The North 60

Hospital Road, Nilsson Drive, Stevens Avenue, Old Saw Mill River Road
Town of Mount Pleasant, Westchester County, New York

Draft Environmental Impact Statement

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Lead Agency:
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Prepared By:

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Executive Summary

The proposed action is the development of a mixed-use community that incorporates approximately three million square feet of bio-tech/research and development related uses including medical offices, a children's science and education center, neighborhood retail, potential residential uses and a hotel as part of a comprehensive master plan.

1.1 Summary Description of the Proposed Action

This Draft Environmental Impact Statement (DEIS) has been prepared under the provisions of the New York State Environmental Quality Review Act (SEQRA). It conforms to the Scoping Document that was adopted on August 1, 2019 by the Town of Mount Pleasant Planning Board, the designated Lead Agency for the SEQRA review of the proposed action.

The proposed action is the development of a mixed-use community that incorporates approximately 3 million square feet of bio-tech/research and development related uses including medical offices, a children's science and education center, neighborhood retail, potential residential uses and a hotel as part of a comprehensive master plan. This action, identified herein as The Westchester BioScience and Technology Center, will include a new street network that connects the project site to the surrounding Grasslands Reservation, regional highway system, and community. Sustainable strategies and best practices are an

integral part of the project and are incorporated into the master plan in every area (the "proposed action").

The project site encompasses approximately 80 acres located entirely within the Town of Mount Pleasant and is generally bounded by Old Saw Mill River Road and West Stevens Avenue to the north, Sprain Brook Parkway to the east, Hospital Road to the south, and Nilsson Drive to the west (the "project site"). The project site currently contains commercial buildings and vacant land, some of which is currently being used as construction staging by Westchester Medical Center. Westchester County owns approximately 60 acres of the project site which is located on the County's Grasslands Reservation, for which the applicant has entered into a lease agreement with the County. The applicant owns an adjacent 20-acre parcel of land.

The project site is located in the OB-6 Office Building, Distribution, Limited Fabrication District and R-20 One-Family Residential District. The Town of Mount Pleasant does not currently have a single zoning district with use, area and bulk controls designed to regulate this type of development. Therefore, the proposed action includes rezoning the entire project site to the OB-5 Office Business District and a text amendment to provide the required mechanisms to appropriately regulate the development.

The proposed action includes rezoning the project site to OB-5, the adoption of the new zoning text, review and approval of a Master Development Plan for the project site, and site plan approval for Phase 1 of the Master Development Plan and obtaining Steep Slope and Wetland Permits. Once the Master Development Plan is approved by the Town Board, individual site plans for various phases of the proposed action would have to be consistent with the approved master development plan and would be subject to approval by the Planning Board.

Westchester County, as the owner of a 60-acre portion of the project site, has entered into a lease agreement for the redevelopment of the County-owned site so as to activate a vacant and underutilized parcel of County property in a manner that will provide regional, town-wide and neighborhood public benefits. The uses on the project site are intended to compliment other uses on the Grasslands Campus, attract businesses, promote economic development and maximize job opportunities and tax revenue to be derived from the site. The project purpose, public need and benefits of the proposed action are discussed throughout this DEIS and analyzed in detail in Appendix M, North 60 Market and Financial Feasibility Study and DEIS Chapter 3K, Fiscal and Market Conditions.

1.2 Summary of Impacts and Mitigation Measures

The Table below outlines potential impacts from the proposed action and proposed mitigation measures.

Table 1-1 Summary of Impacts and Mitigation

Impact Category	Impact	Potential Mitigation Measures
Land Use, Zoning and Public Policy	The land use pattern on the project site would transform from mostly vacant land on the 60-acre parcel and five single-family homes on the 20 acre developer parcel to a master planned mixed-use bio-technology campus with complementary uses. The project site has not been designed to function as an isolated campus but rather to be open and integrated with the surrounding community and to complement the existing surrounding suburban community character. The Town does not currently have a single zoning district with use, area and bulk controls designed to regulate this type of development. The proposed action includes rezoning the entire project site to the OB-5 Office Business District and a text amendment to provide the required mechanisms to appropriately regulate the development. The OB-5 Master Plan District can only apply to parcels that are "at least 60 acres and bordering a state or county highway" and, therefore, such district has limited applicability. The proposed action is also consistent with the various local, regional, and state land use studies, plans and policies.	The northern portion of the project site will remain undeveloped resulting in a meaningful natural buffer between the future development and residential uses to the north. The architecture for the proposed action would capture the intrinsic natural character of the region and also embody the visionary and technological focus of the development.
Visual Resources and Community Character	The visual character of the proposed action would be different from the existing conditions. The proposed action would replace a mostly vacant property. The architectural design of the proposed action would capture the intrinsic natural character of the region and also embody the visionary and technological focus of the development. Building heights will vary across the project site to create an interesting blend of heights and engaging environment as if built over many years. Views to and from the project site would not be adversely impacted.	The proposed action includes an extensive landscape and hardscape plan as well as a carefully planned site lighting scheme. The primary facades are envisioned to be composed of materials that bridge between traditional and modern aesthetics sourced in a responsible way with the design conveying a strong technological identity. The northern portion of the project site will remain undeveloped and serve as a natural buffer between the project and the single-family residential homes to the north.
Geology and Soils	<u>Phase 1</u> ▪ 38.2 acres of disturbance ▪ 66,698 cu. yds cut exported from site <u>Master Plan</u> ▪ 57.47 acres of disturbance ▪ 473,059 cu. yds cut exported from site	An Erosion and Sediment Control Plan will be maintained throughout the construction period.

Topography and Slopes	Phase 1 ▪ 5.7 acres of steep slopes would be impacted (3.6 acres of steep slopes, 1.2 acres of very steep slopes, and 0.9 acres of excessively steep slopes). Master Plan ▪ 8.6 acres of steep slopes would be impacted (5.2 acres of steep slopes, 2.0 acres of very steep slopes, and 1.4 acres of excessively steep slopes).	▪ Construction on steep slopes has been avoided to the greatest extent practicable. ▪ An Erosion and Sediment Control (E&SC) Plan will be maintained throughout the construction period. ▪ Each construction phase will begin with the implementation of E&SC measures and end with removal of temporary E&SC measures. ▪ The use of retaining in select locations will limit the amount of grading necessary.
Vegetation and Wildlife	▪ 1,374 trees (measuring 10" DBH) will be removed from the project site: 993 during Phase I and 381 during the Master Development Plan. ▪ There are 94 specimen trees onsite: 20 in good condition and 74 in fair condition. Specimen trees account for 4% of the total inventoried tree population onsite. In Phase I, 44 specimen trees will be removed and following the Master Development Plan an additional 23 will be removed, totaling 67 specimen trees to be removed. Of the 1,374 trees to be removed to complete all phases of the project, 1,307 (or 95 percent) are non-specimen trees. ▪ Long-term impacts from habitat fragmentation are not expected to be significant.	▪ Preliminary calculations show quantities of 604 trees to be planted. ▪ The proposed action has been designed to maximize utilization of existing and more recently disturbed land, preserve forested areas and wildlife corridors. ▪ To the maximum extent practicable, the final landscape plans will be developed emphasizing xeriscaping and with minimal use of fertilizer, herbicides, fungicides, pesticides or other chemicals.
Wetlands, Waterbodies and Watercourses	The proposed action will cause direct impacts to the two onsite streams and associated wetlands.	The streams will be cleaned of debris and trash to enable their original character to be restored.
Stormwater Management	Stormwater peak runoff rates following development will not exceed those in the existing condition. As proposed, stormwater runoff rates following development would have no adverse impacts on downstream properties or stormwater conveying systems. Similarly, considering the nature of the existing site conditions and the level of stormwater treatment proposed in the post-development condition, it is predicted that this development will not represent a negative impact to stormwater quantity or degradation in the quality to any reservoir, stream, wetlands or watercourses. Even though the post-development condition contains more impervious area than existing conditions, the proposed stormwater management facilities mitigate the stormwater quality impacts as per the NYSDEC Rules and Regulations. The stormwater systems for the project are proposed for the qualitative and	A Stormwater Pollution Prevention Plan, which includes the applicable stormwater management practices for the development, has been prepared, and includes all the supporting documentation for the hydrologic analysis, watershed maps, system design, and water quality computations (see Appendix G of this DEIS). A detailed Erosion and Sediment Control Plan will mitigate the short-term impacts of the development during construction. The Erosion and Sediment Control Plan will include descriptive specifications concerning land grading, topsoiling, temporary vegetative cover, permanent vegetative cover, vegetative cover selection and mulching, and erosion checks. The stormwater management plan for the project site has also been designed in accordance with The Mount Pleasant Town

	quantitative management of stormwater runoff from the project site.	Code Chapter 183 – "Stormwater Management and Erosion and Sediment Control".
Utilities	<u>Master Development Plan Water Supply</u> Average daily domestic demand is 254,635 gallons per day (gpd; using the 20% reduction based on the use of water conservation fixtures)[1] Peak hour domestic demand is 385 gpm (using a peak hour factor of 3.3 based on the PCI report) Irrigation demand is assumed to be applied in 3 zones yielding 480 gpm Total Average Daily Demand is 865 gpm, rounded up to 900 gpm. The proposed action will generate an estimated 106,180 gpd sanitary sewage. Con Ed has indicated there is ample power supply available to support the electric and natural demands of the proposed action. Con Ed has also indicated that they can provide interruptible natural gas service to the North 60.	There is adequate capacity to expand either the Kensico Water District or Westchester County Water District #3 to accommodate the proposed action's domestic water demand. The project has been designed with features that are intended to promote energy efficiency, water conservation, and protection of natural resources. The water service area is proposed to be expanded to include limits of the project site, and all applicable regulations and procedures would be followed to accomplish this in order to supply water to the project site. There is adequate capacity within the Town of Mount Pleasant Sewer District to accommodate the proposed action. Connection to the Town of Mount Pleasant infrastructure is available at the project site's Old Saw Mill River Road frontage. The Town of Mount Pleasant owns the sewer infrastructure assets that are not on the project site. The Town of Mount Pleasant would own the sewer infrastructure on the project site and be responsible for the maintenance of the infrastructure. Agreements shall be required regarding maintenance and responsibility Wastewater generated from the project site is proposed to be minimized with the use of low flow fixtures and toilet facilities.
Traffic and Transportation	<u>Phase 1 Trip Generation</u> Weekday Peak AM Entry - 412 Exit - 217 Total – 629 Weekday Peak PM Entry - 272 Exit - 461 Total – 733	The opening of a connective roadway between NYS Route 9A and Hospital Road will significantly reduce traffic through the neighborhood Widening of Hospital Road to 4+ lanes Construction of a roundabout at the intersection of Bradhurst Avenue and Hospital Road with associated modifications

[1] Average Daily Demand is calculated based on the most current New York State Department of Environmental Conservation Design Standards for Intermediate Sized Wastewater Treatment Systems, March 5, 2014 Edition and Stantec Consulting Services Inc. Water Demand Calculations.

	Master Plan Trip Generation Weekday Peak AM Entry - 1328 Exit - 526 Total – 1854 Weekday Peak PM Entry - 574 Exit - 1530 Total – 2104 With planned mitigation measures, traffic to and from the project can be accommodated in a safe and efficient manner.	to the Sprain Brook Parkway northbound off-ramps Integration of the proposed action with current bus and shuttle services with Westchester Medical Center Provision of a new shuttle service to Metro North Stations. A monitoring program under the control of the Town's Planning Board is recommended to ensure that required roadway improvements are "in place" or under construction to support the proposed development
Community Facilities and Services	The proposed action is expected to introduce approximately 1,333 employees to the project site in Phase 1 and 6,895 employees at full development of the Master Development Plan. On-site population (comprised of workers, visitors, shoppers, hotel guests, etc.) could result in an increase in the demand for police, fire and emergency services.	The proposed action has been designed to include fire prevention and security measures, thereby minimizing and mitigating potential impacts on Town Services. Tax revenues generated by the proposed action will contribute to local police, fire, and emergency services, off-setting any additional increase in service costs.
Fiscal and Market Impacts	$9.2 million in estimated new real estate taxes annually to Westchester County, the Town of Mount Pleasant and the School Districts. Estimated $7 million annually in additional rent revenues to Westchester County. Approximately 1,000 new construction jobs. The proposed action would introduce approximately 1,133 employees to the project site in Phase 1 and 6,895 employees at full development of the Master Development Plan.	Given the nature of the proposed action, the generated property taxes, sales taxes and other fiscal benefits are expected to exceed any service costs by affected taxing jurisdictions based on the information gathered for this DEIS.
Historic, Archaeological and Cultural Resources	Two archeological sites (Saw Mill River Precontact Site and J. Van Tassel Historic Site) have been identified within the project site. Construction activities would occur at the project site impacting the above-mentioned archeological resources. With respect to cultural resources in the vicinity of the project site, the proposed action is not expected to have any significant adverse impacts.	The *Phase I Archeological Investigation* recommends avoidance of the archeological sites or a Phase II archeological investigation if avoidance is not feasible. Construction activities would incorporate any necessary mitigation measures that may be identified by the Phase II archeological investigation.
Hazardous Materials	Recognized environmental conditions on the Property include: 1. Six underground fuel oil tanks associated with the onsite residences are in-use on the property. Although five of the tanks were	Mitigation measures to be undertaken prior to construction include the following: 1. Prior to the issuance of the certificate of occupancy for the Phase 1 buildings, all drums of ethylene glycol will be

	tightness tested in 2010, the tanks current condition cannot be determined. 2. A 275-gallon aboveground fuel oil tank is located adjacent to the garage at 48A Saw Mill River Road. The tank appeared in good condition with no observed leaks or spills but it had no secondary containment. 3. Several 55-gallon drums of ethylene glycol were observed in two garages from the former Nilsson Nurseries. Once operational, the proposed bioscience and technology center will generate solid waste, some of which may be Regulated Medical Waste (RMW) and other specialty wastes. The exact nature of the waste production and the quantities will not be known until specific tenants are identified. All waste will be managed in accordance with applicable state and federal regulations. All future tenants of the project site will be required to comply with all applicable NYS regulations for the handling, storage, transport and disposal of RMW. RMW generated at these facilities will be stored on-site prior to transportation off-site by permitted vendors to regulated/permitted disposal facilities. Based on this information, no significant adverse impacts on human health are anticipated from the management of RMW.	removed from the two garages from the former Nilsson Nurseries. 2. Prior to the issuance of the certificate of occupancy for the Phase 1 buildings, the six underground fuel oil tanks connected to the six residences will be tightness tested by a qualified tank testing contractor, if the homes remain in use. If the homes are scheduled for demolition then the tanks would be removed in accordance with applicable regulations. Secondary containment will be provided for the 275-gallon above ground tank near the garage at 48A Saw Mill River Road. 3. A fill soil management plan will be developed with the Town and the WCDOH, for the three locations with elevated concentrations of semi-volatile compounds 4. Fill piles associated with the Westchester Medical Center construction can be reused on-site. Concrete, asphalt and organic material such as tree stumps will be removed from the project site if the material cannot be recycled for use on-site.
Noise	Mechanical equipment will be designed, constructed and located in a manner to comply with NYSDEC policy and the Town of Mount Pleasant Noise Ordinance, no significant adverse stationary source noise impacts are anticipated for both the Phase 1 and Master Plan Project. Trips generated by both the Phase 1 and Master Plan Project are expected to primarily travel on already heavily-trafficked roadways and receptor locations along Stephens Avenue would not see a substantial change in mobile source noise. Therefore, there would be no significant adverse noise impact due to mobile sources. Construction of the proposed action would be conducted in accordance with the Town of Mount Pleasant Noise Ordinance to minimize potential impact.	The selection of specific HVAC equipment has not yet been defined at this phase of the project. As needed, approaches to mitigating operational noise may include specifying low-noise equipment and/or introducing a rooftop screening wall and will be determined throughout the design process. The mechanical equipment will be designed, constructed and located in a manner so as not to result in a significant adverse noise impact per NYSDEC policy and to comply with the Town of Mount Pleasant Noise Ordinance. Specific construction noise BMPs include: Assuring that equipment is functioning properly and is equipped with mufflers and other noise-reducing features; Locating especially noisy equipment as far from sensitive receptors as possible;

		Using quieter construction equipment and methods, as feasible, such as smaller backhoes and excavators; Properly maintaining equipment to avoid louder operation associated with mechanical issues; Limiting the periods of time when construction may occur is a common approach to minimizing impact. Adhering to the time of day restrictions in the Town of Mount Pleasant Noise Ordinance. The noisiest construction activities would be timed so as not to interfere with nearby residential, institutional and recreational uses to the maximum extent practicable; and Maintaining strong communication and public outreach with adjacent neighbors. Providing information about the time and nature of construction activities to the community.
Air Quality	Construction activities associated with the Phase 1 and Master Plan Project could result in temporary increases of air quality pollutants. As the Phase 1 and Master Plan Project become operational, no adverse air quality impacts are expected.	During construction, emission controls for construction vehicle emissions will include, as appropriate, proper maintenance of all motor vehicles, machinery, and equipment associated with construction activities, such as, the maintenance of manufacturer's muffler equipment or other regulatory-required emissions control devices and adherence to the anti-idling laws. Appropriate methods of dust control would be determined by the surfaces affected (i.e., roadways or disturbed areas) and would include, as necessary, the application of water, the use of stone in construction roads, and vegetative cover.
Greenhouse Gas Emissions, Energy Conservation, Green Building and Sustainability	The project will meet all applicable NYS building codes including the NYS Energy Conservation Construction Code, which regulates the design and construction of energy-efficient building envelopes and the installation of energy-efficient mechanical, lighting and power. Specific preliminary measures to decrease the GHG emissions of the Project include: • A combination of LED and CFL lighting will be used to minimize electric usage. • High efficiency tankless water heaters may be installed to provide on-demand hot water to save on energy consumption.	The proposed action has been conceived as a model of environmental sustainability from the conception of a plan that responds to the existing natural features to buildings that are envisioned as models of energy efficiency. Sustainable Strategies include: • A mix of uses that can reduce the number of vehicle trips and miles traveled. • The development pattern has been designed to promote pedestrian use. • Street trees line all streets to provide shade.

	• Energy Star compliant appliances may be installed.
	• Insulation to reduce heat loss in the winter and heat gain in the summer.
	• The windows will be double glazed, insulating glass for winter heating and low emissivity for summer cooling.
	
	The specific design and emissions reduction measures through the implementation of the measures outlined above will be determined as Project design advances through the site plan approval process.
		• Buildings and streets have been sited to respond to the significant existing topography by:
		  ➢ Reducing the amount of required grading.
		  ➢ The majority of parking is podium parking beneath the buildings thereby reducing the amount of impervious surfaces that would otherwise be required.
		  ➢ Impact to existing trees and wetlands has been minimized.
		• New ponds and wetlands are created to address storm water management that includes native aquatic and terrestrial vegetation that will aid in managing run-off. This will also provide greater biodiversity for the project site.
		• Bio-swales and some pervious paving are envisioned to promote infiltration of rainwater into the subsoil.
		• Pervious paving and stone fines may be used in plazas to enable rainwater infiltration into the subsoil.
		• Disturbed woodland edges will be planted with native understory trees and shrubs to both increase biodiversity and beauty.
		• Most buildings have been oriented with short facades facing west and/or angled to minimize thermal heat gain in summer months and to reduce cooling loads.
		• Some buildings are envisioned to have green roofs to aid in storm water management and to reduce impervious surfaces.
		• Solar energy will be investigated as a possible energy source for some of the needs.
		• Conveniently located bus stops will be provided with access including via shuttle to the commuter rail station.
		• Interpretive walking trails will provide educational opportunities about the ecosystem and about our role in the environment.
		• The Children's Science and Education Center provides educational opportunities for the region.
		
		The specific energy saving measures will be further developed as Project design advances through the site plan approval

		process but, at a minimum, will include the measures identified above. The GHG emission due to the implementation of the Project is not expected to significantly impact regional GHG and therefore no mitigation measures are proposed.
Construction	Construction of the proposed action would likely result in several temporary environmental impacts. Impacts generally associated with construction consist of: noise from the operation of heavy equipment; fugitive dust and emissions from the operation of construction equipment; construction traffic relating to employee arrival/departure and material deliveries; and increased soil erosion from on-going earthwork operations. It is anticipated that construction of Phase 1 will take approximately 60 months to complete.	A sequencing plan, rock removal plan, Sediment and Erosion Control Plan and Stormwater Pollution Prevention Plan are anticipated to mitigate any significant impacts that could result from construction activities.

1.3 Summary of Alternatives to the Proposed Action

Six alternative plans to the proposed action were developed and analyzed. These alternative plans are detailed in Chapter 4, Alternatives and summarized below.

› **Alternative A (No Action Alternative)** – The No Action Alternative, which assumes no development under existing zoning, is required by SEQRA to be described in the DEIS. Under the No Action Alternative, the project site would remain in its current state, with no site improvements and no new site development. With this alternative, none of the adverse, or positive, impacts of the proposed development would occur. In this case, the project site would remain primarily undeveloped wooded land with a construction staging site and a house on the County-owned portion and a former nursery complex and five single-family homes on the developer-owned portion of the project site. The project site would not be developed with a research and development bio-tech and medical-office complex, public open space, roads, utilities or other improvements. No grading or alteration of topography, no loss of existing vegetation, and no impacts to wetlands would occur. No new traffic, effects on community services, or visual impacts would take place. However, while this alternative would eliminate any potential adverse impacts of the proposed action, it would not yield any beneficial effects expected to result from the construction of the development, such as increased tax revenue for the Town, County, and school districts; increased job opportunities; new public open spaces; restored wetlands; new retail amenities; new hotel; a new Children's Science and Education Center; etc.

› **Alternative B (Alternative Plan Under the Existing Zoning)** – With Alternative B the project site would be redeveloped as permitted under the requirements of the existing zoning districts. The 60-acre County-owned portion of the project site is located in the R-20 One-Family Residential District. The 20-acre western portion of the project site owned by the applicant is located in the OB-6 Office Building, Distribution, Limited Fabrication

District. This alternative assumes these zoning designations would remain and development would include 52 five-bedroom single-family homes on the County-owned portion of the project site and 292,000 square feet of office space, with parking for 872 vehicles, on the developer-owned portion of the project site.

› **Alternative C (Alternative Development Program)** – Under Alternative C, the development would include a new mixed-use community that incorporates approximately 3 million square feet of bio-tech/research and development related uses including medical offices, a children's science and education center, neighborhood retail, a hotel, and low impact residential uses that would cater to the scientific community and may include student housing, senior housing, and/or micro-unit and lily pad units (co-living housing) as part of a comprehensive Master Development Plan. Residential uses to be analyzed under this alternative include up to 660 units of low impact residential uses, of which 150-175 residential units would be constructed in Phase 1. Under Alternative C, although some uses would differ from the proposed action, access, building placement, and building footprints would remain the same.

› **Alternative D (Alternative Access) –** This alternative evaluates the impacts of opening the NYS Route 9A connection (Hospital Road to NYS Route 9A) to provide traffic currently cutting through the neighborhood a preferred alternate to complete their desired route. In addition, the opening of this roadway would divert a significant portion of the current left turn traffic from Hospital Road onto Bradhurst Avenue thereby reducing the volume of Bradhurst Avenue.

› **Alternative E (Alternative Phasing Program)** – Under this alternative, the phasing plan is evaluated to determine if modifications to the phasing plan would result in a reduction in adverse impacts.

› **Alternative F (Reduced Environmental Impact Alternative) –** This alternative examines the feasibility of modifying the proposed development to avoid any regulated wetland and wetland buffer areas, very excessively steep slopes, floodplains or other designated sensitive environmental areas on the project site.

1.4 List of Required Approvals and Permits

Chapter 2, Project Description, also lists the various reviews, approvals, and permits that are required to implement the proposed action. These are summarized in the following table:

Table 1-2 Project Approvals

Involved Agency	Approval/Review
Town of Mount Pleasant Town Board	› Adoption of OB-5 Zoning District (Zoning Ordinance Amendment) › Rezoning the project site to OB-5 District (Zoning Map Amendment) › Approval of Master Development Plan for the project site › Tree Removal/Planting/Maintenance/Replanting Permit
Town of Mount Pleasant Planning Board	› Site Plan Approval
Mount Pleasant Town Engineer	› Wetland Permit › Steep Slopes Permit
NYS Department of Environmental Conservation	› State Pollution Discharge Elimination System (SPDES) for Stormwater › Protection of Waters Permit › Section 401 Water Quality Certification
United States Army Corps of Engineers	› Individual Permit
NYS Department of Transportation	› Highway Work Permit
NYS SHPO	› Cultural resources review
Westchester County Planning Department	› GML 239-m referral (General Municipal Law advisory review) › Tree Removal Permit
Westchester County Department of Environmental Facilities	› Capacity for sewage flows › Water supply approval
Westchester County Department of Public Works/Transportation	› Street opening permit; GML 239-f building approval (frontage on County Road)
Westchester County Department of Health	› Sanitary and water supply approval › Subdivision plat review and signature

1.5 List of Involved and Interested Agencies

The following is a listing of the Involved and Interested Agencies for the proposed action. Involved Agencies under SEQRA are those agencies that have permit approval authority over some aspect of the proposed action.

› **Lead Agency:** Town of Mount Pleasant Planning Board

› **Involved Agencies:**

- Town of Mount Pleasant Town Board
- Town of Mount Pleasant Planning Board
- New York State Department of Environmental Conservation
- United States Army Corps of Engineers
- New York State Department of Transportation

- New York State SHPO
- Westchester County Planning Board
- Westchester County Department of Environmental Facilities
- Westchester County Department of Public Works / Transportation
- Westchester County Department of Health

› **Interested Agencies:**

- Town of Greenburgh Town Board
- US Fish and Wildlife
- Hawthorne Fire Company
- Grasslands Fire Department
- Town of Mount Pleasant Police Department
- Town of Mount Pleasant Conservation Advisory Council
- Mount Pleasant Central School District
- Pocantico Hills School District

2

Project Description

The proposed action is the development of a mixed-use community that incorporates approximately three million square feet of bio-tech/research and development related uses including medical offices, a children's science and education center, neighborhood retail, potential residential uses and a hotel as part of a comprehensive master plan. This action, identified herein as the "Proposed Action", will include a new street network that connects the site to the surrounding Grasslands Reservation, regional highway system, and community. Sustainable strategies and best practices are an integral part of the project and are incorporated into the master plan in every area.

The project site is located in the OB-6 Office Building, Distribution, Limited Fabrication District and R-20 One-Family Residential District. The Town of Mount Pleasant does not currently have a single zoning district with use, area and bulk controls designed to regulate this type of development. Therefore, the Proposed Action includes rezoning the entire project site to the OB-5 Office Business District and a text amendment to provide the required mechanisms to appropriately regulate the development.

The Proposed Action includes rezoning the project site to OB-5, the adoption of the new zoning text, review and approval of a Master Development Plan for the project site, and site

plan approval for Phase 1 of the Master Development Plan, Steep Slope and Wetland Permits. Once the Master Development Plan is approved by the Town Board, individual site plans for various phases of the Proposed Action would have to be consistent with the approved master development plan and would be subject to approval by the Planning Board.

2.1 Site Description

The project site is located in the central portion of Westchester County in the Town of Mount Pleasant, New York. The property is bordered on the north by West Stevens Avenue, on the northwest by Old Saw Mill River Road South, on the west by Nilsson Drive, on the south by Hospital Service Road and on the east by Sprain Brook Parkway (the "Project Site"). The Project Site has frontage on Hospital Service Road, Nilsson Drive, Old Saw Mill River Road, and Stevens Avenue. Access to the Project Site is gained to the south from Hospital Service Road, from the west via Nilsson Drive and from the north via Old Saw Mill River Road South. See Figure 2-1, Regional Location.

Westchester County owns approximately 60 acres of the Project Site ("County Parcel") which is located on the County's Grasslands Reservation. The 60 acre portion of the site is mostly vacant land, some of which is being used as construction staging by Westchester Medical Center. An asphalt parking lot is also present in the southern portion of the Project Site adjacent to Hospital Road while a two-family dwelling and asphalt drive is present in the northern portion of the Project Site. The "Applicant/Developer" Fareri Associates/North 80 LLC, owns the adjacent (western) 20-acre parcel of land ("Developer Parcel"), which contains five single-family residences, a small nursery, storage sheds, an in-ground pool, asphalt drives and parking areas and related improvements. The remainder of the Project Site consists of old field areas, shrubland areas, woodland areas, forested areas and wetlands and watercourses. See Figure 2-2, Site Location.

The following table lists the tax lots that comprise the Project Site. Tax lots are illustrated on Figure 2-3, Tax Map.

Table 2-1 Project Site Tax Lots

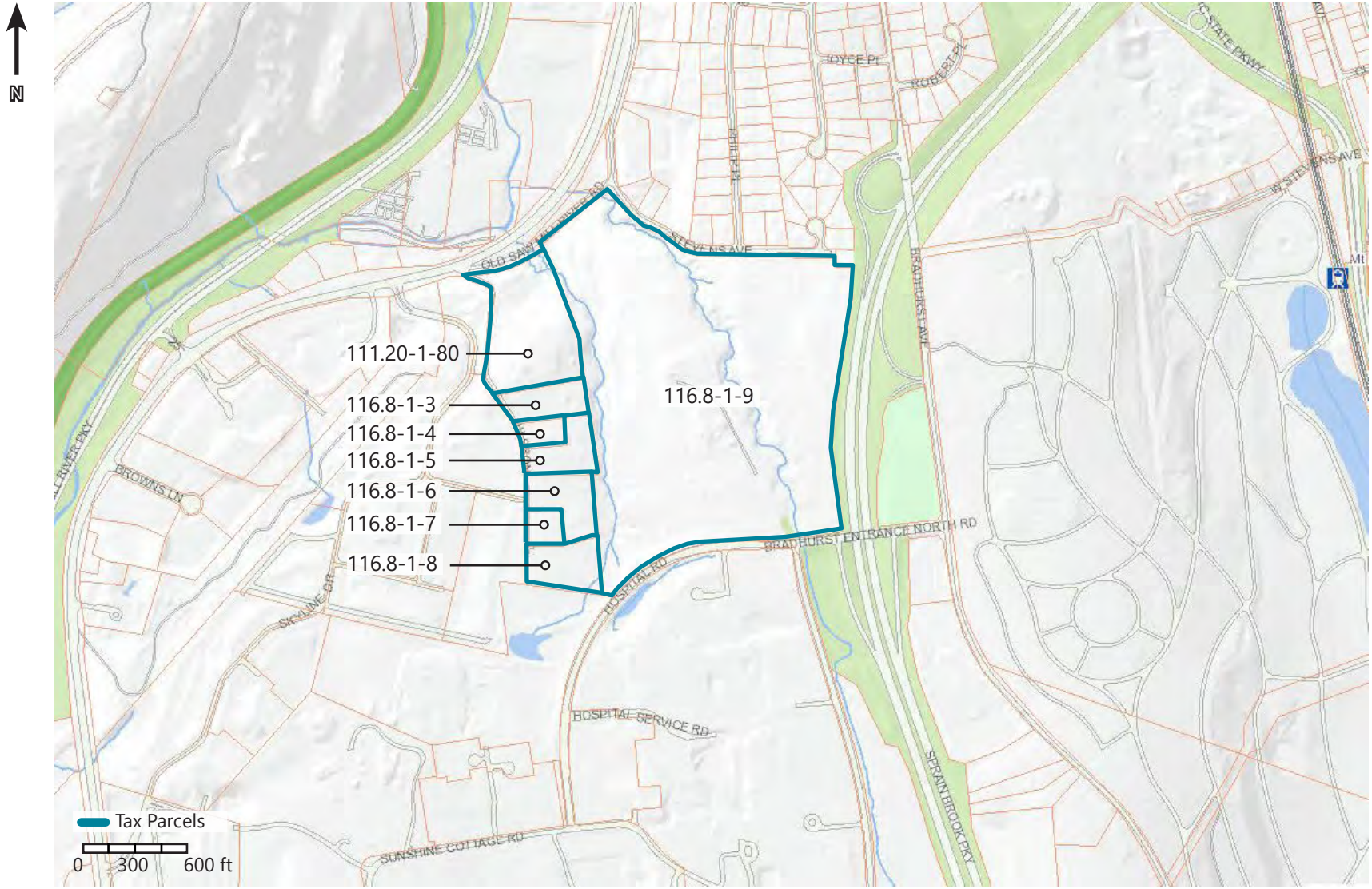
Section-Block-Lot	Street Address	Acreage
116.8-1-9	Hospital Road	59.7134
111.20-1-80	Saw Mill River Road	7.8048
116.8-1-3	48 Saw Mill River Road	2.1015
116.8-1-4	48 Saw Mill River Road	0.9585
116.8-1-5	Saw Mill River Road	2.2107
116.8-1-6	42 Saw Mill River Road	2.5637
116.8-1-7	44 Saw Mill River Road	1.0000
116.8-1-8	46 Saw Mill River Road	2.5646
TOTAL ACREAGE		**78.9172**

North 60 | Mount Pleasant, NY

Regional Location
Source: Westchester County GIS (2016)

North 60 | Mount Pleasant, NY

Site Location
Source: Westchester County GIS (2016)



North 60 | Mount Pleasant, NY

Tax Map

Source: Westchester County GIS (2016), Municipal Tax Parcel Viewer

The ±60-acre portion of the Project Site that is owned by Westchester County is being leased to the Developer for the purposes of redevelopment in accordance with the lease agreement (the "Lease"). The Lease Agreement can be found in Appendix L and a Title Report for the property can be found in Appendix N. For the purposes of this DEIS, the pertinent easements, restrictions and/or other conditions that would affect the future development and use of the Project Site include the following:

- Permitted uses under the lease include: biotechnology, medical technology, research and development, medical office, professional and business office, a hotel, assisted-living facilities, senior living community facilities, retail, restaurant, personal service uses, indoor recreation facilities, child day care centers and related uses, including a non-profit Children's Science and Education Center and continuing education programs.
- The Lease terms call for the Developer to pay initial rent to the County of $125,000 per year, commencing upon the execution of the lease and thereafter, the Developer will pay the County six percent (6 percent) of the gross rental income from the permitted uses and three percent (3 percent) of gross rental income from a hotel or assisted-living facility.
- All subleases (except the Children's Science and Education Center) are subject to real property taxes and/or payment-in-lieu-of-taxes, which are to be paid by the Developer.
- The lease envisions a multi-year development, phased-in as market conditions present themselves and gives the Developer the ability to ultimately develop approximately three million square feet of mixed-use development, with over two million square feet of the development earmarked for bio-technology.
- As provided in the Lease, all entitlements, site plan approvals and required zoning will be within the purview of The Town of Mount Pleasant and the Mount Pleasant Planning Board, although any lease changes will need the approval of the Westchester County Commissioner of Public Works and Transportation. Under Section 4.2.1 (f) on the lease, "the further approval of the Board of Legislators to amend the Lease Agreement……. will not be required."
- The lease is subject to any existing easement or utility agreements to which the County is a party at Grasslands Reservation.
- The Westchester Medical Center has both a Right of First Refusal, as well as a non-compete guarantee for any uses the Developer should propose.
- The Developer is responsible for maintaining the premises and project improvements in good, sound and safe condition and repair and unsightly appearance. Necessary repairs, maintenance and upkeep will be performed by the Developer.
- Any portion of the Project Site to remain vacant will be maintained in good, sound and safe condition and appearance by the Developer.
- The Developer is required to encourage local participation during development of the Proposed Action.
- The Developer is responsible for repair or restoration in the event that any part of the Project Site is damaged or destroyed.
- The Developer's controlling interest in the Proposed Action is secured through at least the completion of Phase 1 of the Proposed Action.

