland providing screening of the building and parking areas from Nininger Road and a provide large natural area in the southeast corner of the site. Approximately one-third of the property frontage will be natural wetland area.

Change in Visual Character

Future views into the project site will not be substantially different in summer (leaf-on) and winter (leaf-off) conditions, since most of the existing trees along the property frontage on Nininger Road will be removed for construction. Existing trees in the wetland area will be retained. The plantings of deciduous trees along the entrance driveways and the property frontage sill soften views of the building and parking areas in summer months, but will not completely obscure views to the commercial building in the interior of the site.

Following the project development, direct views of the project site will change for drivers in the vicinity of the site on Nininger Road and NY Route 17/ US Route 6. As described above, the project site is only visible for a section of Nininger Road and NY Route 17/ US Route 6. And is generally not visible from surrounding roads or vantage points, except for the Long Path Trail, described below.

Photo simulations of the proposed Monroe Commons building in the existing landscape have been prepared to further assess the visibility and scale of the buildings from nearby locations. The proposed building and development will be potentially visible for drivers on NY Route 17 and Nininger Road, including views from Locations: 1, 2, 4 and 5.

Proposed Visual Resources and Community Character Mitigation Measures

In order to mitigate the potential for adverse visual and community character impacts to the maximum extent practicable, the following measures are proposed as part of the project's design.

Setbacks and Landscaping

The applicant proposes an attractive, modern mixed-use building for the development. The site design for the development would locate the building well interior to the site, approximately 490 feet from Nininger Road. In placing the proposed building further from street frontage, it reduces the visual prominence and scale of the building. The site plan provides a landscaped area along the Nininger Road frontage and trees along the two entrances. Trees are proposed for islands and medians throughout the parking lots. This landscaping will soften the appearance of the building from Nininger Road and NY Route 17/ US Route 6 and enhance the street frontage.

The existing wetland area will be preserved and enhanced with native trees and shrubs. A total of 780 shrubs and 200 trees are proposed to be planted in the Wetland Mitigation area. Over time the trees will mature and provide an attractive natural feature in the southeast portion of the site. The preservation of existing vegetation and the planting of new trees will enhance views of the site from NY Route 17 and from Nininger Road.

Lighting

Lighting for the project has been designed to limit the glare from lighting to the property and prevent off-site light spillage. A lighting plan is provided with the Site Plan drawings. The proposed pole mounted and wall mounted lighting is dark sky compliant and all downward directed to prevent off-site light spillage potential impacts to the public and neighbors.

1.6.14 Utilities

Potential Utilities Impacts

Potential Impacts – Water Supply

As described, the draft Utilities Plan currently shows a water service connection to the neighboring VMG property to the northwest of the site. The applicant is finalizing the terms of an agreement with the Village of Kiryas Joel/ Town of Palm Tree and the owners of the VMG property for the connection. The Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter indicating the Village's willingness to provide water service to the Monroe Commons development.

The sponsor of the Veyoel Moshe Gardens (VMG) residential development has provided a letter confirming their agreement for the proposed utility connections (including water and sewer) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations. The Village of Kiryas Joel / Town of Palm Tree Planning Board will require a Site Plan Amendment for the proposed driveway connections and water service connection on the VMG property in the Village / Town.

Brooker Engineering PLLC has assesses the water demand and water pressure for the Monroe Commons development and their analysis is summarized in a letter dated February 7, 2023 (see Appendix B – Correspondence). The proposed project will require an estimated 54,210 gallons per day or 38 gpm to provide for typical usage, as estimated by Brooker Engineering.

The Village if Kiryas Joel/Town of Palm Tree has adequate water supply to serve the development and approval to connect to the system will be required by the Village Water District. According to information provided by the Village, in 2017, the Village had a NYSDEC Permitted Withdrawal amount of 2.54 mgd and an Average Day Withdrawal of 1.79 mgd. It is anticipated that the connection to the Catskill Aqueduct will occur prior to the occupancy of Monroe Commons, although current water supplies are adequate to serve the proposed building.

The proposed connection to the Village water system will be made at the northern property line. Water service will be provided by a single line to the building. Connection to the Village of Kiryas Joel/Town of Palm Tree will require review and approval by the Village of Kiryas Joel / Town of Palm Tree Planning Board as a Site Plan Amendment to the VMG development. The development will pay for water service according to Village rates, funding maintenance and upgrades for the District.

Mitigation Measures – Water Supply

Water supply for the Monroe Commons development will not result in significant impacts to the Village of Kiryas Joel/Town of Palm Tree Water District and therefore, no mitigation is warranted or proposed.

Potential Impacts – Sanitary Wastewater

The proposed project will generate an estimated 54,210 gallons per day of wastewater, as estimated by the water demand estimates by Brooker Engineering. The Applicant has discussed the connection to the district with Orange County Sewer District No. 1 representatives. The OCSD No. 1 will review and approve the connection to the District, including any limitations regarding conveyance or treatment.

The Project plans to connect to the planned sewer lines on the adjoining on the adjacent Veyoel Moshe Gardens (VMG) property. As described above, the sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed utility connections (including water and sewer) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations.

Proposed sanitary sewer lines to serve the Monroe Commons development are shown on the Site Plan drawings (see Utility Plans 2, 3 5 and 6). As shown in the Site Plans , a force main will serve the basement and first floor and will be located along the northwest side of the building. That line will join a gravity line extending near the northwest building corner to the VMG property and an off-site sewer manhole. Final design of the sewer facilities and infrastructure, will be provided to the lead agency for review, as part of the Site Plan review process.

The development will generate wastewater typical of a mixed use building, including sanitary wastewater. No industrial, manufacturing or regulated wastewater will be generated at the site. The Monroe Commons building will potentially include food preparation and service, including for the hotel. Wastewater could potentially include fats, oils and greases and therefore a grease interceptor is proposed for the southeast corner of the building, in the loading and service area. The location of the 2,500 gallon grease trap is shown in Utility Plan 5. As a proposed retail and mixed use building, the use of hazardous materials, other than commercial cleaning supplies, is not anticipated for the property. The development will pay for wastewater treatment service according to District rates, funding maintenance and upgrades for the District.

Mitigation Measures – Sanitary Wastewater

As described, a grease interceptor is proposed at the southwest building corner to ensure that food related oils and grease do not impact the OCSD #1 infrastructure. The grease interceptor will be maintained, as required.

Available treatment capacity estimates for the HWWTP in February and March of 2023 indicate adequate capacity to treat the development's wastewater estimates. Approval to connect to the OCSD#1 is contingent on available capacity at the time of application to connect to the system. That application can only be made following Site Plan approval for the development. Wastewater treatment for the Monroe Commons development will not result in significant impacts to the OCSD #1 and therefore, no mitigation is warranted or proposed.

Potential Impacts – Energy Usage (Electricity and Gas)

The proposed Monroe Commons commercial space is estimated to use approximately 12.3 kWH of electricity per square foot annually, according to survey data by the US Energy Information Administration.[9] The office space is estimated to use approximately 14.6 kWH per square foot

[9] https://www.eia.gov/consumption/commercial/data/2012/c&e/cfm/c21.php

annually. The proposed hotel space is assumed to use energy at rates comparable to office space. Using these factors, the commercial space will use an estimated 2,074.9 megawatt hours annually and the office/ hotel space is estimated to use approximately 2,231.5 megawatt hours of energy annually.

The proposed mixed-use building will be constructed to comply with NYS Building Code standards, including the use of energy efficient windows, insulation and heating and cooling equipment. These construction and building features will reduce the overall energy consumption for the development. The applicant proposes solar panels to service the proposed electric vehicle charging stations.

Natural gas service was recently extended along Nininger Road. Future connection to that service will require coordination with Orange and Rockland Utilities. An Orange and Rockland Project Manager for New Business was contacted via telephone on August 22, 2023. The Orange and Rockland representative indicated the area is served by three-phase electrical service. An application for service needs will need to be provided to Orange and Rockland to assess specific service and infrastructure for the property. The Applicant will coordinate with Orange and Rockland for electric and natural gas service for the site as the Site Plan is developed.

Mitigation Measures – Energy Usage (Electricity and Gas)

The local service provider Orange and Rockland was contacted and it appears that existing infrastructure can serve the property, pending review of the specific building requirements. Energy service for the Monroe Commons development is not anticipated to result in significant impacts to the local provider and therefore, no mitigation is warranted or proposed.

1.6.15 Construction Impacts and Mitigation

Construction Schedule

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The duration of the construction is anticipated to be approximately 16 months, beginning in Fall 2023 and completed by 2024. The development will be constructed as one continuous project and will not be completed in phases. Construction activity will occur weekdays from 7:00 AM to 9:00 PM, weekdays and 9:00 AM to 9:00 PM Sundays in conformance with Town of Monroe regulations (Chapter 33.A Noise). No construction activity will occur on *Saturday* or holidays.

The following describes the general sequence of activities that would occur to construct the project.

1. Install temporary erosion controls
2. Remove trees and stumps
3. Strip and stockpile topsoil
4. Rough grading
5. Install utilities and construction of **permanent stormwater facilities**
6. Stabilize disturbed areas with paving or permanent erosion control measures
7. Construct commercial / office building per approved plans
8. Construct parking areas, driveways and entrances
9. Complete final landscaping.

Initial construction activities such as site preparation and tree removal will occur in the first six-months (tasks 1 to 4). Installation of utilities, permanent stormwater facilities and construction of the building will occur over the next one-year period of construction. The final parking and entrance construction, paving and landscaping will occur in the final three to six months of construction.

The number of workers on the site will vary by the stage of construction and the different worker specialties required at any one time. It is anticipated that the maximum number of workers on the site at one time will range from 20 to 40, with an estimated 30 workers on-site during the building finishing stage, including electrical, plumbing, and doors and windows installation.

The Erosion Control Plan shows four (4) designated construction staging areas, two near the western entrance and two at the southeast side of the future building. Areas where construction workers are expected to park vehicles (passenger cars and trucks) will be provided near the project entrance in Staging Areas 1 and 2.

Traffic and Transportation

Trucks and large equipment associated with construction will generally remain onsite except for limited number of offsite trips for refueling, etc. Two construction entrances are proposed at the two future driveway entrances on Nininger Road, as shown on the Erosion Control Plan (Sheets 14 and 15). The construction entrances will have a crushed stone tracking pad. The access to the site will be used by trucks delivering supplies, importing soil and material, as well as onsite construction workers.

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. Construction staging areas are shown on the Erosion Control Plan drawings, two near the northwest entrance and two at the southeast corner of the site.

The project engineer will endeavor to balance cut and fill through the re-use of excavated material on-site and minimize the transport of material to and from the site. Development of the Site Plan would involve a cut of approximately 143,317 cubic yards of material and a fill of approximately 151,837 cubic yards for a net fill of 8,520 cubic yards of material to be imported to the site.

The estimate of needed fill material would result in approximately 532 truckloads of soil being imported into the site. These truck trips would occur during the estimated six month period for grading. Other truck trips including equipment and materials delivery are likely to vary depending upon the specific construction activity, as outlined above. Truck trips will occur throughout the day and therefore only a limited number of trips will occur during the morning peak traffic periods.

While it is anticipated that traffic from construction activity would impact school bus routes or school traffic to and from the Monroe-Woodbury High School and Middle School, the Applicant will seek to avoid construction-related traffic during the school dismissal time to the maximum extent practicable. A portion of construction traffic from Monroe Commons will pass through the Nininger Road / Dunderburg Road intersection near the Monroe-Woodbury High School and Middle School campus. To the extent practicable, deliveries and other construction-related vehicle trips will be scheduled to avoid peak morning and afternoon traffic periods, including the earlier

afternoon school dismissal periods, avoiding impact to school buses on Nininger travelling to and from the Monroe Woodbury schools, east of the site.

Construction staff flaggers will assist all large trucks to safely exit the site onto Nininger Road. While the construction activity is ongoing, construction materials will be brought in throughout the 16-month construction period. With proper construction management and scheduling no significant impacts are anticipated due to construction traffic associated with the Project.

Erosion and Sediment Control During Construction

A site specific Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the project addressing stormwater management during construction and post-construction. The site specific SWPPP includes detailed erosion and sedimentation control plans and details designed in accordance with NYSDEC SPDES *General Permit for Stormwater Discharges from Construction Activity, GP-0-20-001*.

The project and construction activity will require compliance with Town of Monroe Chapter 44 – Soil Erosion and Sedimentation Control, including obtaining a Grading Permit, inspections and the posting of performance and restoration bonds with the Town.

Potential soil erosion will be mitigated through the implementation of the site- and Project-specific soil erosion and control plan. The goal of the erosion control plan is foremost to prevent erosion, thereby minimizing the need to collect sediment. The plan will accomplish that goal, in part, by limiting the areas of disturbed soils at any one time and by maintaining runoff velocities to non-erosion levels.

Air Quality

Project construction over a 16-month period has the potential to impact local air quality. Potential air quality impacts from mobile sources and on-site equipment can be minimized by maintaining vehicle pollution control equipment and engines. Construction equipment will be well maintained and in good working order. Truck idling on-site will be minimized to the extent practical.

Electrical construction equipment will be used where practical and as it becomes more available. As early in the construction period as logistics would allow (likely by the start of the superstructure phases of construction, pending service provisions from the local utility provider), diesel- or gas-powered equipment would be replaced with electrical-powered equipment such as welders, water pumps, bench and table saws (i.e. early electrification) to the extent feasible and practicable.

The generation of dust on-site will be minimized by reducing areas of exposed and unstabilized soil. Internal truck driveways will be maintained and sprayed with water under dry or windy conditions. Truck tires will be cleaned on the construction pads prior to exiting the site onto Nininger Road.

Noise

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Local daytime ambient noise levels will increase both on and off of the project site during construction of the proposed Monroe Commons development. Construction activities and the operation of construction equipment are an expected and required consequence of any new construction project and cannot be avoided. Therefore, some noise impacts from construction

would be expected. It is important to note that noise resulting from construction activities is a temporary impact, and will cease upon completion of the project.

Noise levels due to construction activities will vary widely, depending on the phase of construction activities, including clearing and grading, delivery of materials, and actual construction of on-site buildings. Noise levels at the site property line are projected to range between 65 dBA and 90 dBA, depending on the actual location of construction equipment at any given time.

It is anticipated that nearby sensitive receptors, including the VMG residential development west of the site and on Catskill High Rail east of the site may experience temporary elevated noise levels at occasional points during the construction of the proposed project, with most noise resulting from the site preparation, such as tree removal and grading activity.

Construction equipment will be well maintained to minimize noise to the extent practical. Trucks will not be allowed to idle on-site unnecessarily. Electrical equipment will be used, in place of diesel powered equipment, to the extent feasible and practicable, thereby reducing construction noise. Construction activity will be limited to the periods specified in the Town noise code, or between the hours of 7:00 a.m. and 9:00 p.m. weekdays and between the hours of 9:00 a.m. and 9:00 p.m. Sundays. No construction will occur on Saturdays.

1.6.16 Potential Impacts of Proposed HI Zoning Text Amendments

The proposed zoning text amendment would practically affect undeveloped land where new development could potentially have: 1) greater height, 2) greater lot coverage, and 3) less off-street parking than currently required in the HI zoning district for specific uses. As described and illustrated in the attached figures, only three properties in the HI zoning district are undeveloped, including the subject Property. The two undeveloped properties located west of the site on Nininger Road are relatively small (1.72 acres and 0.76 acres) and have generally steep topography, limiting their development potential. Each of the two properties could potentially support relatively small to medium sized buildings and parking areas close to Nininger road.

An analysis of development potential related to the proposed amendments to the HI District on developed and undeveloped lots in the District is provided in Table 18-2 – Potential Impacts of Proposed Zoning Amendments. The table provides lot area, existing building footprint, number of floors for existing buildings and percent of building coverage. The building coverage was estimated using Orange County GIS photos and lot area.

In assessing the average building coverage (footprint) in the HI zoning district, potential development for the undeveloped lots in the district can be estimated.

Two existing buildings in the HI district have greater than a single story: the Professional Office building at 491 Route 208 and the Brach and Mann office building at 254 Nininger Road. While adding an additional floor to an existing building is technically feasible, it is unlikely that the owners of the two multi-floor buildings in the district would increase the height of those buildings.

The proposed zoning amendments would allow the addition of another story to the two existing multi-story office buildings in the district, and for other existing buildings and future buildings in the district. Estimates were made of potential new office space related to the potential for an additional floor on each of the lots in the HI district and related potential new workers and new water demand and sewer use. Although unlikely, an owner or developer, could demolish the existing buildings (six) in the HI district and construct a building applying the zoning amendments

resulting in greater height, greater lot coverage and less off-street parking than is currently permitted. Any future development would require site plan approval by the Town Planning Board and would be subject to the SEQRA review process.

Potential impacts from adding an additional floor to the two existing multi-story office buildings in the district include potential visual impacts, among others. The Professional Office building at 491 Route 208 and the Brach and Mann office building at 254 Nininger Road both adjoin NY Route 17 and therefore are viewed by the large number of vehicles traveling in both directions on Route 17 on a daily basis. An additional floor on either of the two buildings would be noticeable, but would not be in stark contrast to the visual character of the existing commercial setting. The additional floor on these two buildings, or potentially on other existing buildings in the district is not expected to have a significant impact upon community character.

The addition of an extra floor to the existing buildings in the district and any new buildings on the two undeveloped lots will result in additional water use and sewer demand, and community services, such as police, fire and emergency service providers. This demand for additional community services and utilities is not expected to be significant, in terms of water / sewer demand and potential number of additional employees.

The text amendments could affect the two other undeveloped properties in the HI district as follows:

1) The text amendment related to increased building height would not apply to these two lots since buildings of greater than two to three stories and their required parking could not be constructed on the lots. A building of four stories and height greater than 40 feet does not appear to be feasible on a sloping lot less than two acres in size. The assessment of development potential in Table 18-2 assumes a single story building on each lot, and the potential for a second story. The potential increase in building square footage and water/sewer use is provided on Table 18-2, assuming an added floor to a future building on the property.
2) The text amendment related to lot coverage could increase coverage on two lots from 65 to 75 percent. A 10 percent increase in lot coverage on the two parcels would slightly increase impervious surface, requiring greater stormwater management facilities for the two properties.
3) A potential reduction in required parking (up to 40 percent) could provide for greater density and development on the two properties, but any increase would be limited by the size of the property (less than 2 acres) and by the steep slopes on the two sites.

Mitigation Measures for Potential Impacts of Proposed HI Zoning Text Amendment

The proposed text amendments could potentially affect each of the nine (9) parcels in the HI zoning district. In practical terms, the potential effects of the zoning changes are limited, due to the fact that six of the nine parcels in the district are currently developed and the two undeveloped parcels (in addition to the Monroe Commons parcel) are relatively small (less than 2-acres) and are constrained by sloping topography. In the event that one or more of the properties in the HI district is developed or redeveloped utilizing the proposed zoning amendments, the potential impacts are not expected to be significant, including in terms of visual and community character, community services and utilities. Any future development would require site plan approval by the Town Planning Board and would be subject to SEQRA. Mitigation measures appropriate to future development/redevelopment may include landscaping, architectural review, land banked parking and water saving features for the buildings.

1.7 Summary of Alternatives Considered

The Applicant is proposing a mixed-use commercial development in a single approximately 407,819 square foot (gross area) building with four floors. The proposed uses include a mix of retail, office uses, and a hotel. The development would include a total of 653 surface parking spaces and supporting utilities, stormwater management facilities, lighting and landscaping. A total of 624 parking spaces will be constructed and an area with an additional 29 banked parking spaces is provided on the plans, for a total of 653 spaces. The banked parking spaces will be constructed if they are found to be necessary. This is the Applicant's preferred development project.

As described in this DEIS, the Applicant has requested from the Town Board text amendments to the HI zoning district including: 1) a request to restore the maximum building height from the current 40 ft. to 50 ft., 2) provide the Planning Board a method of determining off-street parking requirements to potentially reduce the requirements by forty percent (40%) and 3) amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five percent (75%).

Section 617.9(b)(5) of the regulations implementing SEQRA requires that a draft environmental impact statement include a description and evaluation of the range of "*reasonable alternatives to the proposed action which are feasible, considering the objectives and capabilities of the project sponsor"*. The range of alternatives must include the "No Action" alternative. The references to the SEQRA regulations below reflect a range of alternatives that may also include different factors, "*as appropriate*".

The Scoping Document for this DEIS requires an evaluation of the following:

A. No Action/ No Build Alternative per 6 NYCRR 617.9(b)(5)(v).
B. No Variance, Zoning Text Amendment, or Wetland Permit Alternative.
C. Multiple Building Alternative.
D. Terrain Adaptable Parking Alternative

No Action/No Build Alternative

In accordance with SEQRA regulations, the No Action alternative must evaluate the adverse or beneficial impacts that would occur in the reasonably foreseeable future in the absence of the proposed action. For purposes of this analysis, the No Action alternative assumes that the proposed project site would remain an undeveloped wooded parcel with secondary growth forest and wetland areas.

No Variance, Zoning Text Amendment, or Wetland Permit Alternative

This alternative examines a development plan that would have the same mix of uses as the Proposed Project, with the following exceptions:

- Development under this alternative would comply with all dimensional requirements of the HI zoning district (no zoning text amendment and no variances) and other applicable sections of the Town's Zoning Code, including parking requirements.
- This alternative would be developed with the required number of parking spaces (no land-banked or deferred parking).

- No wetlands or streams would be disturbed under this alternative, and therefore no wetland permit or mitigation area would be required.

Multiple Building Alternative

This alternative would assume the same mix of uses as the proposed Project, but those uses would be accommodated within two or more buildings rather than a single building.

Terrain Adaptable Parking Alternative

This alternative would assume the same mix of uses as the Proposed Project, but parking areas would be adapted to the existing terrain of the Project Site (which may require a reduction in required parking and/or a reduction in building size), including but not limited to the following:

- Providing a series of smaller parking islands connected with pedestrian walkways or bridges, as opposed to a mass-graded large lot; and
- Preserving/terracing existing native vegetation and forested areas between parking islands.

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 Project Identification

This Draft Environmental Impact Statement (DEIS) has been prepared in response to a Positive Declaration issued by the Town of Monroe on July 9, 2020, in connection with a Mixed-Use Site Plan application by Monroe Commons LLC, the "Applicant" and owner of the subject property. The proposed project is located on Nininger Road in the Town of Monroe, Orange County, New York.

In connection with a site plan application, after waiting the required 30 days and receiving no written objections from other involved agencies, on June 11, 2020 the Village of Monroe Planning Board identified the proposed development as a Type I Action and declared itself to be Lead Agency for a SEQRA coordinated review. The Planning Board adopted a Positive Declaration on July 9, 2020 and circulated the applicant's SEQRA Draft Scoping Document to all involved and interested agencies. A Public Scoping Session was held on September 10, 2020 with written comments on the Draft Scoping Document accepted until September 21, 2020. The Final Scoping Document was adopted on November 17, 2020. The adopted scoping outline is included as Appendix A of this DEIS.

This DEIS has been prepared to evaluate potential environmental impacts associated with the proposed mixed-use development. The DEIS has been prepared in accordance with the New York State Environmental Quality Review Act (SEQRA) and Part 617 of the regulations implementing SEQRA.

The Applicant is proposing a mixed-use commercial development in a single approximately 407,819 square foot (gross area) building with four floors. The proposed uses include a mix of retail, office uses, and a hotel. The development would include a total of 624 surface parking spaces and an area of 29 banked parking spaces has been provided, for a total of 653 spaces provided. The proposed development includes supporting utilities, stormwater management facilities, lighting, and landscaping.

2.2 Project Site / Environmental Setting

The mixed-use development is proposed on an approximate 18.2-acre parcel in the Town of Monroe identified as Section 2, Block 1, Lot 10. Grading for the development will affect two adjacent parcels. The first adjacent parcel is located in the Town/Village of Woodbury and is identified as Section 225, Block 1 Lot 30, approximately 12.3 acres in size. The development impacts on the Town/Village of Woodbury parcel are limited to approximately 2.5 acres of clearing and grading to allow for project construction. The second adjacent parcel is located in the Village of Kiryas Joel/Town of Palm Tree and is identified as Section 312-1-1, approximately 70 acres in size. This adjoining property is known as Veyoel Moshe Gardens (VMG), a multi-family residential development that is currently under construction. Development in the Village of Kiryas Joel/Town of Palm Tree is limited to grading to allow for roadway, pedestrian and utility connections. The grading and physical improvements on the VMG property, consisting of approximately 0.55 acres, will be done by VMG as part of that development. The grading and paving necessary to provide roadway and pedestrian connections between the two projects will be coordinated between the two owners / developers (see further discussion below).

During the development of the Scoping Document for this DEIS, grading in the Town/Village of Woodbury was not proposed and was not considered in the Scoping Document. This DEIS will

evaluate the potential impacts involving the Town/Village of Woodbury property, including the clearing of trees, grading, drainage and stormwater management, visual impacts and construction. The project SWPPP has considered the proposed grading in the Town/Village of Woodbury. The proposed grading will require Site Plan review and approval by the Village of Woodbury and therefore, the Village Planning Board is an Involved Agency. The Applicant has initiated the Site Plan review process with the Village of Woodbury Planning Board.

The site plan has recently been modified to include two driveway connections to the adjoining Veyoel Moshe Gardens (VMG) residential development directly to the northwest of the project site. Such connections were not considered in the Scoping Document. The driveways and pedestrian connections are part of the site plan proposed by the applicant, and the potential impacts and benefits of the driveway connections are considered and assessed in this DEIS. These driveway connections affect traffic, grading, stormwater, and project approvals. The connections to an adjoining property located in the Village of Kiryas Joel/ Town of Palm Tree will require a Site Plan Amendment for the neighboring VMG projects and review of that Amendment by the Village of Kiryas Joel/Town of Palm Tree Planning Board. The Village of Kiryas Joel/Town of Palm Tree Planning Board is an Involved Agency.

The applicant is in discussions with the Village of Kiryas Joel/Town of Palm Tree regarding the Monroe Commons project and the driveway connections. The sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed driveway connection grading and utility connections (including water, sewer, gas and electric) on the VMG property (see discussion below).

Regional Site Location

The Project site is located in the Town of Monroe, Orange County, New York. Orange County is located on the west side of the Hudson River in the lower Hudson Valley region. The Town of Monroe is located in the southerly portion of the County. Monroe adjoins the Village of Kiryas Joel/Town of Palm Tree to the northeast, the Town of Chester on the northeast, the Town of Blooming Grove on the North, the Village of South Blooming Grove also to the north, on the east and northeast by the Town/Village of Woodbury, on the South by the Town of Tuxedo and on the southwest by the Town of Warwick. The Village of Monroe is contained in the Town of Monroe. The Village of Harriman is also partially in the Town of Monroe.

The project site is north of Nininger Road, which parallels Route 6/17 and west of Interstate 87 (the New York State Thruway) (see Figure 2-1).

Monroe Commons Site Location

The subject site is located on the north side of Nininger Road, approximately between County Route 105 to the northwest and Dunderberg Road to the southwest, as shown in Figure 2-1. The overall Project site consists of two parcels: 1) an approximate 18.2 acre property in the Town of Monroe identified as tax lot 2-1-10, and 2) and approximate 12.5 acre property in the Town/Village of Woodbury identified as tax lot Section 225, Block 1 Lot 30. Figure 2-2 shows the existing setting and character of the project site and surrounding area. Land uses in the vicinity of the site are further described below.

Environmental Setting

The Monroe Commons property is currently undeveloped vacant land and is a mix of mature woods and federally regulated wetland areas. A small pond is located in the southeast portion of the site within a mapped wetland area. Existing conditions on the property are shown in the Existing Conditions Plan in the Site Plan drawings. According to a review of historic aerial photos and site inspections by Team Environmental Consultants, Inc., the property has historically been a mostly undeveloped wooded parcel. A 1965 Aerial photograph identified a small building (possible dwelling) in the southwestern portion of the site next to Nininger Road (see Appendix H). The remnants of a foundation and chimney were found in that area during a site visit indicating a former small residence. No other historical development or on-site uses have been documented. An aerial photograph from 1958 shows the majority of the site as cleared of trees and apparent grading in the middle of the site (see Appendix H). The Phase 1 Environmental Site Assessment Report is provided as Appendix H.

Topography on the project site generally slopes from northeast to southwest with a generally steep hillside located along the northwestern property border and lower elevations in the wetland are bordering Nininger Road. The highest elevations along the northeast property border at 700 feet sloping to the wetland area in the southeast corner of the site with elevations of 630 feet. Site topography is further described in Section 4.0 - Geology, Soils and Topography.

The Project site has approximately 900 feet of frontage on Nininger Road, where access to the development will be provided. In 2019 a gravel field road was installed to allow a water supply well to be drilled in the north central portion of the site. A Building Permit for the well installation was issued on October 7, 2019 and is provided in Appendix B. The location of the well access road is shown on the Existing Conditions Plan in the Site Plan drawings. An older field road is located along the eastern property border extending up the hillside and paralleling a stone wall on the property line. The field road and former foundation described above are the only man-made features located on the property.

The project site is currently undeveloped mostly wooded, vacant land. The western property line borders the Village of Kiryas Joel/Town of Palm Tree. A residential project knowns as Veyoel Moshe Gardens (VMG) a 1,600-unit multi-family residential development is currently under construction on the adjoining property to the west. Property adjoining the site to the north is located in the Town/Village of Woodbury. The adjoining property to the north is currently an undeveloped wooded hillside. Property adjoining the site to the east is vacant wooded land located in the Town of Monroe. The southern property border adjoins Nininger Road and two smaller parcels which border Nininger Road. The property at 254 Nininger Road is a professional office building with parking. The property at 214 Nininger Road is currently used by the Village of Kiryas Joel/Town of Palm Tree for the parking of municipal garbage trucks.

Easements

No easements, rights-of-way, legal restrictions, or special districts have been identified that may affect the property's development potential.

Proposed Zoning Text Amendments

The property is located in the HI – Heavy Industry zoning district, according to the Town of Monroe Zoning Map. As part of the proposed action, the Applicant has requested from the Town Board,

zoning text amendments related to building height, parking, and lot coverage. Specifically, the proposed zoning text amendments include:

1) Restore the maximum building height in the HI – Heavy Industry District to fifty feet (50 ft) from forty feet (40 ft.);
2) Include the HI District in Section 57-47E (Method of determining off-street parking requirements) of the Zoning Code, to empower the Town Planning Board to reduce the otherwise applicable parking requirements by forty percent (40%), and
3) Amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five (75%).

A copy of the Petition for Zoning Text Amendments is provided in Appendix B – Correspondence. The requested Amendments are currently under review by the Town Board.

Variances from the Town of Monroe Zoning Board of Appeals will be required, in the event that the Town Board does not adopt the proposed zoning amendments.

The proposed text amendments would affect other properties mapped in the HI zoning district in the Town of Monroe. This DEIS has evaluated the potential impacts of the proposed text amendments on other properties in HI zoning districts in the Town and this evaluation is described in Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendment. Two other undeveloped properties on Nininger Road are located in the eastern area of the HI zoning district and are shown in Figure 18-2 Properties in HI District - East (See Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendment).

The HI – Heavy Industry zoning district is mapped in two areas of the Town, as shown on the attached Figure 18-1 Town of Monroe Zoning Map (See Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendment) and reproduced here as Figure 2-5, at the end of this Section. The Town zoning map was most recently revised in November, 2017. Land in the HI district is located at the northeast border of Town and in a second area in the northwest border of the Town. The project site and four other smaller parcels are mapped in the district, bordering the Village/Town of Woodbury. This HI district area borders property in the LI – Light Industry district to the south across NY Route 17/US Route 6.

Four parcels are mapped in the HI District located at the northwest edge of the Town bordering the Village of South Blooming Grove. This HI district area borders LI - Light Industry property to the west and the GB – General Business district to the south (See Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendment). The four properties at the northwest edge of the Town are 2.47, 1.03, 1.03 and 1.0 acres in size.

The specific properties, acreage, ownership and uses are provided in Table 18-1, at the end of Section 18.0 and reproduced here as Table 2-1, at the end of this Section. The specific properties are shown in two figures; Figure 18-2 Properties in HI District - East and Figure 18-3 Properties in HI District - West. As described, the Project site is undeveloped land. Adjoining property in the district includes: 254 Nininger Road (0.25 acres), developed as an office building, and 214 Nininger Road (0.75 acres), containing a garage and parking area for Village of Kiryas Joel sanitation trucks. Two other parcels in the district, indicated as lot numbers 4 and 5 on Figure 18-2, are vacant land. These properties are 1.72 and 0.76 acres in size, respectively.

2.3 Proposed Action

The proposed action will require Site Plan and Architectural review approval by the Town of Monroe Planning Board, which has been designated as lead agency for the required coordinated SEQRA review. The proposed action will also require a special permit for the hotel use and a local wetlands permit, from the Planning Board. The list of other approvals required to develop the proposed Project includes the following.

- HI Zoning Text Amendment (**Town of Monroe Town Board**): Specifically, the applicant has petitioned the Town Board to make the following amendments: (1) restore the maximum building height in the HI District to fifty feet (50 ft) from forty feet (40 ft.); (2) include the HI District in Section 57-47E (Method of determining off-street parking requirements) of the Zoning Code, so as to empower the Planning Board to reduce the otherwise applicable parking requirements by forty percent (40%); and (3) amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five (75%). A copy of the Petition for Zoning Text Amendments is provided in Appendix B – Correspondence, and the Zoning Text Amendment, and its potential impacts, are described more fully in Section 18.0 Potential Impacts of Proposed Zoning Text Amendment.
- Special Permit for Hotel Use (**Town of Monroe Planning Board**), whereby Article V of the Town Zoning Code applies.
- Site Plan and Architectural Approval (**Town of Monroe Planning Board**), whereby Article VI and Section 57-31 of the Town Zoning Code apply.
- Local Wetlands Permit (**Town of Monroe Planning Board**), whereby Chapter 56, Wetlands, of the Town Code applies.
- Stormwater Pollution Prevention Plan Approval (**Town of Monroe Planning Board**), whereby Section 46-12 of the Town Code, Stormwater, Soil Erosion and Sediment Control applies.
- *Potential* Area Variances for lot coverage, height, and parking and *potential variance* from Town Code Section 57-20(B)(6) related to a protective planting strip within a side yard adjacent to a residential district (**Town of Monroe Zoning Board of Appeals**).
- Highway Work Permit (**Orange County Department of Public Works**)
- Driveway Permit (**Orange County Department of Public Works**)
- Utility Permit (**Orange County Department of Public Works**)
- Orange County Sewer District No. 1 Sewer Use Permit (**Orange County Environmental Facilities and Services**)
- State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (**New York State Department of Environmental Conservation [NYSDEC], Region 3**)
- Nationwide Wetlands Permit (**U.S. Army Corps of Engineers**)
- Clearing & Grading Permit / Site Plan Approval for grading and tree clearing (**Village of Woodbury Planning Board**), whereby Section 310-45 of the Village of Woodbury Code applies.
- Water Connection to Village of Kiryas Joel/Town of Palm Tree municipal system (**Village of Kiryas Joel/Town of Palm Tree**)
- Site Plan Amendment for proposed driveway and pedestrian connections to the VMG property, grading and utility connections (**Village of Kiryas Joel/Town of Palm Tree Planning Board [same Board for Village and Town**]), whereby Section 155-21 of the Village of Kiryas Joel Zoning Law applies.

The agencies responsible for the above approvals, shown in parentheses, are identified as "Involved Agencies" pursuant to SEQRA. The complete list of both involved and interested agencies is provided in Section 2.6, below.

2.4 Proposed Project

The Applicant is proposing a mixed-use commercial development in a single approximately 407,819 square foot (gross area) building with four floors. The proposed uses include a mix of retail, office uses, and a hotel. The development would include a total of 653 surface parking spaces and supporting utilities, stormwater management facilities, lighting, and landscaping. A total of 624 parking spaces will be constructed and an area with an additional 29 banked parking spaces is provided on the plans, for a total of 653 spaces. The banked parking spaces will be constructed if they are found to be necessary.

The Monroe Commons mixed-use commercial building will be approximately 407,819 square feet in size and four (4) stories in height. The square footage, as shown in the Site Plan drawings is the gross floor area and includes common areas and storage. The building will be set back from Nininger Road in the northwest portion of the site. The building is designed to fit the site's topography and will have entrances and parking on different levels at the front (south) and rear (north) of the building.

The main building entrance area and access to the first floor will have three separate entrances for both retail and office uses. This main entrance will have a bus and taxi drop off area as well as designated handicapped parking areas. A retail entrance and access to the second floor is provided at the west side of the building. Separate entrances for hotel and office uses and access to the third floor is provided at the north side of the building, as well as associated parking for those uses.

The development will have two entrances on Nininger Road, a western entrance adjacent to 254 Nininger Road and a second entrance in the approximate center of the property. The central entrance has three lanes, with one entering lane and two existing lanes for westbound and eastbound traffic onto Nininger Road.

Two main parking areas will be provided, as well as a driveway that will provide access around the building. The front or first floor parking provides 377 spaces and the rear or second and third floor parking provides 247 spaces. Another 29 banked parking spaces are provided at the eastern side of the building and driveway. The Site Plan provides a total of 653 parking spaces. A loading area with 7 loading docks is provided at the eastern side of the building. A trash compactor for the building is provided in this service area.

There will be two driveway connections to the adjacent residential project known as Veyoel Moshe Gardens (VMG), a multi-family residential development that is currently under construction on the adjoining property to the west. The driveway connections, including pedestrian sidewalk connections, are shown in the current Site Plan drawings. The Traffic Impact Study (Appendix G) and Section 9.0 Transportation and Traffic assess the potential impacts, including potential traffic benefits of the driveway connections.

Such a driveway connection would allow residents of VMG to access the Monroe Commons development without driving on Nininger Road, thereby relieving some project generated traffic from local roads and intersections.

Three pedestrian connections are proposed to the neighboring VMG residential development, as shown on the Site Plan drawings (see Site Plan 1 and 2). Sidewalks, six-feet in width will be provided at the lower and upper driveway connections and a third walkway near the northern building entrance. Sidewalks will allow residents of the VMG development to access the site at several points without the need for vehicles. Additionally, a pedestrian crossing over CR 105 is planned to connect the VMG development to business and shopping areas in the Village of Kiryas Joel / Town of Palm Tree. That pedestrian walkway is not part of the Monroe Commons development. The walkway will allow pedestrian circulation between the Monroe Commons development and the Village core, without traveling on CR 105 and Nininger Road. The location of that walkway in relation to the Monroe Commons development is shown in Figure 9-1 in Section 9.0 Transportation and Traffic.

Proposed Building Uses

The Monroe Commons development will support a mix of uses in a modern, attractive building. The uses include approximately 168,690 square feet of retail space (gross area), located on the first and second floors. Potential retail tenants include a grocery store and other general retail tenants. Approximately 39,226 square feet of office space will be provided on the third floor of the building. A portion of the third floor will include a hotel with 39 rooms and lobby and meeting space. The fourth floor of the building will contain approximately 76,462 square feet of office space (gross area).

The building will have attractive modern architecture, including a varied outer façade of stone and glass with metal trim. Architectural canopies will be provided at the three building entrances as well as landscaped islands, and a clocktower is proposed at the southeast building corner (see Figures 15-8 through 15-10). Elevations of the four sides of the building are provided as full sized drawings with the Site Plan set, as well as preliminary floor plans for the building interior. The building architecture is described and building renderings provided in Section 15.0 Visual Resources and Community Character.

The development will be fully landscaped with street trees and native plantings, as shown in the attached Landscape Plan (see Site Plan drawings). The Landscaping Plan provides street trees along the property frontage on Nininger Road and around the two driveway entrances. Street trees and shrubs will be planted at the perimeter of the development and throughout the two main parking areas. Trees and shrubs are provided around the proposed building, especially at building entrance areas.

The building will utilize energy efficient heating and cooling systems, and water saving fixtures to minimize the use of energy and water utilities. The building will meet NY State Building Code requirements for energy efficiency. Currently, the Applicant is proposing solar panels to provide service for the planned electric vehicle charging stations. Opportunities to provide other green infrastructure will be explored as the detailed mechanical and heating and cooling plans are developed for the building.

Grading

The proposed grading will involve cuts generally in the northwest corner of the site for the building construction and fill in generally the southwest portion of the property for parking areas and driveways. This grading will alter the stormwater run-off sub-catchment boundaries from the existing conditions to the post-construction conditions.

Based upon engineering estimates, development of the Site Plan would involve a cut of approximately 143,899 cubic yards of material and a fill of approximately 144,333 cubic yards for a net fill of 434 cubic yards of material to be imported to the site. As such, the cut and fill will be balanced or a relatively small volume of fill material would need to be imported to the site. A proposed cut and fill map is provided as Figure 4-4.

This is a preliminary estimate based upon the current grading plan. This estimate is likely to be updated as the site plan and grading plan are further refined. As shown in the Proposed Cut and Fill Plan (Figure 4-4), the majority of the earth fills would be to accommodate even grades for the proposed parking areas. Cuts greater than five feet would occur in the building footprint for the building basement and at the slope along the northeastern property line.

Approximately 2.5 acres of clearing and grading will be required on the adjacent parcel in the Town of Woodbury (see attached Grading Plan). A Site Plan review and approval will be required from the Village of Woodbury Planning Board, and that Board is an Involved Agency in the SEQRA review process.

The two proposed driveway connections and a third pedestrian walkway to the adjacent Veyoel Moshe Gardens (VMG) development property will require grading in the Village of Kriyas Joel / Town of Palm Tree. That grading is shown on the attached Site Plan Drawings. The grading and the utility connections will require a Site Plan Amendment from the Village of Kiryas Joel / Town of Palm Tree Planning Board (a single Planning Board functions for the Village and the Town). The sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed driveway connection grading and utility connections (including water, sewer, gas and electric) on the VMG property (see discussion below).

The limits of grading and vegetation removal area are shown on the attached Grading Plan, in the Site Plan drawings. Total disturbance for construction will involve 17.7 acres in total, including 2.5 acres in the Village of Woodbury. Heavy equipment will be required to move soil in all areas to be graded and will not be used in undisturbed portions of the site, including undisturbed areas of wetland. Construction fencing will demarcate areas not to be disturbed by equipment.

Utilities

The subject property is not currently served by a municipal water supply. The Applicant initially proposed a private potable water supply system for the development served by two water supply wells. A single exploratory well was drilled on the site in 2019. Given the multi-agency approvals process and long-term maintenance requirements for a private potable water supply system, the Applicant proposes a connection to the Village of Kiryas Joel / Town of Palm Tree municipal water system on the adjacent Veyoel Moshe Gardens (VMG) property. The Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter, whereby the Village has agreed to supply water for the Monroe Commons project at the required level, estimated to be 54,210 gallons per day, and expressing the Village's willingness to approve the connection, subject to the standard Outside Water User Development Agreement to be recorded in the office of the County Clerk. The letter from the Village is provided in Appendix B – Correspondence. In addition, the sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed utility connections (including water, sewer, gas and electric) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations. The Village of Kiryas Joel / Town of Palm Tree Planning Board will require a Site Plan Amendment for the proposed driveway connections and water service connection on the VMG property in the

Village / Town. Further discussion regarding the proposed connection to the Village of Kiryas Joel/ Town of Palm Tree municipal water system is provided in Section 16.0 Utilities. The existing well, located in the approximate center of the site, is shown on the Site Plan as "To be abandoned."

The Project site is located in Orange County Sewer District No. 1. Approval will be required from Orange County Sewer District No. 1 on the adjacent VMG property. The sponsor of the Veyoel Moshe Gardens (VMG) residential development has provided a letter confirming their agreement for the proposed utility connections (including water, sewer, gas and electric) on the VMG property (see discussion above). Plans for water and sewer service are further discussed in Sections 16.0 – Utilities.

Local electrical service is provided by Rockland Utilities, Inc and is available from Nininger Road. Natural gas service is available in Nininger Road and building heating and cooling will be provided by a combination of electric and natural gas. Cable and internet service are provided by private carriers in the Town.

Stormwater management will be completed on-site and will be maintained by the property owner. Stormwater from parking areas, driveways and the building rooftop will be directed to surface or underground stormwater management facilities. The Stormwater Pollution Prevention Plan (SWPPP) prepared by the project engineer provides the details of stormwater management (see Appendix F). Two surface stormwater infiltration basins are proposed: one adjacent to Nininger Road and a second in the southeast corner of the development. A total of two underground infiltration units will provide for appropriate Runoff Reduction of the required Water Quality Volume for the development. The SWPPP and stormwater management for the development is summarized in Section 8.0 Stormwater Management.

The details of the proposed development are described in this DEIS and are shown in the attached graphic plans and technical reports. The graphics and reports are provided, as follows:

- Site Plan set pursuant to Town Code § 57-17; (attached)
- Floor plans (internal layout) of the proposed building (see Section 15.0 Visual Resources and Community Character)(Floor Plans are attached as part of the Architectural Drawings)
- Architectural floor plans, building elevations and renderings pursuant to Town Code § 57-32 are attached as an Architectural Drawings set and shown in Figures 15-7 through 15-10 (see Section 15.0 Visual Resources and Community Character for discussion),
- Construction phasing is described in Section 17.0 Construction Impacts (since the project will be developed in one phase, a construction phasing *drawing* is not provided;
- Grading plan including proposed limits of disturbance (Site Plan drawings, *Grading Plan 1 to 3*);
- Tree inventory pursuant to Town Code § 57-84 (Site Plan drawings, *Existing Tree Survey*);
- Landscaping plan pursuant to Town Code § 57-17 (Site Plan drawings *L-1 to L-3*; Figure 15-11); and
- Stormwater Pollution Prevention Plan (SWPPP) and Erosion and Sediment Control Plan pursuant to Chapter 46 of the Town Code (Appendix F).

Wetland Mitigation Area

A portion of the on-site wetlands will be impacted by the proposed development. The project will require a wetlands permit from the Town of Monroe Planning Board and a general permit from the US Army Corps of Engineers for the project construction. A discussion of the on-site wetland resources, potential impacts and wetland mitigation is provided in Section 5.0 Wetlands and Surface Water Resources. Mitigation for wetland impacts will be provided on-site and wetland mitigation areas are shown on the attached Site Plan drawings. Wetland mitigation is proposed in five (5) areas with a total area of 39,374 square feet, generally at the perimeter of the central on-site wetland. The Wetland Mitigation Plan provides cross sections and a planting schedule.

2.5 Purpose, Public Need and Benefits

The applicant, Monroe Nininger, LLC proposes a mixed-use retail, office and hotel building to provide needed retail, office, and hotel space for residents of the Town of Monroe, Village of Kiryas Joel/Town of Palm Tree, the Town/Village of Woodbury and surrounding communities and visitors to Monroe. The building will provide attractive retail and office space in a modern building at a location convenient to Route 17 / Route 6 and to Interstate 87, at the northern edge of the Town of Monroe. The proposed hotel will provide needed hotel rooms for visitors to the Town of Monroe and Village of Kiryas Joel/Town of Palm Tree catering to business travelers and visitors attending weddings and special events in the community.

The proposed development will provide needed additional ratables and tax revenue to the Town of Monroe, and the various tax jurisdictions. The increase in taxes will offset the potential costs for the Town to service the site with emergency services such as police, fire and emergency medical service.

2.6 Interested / Involved Agencies and Required Approvals

The list of the approvals required to construct the Proposed Project is presented below. The governmental agencies responsible for those approvals, shown in parentheses, are identified as **"Involved Agencies"** pursuant to SEQRA.

- HI Zoning Text Amendment (Town of Monroe Town Board)
- *Potential* Area Variances for lot coverage, height, and parking and *potential variance* from Town Code Section 57-20(B)(6) related to a protective planting strip within a side yard adjacent to a residential district (Town of Monroe Zoning Board of Appeals)
- Special Permit for Hotel Use (Town of Monroe Planning Board)
- Site Plan and Architectural Approval (Town of Monroe Planning Board)
- Local Wetlands Permit (Town of Monroe Planning Board)
- Stormwater Pollution Prevention Plan Approval (Town of Monroe Planning Board)
- Highway Work Permit (Orange County Department of Public Works)
- Driveway Permit (Orange County Department of Public Works)
- Utility Permit (Orange County Department of Public Works)
- Orange County Sewer District No. 1 Sewer Use Permit (Orange County Environmental Facilities and Services)
- State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (New York State Department of

Environmental Conservation [NYSDEC], Region 3)

- Nationwide Wetlands Permit (U.S. Army Corps of Engineers)
- Clearing & Grading Permit / Site Plan Approval for grading and tree clearing (**Village of Woodbury Planning Board)**
- Water Connection to Village of Kiryas Joel/Town of Palm Tree municipal system (Village of Kiryas Joel / Town of Palm Tree .
- Site Plan Approval for grading and Tree clearing (Village of Woodbury Planning Board)
- Site Plan Amendment for proposed driveway and pedestrian connections to the VMG property, grading and utility connections (Village of Kiryas Joel/ Town of Palm Tree Planning Board [same Board for Village and Town]).

"Interested Agencies" participating in review of the Proposed Action under SEQRA, include:

- New York State Department of Transportation, Region 8
- New York State Office of Parks, Recreation, and Historic Preservation (National Historic Preservation Act Section 106 Review, NYS Historic Preservation Act Section 14.09 Review, and other input as required for the SWPPP)
- NYSDEC Department of Fish & Wildlife
- NYSDEC Natural Heritage Program
- Orange County Department of Planning (General Municipal Law [GML] 239-m Referral, Review of proposed Local Law)
- Orange County Department of Public Works (GML 239-f Referral)
- Town of Monroe Building Department (Building Permit)
- Monroe Joint Fire District
- Village of Monroe
- Village of Harriman
- Monroe-Woodbury Central School District
- Village of Woodbury
- Town of Woodbury

Table 2-1
Properties in HI District for Evaluation of
Proposed Zoning Text Amendments

Map Designation	Tax Lot Number	Address	Area (acres)	Owner	Current Use	Ownership
1	**2-1-10**	**Nininger Road**	**17.82**	**Monroe Nininger LLC**	**Vacant**	**Private**
2	2-1-9	254 Nininger Road	0.25	Brach and Mann Building LLC	Office	Private
3	2-1-11	214 Nininger Road	0.75	Village of Kiryas Joel	Truck Storage	Public
4	2-1-12.2	208 Nininger Road	1.72	A&D Commercial Realty LLC	Vacant	Private
5	2-1-12.32	Nininger Road	0.76	Not known	Vacant	Private
6	1-1-89	491 Route 208	2.47	Professional Square LLC	Office Building	Private
7	1-1-88	495 Route 208	1.03	495 Route 208 LLC	Tile Store	Private
8	1-1-87	501 Route 208	1.03	17M Goldstar LLC	Office	Private
9	50-1-1	505 Route 208	1	Not known	Medical Office	Private

Sources: Orange County GIS, NYS GIS

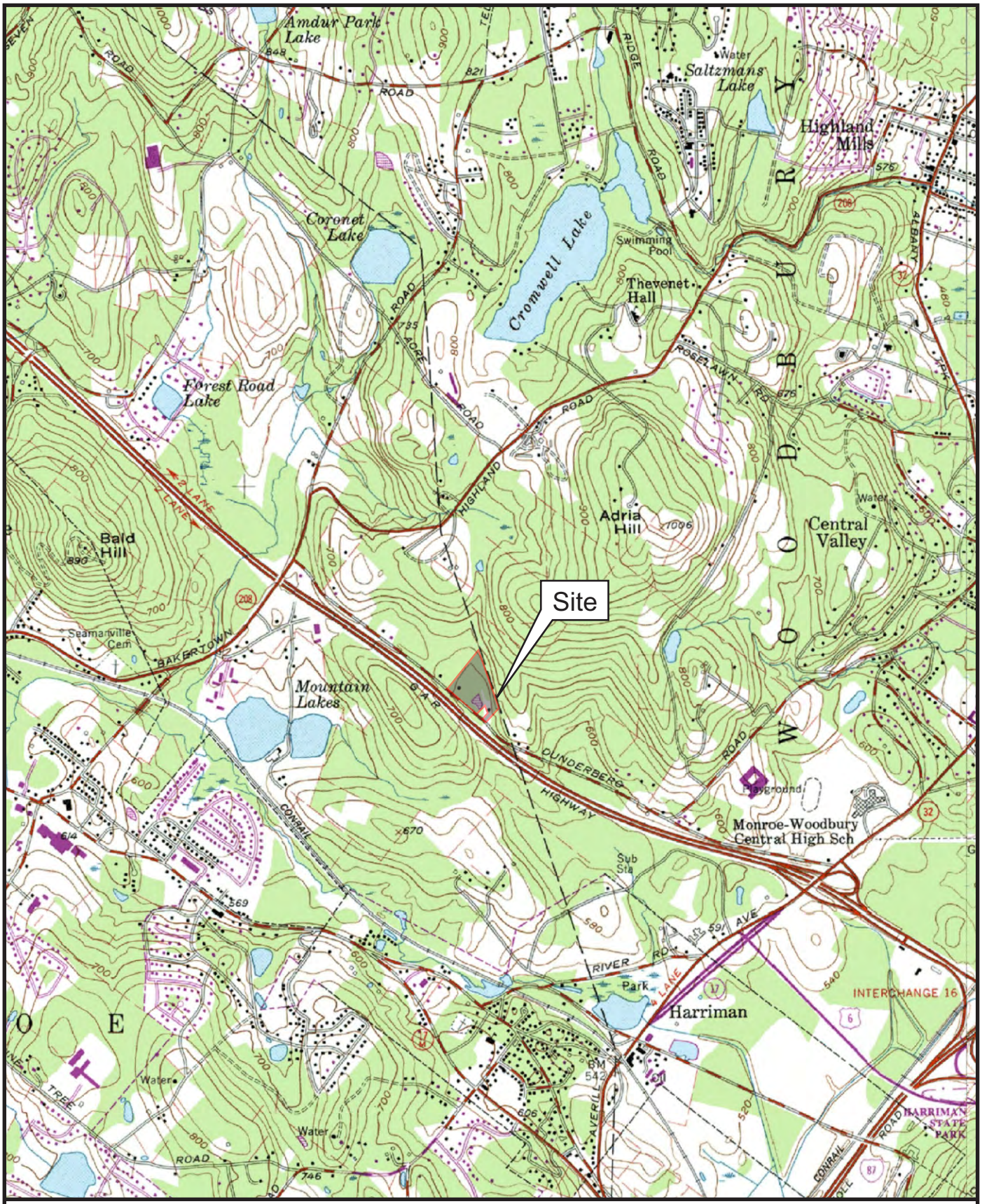
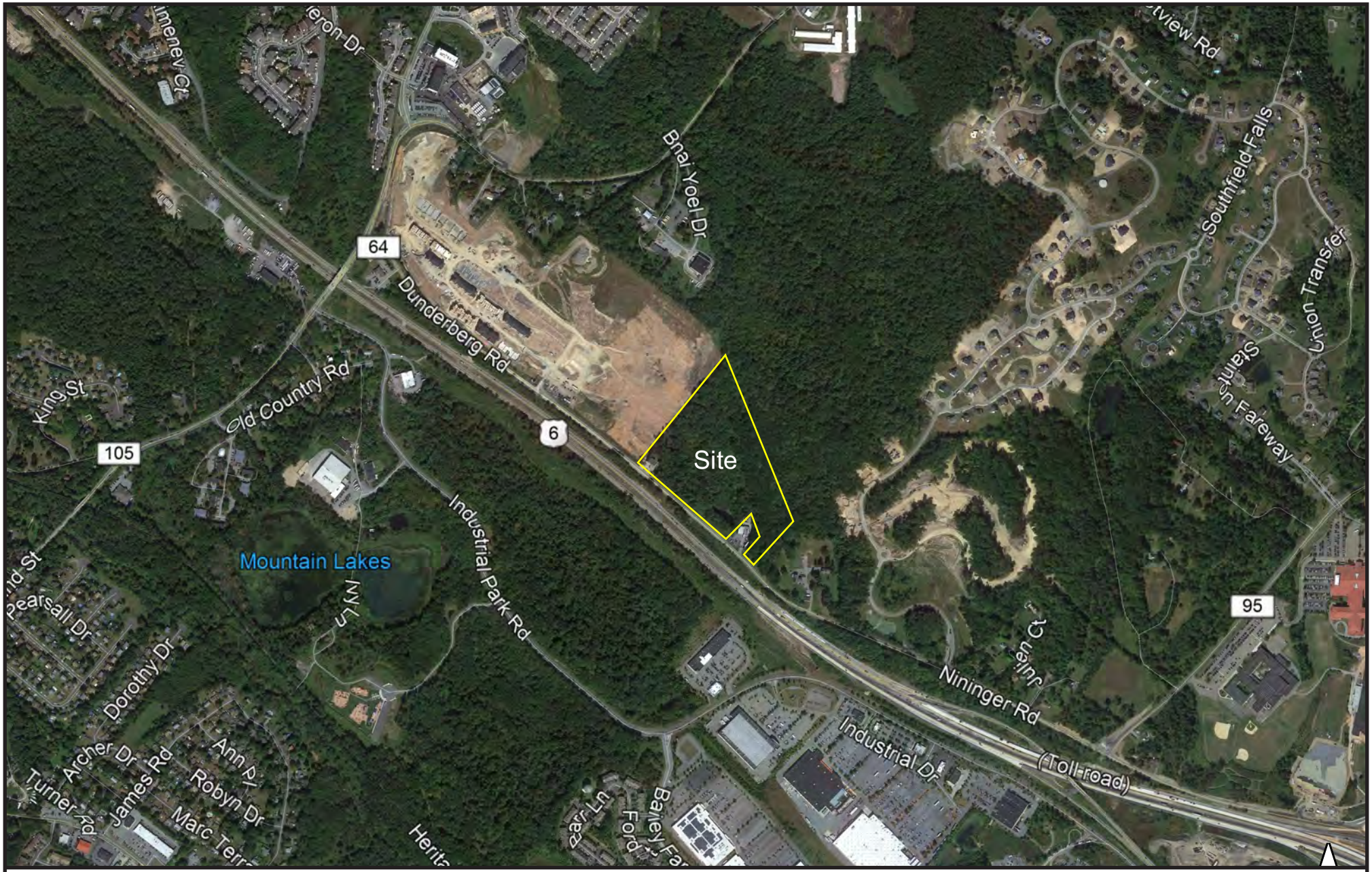


Figure 2-1: Location Map
Monroe Commons
Town of Monroe, Orange County, New York
Base Map: Terrain Navigator

File 21032 09-30-2021

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418



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File 10075 Fig 1 01/17/10

Figure 2-2: Project Setting
Monroe Commons
Town of Monroe, NY
Approx. Scale: 1 in. = 1050 ft.
Source: Google Maps

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

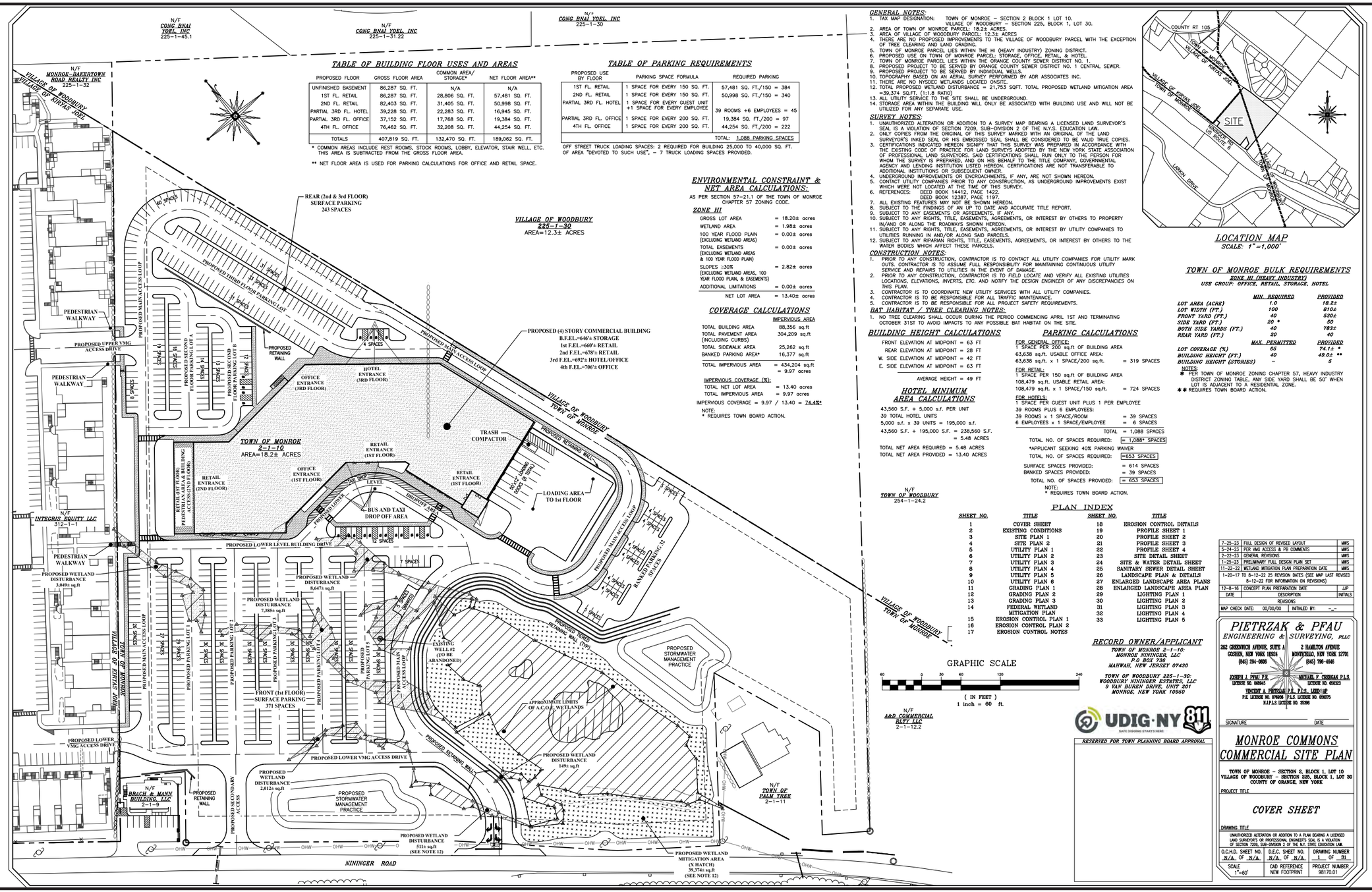


TABLE OF BUILDING FLOOR USES AND AREAS

PROPOSED FLOOR	GROSS FLOOR AREA	COMMON AREA/ STORAGE*	NET FLOOR AREA**
UNFINISHED BASEMENT	86,287 SQ. FT.	N/A	N/A
1ST FL. RETAIL	86,287 SQ. FT.	28,806 SQ. FT.	57,481 SQ. FT.
2ND FL. RETAIL	82,403 SQ. FT.	31,405 SQ. FT.	50,998 SQ. FT.
PARTIAL 3RD FL. HOTEL	39,228 SQ. FT.	22,283 SQ. FT.	16,945 SQ. FT.
PARTIAL 3RD FL. OFFICE	37,152 SQ. FT.	17,768 SQ. FT.	19,384 SQ. FT.
4TH FL. OFFICE	76,462 SQ. FT.	32,208 SQ. FT.	44,254 SQ. FT.
TOTALS	407,819 SQ. FT.	132,470 SQ. FT.	189,062 SQ. FT.

* COMMON AREAS INCLUDE REST ROOMS, STOCK ROOMS, LOBBY, ELEVATOR, STAIR WELL, ETC. THIS AREA IS SUBTRACTED FROM THE GROSS FLOOR AREA.

** NET FLOOR AREA IS USED FOR PARKING CALCULATIONS FOR OFFICE AND RETAIL SPACE.

TABLE OF PARKING REQUIREMENTS

PROPOSED USE BY FLOOR	PARKING SPACE FORMULA	REQUIRED PARKING
1ST FL. RETAIL	1 SPACE FOR EVERY 150 SQ. FT.	57,481 SQ. FT./150 = 384
2ND FL. RETAIL	1 SPACE FOR EVERY 150 SQ. FT.	50,998 SQ. FT./150 = 340
PARTIAL 3RD FL. HOTEL	1 SPACE FOR EVERY GUEST UNIT +1 SPACE FOR EVERY EMPLOYEE	39 ROOMS +6 EMPLOYEES = 45
PARTIAL 3RD FL. OFFICE	1 SPACE FOR EVERY 200 SQ. FT.	19,384 SQ. FT./200 = 97
4TH FL. OFFICE	1 SPACE FOR EVERY 200 SQ. FT.	44,254 SQ. FT./200 = 222
		TOTAL: 1,088 PARKING SPACES

OFF STREET TRUCK LOADING SPACES: 2 REQUIRED FOR BUILDING 25,000 TO 40,000 SQ. FT. OF AREA "DEVOTED TO SUCH USE", – 7 TRUCK LOADING SPACES PROVIDED.

ENVIRONMENTAL CONSTRAINT & NET AREA CALCULATIONS:

AS PER SECTION 57-21.1 OF THE TOWN OF MONROE CHAPTER 57 ZONING CODE.

ZONE HI

GROSS LOT AREA	= 18.20± acres
WETLAND AREA	= 1.98± acres
100 YEAR FLOOD PLAIN (EXCLUDING WETLAND AREAS)	= 0.00± acres
TOTAL EASEMENTS (EXCLUDING WETLAND AREAS & 100 YEAR FLOOD PLAIN)	= 0.00± acres
SLOPES >30% (EXCLUDING WETLAND AREAS, 100 YEAR FLOOD PLAIN, & EASEMENTS)	= 2.82± acres
ADDITIONAL LIMITATIONS	= 0.00± acres
NET LOT AREA	= 13.40± acres

COVERAGE CALCULATIONS

	IMPERVIOUS AREA
TOTAL BUILDING AREA	88,356 sq.ft
TOTAL PAVEMENT AREA (INCLUDING CURBS)	304,209 sq.ft
TOTAL SIDEWALK AREA	25,262 sq.ft
BANKED PARKING AREA*	16,377 sq.ft
TOTAL IMPERVIOUS AREA	= 434,204 sq.ft = 9.97 acres

IMPERVIOUS COVERAGE (%):

TOTAL NET LOT AREA	= 13.40 acres
TOTAL IMPERVIOUS AREA	= 9.97 acres

IMPERVIOUS COVERAGE = 9.97 / 13.40 = 74.4%*

NOTE:
* REQUIRES TOWN BOARD ACTION.

GENERAL NOTES:

1. TAX MAP DESIGNATION: TOWN OF MONROE – SECTION 2 BLOCK 1 LOT 10. VILLAGE OF WOODBURY – SECTION 225, BLOCK 1, LOT 30.
2. AREA OF TOWN OF MONROE PARCEL: 18.2± ACRES.
3. AREA OF VILLAGE OF WOODBURY PARCEL: 12.3± ACRES
4. THERE ARE NO PROPOSED IMPROVEMENTS TO THE VILLAGE OF WOODBURY PARCEL WITH THE EXCEPTION OF TREE CLEARING AND LAND GRADING.
5. TOWN OF MONROE PARCEL LIES WITHIN THE HI (HEAVY INDUSTRY) ZONING DISTRICT.
6. PROPOSED USE ON TOWN OF MONROE PARCEL: STORAGE, OFFICE, RETAIL, & HOTEL.
7. TOWN OF MONROE PARCEL LIES WITHIN THE ORANGE COUNTY SEWER DISTRICT NO. 1.
8. PROPOSED PROJECT TO BE SERVED BY ORANGE COUNTY SEWER DISTRICT NO. 1 CENTRAL SEWER.
9. PROPOSED PROJECT TO BE SERVED BY INDIVIDUAL WELLS.
10. TOPOGRAPHY BASED ON AN AERIAL SURVEY PERFORMED BY ADR ASSOCIATES INC.
11. THERE ARE NO NYSDEC WETLANDS LOCATED ONSITE.
12. TOTAL PROPOSED WETLAND DISTURBANCE = 21,753 SQFT. TOTAL PROPOSED WETLAND MITIGATION AREA =39,374 SQ.FT. (1:1.8 RATIO)
13. ALL UTILITY SERVICE TO THE SITE SHALL BE UNDERGROUND.
14. STORAGE AREA WITHIN THE BUILDING WILL ONLY BE ASSOCIATED WITH BUILDING USE AND WILL NOT BE UTILIZED FOR ANY SEPARATE USE.

SURVEY NOTES:

1. UNAUTHORIZED ALTERATION OR ADDITION TO A SURVEY MAP BEARING A LICENSED LAND SURVEYOR'S SEAL IS A VIOLATION OF SECTION 7209, SUB-DIVISION 2 OF THE N.Y.S. EDUCATION LAW.
2. ONLY COPIES FROM THE ORIGINAL OF THIS SURVEY MARKED WITH AN ORIGINAL OF THE LAND SURVEYOR'S INKED SEAL OR HIS EMBOSSED SEAL SHALL BE CONSIDERED TO BE VALID TRUE COPIES.
3. CERTIFICATIONS INDICATED HEREON SIGNIFY THAT THIS SURVEY WAS PREPARED IN ACCORDANCE WITH THE EXISTING CODE OF PRACTICE FOR LAND SURVEYS ADOPTED BY THE NEW YORK STATE ASSOCIATION OF PROFESSIONAL LAND SURVEYORS. SAID CERTIFICATIONS SHALL RUN ONLY TO THE PERSON FOR WHOM THE SURVEY IS PREPARED, AND ON HIS BEHALF TO THE TITLE COMPANY, GOVERNMENTAL AGENCY AND LENDING INSTITUTION LISTED HEREON. CERTIFICATIONS ARE NOT TRANSFERABLE TO ADDITIONAL INSTITUTIONS OR SUBSEQUENT OWNER.
4. UNDERGROUND IMPROVEMENTS OR ENCROACHMENTS, IF ANY, ARE NOT SHOWN HEREON.
5. CONTACT UTILITY COMPANIES PRIOR TO ANY CONSTRUCTION, AS UNDERGROUND IMPROVEMENTS EXIST WHICH WERE NOT LOCATED AT THE TIME OF THIS SURVEY.
6. REFERENCES: DEED BOOK 14412, PAGE 1422.
   DEED BOOK 12387, PAGE 1197.
7. ALL EXISTING FEATURES MAY NOT BE SHOWN HEREON.
8. SUBJECT TO THE FINDINGS OF AN UP TO DATE AND ACCURATE TITLE REPORT.
9. SUBJECT TO ANY EASEMENTS OR AGREEMENTS, IF ANY.
10. SUBJECT TO ANY RIGHTS, TITLE, EASEMENTS, AGREEMENTS, OR INTEREST BY OTHERS TO PROPERTY IN/AND OR ALONG THE ROADWAYS SHOWN HEREON.
11. SUBJECT TO ANY RIGHTS, TITLE, EASEMENTS, AGREEMENTS, OR INTEREST BY UTILITY COMPANIES TO UTILITIES RUNNING IN AND/OR ALONG SAID PARCELS.
12. SUBJECT TO ANY RIPARIAN RIGHTS, TITLE, EASEMENTS, AGREEMENTS, OR INTEREST BY OTHERS TO THE WATER BODIES WHICH AFFECT THESE PARCELS.

CONSTRUCTION NOTES:

1. PRIOR TO ANY CONSTRUCTION, CONTRACTOR IS TO CONTACT ALL UTILITY COMPANIES FOR UTILITY MARK OUTS. CONTRACTOR IS TO ASSUME FULL RESPONSIBILITY FOR MAINTAINING CONTINUOUS UTILITY SERVICE AND REPAIRS TO UTILITIES IN THE EVENT OF DAMAGE.
2. PRIOR TO ANY CONSTRUCTION, CONTRACTOR IS TO FIELD LOCATE AND VERIFY ALL EXISTING UTILITIES LOCATIONS, ELEVATIONS, INVERTS, ETC. AND NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES ON THIS PLAN.
3. CONTRACTOR IS TO COORDINATE NEW UTILITY SERVICES WITH ALL UTILITY COMPANIES.
4. CONTRACTOR IS TO BE RESPONSIBLE FOR ALL TRAFFIC MAINTENANCE.
5. CONTRACTOR IS TO BE RESPONSIBLE FOR ALL PROJECT SAFETY REQUIREMENTS.

BAT HABITAT / TREE CLEARING NOTES:

1. NO TREE CLEARING SHALL OCCUR DURING THE PERIOD COMMENCING APRIL 1ST AND TERMINATING OCTOBER 31ST TO AVOID IMPACTS TO ANY POSSIBLE BAT HABITAT ON THE SITE.

BUILDING HEIGHT CALCULATIONS

FRONT ELEVATION AT MIDPOINT = 63 FT
REAR ELEVATION AT MIDPOINT = 28 FT
W. SIDE ELEVATION AT MIDPOINT = 42 FT
E. SIDE ELEVATION AT MIDPOINT = 63 FT

AVERAGE HEIGHT = 49 FT

HOTEL MINIMUM AREA CALCULATIONS

43,560 S.F. + 5,000 s.f. PER UNIT
39 TOTAL HOTEL UNITS
5,000 s.f. x 39 UNITS = 195,000 s.f.
43,560 S.F. + 195,000 S.F. = 238,560 S.F. = 5.48 ACRES

TOTAL NET AREA REQUIRED = 5.48 ACRES
TOTAL NET AREA PROVIDED = 13.40 ACRES

PARKING CALCULATIONS

FOR GENERAL OFFICE:
1 SPACE PER 200 sq.ft OF BUILDING AREA
63,638 sq.ft. USABLE OFFICE AREA:
63,638 sq.ft. x 1 SPACE/200 sq.ft. = 319 SPACES

FOR RETAIL:
1 SPACE PER 150 sq.ft OF BUILDING AREA
108,479 sq.ft. USABLE RETAIL AREA:
108,479 sq.ft. x 1 SPACE/150 sq.ft. = 724 SPACES

FOR HOTELS:
1 SPACE PER GUEST UNIT PLUS 1 PER EMPLOYEE
39 ROOMS PLUS 6 EMPLOYEES:
39 ROOMS x 1 SPACE/ROOM = 39 SPACES
6 EMPLOYEES x 1 SPACE/EMPLOYEE = 6 SPACES

TOTAL = 1,088 SPACES
TOTAL NO. OF SPACES REQUIRED: = 1,088* SPACES
*APPLICANT SEEKING 40% PARKING WAIVER
TOTAL NO. OF SPACES REQUIRED: =653 SPACES

SURFACE SPACES PROVIDED: = 614 SPACES
BANKED SPACES PROVIDED: = 39 SPACES
TOTAL NO. OF SPACES PROVIDED: = 653 SPACES

NOTE:
* REQUIRES TOWN BOARD ACTION.

N/F
TOWN OF WOODBURY
254-1-24.2

PLAN INDEX

RECORD OWNER/APPLICANT

TOWN OF MONROE 2-1-10:
MONROE NININGER, LLC
P.O. BOX 736
MAHWAH, NEW JERSEY 07430

TOWN OF WOODBURY 225-1-30:
WOODBURY NININGER ESTATES, LLC
9 VAN BUREN DRIVE, UNIT 201
MONROE, NEW YORK 10950

UDIG-NY 811 SAFE DIGGING STARTS HERE

RESERVED FOR TOWN PLANNING BOARD APPROVAL

TOWN OF MONROE BULK REQUIREMENTS

ZONE HI (HEAVY INDUSTRY)
USE GROUP: OFFICE, RETAIL, STORAGE, HOTEL

	MIN. REQUIRED	PROVIDED
LOT AREA (ACRE)	1.0	18.2±
LOT WIDTH (FT.)	100	810±
FRONT YARD (FT.)	40	530±
SIDE YARD (FT.)	20 *	50
BOTH SIDE YARDS (FT.)	40	783±
REAR YARD (FT.)	20	40
	MAX. PERMITTED	PROVIDED
LOT COVERAGE (%)	65	74.1± *
BUILDING HEIGHT (FT.)	40	49.0± **
BUILDING HEIGHT (STORIES)	–	5

NOTES:
* PER TOWN OF MONROE ZONING CHAPTER 57, HEAVY INDUSTRY DISTRICT ZONING TABLE, ANY SIDE YARD SHALL BE 50' WHEN LOT IS ADJACENT TO A RESIDENTIAL ZONE.
** REQUIRES TOWN BOARD ACTION.

DATE	DESCRIPTION	INITIALS
7-25-23	FULL DESIGN OF REVISED LAYOUT	MWS
5-24-23	PER VMG ACCESS & PB COMMENTS	MWS
2-22-23	GENERAL REVISIONS	MWS
1-25-23	PRELIMINARY FULL DESIGN PLAN SET	MWS
11-22-22	WETLAND MITIGATION PLAN PREPARATION DATE	MWS
1-20-17 TO 8-12-22	25 REVISION DATES (SEE MAP LAST REVISED 8-12-22 FOR INFORMATION ON REVISIONS)	
12-8-16	CONCEPT PLAN PREPARATION DATE	JJP

REVISIONS
MAP CHECK DATE: 00/00/00 INITIALED BY: –.–

PIETRZAK & PFAU
ENGINEERING & SURVEYING, PLLC
282 GREENWICH AVENUE, SUITE A
COSHEN, NEW YORK 10924
(845) 294-0606
2 HAMILTON AVENUE
MONTICELLO, NEW YORK 12701
(845) 796-4046
JOSEPH J. PFAU P.E. LICENSE NO. 068945
MICHAEL F. CROSSAN P.L.S. LICENSE NO. 050323
VINCENT A. PIETRZAK P.E., P.P., LEED-AP
P.E. LICENSE NO. 076838 P.L.S. LICENSE NO. 050075
N.J.P.L.S. LICENSE NO. 35396

SIGNATURE DATE

MONROE COMMONS COMMERCIAL SITE PLAN

TOWN OF MONROE – SECTION 2, BLOCK 1, LOT 10
VILLAGE OF WOODBURY – SECTION 225, BLOCK 1, LOT 30
COUNTY OF ORANGE, NEW YORK

PROJECT TITLE

COVER SHEET

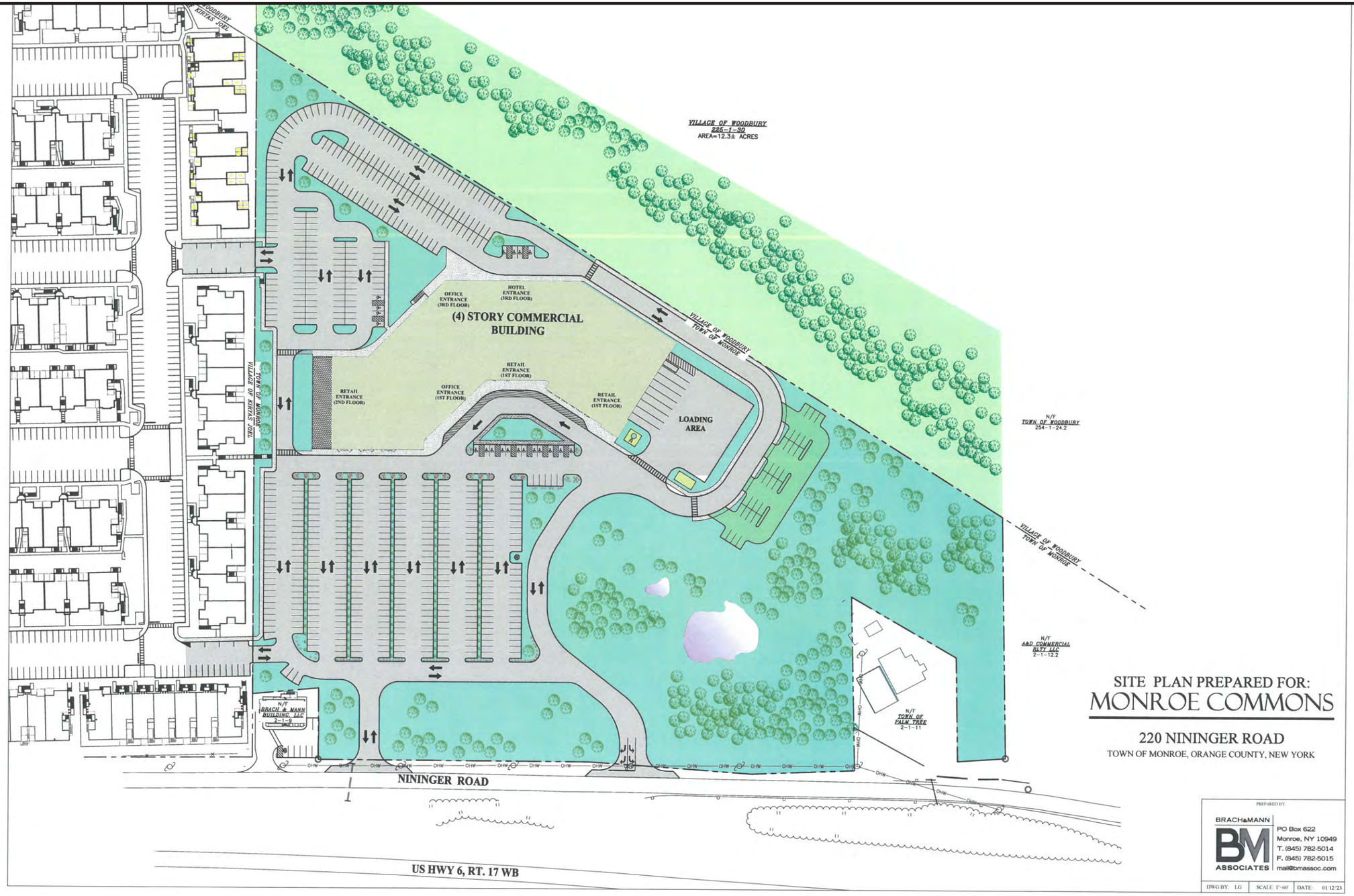
DRAWING TITLE

O.C.H.D. SHEET NO.	D.E.C. SHEET NO.	DRAWING NUMBER
N/A OF N/A	N/A OF N/A	1 OF 31
SCALE 1"=60'	CAD REFERENCE NEW FOOTPRINT	PROJECT NUMBER 98170.01

N
W E
S

Figure 2-3: Proposed Site Plan
Monroe Commons
Town of Monroe, Orange County, NY
Source: Pietrzak & Pfau Engineering and Surveying, PLLC, 2023

File 2095 Fig XX TMA 10/11/02



N
W E
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Figure 2-4: Site Plan Rendering
Monroe Commons
Town of Monroe, Orange County, NY
Source: Brach & Mann Associates, 2023

3.0 LAND USE AND ZONING

3.1 Land Use

3.1.1 Existing Conditions

Land use in the Town of Monroe is composed of a mix of commercial retail, office, residential and Town Municipal uses. The subject Property abuts two other municipalities: Village of Kiryas Joel /Town of Palm Tree and the Village/Town of Woodbury. Therefore, the land uses in those municipalities and the project's potential impacts upon those nearby land uses must be considered, and is evaluated in this DEIS.

The subject site is located on the north side of Nininger Road, approximately between County Route 105 to the northwest and Dunderberg Road to the southwest, as shown in Figure 3-1 Land Use within One-Half Mile. The site consists of a single parcel consisting of 18.2 acres, and identified as tax lot 2-1-10, as shown on the tax map of the Town of Monroe. The development will involve two adjoining parcels, as follows:

- **SBL 225-1-30** in the Village of Woodbury (12.3 acres) for grading to accommodate parking
- **SBL 312-1-1** in the Village of Kiryas Joel/ Town of Palm Tree (approx. 70 acres) for grading to accommodate access roads and sidewalks, water and sewer connections.

The grading and infrastructure improvements on these parcels are shown on the Site Plan drawings (attached in Appendix M) and described in the relevant sections of this DEIS Grading for the development will affect two adjacent parcels. The first adjacent parcel is located in the Town/Village of Woodbury and is identified as Section 225, Block 1 Lot 30, approximately 12.3 acres in size. The development impacts on the Town/Village of Woodbury parcel are limited to approximately 2.5 acres of clearing and grading to allow for project construction. The second adjacent parcel is located in the Village of Kiryas Joel/Town of Palm Tree and is identified as Section 312-1-1, approximately 70 acres in size. This adjoining property is known as Veyoel Moshe Gardens (VMG), a multi-family residential development that is currently under construction. Development in the Village of Kiryas Joel/Town of Palm Tree is limited to grading to allow for roadway, pedestrian, and utility connections. The grading and physical improvements on the VMG property, consisting of approximately 0.55 acres, will be done by VMG as part of that development. The grading and paving necessary to provide roadway and pedestrian connections between the two projects will be coordinated between the two owners / developers The two adjoining parcels are identified on Figure 3-1 Land-Use within One-Half Mile.

Figure 3-1 Land Use within One-Half Mile shows the existing setting and character of the project site and surrounding area and illustrates existing land uses within a one-half mile radius of the site. Figure 3-2 shows the zoning within one-half mile of the property, encompassing three municipalities: Town of Monroe, Village of Woodbury and Village of Kiryas Joel/ Town of Palm Tree. The project site is identified on the two figures. Land uses in the vicinity of the site are further described below.

Nearby Land Uses

The project site is located in a mixed-use Town setting with nearby residential and commercial uses the existing setting and character of the project site and surrounding area within one-half

mile from the site is shown in Figure 3-1 Land Use within One-Half Mile. Land uses within one-half mile from the project site are described, as follows:

North - The property is bordered to the northeast by the Village/Town of Woodbury and undeveloped wooded land. Directly northwest of the site is the Veyoel Moshe Gardens (VMG) residential development property, in the Village of Kiryas Joel/Town of Palm Tree. Further to the north-northwest is a religious school that borders County Route 105, as well as single family homes and the edge of the commercial district in the Village of Kiryas Joel / Town of Palm Tree. Further north on County Route 105 is an active farm.

East - The site is bordered east and northeast by undeveloped wooded land in the Town of Woodbury. Adjoining the property in the Village of Woodbury is an undeveloped parcel, owned by the applicant (SBL 225-1-30). Further to the east is a residential subdivision known as Woodbury Villas with single family homes. The homes are accessed by Catskill High Rail and Central Valley Line. Southeast of the site along Nininger Road are several single-family homes.

South – Directly south of the property is Nininger Road and NYS Route 17 / US Route 6 a four lane, limited access highway. Across NYS Route 17 southwest of the site is undeveloped wooded land and Larkin Drive. South and southeast of the site is the Harriman Commons shopping center with retail stores, restaurants, and parking lots. South of Larkin Drive is a multi-family residential development with two parcels dedicated to water supply.

West – The western (northwest) property line borders the Village of Kiryas Joel / Town of Palm Tree. A large residential project known as Veyoel Moshe Gardens (VMG) is currently under construction on the adjoining property to the northwest. Approximately one-half mile northwest of the site is the NY State Police office at the intersection of Nininger Road and County Route 105. Across NYS Route 17/US Highway 6, west of the property is a bakery/warehouse and a religious school. Single family residences are located along Old Country Road south of Larkin Drive in this area. Southwest of Larkin Drive is a religious school and a recreation area around Mountain Lakes. Undeveloped wooded land is found southwest of the site on both sides of Larkin Drive.

Hotel Market Analysis

A Hotel Market Analysis, consistent with Section 57-13(L)(6) of the Town Code, was completed for the proposed Monroe Commons development, which includes a hotel. Figure 3-3 shows the locations of seven existing hotels and two approved hotels, not yet constructed, that are within 5 miles of the project site. Table 1 in the Hotel Market Analysis, (Appendix K), lists the Hotel name, location and number of rooms. The rooming facilities in the Village of Kiryas Joel are also included. The Table also lists four hotels that are proposed in the Village of Woodbury, as described below. The four proposed hotels were not included on the Figure 3-3, for clarity, but are described, herein.

Three of the existing hotels (Woodbury House, Rushmore Estate, and Arrow Park) are exclusive B&B's popular for upscale weddings and family gatherings. At the other end of the spectrum are roadside motels. The James Motel, with only 24 rooms is recently under new ownership and undergoing much needed renovations. Americas Best Value Inn with 97 rooms, is part of a national chain of roadside motels. The Hampton Inn, Harriman, an affordable offering of parent company Hilton, provides more onsite amenities than the motels. This property is currently undergoing much needed renovations.

The Table and Figure also show two hotels approved and not yet constructed in the Village of Woodbury. A Courtyard Marriott is approved on Route 17 at Locey Lane and an Aeonn Hotel is approved on Estrada Lane.

Four new hotels are proposed in the Village of Woodbury. Two separate hotels are proposed in the vicinity of Route 32 and Turner Road: Homewood Suites and the Avalon. Two additional hotels are proposed in the Woodbury Commons retail center, and information regarding the hotel names or number of rooms was not available from the Village.

All of the commercially owned hotels and motels promote the many reasons for visiting the area. These include Woodbury Common Premium Outlets, the Museum Village and its Creative Theatre – Muddy Water Players, LEGOLAND and the numerous recreational parks and lakes.

Besides serving visitors from the New York Metropolitan area, Stewart Airport provides easy access to the region as well.

The properties within the Village of Kiryas Joel range from six to fourteen rooms and function more like boarding rooms than hotels.

The Hotel Market Analysis (Appendix K) describes in detail the demand for an additional hotel space per Town code 57-13(L)(6). The population of the Village of Kiryas Joel is expected to grow at a rate of 5% to 6% versus the projected rate of .45% in the Town of Monroe. Currently, some 330 weddings take place per year and this number will grow as the population continues to expand. Coupled with visitors from New York City for business meetings, community events and family gatherings, large numbers of visitors are a frequent occurrence. The collection of small boarding houses within the Village of Kiryas Joel inclusive of those under construction, provide only 46 rooms which do not fully meet the Village's space needs for guests and events.

The hotel facility that is proposed as part of the Monroe Commons development is a boutique hotel intended to cater to the cultural needs of the Hasidic population in the nearby Village of Kiryas Joel/Town of Palm Tree. The continued growth of the Village's population in combination with the cultural norm of young women remaining in their home village and marrying at a young age will ensure a steady market for wedding related facilities, including hotels. The proposed hotel would provide culturally appropriate hotel rooms for business travelers from New York City for business meetings and for other family and community events in the Village of Kiryas Joel/Town of Palm Tree.

The project involves the development of a single mixed-use building with a gross area of approximately 408,000 square feet. There are no similarly sized single mixed-use buildings in the Town of Monroe or nearby municipalities. The Woodbury Commons shopping center has more than 800,000 square feet of retail space, but in multiple buildings. The nearby Harriman Commons shopping center directly southeast of the site is also a large multi-building shopping center with large parking fields. A comparably sized building to Monroe Commons is the former Orange Regional Medical Center building, now known as Garnet Health Medical Center, located in Middletown, NY. The building is a maximum seven stories in height and has a large footprint. A photo of the Garnet Health Medical Center is provided as Figure 3-3.

Recommendations for land use for the project site and the proposed Project were reviewed in applicable adopted policy documents. A summary of the relevant findings is described below.

Land Use Plans and Policies

Existing land use recommendations and policies

- Town of Monroe Comprehensive Plan (2017)
- Village of Woodbury Comprehensive Plan (2019)
- Orange County Comprehensive Plan (2019) (including transportation chapter and identification of the site in Priority Growth Area)
    - Orange County Open Space Plan (2004)
    - Orange County Greenway Compact (2013)
    - Water Master Plan (2010)
    - Agricultural and Farmland Protection Plan (2015)
    - Economic Development Strategy (2015)
    - Orange County Design Manual
    - Orange County Transportation (2019)
- Mid-Hudson Regional Sustainability Plan (2013) (https://www.orangecountygov.com/300/Mid-Hudson-Regional-Sustainability-Plan)

- USDA Forest Service New York-New Jersey Highlands Regional Study (2002)

Town of Monroe Comprehensive Plan

The Town Comprehensive Plan was most recently updated in 2017. The primary focus of the 2017 Town of Monroe Comprehensive plan is to provide for preservation of the residential neighborhoods, rural character and ecological resources, specifically lakes; that are the fabric of the Town of Monroe. The primary issue in 2017 was to protect from overdevelopment in the more rural areas of the Town, while focusing retail and commercial development back into the Village Center.

The Town Plan is supportive of the concept of Priority Growth Areas as identified in the Orange County Comprehensive Plan. The Town of Monroe along the NYS Route 17 corridor is considered as one of the County's Priority Growth Areas and as such development of the Monroe Commons mixed use development is consistent with the Town and County Land development goals for this area.

Village of Woodbury Comprehensive Plan (2019)

The goals of the Village of Woodbury's Comprehensive Plan reflect the desire to embrace its role in the region as "the Gateway to Orange County", leveraging its proximity to the Route 17/Thruway/Route 6 interchange, while retaining its character and protecting natural resources. Revitalization of the hamlets of Highland Mills and Central Valley is one of the major goals of the plan.

Guidelines for commercial and mixed-use land use distinguish between the small town experience within the hamlets (Village Center) and the large commercial centers (Transit Village Center). Recommendations specifically call out strategies for hotel locations stating, "To retain the small town feel of the hamlets, hotels, which draw from a more regional market that would require larger parking and land area should be located closer to established transportation networks such as highways, rails, and bus routes.

The Plan recommends the Village allow hotel uses within a Transit Village Zoning District and to create an overlay that allows hotel uses within areas of the Village that are appropriate for hotel activity such as:

- The significant commercial centers/retail complexes of Woodbury Common and Harriman Commons
- Properties that front along and have direct vehicular access to State and County highways such as Route 6, Route 17, and I-87
- Commercial centers/retail complexes

Although the project site location borders the Village, the proposed hotel at Monroe Commons would be consistent with the recommendations of the Village of Woodbury Comprehensive Plan in siting a hotel in close proximity to Route 6, Route 17, and I-87.

Orange County Comprehensive Plan – 2019

This plan replaces the 2010 Strategies for Quality Communities Plan but retains the concept of Priority Growth Areas and the five supplemental chapters that were previously adopted as amendments to that plan:

1. Open Space Plan (2004)
2. Water Master Plan (2010)
3. Greenway Compact (2013)
4. Agricultural and Farmland Protection Plan (2015)
5. Economic Development Strategy (2015)

A new Transportation supplemental chapter was also adopted in 2019. The revised plan and each of the supplementals are discussed here.

The updated vision statement is as follows; “Orange County will develop sustainably, equitably, and thoughtfully. We will continue to direct new development to our existing centers known as **Priority Growth Areas** to strengthen established communities; focus public investment on maintaining and improving our infrastructure; and protect our natural, cultural and historic resources to maintain and improve our residents’ high quality of life.”

The Priority Growth Area (PGA) concept is fundamentally based on a differentiation between urban and rural areas, The plan identifies three PGA categories: Growth Areas, Local Centers, and Transit Centers. Regardless of category, PGA’s target places where development is already concentrated, accessible, and can leverage existing infrastructure.

Development in a PGA thus relieves additional development pressure on other areas of the County. As discussed below, the proposed Monroe Commons development is located in a PGA.

Open Space

The open space plan identifies the priority areas that are important for protection and recognizes the areas that are more desirable for economic development proposals. Consistent with the parent comprehensive plan, the Open Space supports development in PGA’s and targets properties for acquisition through the Open Space Fund, investment in easements, and biological research explicitly in areas outside PGA’s.

Orange County Greenway Compact

The Hudson River Valley Greenway Act describes the "Greenway Criteria" as "the basis for attaining the goal of a Hudson River Valley Greenway". Five defined areas provide the overall vision for local Greenway programs and projects:

1. Natural and cultural resource protection,
2. Regional planning
3. Economic development
4. Public access
5. Heritage and environmental education.

Participation is voluntary and defined as follows:

- Greenway Communities adopt a resolution indicating support for the five Greenway criteria. The municipality is then eligible to become a Greenway Compact Community.
- Green Compact Communities must include a reference to the Orange County Greenway Compact Plan in its zoning ordinance and land development regulations.

Since planning policies at both the County and municipal levels closely mirror the principles of the Hudson River Valley Greenway program, the County has decided to become a Greenway Compact Community.

Each of the five guiding criteria of the Compact are tied to the Orange County Comprehensive Plan and align with the concept of **Priority Growth Areas** promoting development where the historic settlement patterns and infrastructure can support future development such as local village centers, "crossroads" and commercial corridors. By directing growth to these areas, it is possible to protect natural and cultural resources elsewhere, as well as farmlands and habitat areas.

The Monroe Commons development is a good example of this design principal.

Water Master Plan (2010)

Through adoption of this Plan as an amendment to the Orange County Comprehensive Plan, it is expected that the County of Orange and the OCWA will be able to clarify and enable the ways that County government can smartly and effectively function in the future to assure the availability of water in the County. The plan specifically addresses the need "for defining … water carrying capacities" and "to foster cooperation with municipalities including inter-connections among local systems where possible."

As described in Section 16.0 Utilities, the Monroe Commons development proposes to utilize the Village of Kiryas Joel/ Town of Palm Tree municipal water system, thereby avoiding the use of increasingly limited groundwater supply in the Town of Monroe, Village of Harriman and Village of Woodbury.

Agricultural and Farmland Protection Plan (2015)

The primary goal of this Plan is to address ways to improve the economic vitality and diversity of agricultural pursuits in the County and to address those challenges.

As such, the details of this plan do not pertain to the Monroe Commons proposal.

2.0 DESCRIPTION OF THE PROPOSED ACTION

2.1 Project Identification

This Draft Environmental Impact Statement (DEIS) has been prepared in response to a Positive Declaration issued by the Town of Monroe on July 9, 2020, in connection with a Mixed-Use Site Plan application by Monroe Commons LLC, the "Applicant" and owner of the subject property. The proposed project is located on Nininger Road in the Town of Monroe, Orange County, New York.

In connection with a site plan application, after waiting the required 30 days and receiving no written objections from other involved agencies, on June 11, 2020 the Village of Monroe Planning Board identified the proposed development as a Type I Action and declared itself to be Lead Agency for a SEQRA coordinated review. The Planning Board adopted a Positive Declaration on July 9, 2020 and circulated the applicant's SEQRA Draft Scoping Document to all involved and interested agencies. A Public Scoping Session was held on September 10, 2020 with written comments on the Draft Scoping Document accepted until September 21, 2020. The Final Scoping Document was adopted on November 17, 2020. The adopted scoping outline is included as Appendix A of this DEIS.

This DEIS has been prepared to evaluate potential environmental impacts associated with the proposed mixed-use development. The DEIS has been prepared in accordance with the New York State Environmental Quality Review Act (SEQRA) and Part 617 of the regulations implementing SEQRA.

The Applicant is proposing a mixed-use commercial development in a single approximately 407,819 square foot (gross area) building with four floors. The proposed uses include a mix of retail, office uses, and a hotel. The development would include a total of 624 surface parking spaces and an area of 29 banked parking spaces has been provided, for a total of 653 spaces provided. The proposed development includes supporting utilities, stormwater management facilities, lighting, and landscaping.

2.2 Project Site / Environmental Setting

The mixed-use development is proposed on an approximate 18.2-acre parcel in the Town of Monroe identified as Section 2, Block 1, Lot 10. Grading for the development will affect two adjacent parcels. The first adjacent parcel is located in the Town/Village of Woodbury and is identified as Section 225, Block 1 Lot 30, approximately 12.3 acres in size. The development impacts on the Town/Village of Woodbury parcel are limited to approximately 2.5 acres of clearing and grading to allow for project construction. The second adjacent parcel is located in the Village of Kiryas Joel/Town of Palm Tree and is identified as Section 312-1-1, approximately 70 acres in size. This adjoining property is known as Veyoel Moshe Gardens (VMG), a multi-family residential development that is currently under construction. Development in the Village of Kiryas Joel/Town of Palm Tree is limited to grading to allow for roadway, pedestrian and utility connections. The grading and physical improvements on the VMG property, consisting of approximately 0.55 acres, will be done by VMG as part of that development. The grading and paving necessary to provide roadway and pedestrian connections between the two projects will be coordinated between the two owners / developers (see further discussion below).

During the development of the Scoping Document for this DEIS, grading in the Town/Village of Woodbury was not proposed and was not considered in the Scoping Document. This DEIS will

evaluate the potential impacts involving the Town/Village of Woodbury property, including the clearing of trees, grading, drainage and stormwater management, visual impacts and construction. The project SWPPP has considered the proposed grading in the Town/Village of Woodbury. The proposed grading will require Site Plan review and approval by the Village of Woodbury and therefore, the Village Planning Board is an Involved Agency. The Applicant has initiated the Site Plan review process with the Village of Woodbury Planning Board.

The site plan has recently been modified to include two driveway connections to the adjoining Veyoel Moshe Gardens (VMG) residential development directly to the northwest of the project site. Such connections were not considered in the Scoping Document. The driveways and pedestrian connections are part of the site plan proposed by the applicant, and the potential impacts and benefits of the driveway connections are considered and assessed in this DEIS. These driveway connections affect traffic, grading, stormwater, and project approvals. The connections to an adjoining property located in the Village of Kiryas Joel/ Town of Palm Tree will require a Site Plan Amendment for the neighboring VMG projects and review of that Amendment by the Village of Kiryas Joel/Town of Palm Tree Planning Board. The Village of Kiryas Joel/Town of Palm Tree Planning Board is an Involved Agency.

The applicant is in discussions with the Village of Kiryas Joel/Town of Palm Tree regarding the Monroe Commons project and the driveway connections. The sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed driveway connection grading and utility connections (including water, sewer, gas and electric) on the VMG property (see discussion below).

Regional Site Location

The Project site is located in the Town of Monroe, Orange County, New York. Orange County is located on the west side of the Hudson River in the lower Hudson Valley region. The Town of Monroe is located in the southerly portion of the County. Monroe adjoins the Village of Kiryas Joel/Town of Palm Tree to the northeast, the Town of Chester on the northeast, the Town of Blooming Grove on the North, the Village of South Blooming Grove also to the north, on the east and northeast by the Town/Village of Woodbury, on the South by the Town of Tuxedo and on the southwest by the Town of Warwick. The Village of Monroe is contained in the Town of Monroe. The Village of Harriman is also partially in the Town of Monroe.

The project site is north of Nininger Road, which parallels Route 6/17 and west of Interstate 87 (the New York State Thruway) (see Figure 2-1).

Monroe Commons Site Location

The subject site is located on the north side of Nininger Road, approximately between County Route 105 to the northwest and Dunderberg Road to the southwest, as shown in Figure 2-1. The overall Project site consists of two parcels: 1) an approximate 18.2 acre property in the Town of Monroe identified as tax lot 2-1-10, and 2) and approximate 12.5 acre property in the Town/Village of Woodbury identified as tax lot Section 225, Block 1 Lot 30. Figure 2-2 shows the existing setting and character of the project site and surrounding area. Land uses in the vicinity of the site are further described below.

Environmental Setting

The Monroe Commons property is currently undeveloped vacant land and is a mix of mature woods and federally regulated wetland areas. A small pond is located in the southeast portion of the site within a mapped wetland area. Existing conditions on the property are shown in the Existing Conditions Plan in the Site Plan drawings. According to a review of historic aerial photos and site inspections by Team Environmental Consultants, Inc., the property has historically been a mostly undeveloped wooded parcel. A 1965 Aerial photograph identified a small building (possible dwelling) in the southwestern portion of the site next to Nininger Road (see Appendix H). The remnants of a foundation and chimney were found in that area during a site visit indicating a former small residence. No other historical development or on-site uses have been documented. An aerial photograph from 1958 shows the majority of the site as cleared of trees and apparent grading in the middle of the site (see Appendix H). The Phase 1 Environmental Site Assessment Report is provided as Appendix H.

Topography on the project site generally slopes from northeast to southwest with a generally steep hillside located along the northwestern property border and lower elevations in the wetland are bordering Nininger Road. The highest elevations along the northeast property border at 700 feet sloping to the wetland area in the southeast corner of the site with elevations of 630 feet. Site topography is further described in Section 4.0 - Geology, Soils and Topography.

The Project site has approximately 900 feet of frontage on Nininger Road, where access to the development will be provided. In 2019 a gravel field road was installed to allow a water supply well to be drilled in the north central portion of the site. A Building Permit for the well installation was issued on October 7, 2019 and is provided in Appendix B. The location of the well access road is shown on the Existing Conditions Plan in the Site Plan drawings. An older field road is located along the eastern property border extending up the hillside and paralleling a stone wall on the property line. The field road and former foundation described above are the only man-made features located on the property.

The project site is currently undeveloped mostly wooded, vacant land. The western property line borders the Village of Kiryas Joel/Town of Palm Tree. A residential project knowns as Veyoel Moshe Gardens (VMG) a 1,600-unit multi-family residential development is currently under construction on the adjoining property to the west. Property adjoining the site to the north is located in the Town/Village of Woodbury. The adjoining property to the north is currently an undeveloped wooded hillside. Property adjoining the site to the east is vacant wooded land located in the Town of Monroe. The southern property border adjoins Nininger Road and two smaller parcels which border Nininger Road. The property at 254 Nininger Road is a professional office building with parking. The property at 214 Nininger Road is currently used by the Village of Kiryas Joel/Town of Palm Tree for the parking of municipal garbage trucks.

Easements

No easements, rights-of-way, legal restrictions, or special districts have been identified that may affect the property's development potential.

Proposed Zoning Text Amendments

The property is located in the HI – Heavy Industry zoning district, according to the Town of Monroe Zoning Map. As part of the proposed action, the Applicant has requested from the Town Board,

zoning text amendments related to building height, parking, and lot coverage. Specifically, the proposed zoning text amendments include:

1) Restore the maximum building height in the HI – Heavy Industry District to fifty feet (50 ft) from forty feet (40 ft.);
2) Include the HI District in Section 57-47E (Method of determining off-street parking requirements) of the Zoning Code, to empower the Town Planning Board to reduce the otherwise applicable parking requirements by forty percent (40%), and
3) Amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five (75%).

A copy of the Petition for Zoning Text Amendments is provided in Appendix B – Correspondence. The requested Amendments are currently under review by the Town Board.

Variances from the Town of Monroe Zoning Board of Appeals will be required, in the event that the Town Board does not adopt the proposed zoning amendments.

The proposed text amendments would affect other properties mapped in the HI zoning district in the Town of Monroe. This DEIS has evaluated the potential impacts of the proposed text amendments on other properties in HI zoning districts in the Town and this evaluation is described in Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendment. Two other undeveloped properties on Nininger Road are located in the eastern area of the HI zoning district and are shown in Figure 18-2 Properties in HI District - East (See Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendment).

The HI – Heavy Industry zoning district is mapped in two areas of the Town, as shown on the attached Figure 18-1 Town of Monroe Zoning Map (See Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendment) and reproduced here as Figure 2-5, at the end of this Section. The Town zoning map was most recently revised in November, 2017. Land in the HI district is located at the northeast border of Town and in a second area in the northwest border of the Town. The project site and four other smaller parcels are mapped in the district, bordering the Village/Town of Woodbury. This HI district area borders property in the LI – Light Industry district to the south across NY Route 17/US Route 6.

Four parcels are mapped in the HI District located at the northwest edge of the Town bordering the Village of South Blooming Grove. This HI district area borders LI - Light Industry property to the west and the GB – General Business district to the south (See Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendment). The four properties at the northwest edge of the Town are 2.47, 1.03, 1.03 and 1.0 acres in size.

The specific properties, acreage, ownership and uses are provided in Table 18-1, at the end of Section 18.0 and reproduced here as Table 2-1, at the end of this Section. The specific properties are shown in two figures; Figure 18-2 Properties in HI District - East and Figure 18-3 Properties in HI District - West. As described, the Project site is undeveloped land. Adjoining property in the district includes: 254 Nininger Road (0.25 acres), developed as an office building, and 214 Nininger Road (0.75 acres), containing a garage and parking area for Village of Kiryas Joel sanitation trucks. Two other parcels in the district, indicated as lot numbers 4 and 5 on Figure 18-2, are vacant land. These properties are 1.72 and 0.76 acres in size, respectively.

2.3 Proposed Action

The proposed action will require Site Plan and Architectural review approval by the Town of Monroe Planning Board, which has been designated as lead agency for the required coordinated SEQRA review. The proposed action will also require a special permit for the hotel use and a local wetlands permit, from the Planning Board. The list of other approvals required to develop the proposed Project includes the following.

- HI Zoning Text Amendment (**Town of Monroe Town Board**): Specifically, the applicant has petitioned the Town Board to make the following amendments: (1) restore the maximum building height in the HI District to fifty feet (50 ft) from forty feet (40 ft.); (2) include the HI District in Section 57-47E (Method of determining off-street parking requirements) of the Zoning Code, so as to empower the Planning Board to reduce the otherwise applicable parking requirements by forty percent (40%); and (3) amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five (75%). A copy of the Petition for Zoning Text Amendments is provided in Appendix B – Correspondence, and the Zoning Text Amendment, and its potential impacts, are described more fully in Section 18.0 Potential Impacts of Proposed Zoning Text Amendment.
- Special Permit for Hotel Use (**Town of Monroe Planning Board**), whereby Article V of the Town Zoning Code applies.
- Site Plan and Architectural Approval (**Town of Monroe Planning Board**), whereby Article VI and Section 57-31 of the Town Zoning Code apply.
- Local Wetlands Permit (**Town of Monroe Planning Board**), whereby Chapter 56, Wetlands, of the Town Code applies.
- Stormwater Pollution Prevention Plan Approval (**Town of Monroe Planning Board**), whereby Section 46-12 of the Town Code, Stormwater, Soil Erosion and Sediment Control applies.
- *Potential* Area Variances for lot coverage, height, and parking and *potential variance* from Town Code Section 57-20(B)(6) related to a protective planting strip within a side yard adjacent to a residential district (**Town of Monroe Zoning Board of Appeals**).
- Highway Work Permit (**Orange County Department of Public Works**)
- Driveway Permit (**Orange County Department of Public Works**)
- Utility Permit (**Orange County Department of Public Works**)
- Orange County Sewer District No. 1 Sewer Use Permit (**Orange County Environmental Facilities and Services**)
- State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (**New York State Department of Environmental Conservation [NYSDEC], Region 3**)
- Nationwide Wetlands Permit (**U.S. Army Corps of Engineers**)
- Clearing & Grading Permit / Site Plan Approval for grading and tree clearing (**Village of Woodbury Planning Board**), whereby Section 310-45 of the Village of Woodbury Code applies.
- Water Connection to Village of Kiryas Joel/Town of Palm Tree municipal system (**Village of Kiryas Joel/Town of Palm Tree**)
- Site Plan Amendment for proposed driveway and pedestrian connections to the VMG property, grading and utility connections (**Village of Kiryas Joel/Town of Palm Tree Planning Board [same Board for Village and Town**]), whereby Section 155-21 of the Village of Kiryas Joel Zoning Law applies.

The agencies responsible for the above approvals, shown in parentheses, are identified as "Involved Agencies" pursuant to SEQRA. The complete list of both involved and interested agencies is provided in Section 2.6, below.

2.4 Proposed Project

The Applicant is proposing a mixed-use commercial development in a single approximately 407,819 square foot (gross area) building with four floors. The proposed uses include a mix of retail, office uses, and a hotel. The development would include a total of 653 surface parking spaces and supporting utilities, stormwater management facilities, lighting, and landscaping. A total of 624 parking spaces will be constructed and an area with an additional 29 banked parking spaces is provided on the plans, for a total of 653 spaces. The banked parking spaces will be constructed if they are found to be necessary.

The Monroe Commons mixed-use commercial building will be approximately 407,819 square feet in size and four (4) stories in height. The square footage, as shown in the Site Plan drawings is the gross floor area and includes common areas and storage. The building will be set back from Nininger Road in the northwest portion of the site. The building is designed to fit the site's topography and will have entrances and parking on different levels at the front (south) and rear (north) of the building.

The main building entrance area and access to the first floor will have three separate entrances for both retail and office uses. This main entrance will have a bus and taxi drop off area as well as designated handicapped parking areas. A retail entrance and access to the second floor is provided at the west side of the building. Separate entrances for hotel and office uses and access to the third floor is provided at the north side of the building, as well as associated parking for those uses.

The development will have two entrances on Nininger Road, a western entrance adjacent to 254 Nininger Road and a second entrance in the approximate center of the property. The central entrance has three lanes, with one entering lane and two existing lanes for westbound and eastbound traffic onto Nininger Road.

Two main parking areas will be provided, as well as a driveway that will provide access around the building. The front or first floor parking provides 377 spaces and the rear or second and third floor parking provides 247 spaces. Another 29 banked parking spaces are provided at the eastern side of the building and driveway. The Site Plan provides a total of 653 parking spaces. A loading area with 7 loading docks is provided at the eastern side of the building. A trash compactor for the building is provided in this service area.

There will be two driveway connections to the adjacent residential project known as Veyoel Moshe Gardens (VMG), a multi-family residential development that is currently under construction on the adjoining property to the west. The driveway connections, including pedestrian sidewalk connections, are shown in the current Site Plan drawings. The Traffic Impact Study (Appendix G) and Section 9.0 Transportation and Traffic assess the potential impacts, including potential traffic benefits of the driveway connections.

Such a driveway connection would allow residents of VMG to access the Monroe Commons development without driving on Nininger Road, thereby relieving some project generated traffic from local roads and intersections.

Three pedestrian connections are proposed to the neighboring VMG residential development, as shown on the Site Plan drawings (see Site Plan 1 and 2). Sidewalks, six-feet in width will be provided at the lower and upper driveway connections and a third walkway near the northern building entrance. Sidewalks will allow residents of the VMG development to access the site at several points without the need for vehicles. Additionally, a pedestrian crossing over CR 105 is planned to connect the VMG development to business and shopping areas in the Village of Kiryas Joel / Town of Palm Tree. That pedestrian walkway is not part of the Monroe Commons development. The walkway will allow pedestrian circulation between the Monroe Commons development and the Village core, without traveling on CR 105 and Nininger Road. The location of that walkway in relation to the Monroe Commons development is shown in Figure 9-1 in Section 9.0 Transportation and Traffic.

Proposed Building Uses

The Monroe Commons development will support a mix of uses in a modern, attractive building. The uses include approximately 168,690 square feet of retail space (gross area), located on the first and second floors. Potential retail tenants include a grocery store and other general retail tenants. Approximately 39,226 square feet of office space will be provided on the third floor of the building. A portion of the third floor will include a hotel with 39 rooms and lobby and meeting space. The fourth floor of the building will contain approximately 76,462 square feet of office space (gross area).

The building will have attractive modern architecture, including a varied outer façade of stone and glass with metal trim. Architectural canopies will be provided at the three building entrances as well as landscaped islands, and a clocktower is proposed at the southeast building corner (see Figures 15-8 through 15-10). Elevations of the four sides of the building are provided as full sized drawings with the Site Plan set, as well as preliminary floor plans for the building interior. The building architecture is described and building renderings provided in Section 15.0 Visual Resources and Community Character.

The development will be fully landscaped with street trees and native plantings, as shown in the attached Landscape Plan (see Site Plan drawings). The Landscaping Plan provides street trees along the property frontage on Nininger Road and around the two driveway entrances. Street trees and shrubs will be planted at the perimeter of the development and throughout the two main parking areas. Trees and shrubs are provided around the proposed building, especially at building entrance areas.

The building will utilize energy efficient heating and cooling systems, and water saving fixtures to minimize the use of energy and water utilities. The building will meet NY State Building Code requirements for energy efficiency. Currently, the Applicant is proposing solar panels to provide service for the planned electric vehicle charging stations. Opportunities to provide other green infrastructure will be explored as the detailed mechanical and heating and cooling plans are developed for the building.

Grading

The proposed grading will involve cuts generally in the northwest corner of the site for the building construction and fill in generally the southwest portion of the property for parking areas and driveways. This grading will alter the stormwater run-off sub-catchment boundaries from the existing conditions to the post-construction conditions.

Based upon engineering estimates, development of the Site Plan would involve a cut of approximately 143,899 cubic yards of material and a fill of approximately 144,333 cubic yards for a net fill of 434 cubic yards of material to be imported to the site. As such, the cut and fill will be balanced or a relatively small volume of fill material would need to be imported to the site. A proposed cut and fill map is provided as Figure 4-4.

This is a preliminary estimate based upon the current grading plan. This estimate is likely to be updated as the site plan and grading plan are further refined. As shown in the Proposed Cut and Fill Plan (Figure 4-4), the majority of the earth fills would be to accommodate even grades for the proposed parking areas. Cuts greater than five feet would occur in the building footprint for the building basement and at the slope along the northeastern property line.

Approximately 2.5 acres of clearing and grading will be required on the adjacent parcel in the Town of Woodbury (see attached Grading Plan). A Site Plan review and approval will be required from the Village of Woodbury Planning Board, and that Board is an Involved Agency in the SEQRA review process.

The two proposed driveway connections and a third pedestrian walkway to the adjacent Veyoel Moshe Gardens (VMG) development property will require grading in the Village of Kriyas Joel / Town of Palm Tree. That grading is shown on the attached Site Plan Drawings. The grading and the utility connections will require a Site Plan Amendment from the Village of Kiryas Joel / Town of Palm Tree Planning Board (a single Planning Board functions for the Village and the Town). The sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed driveway connection grading and utility connections (including water, sewer, gas and electric) on the VMG property (see discussion below).

The limits of grading and vegetation removal area are shown on the attached Grading Plan, in the Site Plan drawings. Total disturbance for construction will involve 17.7 acres in total, including 2.5 acres in the Village of Woodbury. Heavy equipment will be required to move soil in all areas to be graded and will not be used in undisturbed portions of the site, including undisturbed areas of wetland. Construction fencing will demarcate areas not to be disturbed by equipment.

Utilities

The subject property is not currently served by a municipal water supply. The Applicant initially proposed a private potable water supply system for the development served by two water supply wells. A single exploratory well was drilled on the site in 2019. Given the multi-agency approvals process and long-term maintenance requirements for a private potable water supply system, the Applicant proposes a connection to the Village of Kiryas Joel / Town of Palm Tree municipal water system on the adjacent Veyoel Moshe Gardens (VMG) property. The Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter, whereby the Village has agreed to supply water for the Monroe Commons project at the required level, estimated to be 54,210 gallons per day, and expressing the Village's willingness to approve the connection, subject to the standard Outside Water User Development Agreement to be recorded in the office of the County Clerk. The letter from the Village is provided in Appendix B – Correspondence. In addition, the sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed utility connections (including water, sewer, gas and electric) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations. The Village of Kiryas Joel / Town of Palm Tree Planning Board will require a Site Plan Amendment for the proposed driveway connections and water service connection on the VMG property in the

Village / Town. Further discussion regarding the proposed connection to the Village of Kiryas Joel/ Town of Palm Tree municipal water system is provided in Section 16.0 Utilities. The existing well, located in the approximate center of the site, is shown on the Site Plan as "To be abandoned."

The Project site is located in Orange County Sewer District No. 1. Approval will be required from Orange County Sewer District No. 1 on the adjacent VMG property. The sponsor of the Veyoel Moshe Gardens (VMG) residential development has provided a letter confirming their agreement for the proposed utility connections (including water, sewer, gas and electric) on the VMG property (see discussion above). Plans for water and sewer service are further discussed in Sections 16.0 – Utilities.

Local electrical service is provided by Rockland Utilities, Inc and is available from Nininger Road. Natural gas service is available in Nininger Road and building heating and cooling will be provided by a combination of electric and natural gas. Cable and internet service are provided by private carriers in the Town.

Stormwater management will be completed on-site and will be maintained by the property owner. Stormwater from parking areas, driveways and the building rooftop will be directed to surface or underground stormwater management facilities. The Stormwater Pollution Prevention Plan (SWPPP) prepared by the project engineer provides the details of stormwater management (see Appendix F). Two surface stormwater infiltration basins are proposed: one adjacent to Nininger Road and a second in the southeast corner of the development. A total of two underground infiltration units will provide for appropriate Runoff Reduction of the required Water Quality Volume for the development. The SWPPP and stormwater management for the development is summarized in Section 8.0 Stormwater Management.

The details of the proposed development are described in this DEIS and are shown in the attached graphic plans and technical reports. The graphics and reports are provided, as follows:

- Site Plan set pursuant to Town Code § 57-17; (attached)
- Floor plans (internal layout) of the proposed building (see Section 15.0 Visual Resources and Community Character)(Floor Plans are attached as part of the Architectural Drawings)
- Architectural floor plans, building elevations and renderings pursuant to Town Code § 57-32 are attached as an Architectural Drawings set and shown in Figures 15-7 through 15-10 (see Section 15.0 Visual Resources and Community Character for discussion),
- Construction phasing is described in Section 17.0 Construction Impacts (since the project will be developed in one phase, a construction phasing *drawing* is not provided;
- Grading plan including proposed limits of disturbance (Site Plan drawings, *Grading Plan 1 to 3*);
- Tree inventory pursuant to Town Code § 57-84 (Site Plan drawings, *Existing Tree Survey*);
- Landscaping plan pursuant to Town Code § 57-17 (Site Plan drawings *L-1 to L-3*; Figure 15-11); and
- Stormwater Pollution Prevention Plan (SWPPP) and Erosion and Sediment Control Plan pursuant to Chapter 46 of the Town Code (Appendix F).

Wetland Mitigation Area

A portion of the on-site wetlands will be impacted by the proposed development. The project will require a wetlands permit from the Town of Monroe Planning Board and a general permit from the US Army Corps of Engineers for the project construction. A discussion of the on-site wetland resources, potential impacts and wetland mitigation is provided in Section 5.0 Wetlands and Surface Water Resources. Mitigation for wetland impacts will be provided on-site and wetland mitigation areas are shown on the attached Site Plan drawings. Wetland mitigation is proposed in five (5) areas with a total area of 39,374 square feet, generally at the perimeter of the central on-site wetland. The Wetland Mitigation Plan provides cross sections and a planting schedule.

2.5 Purpose, Public Need and Benefits

The applicant, Monroe Nininger, LLC proposes a mixed-use retail, office and hotel building to provide needed retail, office, and hotel space for residents of the Town of Monroe, Village of Kiryas Joel/Town of Palm Tree, the Town/Village of Woodbury and surrounding communities and visitors to Monroe. The building will provide attractive retail and office space in a modern building at a location convenient to Route 17 / Route 6 and to Interstate 87, at the northern edge of the Town of Monroe. The proposed hotel will provide needed hotel rooms for visitors to the Town of Monroe and Village of Kiryas Joel/Town of Palm Tree catering to business travelers and visitors attending weddings and special events in the community.

The proposed development will provide needed additional ratables and tax revenue to the Town of Monroe, and the various tax jurisdictions. The increase in taxes will offset the potential costs for the Town to service the site with emergency services such as police, fire and emergency medical service.

2.6 Interested / Involved Agencies and Required Approvals

The list of the approvals required to construct the Proposed Project is presented below. The governmental agencies responsible for those approvals, shown in parentheses, are identified as **"Involved Agencies"** pursuant to SEQRA.

- HI Zoning Text Amendment (Town of Monroe Town Board)
- *Potential* Area Variances for lot coverage, height, and parking and *potential variance* from Town Code Section 57-20(B)(6) related to a protective planting strip within a side yard adjacent to a residential district (Town of Monroe Zoning Board of Appeals)
- Special Permit for Hotel Use (Town of Monroe Planning Board)
- Site Plan and Architectural Approval (Town of Monroe Planning Board)
- Local Wetlands Permit (Town of Monroe Planning Board)
- Stormwater Pollution Prevention Plan Approval (Town of Monroe Planning Board)
- Highway Work Permit (Orange County Department of Public Works)
- Driveway Permit (Orange County Department of Public Works)
- Utility Permit (Orange County Department of Public Works)
- Orange County Sewer District No. 1 Sewer Use Permit (Orange County Environmental Facilities and Services)
- State Pollution Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity (New York State Department of

Environmental Conservation [NYSDEC], Region 3)

- Nationwide Wetlands Permit (U.S. Army Corps of Engineers)
- Clearing & Grading Permit / Site Plan Approval for grading and tree clearing (**Village of Woodbury Planning Board)**
- Water Connection to Village of Kiryas Joel/Town of Palm Tree municipal system (Village of Kiryas Joel / Town of Palm Tree .
- Site Plan Approval for grading and Tree clearing (Village of Woodbury Planning Board)
- Site Plan Amendment for proposed driveway and pedestrian connections to the VMG property, grading and utility connections (Village of Kiryas Joel/ Town of Palm Tree Planning Board [same Board for Village and Town]).

"Interested Agencies" participating in review of the Proposed Action under SEQRA, include:

- New York State Department of Transportation, Region 8
- New York State Office of Parks, Recreation, and Historic Preservation (National Historic Preservation Act Section 106 Review, NYS Historic Preservation Act Section 14.09 Review, and other input as required for the SWPPP)
- NYSDEC Department of Fish & Wildlife
- NYSDEC Natural Heritage Program
- Orange County Department of Planning (General Municipal Law [GML] 239-m Referral, Review of proposed Local Law)
- Orange County Department of Public Works (GML 239-f Referral)
- Town of Monroe Building Department (Building Permit)
- Monroe Joint Fire District
- Village of Monroe
- Village of Harriman
- Monroe-Woodbury Central School District
- Village of Woodbury
- Town of Woodbury

Economic Development Strategy (2015)

Adopted in 2015, this supplement focuses on recommended strategies to promote economic growth in the Agriculture, Arts, Manufacturing/Technology, Medical and Tourism sectors. In addition, makes recommendations for streamlining processes for doing business in the county, such as simplifying existing local laws.

This document does not have bearing on the proposed action for Monroe Commons.

Orange County Design Manual

The Orange County Design Manual provides guidelines organized by:

1. Places: "Where to Grow" - best-practices for design for five neighborhood types
    a. Downtowns
    b. Edges of downtowns
    c. Corridors
    d. Crossroads
    e. New Neighborhoods

2. Details: "What to Do" - Best-practices around three themes:
    a. Nature
    b. Connectivity
    c. Communities

3. Tools and Actions: **"**How To" Planning tools, regulatory tools and administrative actions

This document has limited relevance to the Monroe Commons development, but Monroe Commons is located in a recommended corridor and is designed to promote connectivity between the proposed mixed-use commercial development with an adjoining residential development through driveway and pedestrian connections.

Orange County Transportation (2019)

The Orange County Comprehensive Plan has not previously had a Transportation Chapter. The purpose of this chapter is to review Orange County's existing transportation conditions and to set forth a plan that will allow for continued and improved efficiency in the existing network, expansion of the road network in a logical and equitable way, and improved services that will extend fair transportation opportunities to all users.

Objectives of the Transportation Plan are tied to the Core Values identified during development of the most recent Orange County Comprehensive Plan:

1. Environmental quality and sustainability: energy efficient, climate resilient, and encourage non-motorized trips to improve air quality throughout the County.

2. Economic prosperity: Infrastructure investment provides jobs and economic vitality; ensures equal employment opportunity, efficient commuting and freight movement.

3. Community quality of life: The improved health and safety of the community, designing roads and future development that is pedestrian, cyclist and public transit friendly.

4. Social equity: A multi-modal transportation system provides Orange County residents access to safe, reliable, and affordable connections to employment, education, healthcare, and other essential services for all users including: the elderly and disabled, children, pedestrians, bicyclists, drivers, non-drivers and transit users.

Section III – "Impacts of Transportation" highlights Levels of Service, Congestion Management, and Air Quality as key factors in measuring and improving the road system network.

- Two major corridors through the County, I-87 between Rockland County and the Woodbury Toll and Route 17 (future I-86) between the Harriman Toll and Route 211, exhibit repeated unacceptable weekend travel times during the summer months attributable to people traveling to Orange County, the Catskills and points beyond.

- Woodbury Common Premium Outlets generates approximately 13 million visitors per year. Congestion management is a major concern for residents, with the Common located on the minor arterial, Route 32, with an Average Annual Daily Traffic (AADT) count of approximately 19,500 vehicles. Route 17, Exit 131, which exits onto Route 32, has been upgraded to address traffic concerns. While most visitors access Woodbury Common by single-occupancy vehicle, buses are also a key transportation element with frequent daily bus service to the Common from New York City's Port Authority Bus Terminal via Gray Line NY.

- The provision of bus transit is crucial to managing a balanced and equitable transportation system for the general population, while reducing congestion along the County's Roads, and creating fewer accidents, fewer emissions and other environmental impacts. This transit is especially important for those considered to be transit dependent, including individuals who are too young to drive, senior citizens, people with disabilities and people with low incomes.

The Transportation Mitigation anticipated as part of the Monroe Commons development will serve to improve existing traffic network conditions which are currently experiencing delays. Monroe Commons is designed to accommodate bus circulation, and stops for local bus transit routes will be provided, internal to the site. Bus routing and circulation is further described in Section 9.0 Transportation and Traffic. The routes and schedules for bus routing will be determined in discussions with local transportation providers. The planning and accommodation for bus transit to and from the site will reduce vehicle trips and improve access to the site for individuals who may not drive.

Mid-Hudson Regional Sustainability Plan (MHRSP)

The Mid-Hudson Regional Sustainability Plan (the Plan) was developed as part of NYSERDA's Cleaner, Greener Communities program, intended to empower the ten regions of New York State (NYS) to take charge of sustainable development in their communities by identifying and funding smart growth practices. The Mid-Hudson Region of NYS consists of the seven counties located immediately north of New York City (NYC): Westchester County, Rockland County, Orange County, Putnam County, Dutchess County, Ulster County, and Sullivan County.

Sustainable development results when human and economic activity occurs without depleting nonrenewable resources, releasing pollution including greenhouse gases (GHGs), or damaging ecosystems. The plan outlines five focus areas:

1. Land Use, Livable Communities, and Transportation

2. Energy
3. Materials Management
4. Agriculture & Open Space
5. Water

Related to **Land Use**, **Livable Communities, and Transportation**, a key strategy to reduce inefficient urban sprawl and auto-dependency is to "Strengthen centers supported by transit, by concentrating development in areas with existing services, infrastructure, employment opportunities, and multiple transit options."

Related to **Materials management**, In the Mid-Hudson Region, much of the material used is ultimately shipped to other parts of NYS or the US for disposal, incurring significant costs and environmental impacts. This Plan seeks to shift to a future where the Region is self-sufficient in materials management, ultimately achieving a 'zero waste' outcome and creating new jobs and industries.

The **Energy** portion of the plan focuses on creating and distributing affordable clean energy to occupants of the region to both reduce reliance on fossil fuels and to create jobs.

Related to **Water**, The Mid-Hudson Region benefits from a relative abundance of both surface and groundwater, as compared with other parts of the country. The MHRSP plan for water is to increase available water supply by reducing water consumption and improving efficiency of water collection, treatment, and distribution systems.

The Agriculture and Open Space portion of the plan focuses on protecting prime farmland, facilitating access to land for farmers, and strengthening the food infrastructure networks. Protection of wildlife and biodiversity is also a goal.

The location of the Monroe Commons Development within a commercial transportation corridor as opposed to other open space areas serves the goals of this Plan.

USDA Forest Service New York-New Jersey Highlands Regional Study (2002)

The goals of this plan focus on the long-term stewardship of the Highlands:

1. Manage future growth compatible with the region's ecological constraints
2. Maintain adequate surface and ground water supply
3. Conserve contiguous forests
4. Provide appropriate recreational opportunities
5. Promote economic prosperity that is compatible with goals 1 - 4

The Town of Monroe was included in the study area for the 2002 update of the Highlands regional study. This study evaluated water, forest, biodiversity, farmland, and recreation resources. A Conservation Values Assessment model was developed to identify those locations of highest value based on the presence, quality, and usefulness of each of the above resources. Criteria included how well the resource meets the following goals:

- Maintaining an adequate supply of high quality water;
- Conserving productive forest lands;
- Conserving areas of high biodiversity and habitat value;
- Conserving productive agricultural land; and

- Providing adequate recreational opportunities for natural, historic and cultural resource-based uses

This data was then further refined in two ways: first to identify those locations not already protected, and secondly the assessment data was cross tabulated with an econometric analysis quantifying the likelihood of economic development.

The project site has been previously cleared and graded and contains secondary growth woods, proximate to a highway and other development (see Section 10.0 – Historic and Cultural Resources). The location of the Monroe Commons Development within the Town is consistent with the goals outlined in the study.

Southeast Orange County Traffic and Land Use Study

In 2004, the Southeastern Orange County Traffic and Land Use Study was prepared for the Orange County Department of Planning by AKRF. The purpose of the Plan was to address current and future transportation needs due to rapidly increasing populations within some towns and villages. Specifically, the Towns of Blooming Grove, Monroe, and Woodbury had experienced population increases over 21 percent for the ten years prior to the study. As populations increase, vehicular trips increase, which often require expanded road capacity to alleviate traffic congestion. The northern section of the Town of Monroe was included in the study because of a significant increase in residential subdivisions and commercial developments and some of the highest densities within the study area were found in the Town and Village of Monroe and the Village of Kiryas Joel. Specific recommendations contained in the Study that would affect the transportation systems operating within and surrounding the Town of Monroe included Updating the Town Comprehensive Plan and land development regulations and focusing development towards the Village of Monroe.

The proposed Monroe Commons development is consistent with these goals, by proposing traffic improvements, accommodating bus transit for the development, and providing pedestrian connections to adjoining residential development.

Illustrating Smart Growth for SE Orange County – "Smart Growth"

Similar to the Orange County Comprehensive Plan the "Smart Growth" study emphasizes development in proximity to the existing Village Centers in order to provide opportunities for preservation of the rural character in SE Orange County. The Smart Growth Study recommends:

> *"New development adjacent to existing villages should serve as extensions of the village fabric rather than noncontiguous suburban sprawl with no relation to existing context."*

Development of the Monroe Commons development provides a logical extension of the commercial development in the Town of Monroe and will provide for shopping, office and hotel uses in close proximity to the Village of Kiryas Joel/Town of Palm Tree. The adjacent VMG residential development will be able to access the mixed-use Monroe Commons development through pedestrian connections.

3.1.2 Future Without the Proposed Action

The Applicant owns the approximately 12-acre parcel (Section 225, Block 1, Lot 30) located immediately to the north of the Project Site within the Village/Town of Woodbury. The Applicant has no plans to develop that property. A portion of the hillside on the adjacent property in Woodbury will be graded to allow the construction of parking and access driveways of the proposed Project and avoid the construction of a retaining wall along the property border. Grading on the adjacent property is further discussed in Section 4.0 Geology, Soils and Topography.

Without the proposed project the 12 acres of HI zoned land would remain available for alternative uses as permitted in the HI zone.

The Applicant has coordinated with the Town of Monroe and surrounding municipalities to identify anticipated land use changes within ½ mile of the Monroe Commons development site.

The Planning Secretary of the Town of Monroe, contacted via e-mail on May 22, 2023, confirmed the list of development projects below was accurate and indicated there are currently no pending zoning changes (see Appendix B – Correspondence).

The Planning Board Secretary for the Village of Monroe, confirmed via e-mail dated May 23, 2023 that no other zoning changes are anticipated at this time (see Appendix B – Correspondence).

Information for the Village of Woodbury was provided by the Building Department via e-mail on May 22, 2023 (see Appendix B – Correspondence).

The Deputy Clerk for the Village of Harriman confirmed via e-mail that two additional projects are pending in the Village of Harriman: (1) Valley View, a 29 lot Single family subdivision, and (2) Harriman Manor, where 48 condominiums are proposed. Both of these developments are outside the ½ mile radius of the Monroe Commons Site (see Appendix B – Correspondence). The Building Inspector confirmed there are no anticipated zoning changes in the Village of Harriman.

The Village Administrator of the Village of Kiryas Joel/Town of Palm Tree provided the list of development projects below and indicated that only the VMG development is within the ½ mile radius (see Appendix B – Correspondence). There are no proposed zoning changes in the Village of Kiryas Joel/Town of Palm Tree.

The following list of anticipated development projects were considered for the Traffic Analysis provided in Section 9.0 Traffic and Transportation:

Village of Kiryas Joel / Town of Palm Tree

A. Veyoel Moshe Gardens (VMG) Phase 2 – 1,600 units of residential
B. Ace Farm – 364 residential units
C. Coronet Lake – 380 residential units
D. Golden Towers – 160 residential units
E. Deutch/Klein – CR 105 – 120 residential units
F. Schlessinger – CR 105 – 28 residential units
G. Hamaspik – 112 residential units
H. Schlessinger – 94 residential units
I. Lee Gardens (16-20 Israel Zupnik) – 48 residential units

J. 93 Bakertown Road – 58 residential units
K. Mann – Isarael Zup – 24 residential units
L. Mizrachi – Israel Zup – 36 residential units
M. Preizler – Bakertown – 63 residential units
N. B&H – Ares Road – 53 residential units
O. 421-453 CR 105 – Highview Estates – 72 residential units
P. Acres Enclave – 528 Residential units

Town of Woodbury

Q. Shops at Woodbury – Eight-building shopping plaza totaling 56,760 SF located on Locey Lane.
R. Gardens at Harriman – 1,500 Apartment units located near the Harriman Metro North station.
S. Woodbury Commons Expansion – Expansion of the current site of Woodbury Commons on NY Route 32, which includes 159,626 SF of new retail space, two 120-room hotels, 12,000 SF of restaurant space and a 6,000 SF day spa.
T. Woodbury Junction – 192 residential units

Town of Monroe

U. BJ's Fueling Station – Construction of fueling station with 12 fueling positions along with a 3,000 SF fast food pad site. Expected completion in 2023.
V. Bald Hill Estates – 138 residential units
W. 208 Business Center – Construction of 80,430 SF retail center located on NY Route 208 next to the YMCA.
X. DG Realty – 15 unit residential, mix of duplexes and single family

Village of Goshen

Y. Legoland – 140 acre children's amusement park (opened in 2021)

Town of Chester

Z. Greens of Chester – 431 lot subdivision off West Ave – under construction

3.1.3 Potential Impacts of the Proposed Action

The project is consistent with the goals expressed in the County, Town and Villages' Comprehensive plans to encourage development in areas that are already developed and accessible to the locale or region intended to be served. The project is located on a major regional access road and is in the immediate vicinity of the neighborhoods it specifically seeks to serve. The mix of uses proposed are not unique for the Town, and the project is compatible with existing uses within ½ mile. The Harriman Commons shopping center located across Route 17 and southeast of the project site also provides a variety of commercial services and is bordered to its southeast by multi-family condominium residences. Just over the Harriman Village line to its east is a single family residential neighborhood. Adjacency of commercial services and residential areas with linkages that encourage non-vehicular transportation also supports traffic and transportation goals to reduce congestion and GHG issues.

Location

Several of the Plans and Policies discussed in section 3.1.1 share a common land use strategy that steers development toward areas where development is already concentrated, serviced by existing infrastructure and accessible to the locale or region intended to be served. By directing growth to these areas, it is possible to protect natural and cultural resources elsewhere, as well as farmlands and habitat areas.

The Orange County Comprehensive Plan describes Priority Growth Areas (PGA's) and aligns these to the goals of the Hudson River Valley Greenway Act. The plans of the Town of Monroe and the Village of Woodbury, likewise mirror these principles. The Town of Monroe specifically supports PGA's and the Village of Woodbury seeks to promote economic growth through distinct local and regional development strategies emphasizing hotel placements in sites such as the selected location of the Project.

The Orange County Design Manual follows suit, recommending Commercial Corridors, Downtowns, Edges of Downtowns and New Neighborhoods as places to grow. "Smart Growth" for SE Orange County recommends that *"New development adjacent to existing villages should serve as extensions of the village fabric rather than noncontiguous suburban sprawl with no relation to existing context."*

The Monroe Commons Project is located in a Priority Growth Area adjacent to the new VMG development and in close proximity to the Village of Kiryas Joel. The site will provide for shopping, office and hotel services to both the immediate residents in the area and regional visitors. This site choice also aligns with the County's strategy to protect open space by steering development to Priority Growth Areas.

In addition, the applicant is applying design best practices set forth in the Orange County Design Manual, to maximize connectivity by creating a connected street network between the Monroe Commons property and the neighboring residential community. Besides avoiding traffic on Nininger Road, people may be able to drive, walk, or bike between locations.

Transportation

The Orange County Transportation Plan highlights controlling for acceptable Levels of Service, Congestion and Air Quality and identifies specific traffic issues in the vicinity of the site, some of which have been at least partially addressed by improvements to Exit 131 from Route 17 for example. Monroe Commons is designed to accommodate bus circulation, and stops for local bus transit routes will be provided, internal to the site. The routes and schedules for bus routing will be determined in discussions with local transportation providers. The planning and accommodation for bus transit to and from the site will reduce vehicle trips and improve access to the site for individuals who may not drive.

The Project will increase traffic in the area and will employ recommended mitigations identified in the Traffic Study (Chapter 9) to keep LOS of impacted intersections within an acceptable rating to minimize congestion issues to the maximum extent practicable. The proposed design to connect the Project site to VMG and the Village of Kiryas Joel aligns with best practices for Communities laid out in the Orange County Design Manual, by maximizing to the extent possible the ability for people to live, work, shop and recreate within walking distances. This reduces dependence on automobile and fosters social interaction.

Sustainability

The Mid-Hudson Regional Sustainability Plan highlights the need to ensure clean affordable energy, zero-waste materials management, and efficient water collection, treatment, and distribution systems. The Orange County Master Water Plan specifically highlights the need "for defining … water carrying capacities" and "to foster cooperation with municipalities including inter-connections among local systems where possible."

The Monroe Commons project acknowledges the need to plan sustainably for water supply and protect water resources.. As described in the Project Description (Section 2.0), the Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter indicating the Village's willingness to provide water service to the Monroe Commons development, and the sponsor of the Veyoel Moshe Gardens (VMG) residential development has provided a letter confirming their agreement for the proposed utility connections (including water and sewer) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations. In addition, plans for the site include adherence to standards for Storm Water Pollution Prevention.

The Project may utilize green technologies in both the construction and the ongoing operations of the structures. Operational management of the complex may participate in programs such as food scrap collections and composting.

Plans reviewed of no consequence

While the Town of Monroe is within the study area covered in the USDA Forest Service New York-New Jersey Highlands Regional Study the Project is not located in area of interest for preservation. Within the Orange County Plan, sections covering Agriculture and Farming as well as the Economic Development Strategy are sector specific goals and do not apply to the Monroe Commons Project.

The proposed project site is within one-half mile east of the Troop F, Zone 2 Barracks of the NY State Police, located at 369 Nininger Road, which has a heliport on site. Discussion with Staff Sargent of the Troop F, indicate the helipad is heavily used, particularly by the residents of the Town of Palm Tree.[1] As discussed in Community Services, there are no operational conflicts with the existing helicopter pad anticipated. The helipad is located at the intersection of Nininger Road and CR 105. Helicopter operations require minimal horizontal distance and their operation is wholly contained on the police station property.

The proposed Hotel is envisioned to cater to the cultural needs of the residents and families of Kiryas Joel. Consistent with the requirements of Town Code § 57-13(L)(6) a Hotel Market Analysis is included as Appendix K. Analysis indicates that the population of Kiryas Joel is continuing to expand. The Hotel Market Analysis indicates the increasing need for additional Hotel Space to accommodate visitors and families to the area.

3.1.4 Mitigation Measures

Overall, the proposed action would be compatible with surrounding land use patterns in the vicinity of the project site. The construction of the proposed development would increase the availability of retail, office and hotel commercial space in the Town of Monroe and would serve to expand the

[1] Phone Call February 9, 2023 to NYS Police Barracks Troop F, Zone 2.

Town tax base with additional ratables. No significant adverse impacts are expected from the proposed action on adjacent land uses.

No significant land use impacts are anticipated. In addition, the project is consistent with the goals of the Comprehensive Plans of the Town and County, and no impacts on public policy are anticipated. All necessary permits and approvals from the Town of Monroe, Orange County and other agencies will be secured prior to final site plan approval.

3.2 Zoning

3.2.1 Existing Conditions

Zoning on the project site and within one-half mile of the site is shown in Figure 3-2 Local Municipality Zoning Map. This map also shows zoning in the adjacent Village / Town of Woodbury and the Village of Kiryas Joel/ Town of Palm Tree. The Village of Kiryas Joel/Town of Palm Tree has only two zoning districts, residential and commercial, as shown in Figure 3-2.

The Project site is located in the HI – Heavy Industry district as mapped on the Town of Monroe Zoning Map. The land immediately adjacent and northwest of the site is within the boundary of the Village of Kiyras Joel. This area is zoned residential and is the location of the VMG development. Adjacent and nearby property to the northeast in the Village of Woodbury is zoned R-2A Residential, 2 Acre zoning. The Woodbury Villas residential development located east and northeast of the site in the Village of Woodbury is zoned Residential 1-Acre (R-1A) with CCDOD – Conservation Cluster Development Overlay District.

The land across Route 17 and to the west of the site is zoned LI-Light Industrial and is currently wooded and undeveloped. To the south and southeast lies Harriman Commons which straddles both the Town of Monroe and Village of Woodbury. This complex is zoned LI-Light Industrial with a BP-O Business Park Overlay in the Town of Monroe and IB-Industrial Business in the Village of Woodbury.

The HI – Heavy Industry district allows the following list of Principal Permitted Uses:

1. Automobile Sales with accessory service facilities
2. Newspaper or Printing Establishment
3. Office
4. Research Institute of Laboratory
5. Warehouse
6. Workshops or studio or shop for custom work
7. Non-nuisance Industry
8. Indoor Sports Facility
9. Retail

Special Permit uses subject to Planning Board Approval

1. Bus Passenger waiting shelter
2. Bottled Gas Distribution Station
3. Adult Bookstores, Theaters or similar uses
4. Self-service storage facilities
5. Truck Terminal of Distribution Center
6. Building or landscape materials storage yard
7. Public Utility Building or structure

8. Hotel

The following Bulk Regulations apply to the HI District:

- Minimum Lot Area – 1 Acre
- Minimum Lot Width – 100 feet
- Minimum Front Yard – 40 feet
- Minimum Side yard – (One) 20 feet*
- Minimum Side yard – (total) 40 feet
- Minimum Rear Yard – 20 feet
- Maximum Lot Coverage – 65%
- Maximum Building Height – 40 feet.
  *Any side yard shall be 50 feet when lot is adjacent to a residential zone.

The land just outside the one-half mile radius to the northwest of the site is located in the Village of Kiryas Joel/Town of Palm Tree and this area is zoned Residential. The Village of Kiryas Joel/Town of Palm Tree has only two zoning districts, residential and commercial, as shown in Figure 3-2.

3.2.2 Future Without the Proposed Action

There are no known zoning changes expected to occur within ½ mile of the Project Site in the future without the Proposed Action. As detailed in Section 3.1.2, contact was made with the Town of Monroe, Village of Woodbury, Village of Harriman, Village of Kiryas Joel/Town of Palm Tree. Each municipality confirmed there are no anticipated zoning changes at this time.

3.2.3 Potential Impacts of the Proposed Action

As shown in Table 3-2, the proposed project is in conformance with all but three of the Zoning Requirements:

Table 3-2
Town of Monroe Bulk Requirements
Zone HI (Heavy Industry)
Use Group: Office, Retail, Storage, Hotel

	Min Required	**Provided**
Lot Area (acre)	1.0	18.2±
Lot Width (ft)	100	810±
Front Yard (ft)	40	530±
Side Yard (ft)	20*	50
Both Side Yards (ft)	40	783±
Rear Yard (ft)	20	40
	Max Permitted	**Provided**
Lot Coverage (%)	65	74.1± *
Building Height (ft)	40	49.0± *
Building Height (stories)	-	5

The Applicant has requested from the Town Board text amendments to the Town of Monroe zoning code to support the proposed mixed-use development plan. The Monroe Town Board has the responsibility to review and approve any changes to the zoning code, and a petition for the

zoning text amendments were submitted in June, 2022. In summary, the following amendments have been proposed to the Town Board:

1) Restore the maximum building height in the HI – Heavy Industry District to fifty feet (50 ft) from forty feet (40 ft.);
2) Include the HI District in Section 57-47E (Method of determining off-street parking requirements) of the Zoning Code, so as to empower the Town Planning Board to reduce the otherwise applicable parking requirements by forty percent (25%), and
3) Amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five (75%).

A copy of the Petition for Zoning Text Amendments is provided in Appendix B – Correspondence. The requested Amendments are currently under review by the Town Board. The proposed text amendments would apply to all other properties mapped in the HI zoning district in the Town of Monroe. A discussion of impacts related to the other properties is included in Section 18.

Variances from the Town of Monroe Zoning Board of Appeals will be required, in the event that the Town Board does not adopt the proposed zoning amendments.

Retail and office uses are permitted as of right in the HI zoning district. Hotels are special uses permitted subject to site plan approval and the requirements of Town Code chapter 57-13(L)(7), which requires a market analysis for a hotel. The Hotel Market Analysis is described above in Section 3.1.1 and is provided as Appendix K.

As indicated, the proposed site plan meets the bulk and setback requirements of the zoning code with the exception of the three requirements described above, where the Applicant is requesting zoning text amendments. The zoning and bulk requirements for the HI district and the site plan compliance is provided on Drawing 1 of the attached Site Plan.

The proposed project will be in compliance with all applicable special permit, site plan, and architectural review standards set forth by the Town of Monroe Code.

Section 57-49 of the Town Code provides the parking area requirements for non-residential uses, based on different uses. Section 57-47 of the Town Code provides the method of determining off-street parking requirements, including that: "*The requirements for a use made up of several component uses (e.g., a bowling alley with auditorium seating and a restaurant and bar or a retail store and office building) shall be determined by establishing the requirements for each component use and adding them together"*. The project engineer calculated the required parking spaces based upon the uses (retail, office and hotel), and the proposed building square footage and number of hotel rooms. A total of 1,088 parking spaces are required by Town Code requirements.

Section 57-47E. describes the process for the review and determination of appropriate parking for business parks by the Planning Board:

> *At the time of individual site plan approval for uses located within a business park, the adequacy of accessory parking areas and truck loading spaces for that use shall be subject to review and determination by the Planning Board. After consideration of an appropriate parking needs study for the proposed use and the overall business park, the Board may reduce the actual parking area and/or loading spaces that would otherwise be required by this article by up to 25% in instances where it is demonstrated to the*

satisfaction of the Board that the combination of uses within the business park will generate parking needs that do not overlap or will not occur simultaneously or that the actual parking requirements of the proposed use are less than would otherwise be required by this article.

A Parking Generation Assessment was completed by the Applicant's Traffic Engineer. A summary of the Parking Generation Assessment is provided on page 25 of the Traffic Impact Study (see Appendix G). The Parking Generation Assessment examined parking rates at other similar mixed-use business centers in the Village of Kiryas Joel. Existing parking counts at the 51 Forest and 48-52 Bakertown business centers were conducted to calculate comparable parking demand rates that can be applied to Monroe Commons. It was found that the average peak period parking demand rates at the two business centers were 2.03 spaces/KSF during a typical weekday and 1.77 spaces/KSF on a Sunday. This equates to a projected peak parking demand of 379 vehicles during a typical weekday and 331 vehicles on a Sunday at the Monroe Commons project. Accounting for parking errors and additional space for effective parking supply, a minimum of 436 spaces (15% over weekday peak) is recommended for Monroe Commons. The full parking generation assessment can be found in Appendix E of the Traffic Impact Study.

As shown on the Site Plan drawings (attached as Appendix M), 624 parking spaces will be provided. An additional 29 spaces will be provided as banked parking at an area southeast of the building. The proposed spaces provided is 43 percent greater than the minimum spaces recommended by the Parking Generation Assessment. As indicated, the applicant proposes an additional 29 banked parking spaces and the location of those spaces at the south east side of the building is shown on the plans. The Applicant proposes to landscape this banked parking area to provide for greater green and landscaped area for the development. If the additional land banked parking is needed in the future, the Applicant is committed and required by the zoning code to provide the parking.

The proposed project will be in compliance with all applicable special permit, site plan, and architectural review standards set forth by the Town of Monroe Code.

First, the proposed project will be in compliance with the special use permit standards found in Section 57-12 of the Town of Monroe Zoning Law:

A. The hotel use is specifically authorized as a special use in the HI zoning district.

B. The proposed hotel use would be compatible with adjoining properties, and with the natural and built environment of its surrounds, and would not be prejudicial to the character of the neighborhood.

C. As shown on the Site Plan drawings and the schematic drawings demonstrating fire truck movements, the site is accessible to fire, police, and other emergency vehicles.

D. The hotel use is a suitable use for the Project Site upon consideration of its scale and intensity in relation to environmentally sensitive features, including but not limited to steep slopes, floodplains, wetlands, and watercourses. The Applicant has undertaken extensive studies related to the environmental features on the Project Site. *See* (i) Appendix C, Wetlands and Surface Water Reports; (ii) Appendix D, Geotechnical and Soils Reports; (iii) Appendix E, Ecological Reports; and (iv) Appendix H, Environmental Site Assessment. The Monroe Commons development is not anticipated to have a significant adverse

impact as it relates to steep slopes, floodplains, wetlands, or watercourses, and any potential impacts will be sufficiently mitigated.

E. As shown on the Site Plan and Landscape Plan drawings, there will be adequate screening and separation distances to buffer the use from adjacent properties.

F. Exterior lighting is not anticipated to negatively impact adjoining properties.

G. The hotel use is not anticipated to negatively impact ambient noise levels, generate excessive dust or odors, release pollutants, generate glare, or cause any other nuisances. The Project's anticipated impact related to noise is fully described in Chapter 13.0, Noise, and the Project's anticipated impact related to air quality is fully described in Chapter 14.0, Air Quality.

H. Parking will be sufficient so as to not create a nuisance or traffic hazard on adjacent properties or roads. As shown on the Site Plan drawings, 624 parking spaces will be provided, and an additional 29 spaces will be landbanked. As shown in the Traffic Impact Study, Appendix G, 436 spaces are the recommended minimum number of parking spaces for the Monroe Commons development.

I. As shown in the Traffic Impact Study, attached as Appendix G, and described in Chapter 9.0 Transportation and Traffic, vehicular, pedestrian and bicycle circulation, including levels of service and roadway geometry, will be safe and adequate to serve the hotel use. When taken in conjunction with other existing land uses, any increase in traffic generated by the hotel use will be sufficiently mitigated, as described in the Traffic Impact Study, so as to not result in an undue burden upon the available access streets. There will be both driveway and pedestrian connections to the adjacent VMG development, and the Applicant has incorporated a nature walk staircase into the plans.

J. The location, arrangement, size, and design of the hotel use, including all principal and accessory buildings and structures associated with same, will be compatible with the character of the neighborhood in which it is situated and is not anticipated to hinder or negatively impact the use, enjoyment or operation of adjacent properties and uses.

K. Utilities, including stormwater, wastewater, water supply, solid waste disposal and snow removal storage areas, will be adequate to serve the hotel use. The Applicant has received a commitment from the Village of Kiryas Joel / Town of Palm Tree to supply municipal water for the development, and all necessary utility connections (including for water, sewer, gas and electric) will be made from the adjacent VMG property. There will be adequate stormwater management and snow removal storage areas, as shown in the Site Plan drawings and SWPPP, and there will be adequate solid waste disposal.

L. The use is not anticipated to negatively impact the visual, scenic or historic character of the Town of Monroe or its environs.

M. The building's architecture will be consistent and suitable with the neighborhood within which it is located.

N. As shown on the Landscaping Plan, landscaping will be integrated into the overall design of the hotel use and will include undisturbed woodland in the southeast corner of the property, and an existing wetland area in the southern portion of the site. . Areas not used

for building, parking, or driveways will be revegetated and landscaped with a mix of trees, shrubs and grasses.

Next, the proposed project will be in compliance with the specific special use permit standards for hotels found in Section 57-13(L) of the Town of Monroe Zoning Law:

(1) The +/- 5.48-acre area for the hotel, of the total +/- 18.2-acre lot, exceeds the minimum 2-acre requirement. The Applicant is proposing 39 hotel rooms, each being approximately 500 sf in area, which is sufficient lot area per guest as required by this section of the Zoning Law.

(2) The hotel will be occupied only on a transient basis.

(3) No more than two hotel guest units will be connected directly by interior doors.

(4) Each guest sleeping room will have an area of at least 300 square feet and will be equipped with a bath facility with a shower or bath, toilet and sink. The average room size will be approximately 500 s.f. in area with a minimum room size of 363 s.f.

(5) The following uses shall be permitted accessory to a hotel: recreation facilities for the sole use of guests; office and lobby; breakfast, meeting and/or conference rooms; fitness center; business center; gift shop; sundries/snack shop; bar; lounge; a restaurant or restaurant, with a total dining area not exceeding 10% of the total floor area of the hotel. The applicant proposes: a breakfast room, a lounge room, a meeting room and a swimming pool for hotel guests.

(6) The Hotel Market Analysis, attached as Appendix K, demonstrates that there is a demand for the proposed hotel space within a five-mile radius of the Project Site, taking into consideration existing and approved hotels within the area.

(7) The Project Site is an appropriate location when compared with the character of its surroundings, the hotel will not be detrimental to the public health, public safety, morals and general welfare, and its operations are not anticipated to negatively impact any adjoining residential zoning district or residential use by virtue of noise, lighting, odors, or other operational characteristics.

(8) The Applicant is proposing a height of 4 stories and 49 feet, which is consistent with the requirements of this section of the Zoning Law.

Next, the proposed project will be in compliance with the site plan standards found in Section 57-20 of the Town of Monroe Zoning Law:

(1) There will be one principal building, such that this provision does not apply.

(2) As shown on the Site Plans and in the Traffic Impact Study, attached as Appendix G, access facilities, including from Nininger Road and the driveway connection from the adjacent VMG property, will be adequate for the estimated traffic to and from the site so as to assure the public safety and to avoid traffic congestion. Vehicular entrances and exits will be clearly visible from the street and not within 75 feet of a street intersection and will have a minimum sight distance of 500 feet, as required for a county road.

(3) There will be safe and convenient pedestrian and vehicular traffic circulation within the site, as shown on the Site Plans and drawings demonstrating bus, truck, and fire truck movements. The Applicant is proposing driveway and pedestrian connections to the adjacent VMG development, as well as a nature walk staircase.

(4) There will be safe and adequate off-street parking facilities, as shown on the Site Plan drawings. The Applicant proposes 624 parking spaces to be provided, and an additional 29 spaces will be landbanked. As shown in the Traffic Impact Study, Appendix G, 436 spaces are the recommended minimum number of parking spaces for the Monroe Commons development. In addition, provisions will be made for school bus loading and unloading, which are described in Chapter 9.0 Traffic and Transportation.

(5) As shown in the Site Plans and in the drawing demonstrating truck movements, truck loading and unloading berths are not anticipated to interfere with traffic circulation nor to be detrimental in appearance to the site or its surrounding area and will be conducive and convenient to safe operation.

(6) There will be a protective planting strip which will vary in width between 10 and 50 feet wide situated within the side yard adjoining the VMG residential development, designed and laid out with suitable evergreen and deciduous plant material which will be maintained at a height of not less than eight feet to provide an effective natural screen between the Monroe Commons development and the adjacent residential district in the Village of Kiryas Joel/Town of Palm Tree. The Town Code (Section 57-20(B)(6) requires a planting strip of not less than 25 feet wide within the side and rear yards to screen adjacent residential districts. The applicant believes that a plain reading of the Town Code establishes that this provision only applies to residential districts in the Town of Monroe. In the event that it is determined that the Code requirement applies to residential districts outside of the Town's boundaries, then a variance for that requirement will be sought from the Town Zoning Board of Appeals.

(7) As shown on the Site Plans and described in the SWPPP, Appendix F, there will be adequate collection and disposal of stormwater runoff from the site.

(8) There will be adequate collection, treatment or disposal of sanitary wastes and sewage by sanitary plant or otherwise.

Finally, the proposed project will be in compliance with the architectural review standards found in Section 57-31 of the Town of Monroe Zoning Law. The proposed building architecture and the development's potential visual impacts are further described in Section 15.0 Visual Resources and Community Character.

(1) The architectural value and significance of the structure will be appropriate when compared to the surrounding area. The proposed mixed-use building will be attractive and its modern architecture will enhance the surrounding area and serve as a landmark for drivers on NY Route 17 and Nininger Road.

(2) The exterior design, arrangement, texture and materials proposed to be used will be appropriate, including a varied façade of precast stone, stucco, aluminum trim and curtain glass windows.

(3) The proposed new construction will be consistent with the architectural style of the surrounding area, including with the adjoining Brach and Mann office building and the adjacent VMG residential development. The architectural differences between the proposed Monroe Commons building and the VMG residential development appropriately reflect the varying uses of these two projects. The proposed building architecture will be compatible with new commercial and office development in the surrounding area, and will enhance the appearance of the surrounding area.

(4) There is not excessive dissimilarity or inappropriateness in relation to any other structure, existing or for which a permit has been issued, in respect to one or more of the following features: cubical content, gross floor area, building area or height of roof or other significant design features, such as materials or style of architectural design. The mixed use building will be larger in terms of building area and height as compared to the Brach and Mann office building, which is appropriate in light of the intended uses of these two projects, and will be similar in scale to the adjacent residential buildings on the VMG property.

(5) The proposed mixed use building will not have excessive similarity to any other structure existing, or for which a permit has been issued, in respect any of the following features of exterior design and appearance: apparently identical front, side or other elevations visible from the street, substantially identical size and arrangement of either doors, windows, porticoes or other openings or breaks in the elevation facing the street, including reverse arrangement; or other significant identical features of design, such as, but not limited to, material, roof line, height or other design elements. The building will have unique, modern architecture that will enhance the surrounding area, and will be compatible with surrounding existing development.

(6) The proposed building will be constructed to a height visually compatible with the buildings and environment to which it is visually related, including the adjacent VMG residential buildings.

(7) The gross volume of the proposed building will be visually compatible with the buildings and environment to which it is visually related, including the adjacent VMG residential buildings.

(8) In the elevations of the building, the proportion between the width and height in the facades will be visually compatible with the buildings and environment to which they are visually related, including the adjacent VMG residential buildings.

(9) The proportions and relationships between doors and windows in the facades will be visually compatible with the buildings and environment to which they are visually related. The proposed mixed use building will have varied but similar proportions and relations between doors and windows in the façade, as compared to the adjacent VMG residential development buildings.

(10) The rhythm of solids to voids, created by openings in the facade, will be visually compatible with the buildings and environment to which it is visually related. The proposed building will have a varied façade with precast stone columns, windows and architectural elements, designed to be compatible with nearby development, including the VMG development.

(11) This section is not applicable because there are no existing buildings on the Project Site.

(12) The materials used in the facades will be visually compatible with the buildings and environment to which they are visually related. The proposed building materials of stone, stucco and glass will be compatible with the adjoining Brach and Mann building with glass and metal trim and the VMG buildings with wood, vinyl trim and glass.

(13) The texture inherent in the facades will be visually compatible with the buildings and environment to which they are visually related. The proposed façade textures will be visually compatible with nearby development.

(14) Colors and patterns used on the facades, generally off-white stone color, with grey glass and trim with varied patterns will be visually compatible with the buildings and environment to which they are visually related.

(15) The design of the flat roof proposed for the building will be visually compatible with the buildings and environment to which it is visually related.

(16) The proposed landscape plan reflects a consideration of the individual building and its occupants and their needs. Extensive, landscaping is proposed around the pedestrian building entrances. Further, the landscape treatment will be visually compatible with the buildings and environment to which it is visually related, including the use of native and ornamental trees and shrubs. The proposed wetlands mitigation plan plantings will enhance the existing native vegetation.

(17) All facades will blend with other buildings via directional expression. When adjacent buildings have a dominant horizontal or vertical expression, this expression will be carried over and reflected. The proposed building will have a vertical expression, consistent with the adjoining Brach and Mann office building and adjacent VMG residential buildings.

(18) Architectural details will be incorporated as necessary to relate the new with the old and to preserve and enhance the inherent characteristics of the area. The proposed building will have modern architecture consistent with newer office and commercial development in the area.

(19) The setback of the building from the street or property line and the other yard setbacks will be visually compatible with the buildings and environment to which they are visually related. The proposed mixed-use building will be set back almost 500 feet from Nininger Road, thereby visually reducing its size and scale from Nininger Road and NY Route 17. The building will be observed behind the Brach and Mann office building and adjacent to the VMG residential buildings.

(20) A single development entrance sign will be of a size, scale, style, materials and illumination that is visually compatible with the proposed building, will be visually compatible with the nearby Brach and Mann office building and local setting.

(21) The Monroe Commons' architectural design will take into consideration any other factors, including aesthetics, which the Planning Board deems pertinent.

3.2.4 Mitigation Measures

As described, the Applicant has requested from the Town Board text amendments to the Town of Monroe zoning code to support the proposed mixed-use development plan. The requested amendments relate to: maximum building height, minimum off-street parking spaces and maximum lot coverage. The requested Amendments are currently under review by the Town Board.

The potential impacts of the proposed amendments, and the mitigation measures related to those potential impacts are examined in this DEIS, including: parking (Section 9.0 Traffic and Transportation), building height (Section 15.0 Visual Resources and Community Character), and coverage (Section 2.0 Project Description, Section 4.0 Geology, Soils and Topography, Section 8.0 Stormwater Management).

The proposed text amendments would apply to all other properties mapped in the HI zoning district in the Town of Monroe. A discussion and analysis of impacts related to the other properties are included in Section 18 - Potential Impacts of Proposed HI Zoning Text Amendment. The potential impacts of the proposed text amendments to other properties in the HI zoning district are limited by existing development and the limited size of other properties in the HI district.

No significant adverse impacts are expected from the proposed action to Town of Monroe zoning, or the effects from the proposed zoning amendments, and no mitigation measures are proposed.

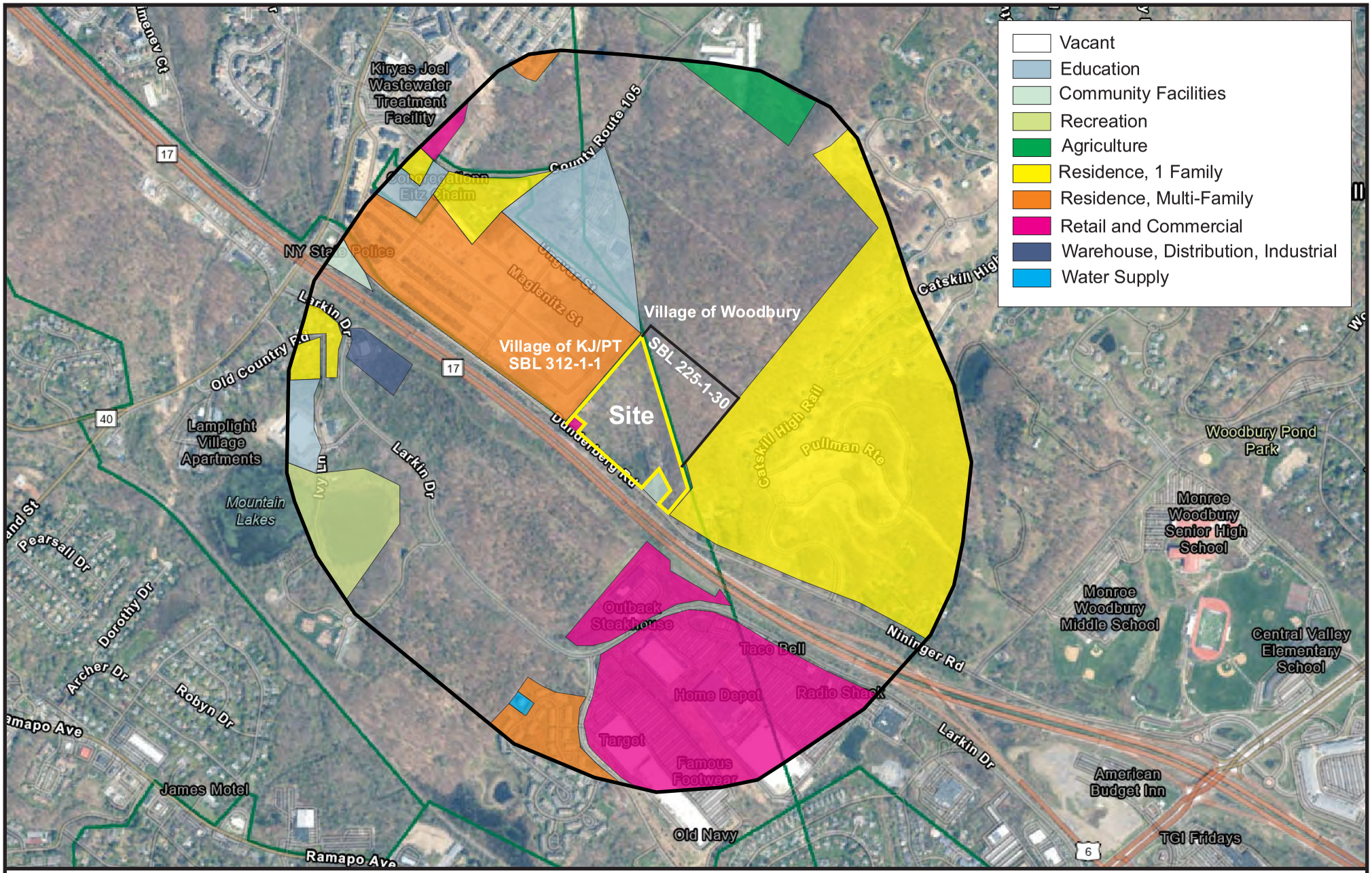

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Figure 3-1: Land Use within One-Half Mile

Monroe Commons

Town of Monroe, Orange County, New York

Source: Orange County NY GIS

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

Legend **Town of Monroe**

Municipal Boundaries
- Village
- Town of Monroe
- Parcels
- Proposed KJ Annexation

Zoning Districts
- OSR-3 Open Space Residential
- RR-1 Rural Residential
- SR-20 Suburban Residential (20,000 sf)
- SR-15 Suburban Residential (15,000 sf)
- SR-10 Suburban Residential (10,000 sf)
- UR-M Urban Residential-Multifamily
- NB Neighborhood Business
- GB General Business
- LI Light Industry
- HI Heavy Industry
- BP-O Business Park Overlay
- RP-O Ridgeline Protection Overlay
- WSP-O Water Supply Protection Overlay
- Utility Tower Overlay

Village of Kiryas Joel/ Town of Palm Tree
- Commercial
- Residential

Legend **Village of Woodbury**

Municipal Boundary
Parcels
Ridge Preservation View Corridor
Interstate
Federal Highway
State Route
County Road
Local Road

Zoning District
- SH Senior Housing
- TV Transit Village
- R-3A Residential 3-Acre
- R-2A Residential 2-Acre
- R-1A
- R-O.25A Residential 1/4-Acre
- CR Corridor Residential
- LC Limited Commercial
- HB Hamlet Business
- OP Office Park
- LIO Light Industrial Office Park
- IB Industrial Business
- CCDOD Conservation Cluster Development Overlay

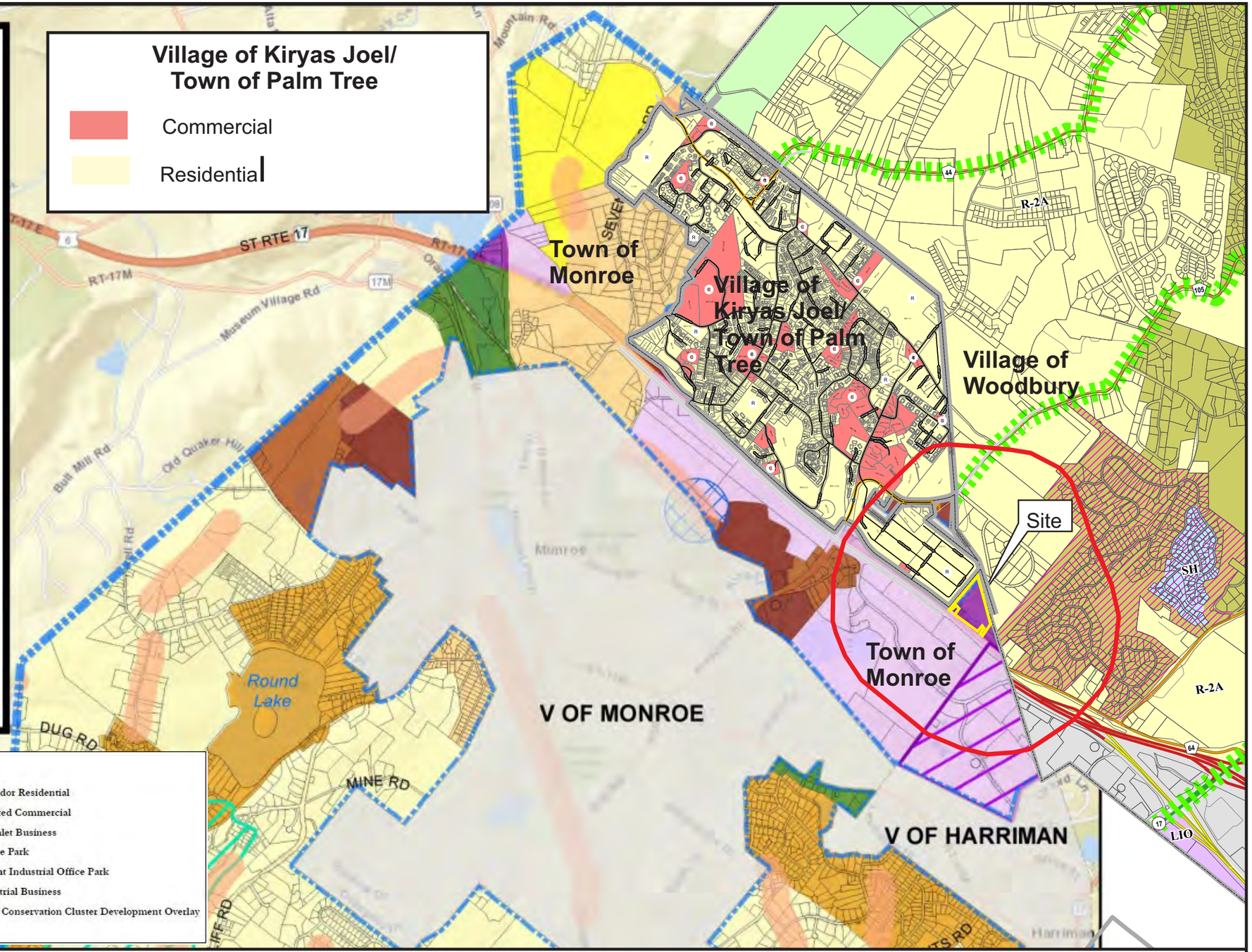

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Figure 3-2: Local Municipality Zoning Map
Monroe Commons
Town of Monroe, Orange County, NY
Source: Town of Monroe Zoning Map, Village of Woodbury Zoning Map, Town of Palm Tree Zoning Map

File 2095 Fig XX TMA 10/11/02

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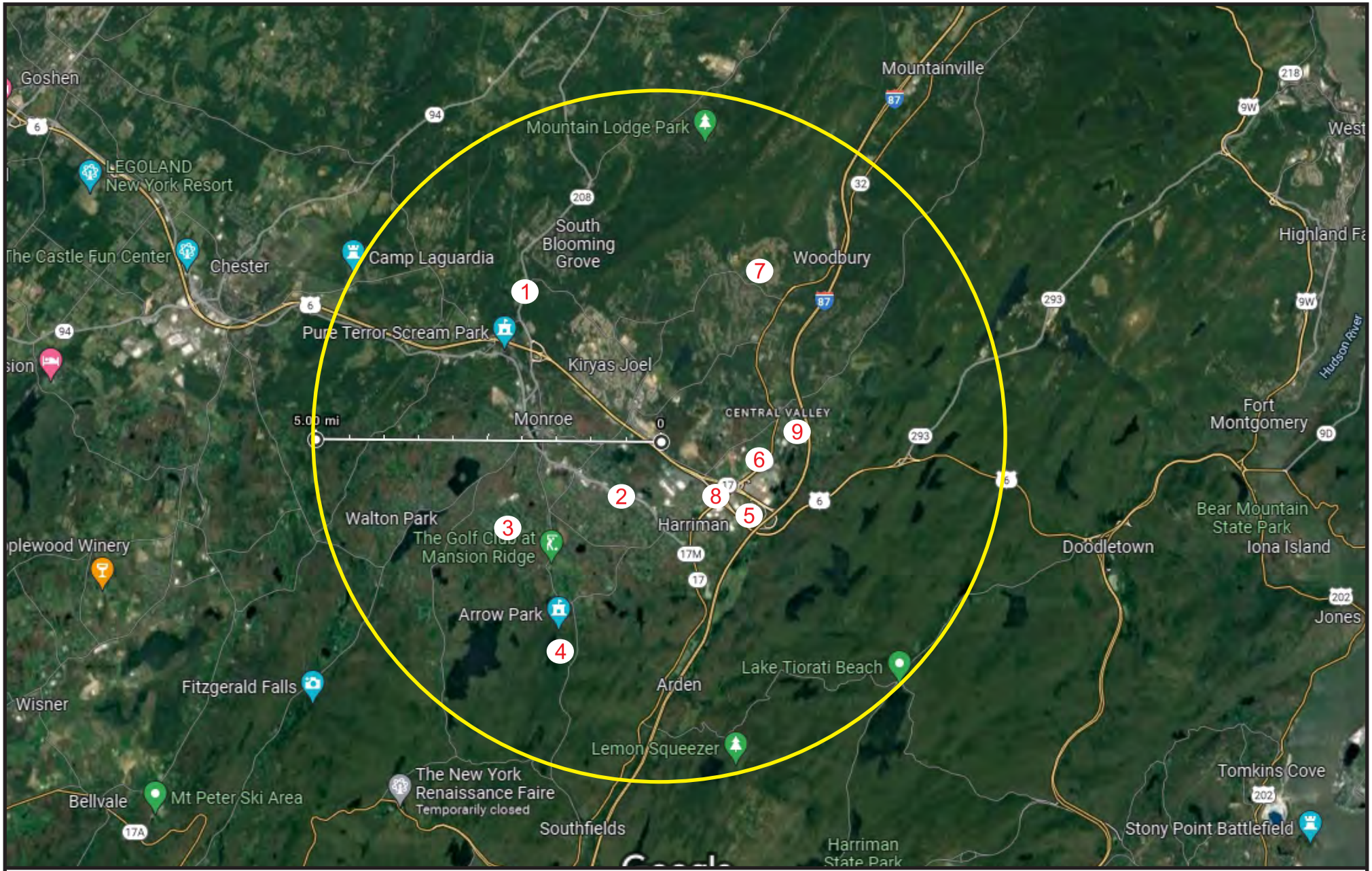

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1 - Sleep Inn & Suites, Monroe Woodbury
2 - James Motel
3 - Woodbury House
4 - ArrowPark
5 - Hampton Inn, Harriman
6 - Americas Best Value Inn, Central Valley
7 - Rushmore Estate (4 Rooms)

Recently Approved Hotels
8 - Courtyard by Marriot
9 - Aeonn

Figure 3-3: Monroe Woodbury Hotels within 5 Mile Radius

Monroe Commons
Town of Monroe, Orange County, New York
Scale: Graphic Scale as shown
Source: Google Maps

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

Figure 3-4 Garnet Health Medical Center
Monroe Commons, Town of Monroe, NY

1) View of Garnet Health Medical Center in Middletown, New York.

4.0 GEOLOGY, SOILS, AND TOPOGRAPHY

A *Geotechnical Investigation Report* completed by Kevin Patton, P.E. provides detailed information regarding the geology, soils and topography on the property and the edges of the site on adjacent properties. The *Geotechnical Investigation Report* is provided as Appendix D and is further described below.

Test pits were excavated in nineteen (19) locations on January 30 through February 1, 2023, using a mid-size tracked excavator. Most of the test pits were in proposed stormwater areas; standpipe piezometers ('monitoring wells') were installed in these test pits, and stormwater infiltration tests were performed in separate test pits, per Appendix D of the NYSDEC Stormwater Design Manual. Fourteen (14) soil borings were drilled on February 9, 10, 13 and 14, 2023. Borings were drilled by the hollow-stem auger method, using a track-mounted drill rig. All work was performed under the direction of Kevin Patton, P.E. The *Geotechnical Investigation Report* provides maps and charts with test pit and soil boring locations as well as soil boring logs and soil testing data.

4.1 Existing Conditions

Geology

The project site is located in the eastern section of the New England physiographic province, more specifically the northern edge of the Hudson Highlands, which is characterized topographically by broad gentle valleys and a moderate pattern of ridges. Local and regional geology has been mapped by the State of New York and is depicted on the Geologic Map of New York Lower Hudson Sheet (reprinted 1995). The *Geotechnical Investigation Report* completed by Kevin Patton, P.E. provides confirmation and further site specific information regarding on-site geology.

Bedrock mapped in the vicinity of the site on the Geologic Map of New York, is described as Undifferentiated Lower Devonian and Silurian rocks consisting of undifferentiated units of sandstone, conglomerate, shale, siltstone, and greywacke. The bedrock unit is found on the eastern and western valley floor adjacent to Skunnemunk Mountain. The *Geotechnical Investigation Report (Appendix D)*, provides local geologic mapping with greater detail than the Geologic Map of New York. The *Geologic Map of the Monroe Area* (1967)[1] indicates the site is located on a large block of Devonian-age sandstone and shale of the Esopus formation. This is a sedimentary unit composed of red-sandstone, blue-gray siltstone, black mudstone and related rock types. The site is in an area of deep soil cover where the boundaries of the bedrock units are uncertain. A map of the local bedrock geology is provided as Figure 4-5 Geologic map of the Monroe Area NY.

A bedrock contact with the Wappinger Group (OEw) rocks is mapped at the southern edge of the project site. Wappinger Group bedrock in Orange County is described as dark gray to gray-black limestone dolomite units. Local geology is further described in Section 6.0 Groundwater Resources.

[1] Geologic Map of the Monroe Area, 1967, by Howard W. and Elizabeth Jaffe, as presented in the 1989 New York Geologic Association Guidebook.

As further described in Section 6.0, a single exploratory bedrock water supply well was drilled on-site in January, 2019. The well drilled in the central portion of the site encountered bedrock at 80 feet in depth. Above the bedrock was approximately 30 feet of sand and gravel and boulders followed by hardpan to weathered bedrock and bedrock was encountered at 80 feet in depth. Groundwater was measured at 60 feet in depth in the well. Two bedrock fracture traces are mapped on the site; one trending northwest-southeast parallel to Nininger Road and a second trending north-south through the middle of the site (see Section 6.0 Groundwater Resources).