The 60-acre County-owned portion of the Project Site is located in the R-20 One-Family Residential District. The 20-acre western portion of the Project Site owned by the Developer is located in the OB-6 Office Building, Distribution, Limited Fabrication District. Currently, the Town of Mount Pleasant Zoning Code does not have a single zoning district with use, area and bulk controls designed to regulate this type of development. As such, the proposed OB-5 Master Plan ("MP") District adds another subsection to the existing OB-5 zoning district to allow for uses focused on bio-technology and medical purposes, neighborhood retail and other customary uses, a Children's Science and Education Center, restaurants, educational facilities, a hotel, and residential uses, among others. Therefore, the Proposed Action includes rezoning the entire Project Site to the OB-5 Office Business District and a text amendment to provide the required mechanisms to appropriately regulate the development. The purpose of the OB-5 MP District is to allow one set of zoning regulations to govern the entire Proposed Action and to guide the review and approval of the Master Development Plan.

2.2 Description of Surrounding Use and Facilities

Grasslands Campus

The 60-acre eastern and central most portion of the 80-acre Project Site is part of the Grasslands Campus ("Grasslands"). Westchester County purchased the approximately 512-acre Grasslands Reservation in 1915 to provide an isolated setting for a poor house, a penitentiary and a public hospital. Since then, the Reservation has expanded from a campus of low-rise, red-brick buildings to a hub of County government. Several major County departments base at least some of their operations there. At present, the campus has 4.1 million square feet of floor area and a daytime population of approximately 5,500. In addition, a new 280,000 square foot Westchester Medical Center Ambulatory Care Pavilion opened in phases in mid-2019 adding an additional 180 new full-time employees. The varied uses on the Grasslands Campus, in addition to the Medical Center, include the New York Medical College, the County's lab and research facilities, a fire and emergency training center, public works operation and a correctional facility.

Westchester Medical Center, which serves more than 3.5 million people in the seven-county Hudson Valley region, and residents of New York City and portion of Fairfield county, Connecticut, is located on approximately 130 acres adjacent to the Project Site. Each year, more than 120,000 patients receive care at Westchester Medical Center in every clinical specialty throughout the main hospital, the Maria Fareri Children's Hospital and the Behavioral Health Center. With more than 900 attending physicians and 3,300 healthcare professionals, Westchester Medical Center delivers industry-leading advanced medical care in specialties and services ranging from, but not limited to: cardiovascular diagnostics, cardiothoracic surgery, vascular surgery, vein treatment, neurosciences, neurosurgery, neuro-psychology, neurovascular intervention, heart, liver and kidney transplants, advanced obstetrics and gynecology, and robotic surgery. The Westchester Medical Center is a Level I Trauma & Burn Center; and is a nationally recognized bariatric surgery center. Westchester Medical Center is also home to one of the most technologically and clinically proficient advanced imaging centers in the region.

The 60-acre eastern and central most portion of the 80-acre Project Site has never been developed. The prime location of the North 60 site, and its proximity to the Medical Center, led the County to conclude that the Project Site has the potential for generating significant economic and other benefits for the County and its residents.

Current Uses of Adjoining Properties

The properties adjoining the Project Site are residential, commercial and County owned. Adjacent property uses include the following:

- **North:** The Project Site is bordered to the north by West Stevens Avenue and a single-family residential neighborhood, Old Saw Mill River Road and two restaurants.
- **South:** The Project Site is bordered to the south by the Westchester Medical Center.
- **West:** The Project Site is bordered to the west by professional office buildings and warehouse space.
- **East**: The Project Site is bordered to the east by the Sprain Brook Parkway.

Regional and Local Roadway Network

At present, access to the Project Site is gained to the south from Hospital Service Road, from the west via Nilsson Drive and from the north via Old Saw Mill River Road South. The Project Site is directly served by Hospital Road and Woods Road, which provide access to Grasslands Road to the south and Bradhurst Avenue to the east. The Project Site has excellent access to the Sprain Brook Parkway, which intersects with I-287 approximately 2.5 miles south of the Project Site, allowing convenient regional access to the Project Site.

Access to Phase 1 will be provided via two driveway connections to Hospital Road. As part of the Phase 1 development, a connection between Hospital Road and NYS Route 9A is proposed. Access to the full build-out (Master Development Plan) development will be provided via two driveway connections to the NYS Route 9A Connector Road and the two driveways to Hospital Road.

A detailed summary of the local and regional roadway network and a summary of the Traffic Impact Study is included in this DEIS in Chapter 3I, Traffic and Transportation. The full Traffic Impact Study is included in this DEIS as Appendix H.

2.3 Detailed Description of the Proposed Action

The Developer currently has a 99-year lease with the County of Westchester (the “Lease”) to develop approximately 3 million square feet of bio-tech/research and related uses including medical offices, a children's science and education center, neighborhood retail and a hotel as part of an overall master development plan — the Master Development Plan. The Lease involves approximately 60 acres of land on the County's Grasslands Reservation and is currently zoned as R-20 and is largely undeveloped land. There is a portion of the 60 acres that is being used as a construction staging area.

In addition, the Developer owns the abutting 20 acres of land that will be included in the Master Development Plan and is currently zoned as OB-6 Office Building, Distribution, Limited Fabrication District. Together, both the leased 60 acres and the abutting 20 acres will be developed into the project commonly referred to as The Proposed Action. Currently, the 20 acres is occupied by 5 homes, some asphalt driveways, an inground pool, a small nursery and other accessory structures typical of single-family homes. Existing on-site development for each lot is shown in the following table.

Table 2-2 Existing On-Site Development

Section-Block-Lot	Street Address	Acreage	Current Development
116.8-1-9	Hospital Road	59.7134	County property, mostly undeveloped. Two-story residence with basement, constructed 1960s with detached garage.
111.20-1-80	Saw Mill River Rd	7.8048	Undeveloped wooded property at northwestern portion of Project Site.
116.8-1-3	48 Saw Mill River Rd	2.1015	One-story residence (with basement). ±1,700 SF, built 1958.
116.8-1-4	48A Saw Mill River Rd	0.9585	One-story residence (with basement) and detached two-bay garage, ±1,500 SF, built 1930.
116.8-1-5	Saw Mill River Rd	2.2107	Former Nilsson Nurseries complex. Greenhouses, garages, office and potting shed. Built 1960s.
116.8-1-6	42 Saw Mill River Rd	2.5637	Two-story residence with attached two-bay garage, ±1,500 SF, built 1930.
116.8-1-7	44 Saw Mill River Rd	1.0000	One-story residence with basement and attached two-bay garage, ±1,500 SF, built 1969.
116.8-1-8	46 Saw Mill River Rd	2.5646	One-story residence with basement and attached two-bay garage, ±2,400 SF, built 1968.
TOTAL ACREAGE		**78.9172**	

Zoning

Currently, the Town of Mount Pleasant Zoning Code does not have a single zoning district that regulates the types of uses proposed for The North 60. As such, the proposed OB-5 Master Plan ("MP") District adds another subsection to the existing OB-5 zoning district to allow for uses focused on bio-technology and medical purposes, neighborhood retail and other customary uses, a children's science and education center, restaurants, educational facilities, a hotel, and residential uses, among others.

The purpose of the OB-5 MP zone is to allow for the flexibility to provide a vibrant, connected environment that encourages smart growth, healthy communities, innovation, while supporting and promoting diverse job creation in emerging fields including but not limited to bio-tech, medical research, education, robotics and supporting ancillary services and uses. This zone allows for the incorporation of technology labs, medical offices, educational facilities and activities, indoor and outdoor arts and cultural spaces for education at all levels, retail, restaurants, among other uses, to create a walkable mixed-used community. Permitted principal uses within the OB-5 MP zone include: any principal use permitted in a

residence district; office building uses; laboratories devoted exclusively to research, design and experimentation; the production, processing and assembly of small, light electronic parts or precision instruments, under the supervision of scientific or engineering personnel, provided that no power equipment exceeding 5 horsepower shall be required for the production or processing thereof; on parcels of 15 acres or more, establishments for the printing, publishing and distribution of newspapers, tabloids and other periodicals in addition offices, community rooms, paper storage, garages, and other accessory spaces and uses required by the above principal function; on parcels of 15 acres or more, developments planned and designed to function as an integrated group for commercial, industrial, office, recreational and warehousing uses; child day-care centers; independent senior housing; low impact housing; and multi-family residential.

The purpose of the OB-5 MP District is to allow one set of zoning regulations to govern the entire North 60 Project and to guide the review and approval of the Master Development Plan. The OB-5 MP District can only apply to parcels that are "at least 60 acres and bordering a state or county highway" and, therefore, such district has limited applicability. As proposed, the zoning amendment would apply to both the County owned 60-acre property and the 20-acres currently owned by the Developer.

The Zoning Text Amendments will allow for a more appropriate long term planning process for a large parcel of property. By requiring a detailed review and approval process of an integrated master plan for the entire Project Site in the beginning, the OB-5 MP amendments provide the Town with the appropriate use, area, and bulk design controls for a large long-term project. See Appendix K for the Proposed Zoning Text Amendment.

The following table provides a summary of the Project compliance with proposed area and bulk controls:

Table 2-3 Compliance with Proposed Area and Bulk Controls

	Required		Provided
	OB-5 Master Plan (MP)	**60% variance (§ 218-72 B.)**	
Minimum lot size (acres)	60 acres	24 acres	59.7 acres
Minimum yard dimensions (in feet)	Same as C-NR. No front or side yard setback. Rear is 30.	Rear is 12	Rear = 979.5′ Front = 10′ Side = 63.5′
Minimum Floor area per dwelling unit (square feet)	1. Same as R-40 (1,000 for one floor or 1,200 total for two floors) 2. For Independent Senior Living units, studios shall be 420, for one bedroom shall be 600 and for two bedroom shall be 800.	400 for one floor or 800 total for two floors) 2. For Independent Senior Living units, there shall be a maximum of a 10% variation.	N/A
Maximum Height of buildings	3 stories or 65 feet[1]	4.8 stories or 104 feet	<104 feet
Maximum building coverage (percent of lot area)	20	32	5.8

Minimum Usable Open Space on Lot for Each Dwelling Unit (square feet)	1,200	720	N/A
Minimum number of off-street parking spaces	Same as OB-4. A Parking Management Plan may also be submitted in conjunction with its Master Plan for approval by the Planning Board	1,470	1,791 spaces

[1] *Except that as per § 218-72(C), the maximum height of a hotel on a parcel in excess of 12 acres shall be 90 feet with 400 feet of frontage on a state highway and under § 218-72(E)(1)(c), the maximum heights of buildings on parcels greater than 50 acres may be 4 stories or 80 feet.*

§ 218-72 B. - In the course of site plan review, as required by this chapter, the Planning Board shall have the power to vary the requirements of the chapter as to height limitations, yard setbacks. minimum interior yard dimensions and floor area, building coverage and required parking and other matters listed in the Schedule of Regulations, provided that the Planning Board shall determine that such variations are in the public interest and necessary in order to foster high-quality development and redevelopment, are in compliance with the general purpose and intent of this chapter and will ensure compatibility with uses on adjoining properties. In no case shall the variation of any requirement be greater than 60% of said requirement. Such variations shall apply only to the particular site plan and proposals thereon which are under review.

Master Development Site Plan

The vision for this development is to create a nationally recognized medical and research science center, organized around a walkable main street that will be a central gathering place, facilitate interaction and be a model for "smart growth". Much more than a traditional office campus, the plan creates a place to work, shop, learn, discover, and play, and creates a unique "sense of place" that is essential in the competitive marketplace. Regional attractions include the previously described Children's Science and Education Center. The Proposed Action will also provide much needed amenities – including shops, restaurants and cafes—to the existing campus, which includes the Westchester Medical Center and the New York Medical College. See Figure 2-4, Illustrative Concept Plan.

Program

The Proposed Action is the development of a mixed-use community that incorporates approximately three million square feet of bio-tech/research and development related uses including medical offices, a children's science and education center, neighborhood retail, and a hotel as part of a comprehensive master plan. The total building area to be allocated to these individual uses is shown in the table below and illustrated on Figure 2-5, Concept Site Plan Program.

North 60 | Mount Pleasant, NY

Illustrative Concept Site Plan
Source: Torti, Gallas + Partners

Neighborhood Shopping		214,000 SF
Medical Office		400,000 SF
Biotech/ Research		2,144,000 SF
Hotel		100,000 SF
Living Science Center		142,000 SF
Total Program		3,000,000 SF

North 60 | Mount Pleasant, NY

Concept Site Plan Program

Source: Torti, Gallas + Partners

Table 2-4 Program

Program	Phase 1	Master Development Plan*
Medical Office	100,000 SF	400,000 SF
Bio-Tech/Research & Development	220,000 SF	2,144,000 SF
Neighborhood Shopping	80,000 SF	214,000 SF
Hotel	100,000 SF	100,000 SF
Children's Science & Education Center	Not in Phase 1	142,000 SF
TOTAL	**500,000 SF**	**3,000,000 SF**

Note: *The Master Development Plan represents full build-out including Phase 1.

Phase 1 (see Figure 2-6, Concept Site Plan Program - Phase 1) is proposed to have 500,000 s.f. of development consisting of a 120 room hotel (100,000 s. f.), 100,000 s.f. of medical office, 220,000 s.f. of bio-tech/research and 80,000 s.f. of retail space (perhaps a grocery store, health and wellness center, pharmacy with drive-through and other similar types of retail). Access to Phase 1 will be provided via two driveway connections to Hospital Road. As part of the Phase 1 development, a connection between Hospital Road and NYS Route 9A is proposed. It is anticipated that Phase 1 will be completed and occupied by 2024.

The Master Development Plan (Phase 2) (Figure 2-5) will include a total of 3,000,000 s.f. consisting of a 120 room hotel (100,000 s. f.), 400,000 s.f. of medical office, 2,144,000 s.f. of bio-tech/research, a 142,000 s.f. children's science and education center and 214,000 s.f. of retail space . Access to the Full Build-Out (Phase 2) development will be provided via two driveway connections to the NYS Route 9A connection and the two driveways to Hospital Road. It is anticipated that Phase 2 will be completed and fully occupied by 2039. While not currently proposed as part of the Phase 1 and Phase 2 Development Plan, a potential residential alternative development plan is discussed in the Chapter 4, Alternatives (Alternative C).

Neighborhood Shopping		80,000 SF
Medical Office		100,000 SF
Biotech/ Research		220,000 SF
Hotel		100,000 SF
Total Program		500,000 SF

North 60 | Mount Pleasant, NY

Concept Site Plan Program - Phase 1
Source: Torti, Gallas + Partners

Table 2-5 Parking Master Plan

Use	Parking Index[1]	Area of Use (SF)	Required Parking	Parking Provided[2]
Medical Office	4.0	400,000	1,600	
Biotech / Research and Development	2.5	2,144,000	5,360	8,011[3]
Neighborhood Shopping	5.0	214,000	1,070	
Hotel	1.0	120 (Rooms)	120	
Children's Science & Education Center	2.5	142,000	355	581[4]
		Total	**8,505**	**8,592**
			At Grade Parking	**434**
			Parking Structure Parking	**8,158**

[1.] Parking Index provided by Maser Consulting

[2.] Proposed Parking Provided within the Parking Structure based on information provided by Torti Gallas & Partners. Final layout of parking within Parking Structures to be provided in the future.

[3.] Biotech/Research & Development, Medical Office, and Neighborhood Shopping will utilize shared Parking.

[4.] Children's Science & Education Center & Hotel will utilize shared parking.

Off-street parking requirements will be in accordance with Town of Mount Pleasant Local Law NO. 2019, A local law to amend Chapter 218 "Zoning", Article IV "Special District Regulations" § 218-72.1 OB-5 Master Plan (MP) District. Section F (2), the parking Requirements for any bio-tech mixed use development master plan shall be the same as set forth for the OB-4 district. An applicant may also submit a Parking Management Plan in conjunction with its master plan for approval by the Planning Board.

Phase 1

As shown on Figure 2-7, Layout Plan – Phase 1, Phase 1 will include development primarily at the southeastern and southcentral portions of the Project Site along with certain infrastructure and parking areas as detailed below in Phase 1 Phasing Plan. Overall, the program for Phase 1 as detailed above will include:

- 4-story medical office over retail
- 2-story health and wellness center/grocery with 2 levels of parking below
- 3-story biotechnology
- 5-story office over retail (pharmacy) with 3 levels of parking below
- 6-story hotel with 1.5 level of parking below

Refer to DEIS Section 3I – Traffic and Transportation for further details on parking.

Table 2-6 Parking Phase 1

Use	Parking Index[1]	Area of Use (SF)	Required Parking	Parking Provided[2]
Medical Office	4.0	100,000	400	
Biotech / Research and Development	2.5	220,000	550	1,437[3]
Neighborhood Shopping	5.0	80,000	400	
Hotel	1.0	120 (Rooms)	120	354
		Total	**1,470**	**1,791**
			At Grade Parking	**905**
			Parking Structure Parking	**886**

[1.] Parking Index provided by Maser Consulting

[2.] Proposed Parking Provided within the Parking Structure based on information provided by Torti Gallas & Partners. Final layout of parking within Parking Structures to be provided in the future.

[3.] Biotech/Research & Development, Medical Office, and Neighborhood Shopping will utilize shared Parking.

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Layout Plan - Phase 1

Source: Bibbo Associates, LLP

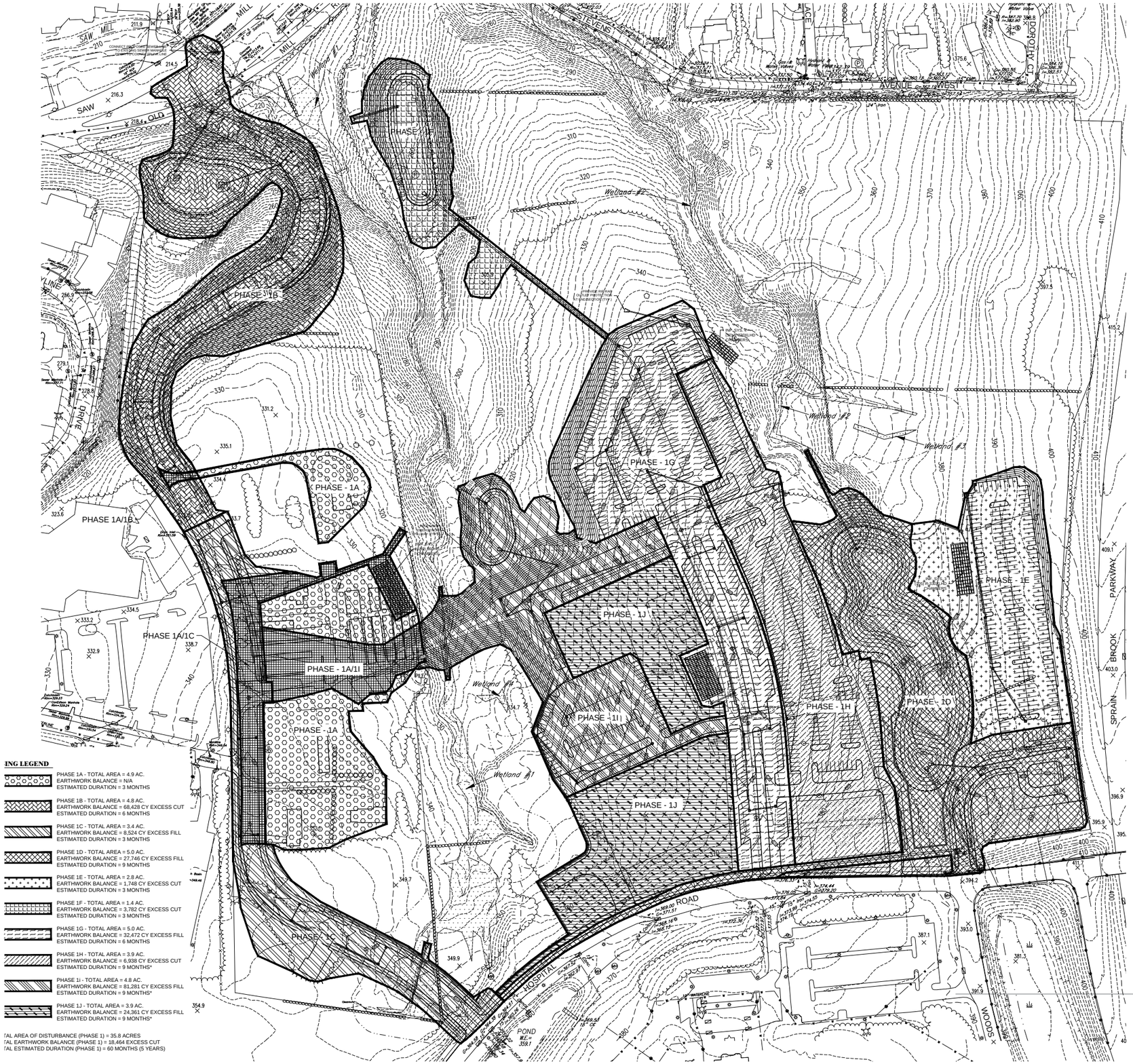
Phase 1 Anticipated Construction Sequencing (See Figure 2-8, Phasing Plan – Phase 1)

Phase 1A

1. Install all erosion and sediment control measures for Phase 1A as shown on the Erosion and Sediment Control Plans. Note: initial access for equipment mobilization for Phase 1A will be from the existing driveway to Saw Mill River Road at the northeast corner of the Project Site.
2. Begin demolition/removal operations of one existing dwelling, parts of the abandoned nursery and ancillary site features within the limits of Phase 1A. All excess material and construction debris generated by removal operations will be removed from the Project Site and properly disposed of in accordance with all local, State and federal guidelines.
3. Establish contactor staging area for construction trailers, equipment mobilization and stockpiles for future West Street excavation.
4. All areas within Phase 1A which are not to be utilized for staffing or stockpile area will be immediately stabilized with seed and mulch.

Phase 1B

1. Install all erosion and sediment control measures for Phase 1B in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1B work area. All stumps generated during clearing operations will be removed from site and disposed of. There will be no onsite burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be transported via the existing driveway to the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for West Street and stormwater basin (SWP-1). Beginning at Old Saw Mill River Road and construction retaining walls. All excess material resulting from West Street earthwork operations shall be seeded and stabilized in accordance with the temporary seeding specifications. Note: Stabilized construction entrances from Old Saw Mill River Road and existing driveway shall be utilized for construction vehicle access during this phase. Connection to Saw Mill River Road (Route 9A) will not be utilized until such time that all necessary permanent traffic control measures have been installed.
5. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1B.
6. Install Item-4 sub-base for proposed road, construct sidewalks, and asphalt pavement to binder course within limits of Phase 1B.
7. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with seeding specifications.
8. Remove any accumulated sediment from stormwater basin (SWP-1) (to be utilized as temporary sediment basin during construction), install permanent basin plantings and make any modifications necessary to basin outlet structure for conversion from temporary sediment basin to permanent stormwater management practice.



ING LEGEND

- PHASE 1A - TOTAL AREA = 4.9 AC.
  EARTHWORK BALANCE = N/A
  ESTIMATED DURATION = 3 MONTHS
- PHASE 1B - TOTAL AREA = 4.8 AC.
  EARTHWORK BALANCE = 68,428 CY EXCESS CUT
  ESTIMATED DURATION = 6 MONTHS
- PHASE 1C - TOTAL AREA = 3.4 AC.
  EARTHWORK BALANCE = 8,524 CY EXCESS FILL
  ESTIMATED DURATION = 3 MONTHS
- PHASE 1D - TOTAL AREA = 5.0 AC.
  EARTHWORK BALANCE = 27,746 CY EXCESS FILL
  ESTIMATED DURATION = 9 MONTHS
- PHASE 1E - TOTAL AREA = 2.8 AC.
  EARTHWORK BALANCE = 1,748 CY EXCESS CUT
  ESTIMATED DURATION = 3 MONTHS
- PHASE 1F - TOTAL AREA = 1.4 AC.
  EARTHWORK BALANCE = 3,782 CY EXCESS CUT
  ESTIMATED DURATION = 3 MONTHS
- PHASE 1G - TOTAL AREA = 5.0 AC.
  EARTHWORK BALANCE = 32,472 CY EXCESS FILL
  ESTIMATED DURATION = 6 MONTHS
- PHASE 1H - TOTAL AREA = 3.9 AC.
  EARTHWORK BALANCE = 6,938 CY EXCESS CUT
  ESTIMATED DURATION = 9 MONTHS*
- PHASE 1I - TOTAL AREA = 4.8 AC.
  EARTHWORK BALANCE = 81,281 CY EXCESS FILL
  ESTIMATED DURATION = 9 MONTHS*
- PHASE 1J - TOTAL AREA = 3.9 AC.
  EARTHWORK BALANCE = 24,361 CY EXCESS FILL
  ESTIMATED DURATION = 9 MONTHS*

TAL AREA OF DISTURBANCE (PHASE 1) = 35.8 ACRES
TAL EARTHWORK BALANCE (PHASE 1) = 18,464 EXCESS CUT
TAL ESTIMATED DURATION (PHASE 1) = 60 MONTHS (5 YEARS)

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Phasing Plan - Phase 1

Source: Bibbo Associates, LLP

9. Install required traffic control measures at Old Saw Mill River Road and Saw Mill River Road (Route 9A) in accordance with NYSDOT and Town Requirements.
10. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed and all drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1C

1. Install all erosion and sediment control measure for Phase 1C in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1C work area. All stumps generated during clearing operations will be removed from site and disposed of. There will be no onsite burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for the remainder of West Street within the limits of Phase 1C. All excess material resulting from Phase 1C earthwork operations will be stockpiled in the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
5. Install proposed drainage structures, associated inlet protection, connection piping, subsurface utilities and curbs within limits of Phase 1C.
6. Install subsurface infiltration system #1. Infiltration system will remain offline until final stabilization has been achieved.
7. Install Item-4 subbase for proposed road, construct sidewalks and asphalt pavement to binder course for remainder of Wet Street within limits of Phase 1C.
8. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
9. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed, and all drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1D

1. Install all erosion and sediment control measures for Phase 1D in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1D work area. All stumps generated during clearing operations will be removed from site and disposed of. There will be no onsite burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil shall be stockpiled in the locations shown on the Erosion and Sediment Control Plans within the limits of Phase 1D. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for Hotel Drive, Stormwater Basin (SWP-4) and construct retaining walls. All excess material resulting from Phase 1D earthwork operations will be

stockpiled within the limits of Phase 1D and any stockpile material which remains unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.

5. Begin construction of hotel building.
6. Install proposed subsurface water and sewer mains from West Street to end of Hotel Drive.
7. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1D.
8. Install Item-4 sub-base for Hotel Drive, construct sidewalks, and asphalt pavement to binder course.
9. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with seeding specifications.
10. Remove any accumulated sediment from stormwater basin (SWP-4) (to be utilized as temporary sediment basin during construction), install permanent basin plantings and make any modifications necessary to basin outlet structure for conversion from temporary sediment basin to permanent stormwater management practice.
11. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed, and all drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1E

1. Install all erosion and sediment control measure for Phase 1E in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1E work area. All stumps generated during clearing operations will be removed from site and disposed of. There will be no onsite burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the locations shown on the Erosion and Sediment Control Plans within the limits of Phase 1E. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for the hotel parking area. All excess material resulting from Phase 1E earthwork operations will be stockpiled in the stockpile/staging area established during Phase 1A. Any stockpiled material which remains unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
5. Install proposed drainage structures, associated inlet protection, connection piping, subsurface utilities and curbs within limits of Phase 1E.
6. Install subsurface infiltration system #3. Infiltration system will remain offline until final stabilization has been achieved.
7. Install Item-4 subbase for hotel parking area, construct sidewalks and asphalt pavement for parking area and top course of Hotel Drive.
8. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.

9. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of and infiltration system can be placed online.

Phase 1F

1. Install all erosion and sediment control measure for Phase 1F in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1F work area. All stumps generated during clearing operations will be removed from site and disposed of. There will be no onsite burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the locations shown on the Erosion and Sediment Control Plans within the limits of Phase 1F. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for infiltration basin (SWP-3). All excess material resulting from Phase 1F earthwork operations will be stockpiled in location shown on the Phase 1 Phasing Plan within the limits of Phase 1F. Any stockpiled material which remains unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
5. Install proposed drainage structures, associated inlet protection and connection piping within Phase 1F.
6. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
7. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1G

1. Install all erosion and sediment control measure for Phase 1G in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1G work area. All stumps generated during clearing operations will be removed from site and disposed of. There will be no onsite burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the locations shown on the Erosion and Sediment Control Plans within the limits of Phase 1G. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for Main Street and North Street Parking Lot. Excess material stockpiled from previous phases in staging areas during Phase 1A will be utilized for fill in North Parking Lot. Any stockpiled material which remains unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
5. Install proposed drainage structures, associated inlet protection, connection piping, subsurface utilities and curbs within limits of Phase 1G.
6. Install subsurface infiltration system #2. Infiltration system will remain offline until final stabilization has been achieved.

7. Install Item-4 subbase for Main Street and North Parking Lot, construct sidewalks and asphalt pavement to binder course.
8. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
9. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1H

1. Install all erosion and sediment control measure for Phase 1H in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1H work area. All stumps generated during clearing operations will be removed from site and disposed of. There will be no onsite burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for Central Parking Lot. All excess material resulting from Phase 1H earthwork operations will be stockpiled in the stockpile/staging area established during Phase 1A. Any stockpiled material which remains unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
5. Begin construction of Pharmacy Building.
6. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1H.
7. Install Item-4 subbase for Central Parking Lot, construct sidewalks and asphalt pavement to binder course.
8. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
9. Once final stabilization has been achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1I

1. Install all erosion and sediment control measure for Phase 1I in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1I work area. All stumps generated during clearing operations will be removed from site and disposed of. There will be no onsite burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for Cross Street and West Parking Lot.

5. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1I.
6. Install Item-4 subbase for Cross Street and West Parking Lot, construct sidewalks and install asphalt pavement to binder course.
7. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
8. Once final stabilization has been achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1J

1. Install all erosion and sediment control measure for Phase 1J in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1J work area. All stumps generated during clearing operations will be removed from site and disposed of. There will be no onsite burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin construction of Biotech ang Grocery Buildings.
5. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1J.
6. Install Item-4 subbase for parking areas, construct sidewalks and install asphalt pavement to binder course.
7. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
8. Once final stabilization has been achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Concept Plan

The Concept Plan proposes a distinct neighborhood that is defined by the Project Site's natural features. One can imagine working in one's office and breaking for lunch or visiting the Children's Science and Education Center and crossing to Main Street, where a pleasant walk offers a selection of restaurants, and then settling into outdoor café seating. Unlike office parks that are dominated by large surface parking lots, the design has been carefully crafted to create a vibrant pedestrian character with walkable streets characterized by tree-lined sidewalks, building front doors, an interconnected open space system, and strong identity that sets itself apart as a center for innovation and as a destination that can serve the needs of Grasslands and the surrounding area.

Entry and Main Street (See Figure 2-9, Entry and Main Street and Figure 2-10, Main Street Conceptual Rendering)

Main Street will function as a primary entry to the community, defined by an open plaza on the corners and a tree lined boulevard which will be supported by mixed use buildings with ground floor uses to encourage activity and a pedestrian street scape.

Main Street is designed in keeping with the Proposed Actions overall emphasis on assuring the quality of the public realm and creates a strong sense of place within a pedestrian environment. This will be achieved by turning the street into a linear park, beautifully landscaped and creates a distributed series of spaces that provide convenient access for gathering, socializing, and educational opportunities. The street itself can also be utilized for scheduled public activities perhaps a car show or farmers market on the weekends. See Figure 2-11, Plaza and Pedestrian Connection.

Neighborhood Square (See Figure 2-12, Neighborhood Square)

The Neighborhood Square will be well connected central amenity for local pedestrians (the employee) and community members from afar (Town of Mount Pleasant Residents) to gather in a Village Green type setting for an outdoor movie or art show.