The local subsurface and bedrock conditions are also described in the well completion report for the well drilled for the adjacent Brach and Mann building at 254 Nininger Road. This office building is located at the northwest corner of the project site. The Brach and Mann well log indicates sand, gravel and boulders to a depth of 30 feet, hard-pan to broken bedrock to a depth of 80 feet, unconsolidated rock to a depth of 235 feet where solid rock was encountered. A copy of the well log is provided in Appendix D. The depth of 80 feet to bedrock at this location is consistent with the conditions described for the on-site well. The two wells are approximately 360 feet apart.

The borings and the test pits completed for the *Geotechnical Investigation Report* indicate that bedrock is likely deeper than the required excavation depths throughout the building area, however boulders in the soil resulted in limited data from the borings to confirm this conclusion. A total of 14 borings were drilled in the footprint of the proposed building. In all but two of the boring locations (B-12 and B-13), the borings were advanced to within five feet or were at a lower depth than the basement floor elevation. Boring B-6, at the southeast corner of the proposed building was drilled to 56 feet in depth or 10 feet below the basement elevation (see *Geotechnical Investigation Report – Building Area Subsurface Profile*).

The geotechnical engineer recommends that prior to construction, one or more trial excavations (enlarged test pits), including one near boring B11, should be made to verify that rock is deep. Three soil borings were advanced to 21 feet in depth (B3, B8 and B13) and boring B6 advanced to 56 feet in depth. These borings did not encounter bedrock. Therefore, it is assumed bedrock across the site is found at generally greater than 21 feet in depth and up to 80 feet in depth. Bedrock type and the presence and location of fractures and faults was not determined through the Geotechnical Investigation, but is reflected in published geologic studies and maps, described herein.

No active fault zones or seismic concerns are identified in the area of the project. The project geotechnical engineer provided the Seismic Site Class and Seismic Design Category for the proposed construction, based upon the New York State Building Code and ASCE 7-16. The project site and local area has Seismic Site Class C- Very Dense Soil and Soft Rock and has an IBC Seismic Design Category SDC – B. Seismic Design Categories range from A to E, with an A designation as having the lowest earthquake risk and E having the highest risk.

According to the Surficial Geologic Map of New York, Lower Hudson Sheet (1989), the surficial deposits in the area of the project site consist of glacial tills. Tills are described as variable in texture (e.g. clay, silt-clay, boulder clay), that were deposited adjacent to melting glaciers. Glacial tills and the soils that derive from them predominate in the lower Hudson Valley.

Soils

On-site soils have been mapped and described by the USDA Soil Conservation Service (SCS) in the Soil Survey of Orange County, New York, issued in 1981. Generally, the site comprises four soil types:

- Erie gravelly silt loam (3 to 8 percent slopes)
- Erie extremely stoney soils, gently sloping
- Mardin gravelly silt loam (0 to 25 percent slopes), and
- Udorthents, smoothed

The soils mapped on the property are not considered hydric soils.

The soil mapping units found on the site, using the soil classifications and descriptions of the USDA SCS, are summarized below and depicted in Figure 4-1 as mapped in the Orange County USDA NRCS. A summary of the on-site soil types is as follows:

- Udorthents, smoothed (UH) These soils are formed in manmade cut and fill areas, which are generally near urban developments or other construction sites. They consist of excavated earthy material that has been stockpiles or soil left in areas that have been excavated and cut. These soils are excessively drained to moderately well drained. This soil type is mapped on approximately 62 percent of the site and mostly at the center of the site including areas of mapped wetland. (see Figure 4-1, Soil Map).

- Erie gravelly silt loam 3 to 8 percent slopes (ErB) This soil unit is located on slopes, hillsides and along shallow drainageways. It is described as a deep, somewhat poorly drained gently sloping soil and has a fragipan. The permeability of this soil type is characterized as moderate in the surface and subsoil, but slow or very slow in the fragipan substratum. Bedrock is found more than 70 inches below the ground surface. This soil type is mapped on approximately 9 percent of the site along the western edge of the property. (see Figure 4-1, Soil Map).

- Erie extremely stoney soils, gently sloping (ESB) This soil unit is located on slopes, hillside and along shallow drainageways. It is described as a deep, somewhat poorly drained gently sloping soil and has a fragipan. The permeability of this soil type is characterized as moderate in the surface and subsoil, but slow or very slow in the fragipan substratum. The soil has stones and boulders greater than 10 inches in size at the surface. Bedrock is found more than 70 inches below the ground surface. This soil type is mapped on less than 1 percent of the site in the southeast corner. (see Figure 4-1, Soil Map).

- Mardin gravelly silt loam 3 to 8 percent slopes (MdB) This soil unit is located on hilltops and ridges in upland areas. It consists of deep moderately well drained soils. The water table is perched above a fragipan in early spring and other wet periods of time. The permeability of this soil type is characterized as moderate in the surface and subsoil, but slow or very slow in the fragipan substratum. Bedrock is found more than 60 inches below the ground surface. This soil type is mapped on approximately 28 percent of the site but mostly along the hillside at the northern edge of the property. (see Figure 4-1, Soil Map).

Mapped on-site wetlands are located in the large portion of the site designated as Udorthents, smoothed (UH) soils. These soils are not specifically hydric soils, but do indicate previous disturbance and grading. Since a topographic depression is located in the southeast portion of the site, wetlands have developed in this area over time.

Most of the on-site soil (62 percent) is mapped as Udorthents, smoothed (UH), which are described as: “These soils are formed in manmade cut and fill areas, which are generally near urban developments or other construction sites”. An historical aerial photo from 1958 shows the majority of the site as cleared of vegetation (see Figure 10-1 1958 Aerial Photo).

The soils mapped at the edges of the site extending to abutting properties, are shown in Figure 4-1 Soils Map, and include Erie soils (ErB and ESB) and Mardin gravelly silt loam, as described above. Soils on abutting properties are consistent with the on-site soils.

The *Geotechnical Investigation Report* completed for the site confirms the USDA SCS mapping, but provides further detail. According to the Report, the native topsoil types appear to be Mardin gravelly silt loam on the slope in the north part of the project area, and Erie gravelly silt loam on the low areas in front, changing back to Mardin along the edge of Nininger Road. Erie soils typically form over deep deposits of clayey glacial till, and Mardin soils usually form over deep till composed of silty clay with some sand and little gravel. Boulders, cobbles and channers (small flat stones) are usually present in these soils as minor constituents, but are sometimes abundant. The soils encountered in the borings were generally consistent with the Soil Survey data, consisting mostly of dense to very dense layered till with a clayey to silty texture, with some sandy to gravelly till, and with some medium-dense to dense clayey to fine-sandy glaciolacustrine deposits within the till. A thin layer of fill materials was encountered in parts of the low area of the site.

Suitability of the Soils for Construction

The Soil Survey of Orange County describes the only soil unit on the site and features which may restrict its use for development. A list of soil characteristics is provided in Table 4.1-1. Development limitations are considered: *slight*, where soil properties are generally favorable for the indicated use and limitations are minor and easily overcome; *moderate*, if soil properties are less favorable for the indicated use, and special planning, design or maintenance may be needed to overcome or minimize the limitations; and *severe*, if soil properties result in the need to implement special design measures to construct a structure.

On and off-site drainage is described in Section 8.0 Stormwater Management. In summary, the drainage analysis modeling identified two (2) separate drainage basins, each tributary to the defined design points. The first existing drainage basin, identified in the HydroCAD Output as Subcatchment 1S, includes approximately 37.65± acres of on-site and off-site land located in the Town of Monroe and Village of Woodbury. The second existing drainage basin, identified in the HydroCAD Output as Subcatchment 2S, includes approximately 5.69± acres of on-site and off-site land located entirely in the Village of Woodbury.

Table 4.1
Soil Characteristics and Limitations

Soil Series	Hydrologic Group[1]	Permeability (in./hr.)	Erosion Factor	Potential Limitations for:			
			K[2]	Local Roads and Streets	Small Commercial Buildings	Shallow Excavations	Lawns and Landscaping
Marden gravelly silt loam (MdB)	C	0.6-2.0 (0-20" deep) <0.2 (20-60" deep)	0.24-0.25	Moderate: frost action	Moderate: slope, frost action, wetness.	Moderate: wetness.	Moderate: small stones
Erie Extremely Stoney Soils (ESB)	C	0.6-2.0 0.6-2.0 <0.2 <0.2	0.24-0.28	Severe: frost action	Severe: wetness, frost action, stones	Severe: wetness, large stones	Severe; large stones
Erie gravelly Silt Loam (ErB)	C	0.6-2.0 0.6-2.0 <0.2 <0.2	0.24-0.28	Severe: frost action	Severe: wetness, frost action	Severe:wetness	Moderate: wetness, small stones

[1] Hydrologic groups are used to estimate runoff from precipitation; they range from high infiltration (A) to low infiltration (D).
[2] Erosion Factor K indicates susceptibility to sheet and rill erosion by water measured in tons/acre/year. K values range from 0.05 to 0.69. Higher values indicate greater susceptibility
Source: Soil Survey of Orange County, New York, USDA SCS.

As noted in Table 4.1-1, the SCS identifies these soils as possessing potential limitations for development of roads, buildings, excavations, lawns and landscaped areas generally due to wetness and frost action for much of the site, and slopes on those areas of the site containing steep slopes. The presence of these constraints does not mean the land is undevelopable nor are they a rating of construction potential. The ratings reflect the difficulty and relative costs of corrective measures that may be necessary (e.g. erosion controls, footing drains or other drainage improvements) for development. The limiting characteristics of these soils must be overcome by careful project planning, design and management. Measures to overcome any limitations are described in Section 4.2 Potential Impacts of the Proposed Action.

Subsurface Profile and Summary of Soil Conditions

Subsurface conditions encountered in the borings are described in the boring logs and are summarized in the drawings attached to the *Geotechnical Investigation Report*. The following summary description is provided from the Report. The soils encountered in boring B6 are expected to be typical for soils in the building cut into the hillside. These consisted mostly of layered glacial till, along with a thick zone or lens of layered silt and fine sand, probably deposited in a glacial lake. Zones of perched groundwater were indicated at several elevations and most of the soils were in a wet or very moist condition. The till layers were mostly silty clay, silt or clay with varying amounts of sand and gravel. Cobbles and boulders were occasionally present, and in boring B6 they were abundant at depths of 25 to 35 feet. Bedrock was not indicated in the hillside cut area. Borings B3 and B6 stopped in very dense till about eight to ten feet below the proposed basement floor elevation. Borings B12 and B13 were also drilled in this area and met refusal on probable boulders at elevations of 663 and 665 feet.

The soils in the foothill and low parts of the building area had similar textures to those in the hillside, but the upper five to ten-plus feet of the soil profile was soil that had been redeposited

after erosion by downslope movement and by surface water. The soils were medium-dense near the surface and were dense to very depth below a depth of about five feet, and most of the soils were wet or very moist. Shallow refusal, higher than the proposed basement floor elevation, occurred in the three borings across the middle of the west wing of the building (B4, B10 and B14) and in B11 at the north side west-middle corner.

The potential for precipitation to infiltrate the on-site soil and overburden and enter the underlying bedrock aquifer is limited by the dense to very dense glacial till, consisting of silts and clays. The *Geotechnical Investigation Report* provides description of perched shallow groundwater in several locations in the glacial till overburden. Based upon the soil boring testing, bedrock is generally anticipated be greater than 21 feet in depth and therefore precipitation would need to infiltrate that depth or greater to reach the bedrock surface. The geotechnical engineer completed test pits and percolation tests in the upper soils and the majority of the areas tested have suitable infiltration rates for the proposed stormwater management facilities. The stormwater facilities were modified, based on the *Geotechnical Investigation Report,* to avoid tested areas with poor infiltration. The Site Plans dated July 25, 2023 reflect the current stormwater facilities design. (see attached Site Plan drawings, Appendix M). Shallow and bedrock groundwater conditions for the site are fully described in Section 6.0 Groundwater Conditions.

Topography

The topography on the project site slopes from higher elevations at the north to lower elevations in the southeast corner of the property in wetland areas near Nininger Road. The existing slopes have been mapped by the project engineer and are shown in Figure 4-2 Existing Slopes Map. The map shows slopes on both the main 18.2 acre project site, as well as the adjacent 12.3-acre site in the Town/Village of Woodbury. Slopes have been categorized as 0 to 15 percent, 15 to 20 percent, 20 to 25 percent and over 25 percent slopes. As shown on the map, the majority of the site, 11.9 acres or 65 percent of the site has slopes of 0 to 15 percent. Steep slopes greater than 25 percent are shown at the edges of the on-site wetland and along the hillside at the northern edge of the property. Slopes over 25 percent comprise approximately 3.6 acres or 20 percent of the site.

4.2 Potential Impacts of the Proposed Project

Geology and Bedrock

Given that bedrock was encountered at 80 feet in depth by an exploratory water supply well, bedrock is not expected to be encountered during grading. Bedrock outcrops were not observed on the project site. A single exploratory bedrock water supply well was drilled on-site in January, 2019. The well drilled in the central portion of the site encountered bedrock at 80 feet in depth. Above the bedrock was approximately 30 feet of sand and gravel and boulders followed by hardpan to weathered bedrock.

The borings and the test pits completed for the *Geotechnical Investigation Report* indicate that bedrock is probably deeper than the required excavation depths throughout the building area, however boulders in the soil resulted in limited data from the borings to confirm this conclusion. The geotechnical engineer recommends that prior to construction, one or more trial excavations (enlarged test pits,) including one near boring B11, should be made to verify that rock is deep.

Soils

The project site will be improved with a four-story building, parking areas, driveways, and landscaping. Grading is required to construct the internal driveway network, parking areas, install site utilities, prepare level areas for the commercial building, and to create a stormwater management system. The Site Plan and grading plan has been updated to include two driveway and pedestrian connections between the project site and the adjacent Veyoel Moshe Gardens (VMG) residential development to the west of the site. Modifications to the site grading plan resulting from the driveways was limited to the immediate vicinity of the driveways along the western property boundary (see attached Grading Plan).

Based upon engineering estimates, development of the Site Plan would involve a **cut** of approximately 143,317 cubic yards of material and a **fill** of approximately 151,837 cubic yards for a net fill of 8,520 cubic yards of material to be imported to the site. The cut material will be utilized on-site, but additional material will require import to achieve designed grades across the site. The Grading Plan is shown in Sheets 11, 12 and 13 of the Site Plan set. (see Appendix M) A proposed cut and fill map is provided as Figure 4-4.

As shown in the Proposed Cut and Fill Plan (Figure 4-4), the majority of the earth fills would be to accommodate even grades for the proposed parking areas. Cuts greater than five feet would occur in the building footprint for the building basement and at the slope along the northeastern property line. Grading and excavation for the building foundation and basement is further described below, under *Excavation.*

Approximately 2.5 acres of clearing and grading will be required on the adjacent parcel in the Town of Woodbury (see attached Grading Plan). A Site Plan review and approval will be required from the Village of Woodbury Planning Board and that Board is an Involved Agency in the SEQRA review process.

The two proposed driveway connections and a pedestrian walkway connecting the Monroe Commons development to the adjacent Veyoel Moshe Gardens (VMG) development property will require grading in the Village of Kriyas Joel / Town of Palm Tree. That grading is shown on the attached Site Plan drawings (Appendix M). The grading will require a Site Plan Amendment from the Village of Kiryas Joel / Town of Palm Tree Planning Board (a single Planning Board functions for the Village and the Town). The sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed driveway connection grading and utility connections (including water and sewer) on the VMG property (see Appendix B).

As described, the majority of the site has been previously graded and disturbed, as indicated by the soil classification of Udorthents smoothed (UH). Therefore, undisturbed soil horizons, typically consisting of A, B and C horizons have been disturbed or removed. Sufficient, appropriate topsoil, a minimum of 30 inches, or close to three feet will be placed in all areas proposed for planting to help ensure the establishment and health of new plantings. A note is included on the updated Landscape Plan that indicates a minimum of 30 inches of soil depth will be provided in all planting areas. As shown in the Grading Plan (Sheets 11 to 13), most parking areas, which will be landscaped with tree islands and plantings at the edges of the parking areas will require fill material, and will not be planted in native soils. The Landscape Plan and Grading Plans have been provided in Appendix M.

The proposed grading will involve cuts generally in the northwest corner of the site for the building construction and fill in generally the southwest portion of the property for parking areas and

driveways. This grading will alter the stormwater run-off sub-catchment boundaries from the existing condition to the post-construction conditions. The Stormwater Pollution Prevention Plan (SWPPP) provides detailed descriptions and calculations comparing the pre-development and post-development stormwater flow areas. A discussion and summary of the SWPPP is provided in Section 8.0 Stormwater Management. The change in stormwater drainage areas is illustrated in Figures 8-1 Existing Drainage Areas and 8-2 Proposed Drainage Areas.

Excavation

According to the site plan and description in the *Geotechnical Investigation Report*, cuts of about five to fifteen feet will be typical in the low part of the building area, in order to reach the subgrade elevation for the basement level. The cut into the hillside will continue at this elevation, resulting in a cut depth of about fifty feet at the northeast building corner, and forty to fifty feet along the building's northeast side. About one quarter of the building will be in this deep cut into the hill.

According to the project geotechnical engineer, conventional excavation methods are appropriate for the proposed work, using heavy equipment such as large tracked excavators and bulldozers. Some of the soils are very hard and some boulders are present; backhoes, mini-excavators and similar small equipment will likely be unsuitable for trenching, except where it is performed at shallow depth below the existing grade. Shallow groundwater is common in the low part of the site, which should be allowed to drain as the basement is excavated. Organic soils and similar soils which are unsuitable for use as structural or pavement area fill are common in the top one to two feet, and are deeper in some spots.

The deep part of the excavation will extend into the steeply-rising hillside; the height of the excavation will be much greater than the twenty-foot limit of the OSHA excavation regulations, and will require an engineered design. In an assumed best-case condition of all Type A soils, the standard 0.75-to-one slope will place the limits of the excavation a few feet over the property line along the northeast side of the building. The soils are not all Type A, however, and layers of sandy soils (Type C) are present, which will require a much wider cut if sloped conventionally. Fortunately, a large portion of the soil in the hill consists of dense clayey till in which deep near-vertical cuts with prolonged stand-up time can be made. Unfortunately, less stable soils are inter-layered with the till, and the layering is variable and inconsistent. For efficient excavation the lower part of the cut could be protected by soldier piles and lagging, with the upper part set back sufficiently to separate it from the building construction. Where soldier piles are used and soil conditions are favorable, i.e. dense clayey till in the cut and anchoring the piles, little lateral load will develop during construction, and tie-backs should not be needed for moderate-height walls, except where sandy or soft soils are encountered. Sheet piles are not well-suited to the site conditions, due to the presence of boulders and very dense soils.

Little or no rock excavation is expected within the building areas, according to the *Geotechnical Investigation Report.* Several borings met refusal (the drilling could not proceed) close to or above the anticipated basement subgrade elevation, but this is believed to have occurred on boulders, and one or more test excavations are recommended prior to construction to verify that bedrock is absent. A total of 14 borings were drilled in the footprint of the proposed building. In all but two of the boring locations (B-12 and B-13), the borings were advanced to within five feet or were at a lower depth than the basement floor elevation. Boring B-6, at the southeast corner of the proposed building was drilled to 56 feet in depth or 10 feet below the basement elevation (see *Geotechnical Investigation Report – Building Area Subsurface Profile*). If rock is present in the bottom of the basement excavation, ripping will probably be effective as a means of excavation only in the first two to three feet below the rock surface, and an excavator with a hydraulic hoe-ram will likely be

required for any deeper rock excavation. Based upon the Geotechnical Investigation Report, blasting is not anticipated in the construction of the development. In the unlikely event that blasting is necessary, all applicable Town of Monroe (Chapter 22 of the Town Code) and New York State protocols for blasting will be followed, including obtaining a Blasting Permit from the Town.

Groundwater seepage in the building excavations is expected to be minimal from most of the soil layers, with moderate persistent seepage from other layers at varying depths. In some cases this seepage will be inconsequential, and in others it may cause softening and weakening of the excavated slope; when these layers are encountered they should be allowed to drain prior to trimming to the final cut profile, and a reduced slope and/or benching may be required where they are present.

Stormwater Control Areas

The *Geotechnical Investigation Report* describes the excavation of test pits and the completion of infiltration tests in those locations, for the design of the Stormwater Management system. Test pits were excavated in four proposed stormwater control areas for infiltration systems to be installed under the pavement; referred to here as the northwest, northeast, southeast and southwest controls. Standpipe piezometers (monitoring wells) were installed at representative locations and infiltration tests for proposed stormwater controls were performed per NYSDEC Design Manual Appendix D, where conditions were acceptable.

The northwest area is just north of the northwest corner of the proposed building and is represented by test pits TP9 and TP10. Groundwater depths in these borings were 8.3 feet and 2.1 feet. The infiltration rate at both locations was 0.25 inch per hour.

The proposed northeast stormwater control is immediately south from the proposed southeast building corner. Test pits TP11 and TP 12 were excavated there; groundwater was more than 7.3 feet deep at TP11 and was 9.0 feet deep at TP12. The perc rates were 22 and 23 inches per hour.

The proposed southeast control area is situated on the southwest side of the central pond and wetland area. This location could not be accessed by the excavator without causing disturbance of the wetland, and TP19 in this area was excavated by hand to 2.5 feet depth. The soils were sandy silt clay with fine organics, in a wet condition. Soil conditions were unfavorable for infiltration and no test was performed.

The proposed southwest stormwater control area consists of four groups of infiltration chambers near the southwest entrance to the site. Test pits TP13 through TP18 were excavated across this area. Groundwater was approximately 2.2 feet below existing grade on the west side of this area, increasing in depth to the east, with water at about 3.4 feet in the west-middle infiltration gallery, at 4.7 to 6.9 feet in the east-middle gallery and at 5-plus to 6.8 feet depth in the east gallery. The infiltration rates in these four galleries were, from west to east, 0.5 inch per hour, 5in/hr, 4 and 15 in/hr, and 20 and 22 in/hr, with two tests each performed in the two east galleries. At the west gallery the existing grades are only slightly lower than those proposed, groundwater is shallow and the infiltration rate was slow; conditions appear to be unfavorable at this location, but appear to be suitable for infiltration the other proposed three galleries in this area.

As a result of the unfavorable groundwater and drainage conditions at the southwest stormwater management area, the project engineer has relocated those facilities to the northeast (see Site Plan drawings).

The proposed site grading, installation of the building, impervious parking areas and sidewalks and stormwater management facilities will alter the drainage and stormwater flow on the site, including to the existing sub-catchment areas. Pre- and Post-development drainage conditions are illustrated in Figure 8-1 Existing Drainage Areas and Figure 8-2 Proposed Drainage Areas. Currently, two sub-catchment areas are located on the site and include upgradient off-site land (see Figure 8-1). Sub-catchment Area 2S is located on the adjoining parcel to the northeast in Woodbury and it will be unaffected by the proposed development. Sub-catchment Area 1-S, with an area of 37.6 acres will be modified to eleven (11) Sub-catchment areas, as shown on Figure 8-2). Post-development, stormwater from the site will either infiltrate into the subsurface or eventually flow to the on-site wetlands area and to Design Point 1P, the current discharge point for the site. No stormwater will be directly discharged to the wetlands area. As such, there would not be any significant adverse impacts.

Topography

The proposed grading for the development will alter topography on the site. As shown in the Grading Plan, grading to develop level parking areas and driveways around the building will require cuts at the rear (northeast) portion of the site and fills in the southeast portion of the site, surrounding the lower elevation wetlands on the property. A Post-Development Slopes map is provided in Figure 4-3. As shown in the plans, a series of retaining walls is proposed along the driveway on the northwestern side of the wetland area. The Wetland Mitigation Plan in the site plan drawings provides cross sections through the retaining walls in several areas. The proposed retaining walls will allow areas of fill for even grades through the driveway and parking areas and will reduce encroachment into the wetland buffer.

Potential Soil Erosion

As a result of soil disturbance and vegetation removal, there is an increased potential for siltation to occur both on-site affecting on-site and in areas downgradient of the subject site. The control of stormwater runoff during construction will be important to minimize construction related soil erosion and sediment impacts especially downstream of the project site and to prevent any erosion to off-site properties. With proper construction, installation and maintenance, soil erosion control measures will minimize potential on-site and off-site impacts. The Soil Erosion Control Plan, provided with the Site Plan drawings was designed to comply with NYSDEC requirements, as well as Town Code Chapter 44 - Soil and Sediment Control.

Drainage of the central and southern portions of the site drain south towards Nininger Road. Stormwater management during construction and post-construction is described in Section 8.0 Stormwater Management. The potential for soil erosion and sedimentation will be minimized during the project construction by adhering to an approved Erosion Control Plan, as described below.

4.3 Proposed Mitigation Measures

The greatest potential impact associated with this project relative to site construction operations would be from erosion and sedimentation during construction. A Stormwater Pollution Prevention Plan (SWPPP) has been prepared by the project engineer and is attached as Appendix F. The

SWPPP and accompanying project plans identify erosion and sediment control measures to be implemented during and after construction to minimize potential sediment and erosion impacts. The SWPPP addresses the proposed grading on the adjacent property located in the Village of Woodbury.

The primary objective of the plan is to reduce soil erosion from areas exposed during construction and prevent silt from reaching the on-site wetland areas and off-site site water bodies and areas downstream. All soil erosion and sediment control practices would be designed and installed in accordance with "best management practices" or "BMPs" recommended by the New York State Department of Environmental Conservation and integrated into the SWPPP. In adherence to the project specific SWPPP construction stormwater will be maintained on-site to prevent off-site discharge.

Prior to the disturbance of soils, erosion and sediment control measures would be installed in accordance with the specifications of the SWPPP. The construction contractor will be required to install all sediment and erosion control measures prior to ground disturbance and maintain them throughout the entire construction process. The project will be constructed in one continuous phase. Due to the size and scope of the proposed project and required grading to accomplish the construction, a waiver from the maximum five (5) acre disturbance limit is being requested from the NYSDEC during the earthwork portion of the project.

Proper erosion control measures will be subject to the conditions of the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-20-001), as described in Section 8.0 Stormwater Management.

The proposed plan minimizes the areal extent of soil exposure to the greatest extent practicable in accordance with the applicable Erosion and Sediment Control Guidelines of the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activities (GP-0-20-001). Erosion and sedimentation will be controlled during the construction period by temporary devices according to the SWPPP developed specifically for this project.

Excavation and Building Construction Techniques

The *Geotechnical Investigation Report* provides detailed site specific construction recommendations. These recommendations primarily relate to the excavation for the building and the preparation of the subgrade for the building foundation. The recommendations include:

- Subgrade preparation
- Excavation
- Fill materials
- Fill placement and compaction
- Compaction requirements
- Testing
- Geosynthetic materials
- Design Values and Recommendations

These recommendations will assist the project engineer in refining the building foundation design and site plan details and can be provided as notes on the plans.

Little or no rock excavation is expected within the building areas, according to the *Geotechnical Investigation Report.* Several borings met refusal (the drilling could not proceed) close to or above the anticipated basement subgrade elevation, but this is believed to have occurred on boulders, and one or more test excavations are recommended prior to construction to verify that bedrock is absent. Based upon the Geotechnical Investigation Report, blasting is not anticipated in the construction of the development. In the unlikely event that blasting is necessary, all applicable Town of Monroe (Chapter 22 of the Town Code) and New York State protocols for blasting will be followed, including obtaining a Blasting Permit from the Town.

Materials Management

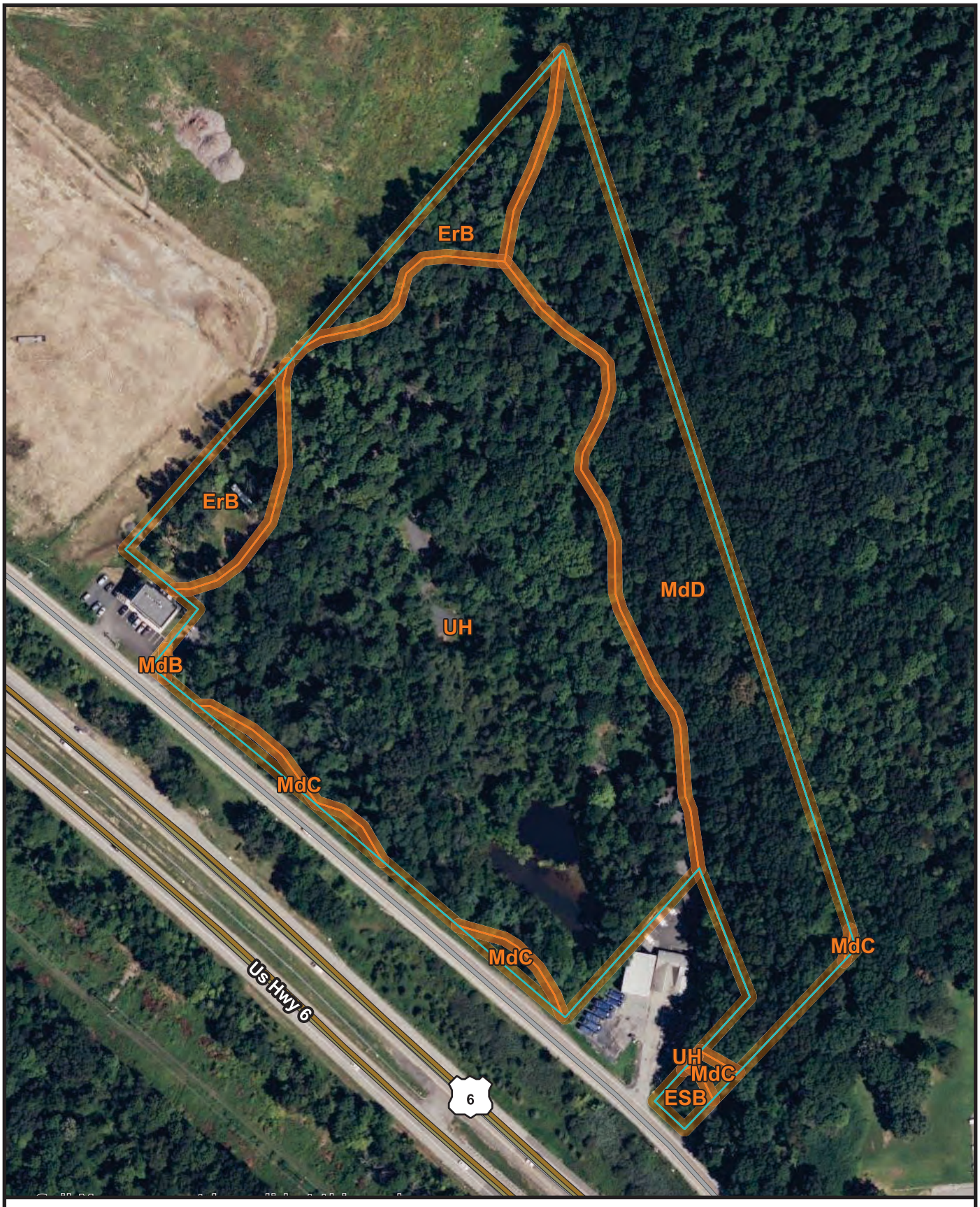
The current grading plan provides for an essentially balanced site with potentially 434 cubic yards of soil to be imported. The soil will be transported to the site following all NY State requirements for materials transport. The gravel subgrade for the foundation and for paved areas will be compacted according to standard construction procedures.

Construction activities on the project site may generate airborne or fugitive dust during ground clearing and excavation activities. Throughout the construction period, passage of delivery trucks and other vehicles could also generate fugitive dust. On-site mitigation measures are proposed as part of the project during construction to limit the dispersal of dust. Construction mitigation measures are further described in Section 17.0 Construction.

Methods to control dust will include:

- minimizing the area of grading at any one time and stabilizing exposed areas with mulch and seed as soon as practicable;
- 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 all construction entrances to avoid the tracking of soil onto paved surfaces.

A construction entrance will be installed at Nininger Road for incoming and outgoing construction vehicles. Nininger Road will be kept clear of loose dirt that can be re-entrained into the air during vehicle passage. The use of stone tracking pads at the construction entrance or washing of vehicle tires will greatly lessen the tracking of soil onto Nininger Road and nearby roadways.



N
W E
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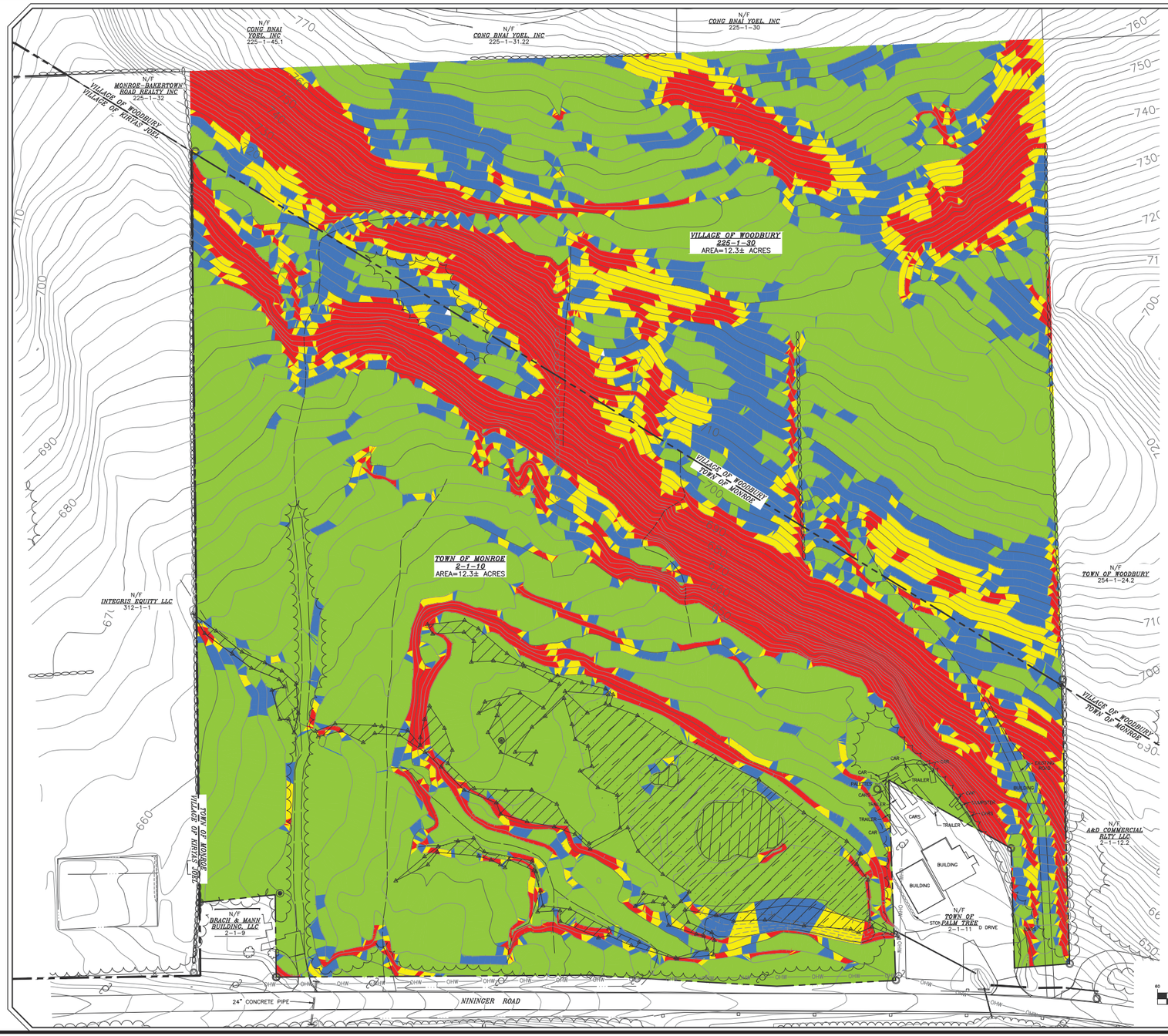
Figure 4-1: Site Soils Map

Monroe Commons
Town of Monroe, Orange County, New York
Base Map: Natural Resource Conservation Service, USDA
Approx. Scale: 1 in. = 200 ft.

File 19055 Fig XX.cdr
01-05-2023

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418



EXISTING SLOPES TABLE
TOWN OF MONROE PARCEL

MINIMUM SLOPE (%)	MAXIMUM SLOPE (%)	AREA (ACRES)	COLOR
0.00%	15.00%	11.88±	
15.00%	20.00%	1.72±	
20.00%	25.00%	0.99±	
25.00%	Vertical	3.61±	

EXISTING SLOPES TABLE
VILLAGE OF WOODBURY PARCEL

MINIMUM SLOPE (%)	MAXIMUM SLOPE (%)	AREA (ACRES)	COLOR
0.00%	15.00%	5.49±	
15.00%	20.00%	2.65±	
20.00%	25.00%	1.62±	
25.00%	Vertical	2.54±	

EXISTING SLOPES TABLE
TOTALS FOR BOTH PARCELS

MINIMUM SLOPE (%)	MAXIMUM SLOPE (%)	AREA (ACRES)	COLOR
0.00%	15.00%	17.37±	
15.00%	20.00%	4.37±	
20.00%	25.00%	2.61±	
25.00%	Vertical	6.15±	

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

11-15-22	ORIGINAL PREPARATION DATE	MWS
DATE	DESCRIPTION	INITIALS
	REVISIONS	
MAP CHECK DATE: 00/00/00	INITIALED BY: ---	

PIETRZAK & PFAU
ENGINEERING & SURVEYING, PLLC
282 GREENWICH AVENUE, SUITE 4
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(845) 294-0606
2 HAMILTON AVENUE
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JOSEPH J. PFAU P.E. LICENSE NO. 069945
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P.E. LICENSE NO. 076806 P.L.S. LICENSE NO. 050075
N.Y.P.L.S. LICENSE NO. 35356

SIGNATURE DATE

MONROE COMMONS
COMMERCIAL SITE PLAN

TOWN OF MONROE - SECTION 2, BLOCK 1, LOT 10
VILLAGE OF WOODBURY - SECTION 225, BLOCK 1, LOT 30
COUNTY OF ORANGE, NEW YORK

PROJECT TITLE

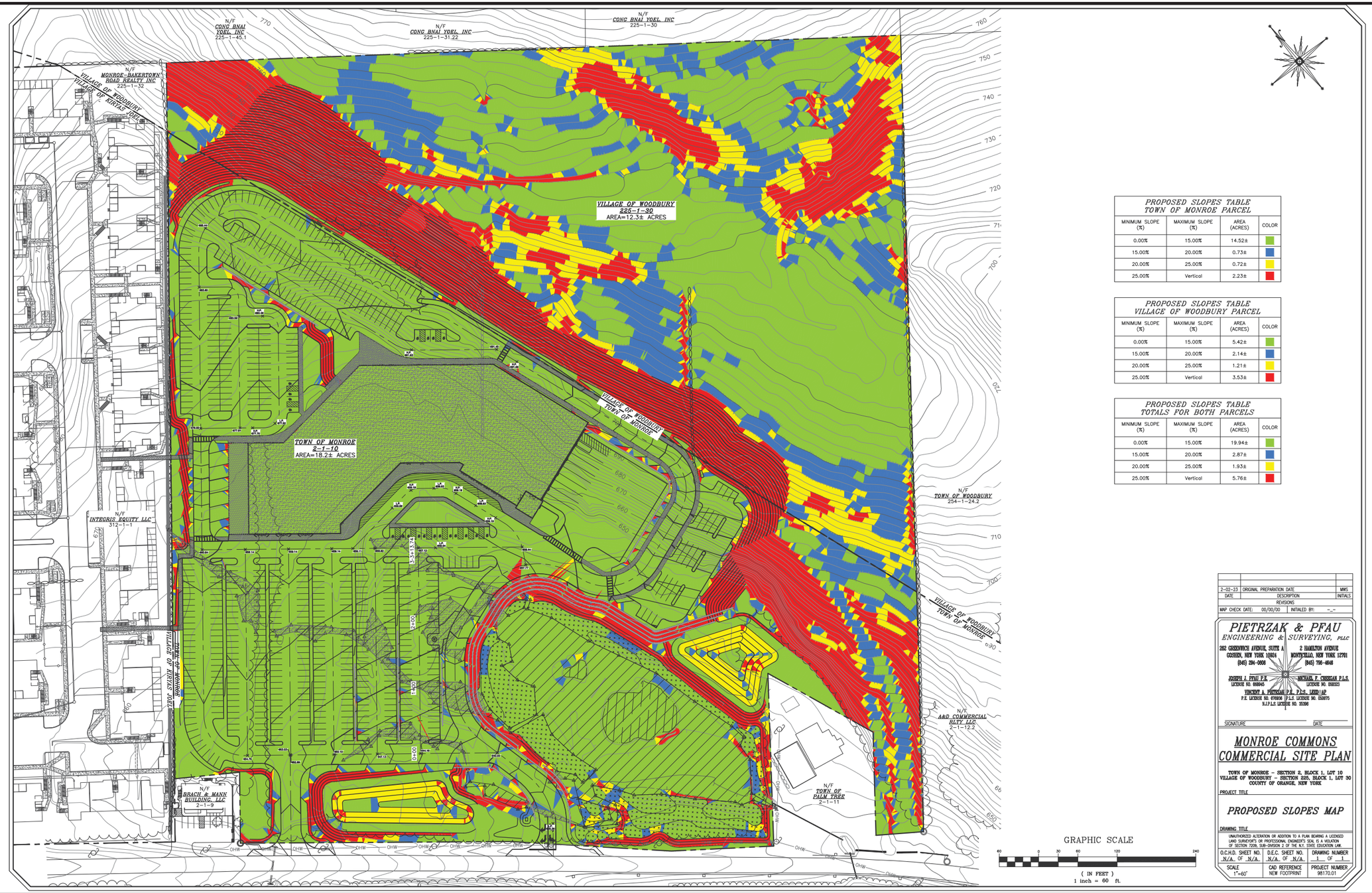
EXISTING SLOPES MAP

DRAWING TITLE

O.C.H.D. SHEET NO.	D.E.C. SHEET NO.	DRAWING NUMBER
N/A OF N/A	N/A OF N/A	1 OF 1
SCALE 1"=60'	CAD REFERENCE NEW FOOTPRINT	PROJECT NUMBER 98170.01

Figure 4-2: Existing Slopes Map
Monroe Commons
Town of Monroe, Orange County, New York
Source: Pietrzak & Pfau Engineering & Surveying, PLLC

File 19055
Figure 4-2 02-21-2023



PROPOSED SLOPES TABLE
TOWN OF MONROE PARCEL

MINIMUM SLOPE (%)	MAXIMUM SLOPE (%)	AREA (ACRES)	COLOR
0.00%	15.00%	14.52±	
15.00%	20.00%	0.73±	
20.00%	25.00%	0.72±	
25.00%	Vertical	2.23±	

PROPOSED SLOPES TABLE
VILLAGE OF WOODBURY PARCEL

MINIMUM SLOPE (%)	MAXIMUM SLOPE (%)	AREA (ACRES)	COLOR
0.00%	15.00%	5.42±	
15.00%	20.00%	2.14±	
20.00%	25.00%	1.21±	
25.00%	Vertical	3.53±	

PROPOSED SLOPES TABLE
TOTALS FOR BOTH PARCELS

MINIMUM SLOPE (%)	MAXIMUM SLOPE (%)	AREA (ACRES)	COLOR
0.00%	15.00%	19.94±	
15.00%	20.00%	2.87±	
20.00%	25.00%	1.93±	
25.00%	Vertical	5.76±	

2-02-23	ORIGINAL PREPARATION DATE	MMS
DATE	DESCRIPTION	INITIALS
	REVISIONS	
MAP CHECK DATE: 00/00/00	INITIALED BY: --.--	

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VINCENT A. PFERDAIR P.E., P.L.S., LEED AP
P.E. LICENSE NO. 079936 P.L.S. LICENSE NO. 050075
N.J.P.L.S. LICENSE NO. 35396

SIGNATURE DATE

MONROE COMMONS
COMMERCIAL SITE PLAN

TOWN OF MONROE - SECTION 2, BLOCK 1, LOT 10
VILLAGE OF WOODBURY - SECTION 225, BLOCK 1, LOT 30
COUNTY OF ORANGE, NEW YORK

PROJECT TITLE

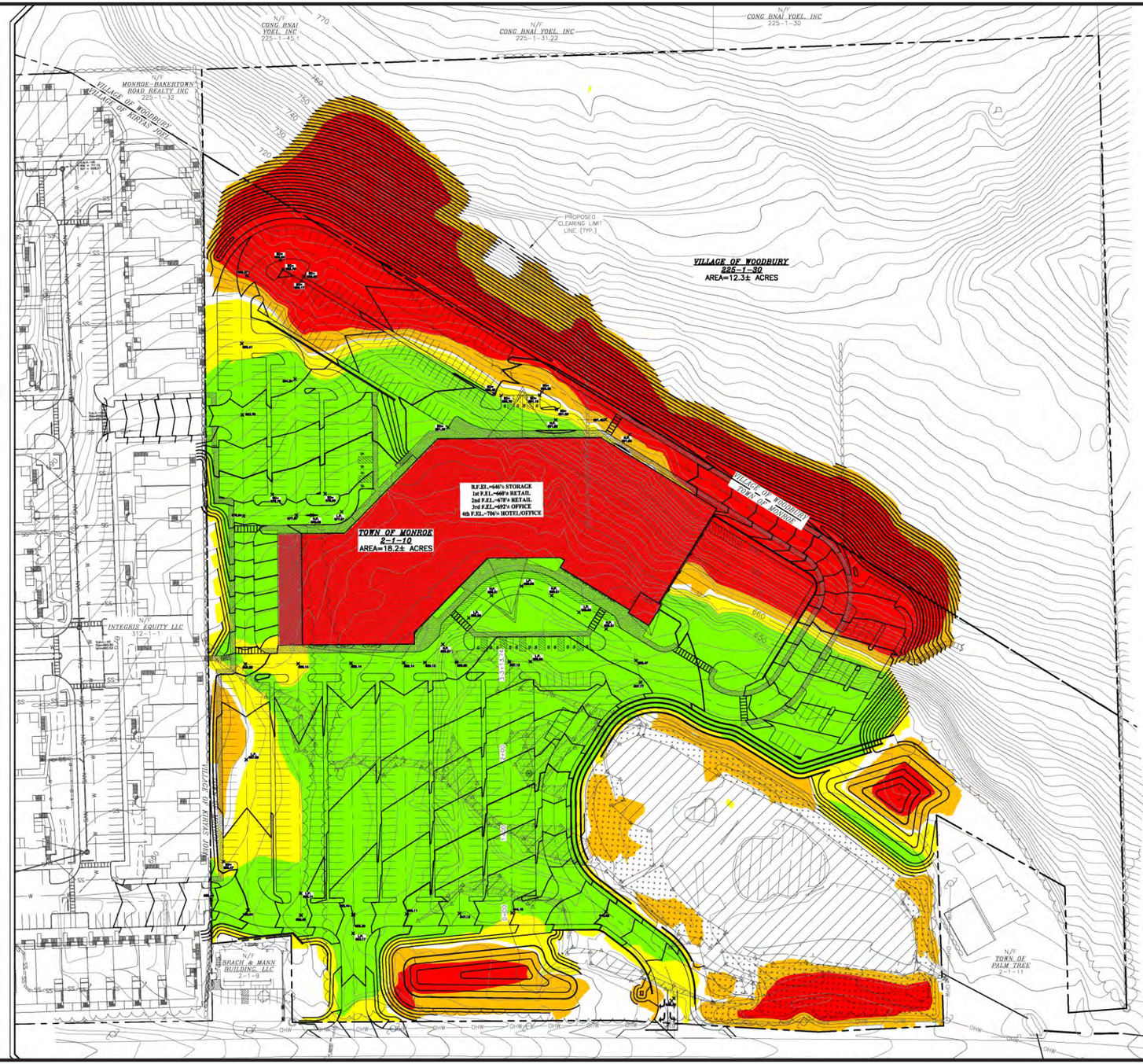
PROPOSED SLOPES MAP

DRAWING TITLE

O.C.H.D. SHEET NO.	D.E.C. SHEET NO.	DRAWING NUMBER
N/A OF N/A	N/A OF N/A	1 OF 1
SCALE 1"=60'	CAD REFERENCE NEW FOOTPRINT	PROJECT NUMBER 9617.01

Figure 4-3: Post Development Slopes Map
Monroe Commons
Town of Monroe, Orange County, New York
Source: Pietrzak & Pfau Engineering & Surveying, PLLC

File 19055
Figure 4-3 02-21-2023



CUT/FILL DISPLAY LEGEND

CUT(-)/FILL(+) (FEET)	COLOR
GREATER THAN +5	
+0.5 TO +5	
-0.5 TO -5	
GREATER THAN -5	

CUT/FILL SUMMARY

CUT (-) FACTOR	FILL (+) FACTOR	ANALYZED AREA (ACRES)	CUT (-) (CU YD)	FILL (+) (CU YD)	NET (+/-) (CU YD)
1.00	1.00	30.5+/-	143,317	151,837	8,520

Figure 4-4: Proposed Cut/Fill Map
Monroe Commons
Town of Monroe, Orange County, NY
Source: Pietrzak & Pfau Engineering and Surveying, PLLC, 2023

5.0 WETLANDS AND SURFACE WATER RESOURCES

5.1 Existing Conditions

North Country Ecological Services, Inc. (NCES) completed an on-site delineation of Waters of the United States (WOTUS) that include freshwater wetlands on April 23, 2018. Wetland boundaries were delineated using the three-parameter methodology as outlined in the *Corps of Engineers Wetland Delineation Manual*, *1987* (1987 Manual). In order for an area to be classified as a wetland, it must exhibit the following characteristics: a dominance of hydrophytic vegetation, contain hydric soils, and exhibit wetland hydrology.

The 1987 Manual was used in accordance with the Corps of Engineers Appropriation Bill and the Johnson Amendment of August 17, 1991, which states that until revisions to the January 1989 *Federal Manual for Identifying and Delineating Jurisdictional Wetlands* (1989 manual) are finalized, the Corps of Engineers will apply the 1987 manual to identify and delineate wetlands potentially subject to regulation under Section 404 of the Clean Water Act (CWA).

As a result of the delineation, a cumulative total of 1.98± acres of regulated aquatic resources in the form of an intermittent stream, open water pond, and vegetated wetland were identified. The identified wetland boundaries were subsequently field located and mapped by the Engineers.

The location and configuration of the wetlands found on the subject property are shown on the drawing prepared by Pietrzak and Pfau Engineering and Surveying, PLLC, titled “ACOE Wetland Delineation Map”, dated May 10, 2018. The wetland delineation map is provided in Appendix C.

Army Corps of Engineers Jurisdictional Wetlands

Subsequent to the wetland delineation, a Wetland Delineation Report was compiled by NCES to document the existing conditions and extent of the aquatic resources identified on the Site. A copy of the Wetland Delineation Report is contained in Appendix C – Wetlands Report.

On April 14, 2018, the Wetland Delineation Report was submitted to the U.S. Army Corps of Engineers (USACE) to schedule a wetland confirmation visit and to obtain a Jurisdictional Determination for the Site. The purpose of the confirmation visit was to provide the representative from the USACE with the opportunity to review and confirm the wetland boundaries and to make a determination on the extent of federally regulated aquatic resources found on the Site. On November 20, 2018, NCES met with Mr. Brian Orzel of the USACE and conducted the confirmation visit.

During the confirmation visit, the boundaries of the wetlands (as delineated by NCES) were assessed and validated by Mr. Orzel. As a result of Mr. Orzel’s review, no modifications to the boundaries of the wetlands were required and it was determined that all on-site aquatic resources are hydrologically contiguous with a tributary system of a navigable waterway. Consequently, the aquatic resources were deemed federally jurisdictional.

On January 21, 2021, NCES received a Jurisdictional Determination (JD) letter from the USACE. The JD states that all aquatic resources identified are federally regulated, pursuant to Section 404 of the Clean Water Act. The JD also validates the boundaries of the aquatic resources found on the Site for a period of five (5) years. A copy of the JD letter is contained in Appendix C.

In an e-mail dated May 11, 2023, Mr. Orzel indicated that the pre-construction notification for NWP 39 was received and that a 45 day notification period had passed. Mr. Orzel indicated that, in accordance with the current nationwide general permit regulations, the applicant may proceed with the project as proposed. The applicant must perform the work as proposed in the submitted pre-construction notification, including the mitigation. Any substantive changes to the project would require the applicant to submit a new notification to the ACOE (see Appendix C).

The federally regulated wetlands and streams that fall under the regulatory jurisdiction of the USACE are outlined in Table 5.1.

Table 5.1
USACE Regulated Aquatic Resources

Area	Size	Stream Length	Vegetative Cover Types
1	1.91 ± Acres	n/a	Palustrine Forested/Emergent Wetland & Eutrophic Pond
A	0.07 ± Acres	n/a	Palustrine Forested Wetland
Total	**1.98 ± Acres**		

Wetland Area 1 and Wetland Area A are hydrologically connected with one another. However, the two wetlands are physically separated by an old road. A culvert is found at the road crossing, which maintains connectivity between the wetlands. As a result of the hydrological connection, the two wetlands are contiguous and together function as one wetland complex.

The wetlands physically abut a defined, linear wetland/intermittent, stream channel. This linear wetland/intermittent stream flows onto the Site from adjacent lands located to the northwest. The linear wetland/intermittent stream is 3-5 feet wide in most locations, contains a gravelly substrate and wetland vegetation, and averages less than 1 foot in depth. The linear wetland/intermittent stream flows southeast through Wetland Area A and into the culvert that extends under the old road. Once through the culvert, the stream enters Wetland Area 1, continues to the east, and into the constructed pond. As shown in Figure 5-1, the width of the Palustrine emergent and Palustrine forested wetland around the stream channels varies and widens in the lower topography in the vicinity of the pond area. The linear wetland/intermittent stream (Wetland A) is intermittent and flows during periods of more frequent precipitation (fall, winter, spring) and is not flowing during dry periods or summer months. Water levels in the pond also appear to vary seasonally, with emergent wetland vegetation around the edges of the pond during dry periods.

The water flowing in the stream and in the pond generally appears clear with no observable sediment. The intermittent stream and pond were observed during site visits in all seasons. Section 7.0 Vegetation and Wildlife provides the dates of site visits. Stream and pond water quality is further described below.

A gravel access road has been constructed to install and access a well on the site. The gravel road enters the site near the Brach and Mann office building and crosses to the rear of the site at the base of the hillside, and passes to the east side of constructed wetland pond. A single well was drilled on the property, and it is located in the central portion of the site, north of the wetland pond area. The existing well (No. 2) is proposed to be properly abandoned, as indicated on a note on the Cover Sheet of the site plans. The NYS Department of Health has specific

requirements for potable water supply wells in proximity to wetlands, including increased water quality sampling requirements and separation requirements. Those requirements no longer apply to the project since the Applicant is proposing to source the water for the development from the Village of Kiryas Joel/Town of Palm Tree water supply district. The Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter, whereby the Village has agreed to supply water for the Monroe Commons project at the required level, estimated to be 54,210 gallons per day, and expressing the Village's willingness to approve the connection, subject to the standard Outside Water User Development Agreement to be recorded in the office of the County Clerk. The letter from the Village is provided in Appendix B – Correspondence. In addition, the sponsor of the adjacent Veyoel Moshe Gardens (VMG) residential development has provided a letter confirming their agreement for the proposed utility connections (including water and sewer) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations (see Appendix B).

The pond drains to the southeast and into an excavated outlet that leads a culvert that is located on the adjacent property. Once through that culvert, the tributary continues to the southeast and to another culvert that extends under NY Route 17/ US (Rte 6). Once through the Rte. 6 culvert, the stream continues to the south and flows into the enclosed storm water collection system of Harriman, NY. This collection system is hydrologically contiguous with the Ramapo River.

The Ramapo River is a fourth-order perennial tributary that flows to the south and eventually into Pompton Lake in New Jersey. Pompton Lake outlets into the Pompton River. The Pompton River flows south and into the Passiac River. The Passiac River is classified by the USACE as a Traditional Navigable Waterway (TNW) and an (a)(2) WOTUS.

Some of the dominant species of vegetation observed within the Palustrine forested wetlands included, but are not limited to, red maple (*Acer rubrum)* green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), gray birch (*Betula populifolia*), ironwood (*Carpinus caroliniana*), witch hazel (*Hamamelis virginiana*), silky dogwood (*Cornus amomum*), tussock sedge (*Carex stricta*), skunk cabbage (*Symplocarpus foetidus*), fowl manna grass (*Glyceria striata*), jewelweed (*Impatiens capensis*), cinnamon fern (*Osmunda cinnamomea*), and sensitive fern (*Onoclea sensibilis*).

Some of the dominant species of vegetation observed within the Palustrine emergent wetlands included, but are not limited to, tussock sedge, fox sedge (*Carex vulpinoidea*), cattail (*Typha latifolia*), skunk cabbage, dark green bulrush (*Scirpus atrovirens*), wool grass (*Scirpus cyperinus*) soft rush (*Juncus effusus*), jewelweed, common reed (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*), late goldenrod (*Solidago gigantea*), slender goldenrod (*Solidago tenuifolia*), moneywort (*Lysimachia nummularia*), cinnamon fern, and sensitive fern. Flora and Fauna identified in the wetlands are further described in Section 7.0 Vegetation and Wildlife.

Wetland Buffer Description

The area surrounding the existing wetland and proposed wetland mitigation area is primarily a mix of forested upland with a dense understory of shrubs. The southwest edge of the mitigation area is bordered by Nininger Road. A natural edge of existing forested upland will be maintained between the road and mitigation area post-development as vegetative screening. An old logging/access road that was built many years ago borders the northern edge of the pond. Other than the old road, the area surrounding the pond and proposed mitigation area is forested. A list of flora found at the property is attached for your reference in Appendix E.

The pond was likely constructed over 50 years ago, when the property was used for agricultural purposes. A constructed dam with a culvert is found at the lower elevation and the southern edge of the pond. The pond and the wetland surrounding it are at the lowest elevation on the property and as a result, overland flow, drainage from the property to the northwest, and road runoff from roadside ditches along Nininger Road flow into the site and eventually the pond. The pond maintains a shallow depth as a result of the culvert elevation.

Species of flora immediately surrounding the wetland and pond include:

Sugar maple	(*Acer saccharum)*
Red maple	(*Acer rubrum*)
White ash	(*Fraxinus americana*)
White pine	(*Pinus strobus*)
American elm	(*Ulmus americana*)
Ailanthus	(*Ailanthus altissima*)
Shagbark hickory	(*Carya ovata*)
Pin oak	(*Quercus palustris*)
Speckled Alder	(*Alnus rugosa)*
Silky Dogwood	(*Cornus amomum)*
Gray Dogwood	*(Cornus racemose)*
Red-osier Dogwood	*(Cornus stolonifera)*
Pussy Willow	*(Salix discolor)*
Black Willow	(*Salix nigra)*
Common Elderberry	(*Sambucus canadensis)*
Highbush Blueberry	*(Vaccinium corymbosum)*
Multiflora rose	(*Rosa multiflora*)
Buckthorn	(*Rhamnus cathartica*)
Japanese barberry	(*Berberis thunbergia*)
Tatarian honeysuckle	(*Lonicera tatarica)*
Garlic mustard	(*Alliaria officinalis)*
Oriental bittersweet	(*Celastris orbiculate)*
Silt grass	(*Microstegium vimineum*)

Potential Non - Jurisdictional Wetlands

Based on the direct observations made by NCES during the delineation, and given the determination made by Mr. Orzel of the USACE at the conclusion of the wetland confirmation visit, none of the aquatic resources present on the Site have the potential to be deemed “non-jurisdictional”.

DEC Regulated Resources

The New York State Department of Environmental Conservation (DEC) was contacted regarding the potential for presence of Article 15 protected streams and/or Article 24 regulated wetlands on, or within 100 feet of, the Site. Based on the review of the Article 15 Protected Stream information obtained from the DEC Environmental Resource Mapper (ERM), no Article 15 regulated streams exist on the Site. In addition, according to the Article 24 Freshwater Wetland mapping that was

obtained from the ERM, no portion of any currently mapped Article 24 regulated wetlands are found within the boundaries of the Site (Figure 5-1 DEC Environmental Resource Mapper).

Town of Monroe Wetlands

All of the wetlands mapped on the property are subject to the Town of Monroe wetlands regulations as provided in Chapter 56 of the Town Code, known as: Local Freshwater Wetlands Local Law of the Town of Monroe. The Town wetlands regulations define wetlands as:

> *Areas and waters of the Town of Monroe that are comprised of hydric soils and/or are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and under normal circumstances do support, a prevalence of hydrophytic vegetation. Finite boundaries of wetlands are to be determined by a qualified ecologist/botanist/wetlands specialist or soil scientist as any area which provides one or more of the wetland functions as recited in Section 56-3 of this chapter due to the presence of one or more of the following: hydrophytic vegetation, hydric soils, and hydrogeologic indicators such as ponds, lakes or marshes or areas of permanent water retention.*

The applicant's wetland consultant has delineated the wetland boundaries, consistent with the Town of Monroe wetlands regulations, and those boundaries have been surveyed and are shown on the Site Plan. The Town of Monroe wetland boundaries are co-terminus with the US Army Corps of Engineers boundaries. The applicant will formally submit a Town of Monroe wetlands permit application, as part of the Site Plan review process.

Wetland Function and Value

The aquatic resources found on the Site provide the following functions and values: flood attenuation, sediment stabilization, nutrient removal, groundwater recharge, and wildlife habitat. During and immediately after heavy precipitation events, the wetlands receive, store, and detain excess runoff from the adjacent hillside and flow from the drainage from the lands to the west. The wetlands are located at the lowest elevations on the property and act as a natural retention basin. By slowing the velocity of, and retaining the runoff water, sediment settles and is effectively removed from transport off-site. In addition, the vegetation found in the wetlands also aids in the removal of suspended solids and filters excess nutrients from the water. With the sediment and nutrient unloading that occurs within the pond community, the overall water quality is enhanced.

The man-made pond provides open water habitat that is utilized by the wildlife species that are indigenous to the property and adjacent undeveloped lands. The pond is a source of drinking water for larger mammals, such as White-tailed Deer (*Odocoileus virginianus*). The pond provides breeding habitat for common species of amphibians. Species of waterfowl such as Mallard (*Anas platyrhynchos*), Wood Duck (*Aix sponsa*) and Common Merganser (*Mergus merganser*) were observed on the pond. The pond also provides foraging habitat for Mink (*Mustela vison*), Raccoon (*Procyon lotor*), muskrat (*Ondatra zibethicus*), and Great Blue Heron (*Ardea herodias*).

Existing Water Quality

The Scoping Document for this DEIS included a request for information on existing water quality and for the collection of surface water samples to establish a baseline for on-site water quality. Surface water was collected at three locations on January 21, 2022, as shown in Figure 5-2 Surface Water Sampling Locations. The first location was upgradient of the wetland, the second in the pond / wetland and the third at the outlet of the pond / wetland. Sample locations were

staked in the field and were located via GPS for future reference. At the request of the Planning Board's consultants, an additional fourth sample will be collected at an intermittent stream located near the project entrance, as shown on Figure 5-2. Surface water sampling at Location 4 was attempted on June 13, 2023 and no water was present at that location. The intermittent stream/ wetland at Location 1 was also dry on June 13, 2023. Additional samples were collected and analyzed from the wetland pond (Sampling Locations 2 and 3 on June 13, 2023). Those analytical results are provided in Appendix C, as further described below. Samples were analyzed for the following baseline parameters.

- Turbidity
- Dissolved Oxygen
- Total petroleum hydrocarbons including diesel range organics (DRO) and gasoline range organics (GRO)
- Biological Oxygen Demand (BOD)
- Conductivity
- Salinity
- Total dissolved solids
- Phosphorus
- Nitrate/nitrite as N
- Nitrogen (K)
- Sodium
- Chloride
- Ammonia

A sampling report including a discussion of field conditions and analytical results is provided in Appendix C. The sampling analytical results are summarized in Table 5-1. There are no water quality standards for Phosphorus, Nitrate/Nitrite (N) and Total Nitrogen, for surface waters of the type at issue. Therefore, the sampling results have been compared to the NYSDEC and NYCDEP water quality guidance standards for Watershed streams[1]. These guidance standards provide criteria that support aquatic fauna in the watershed. Water quality in the intermittent stream and in the pond is consistent with the NYSDEC and NYCDEP water quality guidance standards for Watershed streams[1]. The water quality results for both the January 21, 2023 samples and the June 13, 2023 samples were consistent and were within the NYSDEC and NYCDEP water quality guidance standards for Watershed streams.[1]

5.2 Potential Impacts of the Proposed Project

According to the draft Nationwide US Army Corps permit for wetlands disturbance, 0.49 acres of Palustine wetland will be disturbed. As shown on the Preliminary Grading Plan, wetlands disturbance will occur primarily in the northwest portion of the site for the construction of the western parking lot and internal driveways. These wetlands include drainage channels and topographic low areas that drain towards the south and the larger wetland area and pond in the southern portion of the site. The large contiguous wetland area and pond will generally be avoided, by the construction of retaining walls at the northern and eastern edge of this wetland (see Grading Plan 1 – Sheet 11). All of the proposed wetland encroachment, consisting of 0.49 acres will be permanent, and off-set by the proposed on-site wetland mitigation.

[1] Evaluation of Water Quality Standards in Watershed Streams Using the Protocols of the DEC/DEP MOU, Addendum E, New York City Water Supply Report for 2012, NYC Bureau of Water Supply Watershed Water Quality Science & Research.

A Table showing impacts to wetlands is provided as Table 5-2, below:

Table 5.2 Impacts to USACE Regulated Aquatic Resources				
Area	**Size**	**Stream Length**	**Vegetative Cover Types**	**Wetland Impacts**
1	1.91 ± Acres	n/a	Palustrine Forested/Emergent Wetland & Eutrophic Pond	0.46 ac.
A	0.07 ± Acres	n/a	Palustrine Forested Wetland	0.03 ac.
Total	**1.98 ± Acres**			**Total Disturbance 0.49 ac.**

As described, the proposed wetland disturbance will require a Nationwide #39 Permit from the US Army Corps of Engineers. The Joint Application will require review and a 401 Water Quality Certification from the NYSDEC. The proposed disturbance will require a wetland permit and conformance with all requirements of the Town of Monroe's Wetlands Ordinance (Chapter 56 of the Town Code). Chapter 56 of the Town Code provides the intent of the "Local Freshwater Wetlands Law" of the Town, as follows:

> Section 56-4: It is the intent of the Town of Monroe to regulate activities in and around wetlands to ensure that the benefits found to be provided by wetlands as set forth in § 56-3 herein will not be lost and to protect the important ecological, physical, economic, social and recreational assets. These activities shall include:
>
> A. Impeding flood flows, reducing flood storage areas or destroying storm barriers.
> B. Increasing water pollution through location of domestic waste disposal systems in wet soils; inappropriate siting of stormwater control facilities; unauthorized application of fertilizers, pesticides, herbicides and algicides; disposal of solid wastes at inappropriate sites; creation of unstabilized fills; or the destruction of wetland soils and vegetation serving pollution and sediment control functions.
> C. Increasing erosion.
> D. Decreasing breeding, nesting and feeding areas for many species of waterfowl and shorebirds, including those rare and endangered.
> E. Interfering with the exchange of nutrients needed by fish and other forms of wildlife.
> F. Decreasing habitat for fish and other forms of wildlife.
> G. Adversely altering the recharge or discharge functions of wetlands, thereby impacting groundwater or surface water supplies.
> H. Significantly altering when a wetland area is wet and thereby causing either short- or long-term changes in vegetational composition, soils composition, soil characteristics, nutrient recycling or water chemistry.
> I. Destroying sites needed for education and scientific research, such as outdoor laboratories, living classrooms and training areas.

J. Interfering with the recreation opportunities provided by wetlands for fishing, boating, hiking, bird-watching, photography, camping and other passive uses.

K. Destroying or damaging aesthetic property values, including significant public viewsheds.

The project has been designed to minimize impacts to wetlands to the extent practical, and to meet the intent of the Town of Monroe Wetlands Law, as further described below. The development will reduce habitat for species currently occupying the site. However, the proposed wetlands mitigation, including extensive planting, is intended to mitigate for the loss of 0.49 acres of Palustrine and Palustrine Forested/Emergent Wetland on the site (see discussion of wetland mitigation below).

The Town of Monroe Wetland Permit requirements include:

(1) The name and address of the property owner and the applicant.
(2) The street address and Tax Map designation of the property involved.
(3) A statement of consent from the property owner for any agent making application.
(4) A statement of proposed plans or activity and the purpose thereof, showing the following:
(a) The location of the activity or area proposed to be disturbed and its relation to property lines, buildings,
roads and watercourses within 250 feet.
(b) The estimated quantities of materials to be deposited or removed.
(c) The location of any well and of any waste disposal system within 100 feet of the proposed activity.
(d) Details of any drainage system proposed to conduct the work.
(e) Existing and adjusted contours at two-foot intervals in the area of the proposed operation or project and to a distance of 100 feet beyond.
(5) Applications affecting the water-retention capacity, water flow or other drainage characteristics of any water body, stream, natural drainage system or wetland shall include a statement of the project on upstream and downstream areas, giving appropriate consideration to other than normal levels of watercourses and amounts of rainfall.
(6) Such other design specifications, engineering studies or impact considerations as the approval authority may deem essential. The approval authority shall notify the applicant within 60 days of receipt if such additional information is necessary.

Disturbance to the Palustrine wetland in the northern portion of the site are minimized to the extent practical to construct necessary access into the site and provide parking for the proposed commercial building.

Surface water drainage to the wetland area in the southern portion of the site will be altered by the development. As described in the Section 8.0 Stormwater Management, stormwater from impervious surface will be directed to two surface infiltration basins and two subsurface stormwater detention/infiltration chambers. Stormwater will continue to recharge the wetland area on-site through infiltration near the wetland. The two infiltration basins are located within 50 to 60 feet of the wetland mitigation area and will continue to provide baseflow to the wetland. Overflow from the two infiltration basins will be piped to two locations at the edge of the pond. The southwestern basin will discharge between two existing intermittent stream channels. The northeastern basin, which collects drainage from the hillside at the northeastern portion of the site, will discharge to a location at the northeast side of the pond (see Utility Plan 4). Two subsurface stormwater chambers are also proposed to be located within approximately 50 feet of the wetland providing shallow groundwater contribution to the wetland.

The volume of stormwater reaching the remaining Palustrine Forested/Emergent Wetland & Eutrophic Pond wetlands, pre-development and post-development, cannot be readily estimated, given that a portion of current contribution to the pond is surface water flow and a portion is shallow groundwater contribution. Following development, the stormwater contribution to the remaining wetland will be through a combination of shallow groundwater discharge and from stormwater practice overflow at two surface discharge points. As shown in Figure 8-2, all Post-development stormwater flow is designed to eventually discharge at Design Point 1P or the outlet to the existing wetland pond, as is the current pre-development condition. It is anticipated that the stormwater contribution to the wetland will not substantially change as a result of the development.

Wetland Mitigation

The application to the US Army Corps of Engineers (ACOE) for a Nationwide permit explains that the project minimized, to the extent practical, the disturbance to and filling of 0.49 acres of Palustrine Forested/Emergent Wetland on the site. The wetlands consisting of intermittent stream channels cross from northwest to southeast through the site, limiting potential development. There is no option to avoid or further minimize direct impacts to the wetlands to develop the property. A Wetland Mitigation Plan has been developed to mitigate for the direct wetland impact.

The proposed Wetland Mitigation Plan (see Site Plan drawings- Sheet 31) provides the proposed on-site wetland mitigation areas. Five areas contiguous to the existing southern wetland will be graded to increase the area of the existing wetland and will be planted with native species of wetland vegetation. The total area of proposed wetland mitigation is 39,374 square feet or 0.9 acres. The Wetland Mitigation Plan provides five cross sections showing existing and proposed grades at the edge of the existing wetland. Proposed retaining walls are also shown on the plan.

The Plant List provides the plant names and quantities to be planted. A combination of native deciduous, wetland trees and shrubs are proposed, and seeded with the Northeast Wetland Forest Herb Mix. A cumulative total of 780 shrubs and 200 trees are proposed to be planted in the Wetland Mitigation area. The species of trees and shrubs selected for planting were chosen based upon their ability to provide wildlife with food and cover, their site adaptability, their ability to provide enhancement, and to diversify the constructed wetland and the natural wetland communities. The proposed wetland mitigation area will continue to provide the functions of the existing wetland including, flood attenuation, sediment stabilization, nutrient removal, groundwater recharge, and wildlife habitat.

Potential Development Impacts to Stormwater

The development of an undeveloped parcel and the creation of impervious surfaces, including parking areas, roofs, sidewalks etc., has the potential to add nutrients and other contaminants to the stormwater generated from the site. Specifically, nitrogen phosphorus, BOD and metals contamination are potential impacts if not appropriately captured and treated before discharge off site. Currently, water quality in the intermittent stream and in the pond is consistent with the NYSDEC and NYCDEP water quality guidance standards for Watershed streams[2]. The laboratory analytical reports are provided in Appendix C. The surface water sampling program is described

[2] Evaluation of Water Quality Standards in Watershed Streams Using the Protocols of the DEC/DEP MOU, Addendum E, New York City Water Supply Report for 2012, NYC Bureau of Water Supply Watershed Water Quality Science & Research.

in the Section 5.1 Existing Conditions above, as well as in Appendix C. The goal of the proposed stormwater management practices is to maintain water quality for both on-site surface water resources (the wetland pond) and for downstream off-site surface water resources.

The SWPPP (see Section 8.0 Stormwater Management) provides a plan to capture and treat all storm related runoff, and meets the requirements of the State's Stormwater General Permit. No potential impacts to off-site waterbodies are expected.

Landscaped areas following construction are shown on the attached Landscape Plan. These areas will be landscaped primarily with native plants that need only minor care. The Applicant proposes not to use pesticides, herbicides or inorganic fertilizers for future landscaped areas.

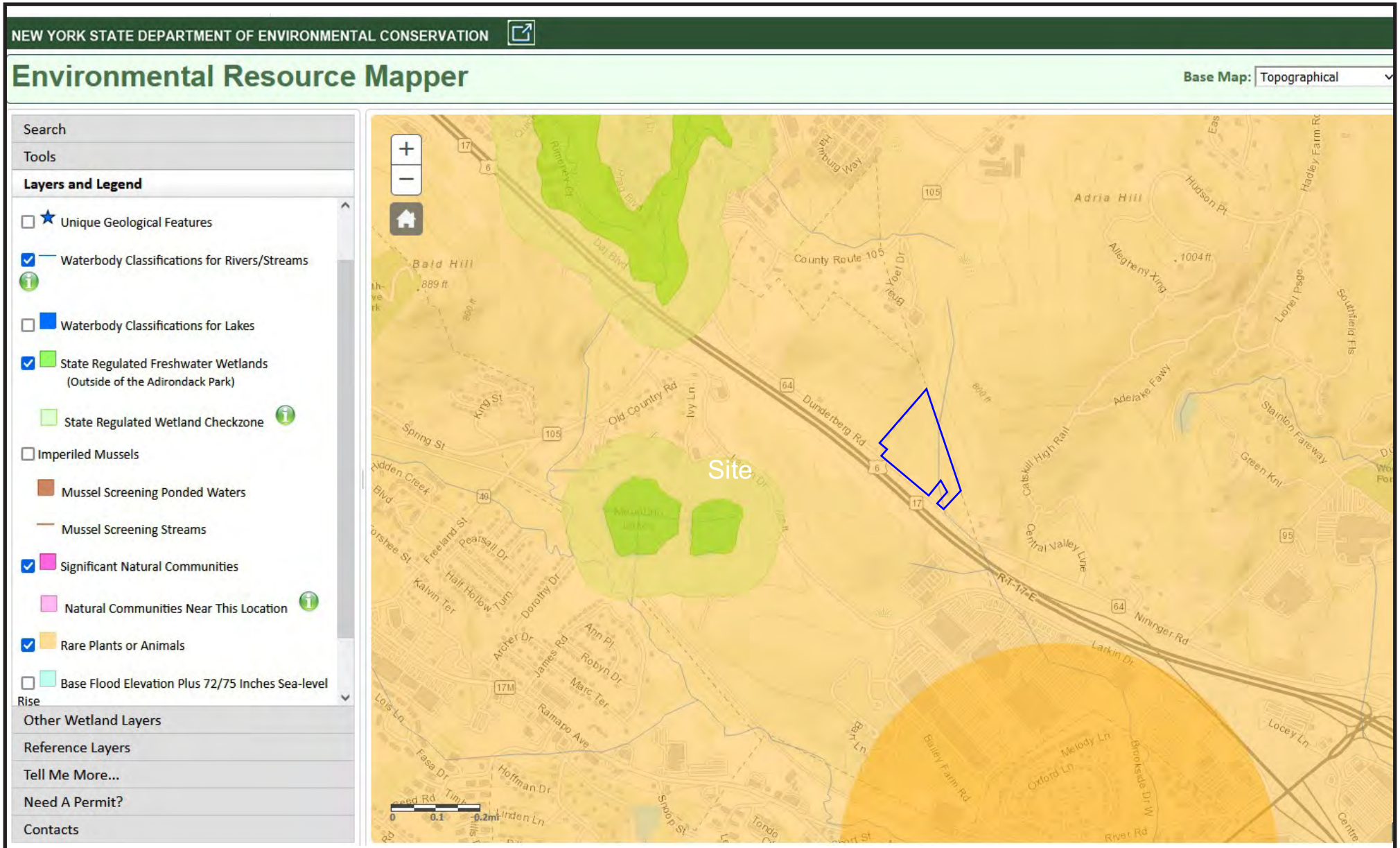
The parking areas will be plowed and maintained by a private commercial service. It is expected that deicing agents will only be needed for pedestrian areas. Runoff from the site, including snow melt, will be conveyed to infiltration practices. The application of de-icing material will be minimized to the extent practical. Deicing material will not be stored on-site. The only direct discharge of water to the design points will be during the highest intensity storms, when deicing agents if present will be highly diluted.

5.3 Mitigation Measures

The proposed wetland disturbance will occur primarily in the northwest portion of the site for the construction of the western parking lot and internal driveways. These wetlands include drainage channels and topographic low areas that drain towards the south and the larger wetland area and pond in the southern portion of the site. The large contiguous wetland area and pond will generally be avoided, by the construction of retaining walls at the northern and eastern edge of this wetland (see Grading Plan, Sheets 11 - 13). Disturbance to the Palustrine wetland in the northern portion of the site are minimized to the extent practical to construct necessary access into the site and provide parking for the proposed commercial building. Alternatives to minimize the direct impact to on-site wetlands are described in Section 19.0 Alternatives. An alternative evaluated in that section avoids all wetland impacts and complies with the zoning code.

The SWPPP prepared for the development provides stormwater detention and treatment for run-off from the impervious surface introduced into the site. Stormwater will be directed to infiltration basins and underground infiltration chambers. The SWPPP is designed to meet NYSDEC requirements for long-term stormwater management for the development, including maintenance requirements. As indicated in the Site Plans, no stormwater will be directly discharged to the existing wetland but directed to infiltration basins or chambers. Infiltration of stormwater will maintain water quality in the on-site wetland area and for off-site downstream water courses. Given the results of the water quality testing, no additional post-development water quality testing or other monitoring measures appear warranted.

The Wetland Mitigation Plan provides a robust area of wetland planting and enhancement, that over time will improve the existing wetland area and functions. The expansion and enhancement of the wetland area is feasible given the existing layout, topography and soils in the area proposed for mitigation. A cumulative total of 780 shrubs and 200 trees are proposed to be planted in the Wetland Mitigation area. The wetland mitigation area will provide the functions of the existing wetland including, flood attenuation, sediment stabilization, nutrient removal, groundwater recharge, and wildlife habitat.



N
W E
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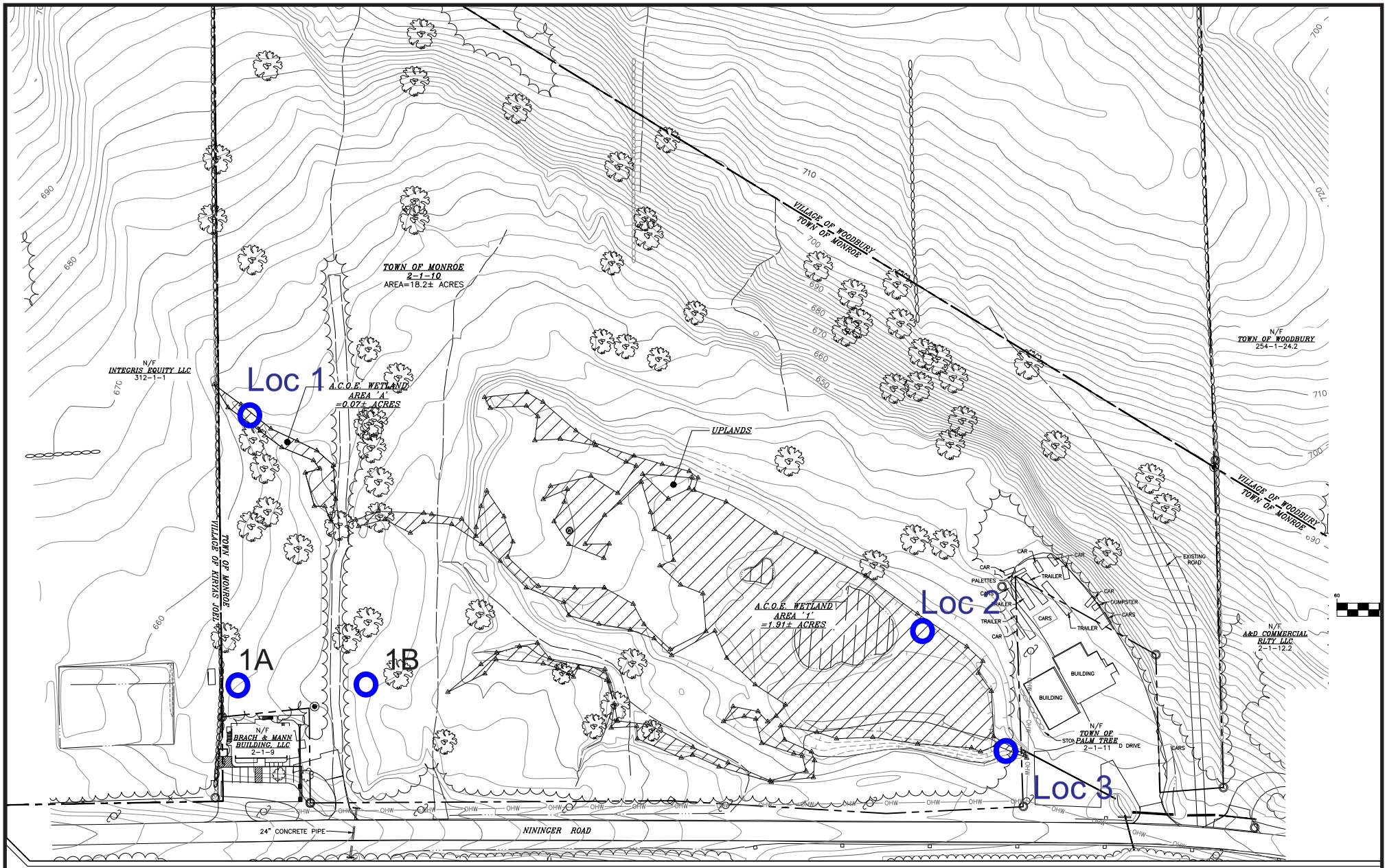
File 10075 Fig 1 01/17/10

Figure 5-1: DEC Environmental Resource Mapper

Monroe Commons
Town of Monroe, NY
Approx. Scale: As Shown
Source: NYSDEC Environmental Resource Mapper

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418



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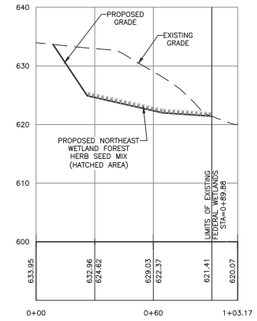
File 10075 Fig 1 01/17/10

Figure 5-2: Surface Water Sampling Locations

Monroe Commons
Town of Monroe, NY
Approx. Scale: 1 in. = 150 ft.
Source: Pietrzak & Pfau Engineering & Surveying, PLLC

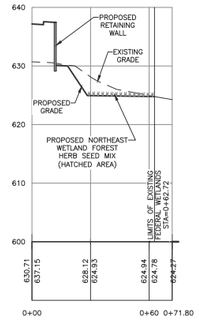
Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

FEDERAL WETLAND MITIGATION AREA – GRADING PLAN
SCALE: 1" = 50'



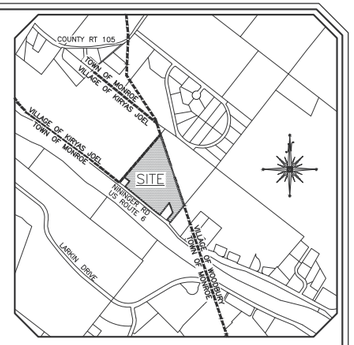
WETLAND MITIGATION CROSS-SECTION A-A

PROFILE SCALES
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'

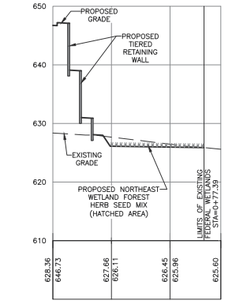


WETLAND MITIGATION CROSS-SECTION B-B

PROFILE SCALES
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'

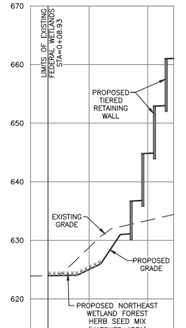


LOCATION MAP
SCALE: 1"=1,000'



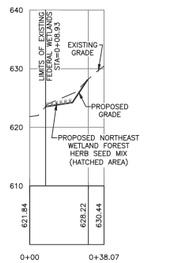
WETLAND MITIGATION CROSS-SECTION C-C

PROFILE SCALES
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



WETLAND MITIGATION CROSS-SECTION D-D

PROFILE SCALES
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'



WETLAND MITIGATION CROSS-SECTION E-E

PROFILE SCALES
HORIZONTAL: 1"=30'
VERTICAL: 1"=10'

GENERAL NOTES:
1. TAX MAP DESIGNATION: TOWN OF MONROE – SECTION 2 BLOCK 1 LOT 10.
VILLAGE OF WOODBURY – SECTION 225, BLOCK 1, LOT 30.
2. AREA OF TOWN OF MONROE PARCEL: 18.2± ACRES.
3. AREA OF VILLAGE OF WOODBURY PARCEL: 12.3± ACRES
4. TOPOGRAPHY BASED ON AN AERIAL SURVEY PERFORMED BY ADR ASSOCIATES INC.
5. THERE ARE NO NYSDEC WETLANDS LOCATED ONSITE.
6. TOTAL PROPOSED WETLAND DISTURBANCE = 21,753 SQFT. TOTAL PROPOSED WETLAND MITIGATION AREA =39,375 SQ.FT. (1:1.8 RATIO)

CONSTRUCTION NOTES:
1. PRIOR TO ANY CONSTRUCTION, CONTRACTOR IS TO CONTACT ALL UTILITY COMPANIES FOR UTILITY MARK OUTS. CONTRACTOR IS TO ASSUME FULL RESPONSIBILITY FOR MAINTAINING CONTINUOUS UTILITY SERVICE AND REPAIRS TO UTILITIES IN THE EVENT OF DAMAGE.
2. PRIOR TO ANY CONSTRUCTION, CONTRACTOR IS TO FIELD LOCATE AND VERIFY ALL EXISTING UTILITIES LOCATIONS, ELEVATIONS, INVERTS, ETC. AND NOTIFY THE DESIGN ENGINEER OF ANY DISCREPANCIES ON THIS PLAN.
3. CONTRACTOR IS TO COORDINATE NEW UTILITY SERVICES WITH ALL UTILITY COMPANIES.
4. CONTRACTOR IS TO BE RESPONSIBLE FOR ALL TRAFFIC MAINTENANCE.
5. CONTRACTOR IS TO BE RESPONSIBLE FOR ALL PROJECT SAFETY REQUIREMENTS.

PLANTS LIST

COMMON NAME	BOTANICAL NAME	MIN. SIZE	REMARKS	QUANTITY
SPECKLED ALDER	ALNUS RUGOSA	18" TO 24"	CONTAINER	130
SILKY DOGWOOD	CORNUS AMOMUM	18" TO 24"	CONTAINER	130
GRAY DOGWOOD	CORNUS RACEMOSA	18" TO 24"	CONTAINER	130
RED OSIER DOGWOOD	CORNUS STOLONIFERA	18" TO 24"	CONTAINER	130
PUSSY WILLOW	SALIX DISCOLOR	18" TO 24"	CONTAINER	130
ARROWWOOD	VIBURNUM RECOGNITUM	18" TO 24"	CONTAINER	130
RED MAPLE	ACER RUBRUM	3' TO 4'	CONTAINER	50
SILVER MAPLE	ACER SACCHARINUM	3' TO 4'	CONTAINER	50
GRAY BIRCH	BETULA POPULIFOLIA	3' TO 4'	CONTAINER	50
SWAMP WHITE OAK	QUERCUS BICOLOR	3' TO 4'	CONTAINER	50

NOTES:
1. A CUMULATIVE TOTAL OF 780 SHRUBS AND 200 TREES ARE TO BE INTRODUCED WITHIN THE WETLAND MITIGATION AREA.
2. THE SPECIES OF TREES AND SHRUBS SELECTED FOR INTRODUCTION WITHIN THE MITIGATION AREAS WERE CHOSEN BASED ON THEIR ABILITY TO PROVIDE WILDLIFFE WITH FOOD AND COVER; THEIR SITE ADAPTABILITY; THEIR ABILITY TO PROVIDE ENHANCEMENT; AND, TO DIVERSITY TO THE CONSTRUCTED WETLAND AND NATURAL WETLAND COMMUNITIES.

NORTHEAST WETLAND FOREST HERB SEED MIX:
(PERCENT BY VOLUME)

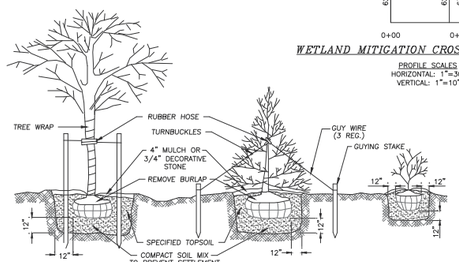
25.96%	SCIRPUS ATROVIRENS	DARK GREEN BULRUSH
25.41%	SCIRPUS CYPERINUS	WOOL GRASS
8.33%	CAREX VULPINOIDEA	FOX SEDGE
7.68%	GLYCERIA CANADENSIS	CANADA MANNAGRASS
7.63%	VERBENA HASTATA	BLUE VERVAIN
6.02%	GLYCERIA GRANDIS	REED MEADOWGRASS
5.70%	GLYCERIA STRIATA	FOWL MANNAGRASS
2.12%	PANICUM CLANDESTINUM	DEERTONGUE
1.53%	VERBENA URTICIFOLIA	WHITE VERVAIN
1.51%	GLYCERIA MELICARIA	MELIC MANNAGRASS

NOTES:
1. 8.0 POUNDS OF THE NORTHEAST WETLAND FOREST HERB SEED MIX IS TO BE UTILIZED TO SUPPLEMENT THE INTRODUCED WOODY PLANTINGS IN THE MITIGATION AREA.
2. THIS SEED MIXTURE WORKS WELL IN NORTHERN CLIMATES AND IT CONTAINS A VARIETY OF SPECIES THAT ARE INTENDED TO ADD DIVERSITY WITHIN THE HERBACEOUS LAYER OF PALUSTRINE FORESTED/SCRUB–SHRUB WETLAND PLANTINGS.
3. ANNUAL RYE (LOLIUM MULTIFLORUM) IS TO BE ADDED TO THE SEED MIX TO PROVIDE QUICK GERMINATION FOR EXPEDITED SOIL STABILIZATION.
4. ONCE SEEDED, THE AREA IS TO BE MULCHED WITH 1 TO 2 INCHES OF STRAW.

PLANTING SCHEDULE

TREES & SHRUBS	SPRING PLANTING	FALL PLANTING
EVERGREENS	APRIL 1 – JUNE 30	SEPTEMBER 1 – OCTOBER 15
DECIDUOUS	MARCH 1– JUNE 30	OCTOBER 1 – DECEMBER 1

*SPECIES HAS A FALL PLANTING HAZARD



DECIDUOUS TREES EVERGREEN TREES SHRUBS

PLANTING & GUYING DETAIL
N.T.S.

RECORD OWNER/APPLICANT
TOWN OF MONROE 2-1-10:
MONROE NININGER, LLC
P.O BOX 736
MAHWAH, NEW JERSEY 07430

TOWN OF WOODBURY 225-1-30:
WOODBURY NININGER ESTATES, LLC
9 VAN BUREN DRIVE, UNIT 201
MONROE, NEW YORK 10950

Dig, Safely. New York. Call 811 before you dig

RECORD OWNER/APPLICANT
MONROE NININGER, LLC
P.O BOX 736
MAHWAH, NEW JERSEY 07430

RESERVED FOR TOWN PLANNING BOARD APPROVAL

11-22-22	WETLAND MITIGATION PLAN PREPARATION DATE	MWS
1-20-17 TO 8-12-22 25 REVISION DATES (SEE MAP LAST REVISED 8-12-22 FOR INFORMATION ON REVISIONS)		
12-8-16	CONCEPT PLAN PREPARATION DATE	JJP
DATE	DESCRIPTION	INITIALS
REVISIONS		
MAP CHECK DATE: 00/00/00	INITIALED BY: -_-	

PIETRZAK & PFAU
ENGINEERING & SURVEYING, PLLC
282 GREENWICH AVENUE, SUITE A
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(845) 294-5006
2 HAMILTON AVENUE
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JOSEPH J. PFAU P.E.
LICENSE NO. 068945
MICHAEL T. CORRIGAN P.L.S.
LICENSE NO. 050323
VINCENT A PIETRZAK P.E. P.L.S. LEED AP
P.E. LICENSE NO. 076508 P.L.S. LICENSE NO. 050075
N.J.P.L.S. LICENSE NO. 35396

SIGNATURE DATE

MONROE COMMONS
COMMERCIAL SITE PLAN

TOWN OF MONROE – SECTION 2, BLOCK 1, LOT 10
VILLAGE OF WOODBURY – SECTION 225, BLOCK 1, LOT 30
COUNTY OF ORANGE, NEW YORK

PROJECT TITLE

FEDERAL WETLAND MITIGATION PLAN

DRAWING TITLE

O.C.H.D. SHEET NO.	D.E.C. SHEET NO.	DRAWING NUMBER
N/A OF N/A	N/A OF N/A	1 OF 1
SCALE: AS SHOWN	CAD REFERENCE: NEW FOOTPRINT	PROJECT NUMBER: 9517.0.01

Figure 5-3: Wetland Mitigation Plan
Monroe Commons
Town of Monroe, Orange County, New York
Source: Pietrzak & Pfau Enginnering and Surveying, PLLC

File 19055
Figure 5-3 02-21-2023

6.0 GROUNDWATER RESOURCES

6.1 Existing Conditions

The proposed development site is located in a suburban setting. Nearby properties have a mix of low to high density residential and commercial uses. The total property is approximately 35.4 acres in size (Monroe and Woodbury parcels) and located on the northeast side of Nininger Road and NYS Route 17M.

Municipal water from the Town of Monroe is not available to the property, but the site is located in Orange County Sewer District No. 1. Therefore, the Scoping Document for the development approved in November, 2020 envisioned that the development would be served by private wells and by municipal sewer service. In November, 2020 a single bedrock well was drilled on the property and the well did not provide water sufficient for the development. A second well on the site was proposed, but was never drilled.

The Applicant is pursuing an alternative source of water for the development from the Village of Kiryas Joel / Town of Palm Tree municipal water system, given the apparent limited groundwater resources on the property and well constraints related to lot area and on-site wetlands. The potential impacts to groundwater resources from the development would be reduced by utilizing municipal water, as compared to onsite wells. The Village of Kiryas Joel/ Town of Palm Tree relies on a combination of municipal groundwater wells and groundwater treatment and storage. The Village of Kiryas Joel/ Town of Palm Tree have long planned for a connection to the Catskill Aqueduct in the Town of New Windsor, NY to augment their well system. A portion of the planned connection has been constructed and is currently in service. The current Site Plan indicates that the existing on-site well (Well #2), is to be abandoned.

A *Geotechnical Investigation Report,* completed by Kevin Patton, P.E., provides detailed information regarding the geology, soils and groundwater on the property and the edges of the site on adjacent properties. The *Geotechnical Investigation Report* is provided as Appendix D and is further described below.

Test pits were excavated in nineteen (19) locations on January 30 through February 1, 2023, using a mid-size tracked excavator. Most of the test pits were in proposed stormwater areas; standpipe piezometers ('monitoring wells') were installed in these test pits, and stormwater infiltration tests were performed in separate test pits, per Appendix D of the NYSDEC Stormwater Design Manual. Fourteen (14) soil borings were drilled on February 9, 10, 13 and 14, 2023. Borings were drilled by the hollow-stem auger method, using a track-mounted drill rig. All work was performed under the direction of Kevin Patton, P.E. The *Geotechnical Investigation Report* provides maps and charts with test pit and soil boring locations as well as soil boring logs and soil testing data.

Site Geology

Groundwater in the vicinity of the project site and in Orange County is developed from two aquifer types; bedrock and sand and gravel aquifers. Both bedrock and sand and gravel deposits are mapped near the site. The Site is located in the geologic province known as the Hudson Highlands. The area geology and aquifers are described in the *Ground-water Resources Study, Orange County, New York* prepared for the Orange County Water Authority by Leggette, Brashears & Graham, Inc. (1995).

Bedrock mapped in the vicinity of the site is described as Undifferentiated Lower Devonian and Silurian rocks consisting of undifferentiated units of sandstone, conglomerate, shale, siltstone, and greywacke. The bedrock unit is found on the eastern and western valley floor adjacent to Skunnemunk Mountain. A bedrock contact with the Wappinger Group (OEw) rocks is mapped at the southern edge of the project site. Wappinger Group bedrock in Orange County is described as dark gray to gray-black limestone dolomite units. Local geology is shown in Figure 6-1 Local Geology and Wells.

As shown in the Figure, a fracture trace and a favorable location for the targeting of high yielding bedrock wells is mapped at the southern portion of the site adjacent to Nininger Road. Such favorable areas for well location are typically associated with the intersection of two or more fracture traces.

The *Geotechnical Investigation Report (Appendix D)*, provides local geologic mapping with greater detail than the Geologic Map of New York. The *Geologic Map of the Monroe Area* (1967)[1] indicates the site is located on a large block of Devonian-age sandstone and shale of the Esopus formation. This is a sedimentary unit composed of red-sandstone, blue-gray siltstone, black mudstone and related rock types. The site is in an area of deep soil cover where the boundaries of the bedrock units are uncertain. A map of the local bedrock geology is provided as Figure 6-2.

Bedrock outcrops are not observed on the project site and bedrock is overlain by unconsolidated material, weathered bedrock and soil. A single exploratory bedrock water supply well was drilled on-site in January, 2019. The well drilled in the central portion of the site encountered bedrock at 80 feet in depth. Above the bedrock was approximately 30 feet of sand and gravel and boulders followed by hardpan to weathered bedrock and bedrock was encountered at 80 feet in depth. A well log is provided in Appendix C.

The borings and the test pits completed for the *Geotechnical Investigation Report* indicate that bedrock is probably deeper than the required excavation depths throughout the building area; however, boulders in the soil resulted in limited data from the borings to confirm this conclusion. The geotechnical engineer recommends that prior to construction, one or more trial excavations (enlarged test pits), including one near boring B11, should be made to verify that rock is deep. Three soil borings were advanced to 21 feet in depth (B3, B8 and B13) and boring B6 advanced to 56 feet in depth. These borings did not encounter bedrock. Therefore, it is assumed bedrock across the site is found at generally greater than 21 feet in depth and up to 80 feet in depth. Bedrock type and the presence and location of fractures and faults was not determined through the Geotechnical Investigation, but is reflected in published geologic studies and maps, described herein.

Subsurface Profile and Summary of Soil Conditions

Subsurface conditions encountered in the borings are described in the boring logs and are summarized in the drawings attached to the Geotechnical Investigation Report. The following summary description is provided from the Report. The soils encountered in boring B6 are expected to be typical for soils in the building cut into the hillside. These consisted mostly of layered glacial till, along with a thick zone or lens of layered silt and fine sand, probably deposited in a glacial lake. Zones of perched groundwater were indicated at several elevations and most of the soils were in a wet or very moist condition. The till layers were mostly silty clay, silt or clay

[1] Geologic Map of the Monroe Area, 1967, by Howard W. and Elizabeth Jaffe, as presented in the 1989 New York Geologic Association Guidebook.

with varying amounts of sand and gravel. Cobbles and boulders were occasionally present, and in boring B6 they were abundant at depths of 25 to 35 feet. Bedrock was not indicated in the hillside cut area. Borings B3 and B6 stopped in very dense till about eight to ten feet below the proposed basement floor elevation. Borings B12 and B13 were also drilled in this area and met refusal on probable boulders at elevations of 663 and 665 feet.

The potential for precipitation to infiltrate the on-site soil and overburden and enter the underlying bedrock aquifer is limited by the dense to very dense glacial till, consisting of silts and clays. The *Geotechnical Investigation Report* provides a description of perched shallow groundwater in several locations in the glacial till overburden. Based upon the soil boring testing, bedrock is generally anticipated to be greater than 21 feet in depth, and, therefore, precipitation would need to infiltrate that depth or greater to reach the bedrock surface. The geotechnical engineer completed test pits and percolation tests in the upper soils and the majority of the areas tested.

The *Geotechnical Investigation Report* describes the variable soil and overburden conditions at the property. Boring B-6 is described as having soils expected to be typical for the building cut into the hillside. These soils consisted of mostly layered glacial till, along with a thick lens of layered silt and fine sand. Zones of perched groundwater were indicated at several elevations and most of the soils were in a wet or very moist condition. The till layers were described as silty clay, clay, silt, and sand with varying proportions of clay, silt, and sand. Cobbles and boulders were occasionally present and were abundant at depths of 25 to 25 feet. Layers of dense material or hardpan likely control the movement of shallow groundwater across the site. Shallow groundwater will flow through sand layers above more dense clay and silt layers to lower elevation, with some discharge to the pond, intermittent streams, and wetlands on the property.

Unconsolidated sand and gravel deposits are found directly south of the site on the south-southwest side of NYS 17 / US 6. The sand and gravel is mapped as Stratified Sand and Gravel Below Clay or Silt and the Water Table. This area is part of the larger Ramapo River Valley aquifer which consists of unconsolidated deposits which run along the river corridor from the Town of Monroe in the north towards the south into New Jersey.[2] In some locations, these deposits are overlain by silt that was deposited during river flooding.

Local Aquifers and Site Hydrogeology

Wells drilled into the bedrock intersect fractures in the bedrock which is the source of groundwater. The well yield of any particular bedrock well is dependent upon the number, size and interconnectivity of bedrock fractures. Well yields in sand and gravel aquifers are determined by the permeability of the sand and gravel. Silts and confining layers may reduce the yield of sand and gravel aquifers.

As shown in Figure 6-1, sand and gravel deposits south and east of the site form the Woodbury Creek Sand and Gravel aquifer, with is a source of water supply for the Village of Kiryas Joel / Town of Palm Tree, the Village of Harriman and the Town of Monroe.

Existing Local Groundwater Wells

A single exploratory bedrock water supply well was drilled on-site in January, 2019 and the well is not in service. The NYSDEC permit for the well and the well log are provided in Appendix C.

[2] *Ground-water Resources Study, Orange County, New York,* Orange County Water Authority - Leggette, Brashears & Graham, Inc. (1995)

The well was drilled to a total depth of 350 ft. and bedrock fractures were found at 330 ft. below ground surface. Groundwater was measured at 60 feet in depth in the well. The driller estimated a well yield of 10 gallons-per-minute using an air lift method. This method provides a preliminary estimate of well yield and does not provide the information provided by a sustained well pumping test. The well was not pump tested to determine the actual sustained well yield and water quality samples were not collected and analyzed for the well. Water quality testing is typically done to assess water quality for potable water supply, and requires specific testing protocols by the Orange County Department of Health. However, the well is no longer proposed for use. Therefore, characterizing groundwater water quality at the site is no longer relevant to public health and safety (Surface water sampling is discussed in Section 5.0 Wetlands and Surface Water). The existing well on-site is secured at the surface to avoid tampering or damage from future development. The updated Site Plan indicates the existing well will be properly abandoned to avoid any potential future contamination of the underlying bedrock aquifer.

The *Ground-water Resources Study, Orange County, New York* shows municipal wells in the vicinity of the site, but the study does not show local municipal wells drilled since the study publication (see Figure 6-1).

The Village of Kiryas Joel / Town of Palm Tree operates municipal bedrock wells northwest of the subject property. The Village of Kiryas Joel / Town of Palm Tree operates several bedrock wells and a single sand and gravel well located in the Brenner wellfield located approximately 2000 feet southwest of the site across NYS Route 17 / US 6. These wells are not shown or described in the 1995 Ground-water Resources report. Several Town of Monroe wells are shown south and southeast of the site and draw from both the sand and gravel aquifer and the underlying bedrock. The current status of those wells shown in the 1995 study is not known.

A commercial geology and well database was ordered and reviewed for the project site. The database is provided by EDR and is attached in Appendix D. The database provides locations and drilling data as reported to the NYSDEC and the USGS, but is not comprehensive, since older wells may not have been included in NY State or federal databases.

The database shows 24 wells within a 1-mile radius and five of those wells were identified as public water supply wells. Only a single well was identified within one-quarter mile and three others within one-half mile. The closest well to the site appears to be in the location of the Brach and Mann office building, adjacent to the property.. The nearest public water supply well listed in the database is located approximately three-quarters of a mile south-southwest of the site.

A Well completion report was obtained for the adjacent Brach and Mann office building water supply well at 254 Nininger Road. This office building is located at the northwest corner of the project site. The Water well completion report is filed with the NYSDEC (DEC Well No. 011708). The Brach and Mann well log indicates sand, gravel, and boulders to a depth of 30 feet, hard-pan to broken bedrock to a depth of 80 feet, unconsolidated rock to a depth of 235 feet where solid rock was encountered. The total well depth was 350 feet and groundwater was measured at 60 feet. A copy of the well log is provided in Appendix D. The depth of 80 feet to bedrock at this location is consistent with the conditions described for the on-site well. The two wells are approximately 360 feet apart.

It is likely that nearby residences in the Town of Monroe or Town of Woodbury near Nininger Road have private groundwater wells for water supply, given the lack of municipal water infrastructure locally. Residences directly east of the site on Nininger Road are expected to have individual water supply wells. The adjacent Brach and Mann office building, located at 254 Nininger Road,

is supplied by an individual well (see discussion above). Currently, no groundwater is withdrawn from the site and site contributes to the local bedrock aquifer through infiltration of precipitation on the property, in both upland and wetlands areas.

The Town of Monroe Comprehensive Plan indicates that a portion of the Town of Monroe, including the Project site is within the Ramapo River Aquifer Basin, which is a federally designated sole source aquifer (SSA) established under the Safe Drinking Water Act (SDWA). The aquifer is delineated in detail on the U.S. Geological Survey Open File Report 82114, Geohydrology of the Valley Fill Aquifer in the Ramapo and Mahwah Rivers Area Rockland County. New York. The Ramapo River Aquifer is also described in the *Groundwater Resources Study, Orange County, New York* describes the Ramapo River Aquifer Basin and its aquifer recharge areas. The designation as a sole source aquifer indicates the sensitivity of the recharge areas to near surface pollution. The Town of Monroe Comprehensive Plan acknowledges that portions of the aquifer recharge area are heavily developed, including the Harriman Commons shopping center, southeast of the site.

6.2 Potential Impacts of the Proposed Development

The Applicant is pursuing an alternative source of water for the development from the Village of Kiryas Joel / Town of Palm Tree municipal water system, given the apparent limited groundwater resources on the property and well constraints related to lot area and on-site wetlands. The Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter, whereby the Village has agreed to supply water for the Monroe Commons project at the required level, estimated to be 54,210 gallons per day, and expressing the Village's willingness to approve the connection, subject to the standard Outside Water User Development Agreement to be recorded in the office of the County Clerk. The letter from the Village is provided in Appendix B – Correspondence. The potential impacts to local groundwater resources from the development would be reduced by utilizing municipal water, as compared to onsite wells. Therefore, the project as proposed, will not draw on local groundwater resources and will not potentially influence groundwater supplies available for other local water supply wells.

Following development, stormwater from impervious surface will be directed to stormwater management facilities and allowed to infiltrate into one-site soils and unconsolidated material above the bedrock aquifer. Stormwater management is described in further detail in Section 8.0 Stormwater Management. Stormwater will be directed to either infiltration basins or to underground storage chambers and allowed to infiltrate to groundwater resources. Therefore, the project is not expected to substantially reduce the overall groundwater recharge volume that currently occurs on-site.

Pesticides will not be used on a regular basis for landscape maintenance and will only be used for specific infestations of insects or plant blight, on a limited basis. De-icing materials along with routing snow plowing will be used for vehicle and pedestrian safety. The proposed stormwater management facilities include infiltration practices designed to treat driveway and parking lot run-off.

Petroleum Leaks and Spills

Petroleum leaks and spills have the potential to impact both surface water and groundwater (aquifer) resources. The Monroe Commons development does not propose to use underground or aboveground petroleum storage tanks and therefore, petroleum leaks and spills are limited to cars and trucks accessing the property.

Petroleum leaks or spills from vehicles typically occur during vehicle accidents where fuel storage tanks are damaged. These spills would be responded to by emergency service responders including The Town of Monroe Fire Department and the spill would be contained to the pavement to the extent possible. The stormwater run-off from pavement, including minor drips and leaks of petroleum from vehicles would be treated in the proposed stormwater management facilities, which are designed to treat this run-off. The proposed development is not expected to increase the risk to local aquifers from petroleum leaks and spills.

A commercial well database shows one well within one-quarter mile of the site and three others within one-half mile. A well completion report filed with the NYSDEC was obtained for the adjacent Brach and Mann office building water supply well (see Appendix D). The well log indicates the well construction including steel casing and grouting from the surface to solid rock at 235 feet in depth. The proposed mixed-use development is not expected to impact the local shallow or bedrock aquifers' water quality. Given the construction of the Brach and Mann well to NYSDEC standards, the proposed development is not expected to impact the water quality for that well.

6.3 Mitigation Measures

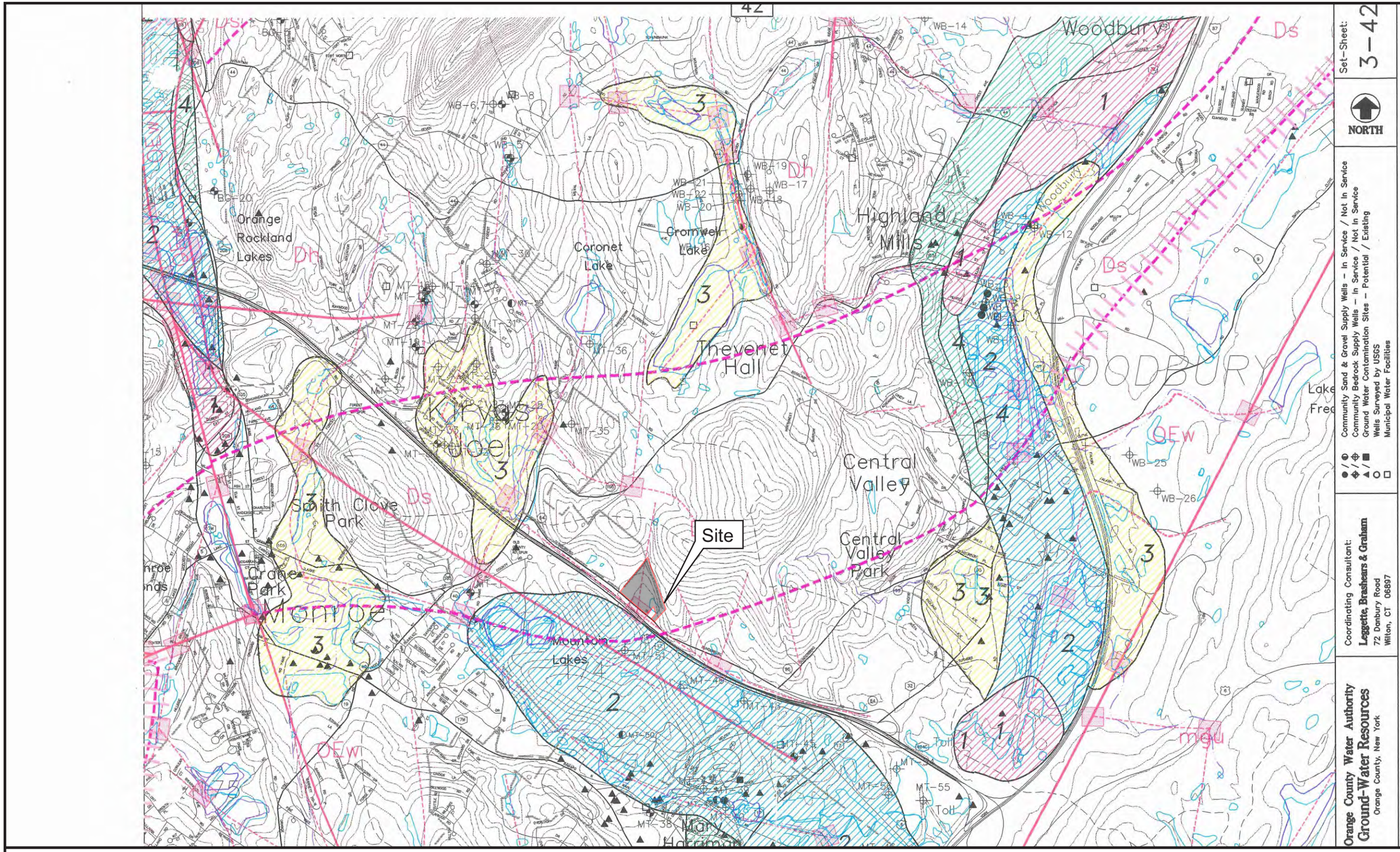
As described above, the proposed Monroe Commons development will not withdraw groundwater for potable water supply, but will utilize the municipal water supply from the Village of Kiryas Joel/Town of Palm Tree.

Following development, stormwater from impervious surface will be directed to stormwater management facilities and allowed to infiltrate into one-site soils and unconsolidated material above the bedrock aquifer. Stormwater will be directed to either infiltration basins or to underground storage chambers and allowed to infiltrate to groundwater resources (See SWPPP provided in Appendix F).

No petroleum or hazardous materials will be stored in the proposed commercial building, with the potential to impact the underlying shallow or bedrock aquifers. The proposed stormwater management facilities for the proposed mixed-use commercial building and parking areas are designed to treat the stormwater run-off from new pavement, including minor leaks of petroleum from vehicles onto pavement. Surface water sampling of existing on-site water courses are described in Section 5.0 Wetlands and Surface Water Resources. The surface water sampling was completed to establish "background" conditions for surface water.

As described, the applicant proposes to access potable water from the Village of Kiryas Joel / Town of Palm Tree. Groundwater is not proposed as a potable water supply source for the development. Given that the well is no longer proposed for use, characterizing groundwater water quality at the site is no longer relevant to public health and safety (Surface water sampling is discussed in Section 5.0 Wetlands and Surface Water). Moreover, as explained above, the proposed development is not expected to impact the water quality of the Brach and Mann well.

No further groundwater mitigation measures are required or proposed for the planned commercial development.



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File 2095 Fig XX TMA 10/11/02

Figure 6-1: Local Geology and Wells
Monroe Commons
Town of Monroe, Orange County, NY
Source: Orange County Water Authortiy, Ground-Water Resources, 1995

7.0 VEGETATION AND WILDLIFE

7.1 Existing Conditions

Vegetative Characteristics

As required for compliance with the State Environmental Quality Review Act (SEQRA) process by the Village of Monroe, an ecological assessment was completed to determine if habitats conducive to the existence of state and/or federally-listed Endangered, Threatened and/or Rare (ETR) species of flora and fauna exist on the subject property. North Country Ecological Services, Inc. (NCES) was retained by the Applicant to assess the property for the presence of individual ETR species and/or other significant ecological communities, as identified by direct consultation with the New York State Department of Environmental Conservation (DEC) Natural Heritage Office (NHO) and the United States Fish and Wildlife Service (USFWS). The ecological review of the subject property included the following activities:

1. An in-house review of literature sources and direct consultations with regulatory agencies regarding records of known occurrences of state and/or federally listed ETR species of flora and fauna for the subject property and surrounding area. ‘
2. An on-site field review of the existing ecological communities, habitats and indigenous flora/fauna present within the project area to determine the likelihood of endangered, threatened and/or rare species presence. Site visits were conducted on:

- April 23, 2018
- April 27, 2018
- June 29, 2018
- October 14, 2018
- November 20, 2018
- November 20, 2019
- November 23, 2019
- December 16, 2019
- December 4, 2020
- December 7, 2020

During the site assessments, NCES compiled a list of the species of flora that were identified on the Site. This list is identified as the Observed Flora List and it is contained in Appendix E. As a result of the field reviews, a total of four (4) different ecological communities were identified on the property. The ecological communities include: Successional southern hardwood forest, Eutrophic pond, Palustrine forested wetland, and Palustrine emergent wetland. The overall acreage and relative abundance of each ecological community found on the site is identified in Table7-1, below, and are shown in Figure 7-1 Existing Ecological Communities Map. Photographs of the site and ecological communities are provided in Appendix C – *Delineation of Waters of the United States Including Freshwater Wetlands Report* (January 22, 2021).

Members of the Town of Monroe Planning Board and the Monroe Conservation Commission visited the site on September 30, 2020 with the Applicant’s representatives. Currently, no written comments or recommendations from the Conservation Commission regarding landmark, native, protected or specimen trees have been received.

Table 7-1 Existing Acreage and Relative Abundance of Existing Ecological Communities		
Ecological Community Type	**Acreage**	**Percentage of Site**
Successional Southern Hardwoods	16.21 ± acres	89.1 %
Palustrine Forested Wetland	0.76 ± acres	4.2 %
Palustrine Emergent Wetland	0.32 ± acres	1.8 %
Eutrophic Pond	0.91 ± acres	5.0 %
	18.2 ± acres	**100%**

Each of the ecological communities identified, with the exception of the open water pond community, possess different and distinct species of vegetation that assist in defining them. The pond is primarily an open water feature; however, Palustrine wetlands are found along the fringes of the open water and at the upper end of the topographic depression in which the vegetated wetland and pond is found. As a result, the vegetation along the edges of the pond have been included within the descriptions provided for both the Palustrine forested and Palustrine emergent wetland communities. The dominant species of vegetation observed within the ecological communities are identified below:

Some of the dominant species of vegetation within the Successional southern hardwood forest ecological community included, but are not limited to; black locust (*Robinia pseudoacacia*), red cedar (*Juniperus virginiana*), shagbark hickory (*Carya ovata*), northern red oak (*Quercus rubra*), sugar maple (*Acer saccharum*); black cherry (*Prunus serotina*), white ash (*Fraxinus americana*), quaking aspen (*Populus tremuloides*), common buckthorn (*Rhamnus cathartica*), honeysuckle (*Lonicera tatarica*), Japanese barberry (*Berberis thunbergii*), multiflora rose (*Rosa multiflora*), poison ivy (*Toxicodendron radicans*), Virginia creeper (*Parthenocissus quinquefolia*), common blue violet (*Viola sororia*), and garlic mustard (*Alliaria officinalis*).

Some of the dominant species of vegetation observed within the Palustrine forested wetlands included, but are not limited to, red maple (*Acer rubrum)* green ash (*Fraxinus pennsylvanica*), American elm (*Ulmus americana*), gray birch (*Betula populifolia*), ironwood (*Carpinus caroliniana*), witch hazel (*Hamamelis virginiana*), silky dogwood (*Cornus amomum*), tussock sedge (*Carex stricta*), skunk cabbage (*Symplocarpus foetidus*), fowl manna grass (*Glyceria striata*), jewelweed (*Impatiens capensis*), cinnamon fern (*Osmunda cinnamomea*), and sensitive fern (*Onoclea sensibilis*).

Some of the dominant species of vegetation observed within the Palustrine emergent wetlands included, but are not limited to, tussock sedge, fox sedge (*Carex vulpinoidea*), cattail (*Typha latifolia*), skunk cabbage, dark green bulrush (*Scirpus atrovirens*), wool grass (*Scirpus cyperinus*) soft rush (*Juncus effusus*), jewelweed, common reed (*Phragmites australis*), purple loosestrife (*Lythrum salicaria*), late goldenrod (*Solidago gigantea*), slender goldenrod (*Solidago tenuifolia*), moneywort (*Lysimachia nummularia*), cinnamon fern, and sensitive fern.

Pond Buffer Description

The area surrounding the existing wetland and proposed wetland mitigation area is primarily a mix of forested upland with a dense understory of shrubs. The southwest edge of the mitigation area is bordered by Nininger Road. A natural edge of existing forested upland will be maintained between the road and mitigation area post-development as vegetative screening. An old logging/access road that was built many years ago borders the northern edge of the pond. Other than the old road, the area surrounding the pond and proposed mitigation area is forested. A list of flora found at the property is provided below and in Appendix E.

The pond was constructed many years ago, probably when the property was used for agricultural purposes, more than 50 years ago. A constructed dam with a culvert is found at the lower elevation and the southern edge of the pond. The pond and the wetland surrounding it are the lowest elevation on the property and as a result, overland flow, drainage from the property to the northwest, and road runoff from roadside ditches along Nininger Road flow into the site and eventually the pond. The pond maintains a shallow depth as a result of the culvert elevation.

Species of flora immediately surrounding the wetland and pond include:

Sugar maple	(*Acer saccharum)*
Red maple	(*Acer rubrum*)
White ash	(*Fraxinus americana*)
White pine	(*Pinus strobus*)
American elm	(*Ulmus americana*)
Ailanthus	(*Ailanthus altissima*)
Shagbark hickory	(*Carya ovata*)
Pin oak	(*Quercus palustris*)
Speckled Alder	(*Alnus rugosa)*
Silky Dogwood	(*Cornus amomum)*
Gray Dogwood	*(Cornus racemose)*
Red-osier Dogwood	*(Cornus stolonifera)*
Pussy Willow	*(Salix discolor)*
Black Willow	(*Salix nigra)*
Common Elderberry	(*Sambucus canadensis)*
Highbush Blueberry	*(Vaccinium corymbosum)*
Multiflora rose	(*Rosa multiflora*)
Buckthorn	(*Rhamnus cathartica*)
Japanese barberry	(*Berberis thunbergia*)
Tatarian honeysuckle	(*Lonicera tatarica)*
Garlic mustard	(*Alliaria officinalis)*
Oriental bittersweet	(*Celastris orbiculate)*
Silt grass	(*Microstegium vimineum*)

Tree Inventory

A tree survey was completed by North Country Ecological Services, Inc. (NCES) within the limits of disturbance on the above-referenced project site in accordance with Chapter 57 of the Town

of Monroe zoning regulations. The regulation requires that trees over 24" in diameter be located by survey; any orchards (fruit trees), distinct stands of trees that are unique to the site, rock outcroppings, stone walls, large trees that are unique within the development area, and large trees at property comers or along property lines, be identified and mapped. A letter describing the results of the Tree Survey dated December 18, 2019, is provided in Appendix E. All trees over 24" diameter at breast height (dbh) are shown on *Existing Tree Survey* drawing (attached) . .

All trees over 24" diameter at breast height (dbh) within the project boundaries were located using GPS and the genus of the trees were noted and tabulated (see Tree Survey Letter in Appendix E). Also, all trees over 6" dbh were identified to genus and tallied. The *Existing Tree Survey* drawing provides tables with the surveyed trees. The tally summed up all trees 6-12", 12.1-18", 18.1-24", and >24" dbh. In accordance with Chapter 57, NCES's delineation of the wetlands was conducted and all stone walls were located and mapped.

The species and tree diameters indicate a very equal age, mature, to semi-mature stand of timber. The dominant tree species identified included oaks, maples, American beech, hickory, black birch, and walnut. The properties tree species and their size indicate that the property has remained fallow for a long time, possibly more than 40 years. The size of the tree and distribution of the trees within the entire property, including the project area, is very consistent. This would indicate that the entire property was abandoned from its historical use at the same time.

As is found on other wood lots in the area, most white and green ash were dead. Possibly as a result of shading, over-crowding, and/or emerald ash borer infestation. There were no distinct tree stands (unique clumps of similar species), orchards, rock outcroppings, or unique natural topographic features were observed on the property. All wetlands, stone walls, trees over 24" dbh were located and are shown on the project plan.

No protected forest community types were found on the property. The stand of trees within the uplands and wetlands are typical of wood lot within this geographic area of southern New York State. While there were numerous trees over 24" dbh within the property's interior, only a small percentage of them were found along the property line and/or stone walls within the interior of the property. There were no large trees that would be considered "Landmark Trees" found at property comers. The larger trees were generally evenly distributed throughout the property.

Invasive Species

The NYS Dept. of Environmental Conservation (DEC) maintains a list of Prohibited & Regulated Invasive Plants, (Sept. 2014). According to the DEC, "Invasive species means a species that is nonnative to a particular ecosystem, and whose introduction causes or is likely to cause economic or environmental harm or harm to human health. Invasive species can harm natural communities and systems (plants and animals found in particular physical environments) by out-competing native species, reducing biological diversity, altering community structure and, in some cases, changing ecosystems. Invasive species threaten New York's food supply, not only agriculture but also harvested wildlife, fish, and shellfish; our landscaping, parks, gardens, and pets; and our recreation resources and even animal and human health. All New Yorkers have a stake in the invasive species issue." See *New York State Prohibited & Regulated Invasive Plants* (Sept. 2014) at 2.

Invasive species of flora were documented on the Monroe Commons property during the various biological field surveys. Aquatic species are found along the edge of the pond and within the wetlands. Terrestrial species were found within the uplands on the property. The majority of the

invasive terrestrial species are found in the lower elevations of the property, primarily to the west of the steep ridge that bisects the property and is along the Town of Monroe & Village of Woodbury line. NCES concluded that since invasive species occupy disturbed lands, the land within the Town of Monroe portion of the property was previously mostly cleared of trees and used for agricultural use. The pond was most likely created during this period of time. The higher elevations, from the old logging road to the north and east contain older forested species of trees and a significant less understory. This is most likely due to the lack of previous land disturbance. A notable amount of the trees within this portion of the property are larger diameter trees than the lower elevations, indicating no historical land disturbance or extensive logging.

The Invasive species that were documented on the property are not concentrated in certain locations, but somewhat distributed throughout the landscape. As a result, mapping the various species is not a task than can be conducted efficiently, nor would it yield any conclusive information. The majority of the invasive species are concentrated in the Town of Monroe parcel and surround the pond, where the development and wetland mitigation will occur. As a result of the development and wetland creation, a significant amount of the invasives will be eliminated from the property.

The Invasive Species that were found on the property that are listed by the DEC include:

Ailanthus	(*Ailanthus altissima*)
Multiflora rose	(*Rosa multiflora*)
Buckthorn	(*Rhamnus cathartica*)
Japanese barberry	(*Berberis thunbergia*)
Tatarian honeysuckle	(*Lonicera tatarica)*
Garlic mustard	(*Alliaria officinalis)*
Oriental bittersweet	(*Celastris orbiculate)*
Silt grass	(*Microstegium vimineum*)
Garlic mustard	(*Alliaria officinalis*)
Purple Loosestrife	(*Lythrum salicaria*)
Common Reed	(*Phragmites australis*)

Common reed and Purple loosestrife are aquatic plants at found along the edge of the pond and within the Palustrine emergent wetlands. There were not dense stands of these species within the wetlands. They were sporadic stems and clusters throughout the wetlands. The remaining species are terrestrial (upland) species and are generally found evenly distributed throughout the Town of Monroe portion of the property.

Wildlife

During the field assessments, NCES compiled a list of the species of fauna that were physically identified on the site. Wildlife species were identified by sight, sound (vocalizations) and/or by physical remains (tracks, scat, fur, feathers, bones, etc.). The completed list has been designated as the Weiss Property Fauna Inventory and a copy of it is contained in Appendix E. In addition to this list, as directed by the Town of Monroe Scoping Document, NCES also generated a list of potential wildlife species that, while not physically identified on the property, could be found on and/or utilize the Site, based on the ecological community types present. This list has been designated as the Anticipated Wildlife Species List and a copy is also contained in Appendix E.

Endangered, Threatened, and Rare Species - Significant Ecological Communities

As required by the Town of Monroe Scoping Document, and in order to comply with State Environmental Quality Review Act (SEQRA) regulations, NCES completed an ecological review of the property in search of habitats conducive to the presence of State and/or Federally listed endangered, threatened, and/or rare species of flora and fauna. The formal ecological review included the following:

3. An in-house review of literature sources and direct consultation with regulatory agencies regarding records of known occurrences of state and/or federally listed endangered, threatened, or rare species on the subject property and the surrounding geographic area.

4. On-site formal field reviews of the existing ecological communities, habitats and survey of the indigenous flora/fauna present within the Project Area to determine the likelihood of endangered, threatened and/or rare species presence.

To initiate the in-house review, NCES consulted directly with the New York State Department of Environmental Conservation Natural Heritage Office (NHO) and the United States Fish and Wildlife Service (USFWS) to obtain up-to-date information relative to any existent or historical records of occurrence of endangered, threatened, or rare species of flora/fauna. In addition, information pertaining to the potential for presence of significant ecological community types or other sensitive habitats that are known to be found within the immediate geographic area of the Project Area was also requested. Copies of the response letters that were subsequently issued by the NHO and USFWS are contained within Appendix E**.**

According to the response obtained from the NHO (dated March 20, 2018) the Natural Heritage Database does not possess any "...records of rare, or State listed animals or plants, or significant natural communities directly on the project site". However, the response states “About 3.5 miles from the project site is a documented winter hibernaculum of Northern long-eared bat (*Myotis septentrionalis*, state and federally listed as Endangered). There are three additional winter hibernacula documented within 5.0 miles of the project site. These bats may travel 5.0 miles or more from documented locations. The main impact of concern for bats is the cutting or removal of potential roost trees.”

Upon consultation with the USFWS District Office in Cortland, New York, NCES was directed to review the USFWS website for federally-listed endangered, threatened and rare species and habitat information. Subsequently, the information obtained from the USFWS website indicates that the following species have the potential to be found at, or in the immediate vicinity of the Site:

- Indiana Bat (*Myotis sodalis*) – State and federally Endangered
- Northern Long-eared Bat (*Myotis septentrionalis*) – State and Federally Endangered
- Bog Turtle (*Clemmys muhlenbergii*) – State Endangered and Federally Threatened
- Dwarf Wedgemussel (*Alasmidonta heterodon*) – State and Federally Endangered
- Small Whorled Pogonia (*Isotria medeoloides*) – Federally Endangered

The Northern Long-eared Bat is listed as having hibernaculum within 4-miles of the site. This species was recently upgraded to endangered by the USFWS. This species is identified as State and Federally Endangered, above. The information provided by the USFWS was not accompanied by any supportive information detailing approximate locations of the listed species, or their associated habitats within the County. Consequently, the response information is not

project specific as, according to the USFWS, detailed information regarding precise locations of endangered and threatened species is to remain confidential. However, the speculated presence of these species is recognized by the USFWS based on extant populations or historically recorded occurrences within Orange County (the Northern Long-eared bat has been more recently identified locally) .

As a result of the in-house review, it was determined by NCES that formal field reviews of the property were warranted. Subsequently, NCES visited the property and conducted habitat assessments on the following dates:

- April 23, 2018
- April 27, 2018
- June 29, 2018
- October 14, 2018
- November 20, 2018
- November 20, 2019
- November 23, 2019
- December 16, 2019
- December 4, 2020
- December 7, 2020

During these assessments, NCES traversed the property and evaluated each of the ecological communities in an attempt to identify whether or not they contain habitat that would be deemed conducive to the presence of the species referenced by the NHO and/or the USFWS consultations. During the assessments, NCES also reviewed the Site and habitats for the presence of other endangered, threatened, or rare species of flora and fauna that were not specifically referenced by the agency consultations.

To conduct the assessments, NCES utilized opportunistic, visual survey methodologies. NCES visually scanned each of the ecological communities, assessed general condition, and documented species presence. Where logs, rocks, or other debris were found, NCES physically moved/lifted the debris to search for species. Specific habitat assessments for the species referenced by the NHO and USFWS consultations are provided below:

Indiana and Northern Long-eared Bat Assessment

NCES reviewed the Project Area in search of areas that meet the criteria for potential summer roosting sites and suitable foraging habitat for the Northern Long-eared bat. NCES also searched for any caves or mines that could be used as a potential winter hibernaculum. NCES utilized the information obtained from the USFWS, including the “Indiana Bat fact Sheet” and the “*Northern Long-eared Bat Fact Sheet*”, which define criteria of potential habitats of both species. Being that Northern Long-eared bats occupy similar habitats and suitable ecological communities as Indiana Bats (*Myotis sodalis*), NCES conducted the habitat analysis following the recommended procedures outlined on the USFWS "*Indiana Bat Project Review Fact Sheet".*

According to the USFWS, suitable, potential Indiana bat summer roosting habitats are characterized as “…trees (dead, dying, or alive) or snags, greater than or equal to 5 inches in diameter at breast height (dbh), with exfoliating or defoliating bark, or containing cracks, crevices, or holes that could potentially be used by Indiana bats as a roost”. Maternal colonies “generally use trees greater than or equal to 9 inches dbh.” In addition, “structure appears to be more

important than a particular tree species or habitat type." It is also documented that due to the fact that roosting sites are "warmed by direct exposure to solar radiation, trees exposed to extended periods of direct sunlight are preferred over those in shaded areas."

Potential foraging habitat for the Indiana bat is defined as "…streams, associated floodplain forests, and impounded water bodies (ponds, wetlands, reservoirs)…" along with "canopies of upland forests, clearings with early successional vegetation, borders of croplands, along wooded fence rows, and over farm ponds in pastures". The USFWS also state that "while Indiana bats appear to forage in a wide variety of habitats, they seem to tend to stay close to tree cover" and that "Indiana bats may fly up to 2-5 miles from upland roosts" to forage and/or locate new roost sites.

According to the USFWS, suitable, potential Northern Long-eared bat summer habitats are characterized as forested communities that possess live and dead trees with "loose bark, cavities or crevices" as well as within "...cooler places like caves and mines". These bats have also been reported to be found roosting in "structures like barns and sheds". Northern Long-eared bats are known to roost independently or within colonies. Wintering habitat for the Northern Long-eared bat is defined as being within "caves and mines" that possess "large passages and entrances; constant temperatures; and high humidity with no air currents". Potential foraging habitat for the Northern Long-eared bat is defined as "…understory of forested hillsides and ridges".

During the assessment, NCES identified forested communities that are suitable for use by both Indiana and Northern Long-eared Bats. Numerous trees were identified throughout the entire property that exhibited the characteristics of suitable roosting trees. All potential roost trees identified were subsequently GPS located and a map showing the spatial distribution of the potential roost trees was generated by Pietrzak and Pfau. A copy of this map is provided in the Existing Conditions Plan (see Site Plan drawings). The species and dbh of each and every potential roost tree was also recorded and is defined on the mapping provided.

Based on the consultation with the NHO and USFWS, no known bat hibernacula are located on the Site. During the assessment, no caves, mines, or other man-made structures were found within the property boundaries that could be construed as potential over-wintering habitat.

Potential foraging habitat for bats was documented on, and immediately adjacent to, the Site. The potential foraging habitat includes the forested uplands, over the open wetland communities, and within the edge habitat that immediately borders the Site. Foraging activity could also occur in the cleared areas located immediately west of the Site, especially during times when insects are abundant. Potential foraging areas consist of a variety of different habitats that are very common throughout the geographic region.

Phase 1 Bog Turtle Habitat Assessment

NCES completed a Phase 1 habitat assessment for potential Bog Turtle habitat following the guidelines presented in Appendix B – *Guidelines for Bog Turtle Surveys* (last revised April 29, 2020) as referenced within the U.S. Fish and Wildlife Services "Bog Turtle Northern Population Recovery Plan" (Klemens, 2001) (the "BTNPRP"). The Phase 1 Bog Turtle Habitat Survey Data Assessment Forms are provided in Appendix E. According to the BTNPRP, suitable habitat for bog turtles includes Palustrine emergent or scrub-shrub wetlands that contain a relatively open canopy, and the following three criteria:

1) Suitable hydrology – characterized as "…Typically spring fed with shallow surface water or saturated soils present year-round…", "interspersed with dry and wet pockets…", "…sub-surface flow", and "…shallow rivulets (less than 4 inches deep) or pseudo rivulets are often present."

2) Suitable soils – characterized as "… a bottom substrate of permanently saturated organic or mineral soils." "These are often soft, mucky-like soils; you will usually sink to your ankles (3-5 inches) or deeper in muck, although in degraded wetlands or summers of dry years this may be limited to areas near spring heads or drainage ditches." "In some portions of the species range, the soft substrate consists of scattered pockets of peat instead of muck."
3) Suitable vegetation – characterized as "dominant vegetation of low grasses and sedges (in emergent wetlands), often with a scrub shrub component." "Common emergent vegetation includes, but is not limited to tussock sedge (*Carex stricta*), soft rush (*Juncus effusus*), rice cut grass (*Leersia oryzoides*), sensitive fern (*Onoclea sensibilis*), tearthumb (*Polygonum spp*.), jewelweed (*Impatiens capensis*), arrowheads (*Sagittaria spp*.), skunk cabbage (*Symplocarpus foetidus*), panic grasses (*Panicum* spp.), other sedges (*Carex spp*.), spike rushes (*Eleocharis spp*.), grass-of-Parnassus (*Parnassia glauca*), shrubby cinquefoil (*Dasiphora fruticosa*), sweet flag (*Acorus calamus*), and in disturbed areas reed canary grass (*Phalaris arundinacea*) and purple loosestrife (*Lythrum salicaria*)." Common scrub-shrub species include alder (*Alnus* spp.), red maple (*Acer rubrum*), willow (*Salix spp*), tamarack (*Larix laricina*), and in disturbed sites, multiflora rose (*Rosa multiflora*). "Some forested wetland habitats are suitable given hydrology, soils, and/or historic land use. These include red maple, tamarack, and cedar swamps."

During the assessment, the on-site wetlands were evaluated for the presence of suitable Bog Turtle habitat. Based on the existing condition of the wetlands reviewed, none of the aquatic ecological communities exhibit the characteristics of suitable Bog Turtle habitat.

The on-site wetlands reviewed do not contain mucky organic soils. The soils present are comprised of firm "mineral" based soils that are not conducive to Bog Turtle inhabitation. Non-organic, clay and gravelly loam soils were found within the wetlands, and these soil types are not conducive to burrowing and thermoregulatory activities by Bog Turtles. When probed with a 1" diameter blunt wooden soil probe, penetration into the soil surface was less than 1 inch. During the assessments, no tunnels, or other channels that would indicate burrowing or sub-surface travel by Bog Turtles were observed.
No calciphytes or other fen indicator species of vegetation were identified. In addition, no groundwater springs, seepages, or shallow surface rivulets were identified. The wetlands appear to be surface water derived, are ponded, and may even be subject to routine flooding during spring thaw or after heavy precipitation events. Bog Turtles do not inhabit open water pond communities.

Copies of the Phase I Bog Turtle Habitat Survey Data Forms, which document the existing conditions of the wetlands (relative to soils, vegetation, and hydrology), are included in Appendix E. Given the complete lack of suitable soils, appropriate hydrophytic vegetation, and groundwater derived hydrology, it was determined that the wetlands found on, and immediately adjacent to (within 300 feet of) the site, do not contain potential/suitable Bog Turtle habitat.

Dwarf Wedge mussel Habitat Assessment

The Dwarf Wedgemussel is listed as an endangered species by both the USFWS and the DEC. The Dwarf Wedgemussel is a species of mollusk that inhabits freshwater areas and it can be found in small creeks and/or large deep rivers (Gabriel 1995). These bivalves are typically located in stable streams/habitats that possess substrates ranging from mixed sand, pebbles, gravel, and or clay (Nedeau, 2006). In New York, Dwarf Wedgemussels live embedded in fine sediments that accumulate between cobbles in slow to moderate current and relatively shallow water (40 cm) in small cool water rivers and similar habitat in larger rivers (Strayer and Jirka 1997). Typical habitat also provides permanent running water, where stream currents/velocities are usually slow to moderate (USFWS, 2004).

The only known, existing, populations of Dwarf Wedgemussels occur in the upper Delaware River in Sullivan and Delaware Counties and one of its major downstream tributaries, the lower Neversink River in Orange County (DEC Fact Sheet, 2011). These populations of Dwarf Wedgemussels were identified in 1990, as a result of an ecological study being undertaken for the Natural Heritage Program (USFWS, 1993). Historically, the Dwarf Wedgemussel was known to inhabit much of the Delaware River Basin (USFWS, 2004).

Based on the information obtained on existing populations and habitat requirements to sustain viable populations, NCES conducted an ecological investigation on the Site to identify potential Dwarf Wedgemussel habitat. As a result of the investigation, no suitable habitats conducive to the existence of Dwarf Wedgemussels were identified. While a tributary is present on the property, the flow regime of the stream is intermittent. The tributary does not flow continuously year-round. As a result, it is unable to support bivalves. In addition, the pond community does not possess the habitat structure that is required for Dwarf Wedgemussels. As a result, no aquatic habitats conducive to the existence of Dwarf Wedgemussels is found on, or immediately adjacent to, the site.

Small Whorled Pogonia Assessment

Small whorled pogonia is a perennial wildflower that possesses 1 or 2 yellowish flowers found on a stem that rises above a whorl of 5 or 6 green leaves (Niering and Olmstead, 1979). This plant is a member of the Orchid family (Britton and Brown, 1970). Small whorled pogonia grows to a height of only 4 to 10 inches (Niering and Olmstead, 1979). Small whorled pogonia is typically found in moist woods and flowers in May-July (Newcomb, 1977). While this plant typically blooms in mid-June (Britton and Brown, 1970), the plant possesses a seed stalk and capsule, which are identifiable until seed dispersal, which typically occurs in mid-October (Mass. ESP, 1993).

During the site assessment, NCES evaluated the site for habitat that could support Small whorled pogonia plants. A review of these wooded areas did not result in the identification of suitable habitat for the species. Based on the conditions observed at the time of the assessments, it does not appear that the Site would contain suitable habitat. The ecological communities present at the property do not present optimal conditions that are conducive to the existence of small whorled pogonia plants.

Other Sensitive Species and Habitats

During the assessments, NCES did not observe any endangered or threatened species on the property. Additionally, NCES did not identify any Species of Special Concern, or otherwise

considered rare, as identified by the *New York Rare Animal and Rare Plant Lists* that have been established by the DEC.

The NYSDEC Natural Program provided a response to an inquiry into their databases regarding rare or state-listed animals or plants, or significant natural communities at the project site (see Appendix B, letter dated January 27, 2023). The Natural Heritage Program indicated their office had "no records of rare or state-listed animals or plants, or significant natural communities at the project site". The NHP indicated "Within four miles of the project site is a documented winter hibernaculum of Northern long-eared bat (*Myotis septentrionalis*, state and federally listed as Threatened). The bats may travel five miles or more from documented locations. The main impact of concern for bats is the removal of potential roost trees. As explained above, the status Northern long-eared bat has recently been upgraded to endangered by the USFWS; however, the main impact of concern would remain the same.

7.2 Potential Impacts of the Proposed Project

The project is designed as a mixed-used commercial development, consisting of a four-story, approximately 407,819 square-foot commercial building and associated parking. Outdoor surface parking, providing 653 spaces to service the commercial developed is proposed. Access into the development will be made via two driveways to be constructed from Nininger Road to the proposed building and parking. Lastly, the development will also entail the construction of required storm water management features and the installation of all utilities.

As currently designed, the commercial building and associated attendant features have been "clustered" to the greatest extent practicable, thus limiting the overall footprint of the development. The project will result in the clearing and grading of a total of 17.7 acres, on both the Monroe and Woodbury parcels with a total area of 30.5 acres or 58 percent of the entire site. By clustering the development, the remaining portions of the Site (12.8± acres or 42%) will remain undisturbed.

The proposed development has also been designed to avoid the on-site aquatic resources as much as possible. However, complete avoidance of the aquatic resources was infeasible, as the wetland area extends through the entire parcel, thus essentially bisecting the Site. In order to access all developable components of the property, crossing the wetlands was required. Based on the site plan, a total of 0.49± acres of permanent impact to the on-site wetlands are proposed by the project. The project will include grading and planting for the creation of 0.9 acres of wetland mitigation area, as shown on the Wetland Mitigation Plan, provided in the Site Plan drawings.

The overall Project Area and the extent of the permanent and temporary impacts to the existing ecological communities are shown on the drawing prepared by Pietrzak and Pfau that is titled Grading Plan (Sheets 11 to 13) provided in the Site Plan set (attached as Appendix M). The Grading Plan provides a limits of disturbance line and essentially all vegetation within the disturbance limits line will be removed. Vegetation outside of the disturbance line will be preserved, including in the wetland area in the southwest portion of the site and in the wooded hillside in the northeast portion of the site. The *Existing Tree Survey* drawing shows the limits of disturbance and provides a list of those trees to be removed and trees to be preserved (see attached).

The proposed development will alter the wetland buffer around the existing pond and the stormwater drainage that reaches the pond through overland flow, as well as shallow groundwater recharge. As described below, a Wetland Mitigation Plan is proposed to enhance the wetland edge vegetation and habitat. Stormwater from developed portions of the site will continue to

discharge to the pond wetland area through shallow groundwater flow from stormwater infiltration structures and overflow from the two infiltration basins to the east and northwest of the pond wetlands. Post-development stormwater flow to the wetland pond is further discussed in Section 5.0 Wetlands and Surface Water Resources.

The on-site wetlands and wetland vegetation will be altered by the development, including the buffer. A proposed Wetland Mitigation Plan is proposed that will include extensive planting in the buffer area surrounding the existing pond. A cumulative total of 780 shrubs and 200 trees are proposed to be planted in the Wetland Mitigation area as well as native grasses. The wetland mitigation area will provide the functions of the existing wetland including, flood attenuation, sediment stabilization, nutrient removal, groundwater recharge, and wildlife habitat for birds, small mammals and the amphibians that currently utilize the area. As part of the wetland mitigation planting, any invasive species encountered in the wetland mitigation area will be removed from the site. Routine follow-up inspections of the Wetland Mitigation area are required to ensure the health and vitality of the planted material. During those inspections, any invasive species encountered will be removed. Accordingly, there is not expected to be a significant adverse impact.

The impacts to the existing ecological communities will result in the displacement of nearly all indigenous fauna. With the development proposed, nearly the entire Site will be transformed from undeveloped forested land to impervious surface associated with the commercial building and/or asphalt parking areas. With the exception of the open water pond community and areas of abutting Palustrine wetland, all other habitats found within the Site will be largely eliminated. The elimination of these habitats will prohibit the continued usage of the Site by the majority of the indigenous species of fauna that were documented on the property. The remaining habitat in the southeast portion of the site will be changed to a lower quality suburban habitat, adjoining the development. This area of the site adjoins the Village of Kriyas Joel Sanitation facility, which currently supports large trucks entering and leaving that property. Vehicle noise and light from the parking areas and building may disrupt nocturnal fauna on nearby properties, although many of the mammal and bird species currently on or near the site have adapted to human presence , including noise and light from nearby NY Route 17 and residential development to the southeast.

Wildlife that currently inhabit or utilize the site will be required to relocate to adjacent, undeveloped forested uplands that are located to the north and south of the property. Nininger Road and the four-lane NY Route 17 highway separates the site from undeveloped wooded land to the south. Existing fauna will be unable to relocate to lands to the northwest (within the Village of Kiryas Joel), as these lands have been recently cleared and are currently being developed. Existing residential and commercial development is found on lands to the east.

The development will also result in the likely elimination of breeding habitat for the species of amphibians documented on the property. While the pond community will remain, the development will prohibit amphibian movement between the pond and adjacent critical upland habitat required for amphibians outside of the breeding season. The wetland / pond community impacts and the proposed wetland mitigation is further described in Section 5.0 Wetlands and Surface Water. It is anticipated that on-site wetland conditions and the related wetland fauna will continue to be supported by a combination of groundwater flow and subsurface contribution from proposed subsurface stormwater treatment practices (see Sections 5.0 Surface Water and Wetlands and Section 6.0 Groundwater Resources).

The proposed development will also result in habitat fragmentation and the disruption of natural wildlife movement, as it is positioned between the last remaining undeveloped forested upland

habitats found in the immediate vicinity. The development will prevent the movement of larger fauna, such as White-tailed Deer, between these habitats.

The development will also result in the loss of habitat that has been identified as potentially suitable for two state and federally listed species; the Indiana Bat and the Northern Long-eared Bat. The Northern Long-eared Bat was recently upgraded to endangered by the USFWS. A total of 17.2± acres of forested land that provides both potential roosting and foraging habitat for Indiana and Northern Long-eared bats will be eliminated. This includes approximately 14.9 acres in the Town of Monroe and 2.5 acres of woods in the Village of Woodbury.

The proposed development includes a *Landscape Plan* that will include the planting of native and ornamental deciduous and evergreen trees and shrubs, grasses and perennial plants. The *Landscape Plan* (sheets 26-28) is included in the Site Plan set (attached as Appendix M). The *Landscape Plan* provides tables of the trees to be removed and the trees to be planted, as well as a schedule of other shrub and perennial plantings. Extensive planting will be provided at the proposed building entrances, at the south side of the building, in addition to the landscaping in and at the edges of the parking lot. The proposed project landscaping will provide food and cover for local and transient bird species.

The Wetland Mitigation Plan provides a robust area of wetland planting and enhancement, that over time will improve the existing wetland area and functions. A cumulative total of 780 shrubs and 200 trees are proposed to be planted in the Wetland Mitigation area as well as native grasses. The wetland mitigation area will provide the functions of the existing wetland including, flood attenuation, sediment stabilization, nutrient removal, groundwater recharge, and wildlife habitat for birds, small mammals and the amphibians that currently utilize the area.

7.3 Mitigation Measures

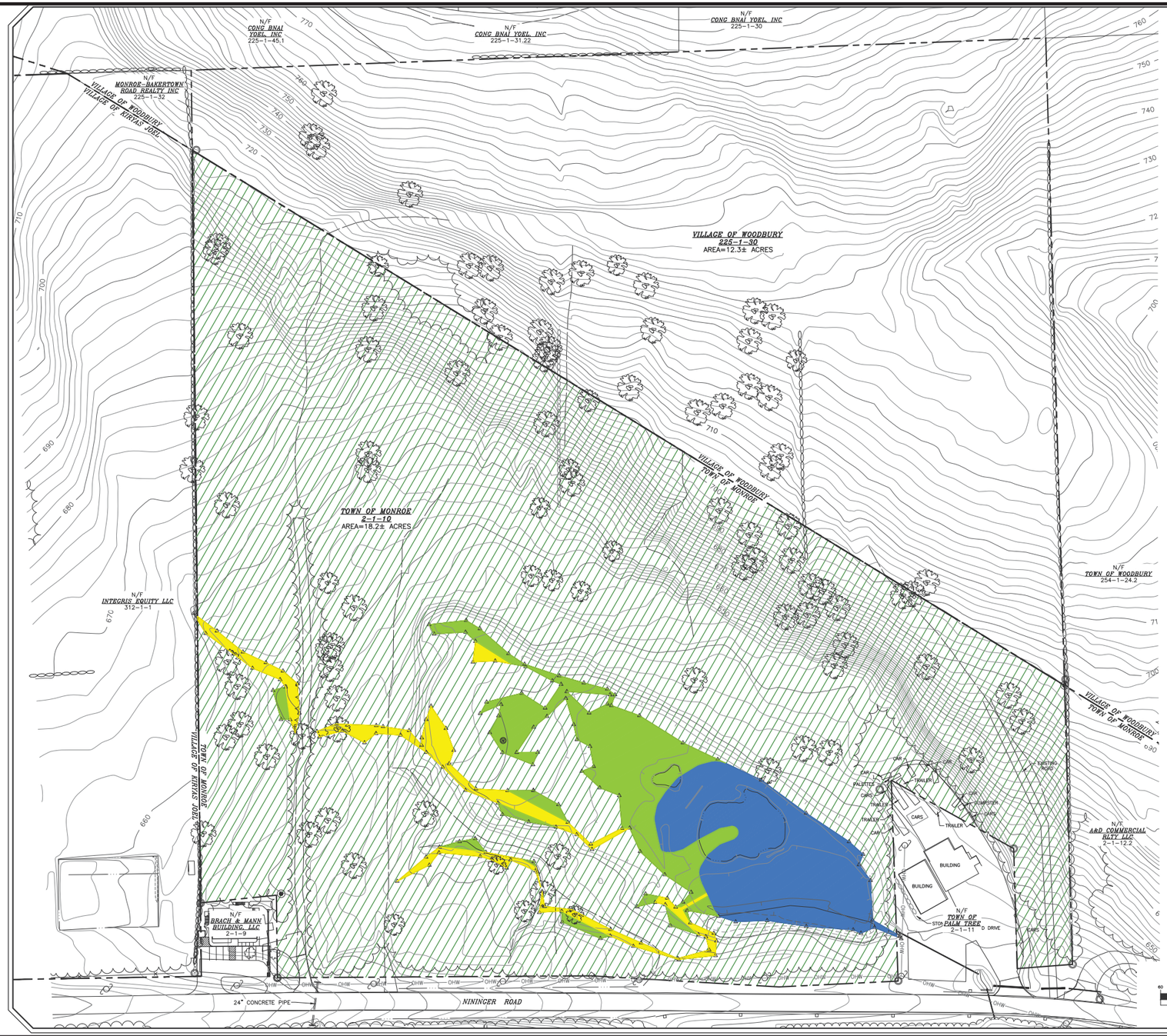
To eliminate the potential for direct harm to listed bat species, the Applicant is willing to comply with the time-of-year restrictions relative to the clearing of forested habitats on the Site. As is standard DEC and USFWS directive when potential summer roosting habitat for listed bats is present, a time-of-year restriction would likely be required to be implemented by the regulatory agencies, whereas any tree clearing activities would be restricted to occur between October 1 and March 31 of any given year. This is the duration of the year when bats are not located within summer habitats, and therefore, would not be subject to direct impact by the removal of trees.

By felling trees during winter months, protected bat species are not present (they are confined to overwintering hibernacula's) and thus cannot be impacted by tree clearing activities. As a result, direct harm to individual bats is eliminated and a separate Article 11 incidental take permit is not required. In complying with the time-of-year restriction, it has been determined that direct impact to both *Indiana* and *Northern Long-eared Bats* would likely be avoided and no further mitigative measures or coordination with the regulatory agencies are required.

As currently designed, the commercial building and associated attendant features have been "clustered" to the greatest extent practicable, thus limiting the overall footprint of the development. The project will result in the clearing and grading of a total of 17.7 acres, on both the Monroe and Woodbury parcels with a total area of 30.5 acres or 58 percent of the entire site. By clustering the development, the remaining portions of the Site (12.8± acres or 42%) will remain undisturbed. The applicant has no plans to develop the adjoining property in the Town of Woodbury.

The proposed development includes a *Landscape Plan* that will include the planting of native and ornamental deciduous and evergreen trees and shrubs, grasses, and perennial plants. The *Landscape Plan* (sheets 26-28) is included in the Site Plan set (attached as Appendix M). The *Landscape Plan* provides tables of the trees to be removed and the trees to be planted, as well as a schedule of other plantings. Extensive planting will be provided at the proposed building entrances, at the south side of the building, in addition to the landscaping in and at the edges of the parking lot. The proposed project landscaping will provide food and cover for local and transient bird species.

The Wetland Mitigation Plan provides a robust area of wetland planting and enhancement, that over time will improve the existing wetland area and functions. A cumulative total of 780 shrubs and 200 trees are proposed to be planted in the Wetland Mitigation area as well as native grasses. The wetland mitigation area will provide the functions of the existing wetland including, flood attenuation, sediment stabilization, nutrient removal, groundwater recharge, and wildlife habitat for birds, small mammals and the amphibians that currently utilize the area. As part of the wetland mitigation planting, any invasive species encountered in the wetland mitigation area will be removed from the site. Routine follow-up inspections of the Wetland Mitigation area are required to ensure the health and vitality of the planted material. During those inspections, any invasive species encountered will be removed.



LOCATION MAP
SCALE: 1"=1,000'

LEGEND

- PALUSTRINE FORESTED WETLAND
- PALUSTRINE EMERGENT WETLAND
- OPEN WATER POND
- SUCCESSIONAL SOUTHERN HARDWOOD FOREST

EXISTING ECOLOGICAL COMMUNITIES TABLE

COMMUNITY TYPE	AREA (ACRES)	PERCENTAGE OF PARCEL (%)
PALUSTRINE FORESTED WETLAND	0.76 ±	4.2%
PALUSTRINE EMERGENT WETLAND	0.32 ±	1.8%
OPEN WATER POND	0.91 ±	5.0%
SUCCESSIONAL SOUTHERN HARDWOOD FOREST	16.21 ±	89.1%
TOTALS	18.2 ±	100.0%

GRAPHIC SCALE
60 0 30 60 120 240
(IN FEET)
1 inch = 60 ft.

DATE	DESCRIPTION	INITALS
2-10-23	PER TMA & NCES COMMENTS	MWS
3-25-21	ORIGINAL PREPARATION DATE	CJP
	REVISIONS	
MAP CHECK DATE: 00/00/00	INITIALED BY: _ _	

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N.Y.P.L.S. LICENSE NO. 35396

SIGNATURE DATE

MONROE COMMONS COMMERCIAL SITE PLAN

TOWN OF MONROE – SECTION 2, BLOCK 1, LOT 10
VILLAGE OF WOODBURY – SECTION 225, BLOCK 1, LOT 30
COUNTY OF ORANGE, NEW YORK

PROJECT TITLE

EXISTING ECOLOGICAL COMMUNITIES MAP

DRAWING TITLE

O.C.H.D. SHEET NO.	D.E.C. SHEET NO.	DRAWING NUMBER
N/A. OF N/A.	N/A. OF N/A.	1 OF 1
SCALE 1"=60'	CAD REFERENCE NEW FOOTPRINT	PROJECT NUMBER 98170.01

Figure 7-1: Existing Ecological Communities Map
Monroe Commons
Town of Monroe, Orange County, New York
Source: Pietrzak & Pfau Enginnering and Surveying, PLLC

File 19055
Figure 7-1 02-21-2023

8.0 STORMWATER MANAGEMENT

The following discussion of the Monroe Commons project site existing stormwater conditions and the plan for post-development stormwater management is summarized from the Stormwater Pollution Prevention Plan (SWPPP) prepared for the project. The SWPPP was prepared by the project engineer, Pietrzak & Pfau Engineering and Surveying, PLLC. The SWPPP narrative report is provided as Appendix F of this DEIS. The full SWPPP including the calculations, hydraulic models and other documentation is provided in the electronic version of this DEIS. The cover page of this document provides a link to view or download the full SWPPP.

8.1 Existing Conditions

The Monroe Commons project is located on the Northeast side of Nininger Road (County Road 64), approximately 3,000 feet south of the Nininger Road - County Road 105 intersection. The project consists of two existing parcels of land located in the Town of Monroe and Village of Woodbury. The total site area of the project is approximately 30.5± acres.

The project parcels are currently undeveloped vacant land and contain a mixture of wooded areas and federally regulated wetlands, including a standing water pond located in the southern corner of the project site. The site contains a number of existing dirt roads or paths, existing gravel access drives, and an existing gravel parking area encroaching from an adjoining lot owner. Based on a review of the FIRM map panel 36071C0484E, there are no floodplains located on the project site.

The project proposal includes the construction of a four (4) story commercial building with a footprint of 86,287± square feet, which will contain a mix of uses including retail, offices, and a hotel. The project will gain access from two (2) proposed access points off of Nininger Road. The interior layout of the project will include a looping road which will provide access to the first, second, and third floors of the building, as well as ten (10) parking areas containing 624 parking spaces, a bus and taxi drop off area, and an area of truck loading docks. An area of 29 banked parking spaces has been provided for future construction if they are determined to be needed.

All of the proposed project improvements are located within the Town of Monroe, with the exception of approximately 2.5± acres of clearing and grading being located on the Village of Woodbury parcel to allow for the construction of the proposed project. Both the Town of Monroe and the Village of Woodbury are Regulated, Traditional, Land Use Control MS4s and are required to review and approve this SWPPP. All of the stormwater runoff flows from the Village of Woodbury into the Town of Monroe and to the Town of Monroe Municipal Separate Storm Sewer System (MS4) infrastructure.

Due to the size and scope of the proposed project and the required land grading to accomplish the construction, a waiver from the maximum five (5) acre disturbance limit is being requested during the earthwork portion of the project.

Topography on the two project parcels consists of slopes in the 0% to 10% range (37% of site), 10% to 15% (20% of site) and 15% or greater range (43% of site).

The soils located within the studied drainage basins have been identified in accordance with the United States Department of Agriculture, Natural Resources Conservation Service National Cooperative Soil Survey. The site consists of soils from Hydrologic Soil Groups A and D. The soils located in this area are Erie gravelly silt loam, Mardin gravelly silt loam, and Udorthents, smoothed.

The first design point defined to analyze the stormwater peak flow run-off of the Monroe Commons Commercial Site Plan project is identified in the HydroCAD model as Pond 1P. This design point is defined as inlet of an existing culvert and concrete headwall located in front of the adjoining parcel N/F Town of Palm Tree, Town of Monroe Section 2, Block 1, Lot 11. This culvert runs under Nininger Road, and outlets to a federally regulated freshwater emergent wetland. The stormwater then flows through existing streams and stormwater infrastructure, and is ultimately tributary to the Upper Ramapo River, New York State Water Index No. NJ-12.

The second design point defined to analyze the stormwater peak flow run-off is identified in the HydroCAD model as Pond 2P. This design point is the low point located along the southeastern property line of the Woodbury parcel. The stormwater from this design point flows over land, through existing stormwater infrastructure and existing streams, and is ultimately tributary to the Upper Ramapo River, New York State Water Index No. NJ-12. No change occurs at this design point due to the construction of the proposed project.

In modeling the existing site for the drainage analysis, the drainage area was taken to consist of two (2) separate drainage basins, each tributary to the previously defined design points (see Figure 8-1). The first existing drainage basin, identified in the HydroCAD Output as Subcatchment 1S, includes approximately 37.65± acres of on-site and off-site land located in the Town of Monroe and Village of Woodbury. This area is made up of approximately 1.77 acres of onsite and offsite impervious surfaces, 0.44 acres of surface water, 0.49 acres of dirt roads on Hydrologic Soils Groups A and D, 33.70 acres of woods in good condition on Hydrologic Soils Groups A and D, and 1.25 acres of grass cover in good condition on Hydrologic Soils Groups A and D. This area is tributary to Design Point 1 (see Figure 8-1).

The second existing drainage basin, identified in the HydroCAD Output as Subcatchment 2S, includes approximately 5.69± acres of on-site and off-site land located entirely in the Village of Woodbury. This area is made up of approximately 0.08 acres of dirt roads on Hydrologic Soils Group D, 5.61 acres of woods in good condition on Hydrologic Soils Group D. This area is tributary to Design Point 2 (see Figure 8-1).

Pre-development peak flows for the 1, 10 and 100 year storm events have been estimated for Design Point 1 (Pond 1P), as follows:

1-Year: 7.84 cfs
10-Year: 46.69 cfs
100-year: 138.83 cfs

The above Pre-development peak flows were estimated using the HydoCAD model, and the worksheets for the model and calculations are provided as attachments to the SWPPP (see Appendix F). The site is currently undeveloped and stable as it relates to stormwater runoff and surface conditions. Made up primarily of existing woodlands, existing stormwater runoff quality in general is good. Occasionally during large storm events there is an input of silt laden runoff from a development site to the west of the property, which seems to be captured by the existing site wetland before it leaves the Monroe Commons site.

Existing stormwater quality was established through surface water sampling conducted on January 21, 2023. Surface water sampling is further described in Section 5.0 Wetlands and Surface Water Resources. Samples were collected in an intermittent stream tributary to the on-site wetland pond and two samples collected in the wetland pond. The sampling indicated that surface water quality in the intermittent stream and in the pond is consistent with the NYSDEC

and NYCDEP water quality guidance standards for Watershed streams[1]. (see Section 5.0 for further discussion).

8.2 Potential Impacts of the Proposed Project

The existing site and adjacent areas that drain through the site include 1.77 acres of impervious surfaces; the proposed development would increase this area by 10.65 acres, for a total of 12.42 acres.

A Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the site development, and includes a drainage study as well as a maintenance program to inspect, repair, and clean out proposed stormwater management facilities on an ongoing basis. The post-development site watersheds have been divided into 10 subcatchments as described in the SWPPP (see Figure 8-2).

The stormwater water quality and runoff reduction for this project has been designed in accordance with the New York State Department of Environmental Conservation Stormwater Management Design Manual (SMDM) of January 2015. The five-step planning process outlined in the SMDM has been incorporated in the design of this project. These five steps include:

1. Site planning to preserve natural features and reduce impervious cover.
2. Calculation of the Water Quality Volume for the site.
3. Incorporation of Runoff Reduction Techniques and Standard SMPs with Runoff Reduction Volume (RRv) capacity.
4. Use of Standard SMPs, where applicable, to treat the portion of Water Quality Volume not addressed by runoff reduction techniques and Standard SMPs with RRv capacity.
5. Design of volume and peak rate control practices where required.

Step one of the planning process includes the preservation of natural features and reduction of impervious covers. This goal has been accomplished by revising the project layout to maintain the natural wooded area in the southeast portion of the Town of Monroe parcel. The project proposes to reduce the provided parking to the anticipated parking needs of the project uses with a Planning Board waiver of 40 percent of the required parking, and banking an additional 29 spaces for future construction, if required. The majority of the project improvements are located in uplands, maintaining the large pocket of Federally Regulated wetlands located in the southern corner of the Town of Monroe parcel. A federal wetland disturbance of 0.49 acres is proposed to be mitigated by expanding the preserved larger pocket of federally regulated wetlands with a 1 to 1.8 disturbance to mitigation ratio.

Step two of the planning process is to calculate the Water Quality Volume (WQv) required for the project site using the criteria in Chapter 4 of the Stormwater Management Design Manual (SMDM). The required Water Quality Volume calculated for this project is 1.239 acre-feet.

Step three of the process involves Runoff Reduction by incorporating the Runoff Reduction Techniques and Standard SMPs with RRv capacity outlined in the SMDM. The goal of this step is to reduce the total required Water Quality Volume (WQv) by applying the RRv techniques and standard SMPs with RRv capacity to the project design. The minimum required Runoff Reduction

[1] Evaluation of Water Quality Standards in Watershed Streams Using the Protocols of the DEC/DEP MOU, Addendum E, New York City Water Supply Report for 2012, NYC Bureau of Water Supply Watershed Water Quality Science & Research.

Volume is based on the Specified Reduction Factor (S) of the existing soil types located on the project site using the criteria in Chapter 4 of the design manual. The minimum RRv is only used if the entire WQv can not be reduced and justification of this is provided. The minimum RRv calculated for this project is 0.327 acre-feet.

The Incorporation of Runoff Reduction Techniques by way of two (2) Standard SMPs with Runoff Reduction Volume (RRv) capacity, underground infiltration units, have been utilized to provide the appropriate Runoff Reduction of the required Water Quality Volume for this project. Post-development runoff rates are provided in Section 8.3 Mitigation Measures, below.

In utilizing the underground infiltration units consisting of ADS StormTech MC-4500 Chambers, the proposed storm water runoff from the Water Quality Storm will be infiltrated into the stone bedding and soil of the project site. A large portion of the Town of Monroe parcel consists of the soil type Udorthents, which is deemed to be in Hydrologic Soils Group (HSG) A by the United States Department of Agriculture Natural Resources Conservation Service Soils Report. Soil in the HSG A group is ideal for infiltration practices. A Geotechnical Investigation of the onsite soils was conducted by Kevin L. Patton, P.E. in January and February 2023. A Geotechnical Investigation Report dated March 31, 2023 is provided in Appendix D of the DEIS and Appendix 11 of the SWPPP. This report identified two (2) locations on the project site that provided acceptable infiltration rates and no boundary conditions within 3 feet of the bottom of the two proposed facilities, in accordance with Section 6.3.1 of the SMDM.

Each of the two (2) proposed underground infiltration systems is to consist of StormTech MC-4500 Chambers. The chambers are to be set on a flat bed of clean, crushed, angular stone with 40 percent voids and a minimum thickness of 9 inches which extends 12 inches around the entire perimeter of the system. The chambers are to be set with a typical separation of 9 inches between rows. The embedment and perimeter stone is to be clean, crushed, angular stone, with 40 percent voids, placed and compacted in 9 inch lifts. The perimeter stone is to cover the chambers a minimum of 12 inches for all systems. Each system is to be provided with an appropriate practice to provide the required pretreatment volume, protecting the infiltration capacity of the overall system. The two proposed infiltration systems are as follows:

StormTech MC-4500 Chamber #3P1: 198 total chambers with 12 end caps arranged in 6 rows of 33 chambers. The stone bedding will have an area of 7,799+/- square feet and be set at an invert elevation of 642.00 feet. The soils investigation for this infiltration area demonstrated infiltration rates of 20 and 22 inches per hour, and a high groundwater mark of 639'. Due to the high infiltration rate of this soil, 100% of the required WQv is to be provided for pretreatment. As additional soils testing around this infiltration area showed high seasonal groundwater, and project space constraints, a NJCAT verified proprietary practice has been selected to provide the pretreatment for this infiltration unit. An ADS Barracuda Max Model S8 Hydrodynamic Separator with a design flow rate of 5.84 cfs will provide the infiltration unit with the required stormwater pretreatment.

StormTech MC-4500 Chamber #4P: 200 total chambers with 10 end caps arranged in 5 rows of 40 chambers. The stone bedding will have an area of 7,806+/- square feet and be set at an invert elevation of 638.00 feet. The soils investigation for this infiltration area demonstrated infiltration rates of 22 and 23 inches per hour, and a high groundwater mark of 633.7'. Due to the high infiltration rate of this soil, 100% of the required WQv is to be provided for pretreatment. Two of the infiltration unit rows are to be designated as isolator rows, utilizing 80 chambers for pretreatment volume.

The infiltration of this stormwater will provide a Runoff Reduction (RRv) of the Water Quality Volume (WQv) as follows:

StormTech MC-4500 Chamber #3P1 = 0.739 acre-feet
StormTech MC-4500 Chamber #4P = 0.747 acre-feet

The proposed infiltration chamber units provide a total Runoff Reduction Volume (RRv) of 1.486 acre-feet, exceeding the required Water Quality Volume (WQv) of 1.234 acre-feet. Therefore, step four of the planning process is not required.

However, a portion of the project's proposed impervious surface is not tributary to the two proposed infiltration chambers and will require water quality treatment prior to being released into the existing federal wetlands. Two NJCAT verified proprietary practices have been proposed to treat this stormwater in light of site conditions.

An ADS Barracuda Max Model S3 Hydrodynamic Separator with a design flow rate of 0.82 cfs (50% of the Water Quality Flow Rate) is proposed to be utilized as a stormwater pretreatment device. The stormwater is then proposed to flow into an ADS BayFilter Stormwater Treatment System with a Water Quality Flow Rate of 1.63 cfs. This filtering practice is to consist of a 10-foot wide by 18-foot-long concrete chamber with seventeen (17) 545 BayFilter Cartridges and an internal bypass for higher flow rates. The combination of these units will protect the existing federal wetland from runoff pollutants. See SWPPP Appendix 15 for proprietary practice verification letters.

Step five of the process involves applying Volume and Peak Rate Control Practices. The majority of the downstream channel protection has been provided within the proposed underground infiltration units, as the entire storm volume tributary to each practice is infiltrated into the underlying soil. To meet the downstream channel protection requirements, the 1-year storm event is routed to the proposed underground ADS LandMax Stormwater Management System, and Dry Detention Ponds 5P and 7P, which will provide the appropriate detention of this storm event to meet the channel protection requirements.

If stormwater management practices and erosion control plans are not included in the development of a project there is significant potential for impacts to onsite and downstream receiving waters and wetlands. With increases in impervious surfaces, stormwater runoff volumes and flow rates also increase. These increases can result in flooding of downstream areas, scouring of existing channels due to the increased rate of flow and eroding of existing infrastructure. Impervious surfaces also contribute to increases in nutrient, sediment and other contaminant loading into receiving streams and wetlands. This may result in degradation of water quality and habitat value.

Erosion from exposed soil surfaces in the watershed under development can contribute silts and sediment loading to waterbodies and streams, altering water chemistry and light penetration, and reduce the capacity of ponds and wetlands areas to store floodwaters in larger storms. When used for roads and parking areas, impervious surfaces may contribute automotive chemicals, metals and salt to receiving waters if not properly captured and treated. The stormwater quantity and quality control measures described below prevent and minimize the potential impacts to stormwater resulting from the development.

8.3 Mitigation Measures

Stormwater Management

Various measures have been incorporated into project plans which are intended to offset potential impacts to surface water resources. These relate specifically to the temporary mitigation practices during construction period and to the constructed project elements as long-term mitigation, incorporated into the following:

1. Stormwater quantity and quality control measures designed in accordance with the *NYS Stormwater Design Manual* so as to appropriately manage stormwater in the built project. These measures are specified in the project-specific Stormwater Management Plan.

2. Erosion control measures appropriate to the proposed construction activities shall be specified in accordance with the *NY Standards and Specifications for Erosion and Sediment Control* so as to minimize erosion during the construction phase.

Runoff Reduction Techniques by way of two (2) Standard SMPs with Runoff Reduction Volume (RRv) capacity, underground infiltration units, have been utilized to provide the appropriate Runoff Reduction of the required Water Quality Volume for this project. The stormwater management practices have been designed in accordance with the requirements of the NYS Stormwater Design Manual and are described above.

One of the goals of the drainage design for this project is to ensure that there are no adverse impacts to downstream areas. To meet this goal, two (2) Standard SMPs with Runoff Reduction Volume (RRv) capacity, underground infiltration units, and two (2) dry detention ponds will be utilized to treat stormwater runoff and provide peak flow attenuation for the affected design point studied for the project. A HydroCAD TR-20 analysis was performed for both the existing and proposed conditions for the Channel Protection (1 year), Overbank Flood (10 year), and Extreme Storm (100 year) storm events to ensure that no adverse impacts will occur to downstream areas.

Each of these stormwater practices have been designed with overflow outlet pipes, set above the peak water elevation of the Channel Protection Storm, which allows the practices to utilize the excess storage in each practice to provide some stormwater attenuation prior to releasing the Overbank Flood and Extreme Storm events.

These ponds have been designed with 4 horizontal to 1 vertical (4:1) interior side slopes and a 10’ wide top berm. Proposed outlet control structures will be provided in each pond which will provide stormwater attenuation of the Overbank Flood and Extreme Storm events prior to releasing the stormwater to Design Point 1. Each basin has been designed to include one (1) emergency overflow consisting of a 20-foot-wide weir in the downhill berm of the basin.

As can be seen in the following tables, the proposed peak flow runoff from the project site has been mitigated to ensure that no adverse impacts will occur at the design points studied due to the proposed project’s construction.

Design Point 1 (Pond 1P)				
Storm Event	Pre-Developed Peak Flow (cfs) Q out	Post-Developed Peak Flow (cfs) Q out	Change (cfs)	Change (%)
1 Year	7.84	6.60	-1.24	-15.82
10 Year	46.69	36.47	-10.22	21.89
100 Year	138.83	137.62	-1.21	-0.87

Design Point 2 (Pond 2P)				
Storm Event	Pre-Developed Peak Flow (cfs) Q out	Post-Developed Peak Flow (cfs) Q out	Change (cfs)	Change (%)
1 Year	4.07	4.07	0.00	0.00
10 Year	13.14	13.14	0.00	0.00
100 Year	30.99	30.99	0.00	0.00

Sedimentation and Erosion Control

Full pollution prevention measures are to be implemented and maintained throughout the construction of the project to minimize the discharge of pollutants and prevent a violation of the water quality standards.

Structural sediment and erosion control features include: the construction of temporary swales, earthen dikes and use of temporary sediment basins for control of stormwater. Temporary construction accesses will be provided, and a sequencing plan that includes the use of silt fence, inlet protection, temporary soil stockpiles and other practices is described in the SWPPP. At the conclusion of construction, the sediment basins will be cleaned and all sediment will be properly disposed.

The discharge of pollutants is to be minimized from equipment and vehicle washing, wheel wash water, and other wash waters that use clean water only, by ensuring that the wash water runoff enters the designed sedimentation traps via the temporary swales and drainage system utilized in the erosion and sediment control design. Soaps, detergents, and solvents may not be used.

The exposure of building materials, building products, construction wastes, landscape materials, fertilizers, pesticides, herbicides, detergents, hazardous and toxic wastes, and other material present onsite during construction is to be minimized from precipitation and stormwater runoff. Trash is to be collected and the site maintained through the construction of the project. Sanitary waste is to be controlled via the provision of portable restrooms.

Following development, the entire site will in essence be an impervious surface. To help protect groundwater quality and recharge, the underground infiltration system described above will be used to effectively discharge all runoff up to and in excess of the water quality volume (WQv) into the ground. Flows in excess of this volume will be detained within the system to reduce the offsite flow rate and then be discharged to the same design points as pre-development. These runoff volumes from the higher intensity storms will be pre-treated and therefore flow offsite as clean surface runoff.

Stormwater drainage from the site during construction will be strictly managed to avoid off-site impacts. A key aspect in the maintenance of stormwater quality and the control of soil erosion is

the proper sequencing of construction. All structural sediment and erosion control features will be installed prior to the commencement of grading and earthwork.

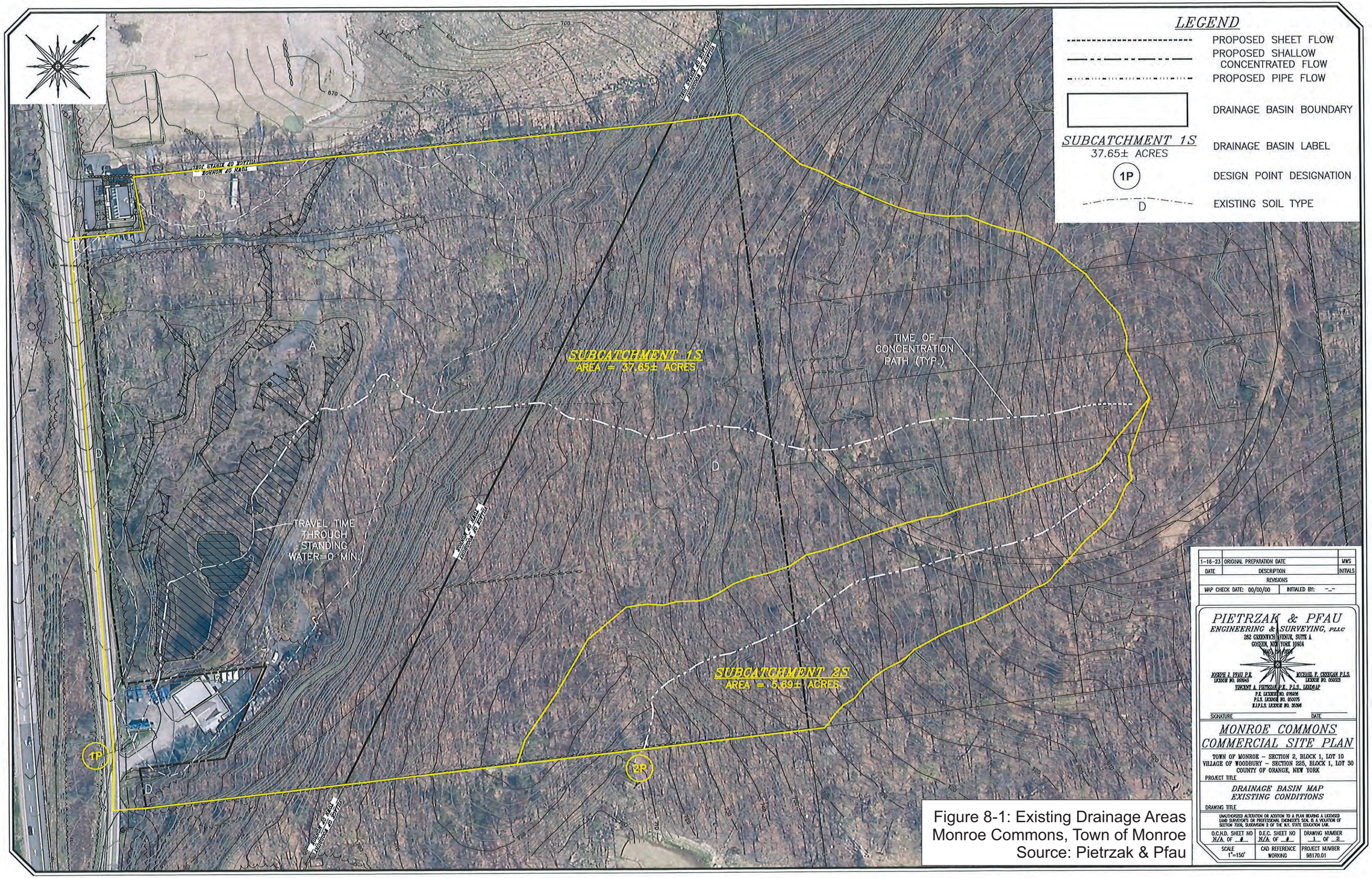


Figure 8-1: Existing Drainage Areas
Monroe Commons, Town of Monroe
Source: Pietrzak & Pfau

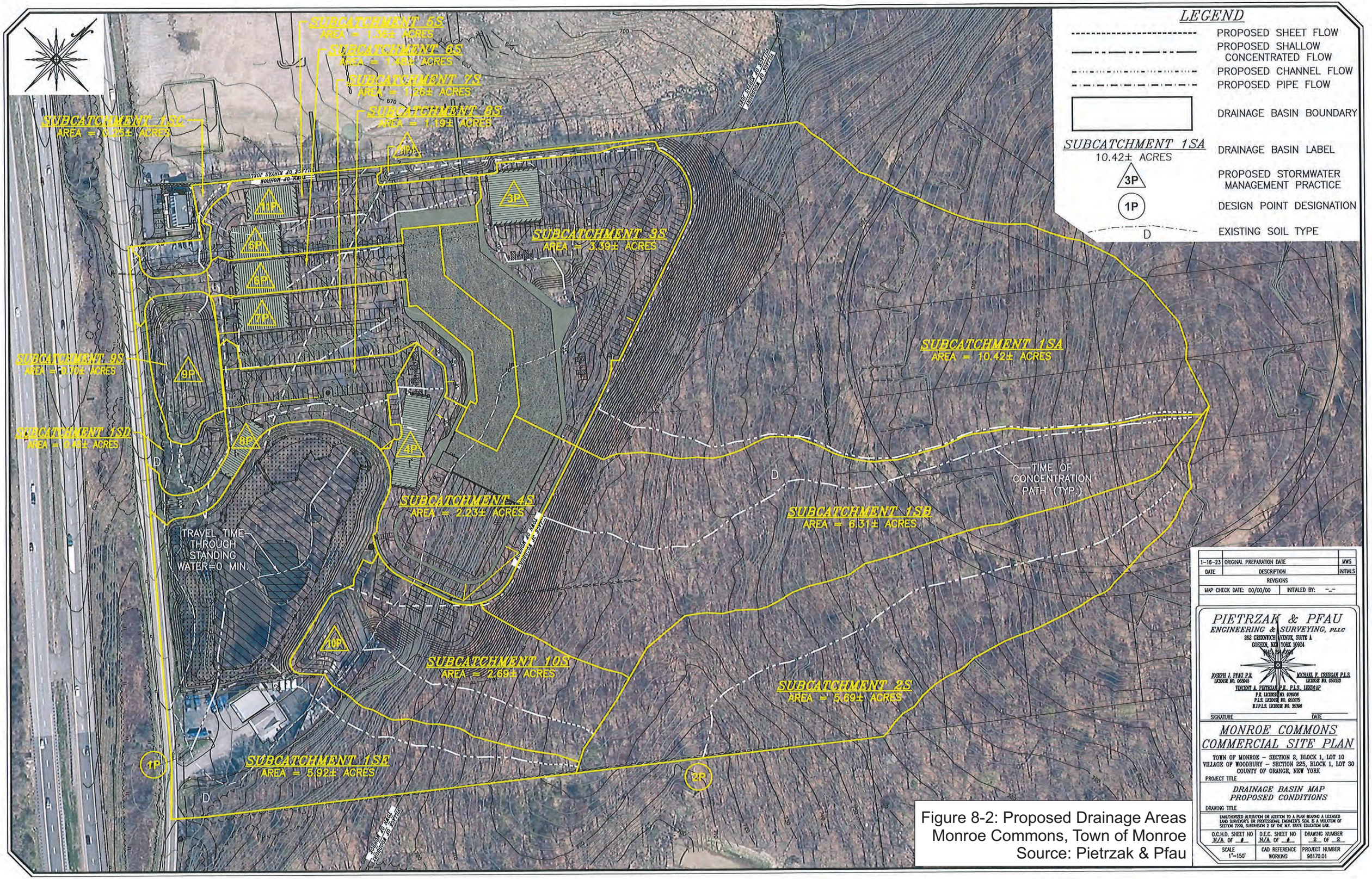


Figure 8-2: Proposed Drainage Areas
Monroe Commons, Town of Monroe
Source: Pietrzak & Pfau

9.0 Traffic and Transportation

9.1 Existing Conditions

A draft Traffic Impact Study (located in Appendix G of this DEIS) was prepared by Creighton Manning Engineering, dated November 3, 2022. This report summarizes the results of a Traffic Impact Study for the proposed Monroe Commons development located on Nininger Road in the Town of Monroe, Orange County, New York. As has been described in the Project Description, the Project site has frontage and access to a single road, Nininger Road also known as County Route 64. The project site is shown on Figures 2-1 and 2-2.