Promenade & Stream Valley (See Figure 2-13, Promenade & Valley Stream and Figure 2-14, Promenade & Valley Stream Conceptual Rendering)

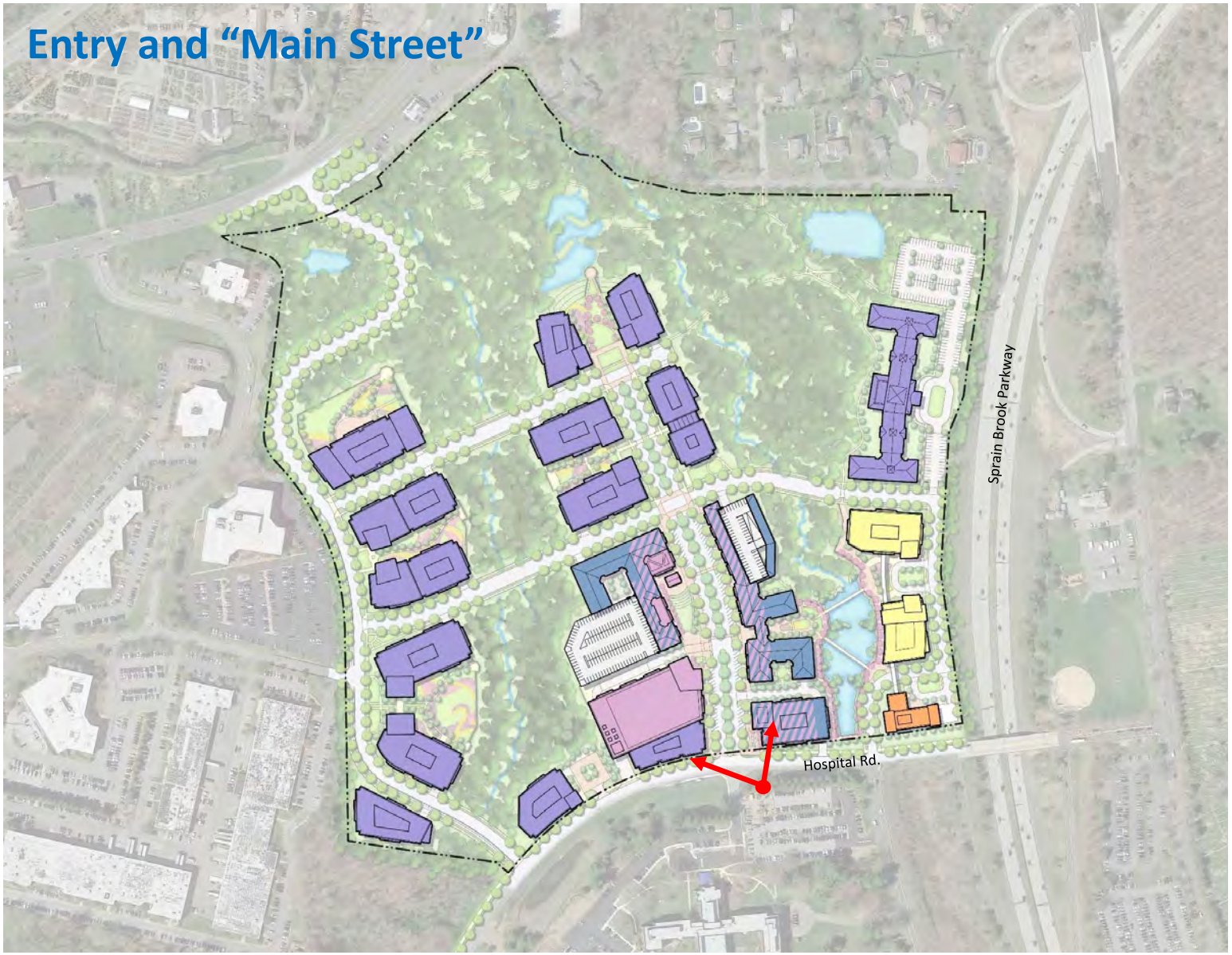
The southeastern portion of the Project Site will provide a visual amenity, but also function as a part of the storm water management system. A network of pedestrian promenades and pedestrian bridges connecting to Main Street including a centrally located pedestrian bridge linking the Children's Science and Education Center to the central access to the community. Pedestrian bridges will cross an enhanced water feature along Hospital Road offering the public spectacular view of the natural features to be preserved and enhanced on the Project Site.

This area is located at the southern end of the site along Hospital Road. The area includes a ravine that carries drainage under Hospital Road from the south and this required "gap" is designed as an overlook where the dimension along Hospital Road is minimized in order to provide a strong walkable frontage along the southern end of the Project Site.

As a regional destination, The Children's Science and Education Center is well situated with visibility from the Sprain Brook Parkway. Given the natural features of the Project Site, the Center can also provide outdoor educational programming and act as a "trail head" for a path system that takes patrons through various ecosystems including stream, wetland, woodland, and pond elements.

Natural Woodland Border

The natural edge on the north side is designed as a woodland border with native flowering trees such as redbuds and dogwoods and the water's edge is planted with native aquatic



North 60 | Mount Pleasant, NY

Entry and Main Street

Source: Torti, Gallas + Partners

North 60 | Mount Pleasant, NY

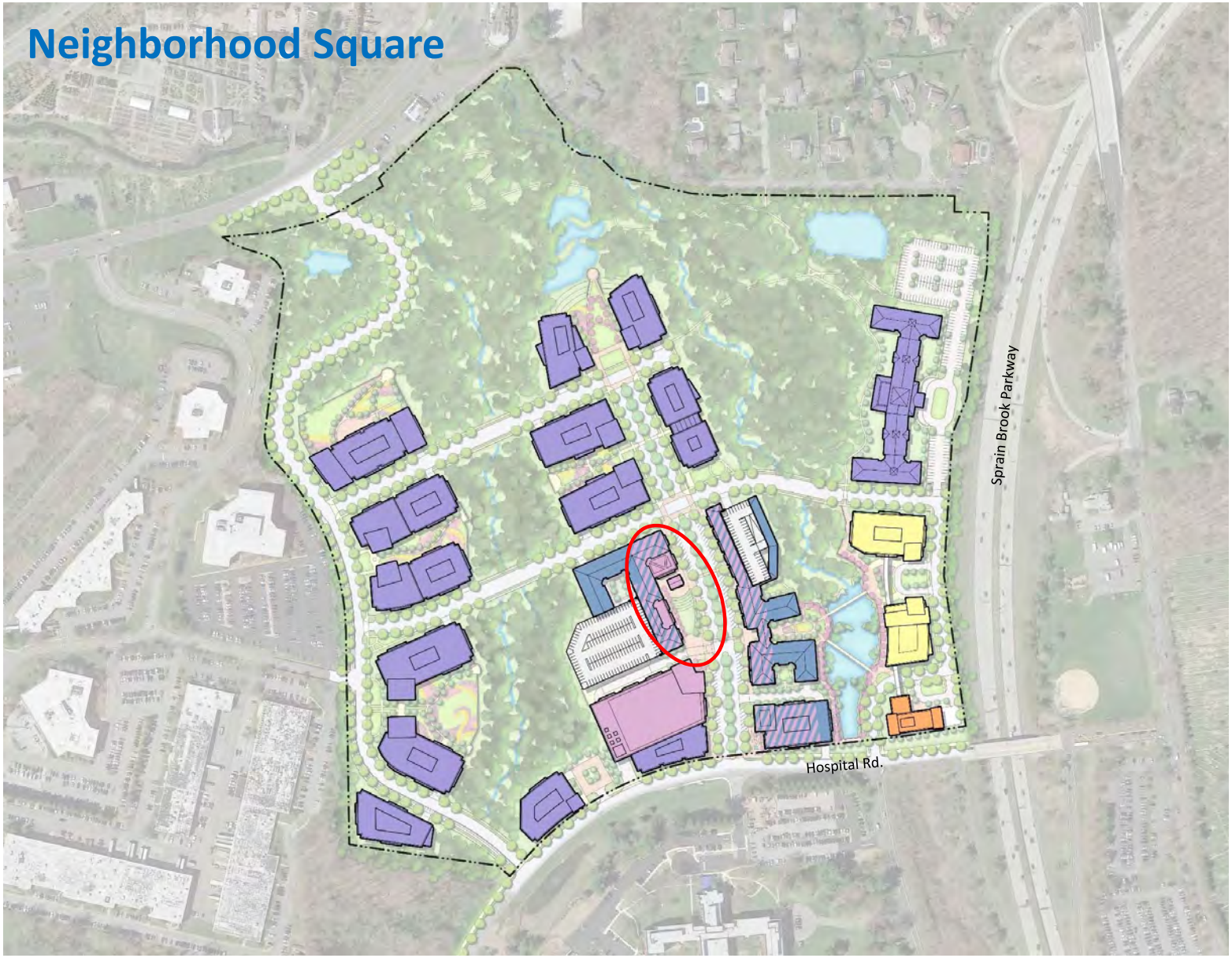
Main Street Conceptual Rendering

Source: Torti, Gallas + Partners

North 60 | Mount Pleasant, NY

Plaza and Pedestrian Connection

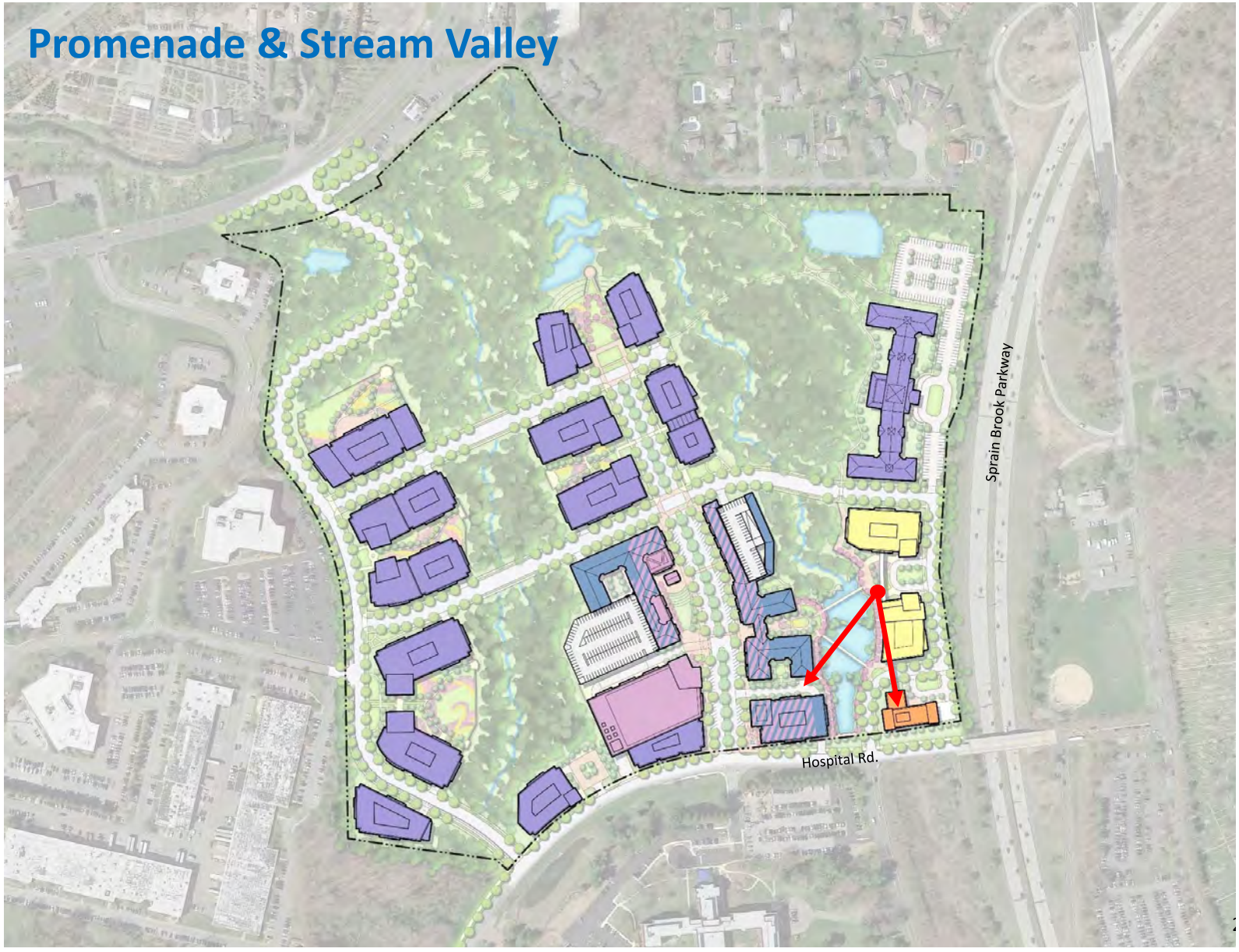
Source: Torti, Gallas + Partners



North 60 | Mount Pleasant, NY

Neighborhood Square

Source: Torti, Gallas + Partners



North 60 | Mount Pleasant, NY

Promenade & Valley Stream

Source: Torti, Gallas + Partners

North 60 | Mount Pleasant, NY

Promenade & Valley Stream Conceptual Rendering
Source: Torti, Gallas + Partners

plants, such as pickerel rush, that not only provide for a bold colorful bloom, but provide habitat for fish and cleanse the water.

Western Portion of the Site

The western portion of the Project Site is comprised primarily of bio-tech and research and development uses. Strong links to other portions of the site are via the internal roadway network and pedestrian bridges and sidewalks and a new extension of Nilsson Drive to Hospital Road.

The main access road for the western portion of the Project Site is a vehicular connection to Route 9A through the Project Site.

The bio-tech and research and development buildings in this area could be occupied by individual tenants, but also lend themselves to a single tenant with large space needs.

Architectural and Site Design

The architecture for the Proposed Action would capture the intrinsic natural character of the region and also embody the visionary and technological focus of the development.

Architectural character is critically important in establishing a strong and memorable identity and is often the image that people carry with them after visiting a locale. The natural environment has historically played a significant role in the character of the region. Stone is a common building element in Westchester and charming stone walls define property boundaries. The primary facades are envisioned to be composed of materials that bridge between traditional and modern aesthetics sourced in a responsible way with the design conveying a strong technological identity.

In order to accommodate research functions, building floor plates will be generously sized to provide the required flexibility. Floor to floor heights may between 15' and 18' in order to accommodate the equipment typical for a research and development facility. Building heights will vary across the Proposed Site to create an interesting blend of heights and engaging environment as if built over many years.

The Proposed Action has been conceived as a model of environmental sustainability from the conception of a plan that responds to the existing natural features to buildings that are envisioned as models of energy efficiency and that are designed with LEED components. Not only environmentally sustainable, the Proposed Action has been envisioned to be economically and socially sustainable, as well – This includes a mix of uses and a new Children's Science and Education Center. Sustainable Strategies include:

› A mix of uses that can reduce the number of vehicle trips and miles traveled.

› The development pattern has been designed to promote pedestrian use.

› Street trees line all streets to provide shade.

Buildings and streets have been sited to respond to the significant existing topography by:

› Reducing the amount of required grading.

› The majority of parking is podium parking beneath the buildings thereby reducing the amount of impervious surfaces that would otherwise be required.

› Impact to wetlands has been minimized.

New ponds and wetlands are created to address storm water management that includes native aquatic and terrestrial vegetation that will aid in cleansing run-off . This will also provide greater biodiversity for the site.

Bio-swales and pervious paving are envisioned to promote infiltration.

Disturbed woodland edges will be planted with native understory trees and shrubs to both increase biodiversity and beauty.

Most buildings have been oriented with short facades facing west and/or angled to minimize thermal heat gain in summer months and to reduce cooling loads.

Biotechnology/medical technology buildings are envisioned to be designed with LEED components.

Some buildings are envisioned to have green roofs to aid in storm water management and to reduce impervious surfaces.

Solar will be investigated as a potential energy source for some of the energy needs.

The North County Trailway is located just to the west and bicycle parking will be provided throughout so that users can take advantage of commuting options.

Conveniently located bus stops will be provided with access to the commuter rail station.

Interpretive trails will provide educational opportunities about the ecosystem and about our role in the environment.

The Children's Science and Education Center provides educational opportunities for the region.

Building orientation and site configuration has been crafted to create a series of outdoor courtyards that maximize views for tenants. The building orientation and site configuration has also been crafted to take advantage of topography to permit the majority of parking to be located beneath the buildings and courtyards thereby enhancing the pedestrian experience.

The street and open space framework has been designed to accommodate flexible project phasing. The initial phase of development would be in the southeastern and south central portions of the Project Site, where hotel, Main Street shops, some bio-tech buildings and some medical office would be developed. The phasing plan will be designed to maintain a "sense of place" in each phase. The plan will also permit flexibility of building design – each building can be tailored to suit the particular needs of a tenant. For example, bio-tech research tenants may require a larger floor plate than typical and the plan flexibility would accommodate this need.

Roadway Improvements (See Figure 2-15, Transportation Framework 1)

When fully developed, the North 60 Development will be served by four (4) driveways. Two driveways will be to Hospital Road (located opposite Woods Road and driveway to Lot 10) and two driveways will be to the new NYS Route 9A Connector (West Street). Roadways may be offered for dedication to the Town of Mount Pleasant.

However, since the Proposed Action is divided into two phases, Phase 1 will be served by the driveways to Hospital Road with the driveways to West Street developed for Phase 2.

Associated with the Proposed Action there will be certain recommended roadway improvements, namely:

Phase 1

Construct a connection to NYS Route 9A and Hospital Road. The roadway should have sufficient width to provide for one through lane per direction and for a left turn lane as required. Based on anticipated vehicles, the intersection on either end of the connector may require signalization sometime during Phase 1. In addition, Hospital Road will need to be widened/restriped to provide a left turn lane (eastbound) at its intersection with the new connector road, proposed Main Street (Driveway 2) and Woods Road (Driveway 1). (*See Figure 3I-3, Phase 1 Recommended Roadway Improvements*)

Phase 2

This includes an addition of an eastbound through lane on Hospital Road. At Woods Road, this lane would be designated as a right turn lane. A right turn lane on Woods Road will also be required.

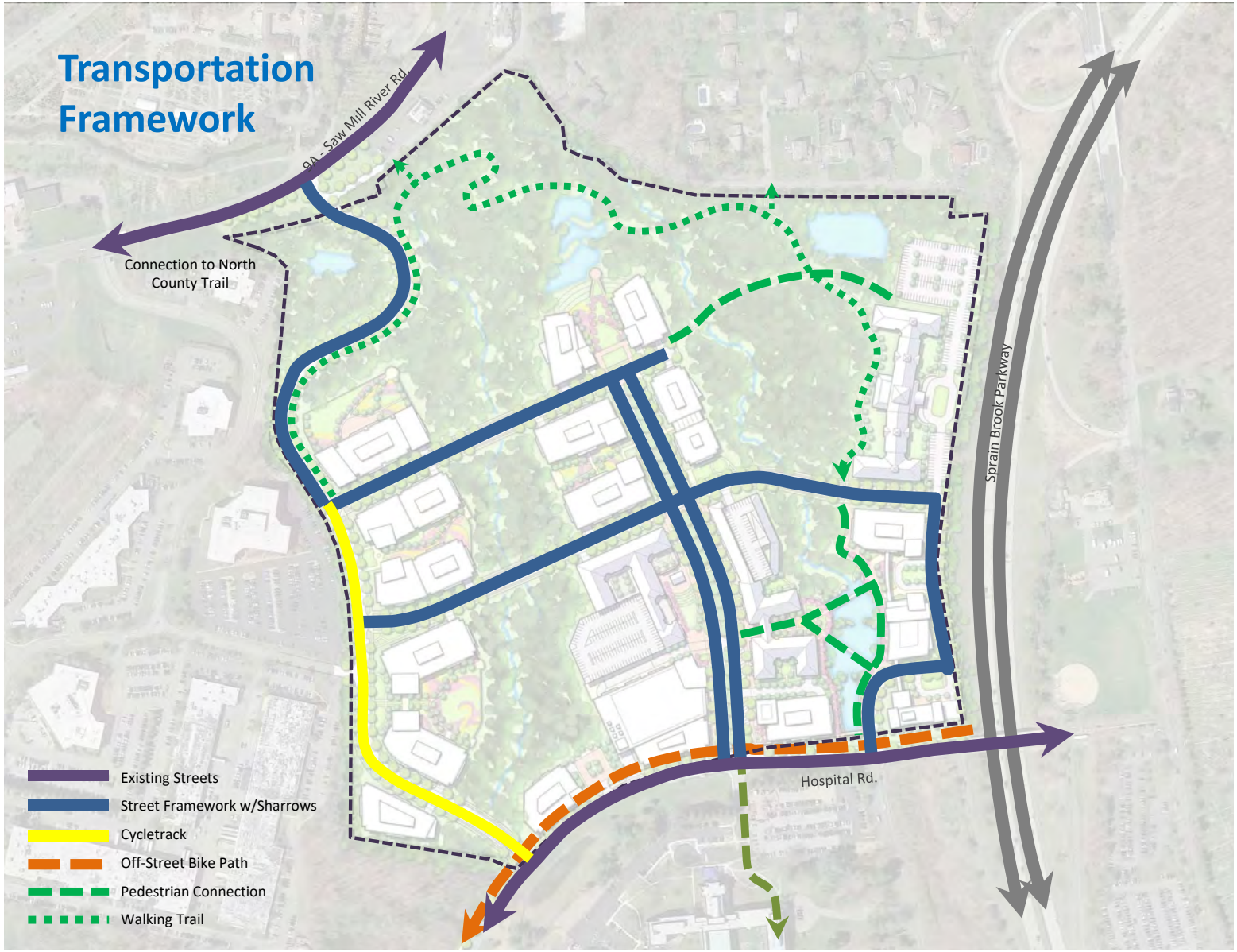
The intersection of Hospital Road and Bradhurst Avenue cannot be widened due to Right-of-Way jurisdiction. However, a roundabout could be developed on property owned/leased by the Applicant and Westchester County. With the construction of a roundabout, left turns from the existing northbound off-ramps would be eliminated (due to limited distance) with traffic directed to turn right and use the roundabout.

In addition to the above, the intersection of Hospital Road with Woods Road and/or the driveway to Lot 10, will have to be monitored to determine if traffic signals are warranted. These recommended roadway improvements are shown in Figure 3I-4, Concept Plan Phase 2.

Transportation Shuttle (See Figure 2-16, Transportation Framework 2)

A new shuttle service will be provided between the North 60 (and WMC) to the Metro North Station(s) located in close proximity to the Project Site as part of the Phase 2 development. This service provides an alternate mode of transportation for existing and future employees of the two campuses who live further to the north or south or in an area where the existing bus service is inconvenient.

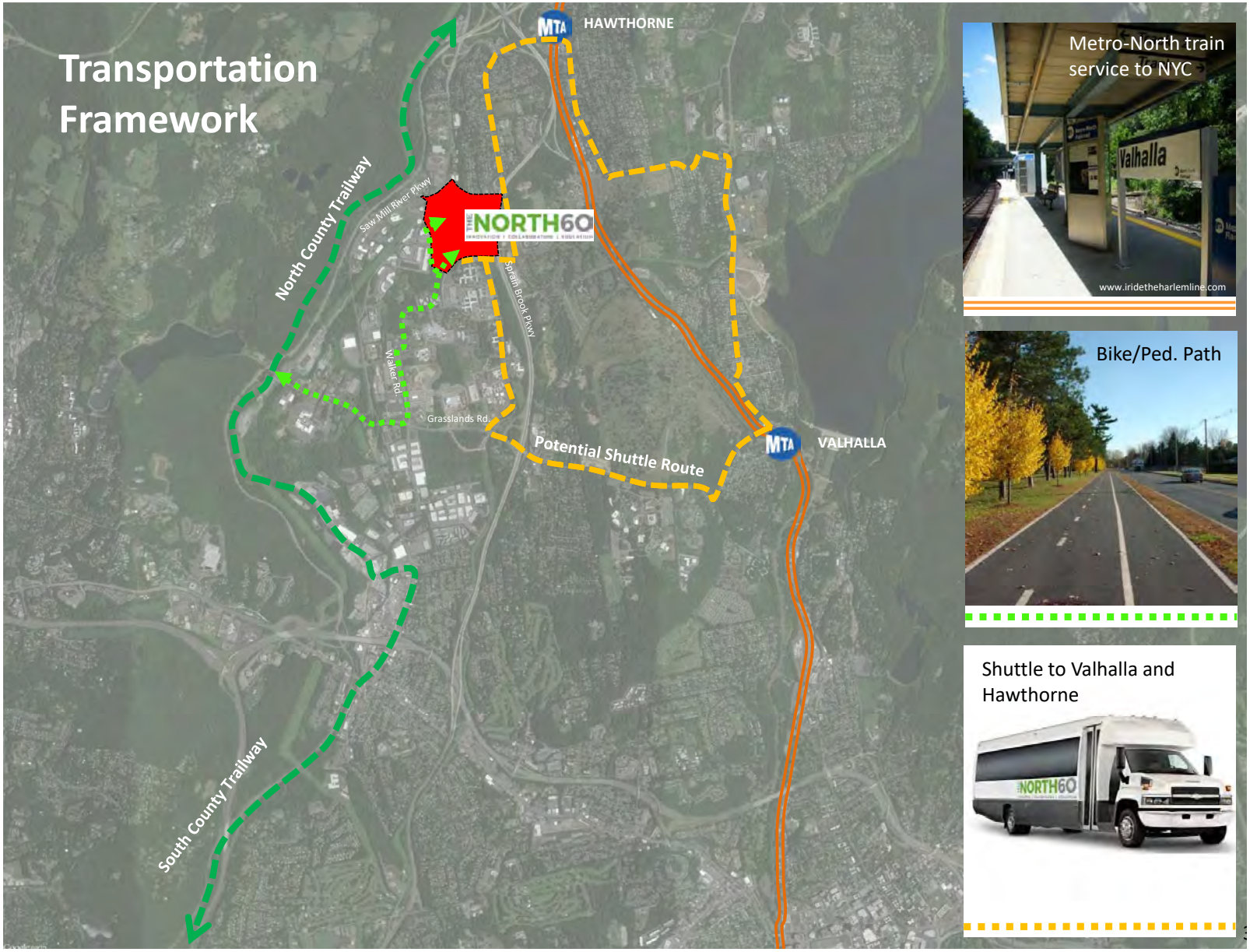
To be effective, this service will meet northbound and southbound trains during the Weekday AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak hours at the Hawthorne Station. The number of stops on site will be limited with adequate shelters to provide for superior service. After completion, the service will be monitored to determine if service should be expanded to other time periods.



North 60 | Mount Pleasant, NY

Transportation Framework (1)

Source: Torti, Gallas + Partners



North 60 | Mount Pleasant, NY

Transportation Framework (2)

Source: Torti, Gallas + Partners

Sustainability, Green Technologies and Energy Efficiency

The design and construction of the biotechnology/medical technology space for Phase 1 and the Master Development Plan will be capable of obtaining LEED Silver certification from the U.S. Green Building Council for certain buildings as required by the Lease. The Proposed Action will use green building techniques during construction, materials selection, and operational practices to achieve a sustainable and environmentally-friendly project as required by applicable building codes. The Proposed Action has been designed as a smart growth low-impact development, with features that are intended to promote energy efficiency, water conservation, and protection of natural resources. Included in the proposal are special features which may include on-site renewable energy generation in the form of ENERGY STAR appliances and Water Sense fixtures. The site design employs healthy communities concepts and promotes pedestrian and bicycle circulation including on-site walking trails and a cycletrack. The bike/ped path will promote bike/ped circulation throughout the Project Site. The Proposed Action will provide shuttle service to the Valhalla and Hawthorne Metro-North train stations. These initiatives, along with the Developer's commitment to restore the existing on-site wetland and preserve more than 36.5 acres (46.3 percent) of the Project Site as open space, will result in a low-impact, sustainable campus.

Tree Removal/Preservation, Landscape Design and Open Space

More than 36.5 acres (46.3 percent) of the Project Site will be preserved as open space. As illustrated on Figure 2-17, Open Space Diagram, several areas will be preserved as natural open space while other areas will be landscaped active or passive open space. Additional open space such as courtyards, landscaped building perimeter areas, medians, and sidewalks are not included in the open space calculations. If included, these areas would bring the percentage of open space out of the total site area to approximately 78.9 percent.

All tree removal and reforestation will be undertaken in accordance with Chapter 201, Trees, of the Mount Pleasant Town Code. Existing trees and trees to be removed are discussed in detail in this DEIS in Chapter 3E, Vegetation and Wildlife.

Stormwater Management

As part of the construction for Phase I of the Proposed Action, a stormwater management system will be installed to treat the runoff from the proposed impervious surfaces. The stormwater management system was designed in accordance with the New York State Stormwater Management Design Manual, and will result in improved stormwater quality as well as reduction in peak runoff flow rates. Short-term responsible parties for implementation of the stormwater management plan will be the General Contractor. Long-term responsible parties for implementation of the stormwater management plan will be the Developer.

The stormwater systems for the Proposed Action are proposed for the qualitative and quantitative management of stormwater runoff from the Project Site. As the Project Site falls under the requirements of the State SPDES program, all stormwater facilities employed for this site have been designed to meet NYSDEC requirements for water quality volume, stream channel protection volume, overbank flood control, and extreme flood control.

OPEN SPACE PROGRAM			
Natural	A	108,600 SF	
Natural	B	943,437 SF	
Natural	C	73,773 SF	
Natural	D	33,498 SF	
Natural	E	152,231 SF	
Natural	F	11,112 SF	
Landscaped		198,163 SF	
Courtyard	1	14,164 SF	
Courtyard	2	18,400 SF	
Courtyard	3	10,998 SF	
Courtyard	4	27,496 SF	
Open Space*		**1,591,872 SF**	**46.3%**

*Additional open space such as building perimeter areas, medians, sidewalks, etc. are not included in the calculations. Percentage of Open Space out of Total Site Area (78.9 ac).

Illustrative Plan - NTS

Open Space Areas

North 60 | Mount Pleasant, NY

Open Space Diagram
Source: Torti, Gallas + Partners

The construction of the buildings, roadways, walkways, and parking areas within the limits of Phase 1 will result in the creation of approximately 11.6 acres of impervious surfaces. Runoff from the proposed improvements is to be collected by a system of catch basins and piping, then captured and treated in stormwater management practices. The existing structures and driveways located on-site are to be removed.

The reduction of clearing and grading on-site was a key aspect of the design. Although total disturbance for Phase 1 of the site development is approximately 36.3 acres, a large portion of the Project Site is proposed to remain as natural wooded areas. The limit of disturbance is illustrated on the project site plans (See Appendix O).

The natural areas of the Project Site were also preserved by locating proposed disturbance associated with the construction in areas which had been previously developed. The proposed "Main Street" area of the Proposed Action is located where the existing paved parking lot and existing construction staging area are currently located. The proposed "West Street" is located over a portion of the existing paved common driveway which connects the existing onsite residences to Route 9A. This effectively limits the amount of new impervious required for the construction of the roadways. The complete Stormwater Pollution Prevention Plan (SWPPP) for Phase 1 of the Proposed Action can be found in this DEIS as Appendix G. The SWPPP is also discussed in detail in this DEIS in Chapter 3E, Vegetation and Wildlife.

Wetland Enhancement and Mitigation

The two onsite watercourses and associated wetlands will be directly and, potentially, indirectly impacted by both Phase I and the Master Development Plan of the Proposed Action. The wetland fringe that borders each watercourse is variable in extent. For the most part, the wetland area is limited to the bank of the streams; however, there are some areas where the wetlands widen. Additional information regarding potential direct and indirect impacts to wetlands and proposed mitigation is provided in Chapter 3F, Wetlands, Watercourses and Waterbodies of this DEIS.

Approximately 41,400 square feet of disturbance to wetland and watercourse areas is proposed to complete Phase I. Approximately 17,900 square feet of upland area will be used to create a pocket wetland area and 44,200 square feet within and adjacent to the eastern stream will be permanently replaced with a wet pond. This results in an overall increase in wetland and watercourse area by 0.5 acres. Additionally, disturbance to wetland and watercourse adjacent areas is primarily limited to the areas that border the wetland and stream areas that will be directly impacted. Other proposed site disturbance has been designed to avoid the vast majority of the remaining wetland and watercourse adjacent areas. Adjacent areas that are temporarily disturbed will be renaturalized via the establishment of native trees, shrubs and groundcovers and the control of invasive vegetation.

To mitigate for long-term direct impacts to wetlands and watercourses, Phase I of the Proposed Action includes the construction of 0.4 acres of wetlands and one acre of a permanent pond. A primary function of these wetlands and the pond will be to control the quantity and quality of stormwater runoff from the Proposed Action. Other functions that the wetlands and pond will provide include groundwater discharge, export of detritus and contributing to the abundance and diversity of wetland and watercourse flora and fauna.

Water Supply, Sanitary Sewage and Other Utilities

There is adequate capacity to expand either the Kensico Water District or Westchester County Water District #3 to accommodate the Proposed Action's domestic water demand.

The Project Action has been designed with features that are intended to promote energy efficiency, water conservation, and protection of natural resources.

The water service area is proposed to be expanded to include limits of the Project Site, and all applicable regulations and procedures would be followed to accomplish this in order to supply water to the Project Site.

There is adequate capacity within the Town of Mount Pleasant Sewer District to accommodate the Proposed Action. Connection to the Town of Mount Pleasant infrastructure is available at the Project Site's Old Saw Mill River Road frontage.

The Town of Mount Pleasant owns the sewer infrastructure assets that are not on the Project Site. The Town of Mount Pleasant would own the sewer infrastructure on the Project Site and be responsible for the maintenance of the infrastructure. Agreements shall be required regarding maintenance and responsibility

Wastewater generated from the Project Site is proposed to be minimized with the use of low flow fixtures and toilet facilities.

Con Ed has indicated there is ample power supply available to support the electric demands of the Proposed Action. Con Ed has also indicated that they can provide interruptible gas service to the North 60.

Water supply, sanitary sewage and other utilities are discussed in greater detail in Chapter 3H, Utilities of this DEIS.

Site Safety and Security

The Proposed Action has been designed to incorporate features to increase site safety and reduce demand for police protection, including outdoor lighting, private security, and an internal circulation design to minimize the potential for vehicle and pedestrian accidents. The Proposed Action has been designed to provide adequate site access to fire apparatus and emergency response vehicles. Additionally, the proposed buildings would be constructed to meet the latest New York State Uniform Fire Prevention and Building Code and would be equipped with sprinklers and fire alarms.

Bio-Medical Waste

The exact unique operational aspects of bioscience/medical facilities will not be known until specific tenants are identified. With regard to regulated medical wastes (RMW), once operational, the proposed bioscience and technology center will generate solid waste, some of which may be Regulated Medical Waste (RMW) and other specialty wastes. The exact nature of the waste production and the quantities will not be known until specific tenants are identified. All waste will be managed in accordance with applicable state and federal regulations.

All future tenants of the Project Site will be required to comply with all applicable NYS regulations for the handling, storage, transport and disposal of RMW. RMW generated at these facilities will be stored on-site prior to transportation off-site by permitted vendors to

regulated/permitted disposal facilities. Proposed handling and tenant requirements relative to RMW is discussed in greater detail in Chapter 3M, Hazardous Materials of this DEIS.

Off-Site Improvements

Potential off-site improvements are limited to potential utility and/or traffic-related improvements. These include:

- Potential (Utility) improvements to the Westchester County water district and/or the Town Mount Pleasant water district.
- Potential (Utility) improvements to the Con Edison gas main (interruptible) servicing the property.
- Potential (Traffic) improvement to Bradhurst Avenue for traffic flow improvements.
- Potential (Traffic) improvement to Route 9 for traffic flow improvements.
- Potential (Traffic) improvements to Hospital / Peripheral Road for traffic flow improvements.

Utility improvements are discussed in greater detail in this DEIS in Chapter 3H, Utilities, and traffic improvements are discussed in Chapter 3I, Traffic and Transportation and in the Traffic Impact Study (see Appendix H).

Open Space and Community/Public Areas

Open space is a significant element of the Proposed Action comprising more than 36.5 acres (46.3 percent) of the Project Site. A key element of the design of the North60 is the creation of an interconnected open space system that includes natural areas, as well as more designed spaces. The strategy for the natural areas focuses on preserving, restoring, and improving the riparian corridors and hillsides to create a healthy wildlife habitat. The strategy for the more developed areas is to create a distributed series of spaces that provide convenient access for gathering, socializing, and educational opportunities – These spaces are interconnected through pedestrian friendly streets and off-street paths Building programming and the design of spaces are intended to go hand-in-hand to create vibrant and successful spaces. Building locations and orientations are also designed to maximize views, access, and connectivity to the open space network.