The Traffic Impact Study was prepared to discuss existing traffic conditions; to evaluate intersections where the level of service with respect to traffic may be impacted by the proposed project; and to identify an appropriate program of recommended improvements to achieve acceptable operating conditions along Nininger Road and intersections potentially affected by the project. The Scope for Traffic Impact Study including the intersections and the "No-Build" projects evaluated in the study were developed in consultation with the Lead Agency's traffic consultant. The Traffic Impact Study was completed according to the approved Scoping Document (see Appendix A).

Study Area and Methodology

The potential traffic impact of the proposed project was determined by documenting existing traffic conditions in the area, projecting future traffic volumes, including the peak hour trip generation of the project site, and determining operating conditions of the study area intersections after development of the proposed project. The peak hours studied to determine traffic impacts included the weekday morning peak period from 7:00 to 9:00 a.m., the weekday afternoon peak period from 4:00 to 6:00 p.m., and the Sunday peak period from 12:00 to 2:00 p.m. This evaluation assesses the potential traffic and transportation impacts from traffic generated by the completion of the project and includes key elements required for preparing a transportation impact study as outlined in the T*ransportation Impact Analysis for Site Development*[1] and the *Highway Design Manual*[2] which incorporate the methodology provided in the Highway Capacity Manual[3].

Study Area Roadways

CR 64 (Nininger Road) – CR 64 is a county road extending in a general east-west direction parallel to NY Route 17, between CR 105 in Kiryas Joel and NY Route 32 in Woodbury. CR 64 is classified as a "local urban" road by NYSDOT and provides 10-foot travel lanes (one in each direction) with one to 4-foot wide shoulders. There are no existing sidewalks or bike lanes so pedestrians and bicyclists must use the shoulder of the road. The posted speed limit varies from 40 mph at the east and west ends of the road to 55 mph in the middle. Land uses along CR 64 are mostly residential but include educational (Monroe-Woodbury Middle and High School), minor commercial, and governmental (NYS Police). The project site in relation to nearby roads is shown in Figure 9-1

[1] Transportation Impact Analysis for Site Development. Washington, D.C.: Institute of Transportation Engineers, 2005.
[2] Highway Design Manual. Albany, NY: New York State Department of Transportation, 2005.
[3] HCM 6th Edition: Highway Capacity Manual. Washington, D.C.: Transportation Research Board.

Study Area Intersections

The intersections studied in the Traffic Impact Study are shown in Figure 9-1 and are listed below.

1. CR 105 (Bakertown Road)Austra Parkway – This is a four-leg intersection operating under signal control. The eastbound Bakertown Road approach provides a shared left/through and exclusive right turn lanes, while the westbound leg of *Veyoel Moshe Gardens (VMG)* provides an exclusive left turn lane and a shared through/right lane.

2. CR 105 (Bakertown Road)/CR 64 (Nininger Road) – This is a three-leg, intersection operating under multi-phase, actuated signal control.

3. CR 105 (Bakertown Road)/Freeland Street/Spring Street – This is a four-leg, intersection operating under multi-phase, actuated signal control.

4. CR 64 (Nininger Road)/CR 95 (Dunderberg Road) – This is a three-leg intersection operating under actuated signal control. There are separate left and right-turn lanes provided on the southbound Dunderberg Road approach, and a single lane for shared travel movements on the eastbound and westbound Nininger Road approaches. The VMG project proposes to widen the eastbound approach to provide an exclusive left turn lane.

5. CR 64 (Nininger Road)/NY Route 32 Access – This is a three-leg intersection operating with a single lane roundabout. All approaches to the roundabout operate under yield sign control.

6. CR 64 (Nininger Road)/NY Route 32 – This is a three-leg intersection operating under multi-phase, adaptive signal control.

7. NY Route 17 Westbound Ramps/NY Route 32 – This four-leg intersection is part of a diverging diamond interchange and operates under multi-phase, adaptive signal control.

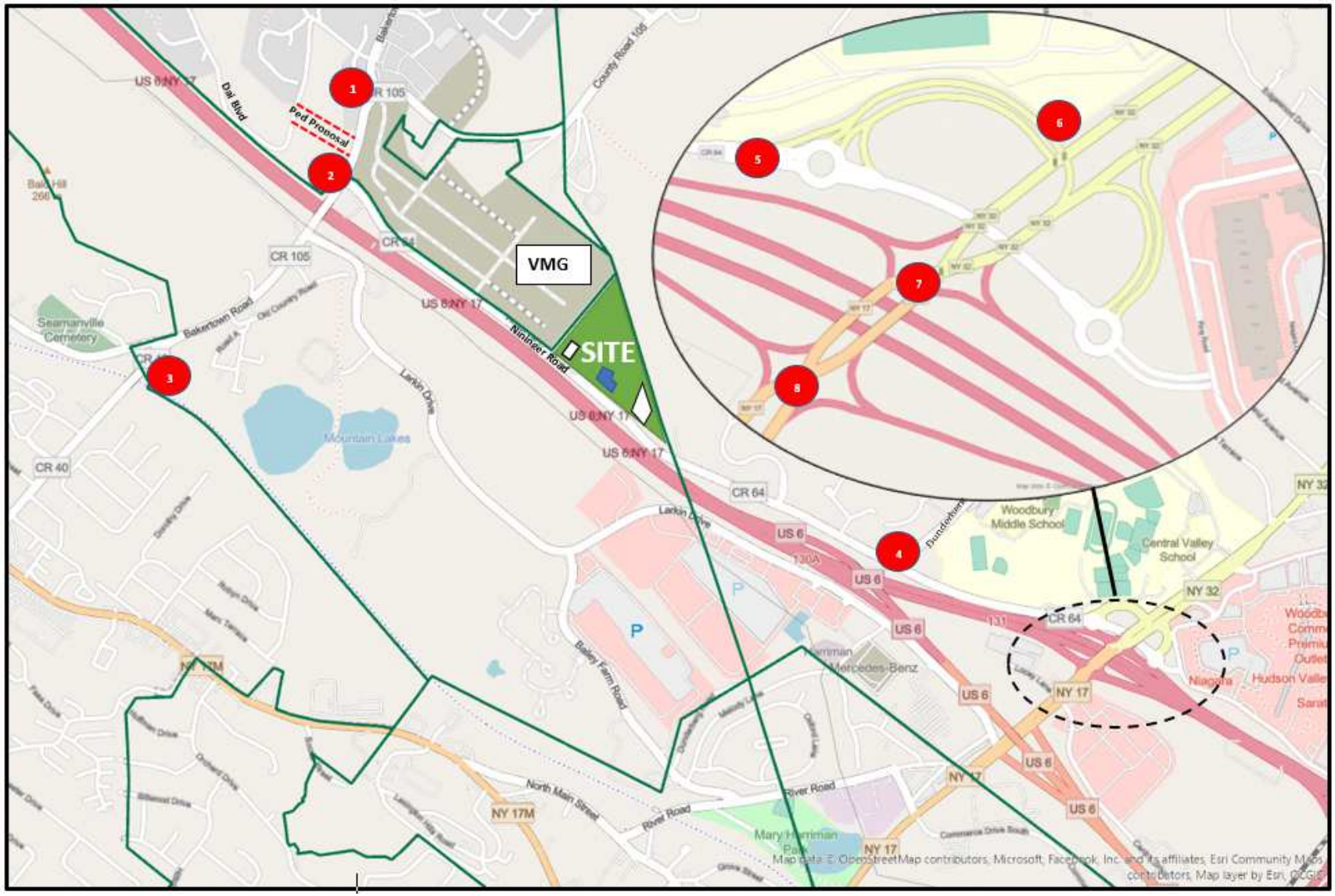
8. NY Route 17 Eastbound Ramps/NY Route 32 – This four-leg intersection is part of a diverging diamond interchange and operates under multi-phase, adaptive signal control.

9. Two Site Driveways located on CR 64 (Nininger Road) are included in the Build analysis

Pedestrian and Bicycle Facilities

There are no exclusive pedestrian or bicycle facilities on public roads near the site, specifically on Nininger Road. Pedestrians and bicyclists must use the shoulder of the road. No bicycles or pedestrians were generally observed on Nininger Road. Sidewalks are provided within VMG and the Village of KJ as pedestrian activity is very high and a primary mode of transportation for much of the community. Bicycle use is virtually non-existent.

Figure 9-1 Traffic Study Intersections



Traffic Volume Factoring

Weekday Peak Hour Traffic Conditions

A review of turning movement count (TMC) data at the CR 105 (Bakertown Road)/CR 64 (Nininger Road) intersection indicates that 2021 traffic volumes are approximately five to ten percent lower than the 2019 traffic volumes. In addition, a comparison of the 2017 and 2019 TMC data indicates that on average, traffic volumes in 2019 are 23 percent higher than those collected in 2017. Based on these comparisons, it was determined that a 2019 baseline traffic condition should be used for the Monroe Commons mixed-use commercial development and that all historical intersection volumes should be factored to this condition since it reflects typical travel patterns prior to the Covid-19 pandemic. Traffic volumes for the 2019 Baseline condition have been developed for the following four study area intersections as noted:

1. CR 105 (Bakertown Road)/Austra Parkway intersections – TMCs from 2019 were used for the baseline condition.

2. CR 105 (Bakertown Road)/CR 64 (Nininger Road) intersection – TMCs from 2019 were used for the baseline condition.

3. CR 105 (Bakertown Road)/Freeland Street/Spring Street intersection – The 2017 traffic volumes were increased by 23 percent to reflect 2019 baseline conditions.

4. CR 64 (Nininger Road)/CR 95 (Dunderberg Road) intersections – The 2017 traffic volumes were increased by 23 percent to reflect 2019 baseline conditions.

In addition, the 2039 Build Traffic Volumes for the four study area intersections located in and around the NY Route 32 corridor were obtained from the State's Route 17 Exit 131 Woodbury Interchange Design Report and factored down in order to represent the 2019 Baseline condition. A comparison of the Existing and Build traffic models indicates that the Design Report's Existing 2007 traffic volumes were increased by 11.6 percent in order to develop the 2039 Build traffic volumes (1/3 percent per year growth rate). To develop 2019 traffic volume conditions, the 2039 Build Traffic Volumes were reduced by approximately seven percent.

After applying the appropriate factors to the above intersections, volumes were balanced where appropriate, resulting in the 2019 Baseline traffic volumes for the weekday AM and PM peak hours.

Sunday Peak Hour Traffic Conditions

The Sunday peak hour traffic volumes were developed by applying a reduction factor to the PM peak hour volumes. Specifically, a comparison of the 2021 PM peak and Sunday peak TMC data at the CR 105 (Bakertown Road)/CR 64 (Nininger Road) intersection indicates that volumes during the Sunday peak are approximately 15 percent lower than the weekday PM peak. This was confirmed by automatic traffic recorder (ATR) data collected on Nininger Road near the site which indicates that daily traffic volumes on Sunday are approximately 20 percent lower than daily weekday volumes and the Sunday peak hour volumes are approximately 17 percent lower than the weekday PM peak.

The development of the existing base traffic volumes discussed above were submitted to the Town's traffic engineering consultant (AKRF) in a memo dated August 26, 2021; subsequent comments were reviewed and addressed.

The existing levels of service for the study area intersections is summarized below:

Table 9-1
Existing Level of Service Summary

Intersection		Control	2019 Existing		
			AM Peak Hour	PM Peak Hour	Sunday Peak Hour
CR 105/Bakertown Road/Austra Pkwy					
CR 105 EB	L	T	A (9.3)	A (8.8)	A (8.4)
Bakertown Rd SB	L	W	E (37.5)	D (32.4)	C (23.8)
	R		C (19.5)	B (13.6)	B (12.0)
CR 105/CR 64		S			
Nininger Rd WB	L		C (28.2)	C (29.9)	C (25.8)
	R		A (7.1)	A (8.6)	A (6.4)
CR 105 NB	T		C (26.6)	C (28.3)	C (24.2)
	R		A (1.0)	A (0.9)	A (1.1)
CR 105 SB	L		B (10.7)	B (11.8)	B (10.3)
	T		A (9.6)	B (11.4)	B (10.8)
Overall			B (14.4)	B (16.1)	B (14.1)
CR 105/Spring St/Day Care Center Dwy		S			
CR 105 EB	L		D (40.0)	D (53.0)	D (52.3)
	LT		D (38.7)	D (51.5)	D (51.2)
	R		A (0.5)	A (2.8)	A (1.9)
Learning Experience Dwy WB	LTR		C (22.9)	D (40.8)	D (38.2)
Freeland St NB	L		D (46.5)	E (56.9)	E (55.3)
	TR		C (27.2)	C (21.4)	B (19.0)
CR 105 SB	LT		C (33.4)	D (44.9)	D (35.6)
	R		A (8.5)	B (19.5)	B (15.9)
Overall			C (27.1)	C (33.4)	C (29.3)
CR 64/CR 95 (Dunderberg Rd)					
CR 64 EB	L	T	C (16.6)	A (8.7)	A (8.4)
CR 95 (Dunderberg Rd) SB	LR	W	F (>500)	D (26.0)	C (18.7)
CR 64/NY Route 32 Access (Roundabout)		R			
CR 64 EB	LT		A (6.3)	A (6.2)	A (6.1)
CR 64 WB	TR		A (3.5)	A (2.9)	A (2.8)
NY Route 32 Access SB	LR		A (4.3)	A (4.5)	A (4.3)
Overall			A (5.0)	A (4.3)	A (4.2)
CR 64/NY Route 32					
CR 64 EB	R	S	A (4.6)	C (28.6)	B (11.0)
NY Route 32 NB	L		C (30.4)	C (32.7)	C (28.8)
NY Route 32 SB	TTTT		A (4.7)	A (5.9)	A (4.2)
	R		A (1.3)	A (1.6)	A (1.2)
Overall			A (7.7)	B (13.4)	A (7.2)
NY Route 17 WB Ramps/NY Route 32[1]		S			
NY Route 17 Off-Ramp WB	L		C (29.3)	B (19.2)	C (23.3)
	R		A (3.0)	B (17.7)	A (9.8)
NY Route 32 NB	TTT		A (9.9)	A (6.9)	A (7.7)
NY Route 32 SB	TTTT		A (6.2)	A (9.3)	A (7.6)
Overall			A (9.0)	B (10.2)	A (8.8)
NY Route 17 EB Ramps/ NY Route 32[1]		S			
NY Route 17 Off-Ramp EB	L		A (7.0)	B (16.7)	B (13.0)
	R		D (35.6)	B (17.6)	B (14.0)
NY Route 32 NB	TTT		B (17.5)	B (13.2)	B (13.9)
NY Route 32 SB	TTT		A (5.4)	A (8.4)	A (7.3)
Overall			B (13.3)	B (11.6)	B (11.3)

Key:
X (Y.Y) = Level of Service (Delay, seconds per vehicle).
S = Signalized Intersection, TW = Two-Way Stop Controlled Intersection, R = Roundabout
NB, SB, WB, EB = Northbound, Southbound, Westbound, Eastbound intersection approaches.
LTR = Left turn, through, and/or right turn movements. [LTR] = Proposed turn movements.
[1] Delays are averaged weighted for clustered intersections in the Synchro model

Accident Analysis

A full discussion of accident history and a crash summary are provided in the Traffic Impact Study. For the study area, including CR 105, CR 64, and Route 32, there were a total of 356 crashes over a three-year period. There was one fatality and 72% of crashes were "property damage only", which means the crash caused more than $1000 worth of damage but did not result in any injuries. Rear-end crashes were the predominate collision type (38%) followed by overtaking/sideswipe (26%). Driver inattention and following too closely were the primary contributing factors.

Table 9-2 provides a summary of roadway segment crashes. Information about specific high crash intersections or locations, as well as identification of potential improvement measures if warranted, will be included as part of the comprehensive Traffic Impact Study (Appendix G) once complete by the Traffic Engineer.

Table 9-2
Summary of Segment Crashes

Location	Year	Classification					Collision Type									Crash Rate (Statewide Average) C/A/VM
		Non-Reportable [1]	Property Damage	Injury	Fatality	Total	Rear-End	Left turn	Right turn	Right-Angle	Overtaking/ Sideswipe	Head-On	Other	Not Entered/ Unknown	Total	
CR 105	2017	7	19	6	1	**33**	16	1	1	0	5	2	8	0	**33**	
	2018	9	13	4	0	**26**	19	0	0	0	2	0	5	0	**26**	
	2019	4	29	7	0	**40**	21	4	1	1	6	0	7	0	**40**	
	Total	20	61	17	1	**99**	56	5	2	1	13	2	20	0	**99**	**4.2**
	%	20%	62%	17%	1%	**100%**	57%	5%	2%	1%	13%	2%	20%	0%	**100%**	**(3.73)**
CR 64	2017	0	7	6	0	**13**	6	0	0	2	2	1	2	0	**13**	
	2018	2	20	7	0	**29**	8	1	1	1	6	0	12	0	**29**	
	2019	0	14	2	0	**16**	7	0	1	0	2	0	6	0	**16**	
	Total	2	41	15	0	**58**	21	1	2	3	10	1	20	0	**58**	**3.65**
	%	3%	71%	26%	0%	**100%**	36%	2%	3%	5%	17%	2%	35%	0%	**100%**	**(3.73)**
NY Route 32	2017	6	30	10	0	**46**	19	5	2	1	9	0	9	1	**46**	
	2018	5	62	10	0	**77**	21	8	2	4	30	0	7	5	**77**	
	2019	2	62	12	0	**76**	21	2	5	6	30	1	7	4	**76**	
	Total	13	154	32	0	**199**	61	15	9	11	69	1	23	10	**199**	**18.26**
	%	7%	77%	16%	0%	**100%**	30%	7%	5%	6%	35%	<1%	12%	5%	**100%**	**(5.53)**
Total		**35**	**256**	**64**	**1**	**356**	**138**	**21**	**13**	**15**	**92**	**4**	**63**	**10**	**356**	
		10%	**72%**	**18%**	**<1%**	**100%**	**38%**	**6%**	**4%**	**4%**	**26%**	**1%**	**18%**	**3%**	**100%**	

Transit Accommodations

Transit service in the study area is provided by Transit Orange via the Woodbury Commons Route which provides hourly service on Nininger Road (CR 64) between the Village of Kiryas Joel and the Woodbury Commons. In addition to the bus stops listed on the schedules as time points, passengers can board/alight along the route by flagging the bus which will then stop in a safe location.

In addition, the Monroe-Woodbury school district operates school bus service along Nininger Road (CR 64), CR 105, and NY Route 32 in order to access the high school and middle school via Dunderberg Road (CR 95). Table 9-3 below summarizes school bus operations for each school.

Table 9-3
School Bus Operations

	Monroe-Woodbury Middle School	**Monroe-Woodbury High School**
Number of Students	1,595	2,384
Arrival Time	6:45 a.m. to 7:05 a.m.	7:45 a.m.to 8:05 a.m.
Dismissal Time	2:50 p.m. to 3:10 p.m.	1:50 p.m. to 2:05 p.m.
Number of Buses	50-60	50 - 60

9.2 Future Without the Proposed Project

The 2024 No-Build traffic volumes are based on an analysis of existing traffic growth trends and other developments in the project area. The NYSDOT Design Report from the recently completed Exit 131 interchange was reviewed and found that the study used a 0.34% per year growth rate to develop future design volumes. This rate was increased to 0.50% per year to account for more recent proposed projects (e.g. Legoland) in addition to specific traffic volumes from other developments. Creighton Manning contacted the Towns of Woodbury and Monroe, and the Villages of Kiryas Joel, Monroe, and Harriman and requested information for any projects under review or in the planning phase that could potentially impact traffic within the project area. The other projects identified and included in the analysis are as follows:

Village of Kiryas Joel

A. Veyoel Moshe Gardens Phase 2 – 1,600 units of residential
B. Ace Farm – 364 residential units
C. Coronet Lake – 380 residential units
D. Golden Towers – 160 residential units
E. Deutch/Klein – CR 105 – 120 residential units
F. Schlessinger – CR 105 – 28 residential units
G. Hamaspik – 112 residential units
H. Schlessinger – 94 residential units
I. Lee Gardens (16-20 Israel Zupnik) – 48 residential units
J. 93 Bakertown Road – 58 residential units
K. Mann – Isarael Zup – 24 residential units
L. Mizrachi – Israel Zup – 36 residential units
M. Preizler – Bakertown – 63 residential units

N. B&H – Ares Road – 53 residential units
O. 421-453 CR 105 – Highview Estates – 72 residential units
P. Acres Enclave – 528 residential units

Town of Woodbury

Q. Shops at Woodbury – Eight-building shopping plaza totaling 56,760 SF located on Locey Lane.
R. Gardens at Harriman – 1,500 Apartment units located near the Harriman Metro North station.
S. Woodbury Commons Expansion – Expansion of the current site of Woodbury Commons on NY Route 32, which includes 159,626 SF of new retail space, two 120-room hotels, 12,000 SF of restaurant space and a 6,000 SF day spa.
T. Woodbury Junction – 192 residential units

Town of Monroe

U. BJ's Fueling Station – Construction of fueling station with 12 fueling positions along with a 3,000 SF fast food pad site. Expected completion in 2023.
V. Bald Hill Estates – 138 residential units
W. 208 Business Center – Construction of 80,430 SF retail center located on NY Route 208 next to the YMCA.
X. DG Realty – 15 unit residential, mix of duplexes and single family

Village of Goshen

Y. Legoland – 140 acre children's amusement park (opened in 2021)

Town of Chester

Z. Greens of Chester – 431 lot subdivision off West Ave – under construction

Peak hour traffic volumes associated with the above-mentioned project were distributed at the study area intersections. The projects were assumed to be completed by 2024, coincident with the anticipated completion date of the *Monroe Commons* project. The trip generation volumes for the respective projects are either based on reports provided by the reviewing agencies or estimated from the best available information. The trip assignment of each project is summarized in Appendix D of the Traffic Impact Study.

The 2024 No-Build traffic volumes are illustrated on Figure 3.1 (see Appendix G) and represent the expected traffic conditions at the study area intersections without construction of the proposed project.

Considering many of the other projects included in the future volume estimates are either still under review or are approved but have not yet begun construction, it is concluded that the 2024 No-Build traffic volumes conservatively represent the expected growth in the project area over the next 2 years.

Table 9-4
2024 No-Build Level of Service Summary

Intersection		Control	2024 No-Build		
			AM Peak Hour	PM Peak Hour	Sunday Peak Hour
CR 105/Bakertown Road/Austra Pkwy					
CR 105 EB	L	S	F (370)	F (365)	F (186)
	TR		B (13.1)	B (15.1)	B (14.2)
CR 105 WB	L		B (19.0)	B (19.0)	B (19.0)
	TR		F (148)	F (82.0)	E (56.4)
VMG Driveway NB	L		C (31.6)	C (25.3)	C (24.5)
	TR		C (24.4)	D (35.1)	C (31.9)
Bakertown Rd SB	L		F (104)	F (370)	F (159)
	TR		F (99.4)	C (23.5)	B (14.3)
Overall			F (143)	F (133)	E (71.1)
CR 105/CR 64		S			
Nininger Rd WB	L		E (66.2)	F (81.2)	E (67.7)
	R		B (18.8)	C (21.8)	B (19.4)
CR 105 NB	T		E (58.8)	F (89.0)	E (62.5)
	R		A (4.6)	A (5.9)	A (5.8)
CR 105 SB	L		F (284)	F (268)	F (187)
	T		C (22.9)	C (23.5)	C (21.0)
Overall			E (79.2)	E (75.9)	E (57.1)
CR 105/Spring St/Day Care Center Dwy		S			
CR 105 EB	L		D (54.2)	D (53.8)	D (53.8)
	LT		D (51.9)	D (51.6)	D (51.5)
	R		A (0.4)	A (2.8)	A (2.1)
Learning Experience Dwy WB	LTR		C (30.9)	D (46.6)	D (44.2)
Freeland St NB	L		E (62.9)	E (63.8)	E (61.9)
	TR		D (42.6)	D (36.0)	C (29.6)
CR 105 SB	LT		D (44.0)	F (359)	F (151)
	R		B (15.9)	E (64.9)	D (44.9)
Overall			D (39.4)	F (140)	E (73.0)
CR 64/CR 95 (Dunderberg Rd)					
CR 64 EB	L	[S]	F (>500)	D (36.2)	C (29.1)
	T		F (98.0)	A (4.9)	A (4.1)
CR 64 WB	TR		F (277)	F (110)	E (60.3)
CR 95 SB	L		F (115)	D (49.3)	D (48.8)
	R		D (47.4)	C (20.2)	B (14.4)
Overall			F (246)	E (63.8)	D (37.3)
CR 64/NY Route 32 Access (Roundabout)		R			
CR 64 EB	LT		A (8.0)	A (6.8)	A (6.7)
CR 64 WB	TR		A (7.1)	A (4.1)	A (3.7)
NY Route 32 Access SB	LR		A (4.4)	A (9.8)	A (5.5)
Overall			A (6.6)	A (7.5)	A (5.5)
CR 64/NY Route 32					
CR 64 EB	R	S	F (84.6)	F (316)	F (227)
NY Route 32 NB	L		F (393)	F (>500)	F (>500)
NY Route 32 SB	TTT		A (5.3)	A (7.7)	A (5.3)
	T		A (3.5)	A (4.8)	A (3.4)
	R				
Overall			F (114)	F (208)	F (220)

Table 9-4
2024 No-Build Level of Service Summary, Continued

Intersection		Control	2024 No-Build		
			AM Peak Hour	PM Peak Hour	Sunday Peak Hour
NY Route 17 WB Ramps/NY Route 32		S			
NY Route 17 Off-Ramp	L		C (23.9)	B (15.9)	B (18.8)
WB	R		B (17.7)	F (297)	E (70.1)
	TTT		A (9.8)	A (6.2)	A (7.8)
NY Route 32 NB	TTT		B (12.6)	C (21.2)	B (11.8)
NY Route 32 SB	T				
Overall[1]			B (12.9)	E (67.4)	C (21.6)
NY Route 17 EB Ramps/ NY Route 32		S			
NY Route 17 Off-Ramp	L		B (15.1)	C (27.1)	C (20.4)
EB	R		D (39.7)	C (23.1)	C (20.6)
	TTT		B (15.3)	B (14)	B (13.4)
NY Route 32 NB	TTT		A (7.1)	A (9.4)	B (10.0)
NY Route 32 SB					
Overall[1]			B (14.0)	B (13.9)	B (13.1)

Key:
X (Y.Y) = Level of Service (Delay, seconds per vehicle).
S = Signalized Intersection, TW = Two-Way Stop Controlled Intersection, R = Roundabout
NB, SB, WB, EB = Northbound, Southbound, Westbound, Eastbound intersection approaches.
LTR = Left turn, through, and/or right turn movements. [LTR] = Proposed turn movements.
[1] Delays are average-weighted for clustered intersections in the Synchro model

9.3 Potential Impacts of Proposed Project

Trip Generation

Trip generation determines the quantity of traffic expected to travel to or from the project site. The Institute of Transportation Engineers (ITE) Trip Generation, 11th edition, is the industry standard used for estimating trip generation for proposed land uses. However, the Kiryas Joel community has several unique transportation characteristics, which are not reflected in the ITE data. To account for this, local trip generation data was collected at two business centers which are similar in character to the Monroe Commons project. Specifically, driveway counts were conducted at the approximate 112,200 SF business center located at 51 Forest Road, and the approximate 140,000 SF business center located at 48-52 Bakertown Road, and are included in Appendix B. The entering and exiting traffic volumes were then used to calculate peak hour vehicle trip generation rates in terms of trips per 1,000 square-feet (KSF) for each of the two business centers. The local trip generation rates are summarized in Table 9-5.

Table 9-5
Local Trip Generation Summary

Kiryas Joel Business Centers	AM Peak Hour				PM Peak Hour				Sunday Peak Hour			
	Enter	Exit	Total	Rate[1]	Enter	Exit	Total	Rate[1]	Enter	Exit	Total	Rate[1]
51 Forest Road – 112.2 KSF	307	229	536	4.78	284	318	602	5.37	330	358	688	6.13
Directional Split	0.57	0.43	--	--	0.47	0.53	--	--	0.48	0.52	--	--
48, 52 Bakertown Road – 140 KSF	143	73	216	1.54	174	194	368	2.63	263	257	520	3.71
Directional Split	0.66	0.34	--	--	0.47	0.53	--	--	0.51	0.49	--	--
Average Rate	--	--	--	**3.16**	--	--	--	**4.00**	--	--	--	**4.92**

[1] Trip Generation rate expressed as trips per KSF

The table shows that on average, the business centers generate approximately three to five trips per 1,000 SF depending on peak hour. It is noted that the two business centers experience varying trip generation rates with rates at the 51 Forest Road business center nearly double the rates observed at the 48, 52 Bakertown Road business center. This could in part be due to shared access with the Ezras Choilim Health Center which is a relatively intensive land use that could be impacting the observed data.

Due to the variance in local trip generation rates observed and per the final scoping document, peak hour trip generation estimates were prepared for the proposed Monroe Commons project using the following ITE Land Use Codes (LUC):

- LUC 710 – General Office Building
- LUC 720 – Medical Office Building
- LUC 821 – Shopping Plaza (40 – 150K) – Supermarket – Yes
- LUC 310 – Hotel

It is noted that some trips will be generated from traffic passing by the site, of which some drivers will choose to use the services of the site, while on their way to the primary destination. These are referred to as pass-by trips, an example of which is someone traveling from work to home and stopping by the grocery store on their way.

A summary of the peak hour trip generation and rates for the proposed project and a comparison to the observed local rates is shown in Table 9-6 with detailed calculations included in Appendix E of the Traffic Study.

Table 9-6
Project Trip Generation Comparison

Land Use	Size	AM Peak Hour			PM Peak Hour			Sunday Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
LUC 710 – General Office Building	37,152 SF[1]	62	9	71	12	61	73	5	3	8
LUC 720 – Medical Office Building	76,462 SF[1]	189	149	338	92	216	308	9	8	17
LUC 821 – Shopping Plaza (40 – 150K)	108,479 SF[2]	237	146	383	456	495	951	403	420	823
Pass-by (20% AM, 40% PM, 30% Sun)		-38	-38	-76	-190	-190	-380	-123	-123	-246
LUC 310 – Hotel	39 Rooms	10	8	18	12	11	23	11	11	22
Total Driveway Trips		**498**	**312**	**810**	**572**	**783**	**1355**	**428**	**442**	**870**
Total New Trips		**460**	**274**	**734**	**382**	**593**	**975**	**305**	**319**	**624**
ITE Rate (Trips/KSF)[3]		**--**	**--**	4.28	--	--	7.17	--	--	4.60
Local Data Average Rate (Trips/KSF)		**--**	--	3.16	**--**	**--**	4.00	**--**	**--**	4.92

[1] ITE Trip Generation for LUC 710 is found using the Gross Floor Area (GFA) of the use
[2] ITE Trip Generation for LUC 821 is found using the Gross Leasable Area (GLA) of the use
[3] ITE Rates found using total Net Floor Area (189,062 SF) as shown on Site Plan in Appendix A. ITE Rate is based on Total trip generation not accounting for retail pass-by trips.

Based on the ITE data shown above, the proposed development will generate a total of 734 new vehicle trips during the AM peak hour, 975 new vehicle trips during the PM peak hour, and 624 new vehicle trips during the Sunday peak hour. The ITE trip rate equates to 4.28 trips per KSF in the AM peak hour, 7.17 trips per KSF during the PM peak hour, 4.60 trips per KSF during the Sunday peak hour. As shown above, the ITE trip generation rates are generally comparable to the average of the trip rates found from the local business center data collection for the Sunday peak hour, but are 35% and 79% higher during the AM and PM peak hours, thus providing a very conservative estimate. Further, the ITE rates do not account for the unique travel characteristics of the Kiryas Joel/Palm Tree community; the local data accounts for person walking trips (not driving), further confirming the ITE rates as conservative. In addition, the project is on a KJ transit line which will help reduce the vehicle traffic generation of the site.

Trip Distribution

Trip distribution describes where traffic originates or where traffic is destined. Traffic generated by the proposed project was distributed based on existing travel patterns and probable travel routes of residents to and from the site. In general, it is expected that approximately 10% of the site generated traffic will travel to and from the south on CR 105 while 50% travels to and from the north on CR 105; however 15% cuts through the VMG site via a cross connection between the projects. Likewise, 25% is anticipated to travel to and from the south on NY Route 32 while 5% travels to and from the north on NY Route 32 with the remaining 10% traveling to the north on Dunderberg Road (CR 95). The primary trip distribution patterns for the project are shown on Figure 3.2 (see Appendix G) while the pass-by trip distribution patterns are shown on Figure 3.3 (see Appendix G).

Trip Assignment

Trip assignment combines the results of the trip generation and trip distribution and determines the specific paths and roadways that will be used between various origin/destination pairs. Figure

3.4 (see Appendix G) illustrates the primary trip assignment for the weekday AM, PM and Sunday peak hours for the proposed project and Figure 3.5 (see Appendix G) illustrates the pass-by trip assignment.

2024 Build Traffic Volumes

The results of the site generated trip assignment of the proposed project was added to the 2024 No-Build traffic volumes to develop the 2024 Build traffic volumes. These are shown on Figure 3.6 see Appendix G).

Capacity/Level of Service Analysis

Intersection Level of Service (LOS) and capacity analysis relate traffic volumes to the physical characteristics of an intersection. Intersection evaluations were made using Synchro (Version 11) which automates the procedures contained in the Highway Capacity Manual (HCM) 6th Edition. Levels of service range from A to F with level of service A conditions considered excellent with very little delay while level of service F generally represents conditions with very long delays. Further detailed information about levels of service criteria is included in Appendix F of the Traffic Study.

Table 9.7
Intersection Level of Service Ranges

Level of Service	Unsignalized (seconds/vehicle)	Signalized (seconds/vehicle)	Description
A	≤ 10	≤ 10	Excellent
B	> 10 ≤ 15	> 10 ≤ 20	Very Good
C	> 15 ≤ 25	> 20 ≤ 35	Good
D	> 25 ≤ 35	> 35 ≤ 55	Acceptable
E	> 35 ≤ 50	> 55 ≤ 80	Poor
F	> 50	> 80	Failing

The relative impact of the proposed project can be determined by comparing the level of service during the design years for the No-Build and Build traffic volume conditions. Table 9-5 and 9-6 generally represent existing and future conditions without improvements, the exception being the Nininger Road/Dunderberg Road intersection and the CR 105/Bakertown Road/Austra Parkway intersection. The analysis of the Woodbury Junction project and the VMG project indicated the construction of a southbound right turn lane on Dunderberg Road, widening Nininger Road for an eastbound left turn lane, and the installation of a traffic signal at completion of those projects. The VMG project is also responsible for adding turning lanes and a traffic signal at the CR 105/Bakertown Road/Austra Parkway intersection; therefore, those improvements are included in the 2024 No-build and subsequent analysis conditions.

Upon reviewing the results of the level of service analysis, the impacts of the *Monroe Commons* project were identified, and improvements considered. Tables 9-9 summarize the level of service conditions with the project and improvements.
The No-Build analysis reported in Table 9-4 generally does not include improvements with two exceptions:

1. The Nininger Road/Dunderberg Road intersection will be improved by both the Woodbury Junction and VMG projects via the construction of a southbound right turn

lane on Dunderberg Road, widening Nininger Road for an eastbound left turn lane, and the installation of a traffic signal at completion of those projects.

2. The CR 105/Bakertown Road/Austra Parkway intersection will be improved by the VMG project which will add turning lanes and a traffic signal at this location.

These improvements are included in the 2024 No-build and subsequent analysis conditions. Table 9-5 provides a comparison of Existing, No-Build and Build scenarios.

The results of the capacity analysis for each intersection is described below and summarized in Table 9-8.

Table 9-8
2024 Build Level of Service Summary

Intersection		Control	2024 Build		
			AM Peak Hour	PM Peak Hour	Sunday Peak Hour
CR 105/Bakertown Road/Austra Pkwy					
CR 105 EB	L	S	F (466)	F (>500)	F (293)
	TR		B (13.2)	B (15.3)	B (14.3)
CR 105 WB	L		C (21.8)	C (21.1)	C (20.8)
	TR		F (161)	F (96.3)	E (60.0)
VMG Driveway NB	L		D (36.0)	C (26.0)	C (24.6)
	TR		C (25.1)	E (61.7)	D (37.8)
Bakertown Rd SB	L		F (217)	F (>500)	F (449)
	TR		F (179)	D (36.7)	B (19.0)
			F (198)	F (367)	F (126)
CR 105/CR 64		S			
Nininger Rd WB	L		E (79.4)	F (124)	F (85.6)
	R		B (21.8)	C (30.9)	C (23.1)
CR 105 NB	T		E (59.4)	F (89.0)	E (63.3)
	R		A (5.3)	A (6.6)	A (6.7)
CR 105 SB	L		F (459)	F (419)	F (308)
	T		C (22.9)	C (22.8)	C (20.8)
			F (122)	F (110)	F (80.5)
CR 105/Spring St/Day Care Center Dwy		S			
CR 105 EB	L		D (54.8)	D (53.8)	D (53.6)
	LT		D (52.0)	D (51.5)	D (51.2)
	R		A (0.4)	A (2.7)	A (2.1)
Learning Experience Dwy WB	LTR		C (31.2)	D (47.2)	D (44.8)
Freeland St NB	L		E (63.5)	E (64.5)	E (62.5)
	TR		D (47.8)	D (38.8)	C (31.3)
CR 105 SB	LT		D (53.4)	F (448)	F (189)
	R		B (17.1)	E (78.1)	D (50.0)
Overall			D (43.2)	F (170)	F (85.6)
CR 64/West Driveway					
CR 64 EB	L	TW	B (10.4)	B (13.2)	B (11.3)
West Driveway SB	R		C (17.3)	F (125)	D (28.6)
CR 64/East Driveway					
CR 64 EB	L	TW	B (10.3)	B (12.6)	B (11.3)
East Driveway SB	L		F (>500)	F (>500)	F (>500)
	R		B (15.8)	D (25.6)	C (19.7)
CR 64/CR 95 (Dunderberg Rd)					
CR 64 EB	L	[S]	F (>500)	E (60.9)	D (37.5)
	T		F (151)	A (6.7)	A (4.7)
CR 64 WB	TR		F (400)	F (161)	F (97.7)
CR 95 SB	L		F (115)	D (49.3)	D (48.9)
	R		F (142)	C (26.5)	B (19.7)
Overall			F (328)	F (88.5)	E (56.1)
CR 64/NY Route 32 Access (Roundabout)		R			
CR 64 EB	LT		A (8.7)	A (7.0)	A (6.7)
CR 64 WB	TR		A (7.7)	A (4.9)	A (3.9)
NY Route 32 Access SB	LR		A (4.6)	B (17.4)	A (6.9)
Overall			A (6.9)	B (11.1)	A (6.2)
CR 64/NY Route 32					
CR 64 EB	R	S	F (122)	F (407)	F (289)
NY Route 32 NB	L		F (>500)	F (>500)	F (>500)
NY Route 32 SB	TTTT		A (5.3)	A (7.7)	A (5.3)
	R		A (3.9)	A (5.1)	A (3.6)
Overall			F (175)	F (266)	F (275)
NY Route 17 WB Ramps/NY Route 32		S			
NY Route 17 Off-Ramp WB	L		C (22.0)	B (15.6)	B (18.0)
	R		C (21.2)	F (309)	F (95.0)
NY Route 32 NB	TTT		A (8.9)	A (6.1)	A (7.4)
NY Route 32 SB	TTTT		B (13.8)	C (24.9)	B (12.5)
Overall[1]			B (13.5)	E (70.9)	C (26.4)
NY Route 17 EB Ramps/ NY Route 32		S			
NY Route 17 Off-Ramp EB	L		B (16.1)	C (27.5)	C (21.0)
	R		D (39.4)	C (23.1)	C (20.9)
NY Route 32 NB	TTT		B (15.2)	B (13.9)	B (13.4)
NY Route 32 SB	TTT		A (6.9)	A (9.6)	A (9.2)
Overall[1]			B (13.9)	B (13.9)	B (12.8)

1. CR 105/Bakertown Road/Austra Pkwy – Comparing No-Build to Build conditions, there will be an notable increase in delays on the eastbound, northbound, and southbound movements during the peak hours.

2. CR 105/CR 64 (Nininger Road) – Comparing No-Build to Build conditions, there will be a notable increase in delay on the southbound approach during the AM and PM peak hours and on the westbound approach during the Sunday peak hour.

3. CR 105 (Bakertown Road) /Spring Freeland/Spring – Comparing No-Build to Build conditions, there will be a minor increase in the overall delays at this intersection during the Sunday peak hour.

4. CR 64 (Nininger Road)/West and East Site Driveways – As unsignalized intersections, the site driveways will generally operate at LOS F, primarily for the left turn exit movements. The exiting right turn movement and the left turn movement entering will operate adequately.

5. CR 64 (Nininger Rd)/CR 95 (Dunderberg Rd) - Comparing No-Build to Build conditions, there will be increases in delays on all three approaches, particularly the AM peak hour, which coincides with school traffic.

6. CR 64 (Nininger Road)/NY Route 32 Access (Roundabout) – There will be no significant increases in delays at this intersection.

7. CR 64 (Nininger Road)/NY Route 32 (Signal) – Comparing No-Build to Build conditions, there will be increases in delays on the eastbound and northbound approaches.

8. NY Route 17 WB Ramps/NY Route 32 – Comparing No-Build to Build conditions, there will be an increase in delay on the westbound approach during the Sunday peak hour.

9. NY Route 17 EB Ramps/NY Route 32 – There will be no significant increases in delays at this intersection.

2024 Build with Improvements

The following table and discussion summarizes the potential improvements and resulting levels of service for the study are intersection.

Table 9-9
2024 Build with Improvements Level of Service Summary

Intersection		Control	2024 Build with Improvements		
			AM Peak Hour	PM Peak Hour	Sunday Peak Hour
CR 105/Bakertown Road/Austra Pkwy					
CR 105 EB	LL	S	D (35.6)	E (65.7)	B (17.8)
	TTR		B (16.1)	C (20.7)	B (11.9)
CR 105 WB	L		B (11.9)	D (36.6)	C (21.1)
	TTR		C (30.3)	D (47.9)	C (22.0)
VMG Driveway NB	L		B (17.9)	C (20.5)	C (20.2)
	TR		C (27.7)	C (29.4)	C (27.3)
Bakertown Rd SB	L		C (26.1)	E (78.3)	D (54.6)
	TTR		B (19.1)	A (8.2)	A (8.5)
	R		B (13.1)	A (8.6)	A (5.7)
			C (24.0)	D (35.8)	B (18.4)
CR 105/CR 64		S			
Nininger Rd WB	LL		D (47.6)	D (53.8)	D (46.5)
	R		A (9.0)	C (24.1)	A (9.1)
CR 105 NB	T		D (37.4)	D (47.3)	C (33.4)
	R		A (5.3)	A (7.0)	A (5.9)
CR 105 SB	L		D (44.3)	E (66.5)	D (49.3)
	LTT		B (10.1)	B (10.5)	A (9.0)
			C (24.5)	C (31.6)	C (24.0)
CR 105/Spring St/Day Care Center Dwy		S			
CR 105 EB	L		D (54.8)	D (50.4)	D (54.2)
	LT		D (49.8)	D (46.5)	D (48.8)
	R		A (0.4)	A (0.5)	A (0.5)
Learning Experience Dwy WB	LTR		C (34.9)	D (54.0)	D (37.0)
Freeland St NB	L		D (42.7)	E (59.6)	E (66.2)
	TR		C (32.2)	C (27.7)	C (24.4)
CR 105 SB	LTT		B (17.5)	C (31.9)	C (26.4)
	RR		A (2.7)	A (2.8)	A (3.0)
	Overall		C (28.1)	C (27.2)	C (25.1)
CR 64/West Driveway					
CR 64 EB	L	TW	B (10.4)	B (13.2)	B (11.3)
West Driveway SB	R		C (17.1)	F (118)	D (27.9)
CR 64/East Driveway					
CR 64 EB	L	S	A (4.8)	B (16.5)	A (6.4)
	T		B (16.0)	B (15.4)	B (10.0)
CR 64 WB	T		A (8.9)	C (27.3)	B (15.5)
	R		A (1.2)	A (1.3)	A (1.4)
East Driveway SB	L		C (32.2)	D (54.7)	C (28.8)
	R		B (10.3)	A (9.1)	A (8.5)
			B (13.4)	C (23.5)	B (13.1)
CR 64/CR 95 (Dunderberg Rd)					
CR 64 EB	L	S	D (43.8)	C (26.9)	B (13.7)
	T		B (19.1)	A (9.0)	A (7.0)
CR 64 WB	TTR		C (32.8)	C (20.1)	B (18.5)
CR 95 SB	L		D (48.5)	C (29.2)	C (23.1)
	R		B (14.1)	B (17.4)	B (12.9)
	Overall		C (28.6)	B (17.5)	B (14.4)
CR 64/NY Route 32 Access (Roundabout)		R			
CR 64 EB	LT		A (8.7)	A (7.0)	A (6.7)
CR 64 WB	TR		D (45.2)	F (91.2)	B (14.3)
NY Route 32 Access SB	LR		A (7.6)	B (10.4)	A (9.2)
	Overall		B (18.2)	D (42.1)	B (10.4)
CR 64/NY Route 32					
CR 64 EB	R	S	F (122)	F (407)	F (289)
NY Route 32 NB	L		E (60.3)	D (41.5)	F (84.0)
NY Route 32 SB	TTTT		A (5.3)	A (7.7)	A (5.3)
	R		A (2.3)	A (3.5)	A (3.1)
	Overall		D (46.0)	F (145)	F (113)

Table 9-9 Con't 2024 Build with Improvements Level of Service Summary					
Intersection		**Control**	**2024 Build with Improvements**		
			AM Peak Hour	**PM Peak Hour**	**Sunday Peak Hour**
NY Route 17 WB Ramps/NY Route 32		S			
NY Route 17 Off-Ramp WB	L		C (22.0)	B (15.6)	B (18.8)
	R		C (21.2)	F (309)	E (70.1)
NY Route 32 NB	TTT		A (8.9)	A (6.1)	A (7.8)
NY Route 32 SB	TTTT		B (13.8)	C (24.9)	B (11.8)
Overall[1]			B (13.5)	E (70.9)	C (21.6)
NY Route 17 EB Ramps/ NY Route 32		S			
NY Route 17 Off-Ramp EB	L		B (16.1)	C (27.5)	C (21.0)
	R		D (39.4)	C (23.1)	C (20.9)
NY Route 32 NB	TTT		B (15.2)	B (13.9)	B (13.4)
NY Route 32 SB	TTT		A (6.9)	A (9.6)	A (9.2)
Overall[1]			B (13.9)	B (13.9)	B (12.8)

1. CR 105/Bakertown Road/Austra Pkwy – Add second left turn lane and through lane to CR 105 eastbound approach, second through lane to CR 105 westbound, through and right turn lanes to southbound Bakertown Road.

2. CR 105/CR 64 (Nininger Road) – Add additional left turn lane to the westbound and southbound approaches, a through lane to the southbound approach.

3. CR 105 (Bakertown Road) /Spring Freeland/Day Care Center Drwy – Add a right turn and separate through lane to the southbound approach.

4. CR 64 (Nininger Road)/West and East Site Driveways – Widen Nininger Road for a center turn lane, restricts lefts out at the west driveway and signalize the east driveway.

5. CR 64 (Nininger Rd)/CR 95 (Dunderberg Rd) – Add a separate through/right lane to the westbound approach.

6. CR 64 (Nininger Road)/NY Route 32 Access (Roundabout) – No changes.

7. CR 64 (Nininger Road)/NY Route 32 (Signal) – No changes.

8. NY Route 17 WB Ramps/NY Route 32 – No changes.

9. NY Route 17 EB Ramps/NY Route 32 – No changes.

2024 Build with Daj Boulevard and Chust Road Connections – Sensitivity Analysis

The following table and discussion summarizes the potential operating conditions assuming the Villages completion of the Daj Boulevard connection, creating a fourth leg to the CR 105/CR 64 (Nininger Road) intersection, the eventual future extension of Chust Road to CR 105. Daj Boulevard will result in a redistribution of traffic out of the CR 105/Bakertown Road/Austra Parkway intersection and onto the new entrance into the Village of KJ. Chust Road will also afford the ability of VMG and Monroe Commons traffic to bypass the Nininger Road and Bakertown

Road intersections if destined for points north on CR 105. Under these conditions, the following intersection operations are expected:

Table 9-10
2024 Build with Improvements Sensitivity Analysis Level of Service Summary

Intersection		Control	2024 Build with Improvements Sensitivity Analysis		
			AM Peak Hour	PM Peak Hour	Sunday Peak Hour
CR 105/Bakertown Road/Austra Pkwy					
CR 105 EB	LL	S	D (53.8)	C (27.4)	B (15.0)
	TR		B (17.5)	C (25.5)	B (15.3)
CR 105 WB	L		B (20.0)	C (28.3)	B (15.0)
	T		D (44.2)	D (52.7)	C (23.5)
	R		A (8.6)	B (12.9)	A (4.5)
VMG Driveway NB	L		B (16.0)	C (20.9)	B (15.1)
	TR		C (24.1)	D (53.2)	C (21.0)
Bakertown Rd SB	L		C (23.9)	D (43.0)	D (37.3)
	T		C (27.2)	C (26.4)	B (16.2)
	R		C (32.9)	B (11.9)	A (8.5)
			C (32.7)	C (32.5)	B (17.0)
CR 105/CR 64		S			
Daj Connector EB	L		B (18.8)	C (31.8)	D (38.6)
	T		D (43.3)	D (37.9)	D (47.4)
Nininger Rd WB	R		A (0.5)	A (0.3)	A (0.9)
	L		D (43.5)	E (56.5)	E (63.8)
	LT		D (36.7)	D (51.3)	D (54.2)
CR 105 NB	R		A (3.0)	A (8.2)	B (17.2)
	L		B (15.2)	B (15.0)	C (29.2)
	T		D (40.9)	E (60.9)	E (59.1)
CR 105 SB	R		A (5.0)	A (7.7)	A (4.5)
	LL		D (38.2)	E (59.3)	E (76.8)
	TR		D (36.9)	C (34.3)	C (26.0)
			C (30.5)	D (39.3)	D (41.7)
CR 105/Spring St/Day Care Center Dwy		S			
CR 105 EB	L		D (49.5)	D (50.4)	D (54.2)
	LT		D (45.2)	D (46.5)	D (48.8)
	R		A (0.3)	A (0.5)	A (0.5)
Learning Experience Dwy WB	LTR		D (32.3)	D (54.0)	D (37.0)
Freeland St NB	L		D (46.6)	E (59.6)	E (66.2)
	TR		C (37.8)	C (27.7)	C (24.4)
CR 105 SB	LTT		C (18.0)	C (31.9)	C (26.4)
	R		A (4.6)	A (2.8)	A (3.0)
	R				
Overall			C (30.0)	C (30.5)	C (28.4)
CR 64/West Driveway					
CR 64 EB	L	TW	B (10.4)	B (13.5)	B (11.4)
West Driveway SB	R		C (17.1)	F (125)	D (28.5)
CR 64/East Driveway					
CR 64 EB	L	S	A (4.9)	B (14.8)	A (8.4)
	T		B (17.1)	B (14.6)	B (12.7)
CR 64 WB	T		A (9.3)	C (26.8)	C (20.2)
	R		A (1.3)	A (1.3)	A (1.6)
East Driveway SB	L		C (30.4)	D (51.1)	C (28.1)
	R		B (10.5)	A (8.7)	A (8.5)
			B (13.9)	C (22.6)	B (16.1)

With the geometry improvements and a redistribution of traffic through the Daj Boulevard and Chust Road connectors, intersection operations will improve further. A reduction in geometry improvements could be considered with the implementation of these new connections.

School Impacts

The project's potential impact to neighboring school operations, specifically the Monroe / Woodbury School District campus at Nininger Road and Dunderburg Road, are generally limited to the presence of additional traffic, which is mitigated with the implementation of intersection improvements. As provided in Table 9-10 above, the Dunderburg Road / CR 64 (Nininger Road) intersection will operate at a LOS C in the a.m. peak period and LOS B in the p.m. and Sunday peak periods. It is anticipated that the peak periods for shopping at the Monroe Commons development will not coincide with the middle school and high school start and dismissal times which range from approximately 6:45 a.m. to 8:00 a.m in the morning and 2:00 to 3:00 p.m. in the afternoon. The project will not generate any additional traffic to/from the school.

On-site Vehicle Circulation

As described, the Monroe Commons development will have two driveways on Nininger Road, a northern and a southern driveway, approximately 400 feet apart. The southern driveway will be the main driveway with right and left turn exits lanes. The southern driveway will provide access to the western parking lot and will circulate around the building to the upper (eastern) parking lot. Delivery vehicles will primarily use the main southern driveway which provides access to the loading area. The southern access drive also provides access to the main first floor retail entrance and a vehicle drop-off / pick-up area at that entrance (see Figures 2-3 Proposed Site Plan and Figure 2-4 Site Plan Rendering). Vehicles can access a driveway at the northern side of the building to access the rear (eastern) parking area and hotel entrance.

Two driveway connections will be provided to the adjoining Veyoel Moshe Gardens (VMG) residential development to the north. The lower (western) driveway connection is located near the Brach and Mann office building and the upper (eastern) driveway provides access to the upper hotel / office parking area. Sidewalks will be provided at these driveways for pedestrian access to and from Monroe Commons.

Truck turning diagrams for buses, fire trucks, and 53-foot delivery trucks (WB-67) movements through the site are shown in the attached Turning Movement Diagrams (see attached Turning Movement Diagrams.

Transit, Pedestrian, and Bicycle Modes

There are no known changes to the transit, pedestrian, and bicycle facilities adjacent to the project as a result of other projects. However, the VMG project will be building a pedestrian bridge across CR 105 at the Bakertown Road intersection. The Monroe Commons project is expected to generate a substantial amount of person trips to the facility from the surrounding neighborhood. As such, pedestrian connections are provided to the adjacent VMG project which will allow residents to walk between the project and other points in the Village. Figure 9-2 shows the location of the proposed VMG pedestrian bridge and its relation to the Monroe Commons development. Sidewalks will be provided at three locations between Monroe Commons and the adjoining VMG residential development: two at the upper and lower driveways and a third at the northwest corner of the building accessing the northern building entrance (see Figure 9-2).

Sidewalks will be provided around the building, as shown in the Site Plan drawings (see Figure 2-3).
Transit accommodations are also provided on site to accommodate any KJ/PT transit needs. The Potential Bus Routing Plan in Figure 9-3 shows potential transit routes into and through the Monroe Commons site for New York City buses, Village of Kiryas Joel buses and Village Transit buses. Two potential bus stop/ shelter areas are shown on the Figure, but bus routing and stopping locations will require coordination with the transit operators. The Applicant will consult with transit operators in KJ/PT and Town of Monroe to potentially provide regular service to Monroe Commons for patrons and workers.

The project is not changing any of the accessibility of bicyclists in the surrounding area; however, no bicycle activity has been observed in and around this community.

Police Barracks Operations

The project's impact to the police barracks operations will primarily be in the form of additional intersection delay affecting non-emergency travel, e.g. travel to and from the barracks at the beginning or end of a shift, and if said shift overlaps with the peak hours. Little to no impact is expected relative to emergency responses or responses directed onto Route 17 given its separate access to the highway.

Sight Distance Analysis

A sight distance evaluation was completed at the proposed site driveway intersections with CR 64. Available *intersection* sight distance was measured from the perspective of a vehicle exiting and entering the site. The available intersection sight distance on a side street should provide drivers sufficient view of the intersection highway to allow vehicles to enter or exit the intersection without excessively slowing vehicles traveling at or near the operating speed on the intersecting mainline.

Stopping sight distance was also measured along CR 64 approaching the site driveways. Stopping sight distance is the length of the roadway ahead that is visible to the driver and should be of sufficient length to enable a vehicle traveling at or near the operating speed to stop before reaching a stationary object in its path. Diagram 9.1 illustrates the intersection and stopping sight distance lines of sight.

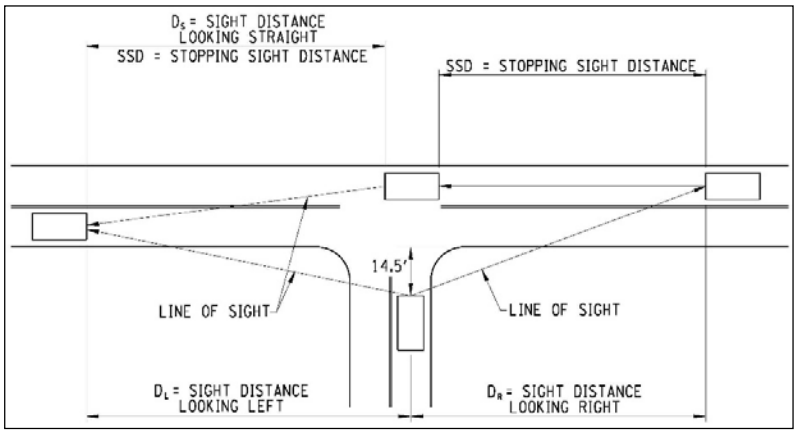


Diagram 9.1 –Sight Distance Measurements

The posted speed limit on CR 64 defaults to the state maximum, 55 mph adjacent to the project site. Based on ATR speed data, the 85th percentile speed was observed to be 59 mph, the average speed was 52 mph. The available sight distance in the field was measured and compared to the guidelines presented in AASHTO's *A Policy on Geometric Design of Highways and Streets*, 2018 and NYSDOT design guidance (EB 17-007) for the applicable 60-mph operating Speed. The results of the sight distance analysis are summarized in Table 9-11.

Table 9-11
Intersection Sight Distance Evaluation

Intersection		Intersection Sight Distance[1]				Stopping Sight Distance[2]	
		Right Turn from Site Drwy (D_L)	Left Turn from Site Drwy		Left Turn from CR 64 (D_S)	SSD_{EB}	SSD_{WB}
			Looking Left (D_L)	Looking Right (D_R)			
CR 64 (Nininger Rd)/ West Site Drwy	Available	720	720	455	720	430	695
	Recommended[3]	575	665	665	490	580	480
CR 64 (Nininger Rd)/ East Site Drwy	Available	>770	>770	780	>770	755	>770
	Recommended[3]	575	665	665	490	580	480

1. Intersection sight distance is measured at 14.5 feet back from the travel way at an eye height and object height of 3.5 feet.
2. Stopping sight distance is measured at an eye height of 3.5 feet for a 2-foot object located in the path of vehicles on CR 64, for a +/-5% grade
4. Sight distance measurements are compared to AASHTO recommended distances for a 60-mph operating speed on CR 64.

CR 64 (Nininger Road)/West Site Driveway – The sight distance analysis indicates that all intersection and stopping sight distance measurements at this location exceed the AASHTO guidelines with the exception of the distance looking right for a vehicle making a left turn out of the west site driveway and the stopping sight distance for vehicles traveling eastbound on CR 64, both of which are obstructed by a vertical curve. These sight lines are illustrated below in Photographs 1 and 2. Potential mitigation options include widening Nininger Road to provide a center left turn lane, which would allow stopped vehicles waiting to turn left to do so without impeding through traffic. Additionally, a "no left turn out" restriction could be implemented. Left turns could be accommodated at the east driveway, particularly if a traffic signal is provided.

CR 64 (Nininger Road)/East Site Driveway – The sight distance analysis indicates that all intersection and stopping sight distance measurements at this location exceed the AASHTO guidelines. No mitigation is necessary.

It is recommended that any site signing and landscaping along the project frontage be design as to not block intersection sight distances.

Parking Generation Assessment

Section 57-49 of the Town Code provides the parking area requirements for non-residential uses, based on different uses. Section 57-47 of the Town Code provides the method of determining off-street parking requirements, including that: "*The requirements for a use made up of several component uses (e.g., a bowling alley with auditorium seating and a restaurant and bar or a retail store and office building) shall be determined by establishing the requirements for each component use and adding them together"*. The project engineer calculated the required parking

spaces based upon the uses (retail, office, and hotel), and the proposed building square footage and number of hotel rooms. A total of 1,088 parking spaces are required by Town Code requirements.

Section 57-47E. describes the process for the review and determination of appropriate parking for business parks by the Planning Board:

> *At the time of individual site plan approval for uses located within a business park, the adequacy of accessory parking areas and truck loading spaces for that use shall be subject to review and determination by the Planning Board. After consideration of an appropriate parking needs study for the proposed use and the overall business park, the Board may reduce the actual parking area and/or loading spaces that would otherwise be required by this article by up to 25% in instances where it is demonstrated to the satisfaction of the Board that the combination of uses within the business park will generate parking needs that do not overlap or will not occur simultaneously or that the actual parking requirements of the proposed use are less than would otherwise be required by this article.*

A parking generation assessment was conducted for Monroe Commons, a mixed-use commercial building similar to other business centers in the Village of Kiryas Joel. Existing parking counts at the 51 Forest and 48-52 Bakertown business centers were conducted on Thursday, June 3, 2021 and Sunday, June 6, 2021 from 12:00 PM to 4:00 PM to calculate comparable parking demand rates that can be applied to Monroe Commons. It was found that the average peak period parking demand rates at the two business centers were 2.03 spaces/KSF during a typical weekday and 1.77 spaces/KSF on a Sunday. This equates to a projected peak parking demand of 379 vehicles during a typical weekday and 331 vehicles on a Sunday at the Monroe Commons project. Accounting for parking errors and additional space for effective parking supply, a minimum of 436 spaces (15% over weekday peak) is recommended for Monroe Commons. The full parking generation assessment can be found in Appendix E of the Traffic Study.

As shown on the Site Plan drawings, 624 parking spaces will be provided. An additional 29 spaces will be provided as banked parking at an area southeast of the building. The number of proposed spaces is 43 percent greater than the minimum spaces recommended by the Parking Generation Assessment. The applicant proposes an additional 29 banked parking spaces and the location of those spaces at the south east side of the building is shown on the plans. The Applicant proposes to landscape this banked parking area to provide for greater green and landscaped area for the development. If the additional land banked parking is needed in the future, the Applicant is committed and required by the zoning code to provide the parking.

Section 57-50 of the Town Zoning Code provides the requirements for off-street truck loading spaces. The Code requires 3 off-site truck loading spaces for 40,001 to 100,000 square feet of aggregate area “devoted to such use”, and 1 additional space for each additional 60,000 square feet. The project will have 189,062 square feet of net floor area, and therefore 6 truck loading spaces are required by the Code. Eight (8) loading spaces are provided on the plans.

Parking and Road Maintenance

The Monroe Commons property owner will be responsible for the long-term maintenance of the internal driveways, parking lots and sidewalks. This maintenance includes winter site maintenance and the removal of snow and ice from driveways, parking areas and sidewalks for

on-site visitor safety. Two proposed snow storage areas are shown on Site Plan 1 (Sheet 3), near the northern driveway (see Appendix M).

9.4 Conclusions, Recommendations and Mitigation Measures

The following summary of conclusions and recommendations are offered:

1. Based on ITE data and accounting for pass-by trips, the proposed project is estimated to generate a total of 734 new vehicle trips in the AM peak hour, 975 new vehicle trips during the PM peak hour and 624 new vehicle trips in the Sunday peak hour upon full build out. These estimates are conservative given the unique characteristics of the community and the project's access to pedestrian and transit services.

2. A sight distance analysis indicated that all intersection and stopping sight distance measurements at the two proposed sight driveways were met for a 60-mph operating vehicle speed, with the exception of the distance looking right for a vehicle making a left turn out of the west site driveway and the stopping sight distance for vehicles traveling eastbound on CR 64 for the west site driveway. Potential mitigation options include widening Nininger Road to provide a center left turn lane to allow stopped vehicles waiting to turn left to not impede through traffic. A "no left turn" restriction out of the west site driveway could also be implemented, and left turns out of the site can be accommodated by the east site driveway, particularly if a traffic signal is provided.

3. At the CR 105/Bakertown Road/Austra Pkwy intersection, there will be a significant increase in traffic resulting from other developments and additional delay increases as a result of the proposed project. Development of a new connector road between Daj Boulevard and CR 105 at Nininger Road is recommended to increase the points of access to and from the village. After the implementation of the connector road and geometry at the intersection, it improves to LOS C during the AM peak hour, LOS C during the PM peak hour, and LOS B during the Sunday peak hour.

4. The CR 105/CR 64 (Nininger Road) intersection experiences significant increases in delays as part of background traffic growth, which will continue to worsen with the proposed project. With the Daj Boulevard connector and geometry improvements, traffic will be more distributed to and from the village and the intersection improves to LOS C in the AM peak hour and LOS D in the PM and Sunday peak hours.

5. The CR 105/Spring St (CR 105)/Day Care Center Drwy intersection experiences an increase in delays as a result of this project during the PM and Sunday peak hours. With signal timing adjustments and widening, the intersection will improve to LOS C during all peak hours.

6. As unsignalized intersections, the two site driveways will generally operate at LOS F with high vehicle delays at the southbound left turn movement. Given the overall operating conditions, it is recommended that Nininger Road be widened to provide a center left turn lane and a traffic signal be installed at the East Site Driveway. Drivers will be able to use the signal at the East Site Driveway to avoid long delays at the unsignalized driveway.

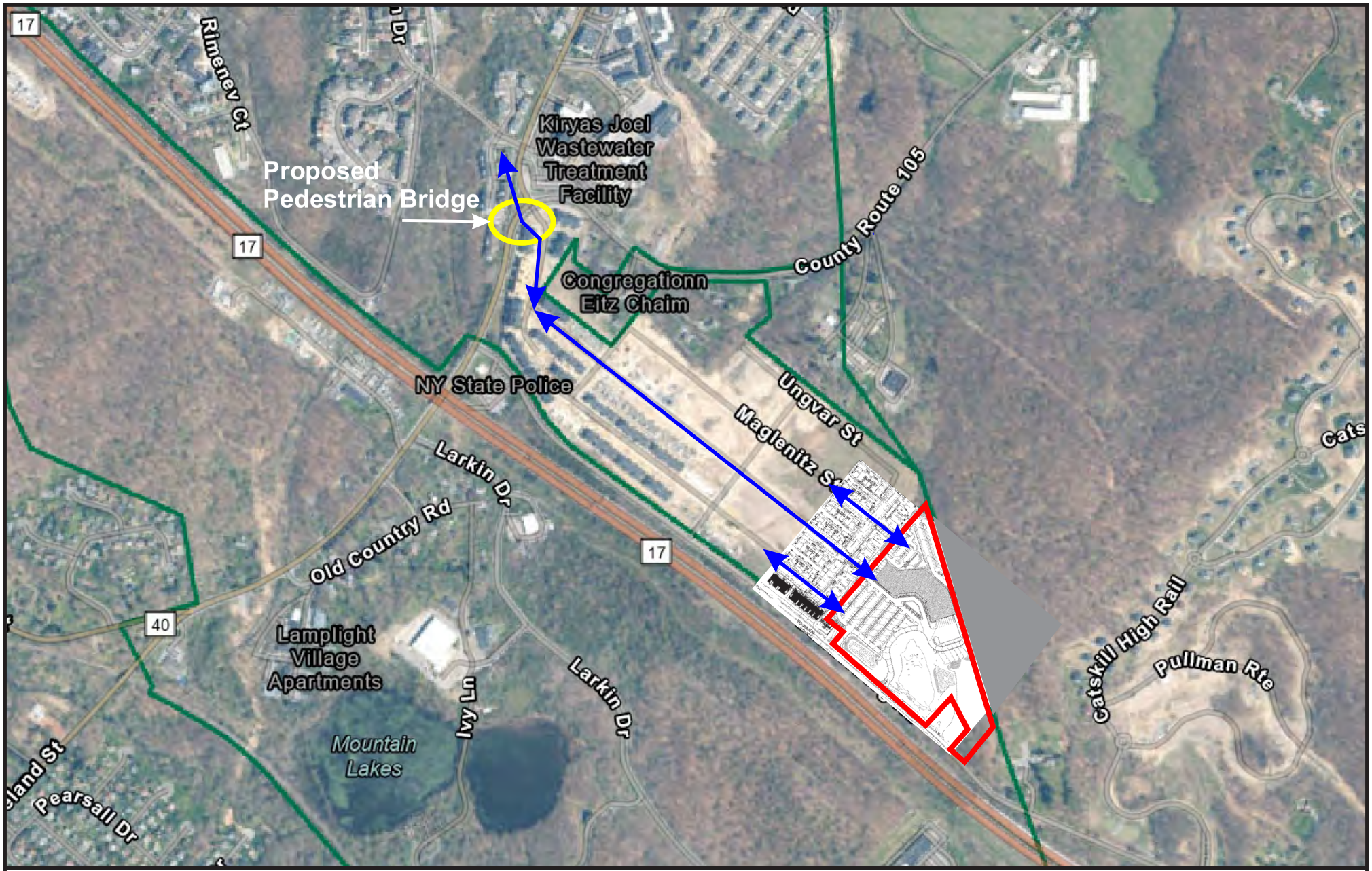
7. After the implementation of a traffic signal at the intersection of CR 64/CR 95 under the No-Build condition, the intersection is expected to operate at LOS F during the AM peak, LOS E during the PM, and LOS D during the Sunday peak hours. Under Build conditions,

the intersection operates at LOS F during the AM and PM peak hour, and LOS E during the Sunday peak hour. With the implementation of signal timing improvements and widening the westbound approach for a separate through/right turn lane, Table 4.3 indicates that the intersection will operate at overall LOS C or lower during all peak hours.

8. The intersection of CR 64/NY Route 32 currently operates at an overall LOS A/B during all peak hours but will degrade to LOS F in the No-Build and Build conditions. It is noted that there is projected to be a significant increase in volumes on the northbound left turn movement. It is likely that as traffic increases over time, delays will balance themselves as some drivers will find it quicker to make a right turn off of NY Route 32 into the Nininger Road Extension roundabout (near Woodbury Commons) and pass under NY Route 32 and through the other Nininger Road roundabout.

9. For the remaining three intersections, the intersection either operates adequately and will continue to do so through Build and Build with Improvement conditions, or currently operates with high delays which will be mitigated through signal timing improvements.

The above analysis indicates that the traffic impacts from the *Monroe Commons* project will have traffic impacts that can be adequately mitigated with the recommended improvements.



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Proposed Sidewalk Connections

Figure 9-2: Pedestrian Connections

Monroe Commons
Town of Monroe, Orange County, New York
Source: Orange County NY GIS

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

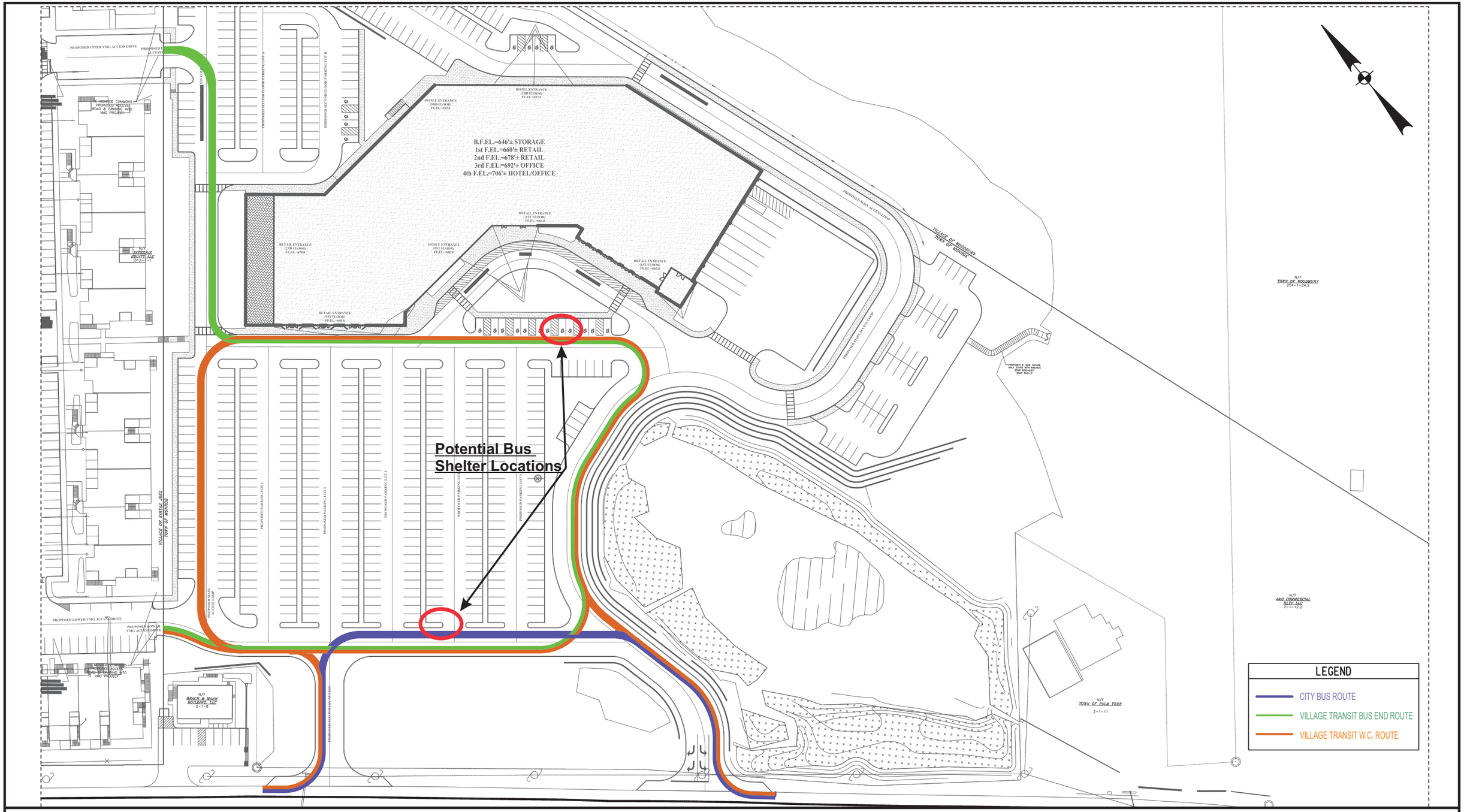

Figure 9-3: Potential Bus Transit Routes
Monroe Commons
Town of Monroe, Orange County, NY
Source: Creighton Manning Engineers 2023

10.0 HISTORIC AND CULTURAL RESOURCES

10.1 Existing Conditions

Under Section 106 of the National Historic Preservation Act and Section 14.09 of the New York State Historic Preservation Act, the State Historic Preservation Office (SHPO) reviews applications to consider potential historical and cultural impacts or effects on eligible or listed properties during the planning process. All projects that will require any type of permit from a New York State agency or a federal agency require a review by SHPO.

As further described below, soils mapping, historical aerial photographs and on-site topography, indicated that the site was extensively disturbed in the late 1950's and early 1960's. The majority of on-site soil is mapped as Udorthents, smoothed (UH), which are described as: "These soils are formed in manmade cut and fill areas, which are generally near urban developments or other construction sites". An historical aerial photo from 1958 shows the majority of the site as cleared of vegetation (see Figure 10-1 1958 Aerial Photo).

Historic Resources

The project site is not in the vicinity (one-half mile) of properties or districts listed on the National Register of Historic Places, based upon a review of the National Register database. The project site is approximately 1.5 miles from the Village of Monroe Historic District, which is listed on the National Register.

Archeological Resources

A Phase 1A/1B Cultural Resource survey has not been completed for the site. Recently, information regarding the site has been sent to the NYS Office of Parks Recreation and Historic Preservation (OPRHP) through its Cultural Resource Information Service (CRIS) website.

Information provided to OPRHP indicates that the majority of the site appears to have been graded and disturbed in the late 1950's and 1960's. The Orange County Soil Conservation Service mapping for the site indicates 62 percent of the site is mapped as Udorthents, smoothed (UH), which are described as: "These soils are formed in manmade cut and fill areas, which are generally near urban developments or other construction sites. They consist of excavated earthy material that has been stockpiles or soil left in areas that have been excavated and cut". An historic aerial photograph from 1958 shows the site largely cleared of trees and what appears to be grading in the center of the property. Inspections of the property show mounds of soil, unnatural slopes and indications grading and excavation. Mature trees are located in these areas of previous disturbance, indicating the grading occurred at least 40 to 50 years ago. Previous large scale site disturbance and the natural steep slopes on the property indicate that undisturbed archeological resources are unlikely to be found on the project site. A small abandoned slab foundation and open cistern is located in the southwest portion of the property, likely the remains of a small house. These features do not appear to have any cultural, historic, or archaeological significance.

10.2 Potential Impacts

As described, no historic sites, structures or districts on the National Register of Historic Places are located in the vicinity of the project site. Based upon on-site soils, historic aerial photographs and site topography and conditions, it appears that a majority of the project site has been graded

and disturbed. Therefore, undisturbed archeological resources are not expected to be located on the subject property.

In a letter dated January 25, 2023, the NYS Office of Parks Recreation and Historic Preservation (OPRHP) has determined that the project will have no effect on historic or archeological resources. A copy of the letter of determination is provided in Appendix B – Correspondence.

10.3 Mitigation Measures

To date, no historic or archeological resources have been identified on or in the vicinity of the site. The NYS Office of Parks Recreation and Historic Preservation (OPRHP) has determined that the project will have no effect on historic or archeological resources. No mitigation is warranted or proposed.

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Figure 10-1: 1958 Aerial Photo
Monroe Commons
Town of Monroe, Orange County, New York
Source: EDR / Lightbox
Approximate Scale: 1 in. = 600 ft.

File 04031 08/08/05
JS:\04031\Fig 4.8-12.cdr

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

11.0 COMMUNITY FACILITIES AND SERVICES

As discussed, The Project Sponsor proposes to develop a commercial building with a total of approximately 408,000 square feet of commercial space, envisioned to include retail space, office space and a boutique hotel on the third and fourth floors. The site is approximately 18.2 acres, located off Nininger Road in the Town of Monroe, Orange County, New York. The project is known as “Monroe Commons”. The development site is approximately one-half mile from the existing NYS Troop F Police barrack facility. The location of the site is shown on Figure 2-1. The project site is currently vacant wooded land.

11.1 Existing Conditions

11.1.1 Existing Conditions Police Protection

The Town of Monroe does not have its own police force. Primary Police protection is provided by the New York State Police, Troop F. The proposed project is in Zone 2. The Zone 2 police station is located east of the project site at the intersection of Nininger Road with CR105. There is a helipad on the police station property. The state police are available 24/7 and have several patrol vehicles in the Monroe area at all times.

According to their website; The New York State Police works to ensure the safety of the state's roadways, prevent and investigate crime, prepare for and respond to emergencies and disasters and provide support to other law enforcement agencies.

Their mission is as follows:

- Improve Highway Safety to make roads safe for all users
- To reduce the deaths, injuries and property damage caused by motor vehicle accidents through vehicle and traffic enforcement and education
- Provide Professional Police Services to Communities and Investigative Support to Departments Around the State
- To prevent and detect crime and other violations of law, pursue criminal investigations and arrest criminals
- To render assistance to victims and protect citizens and their property from harm
- To provide the law enforcement community with the highest quality support services
- Detect and Prevent Terrorism
- To implement counter terrorism measures through intelligence sharing and collaboration
- To thoroughly investigate Terrorism and Cyber-Terrorism activities
- To protect and secure local Borders in conjunction with federal, state and local agencies Prepare for and Respond to Emergencies and Disasters
- Engage in emergency preparedness, planning and response activities
- To provide security and maintain order in all types of natural and man-made emergencies
- To assist with the rescue of citizens in danger and the recovery of victims

Mutual aid is provided by the Village of Monroe Police Department. The Village police department is a “full service” department and participates in many community crime prevention and awareness programs in addition to its normal law enforcement tasks.

The department operates 24/7 and has 12 patrol cars and a canine patrol. The Village of Monroe Police headquarters are located across the street from Village Hall at 104 Stage Road in the Village center, less than 3 miles from the project site.

The full-service department presently consists of the police chief, an administrative Sargent, three patrol supervisors, two detectives, eleven sworn police officers including one K9 officer and seven school safety officers. During a phone call on May 23, 2023, a detective with the Village Police Department confirmed that the Village of Monroe Police Department handled 21,090 calls for service in 2022.

The Village of Kiryas Joel maintains its own Public Safety Department which provides protective services to properties within the 1.1 square mile area that comprises the Village. The Department headquarters is centrally located at 170 Schunnemunk Road. Additionally, the NYS Police Troop F and the Orange County Sheriff provide police protection services in the Village.

11.1.2 Existing Conditions Fire Protection

According to the current 2023 Monroe Joint Fire District website, in 2011, the three fire companies serving the Town of Monroe (Mombasha Fire Company, Harriman Engine Company, and Lakeside Fire and Rescue Company) merged to create the Monroe Joint Fire District. The three fire companies respond together for all calls within the boundaries of the Joint Fire District.

There are fire stations at four locations;

- Mombasha Station 1 - 526 St Route 17M, Monroe, NY 10950
- Mombasha Station 1A – 406 N Main Street, Monroe, NY 10950
- Harriman Station 2 – 7 Short Street, Harriman, NY 10926
- Lakeside Station 3 – 147 West Mombasha Road, Monroe, NY 10950

By combining resources, the Monroe Joint Fire District is able to provide a wide range of fire and rescue services as part of a consolidated Department.

The Department is a fully volunteer organization. Collectively, there are approximately 75 active members who serve the community by providing Fire, Rescue, Disaster Relief and Emergency Medical Services to anyone in need. The Monroe Joint Fire Department is also dedicated to community service by supporting other local charities and participating in fireman’s parades throughout the region.

The Monroe Joint Fire Department currently operates 8 engines, 3 tanker trucks, 3 ladder trucks, 4 first responder rescue vehicles, a rescue trailer and a marine safety vehicle, plus 3 Chiefs' vehicles. These units are staffed by the 75 active volunteer members who respond from the stations listed above. The Monroe Joint Fire Department typically responds to approximately 650 alarms annually. These alarms consist of structural fires, motor vehicle accidents (MVA's), automatic alarms, vehicle fires, mutual aid, and various other calls for assistance. The source of this information was the Monroe Joint Fire Department website. The Fire Department Secretary indicated, through email correspondence on August 24, 2023, that there is no known expansion of the fire district facilities, including manpower and equipment (see Appendix B – Correspondence).

11.1.3 Existing Conditions Emergency Medical Services

Ambulance

The Monroe Volunteer Ambulance Corp (MVAC) located at 100 Ramapo St, in Monroe provides emergency ambulance service to the project area. The MVAC is approximately 2 miles from the project site via Route 105. The MVAC currently has 100 active members and typically responds to approximately 1,500 calls for service annually. According to the MVAC website, the corps currently operates (3) Type I ambulances, (1) BLS first response vehicle, (1) Rehab Unit, (2) UTVs and (1) Special Operations. The Corps also has a fully equipped first response vehicle. Each ambulance response is staffed by a crew chief who is a New York State Certified Emergency Medical Technician, and a driver.

Hospital

The primary hospital serving the project area is the Garnet Health Medical Center, previously known as Orange Regional Medical Center, located at 707 E Main Street in Middletown, 15 miles north of the Project site. Garnet Health Medical Center was formed by the merger of Arden Hill Hospital and Horton Medical Center. As a result of the merger, the two campuses were moved into a single-site, new, state-of-the-art facility on August 5, 2011.

This is the first new hospital built in New York State in over 20 years and boasts seven floors of state-of-the-art technology and provides 383 beds and employs over 2,400 healthcare professionals. More than 600 doctors have privileges at the hospital and treat thousands of area families.

In addition to the main hospital, Garnet also provides several outpatient services, including diagnostic imaging and laboratory services. With the opening of the Outpatient Building, many services, previously provided at other off-campus locations, have relocated into this new, state-of-the-art building in the main hospital campus in Middletown, NY.

11.1.4 Existing Conditions Recreational Services

The Town of Monroe is primarily a residential community with a 2022 population of 21,803 persons. Almost 40% of the population is between the ages of 25 to 55 and 19% of the population is less than 14 years old. More than 70% of the housing is owner occupied.

The Town has the Monroe Joint Parks and Recreation Commission which is tasked with providing recreation to the Town's population. The Commission has a 10-member board: 5 representatives from the Town, and 5 from the Village. Meetings are open to the public and are held in the Park Administration building on the 4th Monday of each month at 7:30pm.

The Commission sponsors programs to meet the needs of the Town and Village residents. The following list of parks are available for resident use, providing active and passive recreation:

- Mombasha Park
- Smith Clove Park
- Berry Road Park
- O& R Park
- Dog Park

- Round Lake
- Walton Lake
- Mombasha Lake

Activities programming is shared by the Town of Monroe with the Village of Monroe. The primary park is Smith's Clove Park, which is made up of 80 acres of developed and undeveloped land housing (3) pavilions, rest rooms, parking lots, hiking trails, a fitness course, an illuminated football field, (2) minor and (1) illuminated major league baseball field, (3) illuminated basketball courts, (3) age specific playgrounds, (3) illuminated handball courts, (2) indoor racquetball courts, (2) illuminated tennis courts, (1) illuminated roller hockey rink, (1) illuminated softball field, a dog park, a volleyball court, a pond to skate, a hill to sleigh ride and a 2600 square foot recreation building complete with an activity room, a game room and a multi-purpose room.

The most widely attended and most popular program the park provides is the summer youth activity camp, or YAC. The camp follows the guidelines as set forth by Orange County and New York State, and is a very inexpensive way to provide recreation to the children of Monroe. The six-week day camp starts up right after the July 4th holiday and runs through the second week of August and offers sport activities, arts & crafts, intramural events, special-theme days, and field trips. Extended hours are also available at a nominal fee.

The Town offers a youth sports program including:

- Crusader Roller Hockey
- Monroe-Woodbury Little League
- Monroe-Woodbury United Soccer
- Monroe-Woodbury Pop-Warner Cheerleading & Football

The Town also offers senior programs through its senior center, including a variety of exercise classes: Yoga, Stretch, Chair Aerobics, Meditation & Movement, Balance & Flexibility, Fire & Flow and Osteo-Weight Class. In addition, there are two clubs, the Jolly Seniors of Monroe & Young at Heart who meet twice a month and offer social activities such as BINGO and several trips throughout the year. AARP offers a defensive driving class twice a year in the late fall and spring.

11.1.5 Existing Conditions Solid Waste

Municipal Solid Waste collection services, including trash, recycling and bulk pick-up are provided to the residential population of the Town of Monroe and Village of Monroe and to the Town of Harriman on a twice a week schedule with one day of recycling. Services are currently provided by the Marangi Company.

11.1.6 Existing Conditions School Facilities

The project site is served by the Monroe Woodbury School District. The District includes seven schools: two grade schools, (grades K to 1), three intermediate schools (grades 2 to 5) one middle school (grades 6, 7 and 8), and one high school (grades 9 thru 12). Table 11-1 identifies the locations of the school facilities in the Monroe Woodbury School District. The Monroe Woodbury School District geographically includes the Town of Monroe and the Town / Village of Woodbury, parts of Tuxedo, Chester and Blooming Grove.

Table 11-1 School Facilities in the Monroe Woodbury School District		
School	**Location**	**Grades Served**
Smith Clove Elementary	21 Smith Clove Rd, Central Valley	K-1
Sapphire Elementary	159 Harriman Heights Rd, Harriman	K-1
Pine Tree Elementary	156 Pine Tree Rd, Monroe	2-5
North Main Elementary	212 N Main Street, Monroe	2-5
Central Valley Elementary	45 NY-32, Central Valley	2-5
Monroe Woodbury Middle School	199 Dunderberg Rd, Central Valley	6-8
Monroe Woodbury High School	155 Dunderberg Rd, Central Valley	9-12

As of September 2022, 6,555 students were enrolled in the District. Table 11-2 below summarizes the 2022/2023 grade distributions and enrollments of the various schools within the District:

Table 11-2 Monroe Woodbury School District (2022-2023 School Year)		
School	**Grades Served**	**2021 Enrollment**
Smith Clove Elementary	K-1	448
Sapphire Elementary	K-1	317
Pine Tree Elementary	2-5	837
North Main Elementary	2-5	534
Central Valley Elementary	2-5	484
Monroe Woodbury Middle School	6-8	1,590
Monroe Woodbury High School	9-12	2,375
TOTAL		**6,555**
NYSED Monroe Woodbury School District 2023.		

11.2 Future Without the Proposed Project

11.2.1 No-Build Condition Police Protection

Without the Monroe Commons project, development will continue to occur in the Town of Monroe, Village of Woodbury and the Village Kiryas Joel/Town of Palm Tree. Proposed projects in the Village of Kiryas Joel/Town of Palm Tree comprised the majority of No-Build projects evaluated in the Traffic Study. Future local residential and commercial developments will continue to be served by NY State Police, the Orange County Sheriff's Department, as well as the Village of Monroe Police Department and the Village of Kiryas Joel Public Safety Department.

11.2.2 No-Build Condition Fire Protection

If the Monroe Commons project was not constructed, residential and commercial development will continue to occur in the Town of Monroe, Village of Woodbury and the Village Kiryas Joel/Town of Palm Tree. Future local residential and commercial developments will continue to be served by the Monroe Joint Fire Department. The department may have to add staff or equipment as the local population and development increases.

11.2.3 No-Build Condition Emergency Medical Services

If the Monroe Commons project was not constructed, residential and commercial development will continue to occur in the Town of Monroe, Village of Woodbury and the Village Kiryas Joel/Town of Palm Tree. The Monroe Volunteer Ambulance Corp (MVAC) and local hospitals will continue to serve future local residential and commercial developments. The MVAC may have to add staff or equipment as the local population and development increases. The Garnet Health Medical Center serves a large population in Orange County and will continue to adjust staffing and facilities based upon public need.

11.2.4 No-Build Condition Solid Waste

Without the Monroe Commons project, residential and commercial development will continue to occur in the Town of Monroe, the Village of Monroe and the Town of Harriman. Solid Waste collection services, including trash, recycling and bulk pick-up will be provided to the residential population of the Town of Monroe and Village of Monroe and to the Town of Harriman on a twice a week schedule with one day of recycling. Services are currently provided by the Marangi Company

11.2.5 No-Build Condition Schools

Without the Monroe Commons project, student enrollment in the Monroe Woodbury School District would continue to evolve per residential development in the district as well as population shifts. The district would also not receive the revenue estimated to be generated by development of the Monroe Commons project, amounting to approximately $845,633.

11.3 Potential Impacts of the Proposed Project

11.3.1 Potential Impacts Police Protection

The development of commercial area on the project site could create a demand for additional police services. The proposed project consists of construction of 189,062 square feet of leasable new retail and office space, plus a boutique hotel, which will result in an increase in the Villages number of employees.

There are several multipliers available to estimate the number of employees generated by non-residential development. The Institute of Transportation Engineers (ITE) Parking Generation[1] estimates 3.4 jobs per 1,000 square foot of office building space. The ITE Trip Generation Handbook[2] indicates approximately 3.3 employees per 1,000 square foot of Office Space. A multiplier of 3.3 jobs per 1,000 square foot has been used for the purpose of this analysis to estimate the number of jobs that could be generated.

[2] ITE Parking Generation (4th Edition 2010. Page 201)
[3] ITE Trip Generation for Land Use 710. General Office Building

Utilizing the 3.3 employees per 1,000 square foot, the proposed 189,062 square foot of leasable commercial space at Monroe Commons has the potential to add approximately 624 new jobs to the Town's employment base.

Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute (ULI), 2.0 police personnel should be provided per 1,000 residents which further breaks down to 1.5 for residential uses and 0.5 officers for 1,000 employees in non-residential space. Using this standard, the projected increase of 189,062 square feet of leasable space from the Monroe Commons development has the potential to increase police staffing needs by approximately 0.3 police personnel. Tax revenue, including NYS sales tax revenue, generated by the Monroe Commons would be available help to cover any additional expenses as necessary.

The proposed project site is neighbors with the Troop F, Zone 2 Barracks, located at 369 Nininger Road, which has a heliport on site. Discussion with Staff Sargent of the Troop F, indicate the helipad is heavily used, particularly by the residents of the Town of Palm Tree.[3] The Sargent indicated that any operational conflicts with the existing helicopter pad are not anticipated. The helipad is located at the intersection of Nininger Road and CR 105, toward the rear of the property. Helicopter operations require minimal horizontal distance and their operation is wholly contained on the police station property.

A letter of inquiry was sent to the Commander of the NYS Police Troop F, Zone 2. Security protocols restrict information dissemination about NYS police resources. In a phone conversation[4] with the Zone 2 Commander Captain Peter Cirigliano, he indicated, there are sufficient staff and resources to provide police protection to the proposed project and the NYS Police had no objections to the development. He did not see any conflict between the proposed project and the Troops Helipad operation.

As mentioned under existing conditions, The Village of Monroe Police department provides supplemental support to the NYS Troop F who actually respond to any calls. In a phone call with Officer Edmondson (#5141) of Troop F on May 23, 2023 response time to the project site in emergency situations will vary depending on the location of the cars at the time of the call and could be as short as 3 minutes or take 10 minutes or longer.

Based on the analysis documented above and the subsequent conversation with Commander Captain Peter Cirigliano, no adverse impact to police services is expected.

11.3.2 Potential Impacts Fire Protection

Calls for fire/medical emergencies from the proposed development would be routed through the emergency 911 system, where dispatchers would notify the Monroe Joint Fire Department. The closest station, Mombasha Station located at 526 Route 17M is approximately 1.8 miles from the project site. Based upon location, response time to the project site is estimated to be approximately 3 to 5 minutes. The proposed building is proposed to be 49' high. A ladder truck is available at the Mombasha Station to accommodate this building height. All proposed retail, office and hotel spaces would be constructed with sprinklers and all operations would be permitted in accordance with the provisions of the State Fire Prevention Code. Buildings and operations of

[3] Phone Call February 9, 2023 to NYS Police Barracks Troop F, Zone 2.

[4] Phone call February 13, 2023 with Commander Captain Peter Cirigliano.

the development are subject to inspection by the Town's Building Inspector to evaluate the adequacy of construction materials used, building design and material storage practices.

Fire flow rates, water system capacity and the location of fire hydrants would be assessed by the Fire Department during the site plan approval process. A preliminary assessment by Brooker Engineering indicates adequate pressure for fire service from future water service lines on the adjoining VMG property (see Appendix B February 27, 2023 letter). The Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter, whereby the Village has agreed to supply water for the Monroe Commons project at the required level, estimated to be 54,210 gallons per day, and expressing the Village's willingness to approve the connection, subject to the standard Outside Water User Development Agreement to be recorded in the office of the County Clerk. The letter from the Village is provided in Appendix B – Correspondence. In addition, the sponsor of the Veyoel Moshe Gardens (VMG) residential development has provided a letter confirming their agreement for the proposed utility connections (including water and sewer) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations. Such municipal water would thus be available for fire protection services.

As noted above, the Proposed Action would potentially increase the Towns employee population by 624 persons. Based on planning standards contained in the Urban Land Institute's Development Impact Handbook, it is estimated that 1.65 fire personnel and 0.2 vehicles per 1,000 population is required to serve a new population. The anticipated increase in population of 624 employees could generate a demand for 1 additional fire personnel and approximately 0.13 additional fire vehicles.

Based on the multipliers presented above, which assume no existing services, it is the Applicant's opinion that the proposed project will not result in a significant adverse impact on fire protection services.

The Applicant met with the Monroe Joint Fire District Chief in March, 2023 to review the Site Plan and discuss any concerns regarding the proposed development. No concerns were raised at the meeting. The Monroe Joint Fire District will be fully involved with the review of the Site Plan, including site access, water pressure and the location of fire hydrants, as the Site Plan details are developed.

The project Traffic Engineer has prepared truck turning movement diagrams, including for fire trucks (see drawing Fire Truck Movements, Sheets 4 and 5). The diagrams show adequate turning movements throughout the site and around the building.

11.3.3 Potential Impacts Emergency Medical Services

Ambulance

As discussed above the Monroe Volunteer Ambulance Corp (MVAC) provides emergency ambulance service to the project area. The MVAC facility is located at 100 Ramapo Street in Monroe, approximately 2 miles from the project site. Based upon the site location, the estimated response time to the site from the MVAC facility is approximately five to seven minutes.

Based on planning standards contained in the Development Impact Assessment Handbook published by the Urban Land Institute, 36.5 calls per 1,000 population per year would be the multiplier used to project the increase in Emergency Medical Service (EMS) calls for new development. Based upon the ULI multiplier, the projected 624 employees that are expected to work at the Monroe Commons could increase EMS calls by approximately 23 annually.

The ULI multipliers assume no existing services, thus the actual demand on EMS personnel and vehicles is expected to be insignificant.

Hospital

Based on planning standards contained in the Development Impact Assessment Handbook, four (4.0) hospital beds should be provided per 1,000 persons. Based on this standard, the projected 624 employee population associated with the proposed development has the potential to increase the need for beds in hospitals serving area by less than 2.5 beds. This is not considered a significant impact.

11.3.4 Potential Impacts Recreational Services

Minimal impacts from the proposed Monroe Commons are anticipated to recreational resources. No mitigation is expected to be needed and none is proposed.

11.3.5 Potential Impacts Solid Waste

Monroe Commons will be a private commercial development with waste generated from retail, office, and hotel tenants. It is anticipated that waste from the development will be collected by a private waste contractor which will collect waste on a regular basis, based upon the tenant mix and waste generated.

The Applicant anticipates that approximately 19 tons of solid waste per month would be generated by this development. Based on model factors contained in the Development Impact Assessment Handbook published by the Urban Land Institute, the metric of 0.001 tons per day per employee of solid waste is used to project solid waste generated by the proposed development. The projected 624 employees would be expected to generate approximately 19 tons per month of solid waste. Assuming that solid waste generated by future employees at the project site has a typical 3:1 ratio of non-recyclable to recyclable materials, the project would be expected to generate 13 tons per month of non-recyclable solid waste and 6 tons per month of recyclable materials. Such waste is proposed to be deposited in an approved land fill. A typical garbage truck can hold approximately 15 tons of garbage. Thus, the total amount of non-recyclable solid waste produced in a month could be handled by a single truck. However, it is more likely that the private contractor would service Monroe Commons once or twice a week.

Applicant further anticipates that regular collection of waste would result in approximately two of truck trips per week. Any methods to reduce solid waste and/or increase recycling or repurposing will be utilized to the reasonable extent practicable.

Although the project site is in the garbage district, the Town does not provide solid waste disposal to commercial properties. These services would need to be privately contracted by the owner or manager of the property. Since the solid waste collection will be done by a private contractor, no impact to municipal waste services is anticipated. A single trash compactor for the building will be

located in the loading dock area at the south side of the building (see Site Plan – Cover Sheet, attached in Appendix M).

The project engineer has analyzed truck turning movements for anticipated large trucks accessing the site including waste vehicles. A truck turning plan is provided in the attached Site Plan Drawings.

11.3.6 Potential Impacts School Facilities

Minimal impacts from the proposed Monroe Commons are anticipated to the Monroe Woodbury School District since the development does not include a residential component. Potential indirect demand on the Monroe Woodbury School District could result if some of the future permanent employees of the Project choose to relocate to reside in, and enroll their children in the District. This number is not expected to be significant. Annual revenues to the Monroe-Woodbury School District would be approximately $845,663. The proposed commercial development will generate $839,335 above current taxes, without incurring additional cost to the School District. No mitigation is expected to be needed and none is proposed.

11.4 Mitigation Measures

No significant impacts related to Community Services have been identified or are anticipated, and therefore, no mitigation measures are warranted or proposed.

12.0 FISCAL AND ECONOMIC IMPACTS

12.1 Existing Conditions

Existing Conditions Demographics

This section discusses the existing demographic conditions in the Town of Monroe and Orange County. Where relevant, the Town of Palm Tree is included as this population is a key consideration in the Project's target market. The Town of Monroe is located in Orange County, New York, United States. According to the most recent population estimates from the Census Bureau, the population of Orange County was 405,941 as of July 1, 2022. This represents an increase in population of 4,631 individuals (1.2%) since the 2020 Decennial Census despite a decrease of 2.6% for New York State as a whole.

Figure 12-1 (Orange County Population Distribution) displays a range of population density throughout the county from sparsely populated rural suburban areas to small cities such as Newburgh and Middletown. The Town of Monroe is among the second densest category of areas of the county along with the Towns of Blooming Grove and Montgomery. The Town of Palm Tree (coterminous with the Village of Kiryas Joel), is home to a key target market of the proposed project, and is among the densest areas.

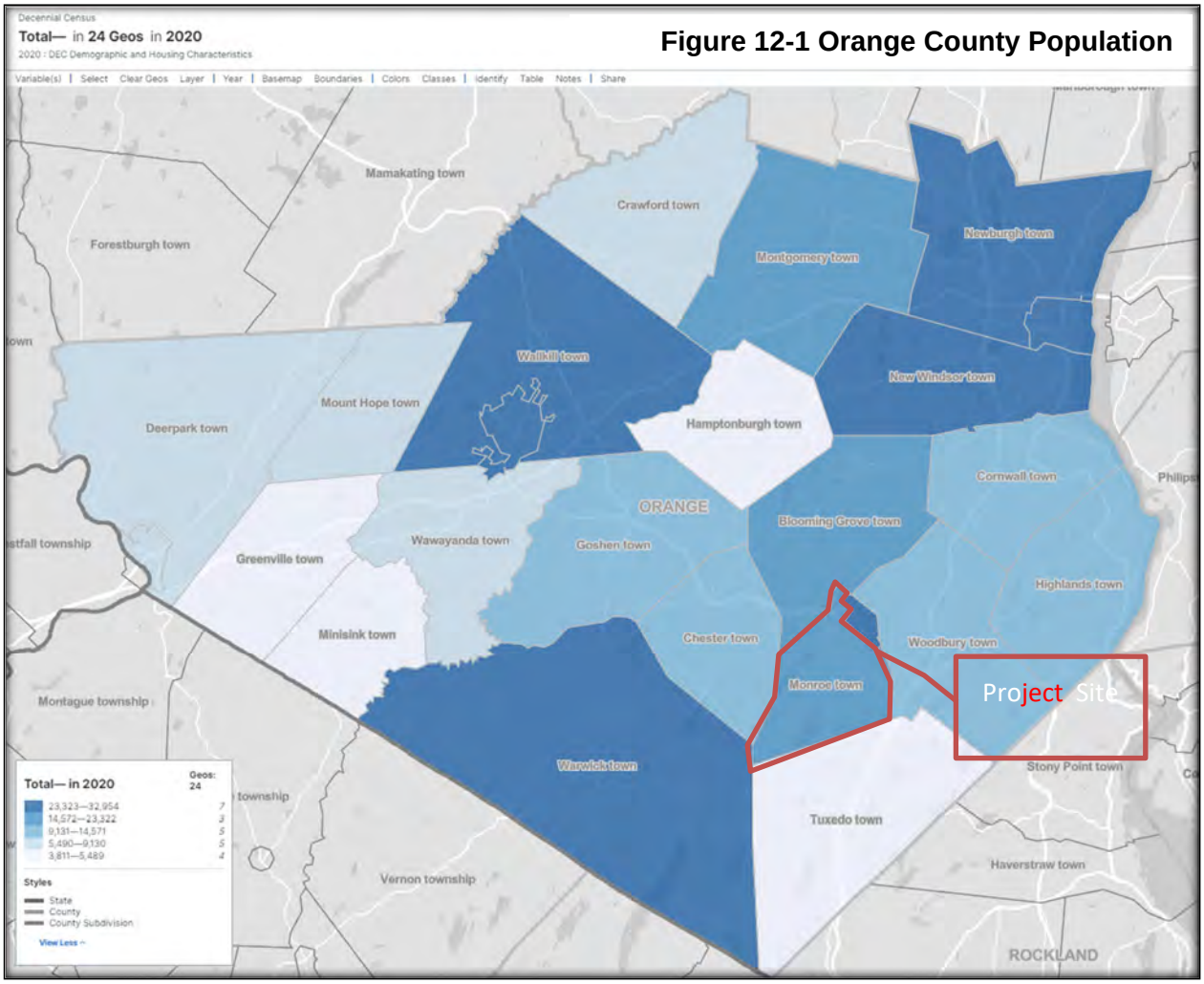


Figure 12-1 Orange County Population

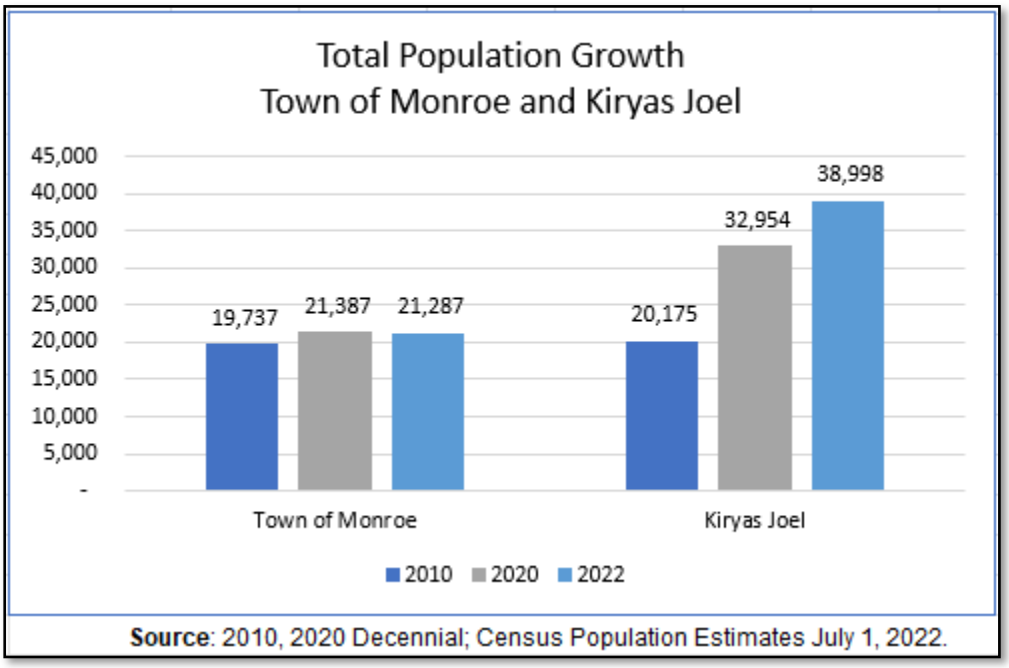
The Town of Monroe is located in the southeast region of the county, bordered on the west by the Town of Chester, on the northwest, by the Town of Blooming Grove; on the northeast, by the Town of Palm Tree; on the east, by the Town of Woodbury; on the south by the Town of Tuxedo; and on the southwest by the Town of Warwick.

NY-17 (future I-86), combined with U.S. Route 6/NY Route 17M, passes through the Town of Monroe.

The population for the Town of Monroe as of July 1, 2022 was 21,287 and represents a decrease of 100 individuals (-0.5%) since the 2020 census. This population pattern follows that of New York State directionally in that it too declined post-pandemic, but at a lower rate than New York State.

The Village of Kiryas Joel, separated from the Town of Monroe in 2019 and has experienced an 18.3% increase in population between the 2020 Census and July 2022 adding 6,044 individuals. Figure 12-2 below contrasts the population growth of the two municipalities. For purposes of valid comparisons, the 2010 Town of Monroe count of 39,912 was reduced by the 2010 Village of Kiryas Joel 2010 count to avoid double counting.

FIGURE 12-2 Total Population Growth



Source: 2010, 2020 Decennial; Census Population Estimates July 1, 2022.

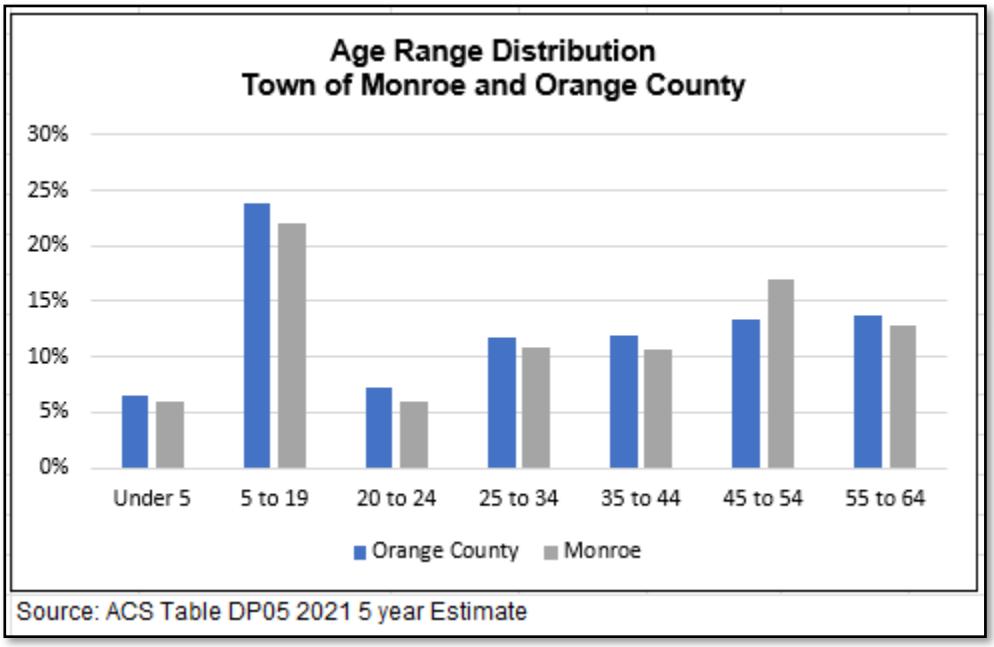
As shown in Table 12-1 (Population Density Per Square Mile), the difference in density between the two municipalities also reflects the differentiation in population growth.

Table 12-1
Population Density
Town of Monroe and Kiryas Joel

Municipality	**Land Area (Square miles)**	**Population Density**
Town Of Monroe	18.55	1,153
Village Kiryas Joel	1.46	22,540
Source: Decennial Census 2020		

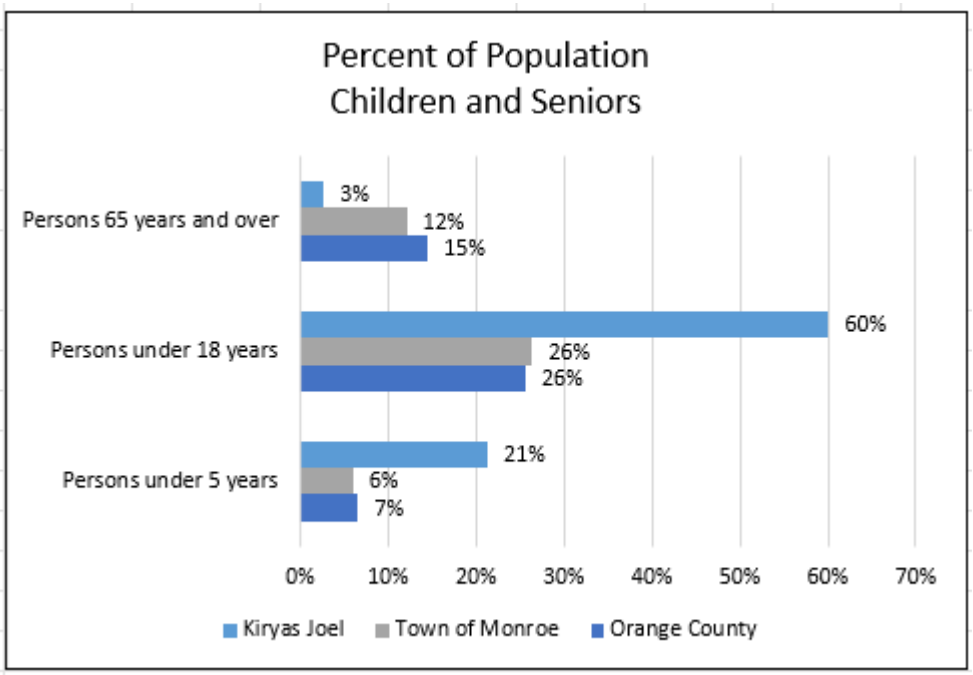
In terms of age distribution, Figure 12-3 (Age Range Distribution) shows that the Town of Monroe is proportionally similar to Orange County and only exceeds the County in percentage of the 45 to 54 group.

Figure 12-3 (Age Range Distribution)



As shown in Figure 12-4 (Percent of Population: Children and Seniors), the Town of Monroe has proportionally fewer persons age 65+ than Orange County as a whole and is about on par with the County for children under 18. The Village of Kiryas Joel, again consistent with its population growth rates, skews significantly lower for seniors and much higher for children.

Figure 12-4 (Percent of Population: Children and Seniors)



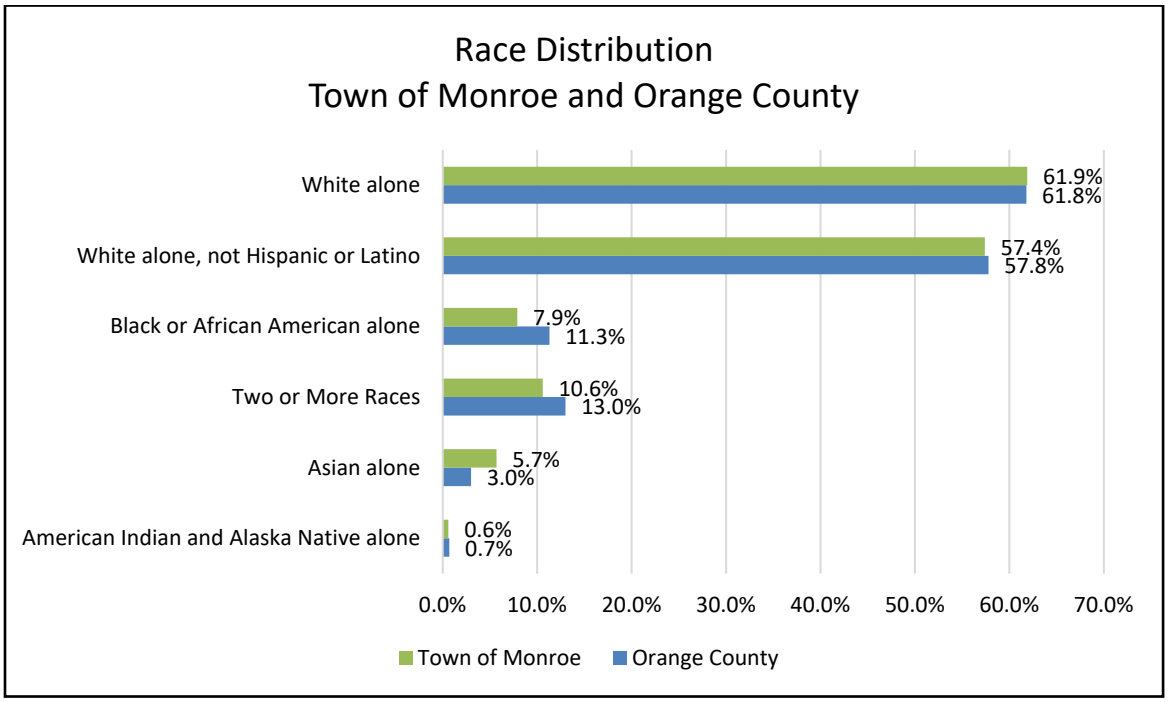
Source: ACS 2021 5-Year

Both Orange County and the Town of Monroe are just under one-quarter Hispanic[1]. Kiryas Joel is 2.4% Hispanic. Referring to Figure 12-5 (Race Distribution) below, the racial makeup of both the Town of Monroe and Orange County is approximately 62% White Alone with similar distributions of the other Race Categories. The Town of Monroe reports 3% more Asians and 3% less Black and African Americans than Orange County.

Native Hawaiian and Other Pacific Islanders are not present in the County and are not included in the chart. Kiryas Joel (not displayed in Figure 12-5) reports 71% White Alone, 27% Some Other Race, and 2% Two or More Races.

[1] The most recent Decennial Census from 2020 continued the practice of collecting Race and Ethnicity data as two separate questions. Ethnicity refers only to Hispanic/Non-Hispanic categories. The race question was expanded to enable persons to self-identify race in greater detail allowing persons to check multiple races and to provide more ancestral information. It is important to note when reviewing this data that Hispanic individuals may be of any race. For example, at the national level, approximately 19% of responders who identified as Hispanic also identified as White Alone and nearly 99% of individuals who checked “some other race” identified as Hispanic ethnicity. Guidance from the Census Bureau recommends extreme caution if comparing Race and Ethnicity data to past Census data as shifts in segments are largely reflective of changes in the question design, collection, and processing.

Figure 12-5 (Race Distribution)



Source: Decennial 2020 Table P1

Table 12-2 presents additional basic statistics from the most recent ACS Surveys. Overall, when compared to Orange County, the Town of Monroe is wealthier in terms of both income and land ownership, more highly educated, and its median age is just slightly older. In contrast, these metrics further illuminate the unique profile of the proposed project's target market in Kiryas Joel where the median value of owner-occupied homes is much higher and 32.8% of the population owns their home versus 68.9% and 81.2% in Orange County and the Town of Monroe respectively. The income and education levels are much lower in Kiryas Joel and the median age is 14.2 reflecting the high rate of population growth.

Table 12-2
Selected Metrics ACS Surveys

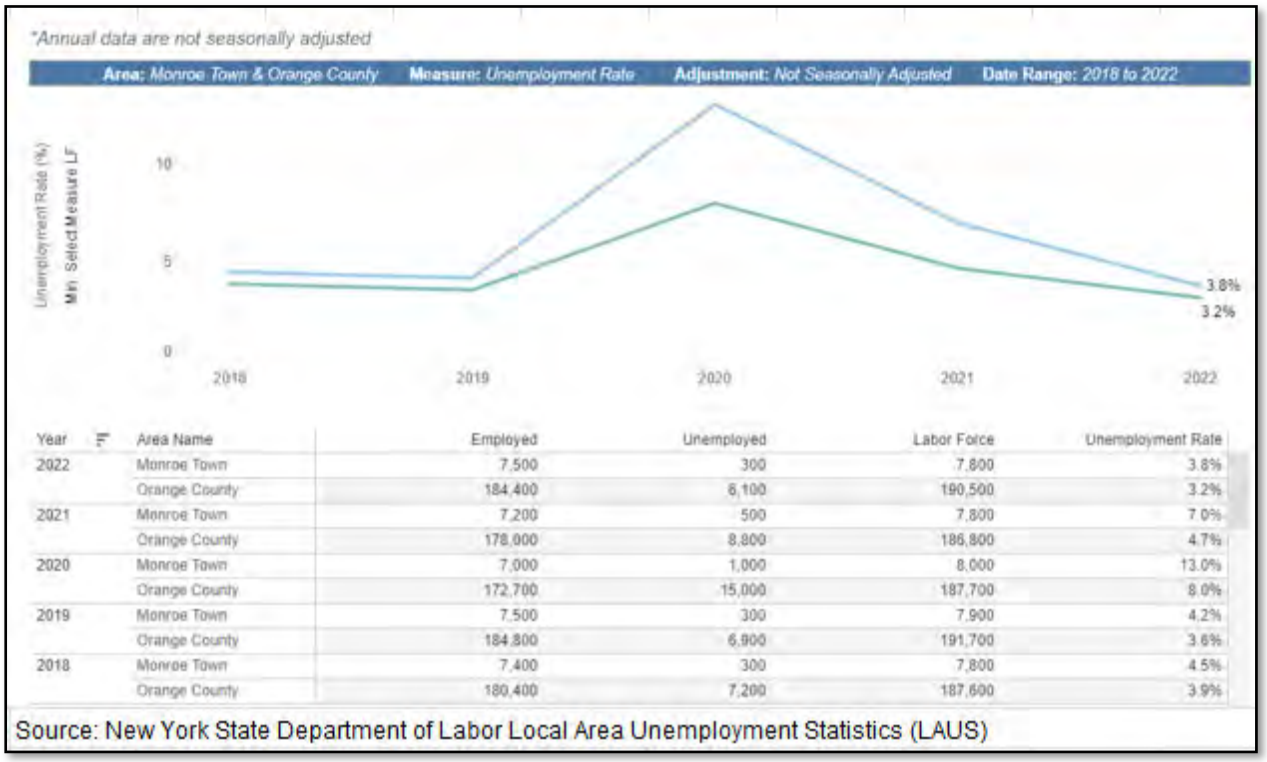
Measure	Orange County	Town of Monroe	Kiryas Joel
Median household income (in 2021 dollars)	$85,640	$110,389	$39,826
Per capita income in past 12 months (in 2021 dollars)	$37,651	$44,576	$10,235
Median value of owner-occupied housing units	$291,900	$353,300	$566,100
Owner-occupied housing unit rate	68.90%	81.20%	32.80%
High school graduate or higher, percent of persons age 25 years+	89.90%	90.80%	70.70%
Bachelor's degree or higher, percent of persons age 25 years+	31.40%	41.70%	7.70%
Median age	37	38.4	14.2

Source: Median Age – ACS DP05 2021, All other metrics Census Quickfacts 2021

Existing Labor Conditions

According to the New York State Department of Labor Local Area Unemployment Statistics (LAUS), the Town of Monroe has historically experienced a slightly higher unemployment rate than the County overall and took a greater hit during the pandemic as well. Referring to Figure 12-6 Department of Labor Statistics, 3.2% of Orange County's labor force of 190,500 were unemployed at the close of 2022 which is lower than its pre-pandemic rate of 3.6%. The unemployment rate of 3.8% for the Town of Monroe's labor force of 7,800 is also lower than its pre-pandemic rate of 4.2%. At the peak of the pandemic period, the Town of Monroe reached 13% in contrast to the County's 8% high.

Figure 12-6 Department of Labor Statistics



Year	Area Name	Employed	Unemployed	Labor Force	Unemployment Rate
2022	Monroe Town	7,500	300	7,800	3.8%
	Orange County	184,400	6,100	190,500	3.2%
2021	Monroe Town	7,200	500	7,800	7.0%
	Orange County	178,000	8,800	186,800	4.7%
2020	Monroe Town	7,000	1,000	8,000	13.0%
	Orange County	172,700	15,000	187,700	8.0%
2019	Monroe Town	7,500	300	7,900	4.2%
	Orange County	184,800	6,900	191,700	3.6%
2018	Monroe Town	7,400	300	7,800	4.5%
	Orange County	180,400	7,200	187,600	3.9%

Source: New York State Department of Labor Local Area Unemployment Statistics (LAUS)

Per the Census Bureau's County Business Patterns survey, approximately 99% of all 9,920 Employer Establishments employ fewer than 100 employees each.

Table 12-3
Employer Establishments by the Number of Employees

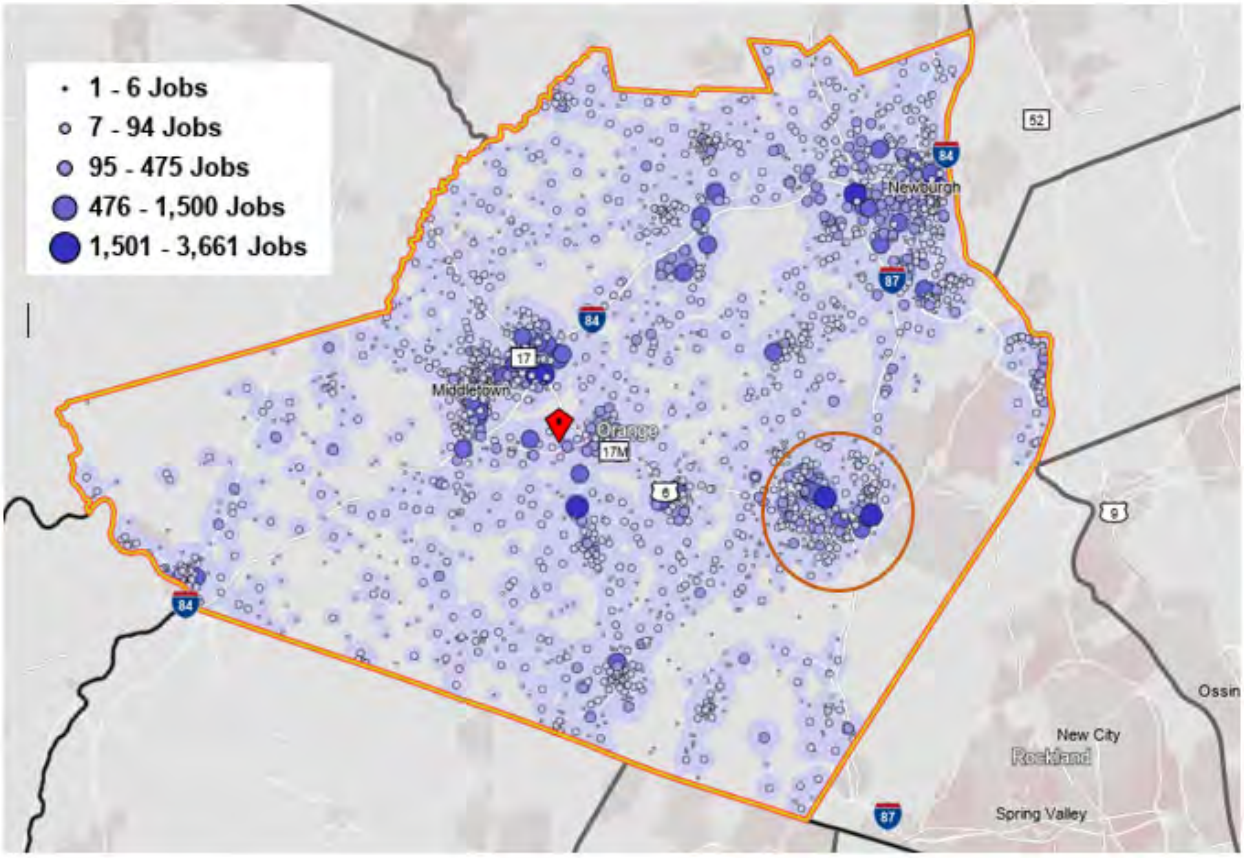
Measure	Value	% of Total
Establishments with less than 5 employees	5,643	61%
Establishments with 5 to 9 employees	1,773	19%
Establishments with 10 to 19 employees	1,136	12%
Establishments with 20 to 49 employees	738	8%
Establishments with 50 to 99 employees	235	3%
Establishments with 100 to 249 employees	139	1%
Establishments with 250 to 499 employees	34	0%
Establishments with 500 to 999 employees	14	0%
Total	**9,290**	

Source: CB2000CBP 2020 Economic Business Patterns County

The U.S. Census Bureau provides access to a suite of Longitudinal Employer household Dynamics Data via an interactive online tool called OnTheMap. Full reports profiling both labor force and available jobs are included in Appendix L – Fiscal Analysis. Salient findings are summarized here.

Figure 12-7 shows that places of work in Orange County are scattered across the county with clusters of more dense areas in and around Newburgh and Mechanicstown. The Route 6/Route 17 corridor is among the densest and includes Woodbury and Monroe Towns.

Figure 12-7 (Worker Locations in Orange in County)



Within the Town of Monroe, Figure 12-8 shows the jobs are clustered closer to the Route 6/17 corridor.

Figure 12-8 (Worker Locations in the Town of Monroe)

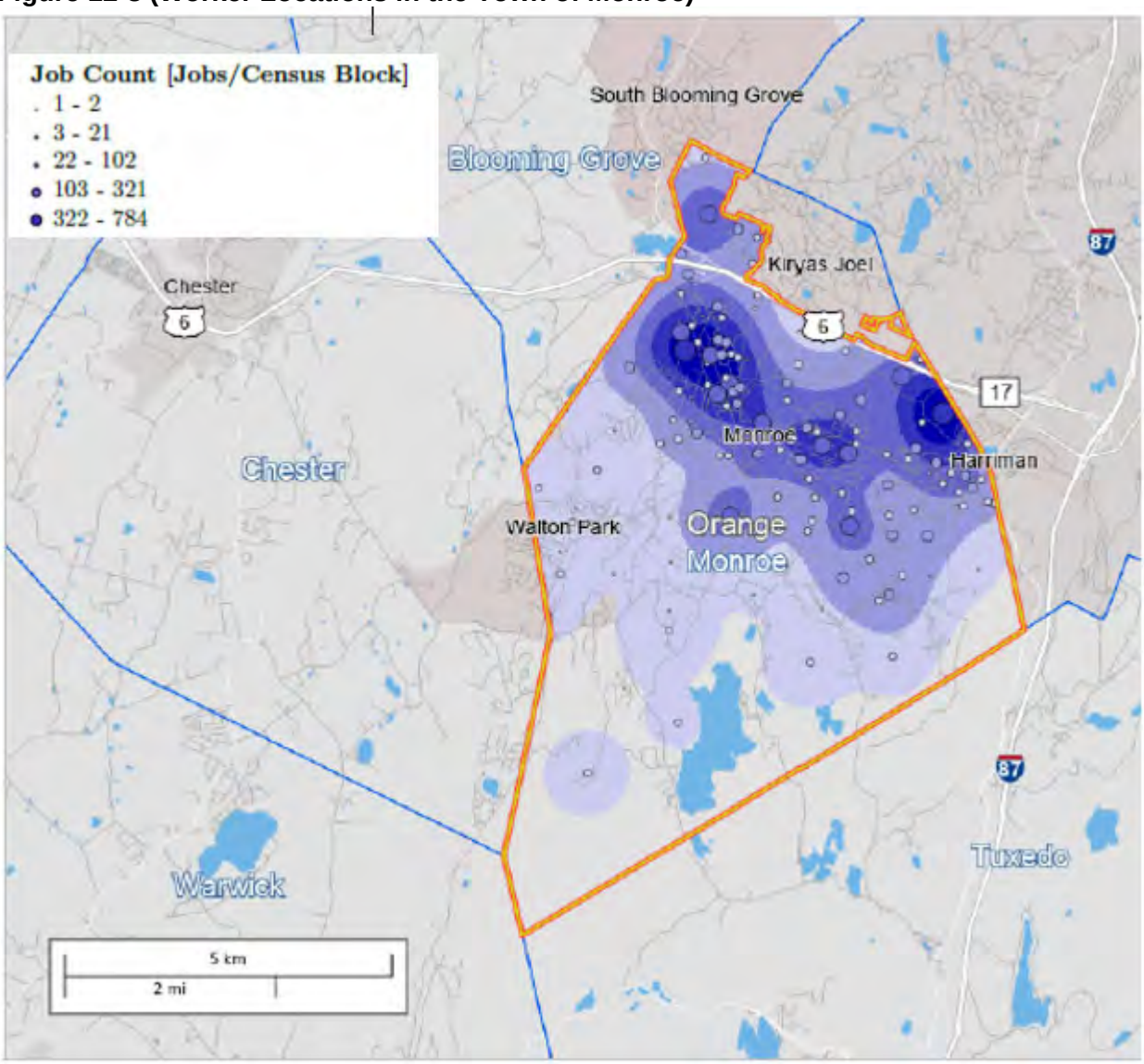


Figure 12-9 shows that as of the close of 2020, 4,018 people work in the Town of Monroe and live elsewhere while 7,306 persons reside in the Town of Monroe but work elsewhere. 672 people work and live within the Town.

Figure 12-9 (Inflow/Outflow Town of Monroe)

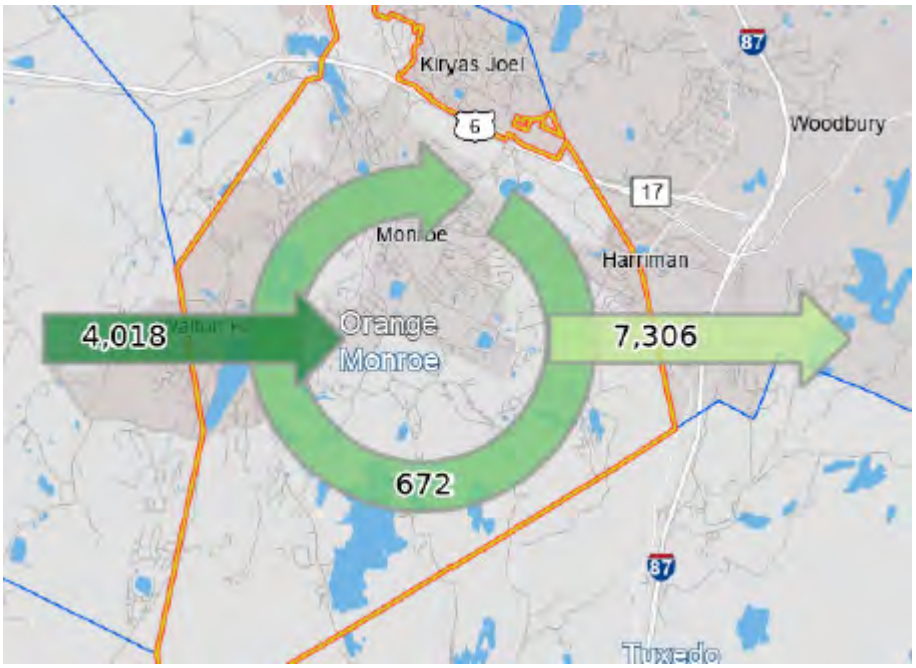
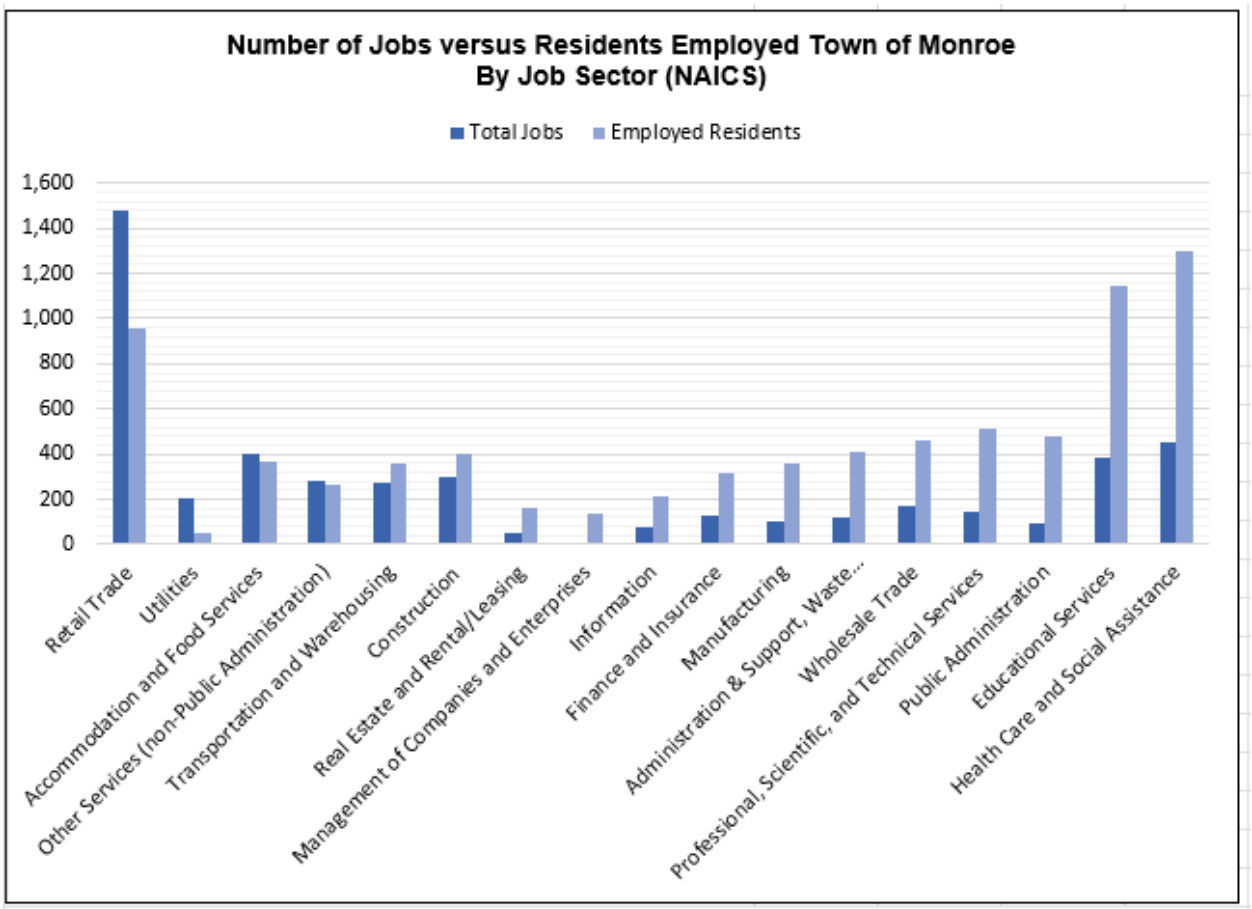


Figure 12-10 shows the relationship between Job Sectors available in the Town and sectors in which residents work. As discussed above however, not all residents working in a given sector necessarily work at a location within the boundaries of the Town of Monroe.

"Retail Trade" is the number one employer in the Town employing 1,476 workers in total. This sector is also the third largest sector of employment for residents of the Town of Monroe, employing 961 residents. Therefore, at least 515 individuals work in the Retail Trade in the Town of Monroe who are not residents. "Health care and Social Assistance" and "Educational Services" are the top two sectors employing residents; however, most of those jobs are located outside the boundary of the Town.

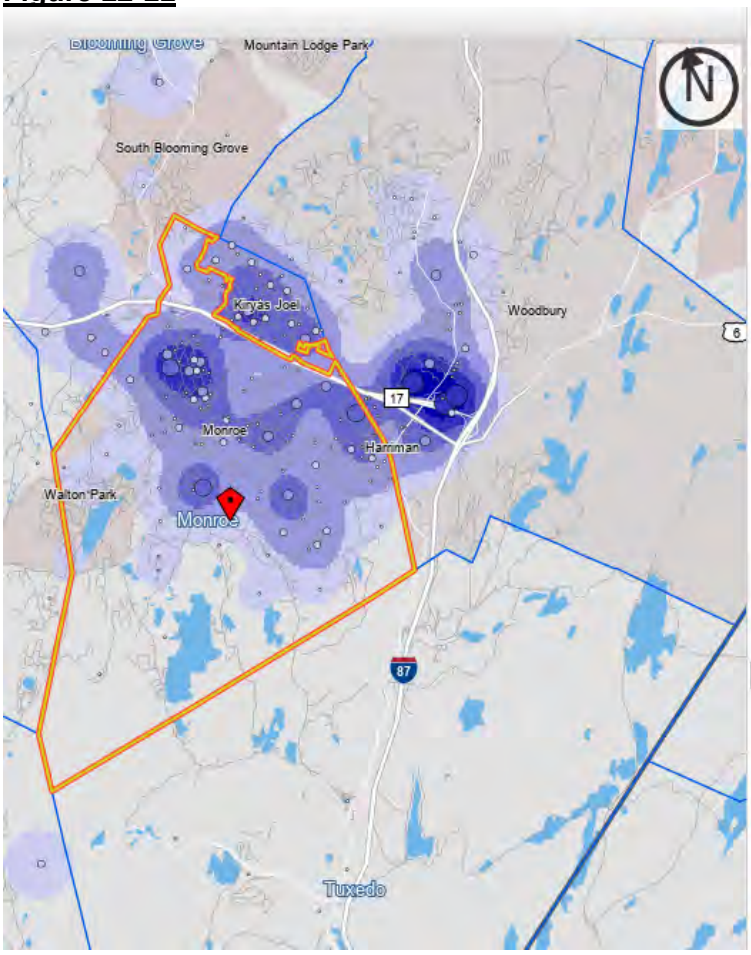
Figure 12-10 Job Sector Relationships

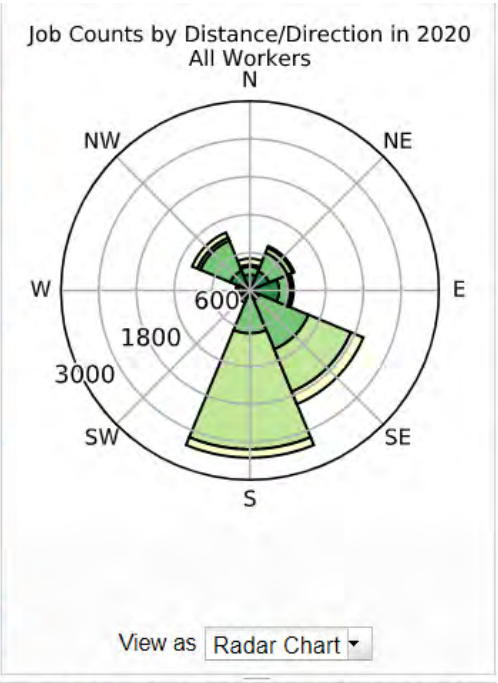


Source: OnTheMap Worker and Home Area Profiles All Primary Jobs

Figure 12-11 shows the distance and direction of all workers who reside within the Town of Monroe. Note that points south and southeast are beyond the extent of the map and are much further away in New Jersey, the lower Hudson Valley and New York City.

Figure 12-11





Jobs by Distance - Home Census Block to Work Census Block

	2020 Count	2020 Share
Total Primary Jobs	7,978	100.0%
Less than 10 miles	1,827	22.9%
10 to 24 miles	2,665	33.4%
25 to 50 miles	2,829	35.5%
Greater than 50 miles	657	8.2%

Existing Space Inventory

Hotels within a 5-mile radius of the project site are discussed in detail in Appendix K – Hotel Feasibility Study. Of the seven existing hotels in the scope area, three (Woodbury House, Rushmore Estate, and Arrow Park) are exclusive B&B's popular for upscale weddings and family gatherings. At the other end of the spectrum are roadside motels. The James Motel, with only 24 rooms, is recently under new ownership and undergoing much needed renovations. Americas Best Value Inn, with 97 rooms, is part of a national chain of roadside motels. The Hampton Inn, Harriman, an affordable offering of parent company Hilton, provides more onsite amenities than the motels. This property is currently undergoing much needed renovations.

Two new hotels have been approved in the Village of Woodbury. A Courtyard Marriott is approved on Route 17 at Locey Lane and an Aeonn Hotel is approved for Estrada Lane. Four (4) additional hotels are proposed in the Village of Woodbury (see Appendix K). Five rooming facilities located in the Village of Kiryas Joel range from six to fourteen rooms, function more like boarding rooms than hotels

All of the commercially owned hotels and motels support visitors to several attractions in the area, including Woodbury Common Premium Outlets, the Museum Village and its Creative Theatre – Muddy Water Players, LEGOLAND and the numerous recreational parks and lakes.

Two large retail properties are located along Route 6/Route 17 in the vicinity of the project site. Woodbury Commons Premium Outlets is on Route 17 to the southeast of the Project site and provides numerous big brand retail shops. Harriman Commons lies across Route 6 and slightly south of the site and is home to several big box stores including Home Depot, BJ's and Walmart which anchor additional retail storefronts.

Along Route 17M running north/south through the Village of Monroe approximately 3 miles to the west of the Project site are several neighborhood shopping centers and community level services. Two primary supermarkets, Shop Rite and Stop-n-Shop are located along this strip as well. Several grocery stores ranging from small markets to full supermarkets are located within the boundaries of Kiryas Joel. These stores adhere to the Kosher requirements of the community.

Several professional buildings are found further north of the site near the intersection of Routes 6 and 208. These primarily house medical and health related services (commercial office).

Existing Property Tax Revenue Generated

The project site is currently assessed at $45,000 and generates a total of $8,155 annually from all jurisdictions. Table 12-4 shows the breakdown by County, Town, and School revenues. Existing taxes to Orange County in 2023 are $818, Combined 2023 Tax revenue to the Town of Monroe totals $1,009, and 2022-2023, tax revenue to the Monroe Woodbury School District is $6,328. Thus the total tax revenue derived from the project site in 2023 is $8,155.

Table 12-4
Tax Revenue Breakdown
County, Town, and School

Jurisdiction		**Rate per $1000**	**Current Tax Revenue**
County		**18.1799**	**$818**
Town	Town of Monroe	7.0786	$318.54
	Highway	3.1591	$142.16
	Part Town	1.1973	$53.88
	Monroe Fire	5.3337	$240.02
	Monroe library	3.4742	$156.34
	Monroe TN LT	0.4576	$20.29
	Monroe refuse	1 Unit @2.1811	$2.18
	CO 1 Bond stp & intc	1.6664	$74.99
	Town Total	**24.5480**	**$1,009**
School	**MWCSD**	**140.628602**	**$6,328**
		Grand Total	**$8,155**

12.2 Future Without the Proposed Project

Without the proposed project, the land will continue to be vacant until such time a different development is proposed at this location. None of the beneficial effects of the proposed development would occur. The anticipated tax revenue described below would not accrue to the various taxing districts.

No planned changes in Community Services are expected without the Proposed Project that would result in substantive changes to budgets or property tax revenues. Per Chapter 11 – Community Facilities and Services:

Future local residential and commercial developments will continue to be served by NY State Police, the Orange County Sheriff's Department, as well as the Village of Monroe Police Department. During a phone call on May 23, 2023, a detective with the Monroe Village Police Department indicated there is no planned expansion of the Village's police force at this time. In addition, an officer with the NYS Police indicated the NYS Police force would add resources as necessary and that they do not see a problem supporting the Village Police in providing police protection to the project site.

Likewise, the Monroe Joint Fire Department will continue to provide services and may have to add staff or equipment as the local population and development increases. Through email correspondence on August 24, 2023, the Fire Department Secretary indicated there is no planned expansion of the fire district facilities, including manpower and equipment.

The Monroe Volunteer Ambulance Corp (MVAC) and local hospitals will continue to serve future local residential and commercial developments. The MVAC is entirely volunteer, and as such, any expansion of staffing would not affect municipal budgets. The Garnet Health Center serves a large population in Orange County and will continue to adjust staffing and facilities based upon public need.

Solid Waste collection services, including trash, recycling and bulk pick-up will continue to be provided to the residential population of the Town of Monroe and Village of Monroe and to the Town of Harriman on a twice a week schedule with one day of recycling. Services are currently provided by the Marangi Company. Solid waste collection for commercial properties are provided via private contracts. Services will expand, if necessary without any impact to municipal taxing.

12.3 Potential Impacts of the Proposed Project

Current and Projected Assessed Value of the Project Site

The Monroe Commons development proposal is contained on the Town of Monroe tax parcel Section 2 Block 1 lot 10.

The current assessed value of the project site is $45,000. The property is located in the area that is the Town, outside the Village. According to a review of the 2022 tax bills for the subject parcel, the municipal taxes paid to the Town of Monroe are $1,009. The municipal taxes paid to Orange County are $818. Thus, the combined municipal taxes paid are $1,827 while the annual property taxes currently paid to the Monroe-Woodbury School District are $6,328.

The proposed Monroe Commons consists of a total of approximately 408,000 square foot of mixed-use space including a grocery store, a 39-room boutique hotel, additional retail space and office space. The net Leasable Area as shown on the plans is 189,062 square feet. Using an income based approach to assess the value of the proposed commercial development, the market value of the project, is projected to be $39,903,463. Using the current 2022 equalization rate of 15.07 percent, the total Assessed Value of the project used for this analysis is $6,013,452.

Current and Projected Revenues

Table 12-5 compares the revenues generated currently by the property to the revenues to be generated after the Monroe Commons is complete. Revenues are based on 2023 municipal tax rates and the 2022-2023 tax rate for the Monroe-Woodbury School District.

According to the Village of Monroe's annual budget, the Village's tax rate includes governmental services, Justice Court, police protection, Sewer, and water capital expenses, refuse collection, street maintenance, public parking, lighting, and parks & recreation.

As presented in Table 12-5, upon completion of the proposed development, at today's tax rates, annual revenues to the Town of Monroe would be approximately $134,524. The project-generated annual revenues to Orange County would be approximately $109,324 annually.

Table 12-5 Current & Projected Taxes Generated by Monroe Commons Development			
Taxing Authority	**Current Taxes ($)**	**Monroe Commons Projected Taxes Total ($)**	**Net Increase Between Current & Projected Taxes ($)**
Total Orange County	**$818**	**$109,324**	**$108,506**
Total Town of Monroe	**$1,009**	**$134,524**	**$133,515**
Total Municipal	**$1,827**	**$243,848**	**$242,021**
Monroe-Woodbury School District	**$6,328**	**$845,663**	**$839,335**
TOTAL	**$8,155**	**$1,089,511**	**$1,081,356**

Notes:
(1) Tax Rate per $1,000 of Assessed Valuation Tax rates for Orange County and the Town of Monroe are 18.1799 and 24.5480 for respectively. The tax rate for MWCSD is 140.628602
Municipal taxes are based upon Town of Monroe 2023 Tax Rates.
Monroe-Woodbury School Taxes are for the 2022-2023 school year.

Annual revenues to the Monroe-Woodbury School District would be approximately $845,663. The proposed commercial development will generate $839,335 above current taxes, without incurring additional cost to the School District.

Table 12-5 also indicates the combined net increase in revenues to each jurisdiction, which in total is projected to be approximately $1,089,511 annually.

Projected Employees at Proposed Site

There are several multipliers available to estimate the number of employees generated by non-residential development. Contrasting different methods, the projected number of employees at the site is estimated to be in the range of 624 to 682 employees.

The Institute of Transportation Engineers (ITE) Parking Generation[2] estimates 3.4 jobs per 1,000 square feet of office building space. The ITE Trip Generation Handbook[3] indicates approximately 3.3 employees per 1,000 square feet of Office Space. A multiplier of 3.3 jobs per 1,000 square feet has been used for the purpose of this analysis to estimate the number of jobs that could be generated.

Utilizing the 3.3 employees per 1,000 square feet multiplier, the proposed 189,062 square feet of leasable commercial space at Monroe Commons has the potential to add up to 624 new jobs to the Town's employment base.

The proposed project includes retail, grocery, and office space (including some medical office space) in addition to a 39-room boutique hotel. The types of jobs to be created include those jobs that are typical of retail, grocery, office, and hotel uses. Table 12-6 refines the above ITE based estimate with information regarding specific uses and shows a projection of up to 682 employees on site.

[2] ITE Parking Generation (4th Edition 2010. Page 201)

[3] ITE Trip Generation for land use 710. General Office Building

According to the World Tourist Organization, the optimum number of staff per 10 rooms in a three-star hotel would be 8 persons, in a four-star hotel 12 persons, and in a 5-star hotel 20 persons. For this analysis, we use 12 persons per 10 rooms.

Office Finder estimates that range for office space is "between 125 and 225 usable square feet (USF) of office space per person". In North America the average office space per employee is between 150 and 175 USF. This analysis uses 175 square feet.

For retail space, the Metro Washington Council of Governments recommends estimating 1 employee for every 400 square feet.

Table 12-6
Estimated Jobs Generated
By Use

Use	Square Feet	Factor	Employees
Retail	108,479	1 employee /400 sqft	271
Office	63,638	1 employee / 175 sqft	364
Hotel	16,945	12 persons/10 rooms	47
Grand Total	**189,062**		**682**

Municipal Costs Associated with the Proposed Project

An approximate estimate of costs to the Town of Monroe associated with the Monroe Commons development may be determined by obtaining a reasonable composite of current costs per employee and multiplying this amount by the anticipated number of new employees from the proposed project.

The majority of municipal expenses are attributable to the resident population. Non-residential costs are typically only a fraction of per capita municipal service cost expenditures. The Proportional Valuation Method assumes that municipal costs increase with the intensity of land use, and the change in real property value is a reasonable estimate for change in intensity of use.

In this instance, per the Town's 2022 assessment roll, the total assessed valuation of the Town is $229,573,419, of which $182,220,248 or 79.4% is residential development.

The Town's total budget is $9,778,189, of which $3,771,248 is raised by the property tax levy, thus $2,994,371 ($3,771,248 x 79.4%) of the tax levy is spent on residential services, leaving $776,877 for all other services including commercial.

Commercial assessed valuation equals $15,317,000 which represents 6.7% of the Town total assessed valuation. Applying this percentage to the cost of non-residential expenditures raised by the tax levy results in $51,833 of the tax levy spent on municipal services to commercial establishments. Per the US Census, there are 7,307 total employees in the Town. Assuming at least one third of the employees work in commercial ventures the cost per employee is estimated to be approximately $21 per employee.

There are several multipliers available to estimate the number of employees generated by non-residential development. The Institute of Transportation Engineers (ITE) Parking Generation[4] estimates 3.4 jobs per 1,000 square feet of office building space. The ITE Trip Generation Handbook[5] indicates approximately 3.3 employees per 1,000 square feet of Office Space. A multiplier of 3.3 jobs per 1,000 square feet has been used for the purpose of this analysis to estimate the number of jobs that could be generated.

Utilizing the 3.3 employees per 1,000 square feet multiplier, the proposed 189,062 square feet of leasable commercial space at Monroe Commons has the potential to add approximately 624 new jobs to the Town's employment base.

As stated earlier, the proposed Monroe Commons development includes approximately 189,062 square feet of leasable commercial space, used for this analysis, and is anticipated to generate approximately a range of 624 to 682 full-time employees. Based on a per employee expenditure of $21, the additional costs to the Town of Monroe are projected to be up to approximately $13,104 to $14,322. As presented in Table 12-5, the revenues to the Town from the proposed Monroe Commons would increase by $133,515 to an estimated $134,524 annually, thus the project will result in a net benefit to the Town between $120,202 and $121,420.

Orange County Costs

The Assessed Value of Orange County is approximately 62% residential. The County's total 2023 budget is $897,616,169, of which $124,536,148 is raised by the property tax levy; thus, approximately $77,212,412 ($124,536,148 x 62%) of the tax levy is spent on residential services, leaving approximately $47,325,000 for all other services including commercial.

Commercial assessed valuation is approximately 15% of the County's total assessed valuation. Applying this percentage to the cost of non-residential expenditures raised by the tax levy results in $7,000,000 of the tax levy spent on municipal services to commercial establishments. Per the US Census, there are 190,500 employees in the County; thus, the cost per employee is estimated to be approximately $35 per employee.

As stated earlier, the proposed Monroe Commons development includes approximately 189,062 square feet of leasable commercial space, used for this analysis, and is anticipated to generate approximately 624 to 682 full-time employees. Based on a per employee expenditure of County funds of $35, the additional costs to Orange County are projected to be up to approximately $21,840 to $23,870. As presented in Table 12-5, the revenues to the County from the proposed Monroe Commons development would increase by $108,506 to an estimated $109,324 annually; thus, the project will result in a net benefit to the County of more than $85,000 annually.

Monroe Woodbury School District Costs

Annual revenues to the Monroe-Woodbury School District would be approximately $845,663. The proposed commercial development will generate $839,335 above current taxes, without incurring additional cost to the School District, thus the project will be net benefit to the Monroe Woodbury School District.

Fiscal Benefits

In the long-term, the projected new employee population would introduce consumer demand for retail and service establishments located within the Town of Monroe, as well as the larger commercial area within the region.

In the short term, the project will induce construction employment. The construction value of the proposed project would total more than $55 million. Construction of the project would require a commitment of person hours of labor, which can be viewed as beneficial to the community, the local economy, and the construction industry with respect to the generation of jobs. Based on labor hour estimates published by the Urban Land Institute, and accounting for secondary employment resulting from the construction, this project would generate approximately 325 full time equivalent jobs in the various construction trades associated with this project.

It is anticipated that a number of construction workers would come from Orange 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.

Sales Tax

Sales taxes are an important source of revenue for New York State's local governments. This revenue stream has helped local governments cope with the rising cost of providing services and mitigate property tax increases. The degree to which local governments depend on sales taxes varies, but their overall reliance has increased over the past 10 years

Sales and use tax rates in New York State reflect a combined statewide rate of 4%, plus the local rate in effect in the jurisdiction, which is 3.75% in Orange County. Retail sales and Hotel occupancy will generate substantial additional revenue resulting in an increase in sales tax dollars. These dollars are used as revenue for the respective general funds of NY State and Orange County which pay for roads and other infrastructure, education and other general services including the NYS police. In addition, there is a 0.375% surcharge imposed to fund regional mass transportation.

Sales Tax Revenue

The proposed Monroe Commons includes a total of approximately 408,000 square feet of space, of which approximately 125 square feet is net leasable retail area. This will provide local shopping opportunities that will serve to capture sales tax dollars in Orange County. Sales tax in the Town of Monroe is comprised of 4% New York State tax, 3.75% Orange County tax plus $0.38% in tax to Orange County Transit.

Based upon an average annual revenue of $300 per square foot[6], sales expected from the 125,000 square foot retail portion of the proposed development, would be approximately $37.5 million. Applying the 8.13 percent sales tax to the proposed retail use, future sales tax revenues generated from the proposed development, would be more than $3 million annually. Of this total 1.5 million would go to New York State taxes, $1.4 million would go to Orange County and approximately $142,500 would go directly to Orange County Transit.

[6] Simon Properties Annual Report.

Hotel Feasibility

As summarized above and discussed in more detail in Appendix K, there are seven existing hotel/motel properties within a 5-mile radius of the site that range in size and amenities from roadside bare essentials to luxury Bed-and-Breakfasts. Two new hotels have been approved in the Village of Woodbury and four additional hotels are proposed in the Village of Woodbury. The main demand drivers for these properties are the recreational opportunities, scenic vistas, and proximity to shopping outlets.

The hotel facility that is proposed as part of the Monroe Commons development is a boutique hotel designed for a certain niche market. It is intended to cater to the cultural needs of the Hasidic population in the nearby Village of Kiryas Joel/Town of Palm Tree. The continued growth of the Village's population in combination with the cultural norm of young women remaining in their home village and marrying at a young age will ensure a steady market for wedding related facilities, including hotels. Several hotel properties exist in Kiryas Joel but they are small and function more like boarding houses.

The proposed hotel would provide culturally appropriate hotel rooms for business travelers from New York City for business meetings and for other family and community events in the Village of Kiryas Joel/Town of Palm Tree.

12.4 Mitigation Measures

As discussed in section 12.3 – the proposed project is expected to result in taxes generated to the Town, County and School jurisdictions of approximately $1,089,511.

No mitigation measures are required.

13.0 Noise

13.1 Existing Conditions

Noise Background

Noise can be defined as undesirable or "unwanted sound". Even though noise is somewhat subjective, it should be considered when considering impact of development. Most of the sounds heard in the environment are not composed of a single frequency, but are a band of frequencies, each with a different intensity or level. Levels of noise are measured in units called decibels. Since the human ear cannot perceive all pitches or frequencies equally well, these measures are adjusted or weighted to correspond to human hearing.

This adjusted unit is known as the A-weighted decibel, or dBA. The dBA is useful for gauging and comparing the subjective loudness of sounds. Table 1 provides typical dBA levels for various common sounds.

Table 13-1
Relative Loudness of Common Sounds
Expressed in Decibels (dBA)

Source	dBA
Human breathing	5
Rustle of leaves	20
Whisper	30
Quiet library sounds	40
Average office, refrigerator	50
Near freeway auto traffic	60
Washing machine	70
School cafeteria with untreated surfaces	80
Noisy factory	85
Noisy urban street	90
Auto horn at 10 feet	100
Accelerating motorcycle at few feet away	110
Threshold of feeling: hard rock band	120
Threshold of pain	130
Jet engine at 300 feet	140

Source: based on "The Noise Guidebook", U.S. Department of Housing and Urban Development, March 1985.

Since dBA describes a noise level at just one instant and since ambient noise levels are constantly varying, other ways of describing noise levels, especially over extended periods, are needed. A commonly used descriptor is the Leq.

The Leq noise level is the level of a constant noise source which has been averaged over a period of time, based upon a measurement over a certain time period. A one decibel change in noise is the smallest change detectable by the human ear under suitable laboratory conditions. Under normal conditions, a change in noise level of two or three decibels is required for the average person to notice a difference. Table 13-2 shows the typical perception of noise change. Ten dBA represents a doubling or halving of the perceived loudness of sound.

Table 13-2 Perception of Noise Changes	
Change (dBA) Human Perception of Change	
2-3	Barely perceptible
5	Readily noticeable
10	A doubling or halving of the loudness of sound
20	A dramatic change
40	Difference between a faintly audible sound and a very loud sound
Source: Bolt Beranek and Neuman, Inc., Fundamentals and Abatement of Highway Traffic Noise, Report No. PB-222-703. Prepared for Federal Highway Administration, June 1973.	

The NYSDEC table below, Table 13-3, discusses the human perceptions to an increase in sound pressure levels, or decibel levels. The table provides a basis to evaluate how off-site sensitive receptors are affected by changes in noise levels.

Table 13-3 Human Reaction to Increases in Sound Pressure Level (dB)	
Increase in Sound Pressure (dB)	Human Reaction
Under 5	Unnoticed to tolerable
5 - 10	Intrusive
10 - 15	Very noticeable
15 - 20	Objectionable
Over 20	Very objectionable to intolerable
Source: NYSDEC Assessing and Mitigating Noise, 2001 (taken from Down and Stocks - 1978)	

According to the NYS Department of Environmental Conservation (NYSDEC) *Assessing and Mitigating Noise Impacts* (Rev. 2001), the goal for any permitted operation should be to minimize increases in sound pressure level above ambient levels at the chosen point of sound reception. Increases ranging from 0-3 dB should have no appreciable effect on receptors.

Town of Monroe Noise Ordinance

Chapter 33A – Noise of the Town of Monroe Code describes the intent of the noise ordinance and specific prohibited activities and exceptions. According to the Code;

> *Effective control and elimination of unreasonable noises is essential to the furtherance of the public health, safety and welfare of the town's inhabitants and to the conduct of the normal pursuits of life, recreation, commerce and industrial activity.*

The Code defines unreasonable noise as:

1. *Any airborne sound or series of sounds of such level and duration as to be or tend to be injurious to human health, safety or welfare or that would unreasonably interfere with the enjoyment of life or property.*
2. *Any airborne sound or series of sounds that would endanger the safety or health of or*

disturb a reasonable person of normal sensitivities or endanger personal or real property.

3. *Any sound or series of sounds so unreasonably loud, noisy, offensive or disruptive as to cause public inconvenience, annoyance or alarm.*

Prohibited acts that apply to the proposed development include construction outside of certain hours, including:

> *The erection, excavation, demolition, alteration or repair of any building other than between the hours of 7:00 a.m. and 9:00 p.m., prevailing time, weekdays and between the hours of 9:00 a.m. and 9:00 p.m., prevailing time, Saturdays and Sundays, except in.*

Therefore, construction is permitted between 7:00 a.m. and 9:00 p.m. weekdays and between the hours of 9:00 a.m. and 9:00 p.m. Saturdays and Sundays. The development will remain consistent with the Town noise code following construction.

Federal and NY State Criteria

The United States Department of Housing and Urban Development (HUD) has adopted environmental criteria, and guidelines for determining acceptability of federally assisted projects (24 CFR Part 51 – Environmental Criteria and Standards). The standards consider an exterior noise level of 65 dBA to be acceptable for residential uses. These standards reflect an EPA goal that continuous exterior noise levels do not exceed 65 decibels. The exterior noise goal for exterior uses established by HUD and the EPA is 55 decibels (see Title 24 CFR, Section 51.101A(8)).

The NYSDEC publication *Assessing and Mitigating Noise Impacts (Rev. Feb. 2, 2001),* does not have specific noise criteria for residential settings but does reference EPA's "Protective Noise Levels" of 55 dBA, as sufficient to protect public health and welfare.

Sensitive Noise Receptors

Sensitive noise receptors are locations and uses where excessive noise may affect the operation or enjoyment of those locations. Sensitive receptors may include: residences, public parks, schools, hospitals, licensed daycare centers group homes, nursing homes and retirement communities. For this assessment, sensitive receptors were identified in coordination with the Lead Agency and it's planning consultants. The sensitive receptors are shown in Figure 13-1 Noise Monitoring Map. Those locations closest to the site would be most affected by short-term construction noise or operational noise since on-site noise will lessen with distance from the site or attenuate.

Sensitive receptors include future residences of the adjacent Veyoel Moshe Gardens (VMG) townhome development, in the Village of Kiryas Joel/Town of Palm Tree. Several residential buildings at the western portion of the VMG site are completed and occupied, but the large development will take several years to be fully occupied. The nearest residential building in the VMG development will be approximately 135 feet from the proposed Monroe Commons building and approximately 70 feet from the on-site driveway. The VMG development extends west of the site on Nininger Road to County Route 105.

A group of three older single-family homes sharing a driveway are located east of the site on Nininger Road. Further to the east is the entrance to a new residential development of single-family homes known as Woodbury Villas with homes on Catskill High Rail, east of the project site. A small subdivision of approximately eight single family homes is located further east of the site on Nininger Road accessing Julian Court.

The Monroe Woodbury School District complex is located to the east of Dunderburg Road and can be considered a sensitive noise receptor related to traffic noise from the development.

Ambient Noise Conditions

No noise is currently generated on the vacant property. Ambient sources of noise in the vicinity of the site are primarily from vehicle traffic on Nininger Road and mostly from the highspeed traffic on NYS Route 17 / US Route 6. The local and regional (NYS Route 17) roads have relatively heavy traffic volumes during morning and afternoon peak traffic periods.

Tim Miller Associates, Inc. monitored ambient noise levels on the project site and on nearby sensitive receptor locations on Sunday January 8, 2023 through Tuesday January 10, 2023. Additional measurements were collected over the period Sunday June 11 through Tuesday June 13, 2023

Three representative locations on-site were selected, representing locations closest to sensitive receptors, and locations where future operational activity on the site will occur including traffic circulating in parking areas and around the building. The noise monitoring locations are shown in Figure 13-1.

The noise monitoring locations are described as follows:

- Receptor 1 - On-site: the northwest corner of the property adjacent to the Moshe Gardens development.
- Receptor 2 - On-site: the proposed entrance location on Nininger Road
- Receptor 3 - Off-site: west side of Catskill High Rail near residences closest to subject site
- Receptor 4 - Off-site: east side of Dunderberg Rd. near Monroe-Woodbury Middle School
- Receptor 5 - Off-site: near the intersection of Nininger Road and Bakertown Road and west side of Moshe Gardens development. (near NYS Police).

Noise measurements were collected using Casella 63X measuring units, programmed to collect A-weighted and octave band sound pressure measurements on a continuous basis. The measurements were collected continuously from approximately 11:00 a.m. to 12:50 p.m. on January 8, 2023 until approximately 10:30 a.m. to 10:50 a.m. on January 10, 2023. At two locations (Location 2 and Location 5) instrument malfunction prematurely stopped data collection and only data on Sunday January 8, 2023 was collected. Full sets of data were collected at locations 1, 3 and 4. In order to collect noise measurements at all locations during peak traffic periods and nighttime periods, additional measurements were collected during the period Sunday June 11 through Tuesday June 13, 2023 at all locations. Those additional measurements are further described below.

While noise levels were monitored continuously, periods were selected for peak morning (8:00 a.m. to 9:00 a.m.) and afternoon (5:00 p.m. to 6:00 p.m.) traffic times and at a nighttime period (11:00 p.m. to 12:00 a.m.) to provide representative periods during the day and night. A Sunday, mid-day period was selected for analysis, coinciding with an anticipated peak traffic and shopping period for the proposed mixed use development. Saturday was excluded as a peak traffic period due to religious considerations (see Tables 3-4 and 3-5). The noise levels over those periods were averaged (LAeq) to provide representative existing noise levels in the vicinity of the property, as provided in Table 13-4.

At each location, the instrument microphone was placed on a tripod, approximately 3 feet from the ground surface. Each of the machines were calibrated before being set up for the monitoring. There was no precipitation during the monitoring period. During the January measurements, the temperature ranged from 40 degrees (F) during the daytime to 25 degrees (F) during night-time hours with sunny and clear conditions. Wind was generally light and a wind shield was used on each noise instrument microphone. During the June measurements, the temperature ranged from 80 degrees during daytime periods to 65 degrees during night-time hours. There was no precipitation during the June monitoring period.

During the set-up and removal of the noise monitoring equipment, the dominant ambient sounds were of traffic on NY Route 17 / US 6 and on Nininger Road.

Table 13-4 indicates the locations, times and noise levels recorded.

Table 13-4
Existing Noise Data

Locations	Date and Time	LAeq (dB)	L10 (dB)	L50 (dB)	L90 (dB)
Location 1	Sunday 1/8/2023 1:00-2:00pm	52.7	54.0	52.5	51.1
	Monday 1/9/2023 8:00-9:00am	57.0	58.1	56.9	55.8
	Monday 1/9/2023 5:00-6:00pm	58.1	59.2	58.0	57.0
	Monday 1/9/2023 11:00pm-12:00am	53.8	56.0	53.3	51.0
	Sunday 6/11/2023 1:00-2:00pm	53.1	X	X	X
	Monday 6/12/2023 8:00-9:00am	54.1	X	X	X
	Monday 6/12/2023 5:00-6:00pm	55.0	X	X	X
	Monday 6/12/2023 11:00pm-12:00pm	49.2	X	X	X
Location 2	Sunday 1/8/2023 1:00-2:00pm	67.0	69.8	65.9	62.6
	Sunday 6/11/2023 1:00-2:00pm	67.9	71.4	65.8	62.5
	Monday 6/12/2023 8:00-9:00am	70.4	73.4	68.7	64.7
	Monday 6/12/2023 5:00-6:00pm	70.0	72.9	68.9	66.1
	Monday 6/12/2023 11:00pm-12:00am	65.5	69.6	62.0	57.2
Location 3	Sunday 1/8/2023 1:00-2:00pm	52.3	54.8	51.3	49.5

	Monday 1/9/2023 8:00-9:00am	55.3	57.0	55.0	63.4
	Monday 1/9/2023 5:00-6:00pm	54.2	55.8	53.9	52.4
	Monday 1/9/2023 11:00pm-12:00am	49.4	51.8	48.4	45.8
	Sunday 6/11/2023 1:00-2:00pm	56.4	58.4	55.7	53.6
	Monday 6/12/2023 8:00-9:00am	57.4	59.0	57.1	55.6
	Monday 6/12/2023 5:00-6:00pm	59.2	60.7	58.9	57.4
	Monday 6/12/2023 11:00pm-12:00am	54.8	56.0	54.6	53.5
Location 4	Sunday 1/8/2023 1:00-2:00pm	53.9	58.5	47.2	44.2
	Monday 1/9/2023 8:00-9:00am	58.3	62.1	54.4	51.2
	Monday 1/9/2023 5:00-6:00pm	59.3	62.4	54.9	51.4
	Monday 1/9/2023 11:00pm-12:00am	50.0	52.5	65.0	65.6
	Sunday 6/11/2023 1:00-2:00pm	58.3	X	X	X
	Monday 6/12/2023 8:00-9:00am	58.8	X	X	X
	Monday 6/12/2023 5:00-6:00pm	57.6	X	X	X
	Monday 6/12/2023 11:00pm-12:00am	52.8	X	X	X
Location 5	Sunday 1/8/2023 1:00-2:00pm	66.3	68.0	66.1	63.7
	Sunday 6/11/2023 1:00-2:00pm	71.8	73.4	71.4	69.2
	Monday 6/12/2023 8:00-9:00am	72.6	74.5	72.2	69.6
	Monday 6/11/2023 5:00-6:00pm	72.6	74.1	72.5	70.5
	Monday 6/11/2023 11:00pm-12:00am	66.9	70.0	65.9	60.9

As shown in the Table, noise levels were highest at Locations 2 and 5, since these locations are closest to NY Route 17/US 6 and to Nininger Road. Traffic noise was dominant when setting up and taking down the noise monitoring equipment. Locations 1, 3, and 4 are set back from Nininger Road approximately 750 ft., 800 ft. and 450 ft, respectively.

The noise levels collected in January 2023 and in June 2023 were generally consistent, or within approximately 3.0 dBA during the selected noise monitoring periods. The noise levels at Location 5, near the intersection of Nininger Road and Bakertown Road (near the NYS Police barracks) were 5.5 dBA higher for the June Sunday afternoon period as compared to the January measurement. These results at Location 5 may be attributed to higher traffic volumes on NY Route 17 and Nininger Road in June compared to January, although the measurements at Location 2 on Nininger Road were within 1.0 dBA for the same periods. A more likely explanation is that the noise monitoring location was moved approximately 75 feet to the southeast of the

original January location, to avoid potential tampering with the noise meter. This location may have collected more noise from NY Route 17, than the January monitoring location.

The specific L10, L50 and L90 noise levels were not captured by the noise meters at Location 1 and 4, in the June measurement periods. The absence of this data does not affect the results of this analysis since it is based upon the average noise levels (LeqA). Tim Miller Associates, Inc. has consulted with the equipment rental firm and with the sound level meter manufacturer (Cassella UK), and no explanation could be made for the meter not collecting the data, since each of the meters was the same model and set up for the same parameters.

13.2 Future Without the Proposed Project

Noise levels in the vicinity of the project site will continue to be dominated by traffic on Nininger Road and on NY Route 17/US 6, in the future (2024) if the Monroe Commons project is not built. The Traffic Impact Study provides estimates for future 2024 traffic on Nininger Road, without the Project (No-Build) and with the Project (Build) scenarios. The list of No-Build projects includes the VMG development, a multi-family residential project which is the adjacent property northwest of the site. That project is currently under construction and is partially occupied.

Eastbound and westbound traffic on Nininger Road is expected to increase substantially without Monroe Commons, based on the list of approved and pending development in the area. A Sunday, mid-day period was selected for analysis, coinciding with an anticipated peak traffic and shopping period for the proposed mixed use development. Saturday was excluded as a peak traffic period due to religious considerations. A Summary of traffic on Nininger Road, based upon the Traffic Impact Study is provided in Table 13-5.

Table 13-5
Existing and Estimated Future Traffic Noise Levels

Time Period	**Existing Trips**	**No-Build Trips***	**Build Trips***	**Existing Noise Level dBA** LAeq-1 hr.	**Estimated Existing Noise Level dBA** LAeq-1 hr.	**Estimated No-Build Noise Level dBA** LAeq-1 hr.	**Estimated Build Noise Level dBA** LAeq-1 hr.
PM Peak	835	1915	2391	**June, 2023** Loc.2 - 70 Loc. 5 – 72.6**	68.8	72.4	73.4
Sunday 1:00 to 2:00	708	1644	1958	**Jan., 2023** Loc. 2 - 67.0 Loc. 5 - 66.3 **June, 2023** Loc. 2 – 67.9 Loc. 5 – 71.8**	67.5	71.2	71.9

Note: * Trips are based upon TIS estimates for Nininger Road. Road segments east and west of the site are averaged.
** - Measured June noise levels at Location 5 potentially influenced by monitoring location (see discussion above). Estimated noise levels were calculated with FHWA *Low Volume Road Tool using traffic volumes*.

The Federal Highway Administration Environment and Noise website references several models to estimate traffic noise from proposed development or highways. The *Low Volume Road Tool*, referenced in the FHWA website is appropriate for two lane roadways with limited (non-highway) traffic. This model is developed by www.mathworks.com. This model was used to estimate the noise from existing traffic on Nininger Road during peak traffic periods (*see attached worksheets – Appendix I*).

The ambient noise levels measured on a Sunday (1:00 to 2:00 pm) at Locations 2 and 5 were 67.0 and 66.3 dBA, within approximately 50 feet of Nininger Road. This level is within 1.0 dBA of the estimated (*Low Volume Road Tool*) noise level utilizing the Traffic Study existing Sunday traffic volumes on Nininger Road. The ambient noise levels *measured* during the PM peak period at Location 2 in June was 70.0 dBA, within 1.2 dBA of the *estimated* noise level of 68.8 dBA. The consistency of the *measured* noise levels, as compared to the *estimated* noise levels over different periods provides confidence in the estimated noise levels. Future noise levels on Nininger Road without the Monroe Commons project were estimated, as shown in Table 13-5. Noise level from increased local traffic are estimated to increase 3.6 dBA during peak p.m. periods and 3.7 dBA on Sundays.

It is noted that the existing noise and estimated No-build noise levels at Locations 2 and 5 are above the HUD standard (and EPA goal) of 65 dBA for residential uses. The FHWA uses 67 decibels as a noise criterion for residential areas. Although the proposed mixed use development is not a FHWA or HUD funded project, the noise standards applied to HUD and FHWA projects can be used for reference and as a comparison of noise levels. Typically, these noise criteria apply to exterior residential areas, such as yards and residential green spaces.

No residences are currently within 50 to 100 feet of Nininger Road, with the exception of the VMG residential buildings that front onto Nininger Road. The sensitive receptors selected for the analysis, Locations 1, 3, and 4, are set back from Nininger Road approximately 750 ft., 800 ft. and 450 ft, respectively.

Potential noise impacts from traffic sources are influenced by the distance between the sources to nearby receptors and the local topography. Sound decreases over distance, where each doubling of distance from a point noise source decreases the sound by approximately 6 dBA[1]. Sound loss over distance for linear noise sources, such as roadways, are typically 3 dBA for each doubling of distance.

The "No-Build" condition noise levels of 71.2 dBA near Nininger Road on Sundays would be reduced by noise loss over distance to the estimated levels shown in Table 13-6 below. The Sunday afternoon period was selected for comparison, since nearby residents are more likely to be at home, and the period coincides with an anticipated peak shopping and traffic period. Saturday was excluded as a peak traffic period due to religious considerations.

[1] *Assessing and Mitigating Noise Impacts* NYSDEC Program Policy (Rev. Feb. 2001)

Table 13-6 Estimated No-Build Condition Noise levels from Nininger Road (dB)	
Estimated Noise Level at Nininger Road	**Estimated Noise Level at Receptor Location**
Southern VMG Residents - Location 1 (50 feet): 71.2 dBA	Location 1 (750 feet): 59.6 dBA
Catskill High Rail Residents - Location 3 (50 feet) 71.2 dBA	Location 3 (800 feet) 59.2 dBA
Dunderburg Rd. - Location 4 (50 feet) 71.2 dBA	Location 4 (450 feet) 61.8 dBA

These levels are below the 65 dBA HUD standard for residential uses.

13.3 Potential Impacts of the Proposed Project

Monroe Commons will generate noises typical of commercial properties with retail, office and hotel uses. Noise from the operation of the commercial development will result from both mobile sources (vehicles) and stationary sources (equipment). These project related noise sources may affect nearby sensitive receptors to varying degree, including: future residences in the adjacent VMG residential development in the Village of Kiryas Joel and residences east of the site in the Woodbury Villas with homes on Catskill High Rail. Further to the east, the Monroe Woodbury School District campus was identified as a potential noise receptor given its proximity to Nininger Road.

Mobile Off-site Traffic Noise

The primary operational noise resulting from the Monroe Commons development will be vehicles entering and exiting the development. The majority of the vehicle trips will be passenger cars, but trucks will enter and exit the site for deliveries. Current and future residents (sensitive receptors) in the vicinity of Nininger Road may experience an incremental increase in noise as traffic volumes increase.