Restore Healthy Stream Corridor

Natural Open Space Network (portions Phase 1)

The two small streams are one of the most significant form-givers of the Project Site (they run south to north dividing the Proposed Site into three "peninsulas"). The streams and steep slopes to the north form one contiguous natural open space network:

Creating an Ecologically Healthy Corridor:

Unfortunately, the condition of the streams is not very good due to dumping and erosion. The Proposed Action proposes to repair and restore this network into a healthy ecological corridor through cleanup, stream stabilization, creation of weirs and riffles, and appropriate understory, mid-story, and canopy planting to provide a diverse wildlife habitat.

Walking Trails and Interpretation:

Mulch walking paths are proposed to provide opportunities for walking. These paths will include interpretive signage focusing on ecological education. Occasional benches will also be provided for resting and enjoying the natural environment. Small pedestrian bridges will provide access across the streams. The path system will be accessible to the general public.

Precedent for Interpretive Walking Trail

Promenade and Stream Valley Pond (Phase 1)

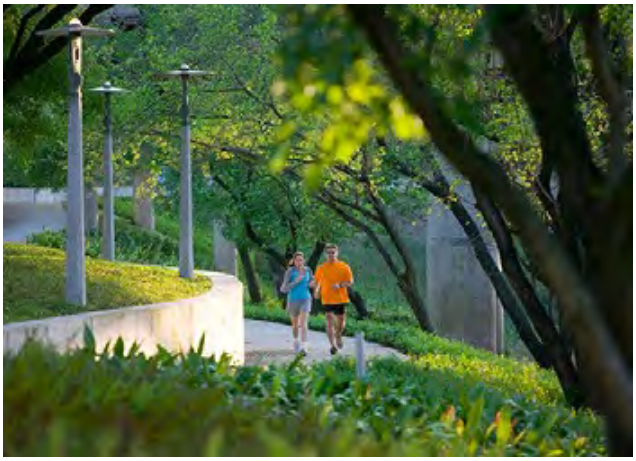
The eastern stream passes under Hospital Drive, from an existing off-site storm water pond, through a pipe as it enters the Project Site:

Pond with Weir and Riffle System:

This first section of the stream creates a pond with a weir and riffle system that functions to aerate the water, improve water quality, and create an environment for aquatic plants.

Pedestrian Promenade:

A portion of the pond has a hard edge and pedestrian promenade at its perimeter to allow for access and other portions will likely have stone embankments. Interpretive signage will be provided for educational purposes. Seating will also be provided for rest and enjoyment.



Precedent for Pedestrian Promenade

Pedestrian Bridge:

One pedestrian bridge will be provided to allow connectivity across the stream.

Plaza:

A small plaza overlooking the pond will provide seating and activity space.

Precedent for Pedestrian Bridges

Promenade and Stream Valley Pond

Neighborhood Square (Phase 1)

A neighborhood square will be provided that provides opportunities for a diverse set of activities. The edges of the space will be lined with commercial uses and dining to provide activation.

Lawn and Plaza:

A portion of the square will have lawn and a portion will be paved to allow for multiple activities and experiences. A portion of the space will accommodate outdoor dining. A small one-story commercial space may also occupy a small portion of the space.

Neighborhood Square

Water Feature:

An interactive water feature will be incorporated into the design.

Seating:

Various types of seating will be provided in the space.

Lighting:

Lighting will be provided to allow evening use.

Landscaping:

Canopy trees will provide shade.

Public Art:

Public art will be used to create interest. This may be stand-alone elements or incorporated into site furnishings and other elements.

Precedent for Public Art

Entry Plaza (Phase 1)

An entry plaza at the intersection of Hospital Road and "main street" (and at the interface between The Project Site and the hospital site) will serve as a point of arrival feature and an outdoor space with seating that is accessible to the public.

Overlook Plaza (later phases)

"Main Street" is located along the central ridge and extends from Hospital Drive to an overlook (Overlook Plaza) at the northern hillside. This space provides convenient access for buildings along the northern edge, provides views to the south, and is designed with the following elements:

Plaza:

A portion of the space is configured with paving to allow for a diversity of activities. A portion of the space is configured with lawn.

Seating:

Various types of seating will be provided in the space.

Lighting:

Lighting will be provided to allow evening use.

Landscaping:

Canopy trees will provide shade. Ornamental trees will provide color and diversity.

Precedent for Interactive Water Feature

Precedent for Neighborhood Square

Entry Plaza

Precedent for Overlook Plaza Hardscape

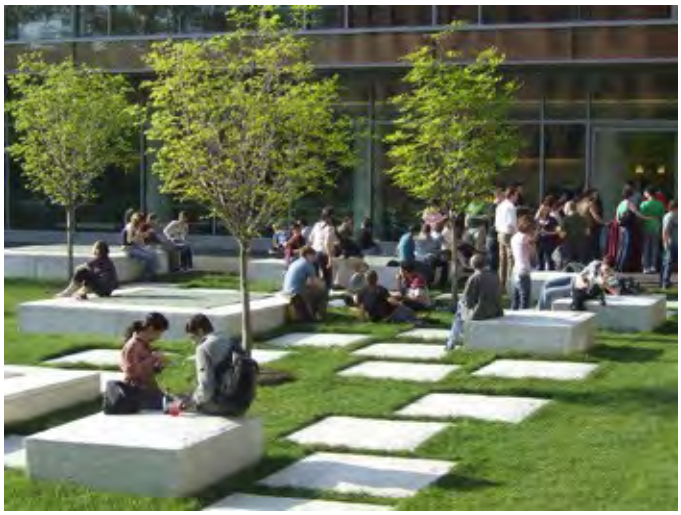
Precedent for Overlook Plaza Lawn

Public Art:

Public art will be used to create interest. This may be standalone elements or incorporated into site furnishings and other elements.

<u>West Green (later phases)</u>

A small space anchors the western end of the cross street. This space is primarily planted and lawn. It will also include seating. It serves to mark the principle cross street.



Precedent for West Green

<u>Center Green (later phases)</u>

A space is located at the intersection of the two cross streets. This space is primarily planted and lawn. It will also include seating. It serves to mark the center of the project.

Precedent for Center Green

Courtyards

The plan capitalizes on the adjacency to the interconnected open space network by orienting and configuring most buildings to form courtyards that face and link with the natural open space system. The overall layout creates a system whereby buildings define both a walkable urban streetscape on one side and a courtyard/campus feel on the opposite side.

Streets

Streets are an integral part of the Proposed Action open space system. Streets will be designed to create a pedestrian friendly environment with sidewalks, street trees, street furnishings, lighting, and human scaled building facades.

Precedent for Retail Streetscape

2.4 Overview of the North 60 Lease

In April of 2017 the Westchester County Board of Legislators voted unanimously to enter into a ninety-nine year lease with Fareri Associates LP ("Developer") on the approximately 60-acre parcel of land the County owned, located at the north portion of the Grasslands Reservation. The purpose of the lease is to utilize the County property in a manner that will promote economic development and to further bolster the growing bio-science and technology sector of the economy for the County and its residents. The lease is structured to attract businesses, promote economic development and maximize job opportunities and tax revenue to be derived from the Project Site. The lease charges the Developer with the task of creating a research and development bio-tech and medical complex at the North 60. The lease term is for ninety-nine years and the Board of Legislators passed specific legislation allowing for the length of the lease.

The Lease terms call for the Developer to pay initial rent to the County of $125,000 per year, commencing upon the execution of the lease and thereafter, the Developer will pay the County six percent (6 percent) of the gross rental income from the permitted uses and three percent (3 percent) of gross rental income from a hotel or assisted-living facility.

The Westchester Medical Center has both a Right of First Refusal, as well as a non-compete guarantee for any uses the Developer should propose. Permitted Uses under the lease include: biotechnology, medical technology, research and development, medical office, professional and business office, a hotel, assisted-living facilities, senior living community facilities, retail, restaurant, personal service uses, indoor recreation facilities, child day care centers and related uses, including a non-profit Children's Science and Education Center and continuing education programs. It is contemplated that some type of housing to assist potential tenants in attracting and maintaining an entry-level workforce, will be added as a permitted use.

The lease envisions a multi-year development, phased-in as market conditions present themselves and gives the Developer the ability to ultimately develop approximately three million square feet of mixed-use development, with over two million square feet of the development earmarked for bio-technology. The County hired the Weitzman Group to conduct a feasibility study to review all proposed uses, so individual use square footages currently in the lease may be subject to modification. Phase l of the Proposed Action has a clear definition in the current lease which includes; 100,000 square feet of medical office space; a hotel of approximately 120 rooms; approximately 80,000 square feet of retail space and: 220,000 square feet of biotech-medical technology space. It is expected that Phase l required square footages, by use, may change once the Market and Financial Feasibility Study, which was commissioned by Westchester County Department of Planning, is accepted and analyzed by the County. For the complete Market and Financial Feasibility Study, see Appendix M.

As provided in the Lease, all entitlements, site plan approvals and required zoning will be within the purview of The Town of Mount Pleasant and the Mount Pleasant Planning Board, although any lease changes will need the approval of the Westchester County Commissioner of Public Works and Transportation. Under Section 4.2.1 (f) on the lease, "the further approval of the Board of Legislators to amend the Lease Agreement……. will not be required."

See Appendix L for the full Lease Agreement.

2.5 Project Purpose, Public Need and Benefits

Westchester County, as the owner of a 60-acre portion of the Project Site, has entered into a lease agreement for the redevelopment of the County-owned site so as to activate a vacant and underutilized parcel of County property in a manner that will provide regional, town-wide and neighborhood public benefits. The uses on the Project Site are intended to compliment other uses on the Grasslands Campus, attract businesses, promote economic development and maximize job opportunities and tax revenue to be derived from the Project Site.

Anticipated public benefits for the full development (Master Development Plan) include:

- $9.3 million in estimated new real estate taxes annually to Westchester County, the Town of Mount Pleasant and the School Districts.
- Estimated $7 million annually in additional rent revenues to Westchester County.
- Approximately 1,000 new construction jobs.
- More than 6,895 new permanent jobs ranging from entry-level to professional.
- Positions Westchester at the forefront of the region's emerging new economies.
- Positions Westchester Medical Center to remain competitive with NYC hospitals by forging relationships with providers and inventors of cutting edge medical technologies and innovations.
- Creates job opportunities for students by forming partnerships with Westchester Community College, New York Medical College and other area Colleges in the emerging bioscience field.
- The Children's Science and Education Center will give children a personal awareness of health issues.

The project's purpose, public need and benefits from a neighborhood perspective include:

- The neighborhood will have access to an attractive new mixed-use development, which will provide local residents and area employees with new retail and entertainment uses;
- A new hotel option within the neighborhood;
- New jobs within the neighborhood;
- The Children's Science and Education Center will serve as a local health education resource for children and families;
- Will provide new property tax and sales tax revenues - a portion of which will be captured within the neighborhood and local school districts;
- Additional retail sales for existing, off-site retail establishments from the employees and visitors to the site;
- A well-designed and visually attractive site and reactivate a vacant and underutilized property; and
- A community where neighborhood residents and employees will have access to on-site amenities including on-site walking trails, a cycletrack, open space plazas, pedestrian bridges, and water features.

The project's purpose, public need and benefits from a site perspective include:

- Improvements to the existing wetland function;
- Wetland and pond mitigation which will contribute to an abundance of diversity of wetland and watercourse flora and fauna;
- Removal or reuse of construction staging materials and other debris that has been left on the site;
- Removal of dead or hazardous trees and replanting/landscaping throughout the site;
- Removal of underground fuel storage tanks and existing drums of ethylene glycol will be removed, and a fill soil management plan will be implemented for three locations with elevated concentrations of semi-volatile compounds and
- Thoughtful development that avoids, to the extent feasible, environmentally sensitive features.

2.6 Project Approvals and Reviews

Under SEQRA, involved agencies are those which have approval authority over a proposed action. Interested agencies are those other agencies that have an interest in a proposed action, but not an approval. Project reviews and approvals by involved agencies and reviews by interested agencies are listed in Table 2-7, below.

Table 2-7 Project Approvals

Involved Agency	Approval/Review
Town of Mount Pleasant Town Board	› Adoption of OB-5 Zoning District (Zoning Ordinance Amendment) › Rezoning the Site to OB-5 District (Zoning Map Amendment) › Approval of Master Development Plan for the site › Tree Removal/Planting/Maintenance/Replanting Permit
Town of Mount Pleasant Planning Board	› Site Plan Approval › Subdivision Approval
Mount Pleasant Town Engineer	› Wetland Permit › Steep Slopes Permit
NYS Department of Environmental Conservation	› State Pollution Discharge Elimination System (SPDES) for Stormwater › Protection of Waters Permit › Section 401 Water Quality Certification
United States Army Corps of Engineers	› Individual Permit
NYS Department of Transportation	› Highway Work Permit
NYS SHPO	› Cultural resources review
Westchester County Planning Department	› GML 239-m referral (General Municipal Law advisory review) › Tree Removal Permit

Westchester County Department of Environmental Facilities	› Capacity for sewage flows › Water supply approval
Westchester County Department of Public Works/Transportation	› Street opening permit; GML 239-f building approval (frontage on County Road)
Westchester County Department of Health	› Sanitary and water supply approval › Subdivision plat review and signature

Lead Agency:

Town of Mount Pleasant Planning Board

One Town Hall Plaza

Valhalla, NY 10595

Involved Agencies:

› Town of Mount Pleasant Town Board
› Town of Mount Pleasant Planning Board
› New York State Department of Environmental Conservation
› United States Army Corps of Engineers
› New York State Department of Transportation
› New York State SHPO
› Westchester County Planning Board
› Westchester County Department of Environmental Facilities
› Westchester County Department of Public Works / Transportation
› Westchester County Department of Health

Interested Agencies:

› Town of Greenburgh Town Board
› US Fish and Wildlife
› Hawthorne Fire Company
› Grasslands Fire Department
› Town of Mount Pleasant Police Department
› Town of Mount Pleasant Conservation Advisory Council
› Mount Pleasant Central School District
› Pocantico Hills School District

3

A. LAND USE, ZONING AND PUBLIC POLICY

1. Existing Conditions

a) Land Use

Land use information is based on existing conditions that were identified from a combination of field surveys and the use of aerial photographs and Geographic Information System (GIS) data. In order to ascertain the land use patterns in and around the study area, VHB obtained GIS information, including land use, from Westchester County. This base map was updated utilizing information obtained from field visits in 2019. Land use is presented in Figure 3A-1, Existing Land Use.

The Project Site is located in the central portion of Westchester County in the Town of Mount Pleasant. The Project Site is bordered on the north by West Stevens Avenue, on the northwest by Old Saw Mill River Road South, on the west by Nilsson Drive, on the south by Hospital Service Road and on the east by Sprain Brook Parkway. See Figure 2-2, Site Location.

The Project Site consists of eight contiguous land parcels totaling approximately 80 acres. The approximately 60-acre County Parcel is located on the County's Grasslands Reservation. The County Parcel is mostly vacant land, some of which is being used as a construction staging area by Westchester Medical Center. The southern portion of the County Parcel contains an asphalt parking lot adjacent to Hospital Road. The northern portion of the County Parcel contains a two-family dwelling and asphalt drive. The approximately 20-acre western portion of the Project Site includes seven land parcels, which contain five single-family residences, a small nursery, storage sheds, an inground pool, asphalt drives

and parking areas and related improvements. The remainder of the Project Site consists of old field areas, shrubland areas, woodland areas, forested areas, and wetlands and watercourses. See Figure 2-2, Site Location.

There are a variety of land uses within a half mile of the Project Site, generally including: institutional and public assembly; office and research; commercial and retail; single family residential; mixed use; agricultural uses; cemeteries; public parks and parkway lands; manufacturing, industrial and warehousing; transportation, communication and utilities; vacant property; and condominiums, apartments, multifamily residential use. See Figure 3A-1, Existing Land Use.

In the area immediately surrounding the Project Site, land uses are residential, commercial and County owned. Land uses within the half-mile radius include the following:

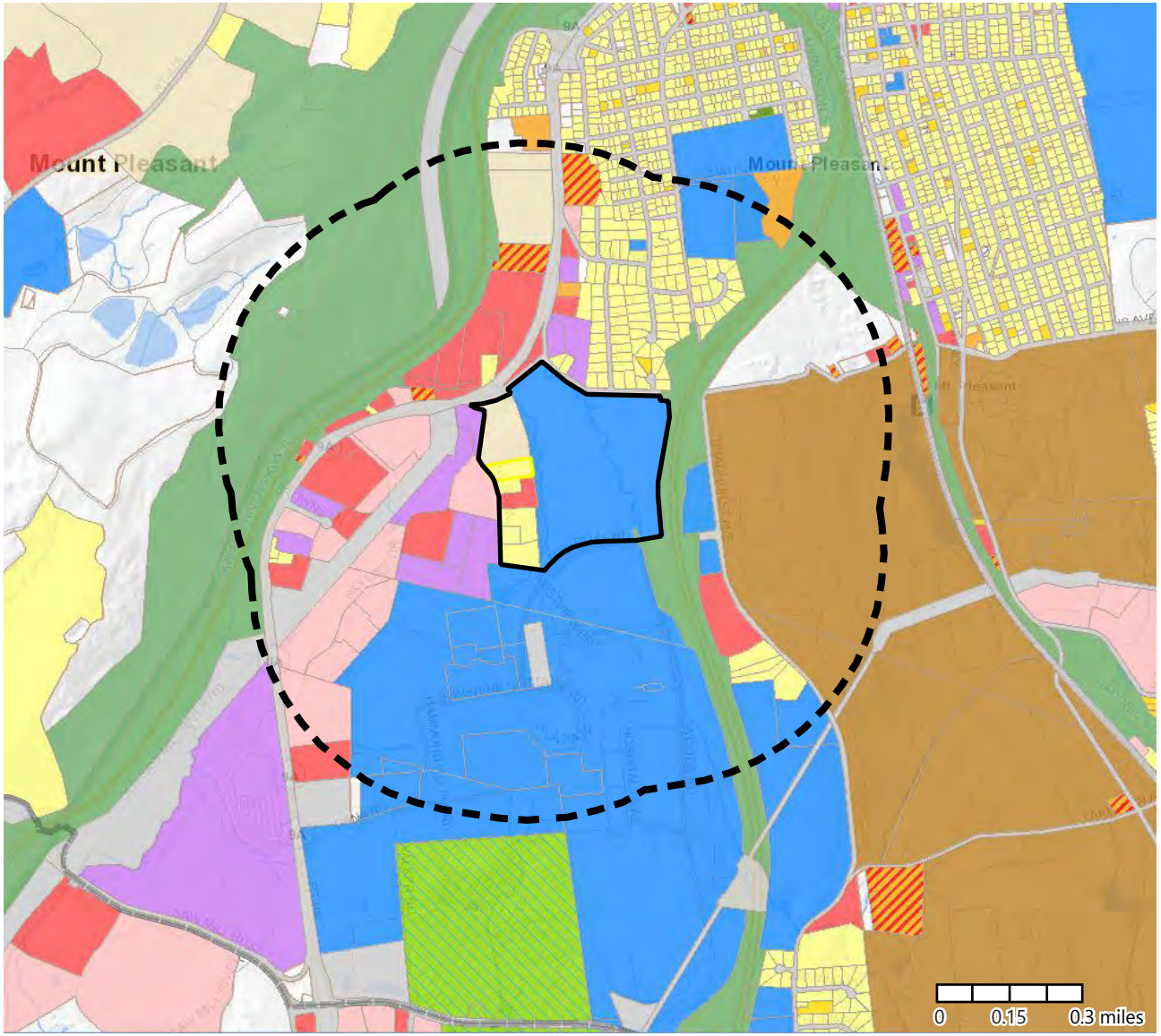
- **North:** There is a single-family residential neighborhood across West Stevens Avenue and a manufacturing use between West Stevens Avenue and Old Saw Mill River Road. Two restaurants border the Project Site to the northwest between Old Saw Mill River Road and Saw Mill River Road. The Saw Mill River Road corridor north of the Project Site contains a mix of commercial uses such as a car dealership, nurseries, warehouses and offices. The residential area north of the Project Site also contains a church and parochial school, aa public school, a New York State Police station, a NYSDOT facility, and residential condominiums.

- **East:** The Project Site is bordered to the east by the Sprain Brook Parkway. East of Sprain Brook Parkway, land uses include a public park, cemeteries and vacant land.

- **South:** The Project Site is bordered to the south by the Westchester Medical Center. Additionally, south of the Project Site, along Bradhurst Avenue, there is a medical office building, a few single-family residences and small commercial uses, and a private special needs school.

- **West:** The Project Site is bordered to the west by an office/research park containing professional office buildings, research facilities and warehouse space. To the west of this office/research park, there is an overhead utility right-of-way, followed by a mix of commercial uses including medical offices, retail, offices, restaurants and light industrial buildings. The Rockefeller Park Preserve is situated west of the Saw Mill River Parkway within the study area.

The 60-acre eastern and central most portion of the Project Site is part of the Grasslands Reservation, a 512-acre property owned by Westchester County since 1915. The Grasslands Reservation hosts a variety of uses including the Westchester Medical Center, the New York Medical College, the County's lab and research facilities, a fire and emergency training center, public works operation and a correctional facility.



N

Land Uses

- Agricultural Uses - Farms, Stables, Nurseries
- Single Family Residential
- Two, Three Family and Multi-Structure Properties
- Condominiums, Apartments, Multi-Family Residential Use
- Common Land Homeowners Assoc.
- Vacant Property
- Commercial and Retail
- Manufacturing, Industrial and Warehousing
- Office and Research (including Campus Office Parks
- Mixed Use
- Institutional and Public Assembly
- Transportation, Communication and Utilities
- Cemeteries
- Public Parks and Parkway Lands
- Private Recreation
- Nature Preserves
- Water Supply Lands
- Interior Water Bodies
- 1/2 mile buffer
- Project Site

North 60 | Town of Mount Pleasant, NY

Existing Land Use

Source: Westchester County GIS (Data, 2016)

b) Zoning

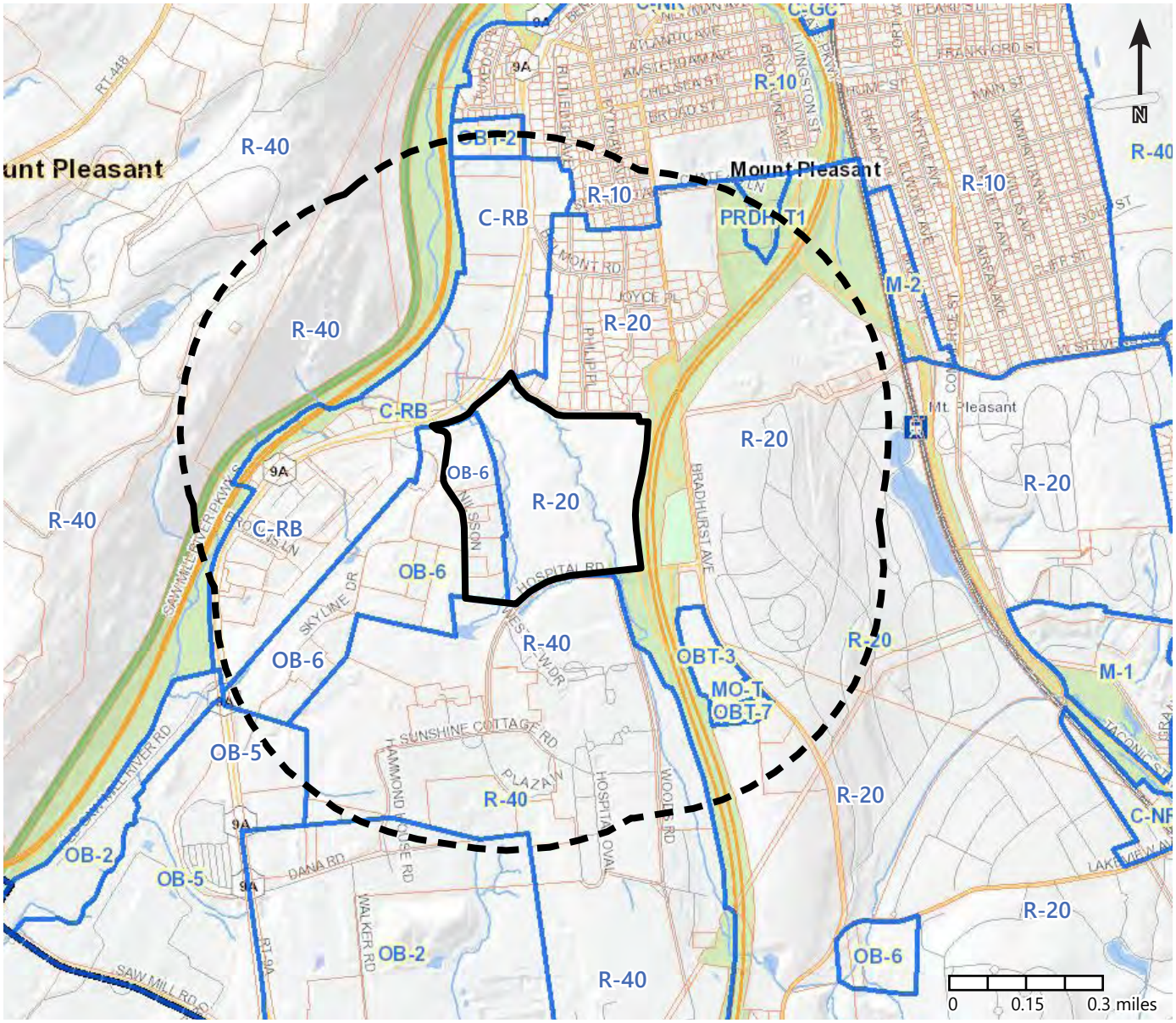
Existing zoning on and within a half-mile of the Project Site is illustrated in Figure 3A-2, Existing Zoning, and described below. The seven parcels that comprise the 20-acre portion of the Project Site owned by the Applicant are in the Town of Mount Pleasant's OB-6 Building, Distribution, Limited Fabrication District, and the 60-acre County parcel is in the Town of Mount Pleasant's R-20 One-Family Residential District.

As Figure 3A-2 indicates, zoning designations within a half-mile of the Project Site include the following:

- **North:** R-20 (north of West Stevens Avenue), C-RB Rural Business (along the Saw Mill River Road corridor), R-10 One-Family Residential (in the vicinity of Serrano Avenue and Pythian Avenue), R-40 One-Family Residential (west of Saw Mill River Parkway), and PRDH-T1 Planned Residential - Historic Development Transitional-1 (between Chateau Lane and Sprain Brook Parkway)
- **East:** R-20 (encompassing the area east of Sprain Brook Parkway)
- **South:** R-40 (south of Hospital Road), R-20 (along Sprain Brook Parkway), OBT-3 Office Park Transitional-3, OBT-7 Professional Office Transitional, MO-T Medical Office Transitional (all between Bradhurst Avenue and Sprain Brook Parkway), OB-5 Office Business (east of New Saw Mill River Road and south of Skyline Drive), OB-2 Public Utility Office Building (in the vicinity of Dana Road)
- **West:** OB-6 (immediately west of the Project Site and east of the utility right-of-way), C-RB (west of the utility right-of-way and east of Saw Mill River Parkway), and R-40 (west of Saw Mill River Parkway)

The R-20 district that covers the 60-acre County parcel on the Project Site permits the following principal uses: one-family dwellings; churches and other places of worship; public elementary and high schools; railways and railway stations; playgrounds, parks, parkways, libraries, firehouses, police stations and other municipal uses not including incinerators or dumps, municipal garages or public works yards; and municipal, state or national historic sites or museums open to the public.

The R-20 district also permits several accessory and special uses subject to additional standards. The permitted accessory uses include customary home occupations and offices; nontransient boarding rooms; private garden houses, tool houses, playhouses, swimming pools, tennis courts, greenhouses and garages; parish houses, rectories and Sunday school rooms; religious child day-care centers; signs; private off-street parking; and accessory apartments for domestic workers without kitchens. The uses in R-20 districts subject to special use standards include parochial and private elementary and high schools and colleges; nursery schools; hospitals; religious, charitable and eleemosynary institutions; public utility substations; watershed and water supply facilities; gatehouses, guesthouses or caretakers' cottages; nonprofit membership clubs; public utility transmission lines; retail businesses accessory to a cemetery; limited-office uses; convalescent or nursing homes; public utility facilities; and car storage facilities.



On the Project Site
R-20: One-Family Residential
OB-6: Office Building, Distribution, Limited Fabrication

Within a 1/2 mile of the Project Site
R-20: One-Family Residential
R-40: One-Family Residential
R-10: One-Family Residential
OB-6: Office Building, Distribution, Limited Fabrication
OB-5: Office Business
OB-2: Public Utility Office Building
OBT-3: Office Park Transitional-3
OBT-2: Office Park Transitional-2
OBT-7: Professional Office-Transitional
C-RB: Highway Commercial
M-OT: Medical Office Transitional
PRDH-T1: Planned Residential-Historic Development Transitional

Legend
- Zoning Boundary
- 1/2 mile buffer
- Project Site

North 60 | Town of Mount Pleasant, NY

Existing Zoning

Source: Westchester County GIS (Data, 2016)

The OB-6 district that covers the western 20 acres of the Project Site permits the following principal uses: all uses permitted in a residence district (enumerated above); office buildings; laboratories devoted exclusively to research design and experimentation; public utility office buildings; retail sales and service shopping areas; multifamily dwellings; printing; publishing; the production, processing and assembly of small items such as light electronic parts in data processing or precision instruments; enclosed storage, warehousing and distribution of manufactured goods and products for wholesale; and child day-care centers.

The OB-6 district also permits several accessory and special uses subject to additional standards. The permitted accessory uses include customary uses incidental to a permitted use. The uses in OB-6 districts subject to special use standards include all those specially permitted uses enumerated above for residential uses, adding camps and private nonprofit riding clubs, stables and dog kennels and farms, farm uses, customary farm occupations, nurseries, greenhouses and cold-storage plants and excluding boarders or roomers other than as accessory uses as regulated in the R-40 district.

The following presents a general overview of the use regulations in the other zoning districts surrounding the Project Site.

Residential Districts (R-10, R-20, R-40):

The regulations for R-20 districts have been described above. R-40 districts permit the same principal, accessory and special uses as R-20 districts, with the addition of camps and private nonprofit riding clubs, stables and dog kennels and farms, farm uses, customary farm occupations, nurseries, greenhouses and cold-storage plants as specially permitted uses.

R-10 districts permit the same principal and uses as R-40 districts and the same special uses as R-20 districts, but excluding religious, charitable and eleemosynary institutions.

The primary difference between these residential districts is the minimum lot size requirement. R-20 districts require 20,000-SF lots while R-10 districts require 10,000-SF lots and R-40 districts require 40,000-SF lots. These requirements result in residential neighborhoods ranging from approximately one unit to four units per acre.

Business Districts (C-RB, OBT-3, OBT-7, OB-2, OB-5, OB-6, MO-T):

The most prevalent business districts in the half-mile radius of the Project Site are the OB-6 and C-RB districts. The OB-6 district regulations have been described above. The OB-2 and OB-5 districts cover a small area in the southwestern portion of the study area. The OBT-3, OBT-7 and MO-T districts are isolated to an area southeast of the Project Site between Bradhurst Avenue and Sprain Brook Parkway.

CR-B districts allow the following as principal uses: restaurant, café or other place serving food or beverage; business, professional, banking and general offices; freestanding highway-oriented retail stores; motion picture or other theaters; indoor recreation facilities; warehouse and storage facilities; and child day-care centers.

OB-2 districts allow the following as principal uses: any principal use permitted in a residence district; and public utility office building uses.

OB-5 districts allow the following as principal uses: any principal use permitted in a residence district; office building uses; laboratories devoted exclusively to research, design and experimentation; the production, processing and assembly of small items such as light electronic parts in data processing or precision instruments; printing, publishing and distribution for newspapers; developments, planned and designed to function as an integrated unit for commercial, industrial, office, recreational and warehousing uses; child day-care centers; professional medical offices; warehousing and enclosed storage facilities.

OBT-3 districts allow the following as principal uses: all uses permitted in the OB-6 districts (enumerated above).

OBT-7 districts allow the following as principal uses: professional offices and similar businesses or uses; office buildings; and child day-care centers.

MO-T districts allow the following as principal uses: medical offices; office buildings; and child day-care centers.

PRDH-T1 Planned Residential - Historic Development Transitional-1:

The PRDH-T1 district is only present in a small area in the northeastern portion of the half-mile radius. Permitted principal uses in the PRDHT-1 District include all uses permitted in the R-5A District, including one-family dwellings, 2-family dwellings, and multifamily dwellings, provided that there shall be no more than 1 dwelling unit for every 5,000 square feet of site area.

c) Public Policy

This section includes an overview of the following relevant public policy documents that relate to land use and zoning: *Mount Pleasant 1970 Comprehensive Master Plan and Mount Pleasant Master Plan Update* (currently underway), *Westchester 2025* and its precursor "Patterns," and the relevant elements of the *Fourth Regional Plan for NY, NYJ and CT Metropolitan Area*, FEMA National Flood Insurance Program, NYSDEC Stormwater Management Program, NYS Office of Emergency Management Agency *Hazard Mitigation Plan*, USEPA and NYSDEC Climate Action Plan.

Mount Pleasant *1970 Comprehensive Master Plan*

The *1970 Comprehensive Master Plan* for the Town of Mount Pleasant is a comprehensive, general, long-range guide for the Town's physical development of unincorporated areas of the Town. The plan "seeks to provide a pattern of growth for the next ten to twenty years" (i.e., until 1990). The overarching goal set forth in the *1970 Comprehensive Master Plan* is as follows:

> *Although the general character of Mount Pleasant should remain the same, that of a semi-rural community, the development pressures that are emanating from the New York City Metropolitan*

Region, should be recognized and controlled, to achieve a balanced community. Through controlled development these pressures can be met for the benefit of the community without loss of character. The Town's residential development should be composed primarily of single-family homes on one acre or more of land. Housing should also be provided for the elderly and young newlyweds who cannot presently afford a house in the community. The open spaces that give Mount Pleasant its semi-rural character should be preserved in whatever feasible method is available to the Town. The tax based should be broadened without sacrificing the character of the Town. (p. 2).

Other goals outlined in the *1970 Comprehensive Master Plan* that are relevant to the Proposed Action include the following:

- *Allow open space development on certain tracts of land, providing that the overall density remains the same and the open area is guaranteed to remain open.* (p. 2).
- *If multi-family zoning is to be adopted, it will be important to include special requirements regarding the provision of open space, landscaping, and generous amounts of landscaped screening where adjoining single-family residential properties.* (p. 2).
- *Mount Pleasant's semi-rural character should be kept by requiring that new commercial development be buffered on all sides, near major highways, and with stringent performance standards. Through controlled development, areas could be designated to become more fully developed with business, industrial, or multi-family development, and yet not interfere with the Town's character. By attracting higher tax-yielding development, such as business, industrial or multi-family developments, the Town could improve its tax structure.* (pp. 2-3).
- *With stringent esthetic and performance standards, light industrial development should take place in Office Business Zones. Encourage such development in school districts that have little industry and/or higher school taxes than other districts within the Town.* (p. 3).
- *Since all parts of the Town are within easy reach of existing business areas, either in the Town or in adjoining communities, there is no need to establish new retail business districts in any other section of the Town, unless large estate areas are developed.* (p. 3).
- *Any development which may generate such a substantial amount of motor vehicle traffic should be located where there is access to major highways or parkways without the necessity of traversing local residential streets.* (p. 3).
- *Office-laboratory developments should be subject to strict regulations which will create a campus-type character, in order to protect and be compatible with neighboring residential development. To do this, such development should be permitted only in areas where there are large parcels, or where large sites can be assembled. Such sites should permit generous setbacks, low coverage, and significant areas of attractive landscaping and open space.* (p. 3).

The future land use map, "Plan," on page 40 of the *1970 Comprehensive Master Plan* shows the Project Site as Open Space.

Town of Mount Pleasant Comprehensive Plan Update "Envision Mount Pleasant" (ongoing)

The Town is currently in the process of drafting a new Comprehensive Plan.[1] This process, under the title "Envision Mount Pleasant," is in the public engagement phase which includes an online survey and in-person workshops.

To date, there have been three visioning workshops for Envision Mount Pleasant – one in May 2018, one in August 2018, and another in October 2018 – where consultants spoke with stakeholders about the strengths and challenges faced in communities. Topics discussed at these meetings included sustainability and resiliency, natural environment and open space, mobility, economy, building environment, and community, culture and education.

Input received during this public engagement process will inform the updated Comprehensive Plan document, which will guide future land use decision-making throughout the Town.

Public input received so far has included the following priorities relevant to the Proposed Action:

- Built Environment
  - future development and its impact to the character of Mt. Pleasant
  - the need to create walkable, economically prosperous hamlets that can absorb a diversity of housing and retail needed in Mt. Pleasant
- Economy
  - underutilization of certain sites
- Natural Environment & Open Space
  - the importance of parks, trails, natural resources, and the current open spaces which give Mt. Pleasant its charm
  - protecting the Town's open spaces from development impacts and encroachment, including mention of the need to look at repurposing and reutilizing current building stock in the hamlets to prevent continued sprawl, and the need for more thoughtful and strategic development
  - strategies that set-aside open space or incorporate better landscape requirements

[1] Town of Mount Pleasant. "Comprehensive Plan Information". Available from: https://www.mtpleasantny.com/home/pages/comprehensive-plan-information. Accessed on January 9, 2020.

- continue to protect natural resources, such as wetlands, trees and steep slopes
- creating additional pedestrian pathways, improving the trails, and connecting trails, hamlets and green spaces

› Sustainability & Resiliency

- better protection of sensitive resources and open spaces
- the need for great energy efficiency options, and the growing demand for mobility choices, such as walkability and biking

› Mobility

- support for walkability in and around the Town
- lack of bike paths, lack of connections between areas in the Town, including the hamlets, and lack of any transportation choices
- traffic congestion and safety
- improved access with improvements to transit, such as bike racks, bike paths, and improved bus service between hamlets
- traffic calming measures to improve safety for pedestrians and motorists

› Community, Culture & Education

- entertainment, fields for youth, and access to recreational facilities in the winter

Patterns for Westchester (1996)

In 1996, the Westchester County Planning Board adopted *Patterns for Westchester: the Land and the People, Policies and Strategies to Guide Land Use* ("*Patterns*"), as a guide to the County's perspective on the planning and zoning issues facing the County. *Patterns* states 12 policies that underlie all of the Westchester County Planning Board's recommendations on land use, land acquisition, and capital projects, an on matters referred by local governments. Of these, the policies that relate and are relevant to the Proposed Action are:

› **Policy 1** – Channel development whenever possible to centers where infrastructure can support growth, where public transportation can be provided efficiently and where redevelopment can enhance economic vitality

› **Policy 3** – Assure a diverse and interconnected system of open space to shape development, to provide contrast in the texture of the landscape, to separate developed areas and to relate to open space systems of the region.

- **Policy 4** – Nurture the economic climate of the county with use of municipal, County, state and federal resources to improve infrastructure, housing and programs that attract and support business enterprise, with particular attention on intermunicipal impacts

- **Policy 5** – Preserve and protect the county's natural resources and environment, including its ground water resources, water bodies, wetlands, coastal zones and significant land resources which include unique natural areas, steep slopes and ridgelines and prime agricultural land.

- **Policy 8** – Enhance use of Westchester's parks, beaches and recreation facilities by improving public access, by providing a variety of natural settings for passive enjoyment and by taking into account the need for recreation close to population centers and the interests of the county's changing population.

- **Policy 9** – Enhance the quality of life for Westchester residents by protecting the county's educational, cultural and historical resources and factoring them into land use decisions.

In addition, on the *Patterns* map 6, the Project Site is classified as Other Publicly Owned Lands. See Figure 3A-3. This is classified as "land including open lands that are part of public institutions and facilities such as Grasslands." The area immediately surrounding the Project Site is classified as Medium Density Suburban (MDS 3-5) area. "The primary character of Medium Density Suburban Areas is residential although office campuses and institutional uses are common." The *Patterns for Westchester* illustration map 6 recommends a floor area ratio (FAR) range of 0.1 to 0.4 and a gross residential density (GRD, representing dwelling units per acre) of 3-13, for the area surrounding the Project Site.

Westchester 2025

In 2006, the Westchester County Planning Board began a review of *Patterns* and found that although *Patterns* provided a solid foundation for County-wide planning issues, new issues required specific acknowledgment and action. As a result, the County embarked on a process of developing an updated comprehensive vision for the County and its municipalities for the year 2025. The analysis of all zoning ordinances will become the basis for a wider "Vision Plan", Westchester 2025's county-wide map of recommended density ranges reflecting desires for future development and character balanced upon a variety of regional and intermunicipal issues. The document, "2025 Context for County and Municipal Planning and Policies"[2] was adopted on May 6, 2008 and amended on January 5, 2010 and updates and restates the planning policies from *Patterns*, for a total of 15 policies. Of these, the policies that relate and are relevant to the Proposed Action are (the updated portions of these policies that were not included in *Patterns* are given in **bold** text and removed portions are given in ~~strikethrough text~~):

- **Policy 1** – Channel development whenever possible to centers where infrastructure can support growth, where public transportation can be provided efficiently and where redevelopment can

[2] Westchester County. "Context for County and Municipal Planning in Westchester County and Policies to Guide County Planning". Amended January 5, 2010. Available from https://westchester2025.westchestergov.com/images/stories/pdfs/context2025_policies.pdf. Accessed on January 9, 2020.

enhance economic vitality. **Development should be consistent with defined community character and be designed to facilitate or enhance a smart growth urban fabric.**

› **Policy 3** – Assure a diverse and interconnected system of open space to shape development, to provide contrast in the texture of the landscape, to separate developed areas and to **provide linkages among** ~~relate to~~ open space systems of the region.

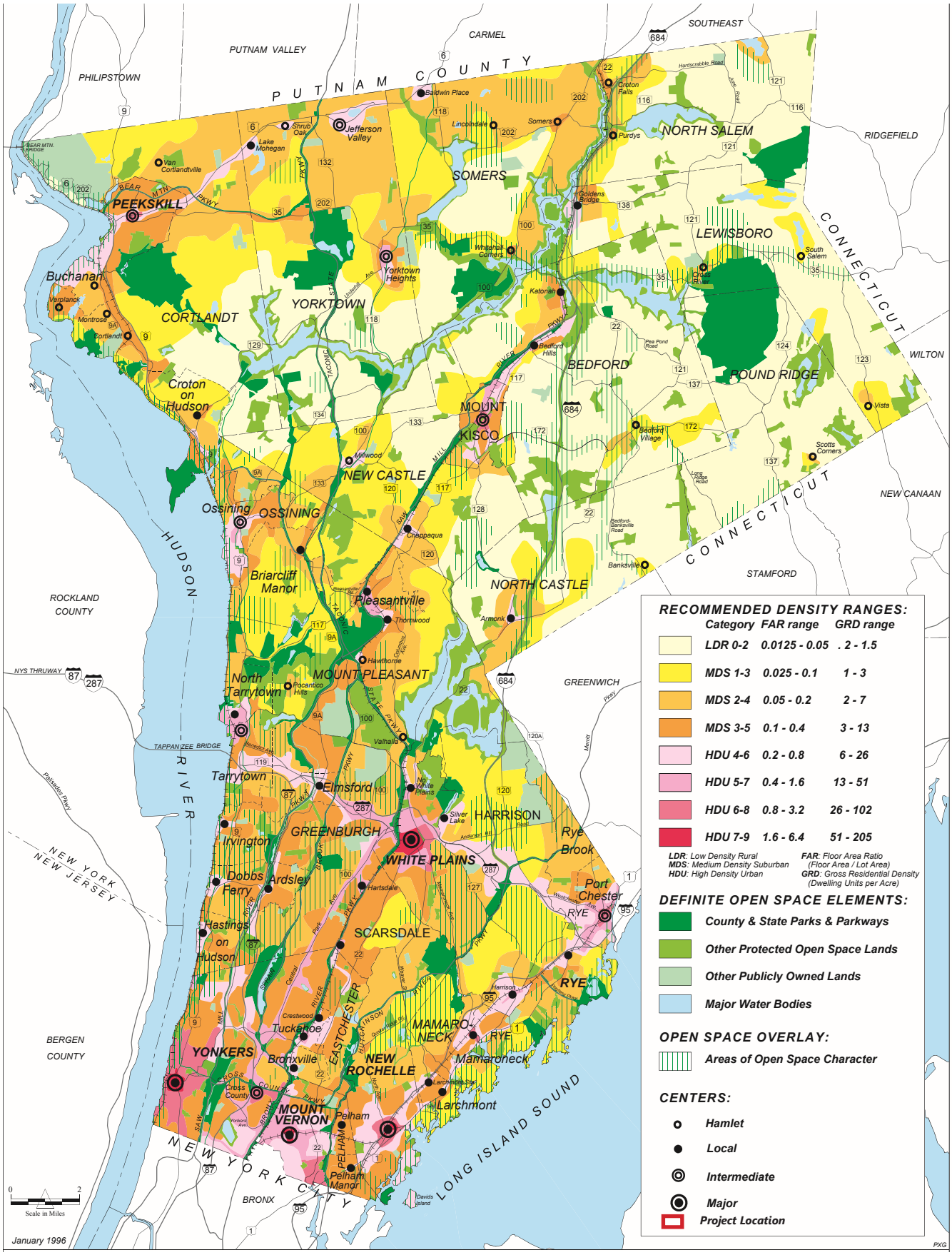
› **Policy 4** – Nurture the economic climate of the county with use of municipal, county, state and federal resources to improve infrastructure, housing and programs that attract and support business enterprise, with **consideration of** ~~particular attention on~~ intermunicipal impacts.

› **Policy 5** – Preserve and protect the county's natural resources and environment, **both physical and biotic. Potential impacts on water resources (water bodies, wetlands, coastal zones and groundwater),** ~~including its ground water resources, water bodies, wetlands, coastal zones and~~ significant land resources ~~which include~~ **(**unique natural areas, steep slopes**,** ~~and~~ ridgelines and prime agricultural land**) and biotic resources (critical habitat, plant communities and biotic corridors) require careful consideration as part of land management and development review and approval**.

› **Policy 8** – Enhance use of Westchester's parks, beaches and recreation facilities by improving public access **and** by providing a variety of ~~natural~~ settings for passive **and active use. New recreational opportunities should take** ~~enjoyment and by taking~~ into account the **recreational needs of higher density population areas and the needs and** ~~need for recreation close to population centers and the~~ interests of the county's changing population.

› **Policy 9** – Enhance the quality of life for Westchester residents by protecting the county's ~~educational,~~ cultural and historical resources**, integrating their consideration** ~~and factoring them~~ into land use decisions **and promoting awareness of such resources through educational programs**.

› Policy 14 **- Promote reliable, sustainable energy and conservation practices while fostering green technology in all areas of land use and building to create a sustainable Westchester County which reduces the carbon footprint and is adaptable to globalization and technological change.**



RECOMMENDED DENSITY RANGES:

Category	FAR range	GRD range
LDR 0-2	0.0125 - 0.05	. 2 - 1.5
MDS 1-3	0.025 - 0.1	1 - 3
MDS 2-4	0.05 - 0.2	2 - 7
MDS 3-5	0.1 - 0.4	3 - 13
HDU 4-6	0.2 - 0.8	6 - 26
HDU 5-7	0.4 - 1.6	13 - 51
HDU 6-8	0.8 - 3.2	26 - 102
HDU 7-9	1.6 - 6.4	51 - 205

LDR: Low Density Rural
MDS: Medium Density Suburban
HDU: High Density Urban

FAR: Floor Area Ratio (Floor Area / Lot Area)
GRD: Gross Residential Density (Dwelling Units per Acre)

DEFINITE OPEN SPACE ELEMENTS:

- County & State Parks & Parkways
- Other Protected Open Space Lands
- Other Publicly Owned Lands
- Major Water Bodies

OPEN SPACE OVERLAY:

- Areas of Open Space Character

CENTERS:

- Hamlet
- Local
- Intermediate
- Major
- Project Location

North 60 | Town of Mount Pleasant, NY

Patterns for Westchester Map 6

Source: Patterns for Westchester (1996)

The Fourth Regional Plan (Regional Plan Association, 2017)

The *Fourth Regional Plan* for NY, NJ and CT Metropolitan Area (2017) is the "long-term strategy that also informs [RPA's] short-term advocacy efforts" created in order to create a more equitable, healthy, sustainable, and prosperous region. The plan includes 61 recommendations in order to "achieve greater equity, shared prosperity, better health, and sustainability" in the New York metropolitan area. These recommendations reflect the four core values of this plan: equity, prosperity, health, and sustainability. The *Fourth Regional Plan* is an advocacy document that is not officially adopted by the Town or County. Among the recommendations within the *Fourth Regional Plan*, those that are relevant to the Proposed Action include:

- *Design Streets for people and create more public space*
- *Create well-paying job opportunities throughout the region*
- *Make room for the next generation of industry*
- *Promote partnerships between anchor institutions and local communities*

National Flood Insurance Program (NFIP)

The FEMA National Flood Insurance Program (NFIP) was created by Congress in 1968 in order to "reduce the impact of flooding on private and public structures." The NFIP provides insurance to property owners, businesses and renters, and encourages local governments to adopt floodplain management regulations in order to mitigate the effects of flooding. The Project Site is not within a Special Flood Hazard Area.

NYSDEC Stormwater Management Program

The NYSDEC regulates stormwater management through the State Pollutant Discharge Elimination System (SPDES) and the *Stormwater Management Design Manual*. Existing conditions with respect to stormwater management are discussed in detail in Chapter 3G, Stormwater Management.

New York State Hazard Mitigation Plan

The New York State Division of Homeland Security and Emergency Services (DHSES) *2019 New York State Hazard Mitigation Plan* (*"Mitigate NY"*) was approved by FEMA in December 2018. This plan was developed in order to create a comprehensive strategy to "reduce the state's overall risk and vulnerabilities" in the case of a natural disaster. Among the 2019 goals and objectives of *Mitigate NY,* those relevant to the Proposed Action include the following:

- **Goal 4** – Encourage the development and implementation of long-term, cost effective, and resilient mitigation projects to preserve or restore the functions of natural systems
    - 4.1: Encourage the use of green and natural infrastructure

› **Goal 5** – Build stronger mitigation actions that emphasize sustainable construction and design measures to reduce or eliminate the impacts of natural hazards now and in the future

- 5.1: Encourage building and rebuilding practices that address resiliency through higher standards and sustainable design to resist impacts of natural hazards

New York State Climate Action Plan

The NYSDEC Climate Action Plan Interim Report from 2010 is an assessment of "how all sectors can reduce greenhouse gas emissions and adapt to climate change." This plan is created by the New York Climate Action Council (CAC), which is comprised of 15 state agency heads or agency representatives tasked with meeting the goals for Executive Order No. 24.

2. Potential Impacts

a) Land Use

The Proposed Action would facilitate the development of a mixed-use community on the Project Site that would incorporate approximately three million square feet of bio-tech/research and development related uses including medical offices, a Children's Science and Education Center educational facility, neighborhood retail, and a hotel as part of a comprehensive Master Development Plan. The Proposed Action would include a new street network that connects the Project Site to the surrounding Grasslands Reservation, regional highway system, and community.

Phase 1 would be approved as part of the Proposed Action, and would include 500,000 s.f. of development consisting of a 120-room hotel (100,000 s. f.), 100,000 s.f. of medical office, 220,000 s.f. of bio-tech/research and 80,000 s.f. of retail space (perhaps a grocery store, health and wellness center, pharmacy with drive-through and other similar types of retail). Access to Phase 1 would be provided via two driveway connections to Hospital Road. As part of the Phase 1 development, a connection between Hospital Road and NYS Route 9A is proposed.

The Master Development Plan (incorporating Phase 2) would include a total of 3,000,000 s.f. of development consisting of the 120-room hotel, 400,000 s.f. of medical office, 2,144,000 s.f. of bio-tech/research, a 142,000-s.f. Children's Science and Education Center and 214,000 s.f. of retail space. Access to the development would be provided via two driveway connections to the NYS Route 9A Connector Road and the two driveways to Hospital Road.

The Proposed Action would facilitate a change of use on the Project Site from largely vacant, undeveloped forested land on the approximately 60-acre County Parcel and five single-family homes on the approximately 20-acre Developer Parcel to a master planned mixed-use bio-technology campus with complementary uses, introducing new uses including hotel, medical office, bio-tech/research space, an educational center, and retail space. The Project Site has not been designed to function as an isolated campus but rather as a walkable "main-street" style complex that is open and integrated with the

surrounding community. Close to 46 percent of the Project Site would be preserved as wetland and forested area as well as landscaped active or passive open space.

As noted earlier, the area within a half-mile of the Project Site contains a well-established mix of uses including health-related institutional, office and research, single- and multi-family residential, agricultural, park, and industrial uses. The County parcel is part of the Grasslands Reservation, which as detailed above, hosts a variety of uses including the Westchester Medical Center, the New York Medical College, the County's lab and research facilities, a fire and emergency training center, public works operation and a correctional facility.

The proposed uses on the Project Site are intended to complement other uses on the Grasslands Reservation and other nearby uses. With the exception of the hotel use, all of the other proposed uses for the Project Site can be found within the half-mile study area. Hotel would be a complementary use within this context. In addition, the Proposed Action has been designed to be compatible with and integrated into the surrounding uses and overall development pattern within the surrounding area. The site design maintains significant forested buffers between the Proposed Action and single-family residential uses to the north, while providing an integrated street network that functions with the remainder of the Grasslands Reservation uses.

As the proposed uses on the Project Site are intended to complement those uses that are immediately adjacent to the Project Site, the Proposed Action would not disrupt the overarching land use patterns in the area. Therefore, larger-scale land use impacts, such as impacts on the hamlets of Valhalla, Hawthorne, and Thornwood, are not anticipated. Overall, it is the Applicant's opinion that it shows no significant land use impacts which are anticipated to result from the Proposed Action.

b) Zoning

As discussed above, the 60-acre County Parcel is within the Town's R-20 district and the 20-acre Developer Parcel is within the Town's OB-6 district. The Town does not currently have a single zoning district with use, area and bulk controls designed to regulate the type of development included in the Proposed Action. Therefore, The Proposed Action includes rezoning the entire Project Site to the OB-5 Office Business District and a text amendment to provide the required mechanisms to appropriately regulate the development through the creation of the OB-5 Master Plan (OB-5 MP) District (see Appendix K for proposed zoning text amendment). As proposed, the zoning amendment would apply to both the County Parcel and the Developer Parcel.

The proposed zoning text amendments specifically would allow for

> *a bio-tech mixed use development that is part of an integrated master plan approved by the Planning Board on a site consisting of one or more contiguous lots having a minimum combined area of at least 60 acres and bordering a state or county highway. Such master plan includes, in addition to the permitted uses, laboratories… medical office buildings, restaurants, and retail uses in combination with uses permitted in the Schedule of Regulations set forth for this District. In addition, uses which are complementary to and supportive of one or more principal OB-5 District*

uses, and which includes planned public and private open space, walkways and bike trails promoting mobility and healthy communities, and public transportation to regional mass transit hubs are permitted in the OB-5 MP District. All development shall be undertaken in conformity with an approved site-specific master plan… The MP Schedule of Regulations designates a series of zoning standards for the building forms within a proposed master plan. In case of any conflict between the OB-5 "MP" Schedule of Regulations and any other provision of the Town Code, the provisions of this Section shall control.

The parking requirements for any bio-tech mixed use development master plan shall be the same as set forth for the OB-4 District. An applicant may also submit a Parking Management Plan in conjunction with its master plan for approval by the Planning Board.

The Proposed Action would comply with all provisions of the OB-5 Master Plan District (see Table 3A-1). The Applicant believes the proposed text amendment to the existing OB-5 District regulations is the most appropriate zoning approach to facilitate the Proposed Action. An amendment to an existing zoning district, as opposed to a new zoning district, ensures that the proposed OB-5 MP District is compatible with the Town's existing zoning preferences and regulatory framework, and therefore can be mapped without a significant disruption to existing zoning patterns. Of the existing zoning districts, the OB-5 District regulations are most closely aligned with the Proposed Action program.

The Applicant believes the Proposed Action would not have any adverse impact on the existing zoning code for several reasons:

- The proposed OB-5 MP District is consistent with the purpose and intent of the existing OB-6 and other OB zoning districts and adds uses focused on biotechnology and research facilities.
- The OB-5 MP District can only apply to parcels that are "at least 60 acres and bordering a state or county highway" and, therefore, such district has limited applicability to other OB-5 properties.

The zoning text amendments would allow for a more appropriate long-term planning process for a large parcel of property. By requiring a detailed review and approval process of an integrated master plan for the entire site in the beginning, the OB-5 MP amendments provide the Town with the appropriate use, area, and bulk design controls for a large long-term project.

Table 3A-1 Compliance with Proposed Area and Bulk Controls

	Required		Provided
	OB-5 Master Plan (MP)	60% variance (§ 218-72 B.)	
Minimum lot size (acres)	60 acres	24 acres	59.7 acres
Minimum yard dimensions (in feet)	Same as C-NR. No front or side yard setback. Rear is 30.	Rear is 12	Rear = 979.5′ Front = 10′ Side = 63.5′
Minimum Floor area per dwelling unit (square feet)	1. Same as R-40 (1,000 for one floor or 1,200 total for two floors) 2. For Independent Senior Living units, studios shall be 420, for one bedroom shall be 600 and for two bedrooms shall be 800.	400 for one floor or 800 total for two floors) 2. For Independent Senior Living units, there shall be a maximum of a 10% variation.	N/A
Maximum Height of buildings	3 stories or 65 feet[3]	4.8 stories or 104 feet	<104 feet
Maximum building coverage (percent of lot area)	20	32	5.8
Minimum Usable Open Space on Lot for Each Dwelling Unit (square feet)	1,200	720	N/A
Minimum number of off-street parking spaces	Same as OB-4. A Parking Management Plan may also be submitted in conjunction with its Master Plan for approval by the Planning Board	1,470	1,791 spaces

[1] Except that as per § 218-72(C), the maximum height of a hotel on a parcel in excess of 12 acres shall be 90 feet with 400 feet of frontage on a state highway and under § 218-72(E)(1)(c), the maximum heights of buildings on parcels greater than 50 acres may be 4 stories or 80 feet.

§ 218-72 B. - In the course of site plan review, as required by this chapter, the Planning Board shall have the power to vary the requirements of the chapter as to height limitations, yard setbacks. minimum interior yard dimensions and floor area, building coverage and required parking and other matters listed in the Schedule of Regulations, provided that the Planning Board shall determine that such variations are in the public interest and necessary in order to foster high-quality development and redevelopment, are in compliance with the general purpose and intent of this chapter and will ensure compatibility with uses on adjoining properties. In no case shall the variation of any requirement be greater than 60% of said requirement. Such variations shall apply only to the particular site plan and proposals thereon which are under review.

c) Public Policy

Mount Pleasant *1970 Comprehensive Master Plan*

The Proposed Action is consistent with the overarching goals of the *1970 Comprehensive Master Plan* to achieve a balanced community through controlled development that benefits the community,

broadens the tax base, and is consistent with existing community character. Though the Project Site is presented as open space for future land use planning purposes, as specifically detailed in the document, controlled development that promotes businesses and higher tax-yielding uses should be used to improve the Town's tax base, as long as it is properly integrated and buffers are provided. In addition, office-laboratory developments should be permitted on large parcels with significant areas of attractive landscaping and open space. It must also be noted that the 1970 Comprehensive Master Plan was approved approximately 50 years prior to the time of writing, and in that time, circumstances guiding development priorities in Mount Pleasant, including economic conditions, demographic patterns, and intervening land use decisions, have changed significantly. These changing circumstances have diminished the relevance of the Master Plan and its specific development recommendations. However, as detailed above, the Proposed Action maintains a significant portion (approximately 46%) of the Project Site as preserved natural area, forested land, and landscaped area and screening, particularly along the northern boundary of the Project Site where it borders single-family residential properties. In addition, the Proposed Action would bring significant economic development opportunities while being well-integrated into the existing Grasslands Reservation campus. Therefore, overall, the Proposed Action is consistent with the broad goals set forth in the Master Plan.

Town of Mount Pleasant Comprehensive Plan Update "Envision Mount Pleasant" (ongoing)

Though the process of updating the Town of Mount Pleasant Comprehensive Plan is currently ongoing, based on available public documents, the Proposed Action aligns well with public feedback received thus far. Public input has highlighted the need for redevelopment of underutilized sites and better protection of sensitive resources and open spaces, with robust landscaping requirements. The Proposed Action would strategically redevelop a key underutilized property within the Town of Mount Pleasant while preserving and enhancing the natural and sensitive features on the Project Site, including on-site wetlands and approximately 36.5 acres of open space and forested area. The Proposed Action includes a detailed landscaping plan that buffers the Proposed Action from surrounding sensitive land uses. Overall, the Proposed Action aligns with public feedback documented as part of the Comprehensive Plan Update process.

Patterns for Westchester (1996)/Westchester 2025

The development of the Project Site, as a mixed-use bio-technology campus with complementary uses, conforms to the goals set forth in the *Patterns for Westchester* policies summarized above and updated in the *Westchester 2025* document. Overall, the Proposed Action would enhance economic vitality and support business enterprise, pursue smart growth principles through a "main-street" style development with pedestrian amenities and a mix of uses, preserve and support sensitive natural areas and resources on the Project Site to maintain open space and buffer the development from surrounding land uses, provide opportunities for passive and active recreation on the Project Site, and enhance the quality of life for residents, particularly through the construction of a new Children's Science and Education Center on the Project Site. The Proposed Action has also been designed as a model of environmental sustainability from the conception of a plan that responds to the existing natural features to buildings that incorporate energy efficiency and LEED components.

Further, the *Patterns for Westchester* map recognizes the Project Site as "Other Publicly Owned Lands," representing an area characterized by public institutions and public facilities. As such, it does not recommend specific density parameters for the Project Site. As detailed above, the Proposed Action would be a complementary use to the surrounding Grassland Reservation uses. The Proposed Action is also compatible with the density recommendations for the area surrounding the Project Site. Specifically, the Proposed Action would result in an FAR of approximately .15 at completion of Phase 1, and an FAR of approximately .87 at completion of the Master Development Plan. No residential uses are proposed and therefore GRD is not relevant. Overall, the Proposed Action is compatible with *Patterns for Westchester* and the *Westchester 2025* update.

The Fourth Regional Plan (Regional Plan Association, 2017)

Of the recommendations set forth in the *Fourth Regional Plan*, the Proposed Action is mostly closely supportive of the goals to create well-paying job opportunities throughout the region and to make room for the next generation of industry. The Proposed Action would facilitate the redevelopment of a key underutilized County-owned property and leverage it for local economic development benefits, job opportunities, and expansion of a growth industry in the bio-technology/research fields. For these reasons, the Proposed Action is well-aligned with the long-term strategy set forth in the *Fourth Regional Plan*.

National Flood Insurance Program (NFIP)

As detailed above, the Project Site is not located within a Special Flood Hazard Area, and therefore no significant impacts related to this policy are anticipated.

NYSDEC Stormwater Management Program

With implementation of onsite stormwater management practices, the proposed Stormwater Pollution Prevention Plan, and the Sediment and Erosion Control Plan detailed in Chapter 3G, Stormwater Management, no significant impacts related to stormwater are anticipated. Therefore, the Proposed Action aligns with this policy.

New York State Hazard Mitigation Plan

As the Project Site is outside of a Special Flood Hazard Area, there is a low risk for natural hazards to impact the Proposed Action. The Proposed Action incorporates resiliency into its design through the restoration of on-site wetlands, preservation of more than 36.5 acres of open space, and a comprehensive stormwater management system. Therefore, the Proposed Action would be consistent with the goals of *Mitigate NY* to the maximum extent practicable.

New York State Climate Action Plan

The Proposed Action has been conceived as a model of environmental sustainability from the conception of a plan that responds to the existing natural features to buildings that are envisioned as models of energy efficiency and that are designed with LEED strategies and components. Not only

environmentally sustainable, the Proposed Action has been envisioned to be economically and socially sustainable, as well – including a mix of uses and a new Children's Science and Education Center. Sustainable strategies include:

- A mix of uses that can reduce the number of vehicle trips and miles traveled.
- The development pattern has been designed to promote pedestrian use.
- Street trees line all streets to provide shade.
- Buildings and streets have been sited to respond to the significant existing topography by:
  - Reducing the amount of required grading.
  - The majority of parking is structured and beneath the buildings thereby reducing the amount of impervious surfaces that would otherwise be required.
  - Impact to wetlands has been minimized.

- New ponds and wetlands are created to address storm water management that includes native aquatic and terrestrial vegetation that would aid in cleansing run-off. This would also provide greater biodiversity for the Site.
- Bio-swales and pervious paving are envisioned to promote infiltration.
- Disturbed woodland edges would be planted with native understory trees and shrubs to both increase biodiversity and beauty.
- Most buildings have been oriented with short facades facing west and/or angled to minimize thermal heat gain in summer months and to reduce cooling loads.
- Biotechnology/medical technology buildings are envisioned to be designed with LEED components.
- Some buildings are envisioned to have green roofs to aid in storm water management and to reduce impervious surfaces.
- The North County Trailway is located just to the west and bicycle parking would be provided throughout so that users can take advantage of commuting options.
- Conveniently located bus stops would be provided with access to the commuter rail station.
- Interpretive trails would provide educational opportunities about the ecosystem and about our role in the environment.
- The Children's Science and Education Center provides educational opportunities for the region.

Further information regarding climate-friendly practices to be incorporated into the design of the Proposed Action are discussed in Chapter 3P, Greenhouse Gas Emissions, Energy Conservation, Green Building and Sustainability. With these measures, the Proposed Action would be consistent with New York State's Climate Action Plan.

3. Mitigation Measures

a) Land Use

In the opinion of the Applicant the Proposed Action would not have significant adverse land use impacts. Therefore, no mitigation measures are proposed.

b) Zoning

In the opinion of the Applicant the Proposed Action would not have a significant adverse impact on zoning. Therefore, no mitigation measures are proposed.

c) Public Policy

The Proposed Action would be consistent with the relevant recommendations of the applicable public policies. Therefore, no mitigation measures are proposed.

B. VISUAL RESOURCES AND COMMUNITY CHARACTER

1. Existing Conditions

Visual Character of the Project Site

The Project Site is primarily characterized by vacant land with vegetation and tree coverage, which ranges from mowed lawn with trees in the area along the roadway to forested area to the north of the site. The 60-acre portion of the Project Site, which is owned by Westchester County, is primarily vacant land, some of which has been used by Westchester Medical Center as a construction staging area. There is an existing two-family dwelling and asphalt drive present in the northern portion of the Project Site, which is completely shielded from public view by surrounding trees. The remainder the Project Site contains a variety of vegetation and wetland areas.

The 20-acre portion of the Project Site owned by the Developer contains five single-family residences, a small plant nursery, storage sheds, an in-ground pool, asphalt drives and parking areas, and related improvements. Given the size of this property, the Developer-owned portion of the Project Site remains largely natural and vegetated. The remainder of the Developer Parcel consists of old field areas, shrubland areas, woodland areas, forested areas and wetlands and watercourses. See Figure 3B-2, Photographs 1 - 18 for views depicting the visual character of the Project Site, Figure 3B-2.1 through 3B-2.5 for aerial views of the project site and surrounding areas, and Figure 3B-1, Photographs 1 – 15 for the visual character of the surrounding areas (described in the following section).

Visual Character of the Surrounding Properties

--Residential Properties

Areas to the north of the Project Site generally feature suburban residential patterns of development. Single-family detached homes are the predominant use in the vicinity of the Project Site along Stevens Avenue, Dorothy Court and Philip Place. Residential homes on these streets are generally located on larger lots and are mostly one and two-stories. See Photos 11 – 14 in Figure 3B-1.

--Campus

The County's Grasslands Reservation campus includes the Westchester Medical Center, New York Medical College, the County's lab and research facilities, a fire and emergency training center, public works operations, and a correctional facility. The Westchester Medical Center lies immediately south of the Project Site. Though the Westchester Medical Center campus is characterized by surface parking and large institutional buildings, landscaped areas and a row of evergreen trees buffers much of the view between Hospital Road and the parking lots at the Medical Center and the Project Site. See Photos 3 – 6 in Figure 3B-1.

--Parkway

The Sprain Brook Parkway borders the eastern property line of the Project Site. It is a six-lane bi-way that generally runs north-south through Westchester County and is lined with a mix of uses including residential, commercial, institutional, and recreational. Near the Project Site, the parkway is well traveled with no pedestrian access. The view corridor adjacent to the Project Site consists of forest and dense vegetation and a mowed lawn. See Photos 1, 2 and 15 in Figure 3B-1.

--Nearby Office Parks and Saw Mill River Road

The area to the west of the Project Site generally features large multi-story buildings in an office park setting with large asphalt parking lots and forested area beyond. See Photos 7 and 8 in Figure 3B-1. The northwestern portion of the property line is bound by Old Saw Mill River Road with views of uses along Saw Mill River Road. There is a mix of retail and residential uses along this road, with visible utility towers. Much of this area is buffered from the Project Site by a forested area. See Photos 9 and 10 in Figure 3B-1.