The potential increase in traffic related to the Monroe Commons development is described in Section 9.0 Traffic and Transportation and is discussed above, relating to No-Build noise conditions without the project. As shown in Table 13-5, traffic on Nininger Road is projected to increase substantially in the No-Build condition, without the project and increase further with the project. Future noise levels within approximately 50 feet of Nininger Road were estimated using an FHWA provided traffic noise model. The estimated increase in noise on Nininger Road in 2024 without the project and with the project is estimated to be approximately 1.0 dBA, or increasing from 72.4 dBA to 73.4 dBA in the PM peak hour and from 71.2 dBA to 71.9 dBA in the Sunday peak hour. Noise increases of 0 to 3 dBA should have no appreciable effect on receptors[2].

Since the traffic noise increase along Nininger Road in the future with the proposed project was calculated to be less than 3 dBA, no significant adverse noise impacts to residential receptors within 50 feet of Nininger Road are anticipated.

The “No-Build” condition noise levels of 71.9 dBA near Nininger Road on Sundays would be reduced by noise loss over distance to the estimated levels shown in Table 13-7, below.

[2] *Assessing and Mitigating Noise Impacts* NYSDEC Program Policy (Rev. Feb. 2001)

Table 13-7 Estimated Build Condition Noise levels from Nininger Road (dB)	
Estimated Noise Level at Nininger Road	**Estimated Noise Level at Receptor Location**
Southern VMG Residents - Location 1 (50 feet): 71.9 dBA	Location 1 (750 feet): 60.3 dBA
Catskill High Rail Residents - Location 3 (50 feet) 71.9 dBA	Location 3 (800 feet) 59.9 dBA
Dunderburg Rd. - Location 4 (50 feet) 71.9 dBA	Location 4 (450 feet) 62.5 dBA

These projected off-site noise levels in the future with the proposed project are below the 65 dBA HUD standard for residential uses, therefore, in the applicant's opinion, traffic noise increases related to the proposed project would not result in a significant adverse noise impact on nearby residential uses interior to the VMG development (Location 1), nearby residential uses on Catskill High Rail (Location 3), and the Monroe-Woodbury Middle School on Dunderberg Road (Location 4).

Residents in the VMG development buildings that front onto Nininger Road and US Route 17/US Route 6 may experience noise levels above the HUD standard with open windows or on porches in the No-Build and in the Build Condition. As indicated, the Monroe Commons development traffic would increase noise levels on Nininger Road from No-Build conditions by an estimated 1.0 dBA.

On-site Operational Noise

On-site operational noise will result from both the mobile sources of vehicles circulating in driveways and parking areas, as well as stationary sources, specifically heating ventilation and cooling (HVAC) equipment for the building.

Stationary Sources

The heating, ventilation, and cooling equipment (HVAC) for the proposed building will be a stationary source of noise for nearby receptors. Commercial HVAC systems for multi-floor buildings will vary in design and in the location of the heating and cooling units. Many commercial units are placed on building roofs for aesthetics and maintenance. Buildings may have large centralized heating and cooling units or multiple smaller units. According to Lennox Heating and Cooling Systems (Lennox), current models of split system commercial air conditioning units have sound ratings of 76 to 80 dBA. This measurement is taken at one meter from the operating unit. The HVAC equipment will likely be located on the roof of the building and screened from view with a low parapet wall. The design of the building HVAC system has not yet been completed.

Such equipment is not expected to create substantial or excessive noise for nearby sensitive receptors. A sound level of 80 dBA at one meter would be reduced to less than 50 dBA over a distance of a minimum 135 feet (41 meters) between the proposed building and the nearest VMG residential building.

Deliveries to the development will be limited to daytime periods to reduce potential truck traffic before and after typical business hours (7:00 a.m. to 6:00 p.m.). The truck delivery area is located at the southeast side of the mixed-use building, opposite the adjoining VMG residential buildings. Delivery trucks will utilize the southern driveway and will not access the driveway adjacent to the

VMG development. Given that the mixed-use building will be between the loading area and adjacent residences, noise from trucks and loading activity will be reduced for the nearest residences in the VMG development.

Parking Lot Noise

Operational noise resulting from the Monroe Commons development will include noise from vehicles entering and exiting the development and circulating in the parking areas and driveways. The majority of the vehicle trips will be passenger cars, but trucks will enter and exit the site for deliveries. According to the Traffic Impact Study, the project is expected to generate 734 new trips in the AM peak hour, 975 new trips in the PM peak hour and 624 new trips in the Sunday peak hour. This increase in traffic will increase noise on the project site and incrementally on nearby local roads including Nininger Road. Noise resulting from off-site traffic is described above.

The increase in activity and circulating vehicle traffic on the site will increase noise levels for sensitive receptors near the site, primarily the adjacent VMG residential development. Noise from the parking lot may increase noise levels for the closest residents on Catskill High Rail, but those residences are located on the opposite side of a hill, which will reduce levels from the site. The overall noise levels from on-site traffic is mitigated somewhat by the necessarily low speeds of vehicles circulating on-site and parking. Noise from traffic is substantially affected by vehicle speed.

Specific noise studies for shopping center parking lots are not common through available on-line sources. The Bavarian State Agency for the Environment has been conducting and updating surveys of parking lot noise since 1986 and published the most recent version in 2007*, Parking Area Noise* (6th edition). The survey includes the collection of noise measurements for surface parking areas for different uses, garages and underground garage ramps (relevant portions of the *Parking Area Noise* report are provided in Appendix I). .

The *Parking Area Noise* study included a summary of data from the collection of sound levels at three surface parking lots: 1) a small supermarket (44 spaces), a Park and Ride lot (417 spaces) and a discotheque (303 spaces). For comparison, the proposed Monroe Commons development proposes 653 parking spaces. Six of the seven measurements in the study were withing approximately 4 dBA, and therefore, generally consistent, given the variables of parking lot size and monitoring locations. The measurements were averaged (LAeq) over the measurement periods ranging from 38 to 88 minutes.

Noise data is measured in decibels, which are expressed on a logarithmic scale, and cannot be added or averaged using standard arithmetic calculations. Utilizing logarithmic calculations, the seven parking lot measurement locations from the *Parking Area Noise* study provide a time weighted average noise level of 59.5 dBA. This level can be used to approximate future operational noise from the Monroe Commons parking areas.

Potential Noise Increases for Nearby Receptors

The sensitive noise receptors closest to the subject property are: the future adjoining VMG residential development northwest of the site and the residents on Catskill High Rail east of the site. The proposed development plan provides the two main parking areas to the northeast and to the southwest of the mixed-use building. Therefore, it is anticipated that average noise levels in the range of 59.1 dBA will occur along the shared property line with VMG.

A noise level of 59.1 dBA is 1.0 to 5.0 dBA higher than the daytime levels measured at Location 1, which coincides with the upper parking lot. The lower parking lot (southwest of the building) is closer to NY Route 17 and Nininger Road and therefore that location is more affected by off-site traffic noise. An increase of 1.0 to 5.0 dBA is considered "unnoticeable to tolerable" according to the NYSDEC Noise Assessment Policy (2001)(see Table 13-3, above). The noise level of 59.1 dBA is below the 65 dBA HUD standard for residential uses.

The VMG residential buildings adjacent to the Monroe Commons property have not yet been constructed and the timing of occupancy of those buildings is not known. The projected increase in noise along the northern property line is provided as a comparison from existing conditions to future conditions, although no residents currently live along the northern property border.

Existing noise levels for residents on Catskill High Rail (Location 3) are similar to Location 1, ranging from 52.3 dBA to 59.3 dBA during daytime periods. The large parking lots are approximately 1,000 feet from the nearest residences on Catskill High Rail, and opposite a hill. Therefore, due to noise loss over distance and intervening topography, the residents on Catskill High Rail will not experience an increase in noise due to the Monroe Commons parking lot activity.

Future visitors to the Monroe Commons development will experience noise levels comparable to other shopping centers or mixed-use commercial developments. Hotel guests will have the ability to close windows and in a modern insulated building will not experience elevated noise levels. Outdoor landscaped areas may be provided for commercial visitors, workers and hotel guests and these visitors will experience noise from activity in the parking areas and vehicles circulating at low speeds.

The proposed development will result in the removal of most (84 percent) of the existing tree cover on the Monroe property. According to the NYSDEC "dense vegetation that is at least 100 feet in depth will reduce the sound levels by 3 to 7 dBA. The existing vegetation on the site is not dense and consists of second growth trees, as described in Section 7.0 Vegetation and Wildlife. The removal of on-site vegetation for the development is not expected to noticeably change sound levels for residential neighbors, specifically those in the VMG development to the northwest and in the Woodbury Villas development east and northeast of the site.

Regular operating activities at the Monroe Commons development will not result in "unreasonable noise" as defined by Town Code Chapter 33A - Noise. According to the Town Code, construction is permitted between 7:00 a.m. and 9:00 p.m. weekdays and between the hours of 9:00 a.m. and 9:00 p.m. Saturdays and Sundays. The development will remain consistent with the Town noise code for construction and following construction.

13.4 Mitigation Measures

Deliveries to the development will be limited to daytime periods to reduce potential truck traffic before and after typical business hours (7:00 a.m. to 6:00 p.m.). The truck delivery area is located at the southeast side of the mixed-use building, opposite the adjoining VMG residential building, thereby reducing noise for future VMG residents from delivery truck activity.

The on-site HVAC equipment will likely be located on the roof of the building and screened from view with a low parapet wall. The design of the building HVAC system has not yet been completed. Shielding the HVAC equipment will reduce the equipment noise for nearby residential receptors.

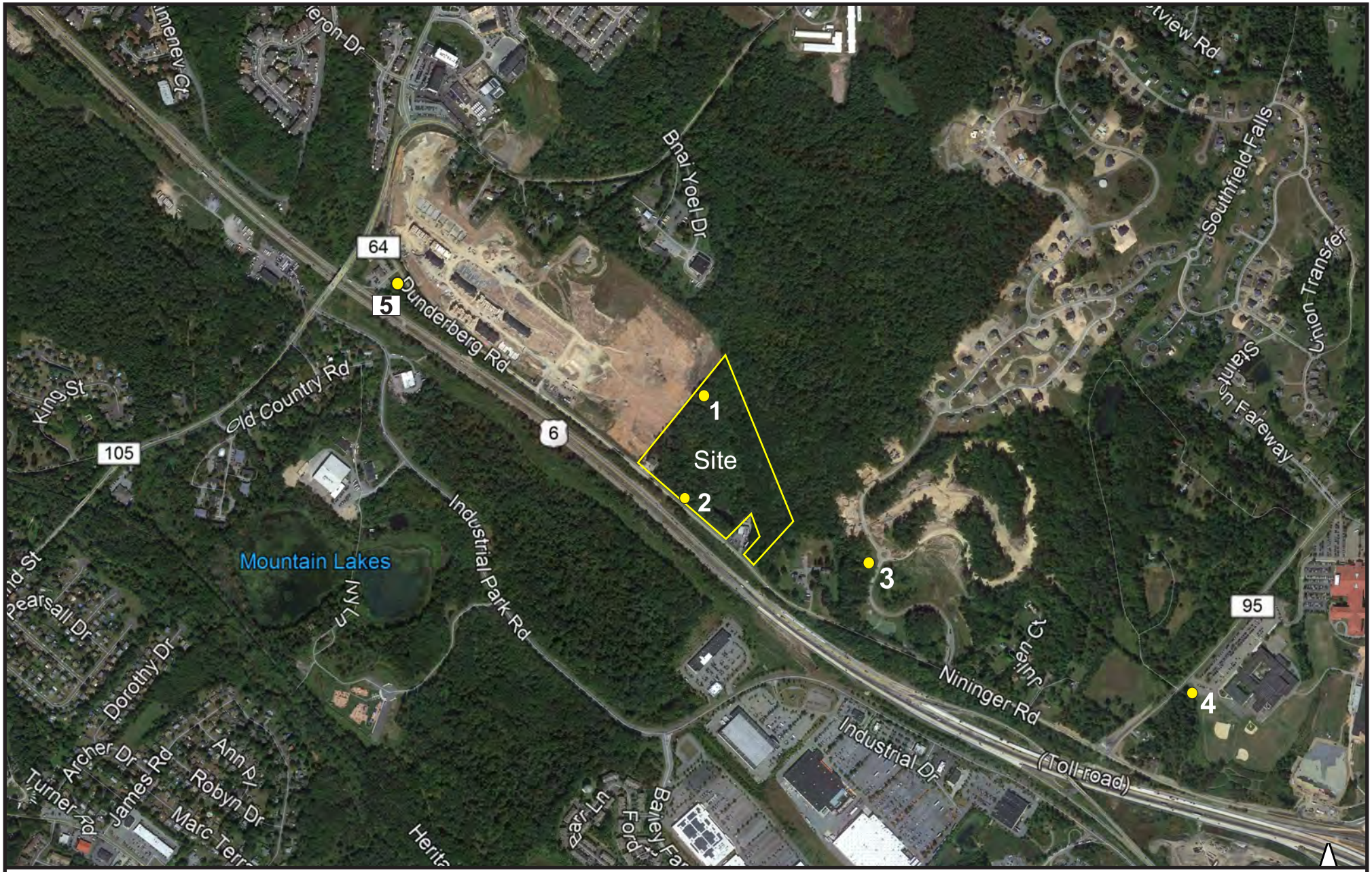


Figure 13-1: Noise Monitoring Locations
Monroe Commons
Town of Monroe, NY
Source: Google Maps

File 10075 Fig 1 01/17/10

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14.0 Air Quality

14.1 Existing Conditions

As detailed within the New York State Department of Environmental Conservation's (NYSDEC) State Environmental Quality Review (SEQR) Handbook, Fourth Edition, 2020, projects classified as Type I actions under SEQR must be reviewed to determine the potential for significant adverse environmental impacts. Air quality was thereby evaluated to determine the potential for significant adverse impacts that may result from mobile and stationary sources of emissions associated with operation of the Proposed Action.

National Ambient Air Quality Standards and Compliance

National Ambient Air Quality Standards (NAAQS) are mandated by the Federal Clean Air Act (42 United States Code [U.S.C.] § 7401-7671q). The United States Environmental Protection Agency (EPA) established NAAQS that apply throughout the United States and its territories. Air pollutants subject to the NAAQS are known as criteria pollutants and include carbon monoxide (CO), nitrogen dioxide (NO_2), ozone (O_3), inhalable particulate matter (diameter of less than 10 microns – PM_{10}), fine particulate matter (diameter of less than 2.5 microns – $PM_{2.5}$), sulfur dioxide (SO_2), and lead (Pb). The NAAQS are categorized into primary standards, which are intended to protect human health, and secondary standards, which are intended to protect public welfare. Table 14-1 presents the Federal NAAQS and state NYAAQS.

Air quality regions that do not meet the NAAQS for one or more criteria pollutant are designated by the USEPA as nonattainment areas; these regions must produce a State Implementation Plan (SIP) providing mitigation strategies and timelines for attaining the NAAQS. Nonattainment areas that attain the NAAQS for a specific criteria pollutant are re-designated as maintenance areas, and the area's SIP must remain in place to ensure continuing attainment with the NAAQS.

Table 14-1 lists federal and state air quality standards.

Table 14-1
Ambient Air Quality Standards
New York State and Federal Standards

Pollutant[1]	Averaging Time	Primary	Secondary
Sulfur Dioxide (SO_2)	1-hour	75 ppb	N/A
	3-hour	N/A	0.5 ppm
Carbon Monoxide (CO)	1-hour	35 ppm	N/A
	8-hour	9 ppm	N/A
Ozone (O_3)	8-hour	0.070 ppm (2015 standard) 0.075 ppm (2008 standard)	Same as primary
Nitrogen Dioxide (NO_2)	1-hour	100 ppb	N/A
	Annual	53 ppb	Same as primary
Lead (Pb)	Rolling 3-month average	0.15 µg/m³	Same as primary
Fine Particulate Matter ($PM_{2.5}$)	Annual	12 µg/m³	15 µg/m³
	24-hour	35 µg/m³	Same as primary
Inhalable Particulate Matter (PM_{10}) [4]	24-hour	150 µg/m³	Same as primary

Notes:
ppm = parts per million (by volume)
ppb = parts per billion (by volume)
µg/m³ = micrograms per cubic meter
Source: *U.S. Environmental Protection Agency, National Ambient Air Quality Standards Table, Available: https://www.epa.gov/criteria-air-pollutants/naaqs-table, accessed August 4, 2023.*

Existing Air Quality

New York State is divided into nine Air Quality Control Regions (AQCR). The NYSDEC maintains a network of ambient air monitoring stations located throughout the State in each of the AQCR's in order to evaluate the attainment status of each region with respect to the SIP. The proposed project site is located in Region 3: Hudson Valley. The criteria pollutants currently monitored within Region 3 include:

- ozone (O_3);
- fine particulates ($PM_{2.5}$); and,
- lead (P_b).

The remaining criteria pollutants, which include carbon monoxide (CO), sulfur dioxide (SO_2), nitrogen dioxide ($NO_{2)}$, and PM_{10} are not monitored in Region 3 but are monitored in Region 2. Region 2 includes the five boroughs of New York City. Air quality monitoring data collected at stations closest to and most representative of the Project Site were reviewed and summarized in Table 14-2 along with the applicable NAAQS for each pollutant. The latest available monitoring report prepared by the NYSDEC (*New York State Ambient Air Quality Report* 2022) was used to identify monitored concentrations. As shown in the table, all monitored background concentrations are below the applicable NAAQS.

Table 14-2
Ambient Air Quality Data in the Project Area

Pollutant	Monitoring Station	Averaging Time	Monitored Concentration	NAAQS	Above NAAQS?
Carbon Monoxide[1]	New York Botanical Gardens, 2900 Southern Boulevard Bronx County	1-hour 8-hour	2 ppm 1.6 ppm	35 ppm 9 ppm	NO NO
Ozone[2]	Rockland 2 South Mountain Road Orange County	8-hour	0.062 ppm	0.070 ppm (2015 standard) 0.075 ppm (2008 standard)	NO
Nitrogen Dioxide[3]	Newburgh 55 Broadway Orange County	1-hour Annual		188 µg/m^3 100 µg/m^3	NO
Lead[4]	Walkill 260-290 Ballard Road Orange County	3-month	0.0066 µg/m^3	0.15 µg/m^3	NO
Sulfur Dioxide[5]	New York Botanical Gardens, 2900 Southern Boulevard Bronx County	1-hour	4 ppb	75 ppb	NO
Inhalable Particulates (PM_{10})[6]	IS 52 681 Kelly Street Bronx County	24-hour	25 µg/m^3	150 µg/m^3	NO
Fine Particulates ($PM_{2.5}$)[7]	Newburgh 55 Broadway Orange County	24-hour Annual	17.8 µg/m^3 6.2 µg/m^3	35 µg/m^3 12 µg/m^3	NO

NOTES:
(1) CO data corresponds to the second-highest maximum value.
(2) Ozone data corresponds to the three-year average value of the fourth-highest maximum eight-hour concentration, consistent with the statistical form of the NAAQS. The three-year average is based on the last three years of monitored data (2020 to 2022).
(3) The monitored one-hour value is based on a three-average (2020 – 2022) of 98th percentile of daily maximum one-hour average concentrations.
(4) Lead data corresponds to the maximum rolling three-month average over a three-year period.
(5) Sulfur dioxide one-hour value is based on a three-average of 99th percentile of the annual distribution of daily maximum one-hour average concentrations.
(6) 24-hour PM_{10} value is based on maximum over a three-year period.
(7) 24-hour $PM_{2.5}$ data is representative of the 98th percentile 24-hour concentrations averaged over three years, consistent with the statistical form of the NAAQS. The annual $PM_{2.5}$ data is representative of the average of three consecutive annual means (2020 to 2022).
Source: NYSDEC, New York Ambient Air Quality Report, 2022.

EPA Attainment Status

The USEPA Green Book, which lists nonattainment, maintenance, and attainment areas was reviewed to determine the designations for Orange County in which the project is located. The USEPA Green Book shows that Orange County is designated attainment for CO, PM_{10}, SO_2, Pb, and NO_2 and maintenance for the 2006 $PM_{2.5}$ standard. Orange County is located within the New York-N. New Jersey-Long Island, NY-NJ-CT maintenance area for $PM_{2.5}$. Orange County is located within the Poughkeepsie, NY nonattainment area for the 1997 8-hour ozone standard, which is designated as moderate nonattainment.

14.2 Future Without the Proposed Project

Without the proposed project, the air quality of the project area would maintain levels of contaminants generally consistent with the levels reported above. Ambient air quality is dependent on numerous factors and varies over time. Under the no-build condition, there would be no increase in traffic volume from the Monroe Commons project; however, background growth and traffic from other area developments would likely still occur, as described in the Traffic Impact Study, included as Appendix G. No potential cumulative impacts to air quality are anticipated to result if the proposed project is not developed.

14.3 Potential Impacts of the Proposed Project

Air quality impacts from the Monroe Commons project may result from heating and cooling equipment at the site (stationary sources) and from project induced traffic (mobile sources).

Stationary Sources

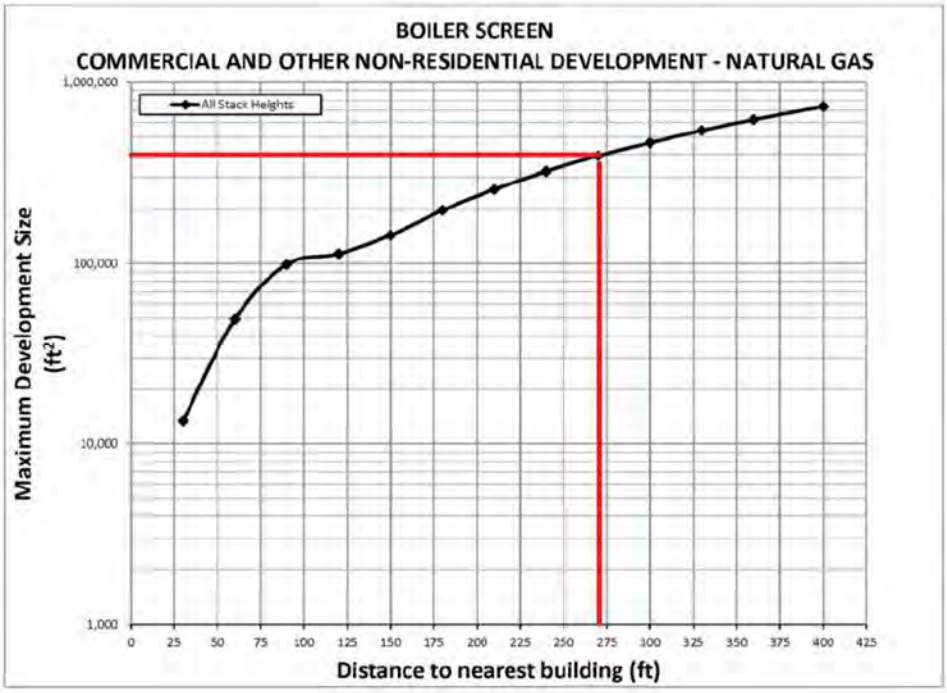
The primary generator of air emissions from the proposed mixed use commercial development includes heating and cooling equipment for the on-site building. Air contaminants typically of concern with respect to heating and hot water systems are sulfur dioxide and inhalable particulate matter related to the use of fuel oil and particulate matter and nitrogen dioxide related to use of natural gas. The proposed building will utilize natural gas and electrical service for heating and cooling and will not use fuel oil.

New York City's *City Environmental Quality Review* (CEQR) *Technical Manual* (2021) provides screening methodologies and nomographs to assess for potential air quality impacts from a facility's heating and hot water boiler systems. Impacts from boiler emissions are a function of fuel type, stack height, minimum distance from the source to the nearest receptor (building), and square footage of development. CEQR screening nomographs may only be used for sources and receptors greater than 30 feet apart and are available based on fuel and usage type. Based on the CEQR screening nomograph for commercial and other non-residential facilities using natural gas heating and hot water boiler systems, the minimum stack setback distance required for a building with a gross square footage (gsf) of approximately 400,000 square feet, such as Monroe Commons, is approximately 275 feet (see Figure 14-1). Although the mechanical equipment has not yet been designed, this minimum distance between the exhaust stack and the nearest buildings of similar or greater height (i.e., those in the proposed Veyoel Moshe Gardens [VMG] development to the west) will be maintained.

In addition, the heating and cooling system for the commercial building is anticipated to be modern energy efficient equipment with minimal emissions. As indicated, the Monroe Commons building will be heated and cooled with a combination of natural gas and electricity and not heating oil.

The building heating and cooling system will be designed to be energy efficient and result in low emissions and will be designed to eliminate any potential significant adverse air quality impact to the greatest extent practicable. Since the facility is committed to using natural gas and electricity for building heating, cooling and hot water needs and will also maintain the minimum required stack setback distance from buildings of similar or greater height, there is no potential for significant adverse air quality impact from the building heating and cooling systems.

Figure 14-1 CEQR Boiler Screen Nomograph



Mobile Sources

The primary generator of air emissions from the Monroe Commons project will be the operation of passenger vehicles travelling to and from the site and utilizing proposed surface parking lots. CO and PM are the primary pollutants of concern from mobile emission sources, including roadways and parking facilities.

Intersection Analysis

Since the project is located in an EPA-designated attainment area for CO, Transportation Conformity Rule (TCR) requirements do not apply for CO. Absent any other federal or state requirements, the potential localized CO impact from project-generated traffic was evaluated using the New York State Department of Transportation (NYSDOT) Environmental Procedures Manual (EPM) Chapter 1, Section 9, Projects Needing Air Quality Analysis (January, 2001). According to the NYSDOT EPM, signalized intersections with level of service C or better, do not require air quality analysis. Further, the NYSDOT EPM concludes that non-signalized intersections controlled by stop signs are not expected to require air quality analyses and were not evaluated.

Three signalized intersections examined in the traffic analyses (Chapter 11) were found to operate at LOS D or worse in the Build condition with recommended traffic improvements during one or more peak traffic hours. Table 14-3 summarizes the three signalized intersections along with their AM, PM and Sunday peak hour levels of service and corresponding duration of delay under the 2024 Build condition with improvements:

Table 14-3
Signalized Intersections Operating at LOS D, E, or F under 2024 Build with Improvements

Intersection	2024 Build w/ Improvements LOS (Delay [s])		
	AM Peak Hour	PM Peak Hour	Sunday Peak Hour
County Route 105/ Bakertown Road/ VMG Driveway	C (24)	D (35.8)	B (18.4)
CR 64/NY Route 32	D (46.0)	F (145)	F (113)
NY Route 17 WB Ramps/NY Route 32	B (13.5)	E (70.9)	C (21.6)

Intersections with predicted levels of service of D, E, or F in the Build condition may be further screened using NYSDOT's capture screening criteria. The screening criteria, which are used to determine the need for a microscale CO analysis, are as follows:

- 10 percent or more reduction in the source-receptor distance;
- 10 percent or more increase in traffic volume on affected roadways between the No Build and Build scenarios;
- 10 percent or more increase in vehicle emissions;
- Any increase in the number of queued lanes; and,
- 20 percent reduction in speed.

Based on a comparison of 2024 No Build and 2024 Build with Improvements traffic volumes, as provided within the traffic analysis (Chapter 11), the proposed project will not exceed the criteria of adding 10 percent or more traffic volume to any of the three intersections listed above. Table 14-4 summarizes the percent change in overall traffic volumes between the 2024 No Build and 2024 Build with Improvements conditions at each intersection during the AM, PM, and Sunday peak periods.

Table 14-4
Summary of Overall Intersection Traffic Volume Changes at Worst Operating Intersections
2024 No Build and 2024 Build with Improvements

Intersection	Traffic Volume Change		
	AM Peak Hour	PM Peak Hour	Sunday Peak Hour
County Route 105/ Bakertown Road/ VMG Driveway	-3%	-1%	-3%
CR 64/NY Route 32	6%	5%	4%
NY Route 17 WB Ramps/NY Route 32	4%	4%	3%

None of the other NYSDOT capture screening criteria are anticipated to be met at these intersections; therefore, a microscale hot-spot CO analysis is not warranted, and vehicular traffic

generated by implementation of the Proposed Action would not result in a significant mobile source CO impact.

NYSDOT's EPM does not specifically include screening criteria for PM hot-spot analyses. Since the project is located within an EPA-designated maintenance area for the 2006 $PM_{2.5}$ standard, the USEPA's *Transportation Conformity Guidance for Quantitative Hot-spot Analyses in $PM_{2.5}$ and PM_{10} Nonattainment and Maintenance Areas,* October 2021*,* was used to identify the need for a microscale $PM_{2.5}$ hot-spot analysis. In accordance with the USEPA's PM Hot-spot Guidance, PM hot-spot analyses are required for projects of local air quality concern, which typically include projects generating significant levels of heavy-duty diesel vehicle (HDDV) traffic. Section 93.123(b)(1) of the conformity rule defines projects requiring a $PM_{2.5}$ hot-spot analysis as follows:

- New and expanded highway projects with a significant number or significant increase in the number of diesel vehicles,
- Projects affecting intersections operating at LOS D, E, or F with a significant number of diesel vehicles or that would change to LOS D, E, or F due to a significant number of project-induced diesel vehicle traffic,
- New or expanded bus and rail terminal transfer points that generate a significant number or significantly increase the number of diesel vehicles congregating in a single location, and
- Projects affecting locations, areas, or categories of sites identified in the $PM_{2.5}$ or PM_{10} applicable implementation plan or implementation plan submission as sites of violation or possible violation.

The project would primarily increase automobile traffic in the area, and therefore would not meet any of the project types listed within Section 93.123(b)(1) of the conformity rule requiring a $PM_{2.5}$ hot-spot analysis. Further, the *CEQR Technical Manual* includes screening criteria to determine the potential for localized PM impacts from mobile sources. These criteria are based on project-induced HDDV trips on various roadway types as follows:

- 12 or more HDDVs for paved roads with average daily traffic fewer than 5,000 vehicles,
- 19 or more HDDVs for collector roads,
- 23 or more HDDVs for principal and minor arterials, or
- 23 or more HDDVs for expressways and limited access roads.

Since the project would primarily generate automobile traffic, none of the CEQR heavy-duty diesel vehicle thresholds would be exceeded.

Parking Analysis

Pursuant to *CEQR Technical Manual* guidelines, projects that result in sensitive uses adjacent to parking facilities have the potential to result in mobile source air quality impacts. The Proposed Action will create multiple open-air, surface parking lots adjacent to a new multifamily 1600-unit residential development to the west of the site along Nininger Road. According to the *CEQR Technical Manual*, CO and PM are the primary pollutants of concern for unenclosed, at-grade parking lots used by automobiles.

The latest version of the USEPA's Motor Vehicle Emission Simulator (MOVES3) was used to calculate emissions associated with proposed surface parking lots. The model was executed in inventory mode for Orange County. Both idle emissions and traveling emissions at an estimated

speed of 5 miles per hour (mph) were used in the parking analysis, per *CEQR Technical Manual* guidelines. As detailed within Appendix E of the Draft Traffic Impact Study, May 25, 2023, a total of 621 parking spaces would be provided within the proposed surface lots. As a conservative approach, the air quality parking assessment conservatively assumes the lots will be filled and emptied each hour of the day. Per *CEQR Technical Manual* guidelines, the traveling distance of vehicles within the lot was assumed to be two-thirds of the maximum distance from the entrance/exit to the furthest parking space. Automobiles were all assumed to idle for approximately one minute before traveling to parking lot exits.

The USEPA's CAL3QHC dispersion model was subsequently used to predict CO and $PM_{2.5}$ concentrations at sensitive uses adjacent to the proposed surface lots. Receptors were modeled at a breathing height of 1.83 meters (6 feet) above ground. Maximum modeled CO and $PM_{2.5}$ concentrations were added to appropriate background concentrations (see Table 14-2) for comparison to the NAAQS. Table 14-5 summarizes results of the mobile source air quality assessment of proposed surface parking lots. Appendix J includes MOVES3 and CAL3QHC modeling input and output files. As shown in Table 14-5, maximum total concentrations from proposed surface parking lots would not exceed the CO and $PM_{2.5}$ NAAQS.

Table 14-5
Mobile Source Surface Parking Assessment Results

Pollutant	Averaging Time	Background Concentration	Maximum Modeled Concentration	Total Concentration	NAAQS
CO	1-hour	2.0 ppm	0.3 ppm	2.3 ppm	35 ppm
	8-hour	1.6 ppm	0.21 ppm	1.81 ppm	9 ppm
$PM_{2.5}$	24-hour	17.8 $\mu g/m^3$	0.12 $\mu g/m^3$	17.92 $\mu g/m^3$	35 $\mu g/m^3$
	Annual	6.2 $\mu g/m^3$	0.03 $\mu g/m^3$	6.23 $\mu g/m^3$	12 $\mu g/m^3$

14.4 Mitigation Measures

Based on results of the stationary and mobile source air quality assessments, the Proposed Action is not anticipated to result in significant adverse air quality impacts to the surrounding existing community. The proposed building will utilize natural gas and electrical service for heating and cooling and will locate the HVAC and hot water heater exhaust stack at a minimum of 275 feet from buildings of similar or greater height as the proposed exhaust stack. In addition, the building heating and cooling system will be designed to be energy efficient and result in low emissions. In addition, the project would primarily generate gasoline vehicle traffic through project-affected intersections but would result in less than a 10% increase in traffic volumes between the future No Build and Build with Improvements conditions. Peak hourly gasoline vehicle trips into and out of the proposed surface parking lots would not result in exceedances of the CO and $PM_{2.5}$ NAAQS.

Based upon the described air quality analysis, no air quality mitigation measures are warranted or proposed.

15.0 VISUAL RESOURCES AND COMMUNITY CHARACTER

15.1 Existing Conditions

The visual assessment that is presented below has been conducted in accordance with the New York State Department of Environmental Conservation (NYSDEC) guidelines[1] relating to the assessment and mitigation of visual impacts. A visual assessment is an analytical technique that determines the viewshed of a particular project, identifies aesthetic resources within the viewshed, determines the potential impact of the project on aesthetic resources, and identifies strategies to avoid, eliminate or reduce impacts. The visual assessment will often incorporate use of line-of-sight profiles or photographs to demonstrate potential visibility of the facility from a sensitive viewpoint.

"Viewshed" is defined as the geographic area from which a development may be seen. An aesthetic resource is a formally designated place visited by the public for the purpose of enjoying its beauty. For the purpose of this assessment, that resource may be designated by a local jurisdiction, a state agency, or a federal agency. Additionally, other scenic resources may be considered significant aesthetic resources for the purposes of the visual assessment based on their unique characteristics.

Existing Visual Character

The Subject property is in the northern portion of the Town of Monroe and is located on Nininger Road and is within 150 feet of NY Route 17/US-6 a four-lane divided highway. The topography in the vicinity of the site and potential viewsheds of the Property is shown in Figure 15-1. As shown in the Figure, the elevations of land along Nininger Road and NYS Route 17/US-6 in the vicinity of the site are similar to the subject site. The project site has varied topography with lower elevations in wetland areas along Nininger Road at 622 feet and higher elevations on the hillside at the northeast portion of the site at 712 feet.

The property has approximately 820 feet of frontage on Nininger Road and drivers on NYS Route 17/US 6 have direct views of the site. A modern 3-story office building is located at the northwest corner of the site and a garage owned by the Village of Kiryas Joel/Town of Palm Tree are located at the southwest corner of the property. The project site appears as wooded undeveloped land between these two existing buildings. The local setting and nearby development is shown in Figure 15-2 Aerial Photo.

The Project site is located in the HI zoning district, which includes two areas; an area including the project site in the northeastern portion of the Town and a second in the northwestern portion of the Town. The two other undeveloped lots in the eastern portion of the HI zoning district appear as a wooded hillside for drivers on Nininger Road and NY Route 17/US Route 6. Properties located in the HI zoning district are further described in Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendments.

[1] *NYS DEC Program Policy, Assessing and Mitigating Visual Impacts, 2000.*

Southeast of the site on Nininger Road are several older residences and further to the southeast is a new residential subdivision known as Woodbury Villas – Golden Hills that occupies a hillside above Nininger Road and NYS Route 17 / US 6. The Monroe-Woodbury High School campus is located further southeast of the site off Nininger Road. The Harriman Commons Shopping Center, including Walmart and Home Depot stores among others, is a prominent visual feature for drivers on NYS Route 17/US 6 to the southeast of the subject property.

Northwest of the site on Nininger Road is a large multi-family residential development known as Voyel Moshe Gardens (VMG) located in the Village of Kiryas Joel/Town of Palm Tree. The development is currently under construction and the property presents a stark visual contrast to the project site due to tree clearing. A number of four to five story multi-family residential buildings have been constructed at the western portion of the VMG site, while the land adjacent to the project site is vacant cleared land. The NYS Police barracks are located northwest of the site at the intersection of Nininger Road and Route 105.

Properties located in the HI zoning district in the northwestern portion of the Town are fully developed. These properties are fully visible from NY Route 208 and are visually prominent for drivers exiting NY Route 17/ US Route 6 onto Route 208. The Professional Square office building is visible for east and westbound drivers on NY Route 17 / US Route 6. These properties are further described in Section 18.0 Potential Impacts of Proposed HI Zoning Text Amendments.

No significant historic or visual resources are located in the immediate vicinity (one-half mile) of the site. Schunemunk Mountain, located north-northwest of the site, a natural area of scenic significance, is not readily visible from the project vicinity due to topography. Goosepond Mountain, west of the site, another natural area of scenic significance, is not visible from the project area. This locally prominent hill comes into view for drivers on NY Route 17/ US Route 6 approximately two miles west of the site.

Currently there is no lighting on the subject property and it appears as dark woods at nighttime hours. Current development in the vicinity of the site, including office, garage and single family residential have safety lighting appropriate to their uses. The VMG property northwest of the site has lighting in the western developed portion of the site. Existing daytime and nighttime views of the project site are provided in Figure 15-3.

The project site is visible from one recreational resource, portions of the Long Path Trail located northwest of the site. As further described below, a portion of the Long Path Trail that crosses Gonzaga Park provides distant views of the site in the developed landscape of several municipalities. The project site is not visible from other local recreational areas or parks, including Harriman State Park, Goose Pond Mountain or the Appalachian Trail south of the site.
According to the approved Scoping Document, the following views into the site from off-site vantage points were identified:

1. Nininger Road westbound, near the entrance to the Proposed Project.
2. Nininger Road eastbound, at the crest of the roadway approximately 550 feet west of the Project Site.
3. Northeast of the Project Site along west side of Catskill Hill Rail, near the residence closest to the Project Site.
4. NYS Route 17 westbound, at a point aligned with the entrance to the Proposed Project.

5. NYS Route 17 eastbound, at a point aligned with the eastern boundary of the Project Site.
6. NYS Route 6 westbound, near viewshed parking area approximately two miles east of the NYS Route 17 ramps.
7. Appalachian Trail at the optimal viewpoint facing north/northeast toward the Village of Harriman and the Project Site, approximately 3.5 miles south of the Project Site.
8. Long Path Trail at the optimal viewpoint facing southeast toward the Project Site, approximately 2.6 miles northwest of the Project Site.

Views from Nearby Locations

Views of the site from the nearby vantage points vary depending on the topography, vegetation and intervening development. The existing conditions at eight (8) potential vantage points from area roads and public recreation areas were photographed, in both summer and winter (leaf-off) conditions. A key map for the evaluated view locations is provided as Figure 15-4 Visual Assessment Locations. Photos of the site from nearby public locations are provided in Figure 15-5.

View 1: From Nininger Road Westbound

The subject property is directly visible from westbound Nininger Road since the site has nearly 820 feet of frontage on Nininger Road. Currently the site appears as a wooded lot between the Village of Kiryas Joel garage at the east and an office building at the west. The site appears as undeveloped wooded property beyond the garage. When the trees are bare in winter months, views into the interior of the site are possible, including the wetland pond near Nininger Road (see Figure 15-5, Photos 1 and 2).

View 2: From Nininger Road Eastbound

The property is visible for eastbound drivers on Nininger Road, both close to the site and from a crest in the road approximately 550 feet west of the site. From this vantage point the site appears as a patch of woods behind the cleared construction site for the VMG development. As drivers approach the property the neighboring office building at the southwest corner of the site becomes more visible (see Figure 15-5, Photos 3 and 4).

View 3: From Catskill High Rail

This vantage point is from Catskill High Rail a road that provides access to the Woodbury Villas residential development, from Nininger Road. The vantage point is approximately 900 feet east of the project site. A low topographic ridge is located between Catskill High Rail, and the single family homes on the road, and the project site. Drivers or pedestrians looking towards the site to the west view a wooded hillside, in both summer and winter months (see Figure 15-5, Photos 5 and 6.

View 4: From NY Route 17 Westbound

Currently, westbound drivers on NY Route 17/ US Route 6 have prominent views of the wooded site, similar to views from Nininger Road. NY Route 17/ US Route 6 is slightly higher than Nininger Road and therefore the views of the site are more direct in winter months (see Figure 15-5 Photos 7 and 8). As westbound drivers approach the site, the Woodbury Commons shopping Center is a prominent visual feature on the south side of the highway.

View 5: From NYS Route 17 Eastbound

Similar to eastbound views from Nininger Road, eastbound drivers have direct views of the wooded property, and views into the site in winter months (see Figure 15-5, Photos 9 and 10).

View 6: From NYS Route 6 Westbound

Westbound drivers approaching the Monroe and Woodbury area from Harriman State park on NY Route 6 have open panoramic views of the Woodbury Creek Valley, the Village of Harriman, Village of Monroe and environs. A visitor pull-off on westbound NY Route 6 provides opportunities to view the local region. From this vantage point the project site is located towards the west beyond the Monroe Woodbury School District campus, which is visible in the landscape. The project site is obscured from this vantage point by topography and is not visible (see Figure 15-5, Photos 11 and 12).

Potential views of the site from parks, recreation areas and important trails were examined by using topographic maps and by a visual survey of the area. The Town of Monroe Comprehensive Plan Update (2017), provides a figure with viewsheds from the Appalachian Trail and from the Long Path Trail in Monroe, including the Village of Monroe, Village of Harriman, and the Village of Kiryas Joel. This figure is reproduced as Figure 15-6. The viewshed map from the Comprehensive Plan indicates that the project site is “potentially visible” from both the Long Trail and the Appalachian Trail (see discussion below). Vantage points from both the Appalachian Trail and the Long Path Trail were examined by hiking the trails and seeking open vistas towards the project site. These vantage points are described below.

View 7: From Appalachian Trail

The Appalachian Trail crosses the southern portion of Monroe near Mombasha Lake and crossing into the Village of Tuxedo. The closest portion of the Appalachian Trail to the project site is a ridge line east of Orange Turnpike (CR-19). This portion of the trail crosses a wooded north facing ridge. No prominent vantage points or vistas were observed on this portion of the trail. Development in Kiryas Joel could be observed through trees in the distance, but the project site could not be identified. This location is approximately 3.7 miles from the project site (see Figure 15-5, Photos 13 and 14).

View 8: From Long Path Trail

The Long Path Trail crosses from the Village of South Blooming Grove into the northern portion of the Town of Monroe, near the Village of Kiryas Joel. Portions of the trail are on Seven Springs Road and then enter Gonzaga Park towards the north. At the northern edge of Gonzaga Park the Trail is on a northeast-southwest trending ridgeline with extensive views to the west and east. This vantage point provides views towards the east and the Village of Kiryas Joel, the Village of Monroe, Village of Harriman and Village of Woodbury. This location is approximately 2.5 miles from the project site. The project site is visible in the landscape, beyond the VMG construction site and adjacent to NY route 17/ US Route 6 (see Figure 15-5, Photos 11 and 12).

15.2 Potential Impacts of the Proposed Project

The proposed Monroe Commons development would convert the existing vacant, wooded parcel to a four-story, modern mixed-use building with supporting parking areas, utilities and stormwater management areas. The proposed mixed-use development would change the visual character of the site. The clearing of trees and grading for construction and the addition of a four-story building would allow views of the proposed development from Nininger Road and NY Route 17/ US Route 6.

The proposed four-story building will have an irregular shape and is designed to fit in with the site's topography with lower elevations and entrances on the ground floor and parking and entrance at a higher elevation at the rear of the building. Three entrances are provided for the retail uses on the first floor, an entrance provided on the second floor at the northwest side of the building and an entrance will be provided for the office and hotel uses on the third floor at the rear of the building. The building will be set back approximate 500 feet from Nininger Road and this will reduce the scale of the building for drivers passing the property on Nininger Road and NY Route 17.

The proposed building has an average height of 49 feet as shown in the Building Height Elevations drawing prepared by the project engineer. An Elevation Section is provided as Figure 15-6 showing the proposed grades around the building and floor elevations. This section also provides perspective regarding the height of the proposed building in relation to the adjoining Veyoel Moshe Gardens (VMG) residential development. As shown in the Section, the adjoining residential buildings will have a higher roof line than the proposed Monroe Commons building.

The proposed building will have a varied façade and window treatment and a stone and glass exterior. Architectural renderings of the proposed building are provided in Figures 15-7 through 15-9. A triangular canopy will be provided at the main drop-off entrance at the center of the ground floor, as well as the northern entrance and the rear hotel entrance. Landscaping and planting will be provided around the building as shown in the Landscape Plan (see Figure 15-10). The architectural renderings are provided as illustrations of the proposed building architecture.

Elevations of the proposed building façade are provided in the attached Architectural Plans, prepared by Gut & Vann Architecture and Contracting (see Drawing SC-8). The elevations show the varied materials, windows and architectural elements for the building. The elevations show the relative scale and height of the different building sides, with the front of the building higher than the rear of the building. Building finishes, including precast stone, stucco, curtain glass and

aluminum. The attached architectural plans also include preliminary floor plans for the building interior.

Site Lighting

The introduction of lighting on the property will change the nighttime visual character of the Property. Currently the property is undeveloped The closest properties to the site the office building at the western edge of the site and the garage at the eastern edge of the site currently have 24-hour safety lighting. The property directly east of the site is undeveloped and has no lighting. The VMG residential development to the west of the site on Nininger Road has lighting around the completed residential buildings. The largest nearby current source of nighttime lighting is the Harriman Commons shopping center southeast of the site. The shopping center has large parking lots and multiple retail buildings with lighting.

A Lighting Plan for the development has been prepared and is provided in the Site Plan drawings attached as Appendix M. A reduced sized copy of the lighting plan is provided as Figure 15-12. A lighting diagram is provided as Figure 15-13. The lighting plan was developed to address the standards and requirements of Town Code § 57-21.6 "Lighting". The full-scale Lighting Plan provides the lighting levels (in footcandles) at the property line. The goal of the lighting plan is to minimize off-site lighting spillage and provide the lighting necessary for visitor safety and circulation around the site. Proposed lighting is provided on pole mounted lights at the perimeter of the parking areas, along driveways and pole mounted lights interior to the site. The light poles proposed will be either 30 or 39 feet in height. Wall mounted lighting will be provided on the building and these will be downward directed with "cut-offs" to prevent off-site glare. All pole mounted lighting will be downward directed and "night-sky" compliant.

The full-scale lighting plan shows that light from poles at the perimeter of the parking areas will be limited to the site and will minimally extend off-site along the northern property border and around the two site entrances on Nininger Road. The blue line, or outermost isoline represents 0.5 footcandles while the next line (green) represents 1.0 footcandles. According to the Town Code (57-21.6 C(6)) "*Illumination from light fixtures shall not exceed 0.05 footcandle on adjacent residential property, or 0.1 footcandle on adjacent business property, as measured along the shared property boundary at ground level. A maximum uniformity ratio (average to minimum) of 4:1 shall be achieved for all lit areas".* The Code acknowledges that lighting levels will vary across a property line due to fixture spacing, topography and other factors.
The Town Code also provides that the Planning Board has discretion to impose conditions or waivers related to the lighting code:

> *(11) The Planning Board may impose conditions on any site plan, subdivision plan or special use permit to ensure that the objectives of this section are met.*
> *(12) Waivers. Where site conditions warrant exceptions to the strict application of these lighting standards, the Planning Board may waive the requirements set forth in this section where it determines that the waiver shall not violate the purposes of this section.*

Landscape Plan

A Landscape Plan has been prepared for the Monroe Commons development and is provided with the Site Plan drawings. The plan was developed to meet the requirements of Town of Monroe Environmental and Design Standards (Chapter 57, Article VII, §57- 21.5). A reduced scale version

of the Landscape Plan is provided as Figure 15-11. The plan provides for the planting of a mix of deciduous and evergreen trees and shrubs, as well as decorative grasses and perennial plantings across developed portions of the site. Deciduous trees are provided along the Nininger Road property frontage and along the two entrance driveways to soften and enhance the views into the site from Nininger Road and NY Route 17/ US Route 6. Deciduous trees are proposed for islands in the parking areas and along the driveway south of the commercial building. A single row of evergreen trees is proposed along the shared property border with the VMG property to the northwest. As shown on the Landscape Plan extensive mixed plantings of trees and shrubs are provided at the three building entrances (see drawing L-2, Enlarged Area #2 through 4). A landscaped park-like area with a pavilion will be provided south of the building (see drawing L-2, Enlarged Area #1).

The wetlands mitigation plan is described in Section 5.0 Wetlands and Surface Water Resources. The wetland mitigation plan includes deciduous trees and shrubs that will, over time, grow at the edge of the wetland providing screening of the building and parking areas from Nininger Road and a provide large natural area in the southeast corner of the site. Approximately one-third of the property frontage will be natural wetland area.

Change in Visual Character

Future views into the project site will not be substantially different in summer (leaf-on) and winter (leaf-off) conditions, since most of the existing trees along the property frontage on Nininger Road will be removed for construction. Existing trees in the wetland area will be retained. The plantings of deciduous trees along the entrance driveways and the property frontage sill soften views of the building and parking areas in summer months, but will not completely obscure views to the commercial building in the interior of the site.

Following the project development, direct views of the project site will change for drivers in the vicinity of the site on Nininger Road and NY Route 17/ US Route 6. As described above, the project site is only visible for a section of Nininger Road and NY Route 17/ US Route 6. And is generally not visible from surrounding roads or vantage points, except for the Long Path Trail, described below.

Photo simulations of the proposed Monroe Commons building in the existing landscape have been prepared to further assess the visibility and scale of the buildings from nearby locations. As discussed in the Existing Conditions assessment, the proposed building and development will be potentially visible for drivers on NY Route 17 and Nininger Road, including views from Locations: 1, 2, 4 and 5. A photo simulation was prepared for each of these views, as further described below. The photo simulation from Location 4 provides a birds-eye perspective above NY Route 17 northbound and it shows the development in the landscape. This view will not be experienced by drivers on NY Route 17, but is provided to show the scale and setting of the development.

View 1: From Nininger Road Westbound

Westbound drivers on Nininger Road will have direct views of the developed property and of the commercial building following development. A photo simulation is provided as Figure 15-5B Photo 1. The building will be set back almost 500 feet from the edge of the road reducing its size and scale from this vantage point. Drivers from this vantage point will also view the residential buildings of the adjacent VMG development across the on-site parking areas. Views into the site

will be softened by the landscaping along the Nininger Road frontage and landscaping interior to the site. The on-site wetland natural area will remain in the foreground of views approaching the developed property.

View 2: From Nininger Road Eastbound

Following development, drivers travelling eastbound in Nininger Road will view the VMG residential buildings on the northeast side of the road. Drivers will have direct views of the commercial building and development as they pass the site. A photo simulation is provided as Figures 15-5B, Photo 2. Similar to westbound views, the development and building will be softened by the proposed landscaping along the road frontage and interior to the site.

View 3: From Catskill High Rail

Following development, drivers or pedestrians looking towards the site to the west will not see the proposed building or the parking lots due to the intervening topography. Views from this vantage point will not change.

View 4: From NY Route 17 Westbound

Westbound drivers on NY Route 17/ US Route 6 will likely have prominent views into the developed site and of the proposed building. Drivers will have views across the enhanced wetland area and parking lots to the building set back into the property. Given the height and scale of the building it will be a prominent visual feature for a short distance on NY Route 17/ US Route 6 westbound. A Photo simulation from a birds-eye perspective is provided from NY Route 17 Westbound (Figure 15-5B Photo 3. This view will not be experienced by drivers on NY Route 17, but is provided to show the scale and setting of the development.

View 5: From NYS Route 17 Eastbound

Eastbound drivers on NYS Route 17/ US Route 6 will view the residential buildings of the VMG development as they approach the subject property. A photo simulation is provided as Figure 15-5B Photo 4. Drivers will have brief direct views into the site from the eastbound NY Route 17 lanes. The building will be a prominent visual feature for drivers looking to the left across Nininger Road and the on-site parking lot.

View 6: From NYS Route 6 Westbound

The project site is not currently visible from this vantage point and is obscured by topography. Following the proposed development this conditions will not change.

View 7: From Appalachian Trail

The project site is currently not visible from the Appalachian Trail and will not be following the development of the site. This vantage point location is approximately 3.7 miles from the project site.

View 8: From Long Path Trail

The project site is currently visible in the landscape, beyond the VMG construction site and adjacent to NY Route 17/ US Route 6. Following development, the project site will appear as developed, but the commercial building may be obscured by the VMG residential buildings. The fully developed project site will not be a prominent feature in the landscape at a distance of approximately 2.5 miles and considering the nearby development including the Village of Kiryas Joel and Harriman Commons.

The proposed modern commercial building will be in contrast to nearby single-family homes east of the site on Nininger Road, but will have a similar height and scale as the adjacent VMG residential buildings, northwest of the site. The building will have a greater height but smaller footprint than nearby big-box retail stores in the Harriman Commons shopping center southeast of the site. The Monroe Woodbury High School is another nearby large four-story building visible from Nininger Road, NY route 17/ US Route 6 and nearby public roads. The proposed building will have modern, unique architecture that is not currently present along the Nininger Road and NY Route 17/ US Route 6 corridor.

As described, the development of driveways, parking and stormwater management areas will result in the removal of the majority of the existing vegetation along Nininger Road and all existing vegetation along the northwest property line bordering the VMG residential development. A total of 17.2± acres of existing wooded vegetation will be removed as a result of the development. This area includes approximately 14.9 acres in the Town of Monroe and 2.5 acres of woods in the Village of Woodbury. The limits of site disturbance are shown on the Site Plan drawings (see Sheets 11, 12 and 13 – Grading Plans). Removal of a total of 17.2 acres of existing vegetation will allow generally direct views into the site from Nininger Road and from the adjacent VMG property. These views will be softened by the proposed landscaping at the perimeter of the site, including along the property line shared with the VMG site.

As described in Section 5.0 Wetlands and Surface Water Resources, the wetlands area in the southeast portion of the site will be retained and enhanced with a Wetlands Mitigation Plan. The vegetation on approximately one-third (300 feet) of the project's frontage on Nininger Road will be preserved and plantings added. Existing preserved vegetation and the planting of 200 new trees will enhance views of the site from Nininger Road and NY Route 17. Residents of the Woodbury Villas residential development will not be affected by the removal of vegetation since that development does not have direct views of the site due to topography (see discussion above).

15.3 Mitigation Measures

In order to mitigate the potential for significant adverse visual and community character impacts to the maximum extent practicable, the following measures are proposed as part of the project's design.

Setbacks and Landscaping

The applicant proposes an attractive, modern mixed-use building for the development. The site design for the development would locate the building well interior to the site, approximately 490 feet from Nininger Road. In placing the proposed building further from street frontage, it reduces the visual prominence and scale of the building. The site plan provides a landscaped area along

the Nininger Road frontage and trees along the two entrances. Trees are proposed for islands and medians throughout the parking lots. This landscaping will soften the appearance of the building from Nininger Road and NY Route 17/ US Route 6 and enhance the street frontage.

The existing wetland area will be preserved and enhanced with native trees and shrubs. A total of 780 shrubs and 200 trees are proposed to be planted in the Wetland Mitigation area. Over time the trees will mature and provide an attractive natural feature in the southeast portion of the site. The preservation of existing vegetation and the planting of new trees will enhance views of the site from NY Route 17 and from Nininger Road.

Lighting

Lighting for the project has been designed to limit the glare from lighting to the property and prevent off-site light spillage. A lighting plan is provided with the Site Plan drawings attached as Appendix M. The proposed pole mounted and wall mounted lighting is dark sky compliant and all downward directed to prevent off-site light spillage potential impacts to the public and neighbors.

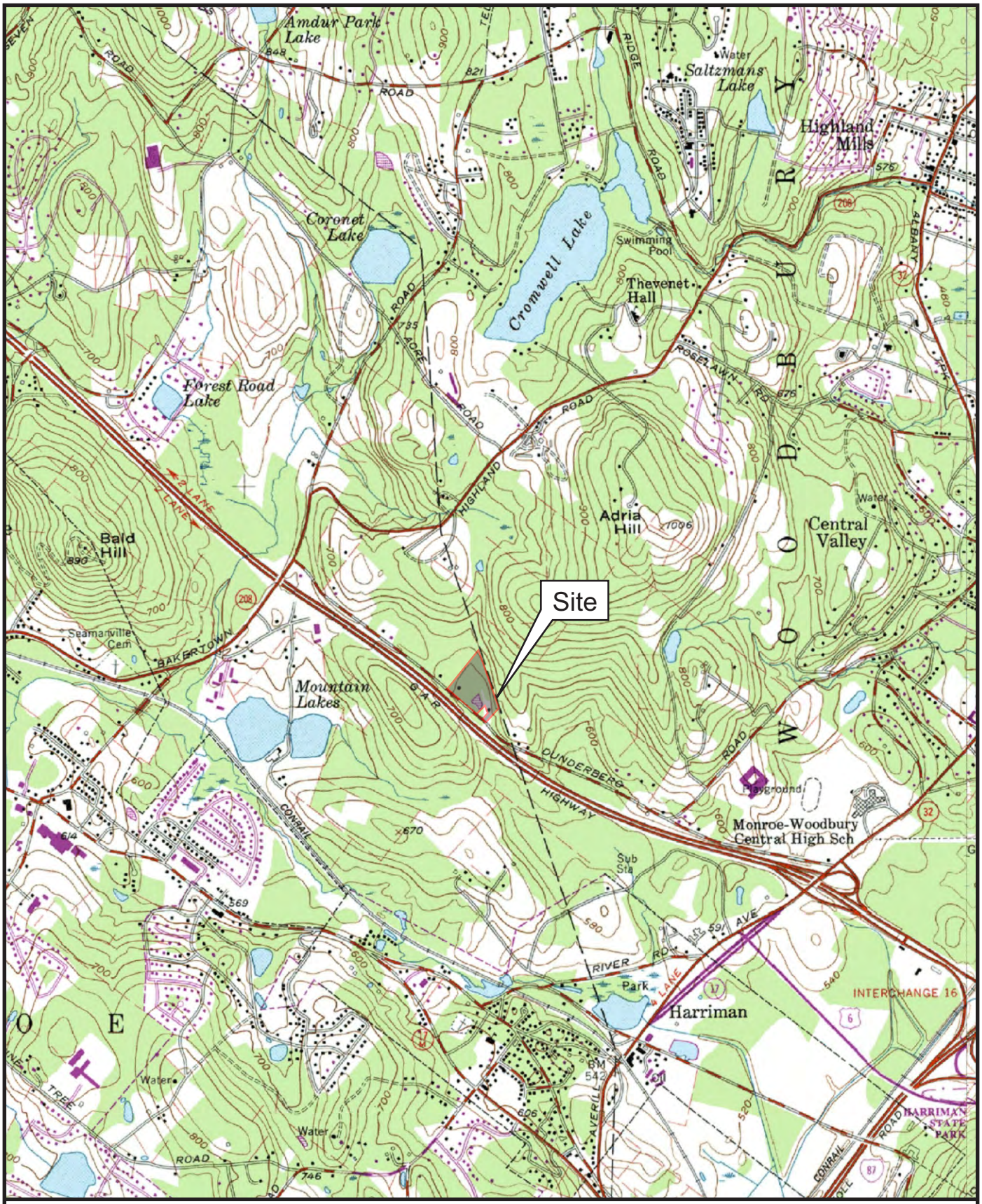
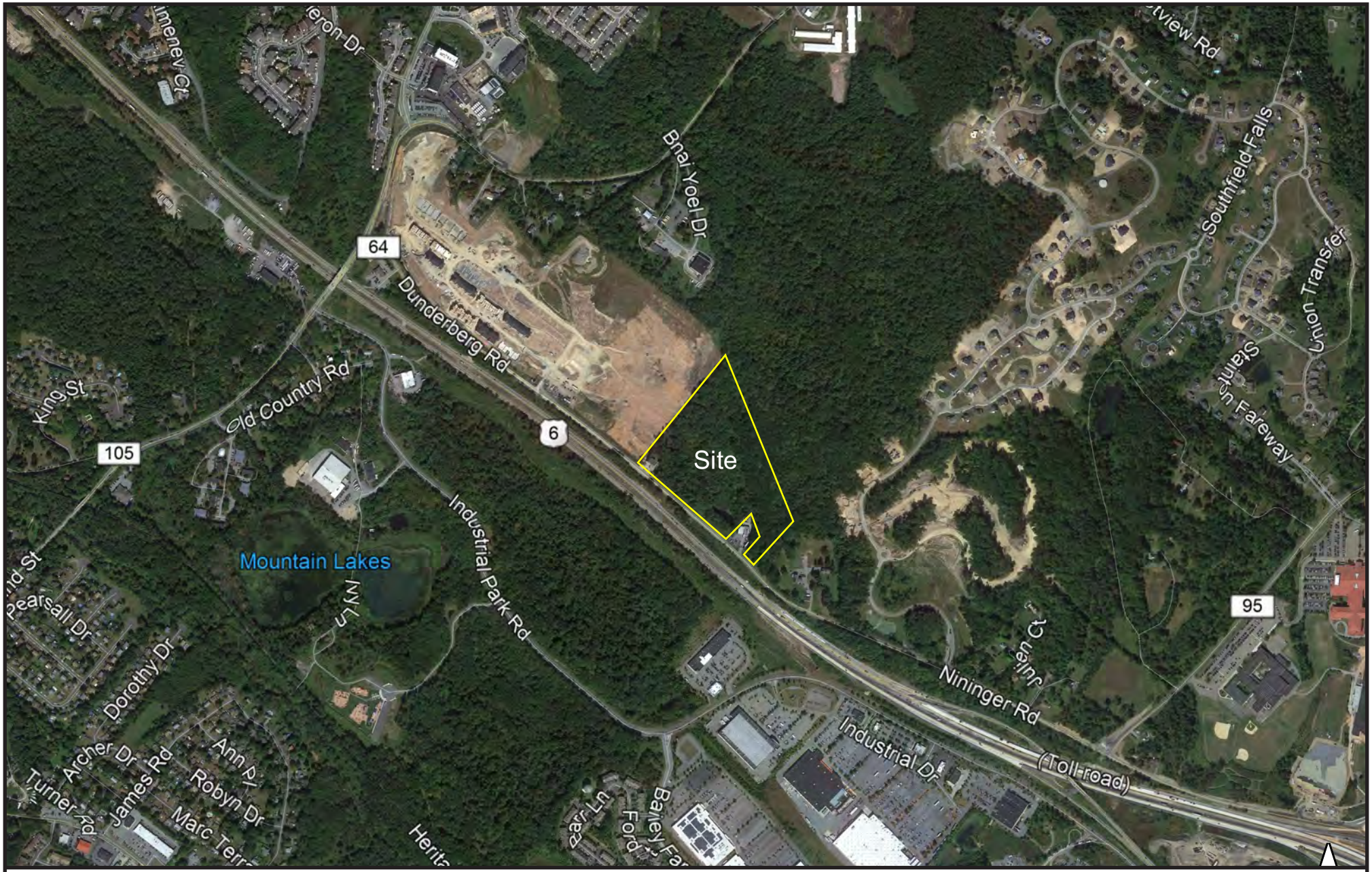


Figure 15-1: Local Topography
Monroe Commons
Town of Monroe, Orange County, New York
Base Map: Terrain Navigator - USGS

File 21032 09-30-2021

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418



File 10075 Fig 1 01/17/10

Figure 15--2:Aerial Photo and Setting
Monroe Commons
Town of Monroe, NY
Approx. Scale: 1 in. = 1050 ft.
Source: Google Maps

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

Figure 15-3 Daytime and Nighttime Views
Monroe Commons, Town of Monroe, NY

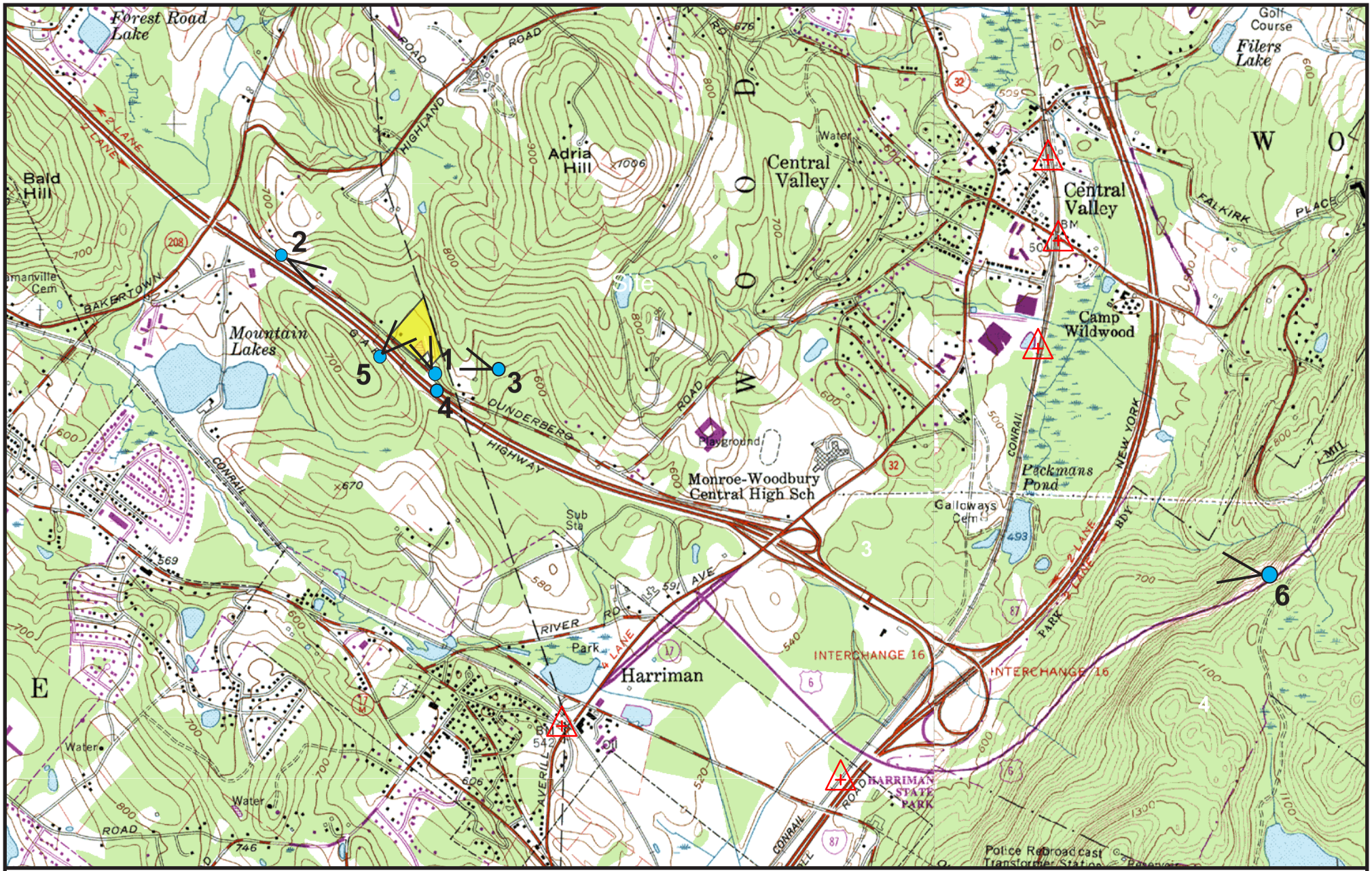
1) Location 1 - View of subject Property frontage on Nininger Road at southeast property corner, facing northwest (Daytime condition).

2) Location 1 - View of subject Property frontage on Nininger Road at southeast property corner, facing northwest (Nighttime condition).

Figure 15-3 Daytime and Nighttime Views
Monroe Commons, Town of Monroe, NY

3) Location 5 View of project site from NY Route 17 eastbound, facing northeast (Daytime condition).

4) Location 5 View of project site from NY Route 17 eastbound, facing northeast (Dusk condition



Legend

4 Visual Assessment Location

Figure 15-4: Visual Assessment Locations

Monroe Commons
Town of Monroe, NY
Approx. Scale: 1 in. = 2,030 ft.
Source: USGS Map - Terrain Navigator

File 10075 Fig 1 01/17/10

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

Figure 15-5 Existing Conditions Photographs
Monroe Commons, Town of Monroe, NY

1) Location 1 - View of subject Property frontage on Nininger Road at southeast property corner, facing northwest (Leaf on condition).

2) Location 1 - View of subject Property frontage on Nininger Road at southeast property corner, facing northwest (Leaf off condition).

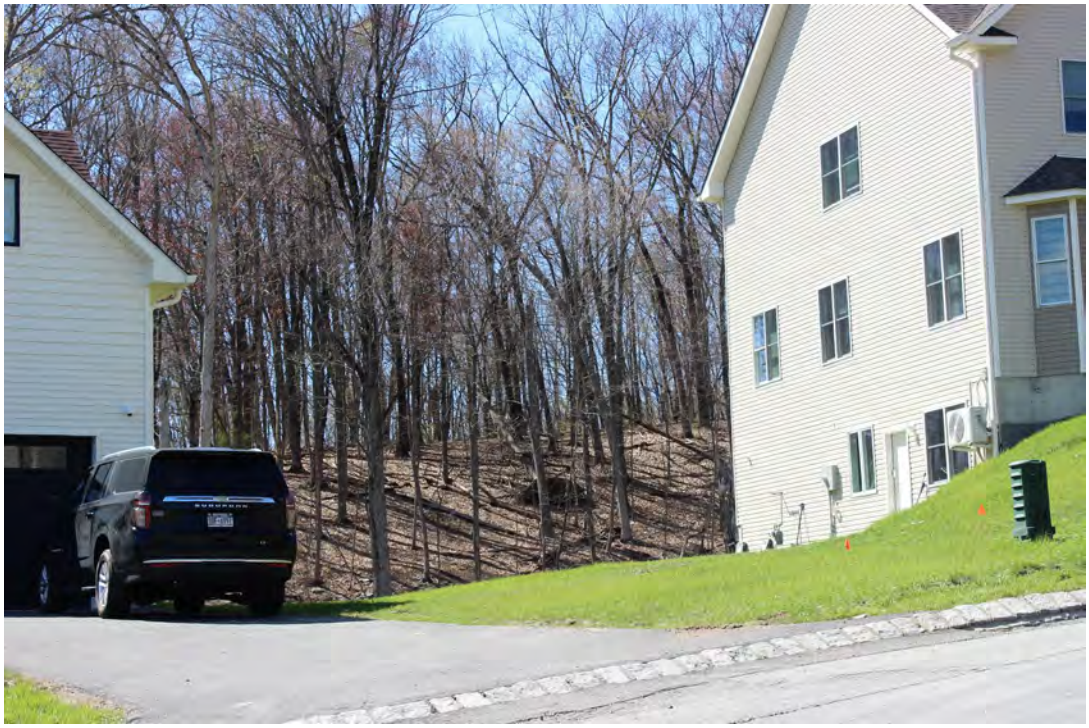
Figure 15-5 Existing Conditions Photographs
Monroe Commons, Town of Monroe, NY

3) Location 2 View of project site from Nininger Road eastbound, facing southeast (leaf on condition). Site is wood line at left of photo.

4) Location 2 View of project site from Nininger Road eastbound, facing southeast (leaf on condition). Site is wood line at left of photo.

Figure 15-5 Existing Conditions Photographs
Monroe Commons, Town of Monroe, NY

5) Location 3 View from Catskill High Rail towards site, facing northwest (leaf on condition).



6) Location 3 View from Catskill High Rail towards site, facing northwest (leaf off condition).

Figure 15-5 Existing Conditions Photographs
Monroe Commons, Town of Monroe, NY

7) Location 4 View from NY Route 17 westbound, facing northwest (leaf on Condition). Site is beyond building at right.

8) Location 4 View from NY Route 17 westbound, facing northwest (leaf off condition).

Figure 15-5 Existing Conditions Photographs
Monroe Commons, Town of Monroe, NY

9) Location 5 View from NY route 17 eastbound, facing northeast (leaf on condition). Site is wooded area right of office building.

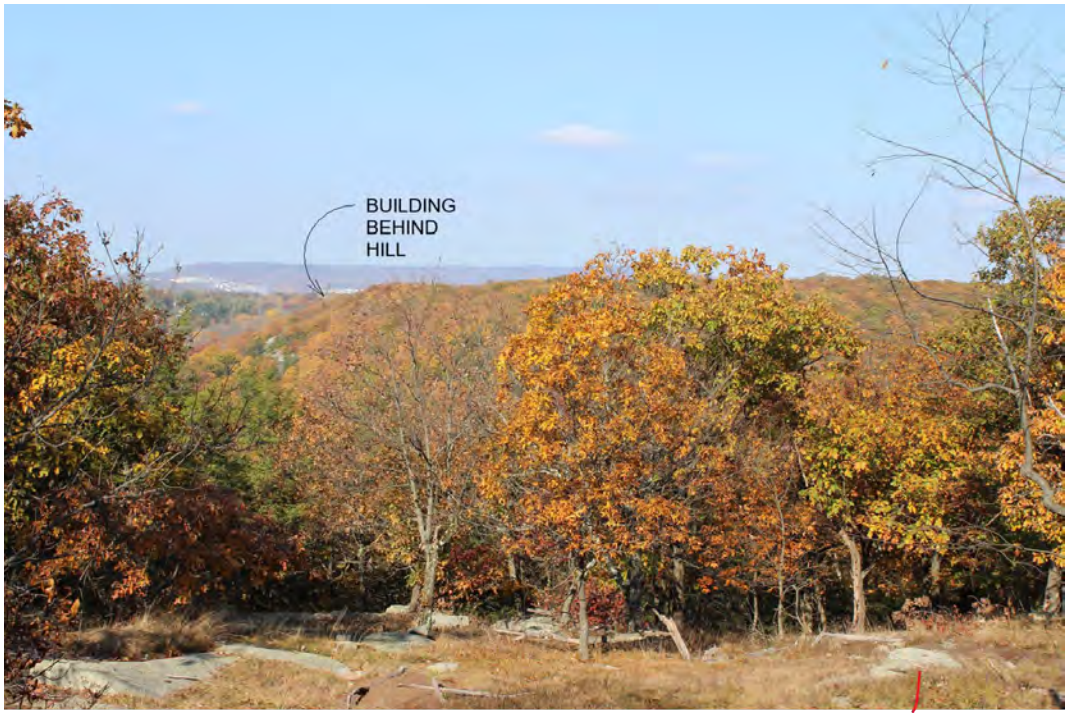
10) Location 5 View from NY route 17 eastbound, facing northeast (leaf off condition). Site is wooded area right of office building.

Figure 15-5 Existing Conditions Photographs
Monroe Commons, Town of Monroe, NY

11) Location 6 View of Woodbury, Harriman, Monroe from Rt. 6 overlook. Site is at center of photo, facing west.

12) Location 6 View of Woodbury, Harriman, Monroe from Rt. 6 overlook. Site is at center of photo, facing west.

Figure 15-5 Existing Conditions Photographs
Monroe Commons, Town of Monroe, NY



13) Location 7 View towards the project site (north-northeast) from open area *off of* Appalachian Trail. Village of Kiryas Joel visible near horizon.

14) Location 7 View towards the project site (north-northeast) *from* Appalachian Trail.

Figure 15-5 Existing Conditions Photographs
Monroe Commons, Town of Monroe, NY

15) Location 8 View from Long Path Trail in direction of project site (southeast). Project site is center left of Photo.

Figure 15-5B Photo Simulations
Monroe Commons, Town of Monroe, NY

1) Location 1 – Photo simulation of subject Property frontage on Nininger Road at southeast property corner, facing northwest. Proposed building is seen through retained wetland area vegetation.

Figure 15-5B Photo Simulations
Monroe Commons, Town of Monroe, NY

2) Location 2 – Photo simulation of Nininger Road and VMG residential development facing southeast. Proposed building will be screened from view until eastbound

Figure 15-5B Photo Simulations
Monroe Commons, Town of Monroe, NY

3) Location 4 Birds-eye photo simulation of project site from NY Route 17 westbound. Drivers on NY Route 17 will have views into the site through vegetation on NY Route 17 and will not have this perspective. The view is provided to show the scale and setting of the proposed building in the landscape. The adjoining VMG development is shown in the background at left.

Figure 15-5B Photo Simulations
Monroe Commons, Town of Monroe, NY

4) Location 5 Photo simulation of the site for drivers on NY Route 17 eastbound. The existing Brach and Mann office building is at left. The view is in a leaf-off condition.

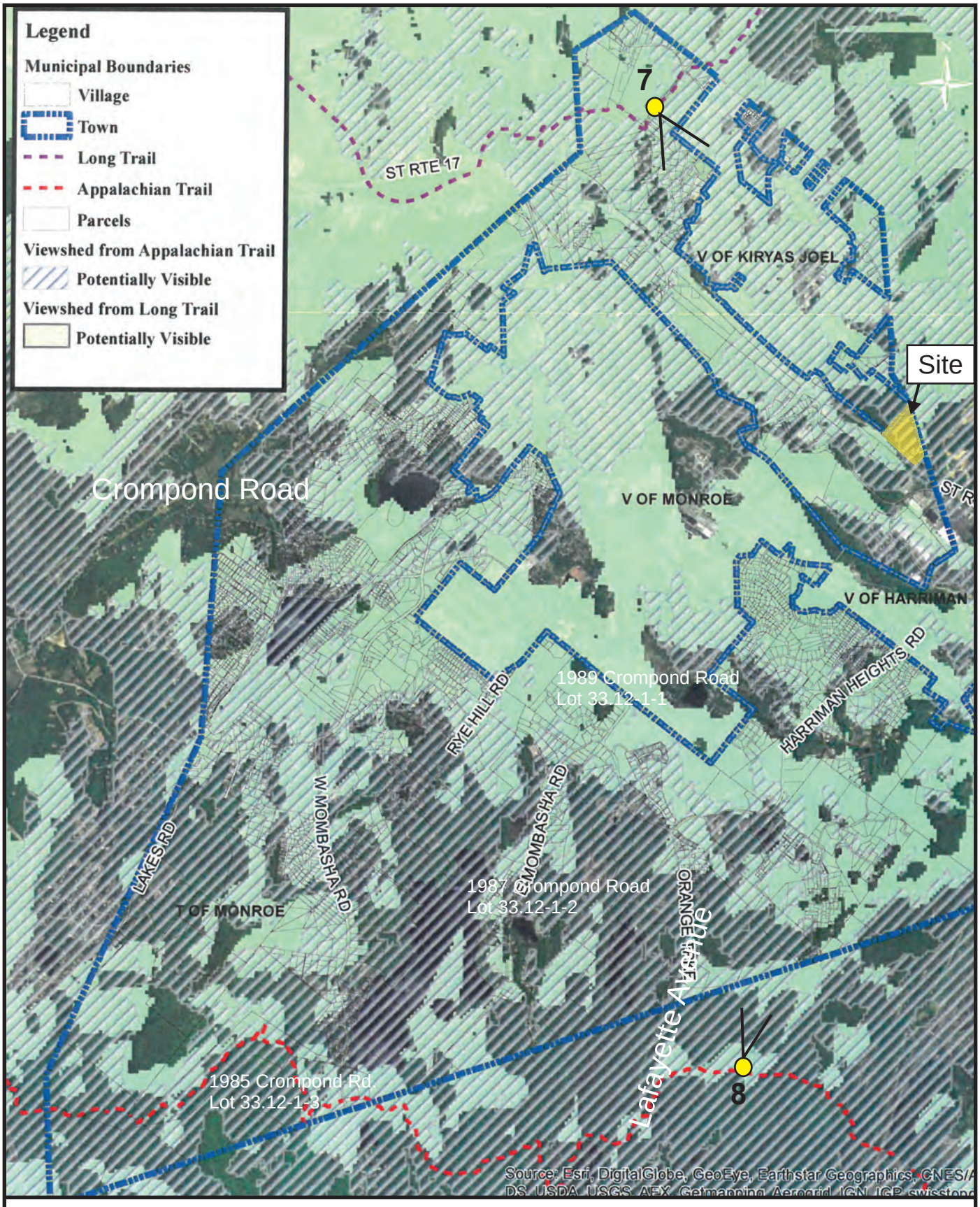


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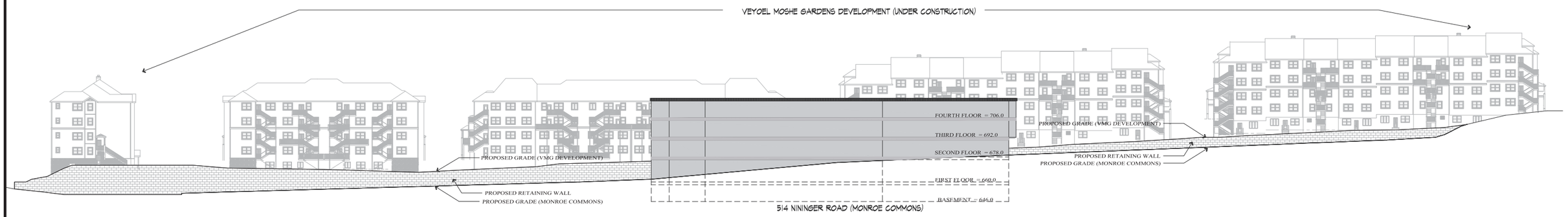
Figure 15-6: Trail Viewshed Locations

Monroe Commons
Town of Monroe, New York
Source: Town of Monroe Comprehensive Plan
Figure IV.D-3 Viewshed from Appalachian and Long Trails, Nelson Pope & Vorhees, LLC
Approx. Scale 1 in. = 4250 ft.

JD:\17024\Fig 1.cdr

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418



ELEVATION SECTION PREPARED FOR:

MONROE COMMONS

514 NININGER ROAD, TOWN OF MONROE
ORANGE COUNTY, NEW YORK

BRACH&MANN
BM
ASSOCIATES
PO Box 622
Monroe, NY 10949
T. (845) 782-5014
F. (845) 782-5015
mail@bmassoc.com

DWG BY: BN | SCALE: N.T.S. | DATE: 10/10/1

Figure 15-7: Elevation and Section
Monroe Commons
Town of Monroe, Orange County, New York
Source: Brach & Mann Associates

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

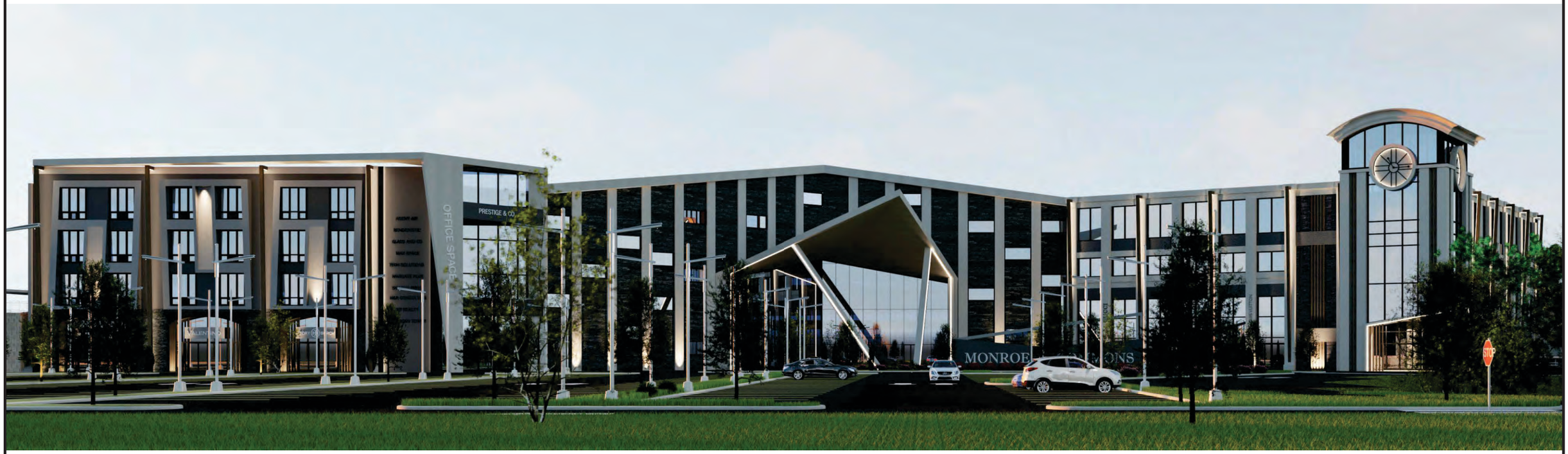


Figure 15-8: Building Front Rednering
Monroe Commons
Town of Monroe, Orange County, New York
Source: Max Space Design

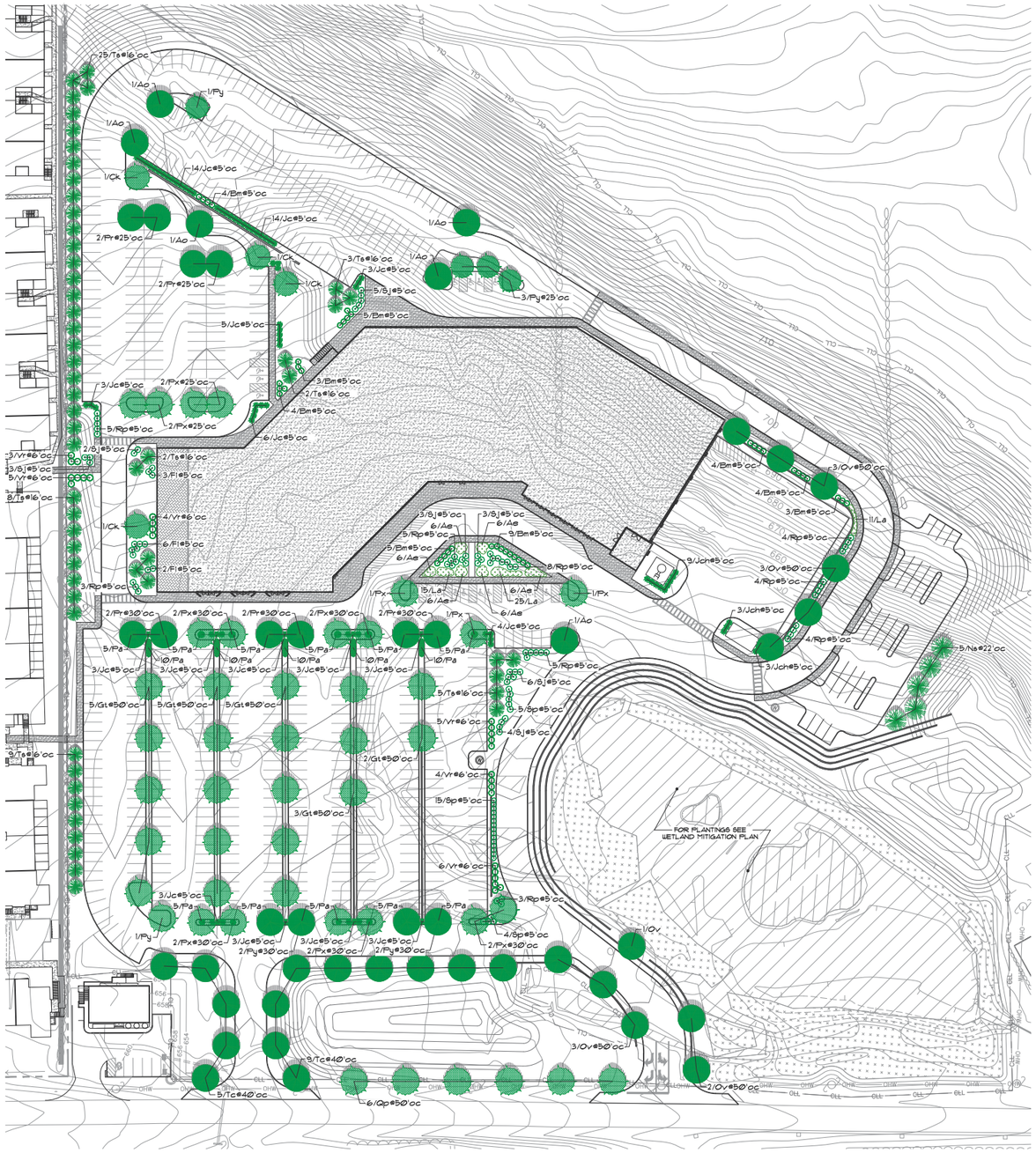
Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

Figure 15-9: Building Birds-Eye View Rendering
Monroe Commons
Town of Monroe, Orange County, New York
Source: Max Space Design

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

Figure 15-10: Building Hotel Entrance Rendering
Monroe Commons
Town of Monroe, Orange County, New York
Source: Max Space Design

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418



PLANTS LIST

SYMBOL	TYPE	KEY	QTY	BOTANICAL NAME	COMMON NAME	MIN. SIZE	REMARKS
	DECIDUOUS TREES	Ao	6	Acer Rubrum "October Glory"	October Glory Red Maple	3"-3-1/2"c	B&B
		Ck	4	Cornus Kousa	Kousa Dogwood	12'-14' hgt	B&B
		Gt	20	Gleditsia Triacanthos "Inermis"	Skyline Thornless Honeylocust	3"-3-1/2"c	B&B
		Ov	12	Ostrya Virginiana	American Hophornbeam	3"-3-1/2"c	B&B
		Pr	10	Prunus Subhirtella "Autumnalis"	Higan Cherry	2"-2-1/2"c	B&B
		Px	17	Prunus x Yedoensis	Yoshino Cherry	2-1/2"-3" c	B&B
		Py	9	Pyrus Calleryana"Aristocrat"	Aristocrat Callery Pear	2"-2-1/2"c	B&B
		Qp	6	Quercus Palustris	Pin Oak	3"- 3-1/2"	B&B
		Tc	14	Tilia Cordata "Greenspire"	Greenspire Linden	3"-3-1/2" c	B&B
	EVERGREEN TREES	Ns	23	Picea Abies	Norway Spruce	7' - 8' hgt	B&B
		Ts	54	Thuja Standishii x Plicata "Green Giant"	Green Giant Arborvitae	6' - 7' hgt	B&B
	EVERGREEN SHRUBS /GROUND COVERS	Bm	41	Buxus Microphylla Japonica "Winter Gem"	Winter Gem Boxwood	30" - 34"	Container
		Jc	91	Juniperus Chinensis "Gold Coast"	Gold Coast Juniper	30" - 34"	Container
		Jch	15	Juniperus Chinensis "Hetzii"	Hetzii Juniper	30" - 34"	Container
		Vr	27	Viburnum Rhytidophyllum	Leather Leaf Viburnum	34" - 36"	B&B
	DECIDUOUS SHRUBS	Fi	11	Forsythia x Intermedia	Spring Glory Forsythia	34" - 36"	B&B
		Rp	41	Rhododendron "PJM"	PJM Rhododendron	30"-34"	B&B
		Sj	26	Spiraea Japonica	Little Princess Spiraea	24" - 30"	Container
		Sp	24	Syringa Patula "Miss Kim"	Miss Kim Lilac	30" - 34"	Container
	GRASSES	Pa	145	Pennisetum Alopecuroides"Hamelin"	Dwarf Fountain Grass	24" oc	2 gal.
	PERENIALS	Ae	36	Aster Novae-Angliae	New England Aster	24" oc	1 gal.
		La	51	Lavandula Angustifolia	English Lavander	24" oc	1 gal.