Photo 1 From Project Site looking East toward Sprain Brook Parkway

Photo 2 From Project Site looking south toward Sprain Brook Parkway South entry ramp

North 60 | Town of Mount Pleasant, NY

Surrounding Neighborhood Photographs

Source: Fareri Associates

Photo 3 From Project Site looking south toward Woods Road

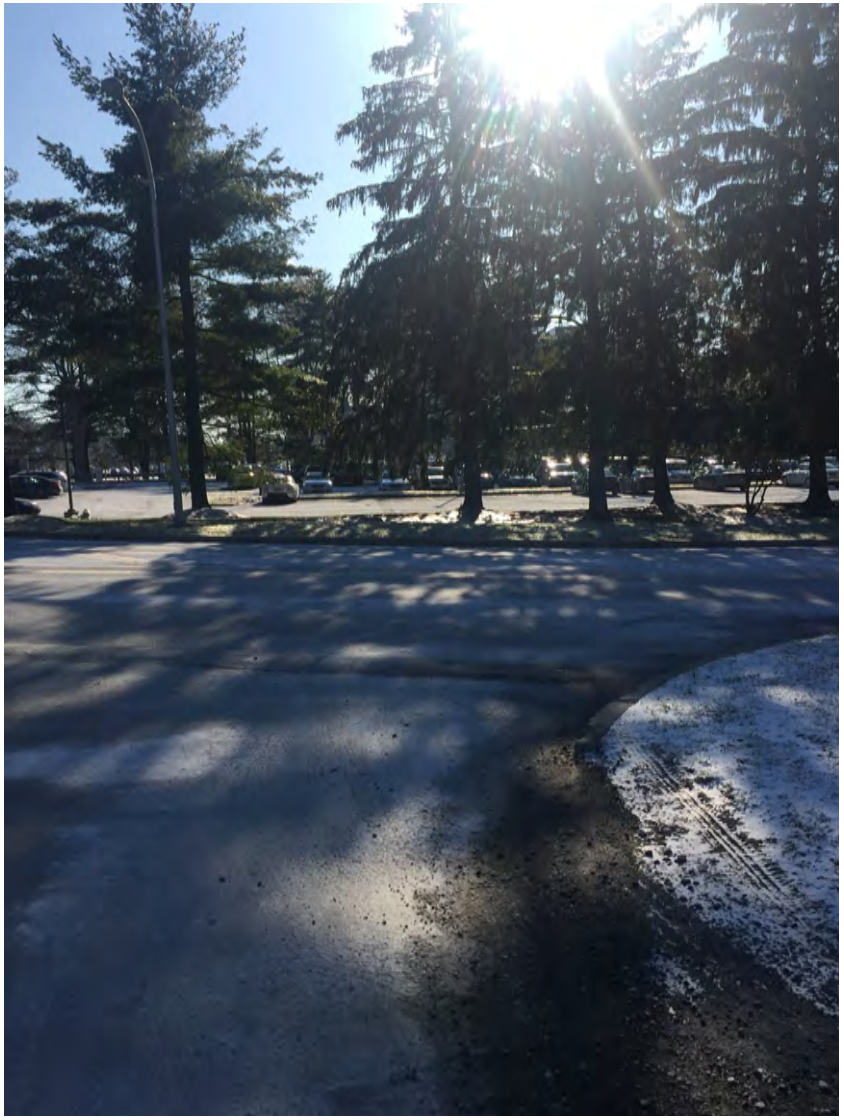


Photo 4 From Project Site looking south toward hospital uses

North 60 | Town of Mount Pleasant, NY

Surrounding Neighborhood Photographs

Source: Fareri Associates

Photo 5 From Project Site looking south toward hospital uses

Photo 6 From Project Site looking south toward hospital uses

North 60 | Town of Mount Pleasant, NY

Surrounding Neighborhood Photographs

Source: Fareri Associates

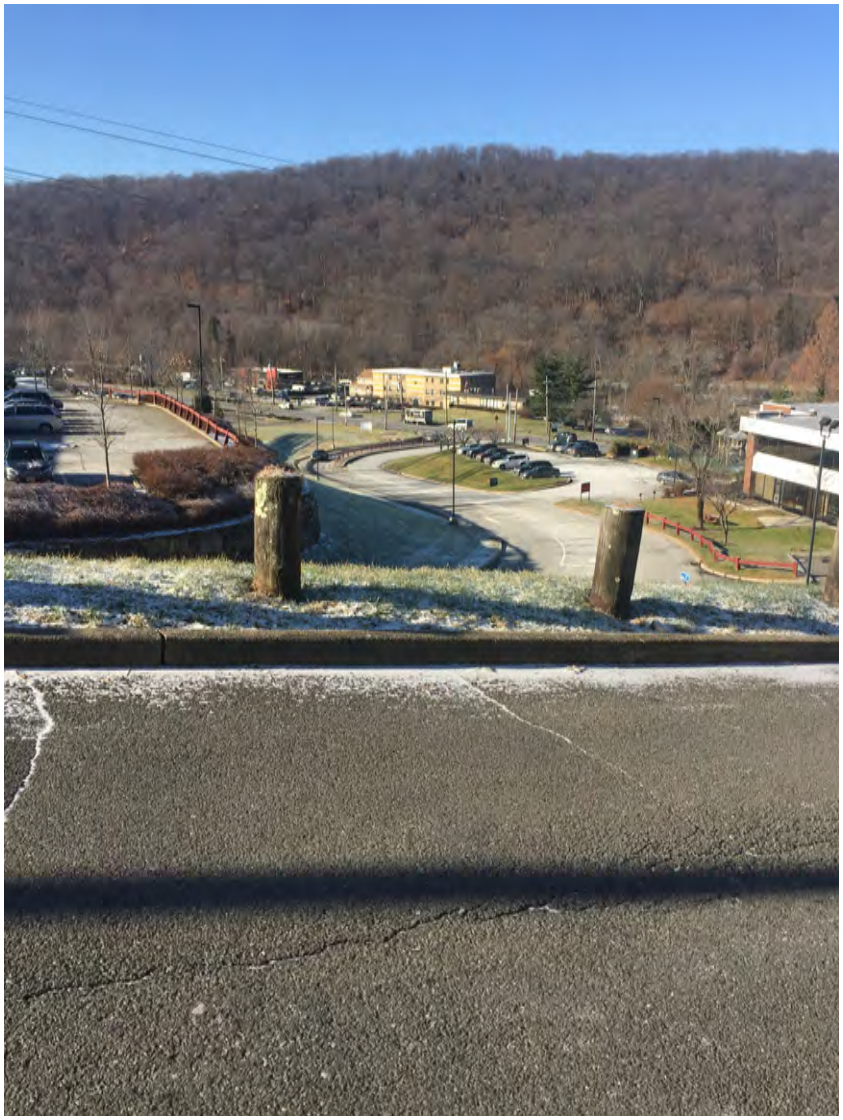


Photo 7 From Project Site looking southwest toward Skyline Drive Office Parks

Photo 8 From Project Site looking southwest toward Skyline Drive Office Parks

North 60 | Town of Mount Pleasant, NY

Surrounding Neighborhood Photographs

Source: Fareri Associates

Photo 9 From Project Site looking northwest toward Saw Mill River Rd

Photo 10 From Project Site looking west toward Old Saw Mill River Rd

North 60 | Town of Mount Pleasant, NY

Surrounding Neighborhood Photographs

Source: Fareri Associates

Photo 11 From Project Site looking north at West Stevens Avenue

Photo 12 From Project Site looking north toward Philips Place

North 60 | Town of Mount Pleasant, NY

Surrounding Neighborhood Photographs

Source: Fareri Associates

Photo 13 From Project Site looking north toward West Stevens Ave

Photo 14 From Project Site looking north toward Dorothy Court

North 60 | Town of Mount Pleasant, NY

Surrounding Neighborhood Photographs

Source: Fareri Associates

Photo 15 From Project Site looking east toward the Sprain Brook Parkway

North 60 | Town of Mount Pleasant, NY

Surrounding Neighborhood Photographs

Source: Fareri Associates

Views of the Project Site

The Project Site is located in central Westchester County in the Town of Mount Pleasant, New York. The Project Site is bordered by Hospital Road to the south, the Sprain Brook Parkway to the east, West Stevens Road to the north and Nilsson Drive to the west. A field visit to the Project Site was conducted in December 2019 to observe and take photographs of various viewpoints surrounding the Project Site in order to determine preliminary visibility of the Proposed Action. Photographs taken at the time of the field visit included views toward the Project Site in order to capture the view from each location detailed below. These are included as Photographs 1 – 19 in Figure 3B-2. As detailed below, views of the Project Site from these surrounding roadways largely consist of dense trees and other vegetation.

Views from Sprain Brook Parkway

The Sprain Brook Parkway runs north - south and borders the Project Site's eastern edge. Existing views of the Project Site from the Sprain Brook Parkway are of forest and overgrown vegetation (trees, shrubs, vines, etc.). See Photos 1 through 4.

Views from West Stevens Avenue

West Stevens Avenue borders the Project Site's northern edge. Existing views of the Project Site from West Stevens Avenue are of forest and overgrown vegetation (trees, shrubs, vines, etc.) and overhead power lines in some locations. See Photo 5.

Views from Hospital Road

Hospital Road borders the Project Site's southern edge. Existing views of the Project Site from Hospital Road are primarily of dense vegetation and forest as seen in Photo 7. A portion of the Project Site visible from Hospital Road includes an asphalt parking lot and chain link fence as seen in Photo 6.

Views from Bradhurst Park

Bradhurst Park is located on the eastern side of the Sprain Brook Parkway across from the southeast portion of the Project Site. The Project Site is not highly visible from Bradhurst Park due to existing vegetated buffers, however forested areas on the Project Site may be seen intermittently from this viewpoint. See Photo 8.

Views from Bradhurst/Hospital Road and Bradhurst Avenue/Sprain Parkway Overpass

The Bradhurst Avenue Sprain Brook Parkway Overpass is located northeast of the Project Site. Existing views of the Project Site from the Bradhurst Avenue Sprain Brook Parkway Overpass include forest and dense vegetation (trees, shrubs, vines, etc.). The Westchester Medical Center is visible from the overpass. Bradhurst/Hospital Road is an intersection east of the southern portion of the Project Site. Views of the existing Project Site from Bradhurst/Hospital Road are primarily of forest and dense vegetation (trees, shrubs, vines, etc.) as seen in Photos 9 and 10.

Views from Philip Place

Philip Place is a north-south road located north of the Project Site. Existing views of the Project Site from Philip Place are of forest and overgrown vegetation (trees, shrubs, vines, etc.) and overhead power lines in some locations. See Photo 11.

Views from Dorothy Court

Dorothy Court is a small cul-de-sac located north of the Project Site. Existing views of the Project Site from Dorothy Court are of forest and overgrown vegetation (trees, shrubs, vines, etc.) and overhead power lines in some locations. See Photo 12.

Views from Nearby Hospital Uses

Hospital uses adjacent to the Project Site include the Westchester Medical Center and Maria Fareri Children's Hospital. Existing views of the Project Site from nearby hospital uses are primarily of dense vegetation. A portion of the Project Site visible from nearby hospital uses includes an asphalt parking lot and surrounding fencing as seen in Photos 13 and 14.

Views from Skyline Drive Office Parks

The Skyline Drive office parks are located to the west of the Project Site. Existing views of the Project Site from the Skyline Drive office parks are primarily of dense vegetation (trees, shrubs, vines, etc.). A former greenhouse can be seen as well. Existing residences on the Project Site are shielded from view by tree cover. See Photos 15 and 16.

Views from Gate of Heaven Cemetery

Portions of the Gate of Heaven Cemetery are located on the eastern side of Route 100, east of Bradhurst Park. Views from the northern portion of the cemetery adjacent to Route 100, beyond the cemetery wall, include trees and vegetation, sports fencing, and field lighting from Bradhurst Park. The Project Site is located beyond the park, to the west of Sprain Brook Parkway. Some vegetation from the Project Site is visible. See Photos 17 and 18.

Photo 1
Sprain Brook Parkway looking northwest.

Photo 2
Sprain Brook Parkway looking north at the exit for the Westchester Medical Center. WMC is seen to the left.

Site Photographs - Existing Site Conditions

Source: Fareri Associates

Photo 3
Looking south over the Sprain Brook Parkway at the Project Site (right) from the Bradhurst Avenue Sprain Parkway Overpass.

Photo 4
Sprain Brook Parkway looking northeast at the Project Site.

Site Photographs - Existing Site Conditions

Source: Fareri Associates

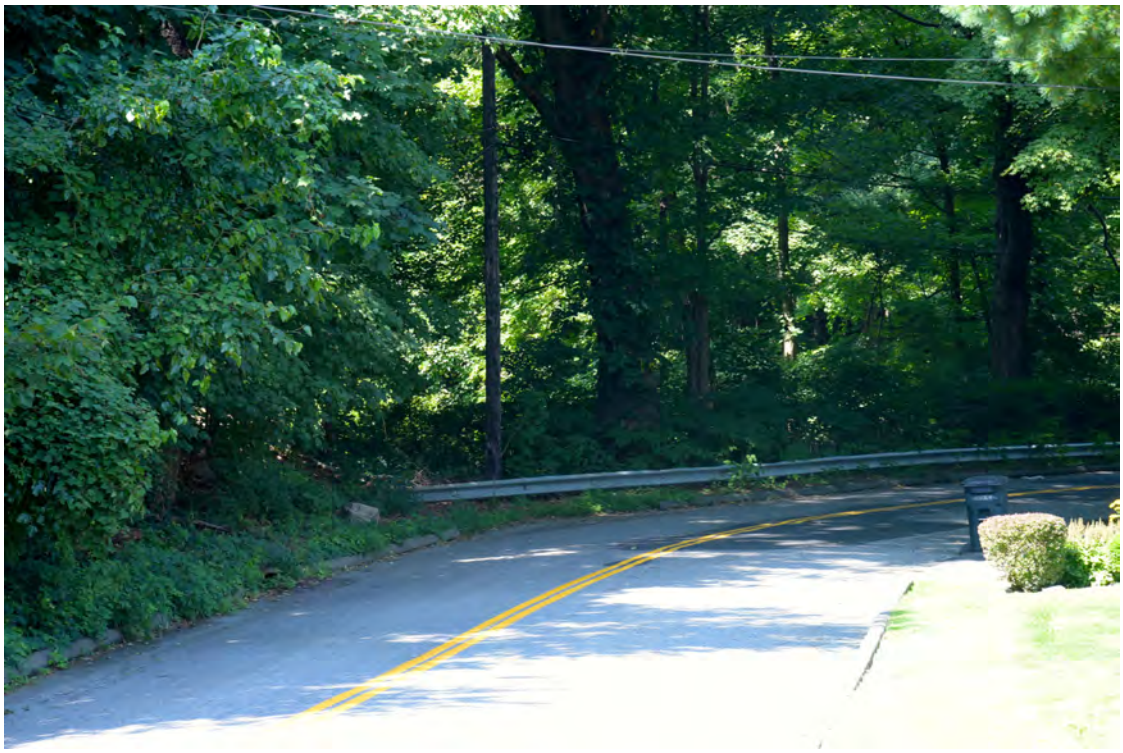


Photo 5
Stevens Avenue looking west at the Project Site. A stream is behind the gaurd rail.

Photo 6
Looking northwest along Hospital Road at the southern property line of the Project Site.

Site Photographs - Existing Site Conditions

Source: Fareri Associates

Photo 7
Looking west along Hospital Road at the southern property line of the Project Site

Photo 8
Looking west across Bradhurst Park at the Project Site.

Site Photographs - Existing Site Conditions

Source: Fareri Associates

Photo 9
The bridge on Hospital Road passing over Sprain Brook Parkway looking west. The Property Site is seen to the north (right).

Photo 10
The bridge on Hospital Road passing over Sprain Brook Parkway looking northeast at the Project Site.

Site Photographs - Existing Site Conditions

Source: Fareri Associates

Photo 11
The northern property line of the Project Site as seen looking south from Philip Place.

Photo 12
The northern property line of the Project Site as seen looking southwest from Dorothy Court.

Site Photographs - Existing Site Conditions

Source: Fareri Associates

Photo 13
Looking north at the Project Site from the Westchester Medical Center.

Photo 14
Looking at the existing temporary parking at the Project Site from Westchester Medical Center.

Site Photographs - Existing Site Conditions

Source: Fareri Associates

Photo 15
Looking northeast toward the Project Site from Skyline Drive.

Photo 16
Looking northeast into the Project Site from a parking lot at Skyline Drive office parks.

Site Photographs - Existing Site Conditions

Source: Fareri Associates

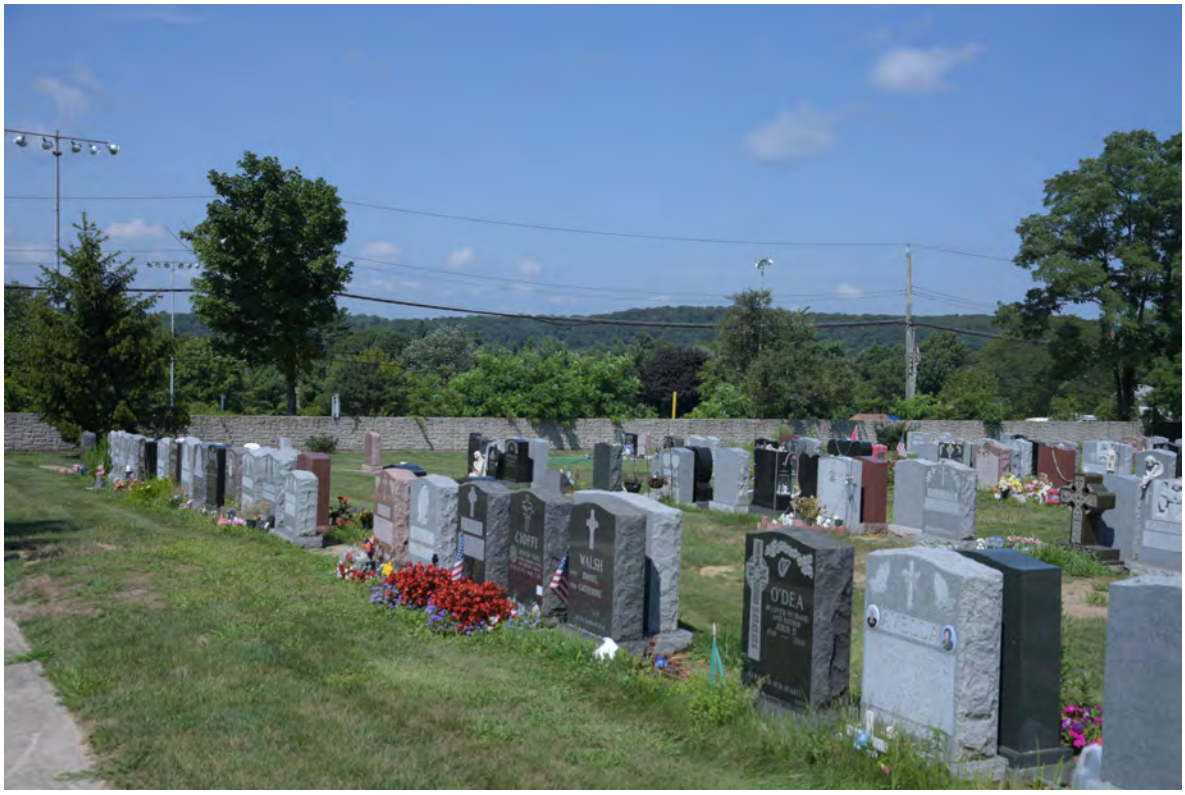


Photo 17
Looking southwest at the Project Site from the Gates of Heaven Cemetery

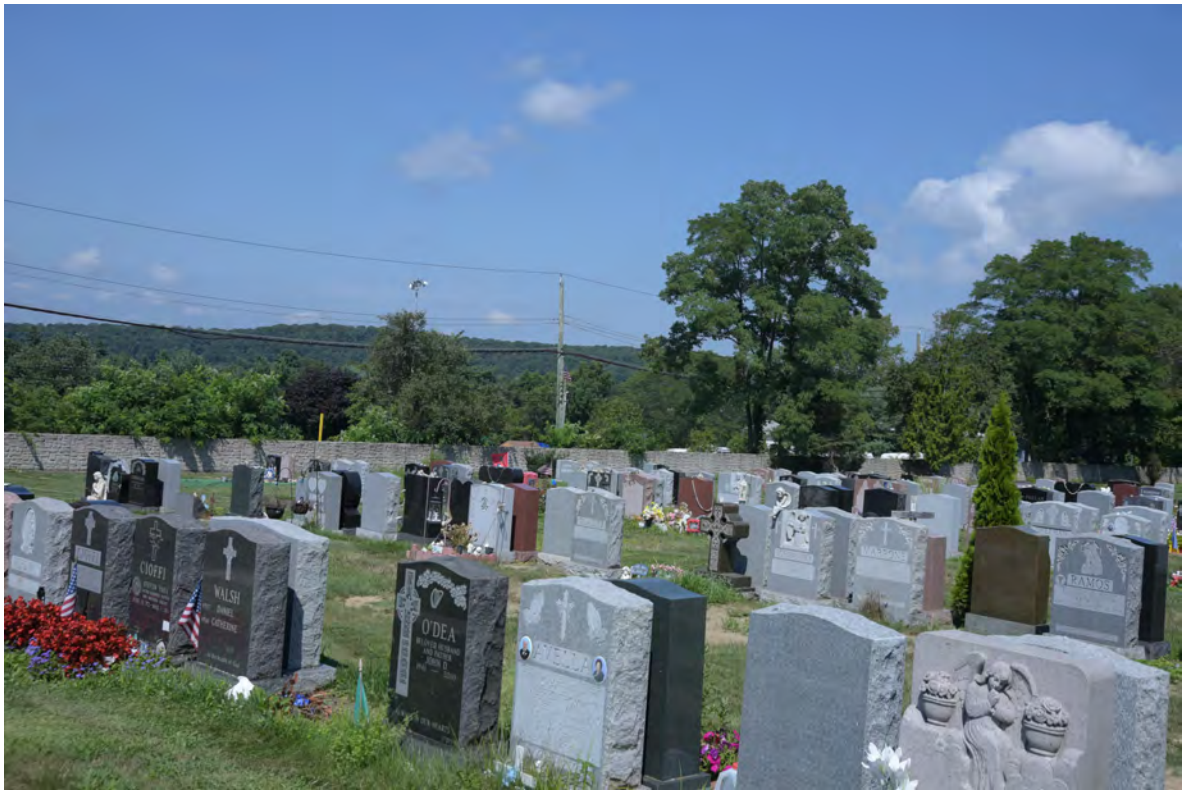


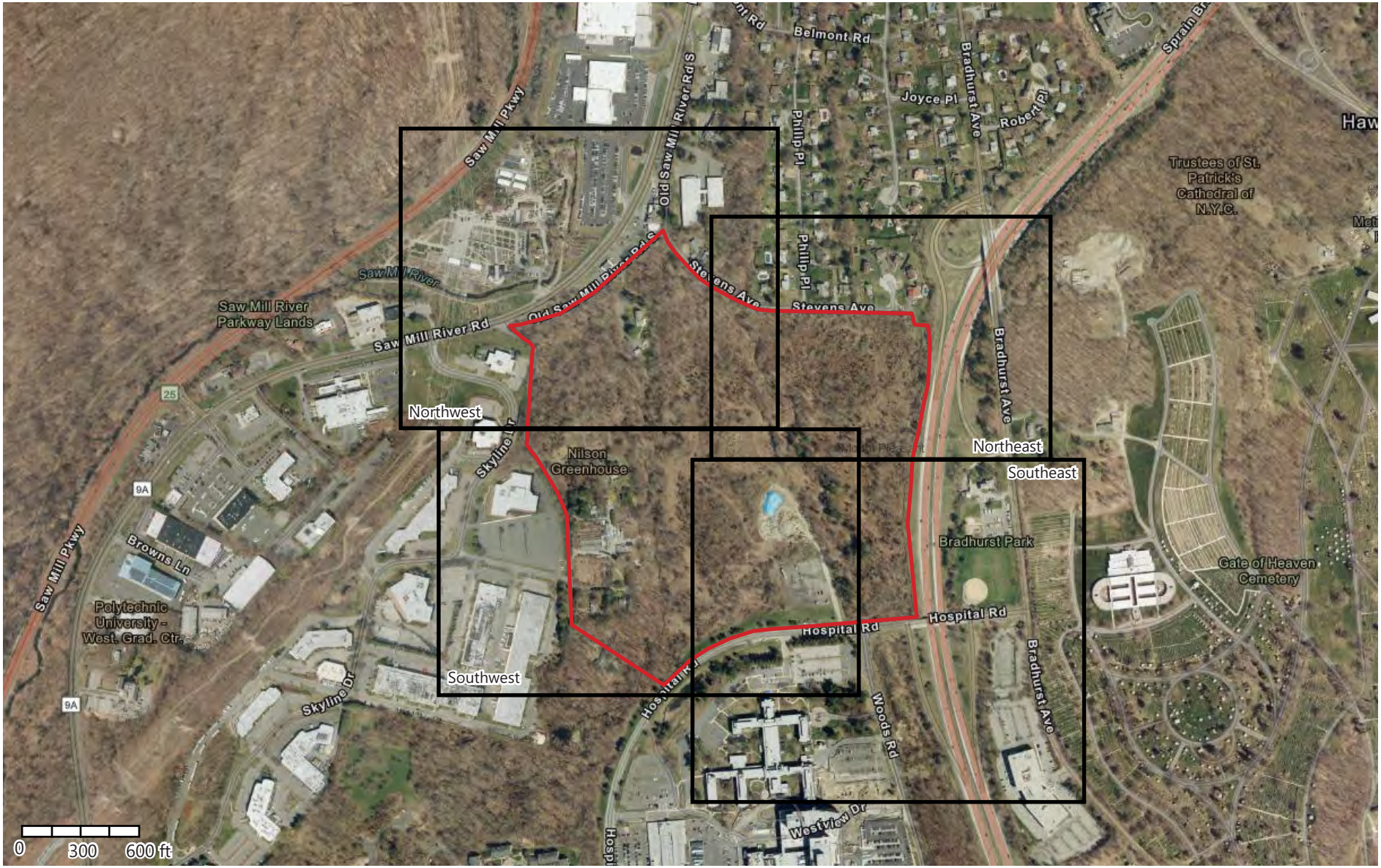
Photo 18
Looking west at the Project Site from the Gates of Heaven Cemetery

Site Photos - Existing Site Conditions

Source: Fareri Associates

Photo 19
Looking southeast at the Project Site from the Saw Mill River Parkway

Site Photos - Existing Site Conditions
Source: Fareri Associates



North 60 | Town of Mount Pleasant, NY

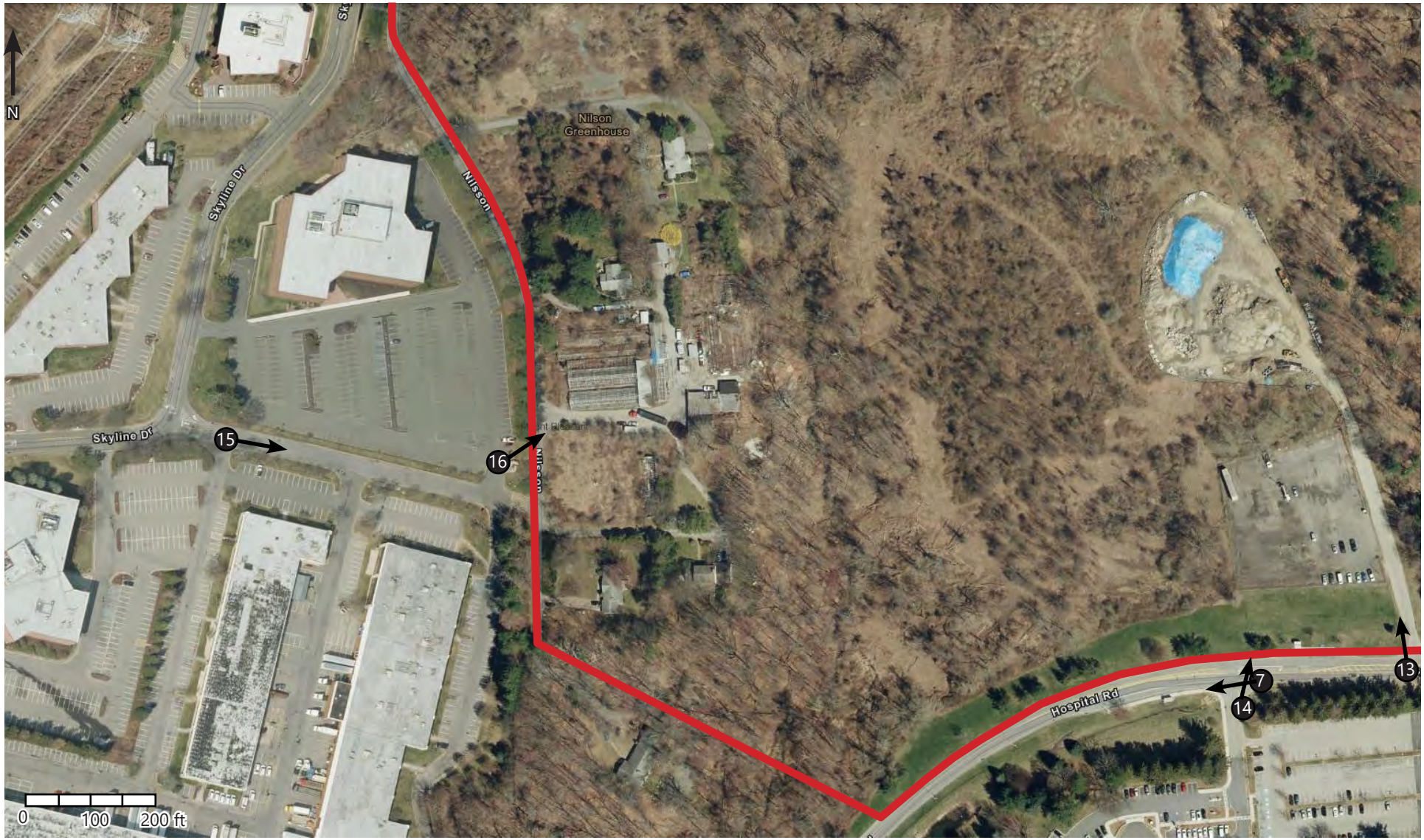
Site Aerial Key - Existing Site Conditions

Source: Westchester GIS

North 60 | Town of Mount Pleasant, NY

Site Aerial Northwest- Existing Site Conditions

Source: Fareri Associates



North 60 | Town of Mount Pleasant, NY

Site Aerial Southwest - Existing Site Conditions

Source: Westchester GIS

North 60 | Town of Mount Pleasant, NY

Site Aerial Northeast - Existing Site Conditions

Source: Westchester GIS

North 60 | Town of Mount Pleasant, NY

Site Aerial Southeast - Existing Site Conditions

Source: Westchester GIS

Inventory of Aesthetic Resources

The New York State Department of Environmental Conservation (NYSDEC) offers guidance for assessing visual impacts through *Program Policy, Assessing and Mitigating Visual Impacts, DEP-00-2*. The first step in assessing impacts using this method is to identify aesthetic resources within five miles of the Project Site. Aesthetic resources are defined generally as properties listed on the State or National registers or local lists of historic places, natural resources, parks and scenic areas.

Within one-half-mile of the Project Site, there are two National Register Listed (NRL) properties (Taconic State Parkway and Rockefeller Pocantico Hills Estate Historic District) and one National Register Eligible (NRE) district (the Grasslands Medical/Correctional Facility Historic District). There are no sites listed on the Westchester County Inventory of Historic Places within one-half-mile of the Project Site.

State parks and other aesthetic resources within five miles of the Project Site include the beginning of the Taconic State Parkway. This resource does not lie in the viewshed of the Project Site.

2. Potential Impacts

On-Site

As discussed in Chapter 2, Project Description, Phase 1 of the Proposed Action would consist of the completion of the 6-story hotel building, 4-story medical office over retail building, 2-story fitness/grocery building with two levels of parking below, 3-story bio-technology building, 5-story office over retail (pharmacy) building with 3 levels of parking below, and associated asphalt parking lots (see Figure 3B-3 Draft Concept Site Plan Program – Phase 1). Phase 1 would include the construction of open space features including the Promenade and stream valley pond, Neighborhood Square, and Entry Plaza (see Figure 2-17, Open Space Diagram). The connection from Nilsson Drive to Hospital Road and the Skyline Drive office parks would be established.

At the completion of the Master Development Plan, the Children's Science and Education Center, 214,000 square feet of neighborhood shopping, 400,000 square feet of medical offices, and 2,144,000 square feet of biotech/research facilities would be built, replacing much of the asphalt parking lots from Phase 1 (see Figure 3B-4, Draft Concept Site Plan Program – Master Development Plan). In addition to the proposed buildings, 198,163 square feet of landscaped areas including west green and center green would be completed (see Figure 2-17 Open Space Diagram). At the completion of the Master Development Plan, approximately 46 percent of the Project Site would be composed of open space.

The architecture for the Proposed Action would capture the intrinsic natural character of the region and also embody the visionary and technological focus of the development. The natural environment has historically played a significant role in the character of the region. Stone is a common building element in Westchester and charming stone walls define property boundaries. The primary facades are envisioned to be composed of materials that bridge between traditional and modern aesthetics sourced in a responsible way with the design conveying a strong technological identity.

Neighborhood Shopping		80,000 SF
Medical Office		100,000 SF
Biotech/ Research		220,000 SF
Hotel		100,000 SF
Total Program		500,000 SF

North 60 | Town of Mount Pleasant, NY

Draft Concept Site Plan Program - Phase 1

Source: Torti, Gallas + Partners

Neighborhood Shopping		214,000 SF
Medical Office		400,000 SF
Biotech/ Research		2,144,000 SF
Hotel		100,000 SF
Living Science Center		142,000 SF
Total Program		3,000,000 SF

North 60 | Town of Mount Pleasant, NY

Draft Concept Site Plan Program - Master Development Plan

Source: Torti, Gallas + Partners

Floor plates floor to floor height would be a minimum of 15′ and up to 18′ in order to accommodate research functions and equipment. Building heights would vary across the Project Site to create an interesting blend of heights and engaging environment as if built over many years.

The Proposed Action would be designed with LEED components and respond to the existing natural features surrounding. Most buildings would be oriented west with short facing facades and/or angled in such a way that thermal heat gain would be minimized in the summer months in order to reduce cooling loads. Some buildings would be built with green roofs in order to aid with storm water management and minimize impervious surfaces. These features would also strengthen the proposed buildings' link to the natural environment of its surroundings.

Overall the character of the Project Site would change as a result of the Proposed Action, from vacant, forested land to a developed, walkable main street with tree lined sidewalks designed to be a central gathering place, facilitate interaction and be a model for "smart growth". The goal of the Proposed Action is to be more than just an office park. The Project Site would be a regional attraction where people could work, shop, play, and learn.

Off-Site

Descriptions and visual simulations were used to assess the potential visual impacts of the Proposed Action from specific vantage points during Phase 1 and at the completion of the Master Development Plan. This section includes a brief description of the methodology used to create the visual simulations followed by an analysis of potential visual impacts from surrounding viewpoints. A map key and the corresponding visual simulations can be seen in Figures 3B-5 and 3B-6 respectively.