PERMANENT SEEDING SCHEDULE

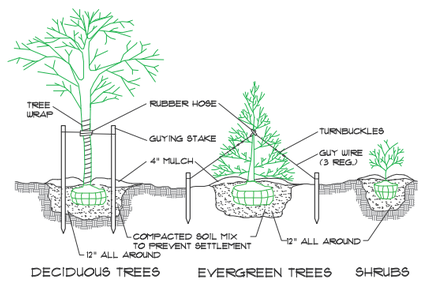
1. TOPSOIL SHALL BE SPREAD TO A COMPACTED UNIFORM THICKNESS OF 4".
2. TOPSOIL SURFACE SHALL BE FINELY GRADED AND LOOSENED BY MECHANICAL RAKES TO ENSURE SEED ACCEPTANCE AND SEED TO SOIL CONTACT.
3. FERTILIZER SHALL BE APPLIED AT 6 LBS. OF 5-10-10 COMMERCIAL FERTILIZER/1000 SQ. FT.
4. SEEDING SHALL BE INSTALLED AT 5 LBS./1000 SQ. FT. OF:
   - x 60% KENTUCKY BLUE GRASS
   - x 20% CHEWINGS FESCUE
   - x 20% PERENNIAL RYE

PLANTING SCHEDULE

	SPRING PLANTING	FALL PLANTING
TREES & SHRUBS		
EVERGREEN	APRIL 1 - JUNE 30	SEPT. 1 - OCT. 15
DECIDUOUS	MARCH 1 - JUNE 30	OCT. 1 - DEC. 1

GENERAL PLANTING NOTES:

1. PLANT MATERIAL SHALL BE GUARANTEED FOR ONE YEAR AFTER FINAL ACCEPTANCE OF PROJECT PLANTING. DEAD, DYING, UNHEALTHY AND/OR PLANTS IN POOR CONDITION SHALL BE REPLACED IN THE SAME PLANTING SEASON THAT THE LANDSCAPE ARCHITECT HAS DEEMED THE PLANT UNACCEPTABLE. PLANTINGS THAT REQUIRE REPLACEMENT SHALL BE REMOVED AND REPLACED AT NO ADDITIONAL COST TO THE OWNER.
2. EXISTING VEGETATION AREAS DISTURBED BY CONSTRUCTION ACTIVITIES SHALL BE TOPSOILED AND SEEDED UPON COMPLETION OF WORK.
3. NEW PLANTING ROOT BALLS REMOVED FROM CANS SHALL BE SCARIFIED PRIOR TO BACKFILLING THE PLANT.
4. ALL PLANTINGS SHOWN ON APPROVED SITE DEVELOPMENT PLAN OR SPECIAL PERMIT PLAN SHALL BE MAINTAINED IN A VIGOROUS GROWING CONDITION THROUGHOUT THE DURATION OF CONSTRUCTION AND PLANTS NOT SO MAINTAINED SHALL BE REPLACED WITH NEW PLANTS AT THE BEGINNING OF THE NEXT GROWING SEASON.
5. CONTRACTOR SHALL FAMILIARIZE HIM/HERSELF WITH THE LIMITS OF WORK AND EXISTING CONDITIONS AND VERIFY ALL INFORMATION. IF DISCREPANCIES EXIST, CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE IN WRITING WITHIN SEVEN (7) CALENDAR DAYS OF NOTICE TO PROCEED.
6. CONTRACTOR SHALL VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES AND OBTAIN AS-BUILT INFORMATION. DRAWINGS WERE PREPARED ACCORDING TO THE BEST INFORMATION AVAILABLE AT THE TIME. CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE IN WRITING WITHIN SEVEN (7) CALENDAR DAYS OF NOTICE TO PROCEED OF ANY DISCREPANCIES.
7. CONTRACTOR SHALL NOTIFY ALL NECESSARY UTILITY COMPANIES 48 HOURS MINIMUM PRIOR TO DIGGING FOR VERIFICATION OF ALL UNDERGROUND UTILITIES AND OTHER OBSTRUCTIONS AND COORDINATE WITH OWNER'S REPRESENTATIVE IN WRITING PRIOR TO INITIATING OPERATIONS.
8. TYPICALLY, SHRUB AND GROUNDCOVER PLANTINGS ARE SHOWN AS MASS PLANTING BEDS. PLANTS SHALL BE PLACED ON A TRIANGULAR SPACING CONFIGURATION (STAGGERED SPACING). PLANT CENTER TO CENTER DIMENSIONS (OC.) ARE LISTED ON THE PLANT LIST.
9. CONTRACTOR SHALL FIELD STAKE THE LOCATIONS OF ALL PLANT MATERIAL PRIOR TO INITIATING INSTALLATION FOR THE REVIEW AND APPROVAL OF THE OWNER'S REPRESENTATIVE AND/OR LANDSCAPE ARCHITECT.
10. CONTRACTOR SHALL FIELD ADJUST LOCATION OF PLANT MATERIAL AS NECESSARY TO AVOID DAMAGE TO ALL EXISTING UNDERGROUND UTILITIES AND/OR EXISTING ABOVE GROUND ELEMENTS. ALL CHANGES REQUIRED SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.
11. ALL TREES PLANTED IN LAWN AREA SHALL RECEIVE A 4' DIAMETER MULCH RING AT A DEPTH OF 4".
12. PLANT LIST QUANTITIES ARE PROVIDED FOR CONVENIENCE. IN THE EVENT OF QUANTITY DISCREPANCIES, THE DRAWING SHALL TAKE PRECEDENCE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT.
13. CONTRACTOR SHALL REFER TO THE LANDSCAPE PLANTING DETAILS, PLANT LIST, GENERAL NOTES AND SPECIFICATIONS FOR FURTHER AND COMPLETE INSTRUCTIONS.



1 L-1 PLANTING & GUYING DETAIL N.T.S.

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Figure 15-11: Landscaping Plan
Monroe Commons
Town of Monroe, Orange County, New York
Source: Engineering & Surveying Properties

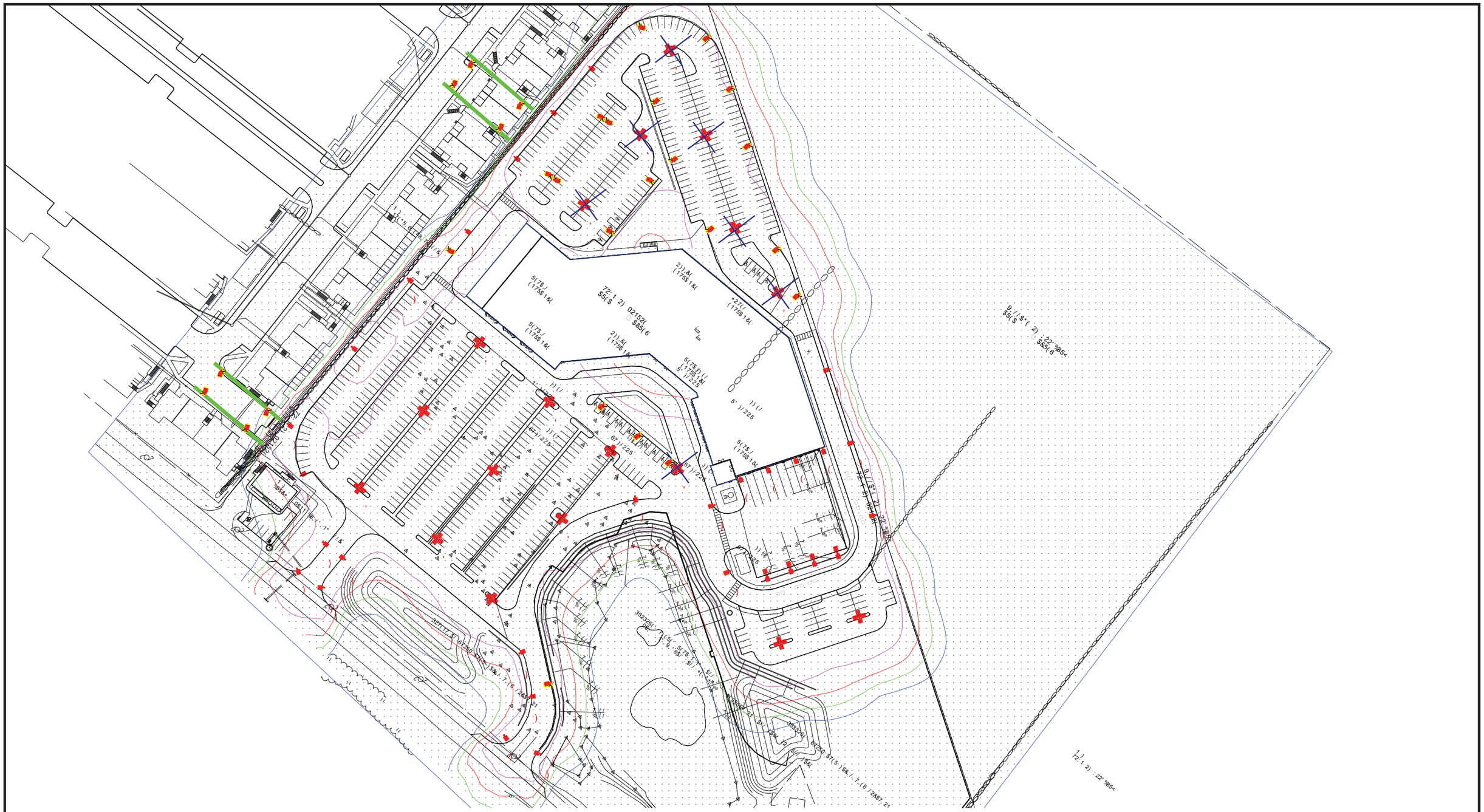

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Figure 15-12: Lighting Plan
Monroe Commons
Town of Monroe, Orange County, New York
Source: Damin Sales Electrical Manufacturers Representative

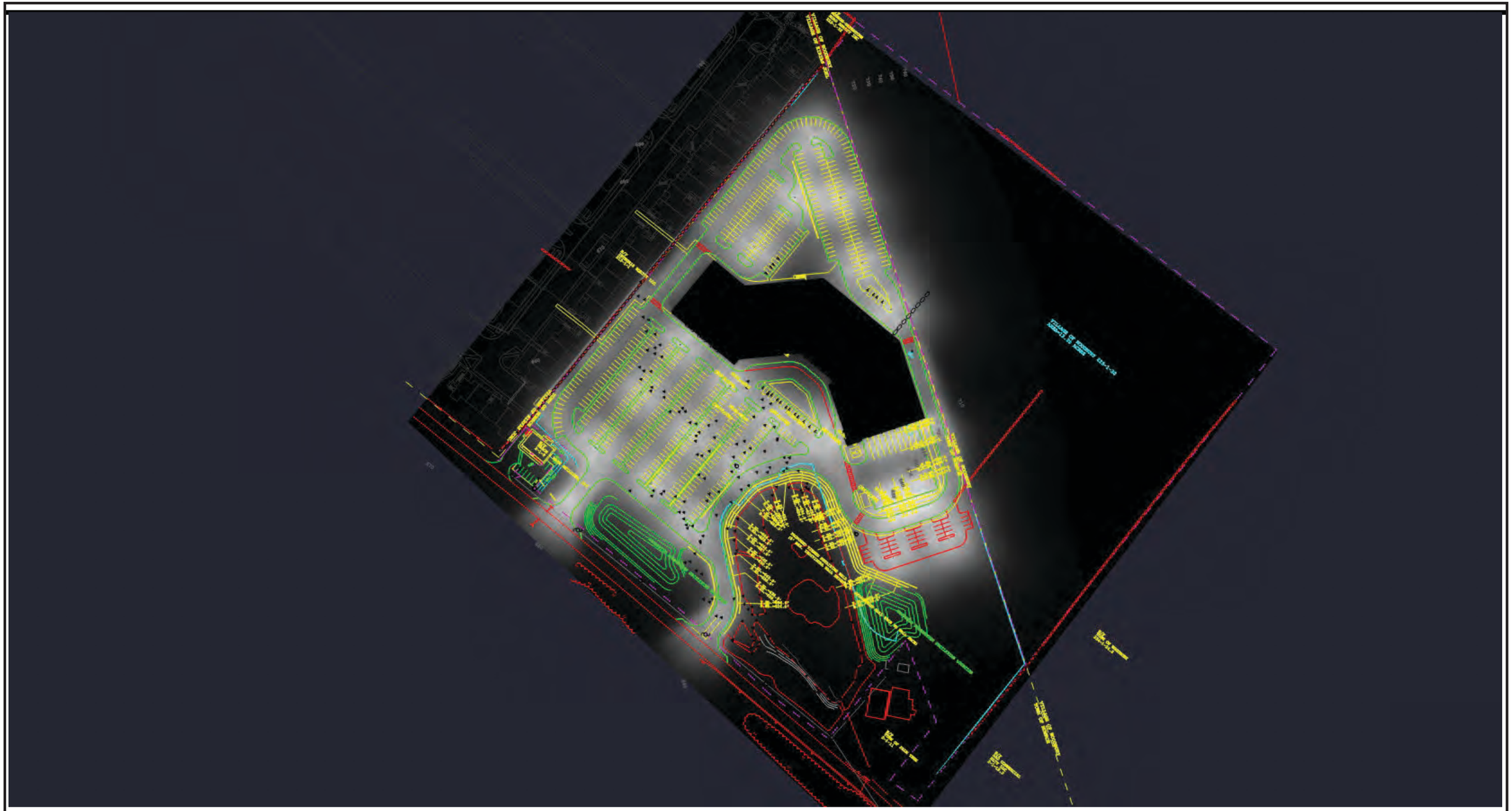

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Figure 15-13: Lighting Diagram
Monroe Commons
Town of Monroe, Orange County, New York
Source: Damin Sales Electrical Manufacturers Representative

16.0 UTILITIES

16.1 Water Supply

16.1.1 Existing Conditions – Water Supply

The subject property is not currently served by a municipal water supply. The Applicant initially proposed a private potable water supply system for the development served by two water supply wells. A single exploratory well was drilled on the site in 2019. Given the multi-agency approvals process and long-term maintenance requirements for a private potable water supply system, the Applicant is pursuing a connection to the Village of Kiryas Joel/ Town of Palm Tree municipal water system on the adjacent Veyoel Moshe Gardens (VMG) property.

The Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter, whereby the Village has agreed to supply water for the Monroe Commons project at the required level, estimated to be 54,210 gallons per day, and expressing the Village's willingness to approve the connection, subject to the standard Outside Water User Development Agreement to be recorded in the office of the County Clerk. The letter from the Village is provided in Appendix B – Correspondence. In addition, the sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed utility connections (including water and sewer) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations (see Appendix B). The current Site Plan (dated May 24, 2023) indicates that the existing well #2 is to be abandoned (see Cover Sheet). The Site Plan, including the draft utilities plan described herein, is being advanced with a water connection to the Village of Kiryas Joel/Town of Palm Tree water supply system and not from on-site wells.

The Village of Kiryas Joel owns, operates and maintains its water supply system, including wells, water storage, treatment and infrastructure. The Village maintains a water district and the water system is supported by the Village water district users. The infrastructure includes: two pumping stations, five water storage tanks, three water treatment plants and the distribution system. The five water storage tanks have a combined capacity of 4.1 mgd which allow the Village to meet maximum daily demand, water demand fluctuations and to provide fire protection service for the Village.

The Village water supply is sourced from a series of both bedrock and sand and gravel groundwater wells. The water supply wells are located in both the Village boundaries and in the Town of Monroe and the Village/Town of Woodbury. The Village is in the final stage of connecting its municipal water system to the Catskill aqueduct at a connection point in New Windsor, allowing the Village to tap into the New York City Water supply, and to utilize the existing groundwater well system as back-up supply[1].

According to information provided by the Village, in 2017, the Village had a NYSDEC Permitted Withdrawal amount of 2.54 mgd and an Average Day Withdrawal of 1.79 mgd. The proposed connection to the New York City water supply will provide the Village with a long term reliable source of water not reliant on local groundwater supply.

The nearest Kiryas Joel water district lines to the project site are located on the adjacent Veyoel Moshe Gardens (VMG) property, as further described below.

[1] Kiryas Joel's Water Pipeline to Catskill Aqueduct Nearly Done, www.recordonline.com, January 17, 2023

16.1.2 Future Without the Project – Water Supply

The Monroe Commons development will not utilize the Town of Monroe water system, but will connect to the Village of Kiryas Joel/Town of Palm Tree district. As indicated, the Village is in the process of connecting to the Catskill Aqueduct and New York City water supply system as a long term solution to provide adequate water for the Village of Kiryas Joel. This connection would occur with or without the proposed Monroe Commons project. The Village continues to upgrade and expand its water supply capacity, in terms of treatment and storage, and pipelines to supply new development.

16.1.3 Potential Impacts – Water Supply

As described, the draft Utilities Plan currently shows a water service connection to the neighboring VMG property to the northwest of the site. The applicant is finalizing the terms of an agreement with the Village of Kiryas Joel/ Town of Palm Tree and the owners of the VMG property for the connection. The Village of Kiryas Joel / Town of Palm Tree Administrator has provided a letter indicating the Village's willingness to provide water service to the Monroe Commons development, at the estimated water usage of 54,210 gallons per day (see discussion above).

The sponsor of the Veyoel Moshe Gardens (VMG) residential development has provided a letter confirming their agreement for the proposed utility connections (including water and sewer) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations (see Appendix B). The Village of Kiryas Joel / Town of Palm Tree Planning Board will require a Site Plan Amendment for the proposed driveway connections and water service connection on the VMG property in the Village / Town.

Brooker Engineering PLLC has assesses the water demand and water pressure for the Monroe Commons development and their analysis is summarized in a letter dated February 7, 2023 (see Appendix B – Correspondence). The proposed project will require an estimated 54,210 gallons per day or 38 gpm to provide for typical usage, as estimated by Brooker Engineering. Brooker Engineering concluded:

- Based upon the analysis described above, it appears that adequate water distribution can be provided to the proposed shopping center with a connection to the "low pressure" system that was previously designed for the Veyoel Moshe Gardens project.
- The additional water demand as estimated for the proposed shopping center would not significantly change the water distribution and system pressure that were previously designed for the Veyoel Moshe Gardens project.
- Adequate fire flows and water system pressure can be provided for the Veyoel Moshe Gardens project and the proposed shopping center based on the estimated fire flows.

The Village if Kiryas Joel/Town of Palm Tree has adequate water supply to serve the development and approval to connect to the system will be required by the Village Water District. According to information provided by the Village, in 2017, the Village had a NYSDEC Permitted Withdrawal amount of 2.54 mgd and an Average Day Withdrawal of 1.79 mgd. It is anticipated that the connection to the Catskill Aqueduct will occur prior to the occupancy of Monroe Commons, although current water supplies are adequate to serve the proposed building.

The proposed connection to the Village water system will be made at the northern property line, as shown in Figure 16-1. Water service will be provided by a single line to the building.

Connection to the Village of Kiryas Joel/Town of Palm Tree will require review and approval by the Village of Kiryas Joel / Town of Palm Tree Planning Board as a Site Plan Amendment to the VMG development. . The development will pay for water service according to Village rates, funding maintenance and upgrades for the District.

16.1.4 Mitigation Measures – Water Supply

Water supply for the Monroe Commons development will not result in significant impacts to the Village of Kiryas Joel/Town of Palm Tree Water District and therefore, no mitigation is warranted or proposed.

16.2 Sanitary Wastewater

16.2.1 Existing Conditions – Sanitary Wastewater

The Project site is located in Orange County Sewer District No. 1. Approval will be required from Orange County Sewer District No. 1 to connect to the planned sewer lines on the adjacent Veyoel Moshe Gardens (VMG) property. The Applicant is in discussions with representatives from OCSD No. 1 regarding wastewater demand for the project and the physical connection to the system. The sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed utility connections (including water and sewer) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations (see Appendix B).

The Monroe Commons property is located in the service area of the Orange County Sewer District #1 (OCSD No. 1). The Harriman Wastewater Treatment Plant, located in the Village of Harriman serves the Orange County Sewer District No. 1 (OCSD No. 1) and the Moodna Basin Southern Region (MBSR). According to the 2017 Town of Monroe Comprehensive Plan Update, the OCSD entered into Intermunicipal Agreements (IMAs) with additional municipalities in 1978 to provide wastewater treatment to development in those communities. They are: the Towns of Blooming Grove and Woodbury; the Villages of South Blooming Grove, Woodbury; and the Moodna Basin Joint Regional Sewerage Board (MBJRSB) communities of the Town and Village of Chester, and an additional area within the unincorporated Town of Monroe.

The Harriman Wastewater Treatment Plant (HWWTP) is a 6.0 million gallon per day (mgd) facility that serves the Orange County Sewer District No.1 and the Moodna Basin Southern Region in Orange County, New York, and is operated by the Orange County Department of Environmental Facilities and Services (OCDEFS). The HWWTP has two treatment trains, a 2.0 mgd conventional activated sludge (CAS) system constructed in 1974 and a 2.0 mgd oxidation ditch system constructed in 1987. Upgrades (Phase I) completed in 2006 at the HWWTP increased the capacity of the facility to 6.0 mgd through the construction of a new 2.0 mgd CAS system. Continued residential and commercial growth has prompted the County to plan for additional treatment capacity, above the 6.0 mgd[2].

The Orange County Department of Public Works estimates remaining available treatment capacity on a monthly basis, based upon 12-month averages of existing flows to the HWWTP. Reports for February and March of 2023 are provided in Appendix B – Correspondence. The

[2] - Harriman Wastewater Treatment Facility Membrane Bioreactor Pilot Study, NYSERDA and Camp Dresser & McKee, Inc. October 2006.

February and March 2023 flows and available balances are similar. As of March 2023, the combined wastewater flows from OCSD #1 and the Moodna Communities was 4,791,333 gpd and the remaining treatment capacity was 1,208,667 gpd.

Existing Orange County Sewer District infrastructure and sewer lines are located to the northwest of the site, serving the completed and occupied portion of the adjoining VMG residential development. The VMG developers are extending that infrastructure to serve the entire residential development. The Monroe Commons project proposes to connect to sewer lines in the VMG development that are not yet installed. The proposed sewer lines, including manholes are shown on the approved Site Plan drawings for VMG and in Figure 16-1. The project's connection to OCSD #1 service lines is further described below. OCSD #1 sewer lines are also located directly south of the site, across NY Route 17, serving the Harriman Commons shopping center.

16.2.2 Future Without the Project – Sanitary Wastewater

The OCDS #1 is currently planning for upgrades to the HWWTP to plan for current and future wastewater treatment demand in the district. The long planned upgrades to the Harriman treatment plant will occur with or without the Monroe Commons project.

16.2.3 Potential Impacts – Sanitary Wastewater

The proposed project will generate an estimated 54,210 gallons per day of wastewater, as estimated by the water demand estimates by Brooker Engineering (see Appendix B, including supporting calculations). The Applicant has discussed the connection to the district with Orange County Sewer District No. 1 representatives. The OCSD No. 1 will review and approve the connection to the District, including any limitations regarding conveyance or treatment.

The Project plans to connect to the planned sewer lines on the adjoining on the adjacent Veyoel Moshe Gardens (VMG) property. As described above, the sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed utility connections (including water and sewer) on the VMG property, subject to Monroe Commons obtaining all required approvals, permits, and authorizations (see Appendix B).. The planned connections are shown in Figure 16-1.

Proposed sanitary sewer lines to serve the Monroe Commons development are shown on the Site Plan drawings (see Utility Plans 2, 3 5 and 6, included in Appendix M). As shown in the Site Plans , a force main will serve the basement and first floor and will be located along the northwest side of the building. That line will join a gravity line extending near the northwest building corner to the VMG property and an off-site sewer manhole. Final design of the sewer facilities and infrastructure, will be provided to the lead agency for review, as part of the Site Plan review process.

The development will generate wastewater typical of a mixed use building, including sanitary wastewater. No industrial, manufacturing or regulated wastewater will be generated at the site. The Monroe Commons building will potentially include food preparation and service, including for the hotel. Wastewater could potentially include fats, oils and greases and therefore a grease interceptor is proposed for the southeast corner of the building, in the loading and service area. The location of the 2,500 gallon grease trap is shown in Utility Plan 5 (attached in Appendix M). As a proposed retail and mixed use building, the use of hazardous materials, other than

commercial cleaning supplies, is not anticipated for the property. The development will pay for wastewater treatment service according to District rates, funding maintenance and upgrades for the District.

16.2.4 Mitigation Measures – Sanitary Wastewater

As described, a grease interceptor is proposed at the southwest building corner to ensure that food related oils and grease do not impact the OCSD #1 infrastructure. The grease interceptor will be maintained, as required.

Available treatment capacity estimates for the HWWTP in February and March of 2023 indicate adequate capacity to treat the development's wastewater estimates. Reports for February and March of 2023 are provided in Appendix B – Correspondence. Approval to connect to the OCSD#1 is contingent on available capacity at the time of application to connect to the system. That application can only be made following Site Plan approval for the development. Wastewater treatment for the Monroe Commons development will not result in significant impacts to the OCSD #1 and therefore, no mitigation is warranted or proposed.

16.3 Energy Usage (Electricity and Gas)

16.3.1 Existing Conditions - Energy Usage (Electricity and Gas)

Local electrical service and natural gas is provided by Orange and Rockland Utilities. Electrical and natural gas service is located on Nininger Road, where the site has frontage. Electrical and gas service will be provided from Nininger Road into the site and to the building. Natural gas service was recently extended along Nininger Road.

16.3.2 Future Without the Project – Energy Usage (Electricity and Gas)

Since natural gas service was recently extended along Nininger Road, no major upgrades to the infrastructure in the vicinity of the site are anticipated.

16.3.3 Potential Impacts – Energy Usage (Electricity and Gas)

The proposed Monroe Commons commercial space is estimated to use approximately 12.3 kWH of electricity per square foot annually, according to survey data by the US Energy Information Administration.[3] The office space is estimated to use approximately 14.6 kWH per square foot annually. The proposed hotel space is assumed to use energy at rates comparable to office space. Using these factors, the commercial space will use an estimated 2,074.9 megawatt hours annually and the office/ hotel space is estimated to use approximately 2,231.5 megawatt hours of energy annually..

The proposed mixed-use building will be constructed to comply with NYS Building Code standards, including the use of energy efficient windows, insulation and heating and cooling equipment. These construction and building features will reduce the overall energy consumption for the development. The applicant proposes solar panels to service the proposed electric vehicle charging stations.

[3] https://www.eia.gov/consumption/commercial/data/2012/c&e/cfm/c21.php

Natural gas service was recently extended along Nininger Road. Future connection to that service will require coordination with Orange and Rockland Utilities. An Orange and Rockland Project Manager for New Business was contacted via telephone on August 22, 2023. The Orange and Rockland representative indicated the area is served by three-phase electrical service. An application for service needs will need to be provided to Orange and Rockland to assess specific service and infrastructure for the property. The Applicant will coordinate with Orange and Rockland for electric and natural gas service for the site as the Site Plan is developed.

16.3.4 Mitigation Measures – Energy Usage (Electricity and Gas)

The local service provider Orange and Rockland was contacted and it appears that existing infrastructure can serve the property, pending review of the specific building requirements. Energy service for the Monroe Commons development is not anticipated to result in significant impacts to the local provider and therefore, no mitigation is warranted or proposed.

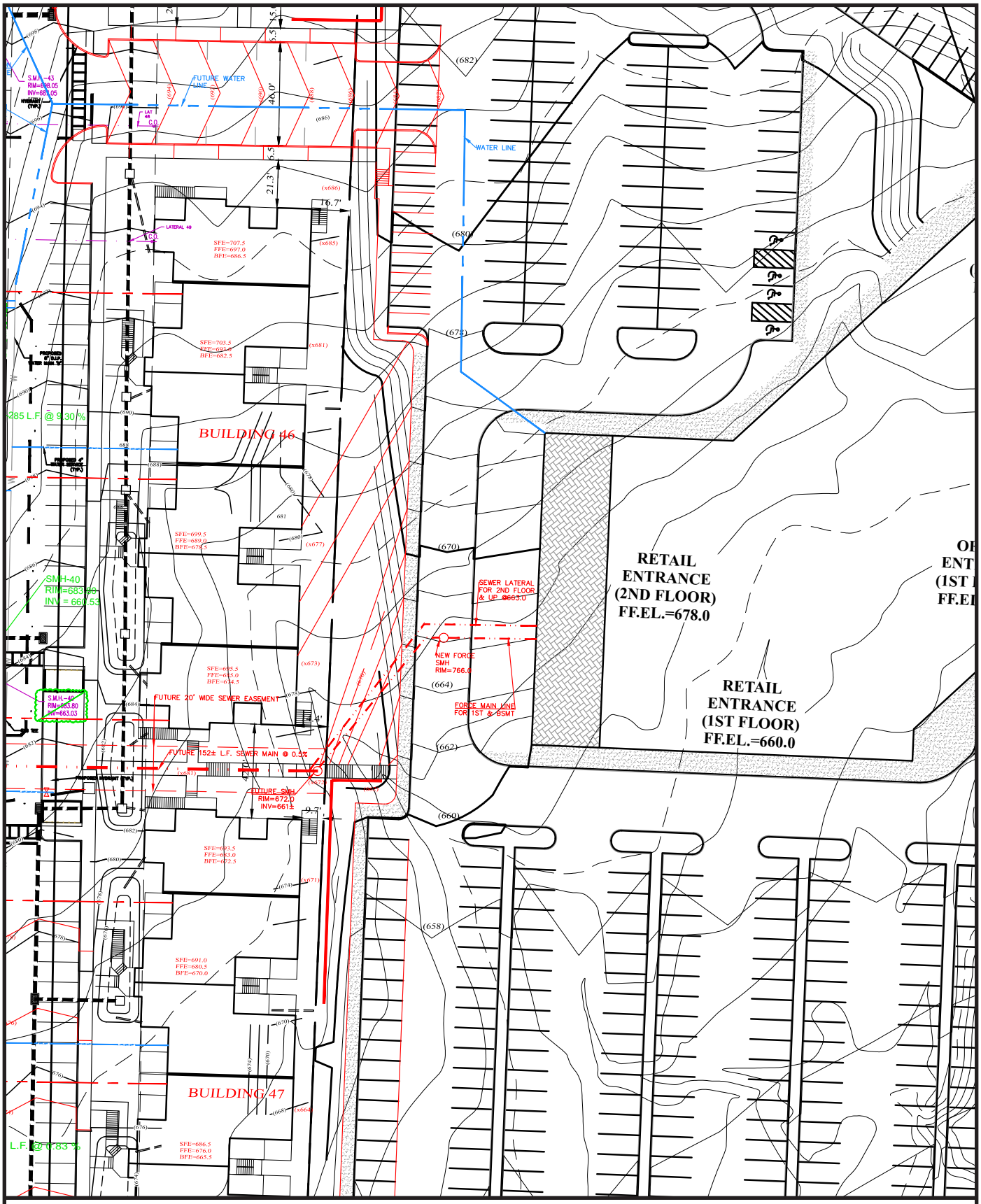

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Figure 16-1: Water and Sewer Utilities Plan

Monroe Commons

Town of Monroe, Orange County, New York

Base Map: Brach and Mann Associates

File 21032 09-30-2021

Tim Miller Associates, Inc.,10 North Street, Cold Spring, New York 10516 (845) 265-4400 Fax (845) 265-4418

17.0 CONSTRUCTION IMPACTS

17.1 Construction Schedule

The duration of the construction is anticipated to be approximately 16 months, beginning in Fall 2023 and completed by 2024. The development will be constructed as one continuous project and will not be completed in phases. Construction activity will occur weekdays from 7:00 AM to 9:00 PM, weekdays and 9:00 AM to 9:00 PM Sundays in conformance with Town of Monroe regulations (Chapter 33.A Noise). No construction activity will occur on *Saturday* or holidays.

The following describes the general sequence of activities that would occur to construct the project.

1. Install temporary erosion controls
2. Remove trees and stumps
3. Strip and stockpile topsoil
4. Rough grading
5. Install utilities and construction of **permanent stormwater facilities**
6. Stabilize disturbed areas with paving or permanent erosion control measures
7. Construct commercial / office building per approved plans
8. Construct parking areas, driveways and entrances
9. Complete final landscaping.

Initial construction activities such as site preparation and tree removal will occur in the first six-months (tasks 1 to 4). Installation of utilities, permanent stormwater facilities and construction of the building will occur over the next one-year period of construction. The final parking and entrance construction, paving and landscaping will occur in the final three to six months of construction.

The number of workers on the site will vary by the stage of construction and the different worker specialties required at any one time. It is anticipated that the maximum number of workers on the site at one time will range from 20 to 40, with an estimated 30 workers on-site during the building finishing stage, including electrical, plumbing, and doors and windows installation. Worker trips and traffic are further described below.

The Erosion Control Plan 1 (Sheet 15 of the Site Plan drawings) , shows four (4) designated construction staging areas, two near the western entrance and two at the southeast side of the future building. Areas where construction workers are expected to park vehicles (passenger cars and trucks) will be provided near the project entrance in Staging Areas 1 and 2.

17.2 Construction Period Impacts and Mitigation

Traffic and Transportation

Trucks and large equipment associated with construction will generally remain onsite except for limited number of offsite trips for refueling, etc. Two construction entrances are proposed at the two future driveway entrances on Nininger Road, as shown on the Erosion Control Plan (Sheets 14 and 15). The construction entrances will have a crushed stone tracking pad. The access to the site will be used by trucks delivering supplies, importing soil and material, as well as onsite construction workers.

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. Construction staging areas are shown on the Erosion Control Plan drawings, two near the northwest entrance and two at the southeast corner of the site.

Construction of the project will take place over several phases, each generating a different amount of traffic, both in construction worker trips and truck trips. Worker trips are typically passenger cars (sedans, pickup trucks, SUVs) and typically include some component of carpooling, an average of approximately 1.2 people per car. Truck trips typically cover equipment and material deliveries. Equipment can range from excavators, bulldozers, and cranes on tractor trailers to lifts, mixers, wheelbarrows, shovels, etc. on box trucks. Materials vary from steel beams, lumber, and prefabricated trusses, to gravel, sand, concrete, and asphalt. The following are the major phases of construction and an estimate of the number of trips generated. Note that the actual phases and trips will vary from day to day and are subject to weather, the construction season, the contractor doing the work, and schedule.

- Site grading: 10 employees, project 8 construction worker vehicles (8 trips in the peak hour); average of 2 truck trips per day (delivering heavy equipment); two truck trips in the peak hour
- Foundations (concrete pours): project 20 employees and 17 construction worker vehicles (17 trips in the peak hour); project 3,300 CY of concrete, 11 CY trucks, 300 trucks over three weeks (15 days); average of 20 trucks per day; 4 truck trips in the peak hour
- Steel erection: project 10 employees and 8 construction worker vehicles (8 trips in the peak hour): average of one truck per day (crane and materials delivery); 1 truck trip per peak hour
- Framing: 20 employees, project 17 construction worker vehicles (17 trips in the peak hour); average of 2 truck trips per day (delivering lumber/metal studs); 1 truck trip per peak hour
- Trades (electrical, plumbing, doors and windows, sheetrock): 30 employees, project 25 construction worker vehicles (average of 20 trips in the peak hour); average of 4 truck trips per day (delivering materials); 1 truck trip per peak hour
- Finish work (paint, millwork, carpets, furnishings): 30 employees, project 25 construction worker vehicles (average of 20 trips in the peak hour); average of 4 truck trips per day (delivering materials); 1 trip per peak hour
- Paving & Striping: 10 employees, project 8 construction worker vehicles; approximately 375 trucks over 15 days, average 25 trucks per day; 4 truck trips in the peak hour
- Landscaping: 5 employees, project 5 construction worker vehicles (5 trips in the peak hour); average of 4 truck trips per day (delivering plantings, mulch); project one truck trip in the peak hour

The project engineer will endeavor to balance cut and fill through the re-use of excavated material on-site and minimize the transport of material to and from the site. Based upon preliminary engineering estimates, development of the Site Plan would involve a cut of approximately 143,317 cubic yards of material and a fill of approximately 151,837 cubic yards for a net fill of 8,520 cubic yards of material to be imported to the site. This cut and fill estimate includes the grading necessary to provide the upper and lower driveway connections to the adjacent VMG residential

development. In general, the cut and fill will be balanced or a relatively small volume of fill material would need to be imported to the site. A proposed cut and fill map is provided as Figure 4-4.

The estimate of needed fill material would result in approximately 532 truckloads of soil being imported into the site. These truck trips would occur during the estimated six month period for grading. Other truck trips including equipment and materials delivery are likely to vary depending upon the specific construction activity, as outlined above. Truck trips will occur throughout the day and therefore only a limited number of trips will occur during the morning peak traffic periods. As described, the anticipated 20 passenger vehicle trips and four truck trips during the peak hour is not expected to impact the study intersections. It is anticipated that the majority of worker and truck trips will travel to and from the site on Nininger Road south-bound (southeast) towards NY Route 32, with access to NY Route 17 and the NYS Thruway. A portion of construction worker and truck trips will travel on Nininger Road to or from the northwest, but most traffic is expected to travel to and from the southwest.

While it is anticipated that traffic from construction activity would impact school bus routes or school traffic to and from the Monroe-Woodbury High School and Middle School, the Applicant will seek to avoid construction-related traffic during the school dismissal time to the maximum extent practicable. A portion of construction traffic from Monroe Commons will pass through the Nininger Road / Dunderburg Road intersection near the Monroe-Woodbury High School and Middle School campus. To the extent practicable, deliveries and other construction-related vehicle trips will be scheduled to avoid peak morning and afternoon traffic periods, including the earlier afternoon school dismissal periods, avoiding impact to school buses on Nininger travelling to and from the Monroe Woodbury schools, east of the site.

Construction staff flaggers will assist all large trucks to safely exit the site onto Nininger Road. While the construction activity is ongoing, construction materials will be brought in throughout the 16-month construction period. With proper construction management and scheduling no significant impacts are anticipated due to construction traffic associated with the Project.

Construction worker vehicle parking (passenger cars and trucks) will be located near the project entrance in Staging Areas 1 and 2, shown on the Erosion Control Plan (1 and 2). All construction vehicles will have the appropriate hauling permits and oversized/overweight permits, and the specific permits will be the responsibility of the construction contractors who own or contract those trucks.

Erosion and Sediment Control During Construction

A site specific Stormwater Pollution Prevention Plan (SWPPP) has been prepared for the project addressing stormwater management during construction and post-construction. The SWPPP prepared for the project is provided in Appendix F. The site specific SWPPP includes detailed erosion and sedimentation control plans and details designed in accordance with NYSDEC SPDES *General Permit for Stormwater Discharges from Construction Activity, GP-0-20-001*.

The project and construction activity will require compliance with Town of Monroe Chapter 44 – Soil Erosion and Sedimentation Control, including obtaining a Grading Permit, inspections and the posting of performance and restoration bonds with the Town.

Clearing and grading is proposed on the adjoining property in the Village/Town of Woodbury, as shown on the Grading Plan. Site plan review and approval for this work will be required by the

Village of Woodbury Planning Board. The applicant has initiated this review with the Village of Woodbury Planning Board.

The two proposed driveway connections and a third pedestrian walkway to the adjacent Veyoel Moshe Gardens (VMG) development property will require grading in the Village of Kriyas Joel / Town of Palm Tree. That grading is shown on the attached Site Plan Drawings (see Appendix M). The grading and the utility connections will require a Site Plan Amendment from the Village of Kiryas Joel / Town of Palm Tree Planning Board (a single Planning Board functions for the Village and the Town). The sponsor of the VMG residential development has provided a letter confirming their agreement for the proposed driveway connection grading and utility connections (including water and sewer) on the VMG property (see Appendix B).
The potential construction related impacts to surface water resources are related to potential erosion and sedimentation during construction. To mitigate those potential impacts a SWPPP has been prepared to comply with the NYSDEC SPDES General Permit (GP-0-20-001). The SWPPP includes an Erosion and Sediment Control Plan to be implemented during construction to prevent erosion and sedimentation, especially potentially affecting on and off-site wetlands and watercourses during construction.

Potential soil erosion will be mitigated through the implementation of the site- and Project-specific soil erosion and control plan. The goal of the erosion control plan is foremost to prevent erosion, thereby minimizing the need to collect sediment. The plan will accomplish that goal, in part, by limiting the areas of disturbed soils at any one time and by maintaining runoff velocities to non-erosion levels.

Prior to commencement of construction activities silt fence would be installed down gradient of all areas where land disturbance is anticipated. Silt fence would be installed parallel to contours to prevent undermining to the greatest extent practicable. All existing storm drains would be protected using measures designed to filter stormwater prior to its entering the storm system. Construction exits would be installed before site clearing begins to eliminate the tracking of mud and debris onto nearby roads.

A stabilized gravel construction access pad will be installed at the construction entrance point identified on the erosion control plans to limit soil transport onto the local roadways from trucks leaving the site. This access pad will help prevent any mud or gravel from being tracked onto local roads adjacent to the project site. Details of the proposed erosion and sediment controls are specified in the site plan drawings and further described in Section 8.0 Stormwater Management.

Air Quality

Project construction over a 16-month period has the potential to impact local air quality. Potential air quality impacts are associated with mobile sources, including 1) on-site construction vehicles and equipment such as generators, 2) construction traffic to and from the site with delivery vehicles and worker trips, and 3) from dust associated with vehicle tracking over exposed soil.

Potential air quality impacts from mobile sources and on-site equipment can be minimized by maintaining vehicle pollution control equipment and engines. Construction equipment will be well maintained and in good working order. Truck idling on-site will be minimized to the extent practical. Electrical construction equipment will be used where practical and as it becomes more available. As early in the construction period as logistics would allow (likely by the start of the superstructure phases of construction, pending service provisions from the local utility provider), diesel- or gas-powered equipment would be replaced with electrical-powered equipment such as welders, water

pumps, bench and table saws (i.e. early electrification) to the extent feasible and practicable.

The generation of dust on-site will be minimized by reducing areas of exposed and unstabilized soil. Internal truck driveways will be maintained and sprayed with water under dry or windy conditions. Truck tires will be cleaned on the construction pads prior to exiting the site onto Nininger Road.

Noise

Local daytime ambient noise levels will increase both on and off of the project site during construction of the proposed Monroe Commons development. Construction activities and the operation of construction equipment are an expected and required consequence of any new construction project and cannot be avoided. Therefore, some noise impacts from construction would be expected. It is important to note that noise resulting from construction activities is a temporary impact, and will cease upon completion of the project. Potential noise impacts from the proposed development, including construction, are further described in Section 13.0 Noise.

The following table shows representative maximum sound levels for diesel powered equipment and activities at a range of receptor distances.

Table 17-1
Construction Noise Levels
(dBA)

	Maximum Sound Level			
Equipment/Activity	**50 feet**	**200 feet**	**500 feet**	**1000 feet**
Backhoe	82-84	70-72	62-64	56-58
Blasting	93-94	81-82	73-74	67-68
Concrete Pump	74-84	62-72	54-64	48-58
Generator	71-87	59-75	51-67	45-61
Hauler	83-86	71-74	63-66	57-60
Loader	86-90	74-78	66-70	60-64
Trucks	81-87	69-75	61-67	55-61

Source: Tim Miller Associates, Inc., 2005.

As shown in the Table, noise levels from construction activity will reduce over distance from the source. At 1000 feet, noise levels from certain equipment is in the range of ambient noise conditions measured in the vicinity of the site. As described, sensitive receptors near the subject property are between 50 (adjacent) and 600 feet from the proposed development area, resulting in lower sound levels from construction at greater distance from the site. It is likely that the majority of grading and site work will be completed prior to the construction of nearby residences on the VMG property.

The level of impacts of these noise sources depends on the type and number of pieces of construction equipment being operated, as well as the distance from the construction site. The noisiest period of construction will occur during site clearing and grading activities when sections of the site are prepared for internal driveways, paved areas, and building pad.

Noise levels due to construction activities will vary widely, depending on the phase of construction activities, including clearing and grading, delivery of materials, and actual construction of on-site

buildings. Noise levels at the site property line are projected to range between 65 dBA and 90 dBA, depending on the actual location of construction equipment at any given time.

It is anticipated that nearby sensitive receptors, including the VMG residential development west of the site and on Catskill High Rail east of the site may experience temporary elevated noise levels at occasional points during the construction of the proposed project, with most noise resulting from the site preparation, such as tree removal and grading activity.

Construction equipment will be well maintained to minimize noise to the extent practical. Trucks will not be allowed to idle on-site unnecessarily. Electrical equipment will be used, in place of diesel powered equipment, to the extent feasible and practicable, thereby reducing construction noise. Construction activity will be limited to the periods specified in the Town noise code, or between the hours of 7:00 a.m. and 9:00 p.m. weekdays and between the hours of 9:00 a.m. and 9:00 p.m. Sundays. No construction will occur on Saturdays.

Blasting

Blasting for construction of the building foundation or driveways is not anticipated. A geotechnical investigation, including test pits and soil borings in the area of the building footprint was completed for the project. The *Geotechnical Investigation Report* is provided as Appendix D and the results of the investigation are described in Section 4.0 Geology, Soils, Topography.

The borings and the test pits completed for the *Geotechnical Investigation Report* indicate that bedrock is probably deeper than the required excavation depths throughout the building area; however, boulders in the soil resulted in limited data from the borings to confirm this conclusion. The geotechnical engineer recommends that prior to construction, one or more trial excavations (enlarged test pits), including one near boring B11, should be made to verify that rock is deep. Three soil borings were advanced to 21 feet in depth (B3, B8 and B13) and boring B6 advanced to 56 feet in depth. These borings did not encounter bedrock. Therefore, it is assumed bedrock across the site is found at generally greater than 21 feet in depth and up to 80 feet in depth. Therefore, based on the results of the geotechnical investigation, it is anticipated that blasting will not be necessary. In the unlikely event that blasting is necessary, all applicable Town of Monroe (Chapter 22 of the Town Code) and New York State protocols for blasting will be followed, including obtaining a Blasting Permit from the Town.

Hazardous Materials/Human Health

A Phase 1 Environmental Site Assessment (Phase 1) was completed for the property by TEAM Environmental consultants in July, 2020. A copy of the Phase 1 report is provided in Appendix H. According to the Phase 1, the project site has not supported any commercial activity and an aerial photograph from 1965 shows a small building (potential dwelling) in the southwest portion of the site near Nininger Road. The site visit revealed no unusual odors or visual evidence of significant surface stains that could be indicative of leaking petroleum storage tanks, chemical spills or industrial waste disposal.

Following property regulatory and database research, interviews and a site visit, the Phase 1 report concluded “no significant and immediate environmental liability issues or recognized environmental conditions (REC’s) associated with the project site were identified”. No follow-up environmental investigations were recommended.

18.0 POTENTIAL IMPACTS OF PROPOSED HI ZONING TEXT AMENDMENT

18.1 Existing Conditions

The Applicant has requested from the Town Board text amendments to the Town of Monroe zoning code to support the proposed mixed-use development plan. The Monroe Town Board has the responsibility to review and approve any changes to the zoning code, and a petition for the zoning text amendments were submitted in June, 2022. In summary, the following amendments have been proposed to the Town Board:

1) Restore the maximum building height in the HI – Heavy Industry District to fifty feet (50 ft) from forty feet (40 ft.);
2) Include the HI District in Section 57-47E (Method of determining off-street parking requirements) of the Zoning Code, so as to empower the Town Planning Board to reduce the otherwise applicable parking requirements by forty percent (40%), and
3) Amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five (75%).

A copy of the Petition for Zoning Text Amendments is provided in Appendix B – Correspondence. The requested Amendments are currently under review by the Town Board. The proposed text amendments would apply to all other properties mapped in the HI zoning district in the Town of Monroe.

Potentially Affected Properties in the HI Zoning District

The HI – Heavy Industry zoning district is mapped in two areas of the Town, as shown on the attached Figure 18-1 Town of Monroe Zoning Map. The Town zoning map was most recently revised in November, 2017. Land in the HI district is located at the northeast border of Town and in a second area in the northwest border of the Town. As shown in Figure 18-2, the project site and four other smaller parcels are mapped in the district, bordering the Village/Town of Woodbury. This HI district area borders property in the LI – Light Industry district to the south across NY Route 17/US Route 6.

Four parcels are mapped in the HI District located at the northeast edge of the Town bordering the Village of South Blooming Grove. This HI district area borders LI - Light Industry property to the west and the GB – General Business district to the south (See Figure 18-3).

The specific properties, acreage, ownership and uses are provided in Table 18-1, at the end of this Section. The specific properties are shown in two figures; Figure 18-2 Properties in HI District - East and Figure 18-3 Properties in HI District - West. As described, the Project site is undeveloped land. Adjoining property in the district includes, 254 Nininger Road, developed as an office building and 214 Nininger Road, containing a garage and parking area for Village of Kiryas Joel sanitation trucks. Two other parcels in the district, indicated as lot numbers 4 and 5 on Figure 18-2 are vacant land. These properties are 1.72 and 0.76 acres in size, respectively.

Each of the four mapped properties in the western HI district area are currently developed (see Figure 18-3). The mapped properties include: the Professional Square office building, a tile store, and two office buildings. All of the current uses in the HI district are allowable uses in the district.

18.2 Potential Impacts to the Proposed Action

The proposed zoning text amendment would practically affect undeveloped land where new development could potentially have: 1) greater height, 2) greater lot coverage, and 3) less off-street parking than currently required in the HI zoning district for specific uses. As described and illustrated in the attached figures, only three properties in the HI zoning district are undeveloped, including the subject Property. The two undeveloped properties located west of the site on Nininger Road are relatively small (1.72 acres and 0.76 acres) and have generally steep topography, limiting their development potential. Each of the two properties could potentially support relatively small to medium sized buildings and parking areas close to Nininger road.

An analysis of development potential related to the proposed amendments to the HI District on developed and undeveloped lots in the District is provided in Table 18-2 – Potential Impacts of Proposed Zoning Amendments. The table provides lot area, existing building footprint, number of floors for existing buildings and percent of building coverage. The building coverage was estimated using Orange County GIS photos and lot area.

In assessing the average building coverage (footprint) in the HI zoning district, potential development for the undeveloped lots in the district can be estimated. Using a factor of 15 percent building coverage, provides potential development of 11,325 square feet on Lot 2-1-12.2 (Figure 18-2 Lot 4) and 4,795 square feet on Lot 2-1-12.32. (Figure 18-2 Lot 5).

Two existing buildings in the HI district have greater than a single story: the Professional Office building at 491 Route 208 and the Brach and Mann office building at 254 Nininger Road. While adding an additional floor to an existing building is technically feasible, it is unlikely that the owners of the two multi-floor buildings in the district would increase the height of those buildings.

As described, the proposed zoning amendments would allow the addition of another story to the two existing multi-story office buildings in the district, and for other existing buildings and future buildings in the district. Table 18-2 provides estimates of potential new office space related to the potential for an additional floor on each of the lots in the HI district and related potential new workers and new water demand and sewer use. Although unlikely, an owner or developer, could demolish the existing buildings (six) in the HI district and construct a building applying the zoning amendments resulting in greater height, greater lot coverage and less off-street parking than is currently permitted. Any future development would require site plan approval by the Town Planning Board and would be subject to the SEQRA review process.

Potential impacts from adding an additional floor to the two existing multi-story office buildings in the district include potential visual impacts, among others. The Professional Office building at 491 Route 208 and the Brach and Mann office building at 254 Nininger Road both adjoin NY Route 17 and therefore are viewed by the large number of vehicles traveling in both directions on Route 17 on a daily basis. An additional floor on either of the two buildings would be noticeable, but would not be in stark contrast to the visual character of the existing commercial setting. The additional floor on these two buildings, or potentially on other existing buildings in the district is not expected to have a significant impact upon community character.

As indicated in Table 18-2, the addition of an extra floor to the existing buildings in the district and any new buildings on the two undeveloped lots will result in additional water use and sewer demand, and community services, such as police, fire and emergency service providers. This demand for additional community services and utilities is not expected to be significant, as shown in Table 18-2, in terms of water / sewer demand and potential number of additional employees.

The text amendments could affect the two other undeveloped properties in the HI district as follows:

1) The text amendment related to increased building height would not apply to these two lots since buildings of greater than two to three stories and their required parking could not be constructed on the lots. A building of four stories and height greater than 40 feet does not appear to be feasible on a sloping lot less than two acres in size. The assessment of development potential in Table 18-2 assumes a single story building on each lot, and the potential for a second story. The potential increase in building square footage and water/sewer use is provided on Table 18-2, assuming an added floor to a future building on the property.
2) The text amendment related to lot coverage could increase coverage on two lots from 65 to 75 percent. A 10 percent increase in lot coverage on the two parcels would slightly increase impervious surface, requiring greater stormwater management facilities for the two properties.
3) A potential reduction in required parking (up to 40 percent) could provide for greater density and development on the two properties, but any increase would be limited by the size of the property (less than 2 acres) and by the steep slopes on the two sites.

18.3 Mitigation Measures

The proposed text amendments could potentially affect each of the nine (9) parcels in the HI zoning district. In practical terms, the potential effects of the zoning changes are limited, due to the fact that six of the nine parcels in the district are currently developed and the two undeveloped parcels (in addition to the Monroe Commons parcel) are relatively small (less than 2-acres) and are constrained by sloping topography. In the event that one or more of the properties in the HI district is developed or redeveloped utilizing the proposed zoning amendments, the potential impacts are not expected to be significant, including in terms of visual and community character, community services and utilities. Any future development would require site plan approval by the Town Planning Board and would be subject to SEQRA. Mitigation measures appropriate to future development/redevelopment may include landscaping, architectural review, land banked parking and water saving features for the buildings.

Table 18-1
Properties in HI District for Evaluation of
Proposed Zoning Text Amendments

Map Designation	Tax Lot Number	Address	Area (acres)	Owner	Current Use	Ownership
1	**2-1-10**	**Nininger Road**	**17.82**	**Monroe Nininger LLC**	**Vacant**	**Private**
2	2-1-9	254 Nininger Road	0.25	Brach and Mann Building LLC	Office	Private
3	2-1-11	214 Nininger Road	0.75	Village of Kiryas Joel	Truck Storage	Public
4	2-1-12.2	208 Nininger Road	1.72	A&D Commercial Realty LLC	Vacant	Private
5	2-1-12.32	Nininger Road	0.76	Not known	Vacant	Private
6	1-1-89	491 Route 208	2.47	Professional Square LLC	Office Building	Private
7	1-1-88	495 Route 208	1.03	495 Route 208 LLC	Tile Store	Private
8	1-1-87	501 Route 208	1.03	17M Goldstar LLC	Office	Private
9	50-1-1	505 Route 208	1	Not known	Medical Office	Private

Sources: Orange County GIS, NYS GIS

Table 18-2
Potential Impacts of
Proposed HI Zoning District Text Amendments

Map Designation	Address	Lot Area (acres)	Building Footprint (sq. ft.)	No. Floors	Total Square Footage	Estimated Number of Workers***	Building Lot Coverage (%)	Potential New Dev. Area **	Potential New Water/Sewer Use
1	**Nininger Road**	**17.82**	**86,287**	**5**	**407,819**	**N/A**	**11%**	**N/A**	**N/A**
2	254 Nininger Rd	0.25	2,615	3	7,845	26	24%	2,615	360
3	214 Nininger Rd	0.75	5,665	1	5,665	19	17%	5,665	270
4	208 Nininger Rd	1.72	Est. 11,325*	Est. 1	Est. 11,325	37	Est. 15%	Est. 11,325*	555
5	Nininger Road	0.76	Est. 4,795*	Est. 1	Est. 4,795	16	Est. 15%	Est. 4,795*	240
6	491 Route 208	2.47	10,890	4	43,890	145	10%	10,890	2,100
7	495 Route 208	1.03	9,150	1	9,150	30	20%	9,150	435
8	501 Route 208	1.03	3,485	1	3,485	12	8%	3,485	180
9	505 Route 208	1	4,356	1	4,356	14	10%	4,356	225

Sources: Orange County GIS, NYS GIS

* Estimated development potential based upon average 15% building coverage for developed lots in HI-District

** Assumed additional 10 foot building height and additional floor added to existing building.

*** Number of workers estimated by utlizing a factor of 3.3 employees per 1,000 square feet per ITE Trip Generation for land use 710 - general office

Potential new water use estimate based upon: 15 gpd / worker for office (Table B-3, NYS Design Standards for Intermediate Sized WW Treatment Systems)

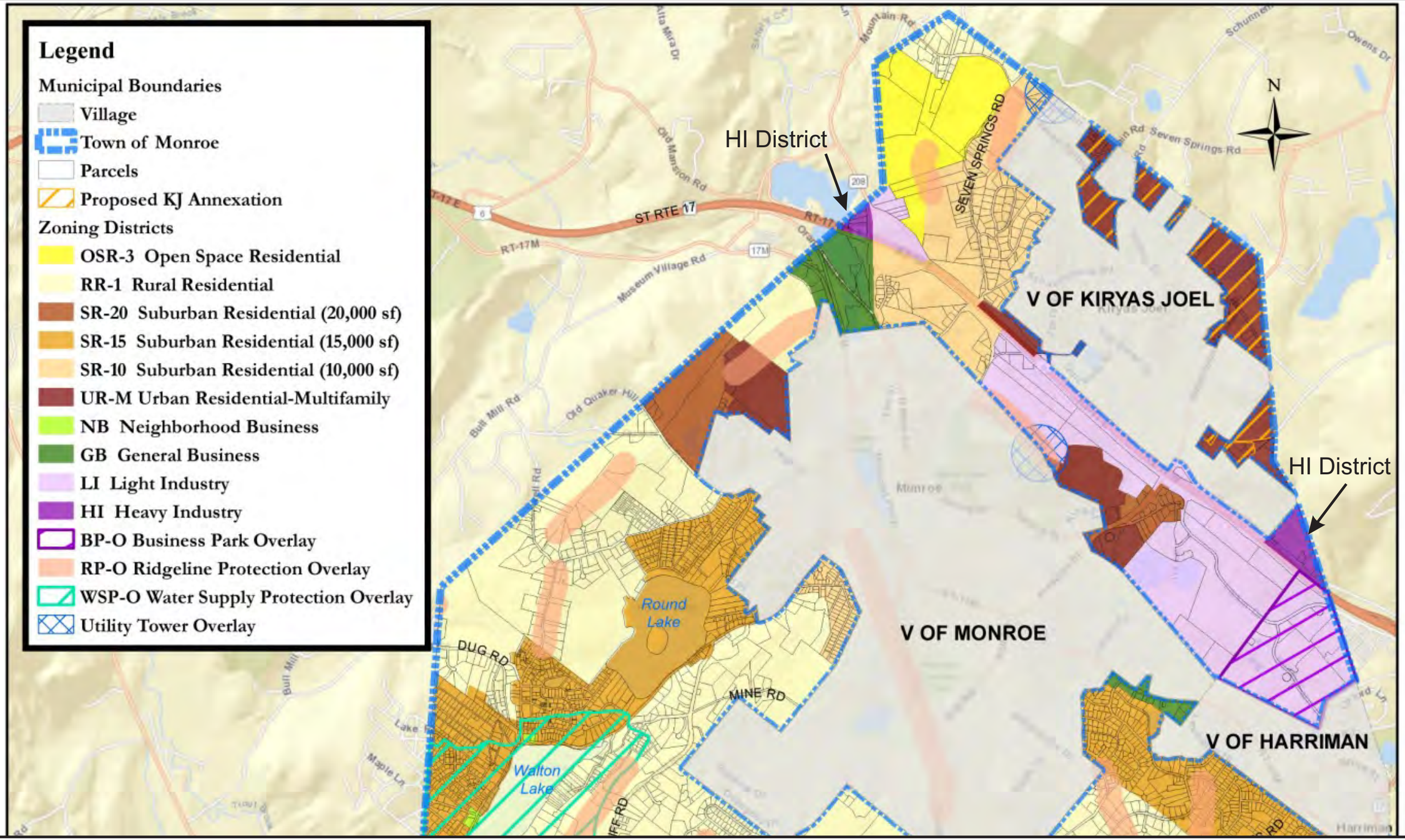

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Figure 18-1: Town of Monroe Zoning Map
Monroe Commons
Town of Monroe, Orange County, NY
Source: Town of Monroe Zoning Code

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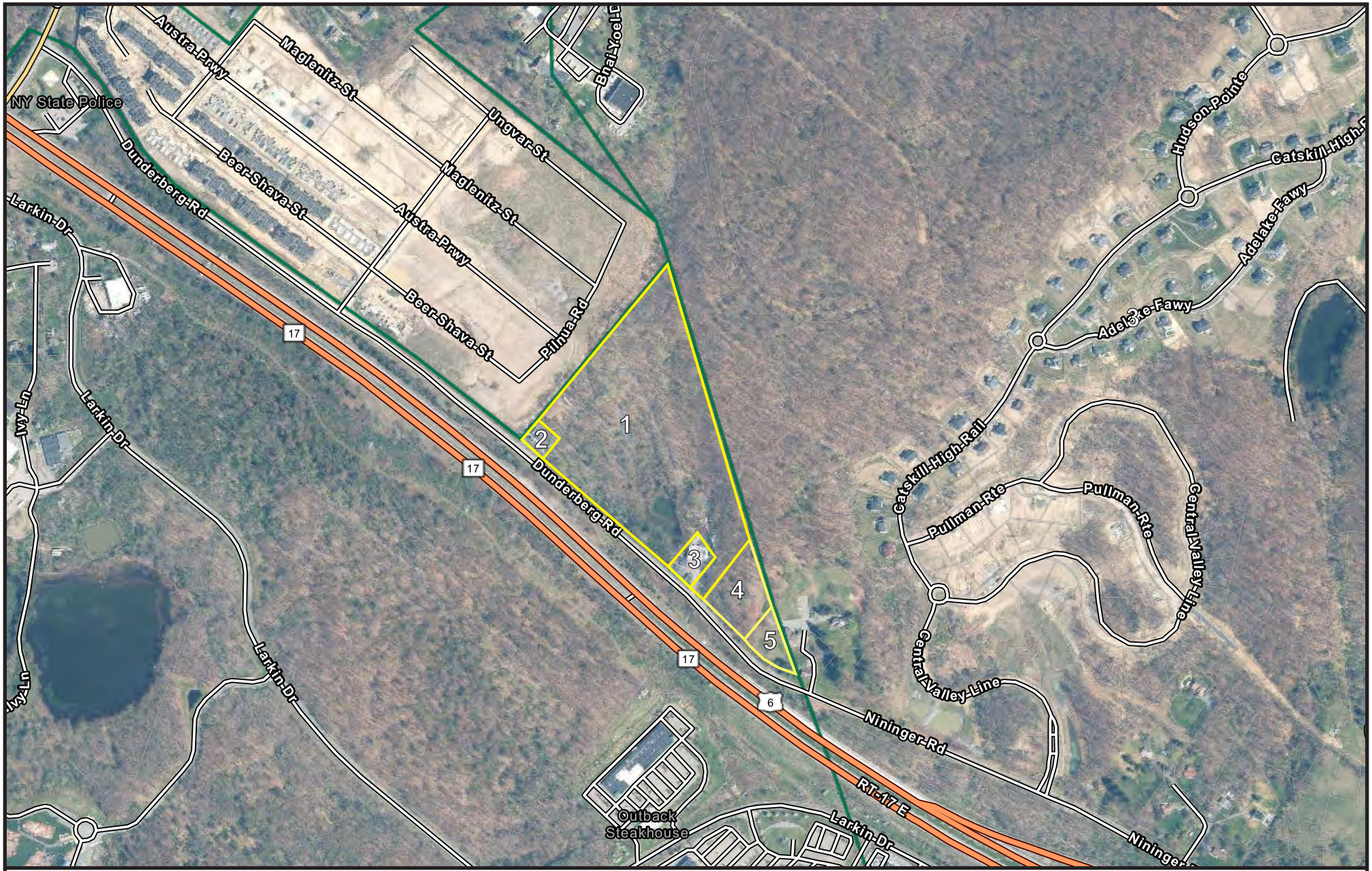

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Figure 18-2: Properties in HI District - East

Monroe Commons

Town of Monroe, Orange County, New York

Source: Orange County GIS

File 19055 Fig 18-2 01/31/2023

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Figure 18-3: Properties in HI District - West
Monroe Commons
Town of Monroe, Orange County, New York
Source: Orange County GIS

File 19055 Fig 18-3 01/31/2023

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19.0 ALTERNATIVES

The Applicant is proposing a mixed-use commercial development in a single approximately 407,819 square foot (gross area) building with four floors. The proposed uses include a mix of retail, office uses, and a hotel. The development would include a total of 653 surface parking spaces and supporting utilities, stormwater management facilities, lighting, and landscaping. A total of 624 parking spaces will be constructed and an area with an additional 29 banked parking spaces is provided on the plans, for a total of 653 spaces. The banked parking spaces will be constructed if they are found to be necessary. This is the Applicant's preferred development project.

As described in this DEIS, the Applicant has requested from the Town Board text amendments to the HI zoning district including: 1) a request to restore the maximum building height from the current 40 ft. to 50 ft., 2) provide the Planning Board a method of determining off-street parking requirements to potentially reduce the requirements by forty percent (40%) and 3) amend the maximum coverage in the HI District from sixty-five percent (65%) to seventy-five percent (75%).

Section 617.9(b)(5) of the regulations implementing SEQRA requires that a draft environmental impact statement include a description and evaluation of the range of "*reasonable alternatives to the proposed action which are feasible, considering the objectives and capabilities of the project sponsor"*. The range of alternatives must include the "No Action" alternative. The references to the SEQRA regulations below reflect a range of alternatives that may also include different factors, "*as appropriate*".

The Scoping Document for this DEIS requires an evaluation of the following:

A. No Action/ No Build Alternative per 6 NYCRR 617.9(b)(5)(v).
B. No Variance, Zoning Text Amendment, or Wetland Permit Alternative.
C. Multiple Building Alternative.
D. Terrain Adaptable Parking Alternative

The four alternatives listed above are described and compared below.

19.1 No Action/No Build Alternative

In accordance with SEQRA regulations, the No Action alternative must evaluate the adverse or beneficial impacts that would occur in the reasonably foreseeable future in the absence of the proposed action. For purposes of this analysis, the No Action alternative assumes that the proposed project site would remain an undeveloped wooded parcel with secondary growth forest and wetland areas.

The No Action alternative would be inconsistent with the objectives of the applicant. Under the No-Action alternative, none of the impacts identified in this report, whether adverse or beneficial, would occur.

The No Action alternative would result in no grading disturbance to the 18.2-acre site and the excavation of soil to facilitate the development. The alternative would not result in the alteration of drainage patterns on the project site nor the introduction of up to approximately 9.93 acres of new impervious surface. There would be no construction of stormwater management systems on the site. No disturbance or removal of up to 17.7 acres of second growth woods and brush and the disturbance of 0.49 acres of wetlands and the creation and planting of 0.9 acres of wetland

mitigation area. This alternative would avoid the grading and loss of 2.5 acres of vegetation in the Village/Town of Woodbury. The site would continue to provide habitat and cover for local suburban wildlife.

The No-Action alternative would leave 18.2 acres of prime real estate along Nininger Road as undeveloped land. The property is a sizable undeveloped parcel in the HI zoning district which allows a range of commercial uses. The alternative would not provide development in a priority growth area of the Town. Without the development there would be no increase in tax revenues to the Town and the Monroe – Woodbury School District. There would be no increase in the demand placed on community services and facilities as a result of the No Action alternative. There would be no increased demand placed on water supply, wastewater treatment facility capacity, electric or gas service.

Under the no-build condition, there would be no increase in traffic volume from the Monroe Commons project, although background growth and traffic from other area developments would likely still occur, as described in the Traffic Impact Study.

The site would remain undeveloped with secondary growth woods and wetland areas. Existing views of the site from Nininger Road and NY Route 17/US Route 6 would remain the same. There would be no increase in the use of energy resources.

19.2 No Variance, Zoning Text Amendment, or Wetland Permit Alternative

This alternative examines a development plan that would have the same mix of uses as the Proposed Project, with the following exceptions:

- Development under this alternative would comply with all dimensional requirements of the HI zoning district (no zoning text amendment and no variances) and other applicable sections of the Town's Zoning Code, including parking requirements.
- This alternative would be developed with the required number of parking spaces (no land-banked or deferred parking).
- No wetlands or streams would be disturbed under this alternative, and therefore no wetland permit or mitigation area would be required.

This DEIS and the Site Plan (Sheets 1 and 2) (attached as Appendix M) illustrate the existing natural constraints on the subject property, including 1.98 acres of regulated wetland area and 2.82 acres of slopes greater than 30 percent. Per Section 57—21.1 of the Town Zoning Code, these environmental constraints provide a net buildable area of 13.4 acres. The applicant has assessed numerous alternative plans that would not require one or more of the requested text amendments to the zoning Code.

A series of linear wetlands associated with stream channels bisect the project site as shown in Figure 7-1 Existing Ecological Communities Map. Avoiding all wetland incursions and filling would practically limit development on the site to the northwest corner, near the existing office building at 254 Nininger Road. An area of less than 2.0 acres of upland area with access to Nininger Road could be developed avoiding all wetland impacts.

A conceptual plan has been developed that avoids all impacts to wetlands and streams, as shown in Figure 19-1. This alternative would comply with all dimensional requirements of the HI zoning

district (no zoning text amendment and no variances required) and other applicable sections of the Town's Zoning Code, including parking requirements.

As shown in the Figure, development is limited to the northwest portion of the site, adjacent to the existing Brach and Mann office building. The plan provides a 2-story building with a footprint of 5,000 square feet, with 5,000 square feet of retail in the first floor and 5,000 feet of office space on the second floor. Given the limitations of the building size, no hotel would be possible. As shown on the Plan, 60 parking spaces would be provided, consistent with Zoning Code requirements. An area proposed for stormwater management is provided, avoiding impacts to wetland areas.

In limiting the development footprint, this alternative would involve disturbance of only 1.5 acres or approximately eight percent of the 18.2 acre property. Impervious surface coverage would involve only 0.73 acres, reducing stormwater management. Approximately 16.7 acres of existing vegetation on-site, including trees and all wetland areas would be preserved in this alternative, retaining existing vegetation and wildlife habitat.

While this alternative would increase tax revenues to the Town, County and the Monroe – Woodbury School District, revenue would be substantially less than it would be with the proposed action. The demand for community services and facilities would increase as a result of this alternative, but less than as compared to the proposed action.

The relatively small commercial building would generate much less traffic than the proposed action, with an estimated 62 trips in the weekday PM peak hour. A comparison of potential impacts of this alternative, compared to the proposed action and the other alternatives is provided in Table 19-1.

This alternative does not meet the objectives of the applicant or feasibility in terms of the scale and the mixed-use program for the development including retail, office and hotel. The mixed-use development requires a footprint and scale to be financially viable; thus, this alternative does not meet the Applicant's objectives.

19.3 Multiple Building Alternative

This alternative would assume the same mix of uses as the proposed Project, but those uses would be accommodated within two or more buildings rather than a single building.

A conceptual two-building alternative plan has been developed that provides the same mix of uses, but in two buildings, each with a footprint of 20,000 square feet. The Two Building alternative is shown in Figure 19-2. This plan would meet the dimensional requirements of the HI zoning district (no zoning text amendment and no variances required) and would meet the parking requirements. This Alternative would involve wetland disturbance to the buildings, driveways and parking in the northern portion of the site. Therefore, US ACOE and Town of Monroe Wetlands permits would be required for this alternative.

The alternative plan provides two buildings generally parallel to Nininger Road. Parking and first floor building elevations would be somewhat tiered to accommodate the sloping grades at the rear of the site. The building closest to Nininger Road would have three stories, while the second building would contain two stories. The front building (closest to Nininger Road) would include 20,000 square feet of retail on the first floor and office space on the second and third floors (total 40,000 square feet of office). The rear building (in the northeast portion of the site) would contain

15,000 square feet of hotel space and 5,000 square feet of retail space on the first floor, and 20,0000 square feet of retail space on the second floor. Total commercial space would be 80,000 square feet (gross area), compared to the approximate 408,000 square feet (gross area) of the proposed plan. The square footages provided are conceptual only to provide relative comparison of uses and potential impacts. The two-building alternative would include driveway and pedestrian connections to the adjoining VMG residential development to the north.

As shown on the conceptual plan, 545 parking spaces would be provided, slightly exceeding the Town Code parking requirements. Areas for stormwater management infiltration basins are provided, although some stormwater management facilities would be provided under parking areas, similar to the proposed plan.

The two-building alternative plan would involve less overall site disturbance, grading and vegetation removal than the proposed plan, with an estimated 13.3 acres of disturbance. The plan would provide two entrances at the same locations as the proposed plan with a stormwater infiltration basin between them, like the current plan. Impervious surface coverage would involve 7.15 acres.

Overall wetland impacts for the two-building alternative would be only slightly reduced, as compared to the proposed plan, with an impact of approximately 0.46 acres, a reduction of approximately 0.03 acres. The reduced area of impact is located at the northern edge of the existing pond wetland where the southern driveway is shifted to the north in the two-building plan. The two-building alternative would require wetland permits from US ACOE and the Town of Monroe.

The two building alternative would provide increased tax revenues to the Town and the Monroe – Woodbury School District, proportional to the commercial square footage of the project, but less than the proposed plan. There would be an increase in the demand placed on community services and facilities.

The two-building alternative would generate less traffic than the proposed action, with an estimated _493 trips in the weekday PM peak hour. A comparison of potential impacts of this alternative, compared to the proposed action and the other alternatives is provided in Table 19-1.

This alternative does not meet the objectives of the applicant or feasibility in terms of the scale for the development including retail, office and hotel space. The mixed-use development requires a footprint and scale to be financially viable; thus, this alternative does not meet the Applicant's objectives.

19.4 Terrain Adaptable Parking Alternative

This alternative would assume the same mix of uses as the Proposed Project, but parking areas would be adapted to the existing terrain of the Project Site (which may require a reduction in required parking and/or a reduction in building size), including but not limited to the following:

- Providing a series of smaller parking islands connected with pedestrian walkways or bridges, as opposed to a mass-graded large lot; and
- Preserving/terracing existing native vegetation and forested areas between parking islands;

The proposed plan incorporates the goals of the Terrain Adaptable Parking Alternative by incorporating the site's topography into the development plan and by providing tiered parking. The proposed building was placed in the northwest corner of the site to allow area for access driveways and parking to surround the building. The existing and post development topography will allow grade level entrances on three separate floors. Retail entrances will be provided on the first floor and second floor and a grade level entrance for the third floor office and hotel space will be provided at the rear of the building from a parking lot at that level.

Parking for the proposed building has been reduced to the extent practical, and the Applicant is requesting a zoning text amendment to allow a reduction in the parking required by the zoning code. Providing smaller parking areas or viable areas of native vegetation and forested areas between parking lots is not practical or feasible, given the development plan and environmental constraints including wetlands and steep slopes.

Providing parking in smaller parking islands connected with walkways or bridges on different grade levels is impractical for the proposed mixed use with a substantial retail use. Pedestrians with strollers, wheeled shopping baskets or carts may have difficulty navigating walkways, bridges or grade differences between parking and the retail entrances. Circulation and access for emergency vehicles becomes more difficult with varying grades and landscaped or forested areas between parking islands.

The proposed plan provides extensive planting and landscaping near the three building entrances and a landscaped park-like area south of the building (see Landscape Plan L-2 and Enlarged Area #1 through #4). Tree islands are provided between each parking isle and at the ends of the isles to enhance the parking lots. The proposed plan incorporates the goals of the terrain adaptable alternative, providing safe pedestrian and vehicle access to the building, and a robust landscaping plan for the development.

Table 19-1 Alternatives Comparison Table					
Areas and Potential Impacts	**Proposed Action**	***No Action Alternative***	***No Variance / No Wetland Permit Alternative***	***Two Building Alternative***	***Tiered Parking Alternative (Proposed Plan)(1)***
Buildings					
Building Footprint (total)	*86,287 sf*	*0*	*5,000 sf*	*40,000 sf*	*86,287 sf*
Retail square footage	168,690**	0	5,000 sf	45,000 sf	168,690**
Office square footage	113,614**	0	5,000 sf	40,000 sf	113,614**
Hotel square footage	30,228**	0	0	15,000 sf	30,228**
Total Square Footage	*407,819 sf*	0	*10,000 sf*	*100,000 sf*	*407,819 sf*
Area of Disturbance (acres)	17.2 ac.		1.52 ac.	13.25 ac.	17.2 ac.
Impervious Surfaces (acres)	10.65 ac.	0	0.73 ac.	7.15 ac	10.65 ac.
Wetland Disturbance (acres)	0.49 ac.	0	0	0.43 ac.	0.49 ac.
Community Resources					
Water Demand (gpd)	54,210 gpd	0	1,000 gpd	10,000 gpd	54,210 gpd
Sewage Flow (gpd)	54,210 gpd	0	1,000 gpd	10,000 gpd	54,210 gpd
Traffic					
Traffic Generation	Total AM Peak Hour Trips**/ 734** Total PM Peak Hour Trips/ **975** Total Sat. Peak Hour Trips/ **624**	Total AM Peak Hour Trips/ 0 Total PM Peak Hour Trips/ 0 Total Sat. Peak Hour Trips/ 0	Total AM Peak Hour Trips/ **31** Total PM Peak Hour Trips/ **62** Total Sat. Peak Hour Trips**/ 34**	Total AM Peak Hour Trips/ **34** Total PM Peak Hour Trips/ **70** Total Sat. Peak Hour Trips/ **84**	Total AM Peak Hour Trips/ 734 Total PM Peak Hour Trips/ 975 Total Sat. Peak Hour Trips/

Notes: ** - Gross square footage for Proposed building is used for comparative purposes only (Total includes basement space). Net floor area more accurately provides usable space (see Site Plan Cover Sheet for Table of Building Floor Area and Uses)
Water/sewer demand for retail/ office alternatives estimated using the published DEC Standard of 0.1 GPD/SF.
(1) See discussion regarding Tiered Parking Alternative.

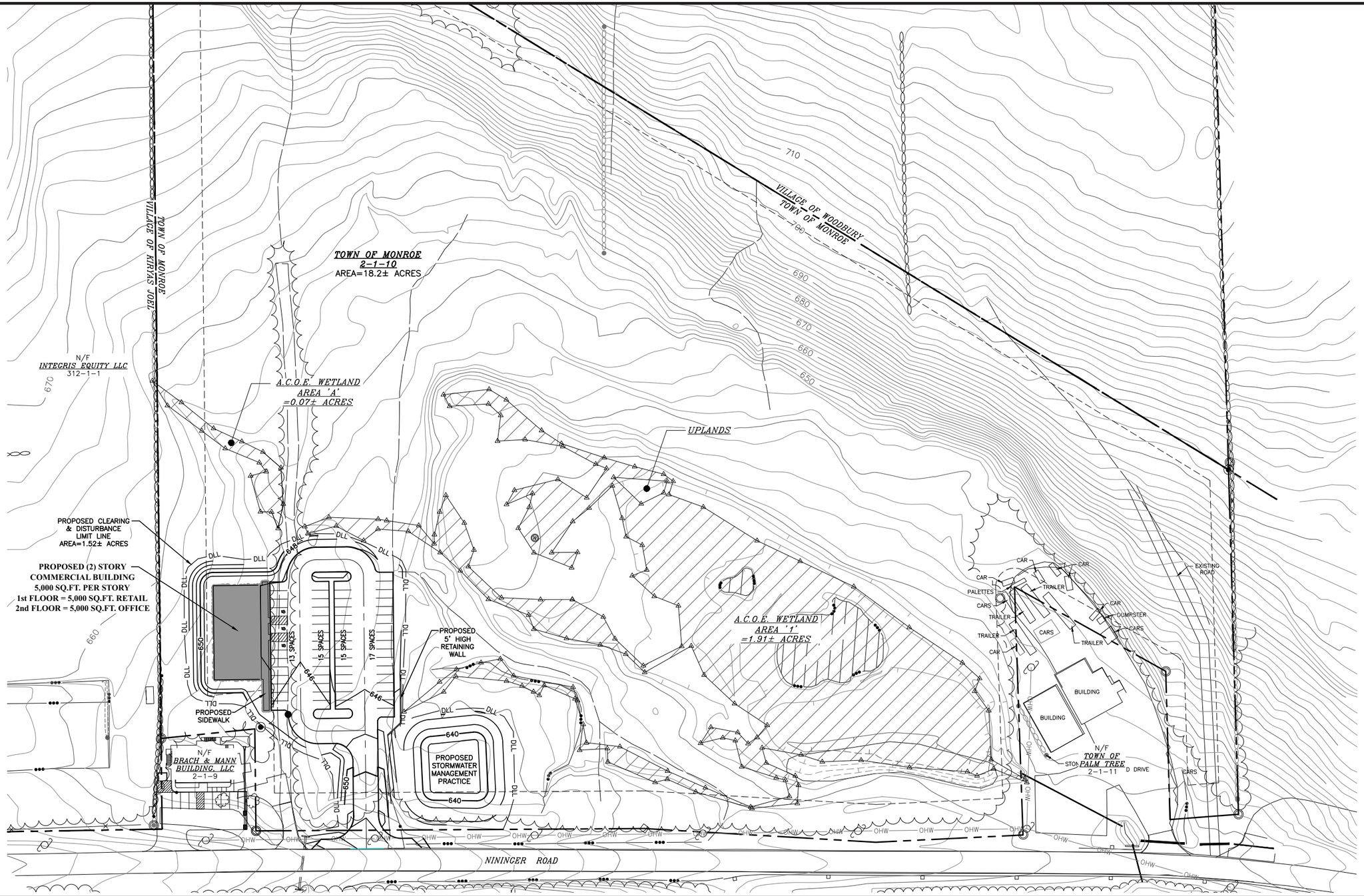

Figure 19-1: No Variance/No Wetland Permit Alternative
Monroe Commons
Town of Monroe, Orange County, NY
Source: Pietrzak & Pfau Engineering and Surveying, PLLC, 2023

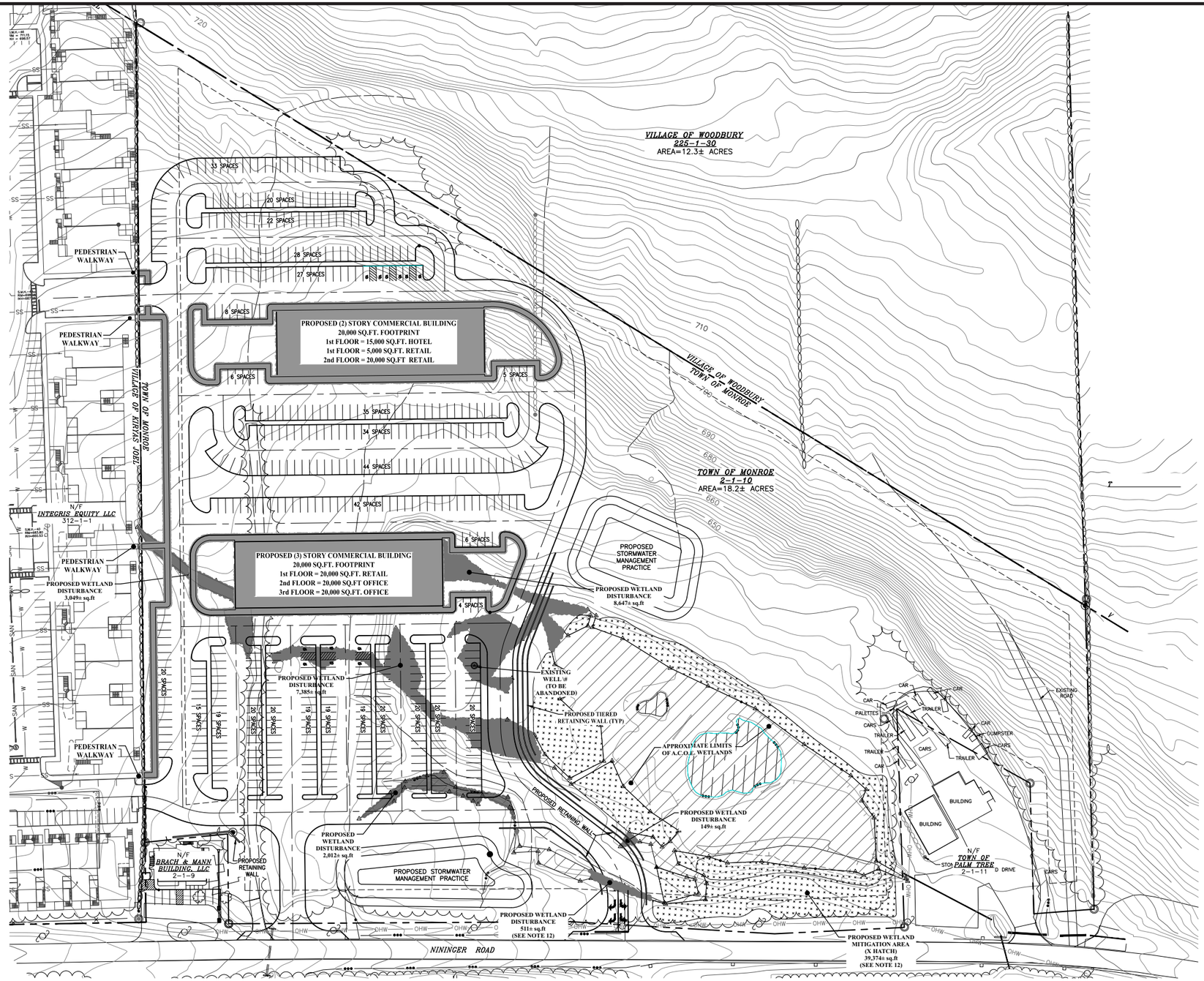

Figure 19-2: Two Building Alternative
Monroe Commons
Town of Monroe, Orange County, NY
Source: Pietrzak & Pfau Engineering and Surveying, PLLC, 2023

20.0 UNAVOIDABLE ADVERSE IMPACTS

The development of the proposed project will result in some adverse environmental impacts which cannot be avoided. Although these impacts cannot be avoided, they can 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 and use of the site as a commercial mixed-use development.

Short Term Impacts

- Presence of construction and delivery vehicles on the site and on surrounding roads
- Localized increase in noise due to operation of construction vehicles and equipment
- Localized decrease in air quality (especially dust) due to construction operations
- Increased potential for on-site soil erosion and downstream sedimentation impacts

Long Term Impacts

- Permanent alterations to existing topography to grade areas for the proposed parking and building foundation
- Loss of woodland vegetation and associated wildlife habitat
- Need to maintain stormwater quantity and quality management facilities
- An increase in activity, noise and light on the project site
- An increased demand for community services such as police, fire and emergency services
- Increased demand for utility services including water, wastewater treatment and energy
- Increase in local area traffic

21.0 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The proposed project would commit approximately 18.2 acres of land to mixed-use development for the construction of commercial, office and hotel space in the Town of Monroe and the loss of vegetation on 2.5 acres of land in the Village of Woodbury. Once committed to the development, the site would be unavailable for other uses for the foreseeable future.

The finite resources that would be irretrievably committed by the proposed action would be materials and energy required to construct and maintain the development upon completion. Construction would involve the commitment of resources associated with the use of concrete, asphalt, steel, lumber, glass, paint products, and other building materials.

The operation of construction equipment would result in consumption of fossil fuels and other finite energy sources. When completed, the new businesses and office tenants would require electricity and the use of fossil fuels either directly as heating fuel or indirectly as electricity.

22.0 Growth-Inducing Aspects

Growth-inducing aspects of the proposed Monroe Commons development would occur if the project resulted in other similar or supporting developments in the vicinity of the project site. As shown in Figure 18-1 Town of Monroe Zoning Map, the project site is located at the northeast edge of the Town and is bordered by the Village of Kiryas Joel to the northwest and by the Village/Town of Woodbury to the northeast. NY Route 17 / US Route 6 separates the property from land zoned Light Industry - LI and the Business Park Overlay – BP-O district to the southwest.

Potential new commercial development in the vicinity of the Monroe Commons development is limited by NYS Route 17 to the south, the residential development known as Veyoel Moshe Gardens (VMG) directly to the northwest in the Village of Kiryas Joel/ Town of Palm Tree and by residential zoning in the Village of Woodbury to the east.

Section 18.0 Potential Impacts of the Proposed HI Zoning Text Amendment describes the limited number of other properties in the HI Zoning District that could be developed, and could potentially benefit from: 1) increased building height, increased coverage and/or reduced parking requirements. Section 18.0 identified only two undeveloped properties in the HI zoning district and development potential on those properties was limited by property size (1.72 and 0.76 acres, respectively) and by topographic constraints. The two undeveloped properties are shown as map designation 4 and 5 on Figure 18-2. Based upon the existing commercial and office development in the HI district, it is estimated that the two undeveloped parcels may support a total of 16,120 square feet of commercial / office space. This space may support an estimated 53 new workers and an estimated 795 gallons per day of water use / sewer demand. Table 18-2 provides further details regarding the estimates and assumptions for future development.

Section 12.0 Fiscal and Economic Impacts provides discussion regarding the estimated number of workers for Monroe Commons, which range from 624 to 682. It is anticipated that the majority of workers will already reside in the Town of Monroe, Village of Monroe, Village of Kiryas Joel/ Town of Palm Tree, Village of Harriman, Village of Woodbury and nearby communities. Given that the majority of new jobs associated with Monroe Commons will be retail and service jobs, those employees are not expected to move to the Monroe area for employment. A portion of the development's management and a small proportion of workers may relocate into the area, creating an incremental demand for new housing and for community services such as schools, water / sewer, and emergency services. However, the development of the Monroe Commons project is not anticipated to have a significant growth-inducing impact on adjoining municipalities. Land located on Nininger Road east of the site in the Village of Woodbury generally consists of smaller lots and is zoned R-2A Residential 2-acre and therefore cannot support large residential development. Land immediately west of the site on Nininger Road is the Veyoel Moshe Gardens (VMG) residential development. No further development can occur on Nininger Road west of the project site.

It is anticipated that the two undeveloped properties in the HI zoning district in Monroe and other undeveloped properties in the R-2A district in the Village of Woodbury may be developed over time, but likely not as a result of Monroe Commons. This additional limited commercial and residential growth is not expected to create significant demands on local infrastructure such as water, wastewater treatment, roadway infrastructure and traffic and schools. Properties east of the site and in the Village of Woodbury on Nininger Road are reliant on private wells and septic systems, further limiting the potential for significant growth.

Given the project site's location in a generally isolated area of the Town of Monroe and the existing zoning and development in the vicinity of the site, Monroe Commons is not expected to result in significant additional commercial or residential growth in the Town.