Methodology

The goal of using visual simulation is to simulate the visual impact of the Proposed Action in a scenario at full build-out. A Digital Model methodology, relying on the project survey, proposed project description, site plans, limits of disturbance and a digital model prepared in InfraWorks Model Builder, was used for the visual simulation. The steps taken to prepare the visual simulation using the Digital Model methodology are outlined below.

1. Digital Topographic Model – Topography significantly affects visual impact. The Project Site topography was modeled using InfraWorks Modeler based on a site survey and the proposed grading for the Project Site. The surrounding area topography was imported from the US Geologic Survey Digital Elevation Model.

2. Tree Survey of Existing Significant Trees – Data from the project tree survey was imported into the model.

3. Establish Trees to Remain and Trees to be Removed – The project limits of disturbance map was overlaid with the tree survey to identify which trees would remain in the full build-out condition. The tree survey only locates trees larger than 10-inch caliper, therefore, additional trees not identified on the tree survey were located using Google Earth Pro (GEP).

4. Define Existing Tree Character – Trees were selected that most closely resemble the species represented in the tree survey and from the additional tree identification.

5. Placement and Sizing of Existing Trees to Remain – A multi-stage process using various mapping tools and information from the tree survey and GEP was used to estimate the approximate height, size and location of trees to remain on the Project Site.

6. Establish Views – The views were positioned in Lumion Photo Shoot mode. To capture 3-point perspective the view camera was positioned at the Station Point (SP) of each view, the height of each SP was set to 1.7m (approximately 5'-6"), and the focal length was set to approximately 45mm, typifying human ocular range, with a crop at the peripheral limits of a standard angle of view.

7. Add Digital Building Models – SketchUp models for proposed buildings and simple massing models of context buildings were imported and geo-located on the digital topographic model base.

8. Photographic Verification and Adjustments – Each view was compared with photographs of the Project Site and GEP. Tree heights and placements were further defined as needed.

9. Adding Proposed Landscape and Environmental Features – Planned landscape features, existing utilities, and street lights were added to depict proposed conditions on the Project Site. The views were populated with vehicle, people, birds, etc., to provide a sense of scale.

Using the methodology outlined above, 17 visual simulations were created for the following viewpoints.

Sprain Brook Parkway

When Phase 1 is complete, the 6-story hotel building would be visible from the Sprain Brook Parkway for motorists travelling both north and south. Both the existing trees to remain and proposed trees on the Project Site would help to screen the new building from the Sprain Brook Parkway. The parking lots proposed to the north of the hotel would not be visible due to the buffer tree plantings along the eastern edge of the Project Site.

When full buildout of the Master Development Plan is complete, the 6-story hotel, the Living Science Center, and biotech/research buildings proposed along the eastern side of the Project Site would be visible from the Sprain Brook Parkway. See Figure 3B-6 Visual Simulations 1 – 4. Proposed tree plantings along the eastern edge of the Project Site as well as the existing trees along the Parkway would provide partial screening of the biotech/research facility buildings and the Living Science Center (see the Overall Site Planting Plan in Appendix R – Site Lighting and Planting Plans). As shown in Visual Simulations 3 and 4, the proposed buildings would be of comparable height and visual prominence as the Westchester Medical Center campus buildings further south.

Saw Mill River Parkway

When Phase 1 of the Proposed Action is complete, none of the proposed Phase 1 buildings would be visible from the Saw Mill River Parkway.

At full buildout of the Master Development Plan, biotech/research buildings proposed on the Project Site would be visible from the Saw Mill River Parkway. As shown in Figure 3B-6 Visual Simulation 5, the existing nursery between the Saw Mill River Parkway and Saw Mill River Road would be visible in the foreground with the North 60 development behind. Though not shown in the visual simulation, this Proposed Action would likely be mostly or fully shielded from view from the Saw Mill River Parkway in a leaf-on condition during the spring and summer months.

West Stevens Avenue

As shown in Figure 3B-6 Visual Simulation 6, given the maintenance of the forested area at the northern portion of the Project Site and the concentration of proposed buildings at the central and southern portions of the Project Site, the proposed buildings would be completely shielded from view from West Stevens Avenue at completion of Phase 1 and the Master Development Plan.

Hospital Road

In Phase 1, the 3-story biotechnology/research building, 5-story medical office building and 6-story hotel building would be visible from Hospital Road. The buildings would be buffered from the road by trees to be planted along the northern side of Hospital Road.

With full buildout of the Master Development Plan, the taller 5 to 7-story biotech/research buildings to be constructed, as well as the Phase 1 buildings, would be visible from Hospital Road. Trees would partially screen buildings from views along the roadway. These buildings would be in keeping with the size and scale of the existing buildings on the Westchester Medical Center campus, and therefore would not significantly alter the visual character of Hospital Road. See Figure 3B-6 Visual Simulation 7.

Bradhurst Park

When Phase 1 is completed, the 6-story hotel building would be visible from Bradhurst Park. Proposed tree plantings on the Project Site would provide partial screening from this viewpoint, as would existing trees on the park property, particularly in leaf-on conditions. The parking lots proposed to the north of the hotel would not be visible.

At full buildout of the Master Development Plan, the buildings to be constructed along the eastern edge of the Project Site, including the hotel building, Living Science Center and biotech/research buildings would be visible from Bradhurst Park, which would change the existing viewpoint looking west from the park. As with Phase 1, existing trees on the park property and trees proposed for the Project Site would provide partial screening from the proposed buildings, as shown in Figure 3B-6 Visual Simulation 8. These buildings would be in keeping with the size and scale of the institutional

buildings associated with the Westchester Medical Center, which are also visible from Bradhurst Park.

Philip Place

In Phase 1, the North 60 would not be visible from Philip Place. With full buildout of the Master Development Plan, the northernmost biotech/research office buildings proposed on the Project Site would be partially visible from Philip Place. However much of the buildings would be screened by trees and vegetation, and would be fully screened in leaf-on conditions. See Figure 3B-6 Visual Simulation 9.

Dorothy Court

When Phase 1 is completed, the North 60 would not be visible from Dorothy Court.

At full buildout of the Master Development Plan, the 6-story biotech/research offices proposed for the northeast corner of the Project Site would be partially visible from Dorothy Court. Some screening would be provided from existing trees on the Project Site and from landscaped buffering proposed as part of the North 60 development. See Figure 3B-6 Visual Simulation 10.

Nearby Hospital Uses

In Phase 1 and at full buildout of the Master Development Plan (as represented in Figure 3B-6 Visual Simulation 11), the Project Site would not be visible from the nearby hospital uses because of the existing tree plantings and a buffer of evergreen trees on the south side of Hospital Road.

Skyline Drive Office Parks

With Phase 1 of the Master Development Plan complete, the Proposed Action would not be visible from the Skyline Drive office parks, as the proposed Phase 1 buildings would be concentrated on the east side of the Project Site.

When the full buildout of the Master Development Plan is complete, the 5 to 7-story biotech and research facilities proposed along the western property line of the Project Site would be visible from portions of the Skyline Drive office park complex. In some areas of the office park, the proposed buildings would be fully screened from view by existing trees, as seen in Figure 3B-6 Visual Simulation 12. From the large parking area within the Skyline Drive office park, the biotech and research buildings would be prominent (see Figure 3B-6 Visual Simulation 13), though in keeping with the character of the existing office buildings within the office park complex. As shown in Figure 3B-6 Visual Simulation 14, the Project Site buildings would also be visible from the roadway adjacent to the Little Years Day Care building, though existing evergreen trees would provide partial screening.

Bradhurst/Hospital Road and Bradhurst Avenue/Sprain Parkway Overpass

With Phase 1 of the Master Development Plan complete, the 6-story hotel building, the 3-story biotechnology/research building, and 5-story medical office building along Hospital Road would be

visible from Bradhurst/Hospital Road and Bradhurst Avenue/Sprain Parkway Overpass. Existing trees along the Sprain Brook Parkway and Hospital Road would provide some screening from these buildings.

When the full build out of the Master Development Plan is complete, in addition to the Phase 1 buildings, the Children's Science and Education Center would be visible from Bradhurst/Hospital Road and Bradhurst Avenue/Sprain Parkway Overpass as well. See Figures 3B-6 Visual Simulations 15 and 16. As shown, existing street trees and trees on the Project Site would provide partial screening from these viewpoints.

Gate of Heaven Cemetery

In Phase 1, the proposed hotel would be visible in the distance from Gate of Heaven Cemetery. The Project Site would be partially hidden by the existing cemetery wall and trees and vegetation located in Bradhurst Park and along the Sprain Brook Parkway. The proposed parking lot north of the hotel would not be visible.

With full buildout of the Master Development Plan, the hotel, Living Science Center and biotech/research uses on the eastern portion of the Project Site would be visible in the distance from Gate of Heaven Cemetery. The Proposed Action would not change the visual character from this viewpoint significantly given the screening from trees and vegetation and the distance from the Project Site. In addition, other buildings including the Westchester Medical Center buildings are also visible from this viewpoint. See Figures 3B-6 Visual Simulation 17.

VISUAL SIMULATIONS KEY

1	Sprain Brook Parkway Looking North 1
2	Sprain Brook Parkway Looking Northwest 2
3	Sprain Brook Parkway Looking South 1
4	Sprain Brook Parkway Looking South 2
5	Saw Mill River Parkway Looking Southeast
6	West Stevens Avenue Looking Southeast
7	Hospital Road Looking Northeast
8	Bradhurst Park Looking West
9	Philip Place Looking South
10	Dorothy Court Looking South
11	Westchester Hospital Looking North
12	Skyline Drive Looking East 1
13	Skyline Drive Looking East 2
14	Skyline Drive Looking Southeast 3
15	Bradhurst / Hospital Road Looking West
16	Hospital Road / Sprain Brook Overpass Looking West
17	Gate of Heaven Cemetery Looking West

North 60 | Town of Mount Pleasant, NY

Visual Simulations Key Map

Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

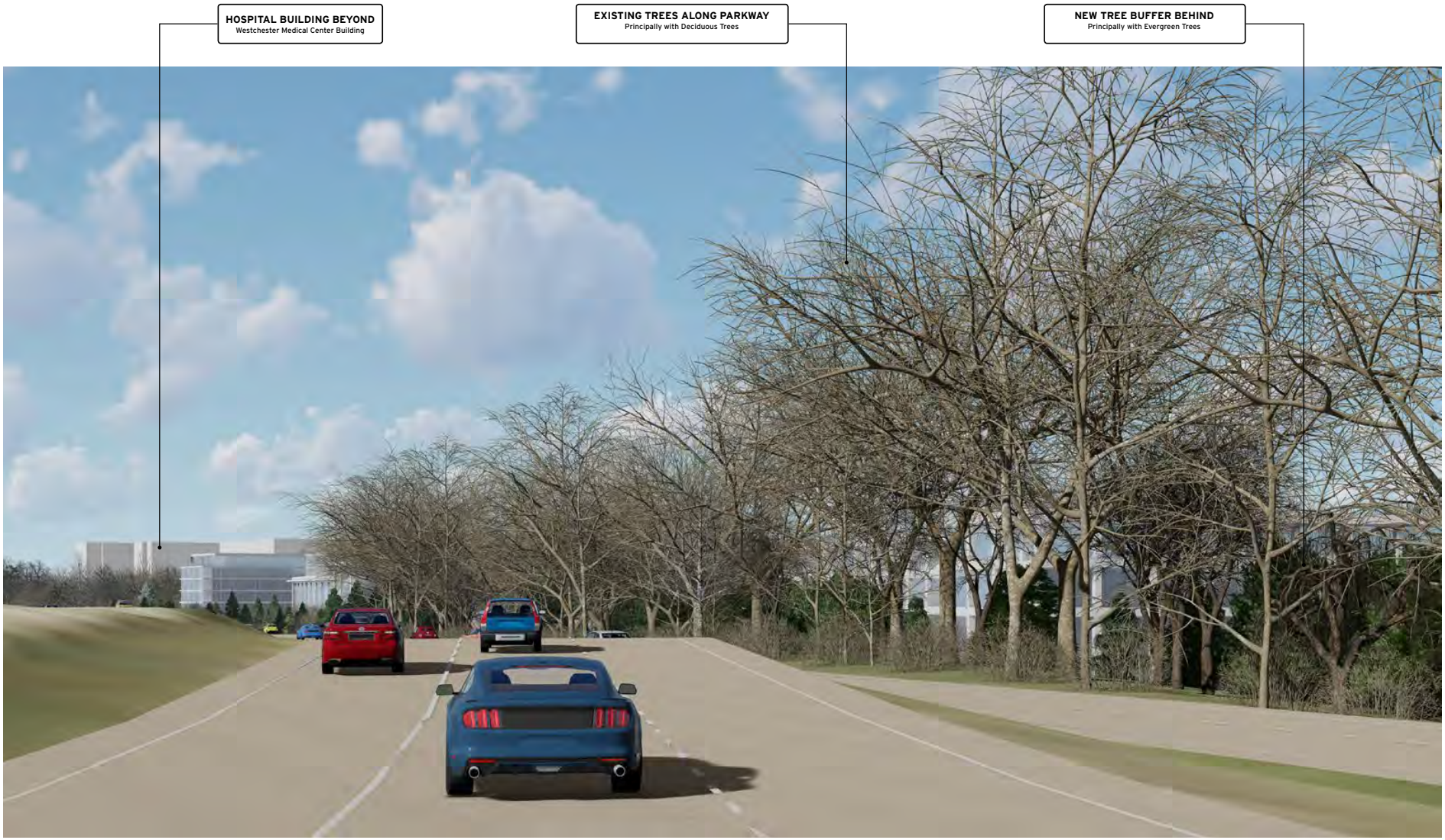
Visual Simulation 1: Sprain Brook Parkway Looking North 1

Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

Visual Simulation 2: Sprain Brook Parkway Looking Northwest 2

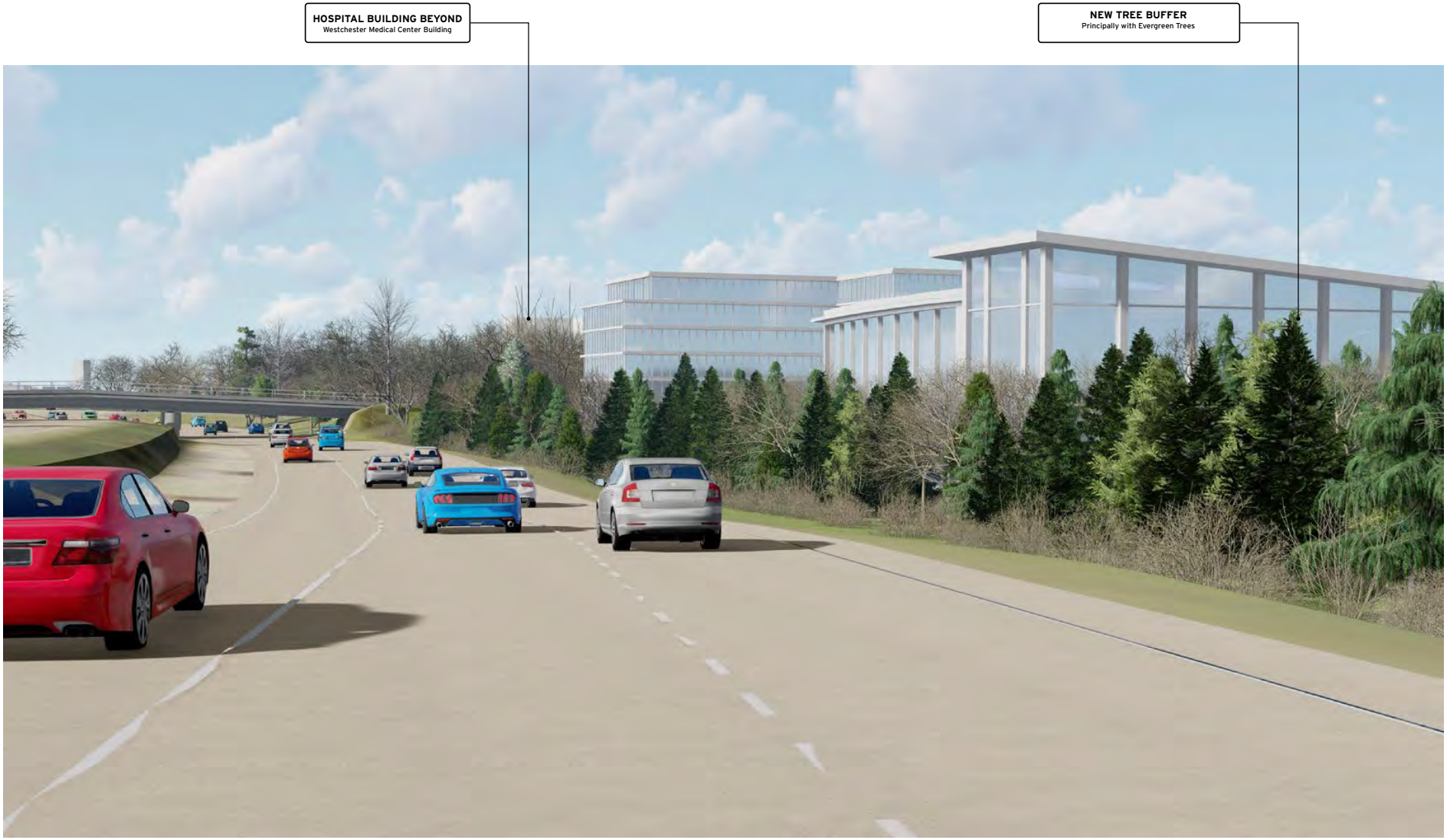
Source: Torti, Gallas + Partners



North 60 | Town of Mount Pleasant, NY

Visual Simulation 3: Sprain Brook Parkway Looking South 1

Source: Torti, Gallas + Partners



North 60 | Town of Mount Pleasant, NY

Visual Simulation 4: Sprain Brook Parkway Looking South 2

Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

Visual Simulation 5: Saw Mill River Parkway Looking Southeast

Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

Visual Simulation 6: West Stevens Avenue Looking Southeast

Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

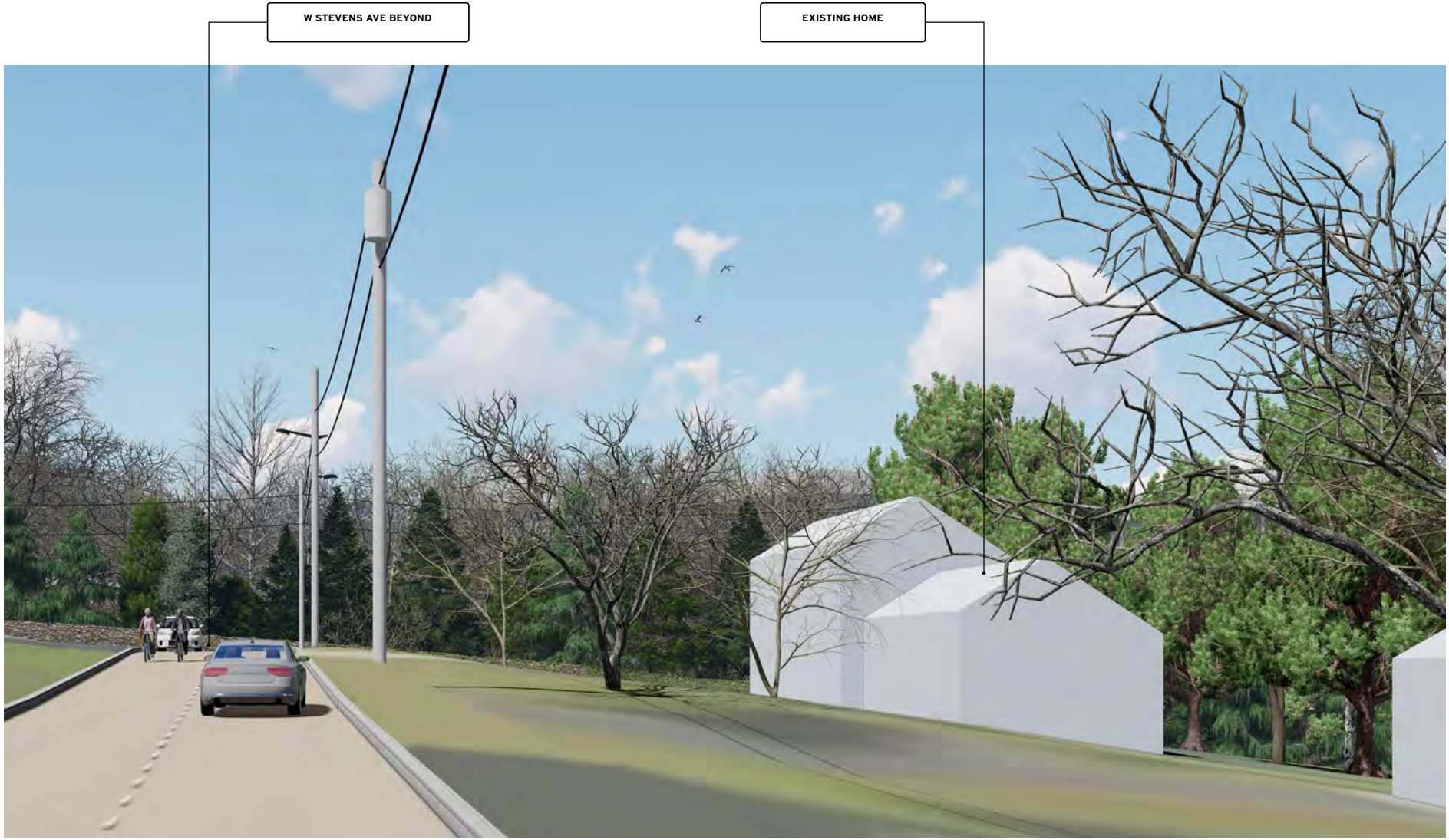
Visual Simulation 7: Hospital Road Looking Northeast

Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

Visual Simulation 8: Bradhurst Park Looking West

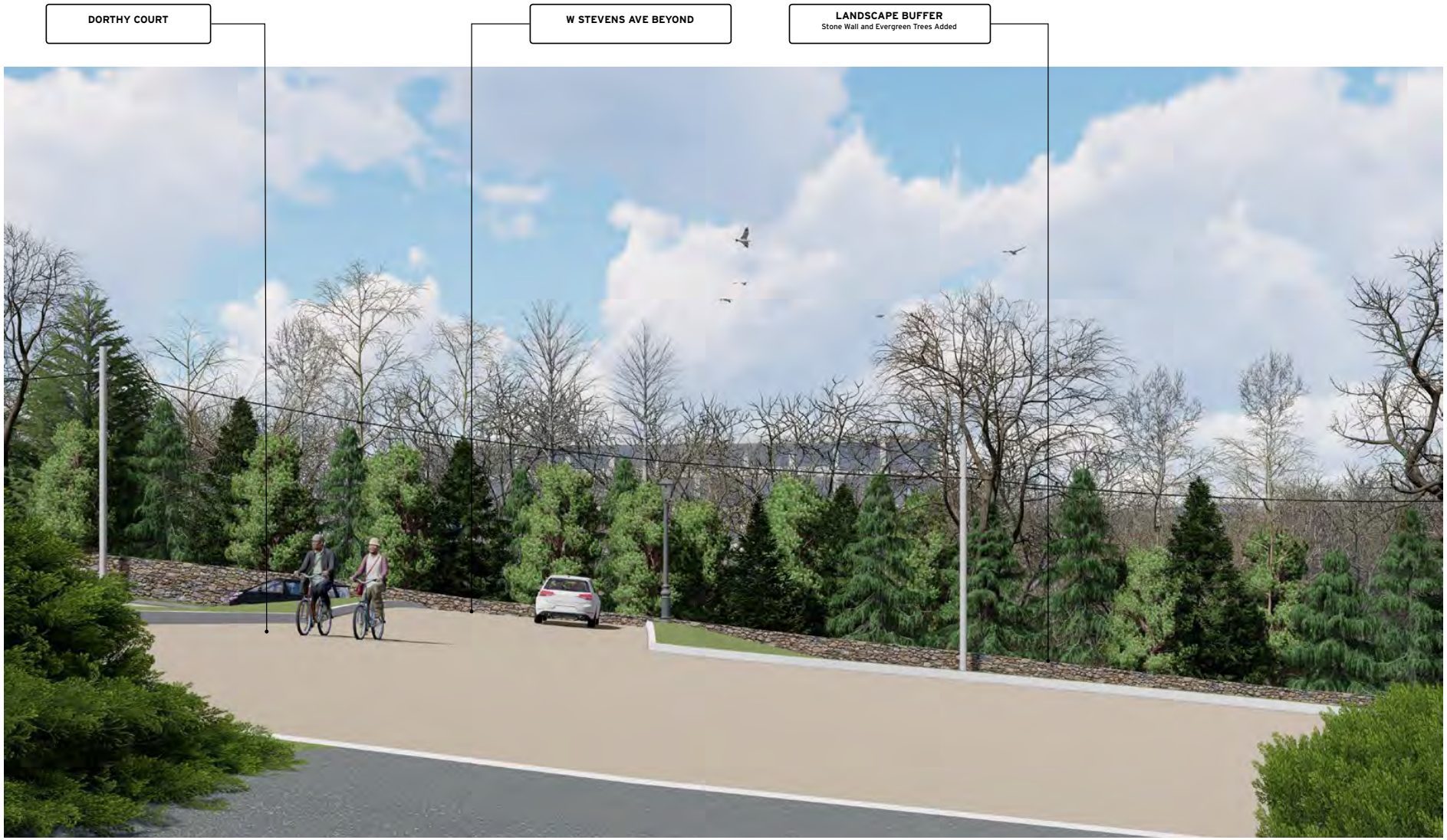
Source: Torti, Gallas + Partners



North 60 | Town of Mount Pleasant, NY

Visual Simulation 9: Philip Place Looking South

Source: Torti, Gallas + Partners



North 60 | Town of Mount Pleasant, NY

Visual Simulation 10: Dorothy Court Looking South

Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

Visual Simulation 11: Westchester Hospital Looking North

Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

Visual Simulation 12: Skyline Drive Looking East 1

Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

Visual Simulation 13: Skyline Drive Looking East 2

Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

Visual Simulation 14: Skyline Drive Looking Southeast 3

Source: Torti, Gallas + Partners

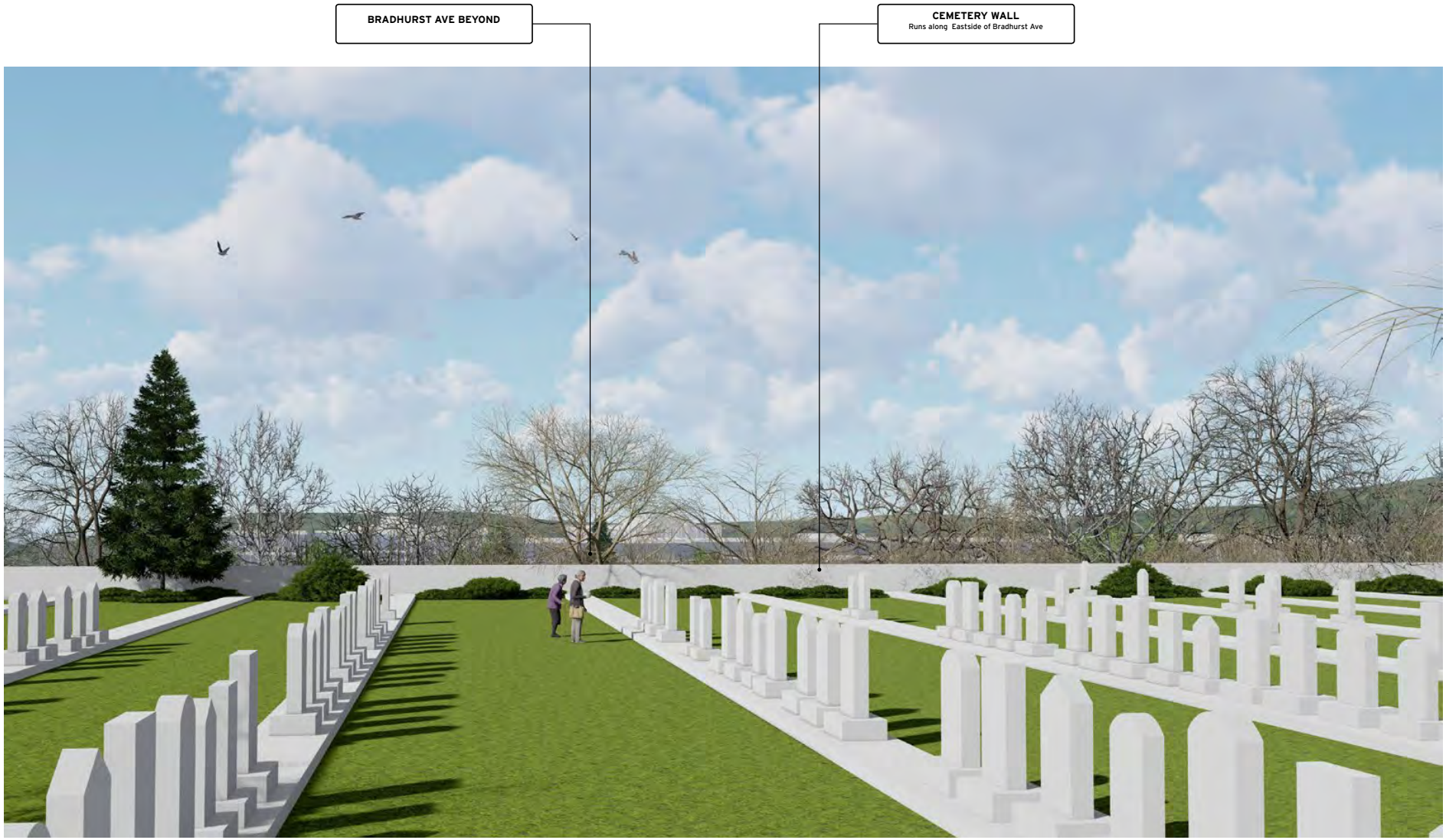
North 60 | Town of Mount Pleasant, NY

Visual Simulation 15: Bradhurst / Hospital Road Looking West
Source: Torti, Gallas + Partners

North 60 | Town of Mount Pleasant, NY

Visual Simulation 16: Hospital Road / Sprain Brook Overpass Looking West

Source: Torti, Gallas + Partners



North 60 | Town of Mount Pleasant, NY

Visual Simulation 17: Gate of Heaven Cemetery Looking West

Source: Torti, Gallas + Partners

Aesthetic Resources

Of the resources described above, only the Grasslands Medical/Correctional Facility Historic District lies within the viewshed of the Project Site. Therefore, significant negative impacts related to this aesthetic resource are not anticipated.

Site Lighting

Lighting elements in Phase 1 include light fixtures along roadways and pedestrian paths, in parking lots and public spaces, and near building entrances and exits. The same light fixtures are proposed throughout Phase 1 to provide a cohesive appearance and to visually connect the various elements of the plan. The lighting plan adheres to all applicable lighting regulations in the Town of Mount Pleasant Town Code, including Chapter 218, Zoning, and Chapter 188, Streets and Sidewalks. Phase 1 Lighting Plan, found in Appendix R – Site Lighting and Planting Plans, show the lighting plans and proposed fixtures for Phase 1.

Bollards are proposed to illuminate pedestrian paths, public spaces, and the entrance to the hotel. Public spaces, including the Promenade, pedestrian bridge, Neighborhood Square, and Entry Plaza, would be appropriately lit for safety and evening use. Light fixtures are also proposed to illuminate roadways (Main Street, West Street, Cross Street, and Hotel Drive) and parking lots. Final light fixtures to be chosen for the Project Site would comply with the International Dark-Sky Association (IDA) Fixture Seal of Approval program and would adhere to similar light levels as analyzed below to avoid light trespass on neighboring properties.

Phase 1 Site Lighting Calculation (See Appendix R Site Lighting and Planting Plans), maps proposed light levels. As shown, light trespass is not expected to occur off of the Project Site in Phase 1 and would therefore not affect neighboring properties.

The Phase 1 lighting fixtures are also proposed for the Master Development Plan to continue cohesion in site design (see Appendix R). Conceptual light levels are shown on the Master Development Plan Site Lighting Calculation found in Appendix R. As shown, light is not expected to trespass off of the Project Site or impact neighboring properties.

3. Mitigation Measures

Mitigation measures to prevent potential significant adverse impacts to community character have been built into the site design. The Proposed Action includes an extensive landscape and hardscape plan as well as a thoroughly planned site lighting scheme. The primary facades are envisioned to be composed of materials that bridge between traditional and modern aesthetics sourced in a responsible way with the design conveying a strong technological identity. Landscaping and street trees would be provided throughout the Proposed Action.

Lighting in the development would minimize impact on the surrounding area by using International Dark-Sky Association approved fixtures throughout. Light trespass is not expected to occur off of the Project Site in Phase 1 and 2 and would therefore not affect neighboring properties.

As demonstrated by the Visual Simulations, the extensive landscaping and site design proposed for the Project Site both help to screen and buffer the proposed buildings from surrounding viewpoints. The northern portion of the Project Site would remain undeveloped and would serve as a natural buffer between the project and the single-family residential homes to the north. Existing trees to remain on the Project Site would help to screen the proposed buildings from other surrounding uses, including the adjacent Skyline Drive office parks, hospital uses, and Bradhurst Park. Where proposed buildings are visible from surrounding roadways, they would not significantly alter visual character. Therefore, it is the applicant's opinion that there is no significant impacts to visual resources or community character are anticipated.

C. GEOLOGY AND SOILS

1. Existing Conditions

The Project Site is located in the New England Uplands physiographic province. Bedrock underlying the Project Site is comprised of Inwood Marble and Fordham Gneiss. Inwood Marble is a carbonate rock of metamorphic origin. Fordham Gneiss is a metamorphic rock common to the region, dating back to the pre-Cambrian era. A bedrock contact between the Inwood Marble and the Fordham Gneiss is located in the center of the Project Site. The approximate boundary between the types of bedrock extends from Woods Road to the south of the site to Philip Place to the north of the site. There are no special geographical features on or adjacent to the Project Site and there are no significant bedrock outcroppings identified on the Project Site.

Surficial materials at the Project Site consist of dense glacial till over much of the vegetated areas. Artificial fill, including construction debris, over glacial till is present is the central, south-central and western portions of the Project Site. Glacial till is unsorted material of various sizes (clay particles to boulders) and shapes that was transported and deposited by glacial ice. Two major types of till are possible: lodgement and ablation. Lodgement till includes compacted layers that usually begin 20 to 30 inches below the surface and continue with depth. Because of the compacted layers, groundwater may intermittently perch directly above the layers. Ablation till is deposited by melting ice at the margins of the glacier and does not include compacted layers. The Project Site contains primarily lodgement till that is deposited by the movement of the overriding ice sheet, which sculpted the landform from the preexisting landscape and the sediment the ice sheet carried. The landform shares characteristics similar to that of drumlin landforms: the Project Site consists of elongated slopes which generally evenly tapper to the east, north and west and there is a hardpan layer of soil within about two feet of the ground surface. Drumlins and land with drumloidal features, such as the Project Site, are common in Mt. Pleasant and throughout the northeast. For example, a classic drumlin is located immediately east of the project site.

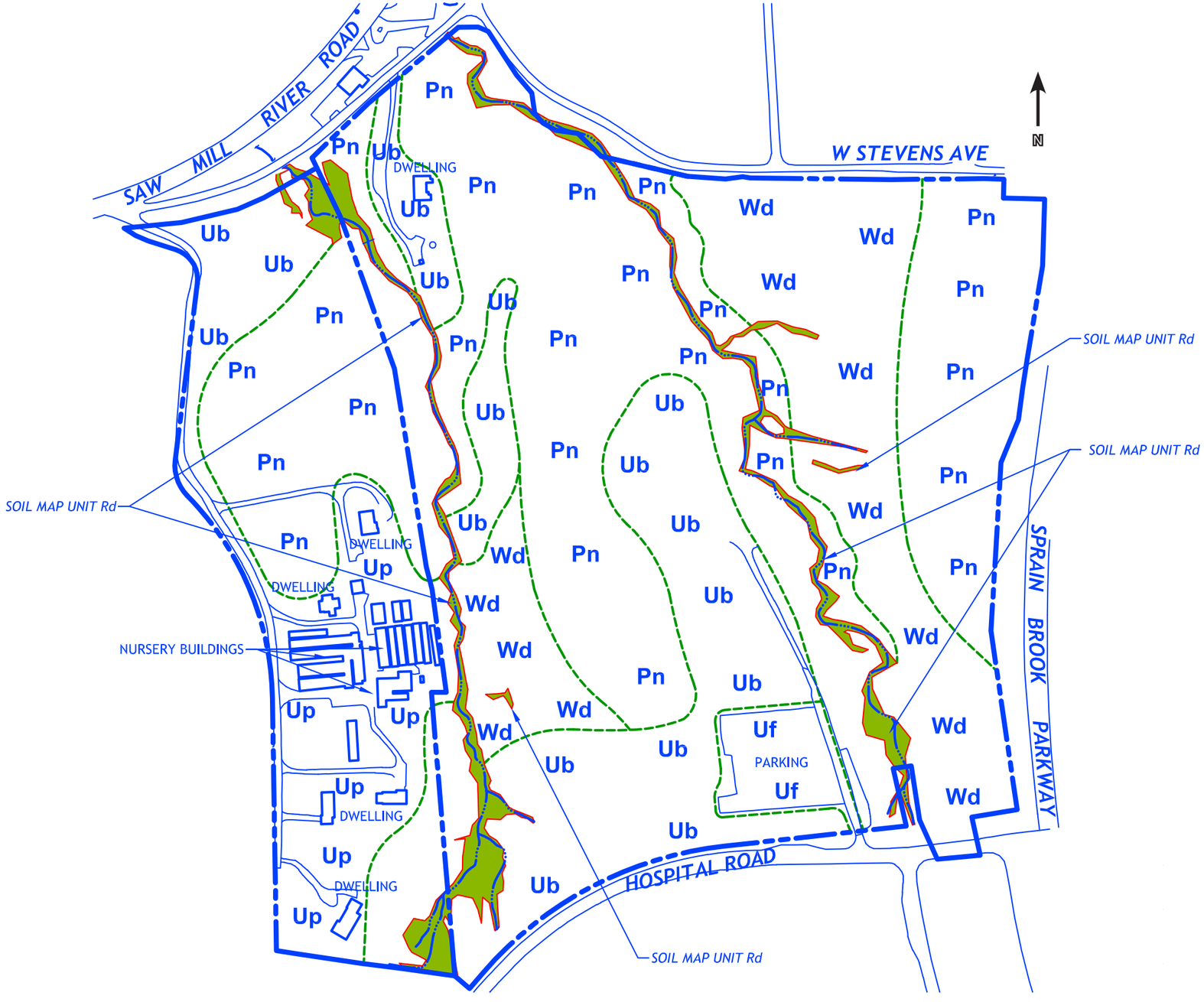
Soils Found on the Project Site

A variety of soil types are found on the Project Site. The soils differ primarily based on their slope (nearly level to exceeding 40 percent), drainage class (well drained to very poorly drained), and parent material (glacial till and artificial fill). These conditions are common in the area and do not represent any unusual condition. The location and scope of these soil types were mapped and shown on Figure 3C-1, Soils Map, and reveal a general agreement with the survey published by US Natural Resource Conservation Service. Soil types found on the Project Site and their primary characteristics are noted in Table 3C-1 and discussed in further detail below.

SOIL LEGEND:

UPLAND:
Pn PAXTON FINE SANDY LOAM
Ub UDORTHENTS, SMOOTHED
Uf URBAN LAND COMPLEX
Up URBAN LAND-PAXTON COMPLEX
Wd WOODBRIDGE LOAM

WETLAND:
Rd RIDGEBURY LOAM



NOTES:
- *INFORMATION SHOWN ON THIS DRAWING IS APPROXIMATE.*
- *SOIL INFORMATION PROVIDED BY WILLIAM KENNY ASSOC. OTHER INFORMATION TAKEN FROM A DRAWING PREPARED BY CHAZEN ENGINEERING, LAND SURVEYING & LANDSCAPE ARCHITECTURE CO., D.P.C.*
- ***Pn**, **Ub**, **Uf**, **Up**, **Wd** AND **Rd** ARE SOIL MAPPING UNIT SYMBOLS.*

North 60 | Town of Mount Pleasant, NY

Soils Map

Source: William Kenny Associates, LLC

Table 3C-1 Soil on Project Site

Soil Type	Area on Site (acres)
Paxton loam (Pn)	58.5399
Woodbridge loam (Wd)	14.6244
Ridgebury loam (Rd)	4.8815
Udorthents, smoothed (Ub)	0.5829
Sutton loam (Su)	0.2885
Totals	**78.9172**

Map Unit	Parent Material	Slope (%)	Drainage Class	High Water Table			Depth to Bedrock (in)
				Depth (ft)	Kind	Mos.	
Upland Soil							
Pn Paxton fine sandy loam	Compact Glacial Till	2-45	Well Drained	1.5>6.0	Perched	Feb.-Apr.	>60
Ub Udorthents, smoothed	Excavated or Filled Soil (>2 feet)	0-40	Well Drained to Somewhat Poorly Drained	1.5>6.0	Apparent	Nov.-May	>60
Uf Udorthents – Urban Land Complex	Excavated or Filled Soil (>2 feet)	0-15	Well Drained to Somewhat Poorly Drained	1.5>6.0	Apparent	Nov.-May	>60
Wd Woodbridge loam	Compact Glacial Till	0-15	Moderately Well Drained	1.5-2.5	Perched	Nov.-May	>60
Wetland Soil							
Rd Ridgebury loam	Compact Glacial Till	0-8	Poorly Drained, Somewhat Poorly Drained	0.0-1.5	Perched	Nov.-May	>60

Paxton fine sandy loam (Pn) is found on broad ridges and small hillsides in areas of glacial till. Paxton loam is very deep (greater than 60 inches) to bedrock and is well drained, with a depth to water of more than six feet. Paxton fine sandy loam soil typically contains dark brown fine sandy loam over dark yellowish brown loam and olive brown sandy loam. Dark grayish brown gravelly sandy loam comprises the substratum. Paxton fine sandy loam has moderate permeability in the surface layer and subsoil. Surface runoff ranges from medium to rapid, and erosion hazard is slight to severe. Both characteristics are dependent on slope steepness. This soil is well suited for many community development activities.

Woodbridge loam (Wd) is found on lower parts of hillsides in the uplands. Woodbridge loam is very deep (greater than 60 inches) to bedrock and is moderately well drained, with the potential for a seasonably high water table from November to May, particularly in slight depressions. Woodbridge loam soil typically contains dark brown loam over dark brown gravelly loam over yellowish brown gravelly loam. Dark grayish brown gravelly fine sandy loam over olive brown gravelly loam comprises the substratum. Woodbridge loam has moderate permeability in the surface layer and subsoil. Surface runoff is medium and erosion hazard is moderate for slopes ranging from three to eight percent. This soil is suited for community developments in a few areas depending on the depth to the seasonably high groundwater table.

Sutton loam (Su) is found on a very small area on the northern side of the Project Site along an existing drainageway in the uplands. Sutton loam is very deep (greater than 60 inches) to bedrock and is moderately well drained. Sutton loam soil typically contains dark brown loam over dark brown gravelly loam over dark yellowish brown gravelly fine sandy loam. Dark grayish brown gravelly sandy loam comprises the substratum. Sutton loam has moderate to moderately rapid permeability throughout the profile. Surface runoff is medium and erosion hazard is moderate for slopes ranging from three to eight percent. This soil is suited for urban developments in most areas.

Udorthents, smoothed (Ub) consist of soils that have been altered by cutting and filling. This soil is very deep to bedrock and excessively drained to moderately well-drained. Inclusions may include urban land, rock and debris piles, and undisturbed soils. Areas of this soil will vary greatly and suitability for development requires onsite investigation.

Ridgebury Loam (Rd) is found on the lower parts of hillsides in the uplands and along small drainageways. Ridgebury loam is very deep (greater than 60 inches) to bedrock and is poorly drained to somewhat poorly drained. Ridgebury loam soil typically contains very dark grayish brown loam over brown gravelly fine sandy loam over grayish brown gravelly fine sandy loam with the potential for mottling in areas with seasonably high groundwater. Olive brown gravelly loam that has brownish yellow mottles comprises the substratum. Ridgebury loam has moderate to moderately rapid permeability in the surface layer and subsoil. Surface runoff is medium and erosion hazard is moderate for slopes ranging from three to eight percent. This soil is suited for urban developments in most areas. A summary of the soil types on the Project Site is included on Table 3C-1,

Soil Suitability Tables

The following tables describe potential development limitations of the soil types on the Project Site, with the exception of Urban Land, which is already developed. Rating categories, where assigned, are as follows: slight indicates that the soil is generally favorable for the indicated land use and soil limitations are minor and easily overcome, moderate indicates that the soil is not favorable and that special planning, design, or maintenance is usually required to overcome or minimize particular soil limitations, and severe indicates that that circumstances are so unfavorable or so difficult to overcome that special design, significant increases in construction costs, and possibly increased maintenance are required. In severe cases, an alternate soil choice is often the best option. The symbol "--" indicates that the

information was not listed. It is noted that the information on these tables does not eliminate the need for specific onsite investigation.

Table 3C-2 Soil Seasonal High-Water Table and Permeability

Soil Type and Symbol	Seasonal High-Water Table (depth to water in feet)	Permeability (inches/hour)
Upland Soils		
Paxton loam (Pn)	1.5-2.5, perched (Feb-April)	0.6-2.0
Woodbridge loam (Wd)	1.5 – 2.5 apparent (Nov. – May)	0.6-2.0
Ridgebury loam (Rd)	Within a depth of 1.5 perched (Nov. – May)	0.6-6.0
Udorthents, smoothed (Ub)	--	--
Sutton loam (Su)	1.5 – 2.5 apparent (Nov. – April)	0.6-6.0

Table 3C-3 Soil Depth to Bedrock and Erosion Potential

Soil Type and Symbol	Depth to Bedrock (in inches)	Erosion Potential
Upland Soils		
Paxton loam (PnB), 2-8% slope	>60	slight
Paxton loam (PnC), 8-15% slope	>60	moderate
Paxton loam (PnD), 15-25% slope	>60	Severe
Woodbridge loam (WdB), 3-8% slope	>60	moderate
Ridgebury loam (RdB), 3-8% slope	>60	Slight
Udorthents, smoothed (Ub)		
Sutton loam (SuB), 3-8% slope	>60	moderate

Table 3C-4 Potential Building and Road Construction Considerations

Soil Type and Symbol	Dwellings with Basements	Dwellings without Basements	Small Commercial Buildings	Local Roads and Streets
Upland Soils				
Paxton loam (PnB) 2-8% slope	Moderate: wetness	Moderate: wetness	Moderate: Wetness, slope	Moderate: Wetness, frost action
Paxton loam (PnC) 8-15% slope	Moderate: Wetness, slope	Moderate: Wetness, slope	Severe: slope	Moderate: Wetness, slope, frost action
Paxton loam (PnD) 15-25% slope	Severe: slope	Severe: slope	Severe: slope	Severe: slope

Woodbridge loam (WdB) 2-8% slope	Severe: wetness	Moderate: wetness	Moderate: wetness, slope	Severe: frost action
Ridgebury loam (RdB), 3–8 % slope	Severe: wetness	Serve: wetness	Severe: Wetness, slope	Severe: wetness Frost action
Udorthents, smoothed (Ub)	--	--	--	--
Sutton loam (SuB) 3-8% slope	Severe: wetness	Moderate: wetness	Moderate: Wetness, slope	Severe: frost action

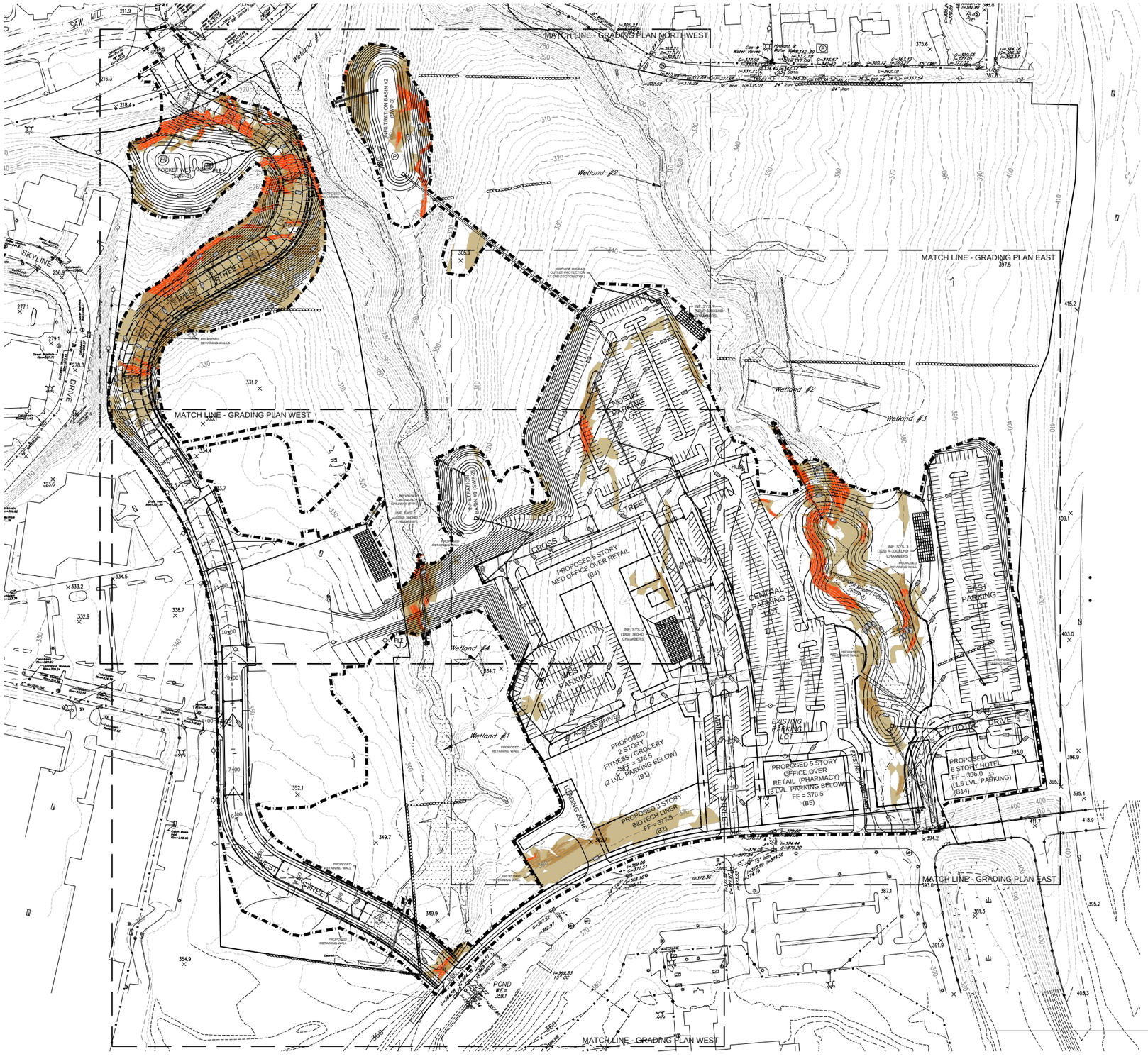
Table 3C-5 Potential Shallow Excavation, Pond, Lawn and Landscaping Considerations

Soil Type and Symbol	Shallow Excavations	Lawns and Landscaping	Pond Reservoir Areas	Aquifer-fed Excavated Ponds
Upland Soils				
Paxton loam (PnB) 2-8% slope	Moderate: Dense layer, wetness	Slight	Moderate: slope	Severe: no water
Paxton loam (PnC) 8-15% slope	Moderate: Dense layer, wetness, slope	Moderate: slope	Severe: slope	Severe: no water
Paxton loam (PnD) 15-25% slope	Severe: slope	Severe: slope	Severe: slope	Severe: no water
Woodbridge loam (WdB) 2-8% slope	Severe: wetness	Moderate: wetness	Severe: Slope	Severe: No water
Ridgebury loam (RdB), 3–8 % slope	Severe: wetness	Severe: wetness	Moderate: slope	Severe: no water
Udorthents, smoothed (Ub)	--	--	--	--
Sutton loam (SuB) 3-8% slope	Severe: wetness	moderate: wetness	Severe: seepage	Moderate: Slow refill

2. Potential Impacts

As shown on Figure 3C-2, Phase 1 Grading Plan, the Proposed Action would involve disturbing approximately 35.8 acres of soil. The proposed grading would primarily impact Paxton loam (Pn) soils. A preliminary cut and fill analysis has been performed for Phase 1 and shows a total of 233,443 cubic yards of cut and a total of 214,979 cubic yards of fill, resulting in 18,464 cubic yards of excess cut-material to be exported from the Project Site.

The Master Development Plan would involve the disturbance of approximately 57.47 acres of soil, primarily affecting Paxton loam (Pn) soils. Table 3C-6 shows the breakdown of soil disturbance for the Master Development Plan and Figure 3C-3, Master Development Plan Grading Plan, shows the



LEGEND		
COLOR	DESCRIPTION	TOTAL DISTURBANCE AREA
	STEEP SLOPES (15% - 25%)	132,830 SF
	VERY STEEP SLOPES (25% - 35%)	60,212 SF
	EXCESSIVELY STEEP SLOPES (35% OR GREATER)	40,988 SF

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- WETLAND AREA
- WETLAND SETBACK LINE
- EXISTING STONE WALL
- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR (410)
- PROPOSED 10' CONTOUR (330)
- PROPOSED 2' CONTOUR
- PROPOSED 24' ROADWAY W / CURBING
- PROPOSED PARKING
- PROPOSED CONCRETE SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED DRAINAGE PIPE
- PROPOSED CATCH BASIN
- PROPOSED DRAIN MANHOLE
- PROPOSED PHASE BUILDING
- PROPOSED INFILTRATION SYSTEM
- DISTURBANCE LIMIT LINE

PLAN
GRAPHIC SCALE
80 0 40 80 160 320
(IN FEET)
1 inch = 80 ft.

UNAUTHORIZED ALTERATIONS AND ADDITIONS TO THIS DRAWING IN ANY MANNER WHATSOEVER ARE A VIOLATION OF SECTION 7209 SUB. 2 OF THE NEW YORK EDUCATION LAW.

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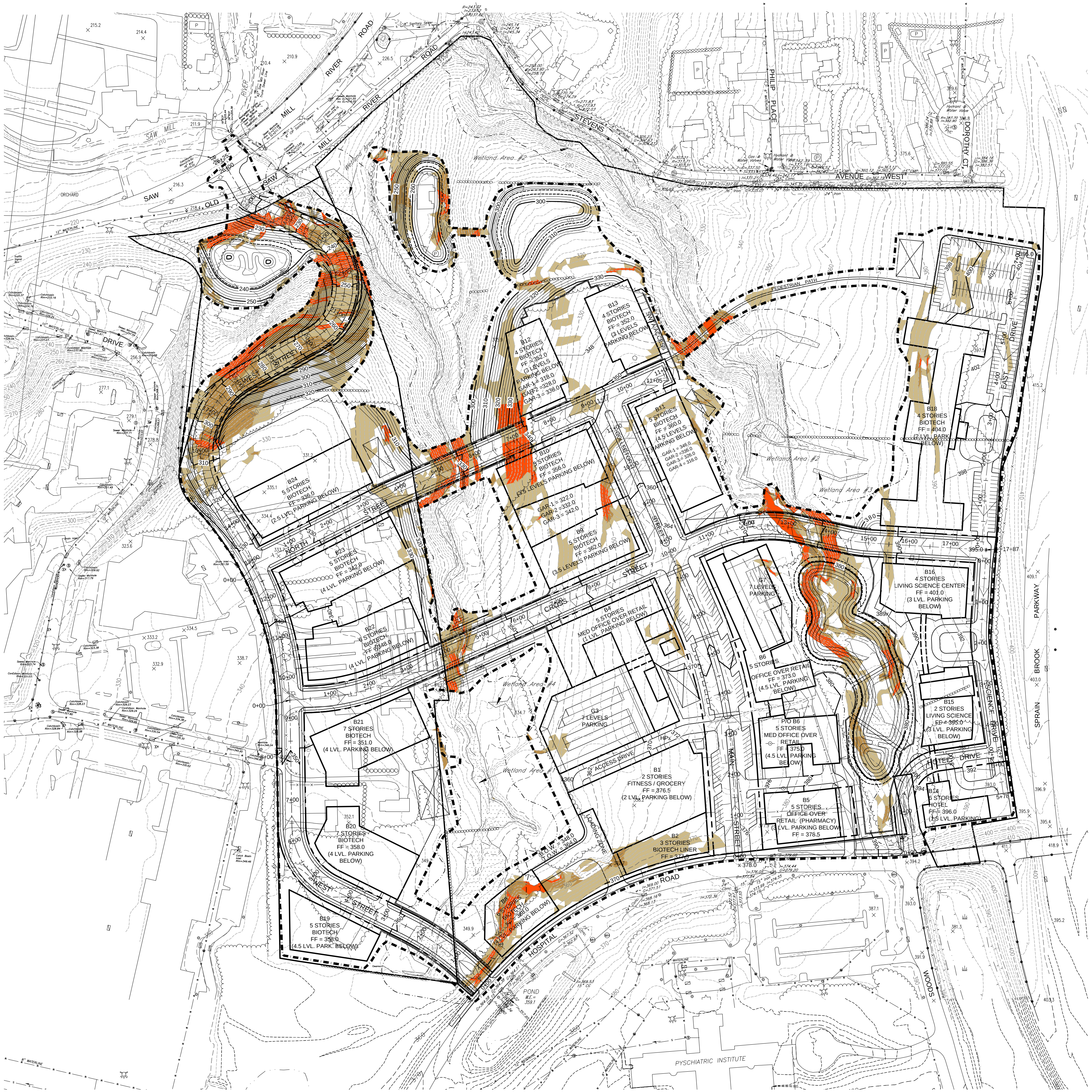
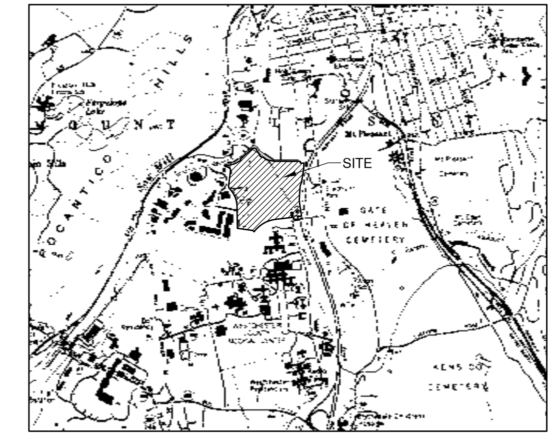
North 60 | Town of Mount Pleasant, NY

Phase 1 Grading Plan

Source: Bibbo Associates, LLP

Figure 3C-3





LOCATION MAP
N.T.S.

LEGEND		
COLOR	DESCRIPTION	TOTAL DISTURBANCE AREA
(tan)	STEEP SLOPES (15% - 25%)	238,126 SF
(brown)	VERY STEEP SLOPES (25% - 35%)	65,918 SF
(orange)	EXCESSIVELY STEEP SLOPES (35% OR GREATER)	71,613SF

LEGEND

- EXISTING PROPERTY LINE
- PRPOPOSED PROPERTY LINE
- WETLAND AREA
- WETLAND SETBACK LINE
- EXISTING STONE WALL
- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR
- PROPOSED STORMWATER TREATMENT AREA
- PROPOSED 10' CONTOUR
- PROPOSED 2' CONTOUR
- DISTURBANCE LIMIT LINE (TOTAL AREA OF DISTURBANCE = 57.5 AC)

North 60 | Town of Mount Pleasant, NY

Master Development Plan Grading Plan

Source: Bibbo Associates, LLP

proposed limit of disturbance. The Master Development Plan preliminary earthwork analysis shows a total of 688,900 cubic yards of cut and a total of 215,841 cubic yards of fill, resulting in 473,059 cubic yards of excess cut-material to be exported from the Project Site.

Table 3C-6 Master Development Plan Soil Impacts

	Area on Site (acre)	Potential Impact Area (acres)
Paxton loam (Pn)	58.5399	40.6939
Woodbridge loam (Wd)	14.6244	13.5283
Ridgebury loam (Rd)	4.8815	2.8141
Udorthents, smoothed (Ub)	0.5829	0.3132
Sutton loam (Su)	0.2885	0.1205
Totals	**78.9172**	**57.4700**

There are no special geological features on the Project Site, therefore, no impacts to special geological features are anticipated.

Soil Limitations

The onsite soils would not be a limiting factor with respect to construction activities. The stormwater deep test pit results show very well drained soils are found in all proposed infiltration areas. However, proposed deep excavations for building foundations may impact the natural soils found in adjacent stormwater areas. Dewatering during construction may be required for foundation excavations located adjacent to Wetland "A" where soils are more poorly drained and have a seasonably high groundwater table. Erodibility of steep slope areas would require protocols for steep slope areas during construction, specifically in the created slopes adjacent to Building B12 and the altered steep slope along Western Street.

Blasting and Rock Crushing

Based upon soils testing performed to date, blasting is not anticipated. If rock is encountered in deeper excavations it is likely to be weathered and accordingly will be ripable with the use of large excavation equipment.

Rock crushing is not currently proposed for the Proposed Action.

Impacts on Pre- Existing Soil Contamination

A Phase I/Phase II Environmental Site Assessment (ESA) was conducted for the Project Site in August 2019. The ESA found that three soil samples from the Project Site had concentrations of semi-volatile organic compounds (SVOC) above the DEC unrestricted use clean-up guidelines with several

compounds above the restricted commercial use guidelines. These three soil samples are located within the limits of disturbance for Phase 1. A fill soil management plan would be developed with the Town and the Westchester County Department of Health for these three locations prior to construction of Phase 1.

The ESA also found that fill piles associated with the Westchester Medical Center construction can be reused onsite. Additional findings and details from the ESA are contained in Chapter 3M, Hazardous Materials.

3. Mitigation Measures

Erosion and Sediment Control During Construction

Erosion and sediment controls would be employed during construction. It is the intent to provide effective erosion control by minimizing land disturbance at any given time, containing sediment from disturbed areas, treating runoff where possible, and stabilizing disturbed soils as soon as possible. It is anticipated that Phase 1 would be further broken down into approximately nine sub-phases (see Chapter 3Q, Construction, for additional details on phasing and construction sequence). The proposed practices would serve as a minimum for erosion and sediment control. Further practices and measures may be implemented pursuant to onsite inspections in conformance with the requirements of the SPDES GP-0- 15-002 permit. As per the SPDES permit onsite, inspections are to be performed by a Qualified Inspector on a weekly basis during construction. All erosion and sediment control practices specified for the Project Site would be in conformance with the *New York Standards & Specifications for Erosion & Sediment Control*.

Listed below are the temporary erosion and sediment control practices specified on the Erosion Control Plan. All practices would be installed and maintained in conformance with the *New York Standards & Specifications for Erosion & Sediment Control*.

- Silt fence
- Soil stockpile
- Construction entrance
- Drop inlet protection
- Dust and debris control
- Sediment trap
- Erosion control blankets

Silt fence for the Project Site would consist of a geotextile fabric installed at the toe of all disturbed slopes, and parallel to the contours. The silt fence is intended to reduce runoff velocity, and intercept

sediment-laden runoff. The silt fencing would also control litter and construction debris from leaving the site.

A stabilized construction entrance would be installed where construction vehicles enter on to existing roadways from the Project Site. The construction entrance is designed to prevent outgoing trucks from tracking soil onto the road.

A water truck would be maintained onsite for dust control as required. Construction debris, such as sheet metal and wood scrap, paper and insulation products, styrofoam cups and paper wrappers which could become windblown litter over and off the Project Site if neglected. Suitable and ample refuse containers would be provided on the Project Site and emptied when full. Any scattered debris would be picked up and placed in containers on a continuous basis.

A temporary sediment trap has been proposed to control sediment laden runoff and store the accumulated sediment for proper disposal. The sediment traps have been designed to meet the standards of the *New York Standards & Specifications for Erosion & Sediment Control*.

Erosion control blankets (anchored stabilization matting) shall be installed on all embankments which are graded steeper than 3 horizontal to 1 vertical. Erosion control blankets (anchored stabilization matting) provide protective cover for newly graded steep slopes, protect against rainwater splashing/overland flow, and help promote seed germination to aid in stabilizing the disturbed area as quickly as practicable. For additional information regarding the mitigation measures required to protect steep slope areas during construction, please see DEIS Section 3D.3.

Maintenance and Inspection Requirements

Maintenance and inspections are required in order to ensure the stormwater and erosion and sediment control practices are acting as designed. Inspections are to be performed by a Qualified Inspector on a weekly basis during construction, consistent with the SPDES General Permit. Upon completion of construction and the subsequent filing of the Notice of Termination, maintenance and inspections are expected to be minimal. Proper maintenance and inspections will ensure the longevity and effectiveness of the stormwater pollution prevention plan, and erosion and sediment control plan. The "Construction Site Log Book" from the *New York Standards & Specifications for Erosion & Sediment Control* provides guidelines for maintenance inspections during construction and has been provided in the SWPPP.

The Town of Mount Pleasant Stormwater Management Officer may require inspections as necessary to determine compliance with Chapter 183 of the Mount Pleasant Town Code and may either approve that portion of the work completed or notify the applicant wherein the work fails to comply with the requirements of Chapter 183 and the SWPPP as approved.

Short Term Maintenance and Inspection Requirements

During construction the onsite Trained Contractor would have the responsibility to monitor the erosion and sediment control practices on a daily basis. Inspections preformed during construction should verify all practices are functioning properly, correctly maintained, and accumulated sediment is removed from

all control structures. The inspector must also examine the Project Site for any evidence of soil erosion, the potential for soil-borne materials to enter the storm drain system, turbid discharge at all outfalls, and the potential for soil and mud to be transported on the public roadway at the Project Site entrance. In addition to these general guidelines, the Building Permit plan set would provide additional erosion control guidelines, as well as a construction sequence to guide the contractor through the construction process. Discussed below are specific maintenance and inspection requirements for the temporary practices to be employed at the Project Site. If the control measures need to be supplemented during construction , the contractor would notify the project engineer and any issue would be rectified immediately. Double rows of silt fencing can be used as a contingency measure downgrade from areas prone to eroding.

During construction, the silt fence should be inspected to ensure correct installation. In addition, any accumulated sediment resulting in "bulges" in the silt fence should be removed and mixed with onsite soil. Any damaged or torn silt fence should be replaced.

The construction entrance should be checked to ensure no sediment is being deposited onto the public roadway. Should sediment be observed, it should be removed from the street, and the stone in the construction entrance replaced.

Once construction is completed and the Project Site has been stabilized, a Notice of Termination shall be filed. At this point limited maintenance requirements are anticipated. See Chapter 3G, Stormwater Management, as well as the SWPPP, for additional details regarding permanent erosion and sediment control practices.

Corrective Measures to Overcome Soil Limitations

Erosion control blanketing may be required as a field condition in the steep slope areas to prevent rills from developing on disturbed slopes. Dewatering may be required while constructing building foundations located in areas with seasonably high groundwater.

Blasting and Rock Crushing

Based upon soils testing performed to date, blasting is not anticipated. If rock is encountered in deeper excavations it is likely to be weathered and accordingly will be ripable with the use of large excavation equipment.

Rock crushing is not currently proposed for the Proposed Action.

Construction Phasing Plan

In order to minimize the area of disturbance at any particular point during project construction, it is proposed that Phase 1 would be constructed in approximately nine sub-phases over a construction period of 60 months. A construction phasing plan is included in Chapter 3Q, Construction. The remainder of the Master Development Plan would also be constructed over several phases to minimize potential impacts.

Contaminated Soil

A Phase I / Phase II Environmental Site Assessment (ESA) was conducted for the Project Site, is summarized in Chapter 3M, Hazardous Materials, and included in Appendix J. The ESA found three locations on the Project Site with elevated concentrations of semi-volatile compounds. A fill soil management plan would be developed with the Town and the Westchester County Department of Health for specific removal and disposal of contaminated soil prior to construction of Phase 1. New York State Department of Environmental Conservation approval would be obtained as applicable.

D. TOPOGRAPHY AND SLOPES

1. Existing Conditions

Slopes vary greatly on the Project Site, although the majority of the site (73.4%) contains slopes that are less than 15 percent. Chapter 180, Steep Slope Protection, of the Town of Mount Pleasant Town Code defines Slope as "any area, whether or not located on a single lot, having a topographical gradient of 15% (the ratio of vertical distance to horizontal distance) or more with a minimum of 50 square feet, one dimension of which is a minimum of 10 feet", and further breaks Slopes into categories of Steep Slope 15-25%), Very Steep Slope (25-35%), and Excessively Steep Slope (35% or greater).

Generally, the south-central portion of the Project Site is relatively level and the grade is moderate to severe to the north. The existing parking area and existing construction staging area are located on the mildly sloped ridgeline which extends through the center of the Project Site. The existing site entrance connects to Hospital Road at elevation 387.0. The north side of the Project Site contains steep slopes which descend towards Route 9A. The existing driveway connection to Route 9A is at elevation 220.0. The Sprain Brook Parkway borders the Project Site to the East on the highest side of the Project Site with an elevation of approximately 410.0. The existing Skyline Drive development borders the Project Site to the West with an approximate elevation of 350.0. Very steep slopes are located along the banks of the two existing streams which separate the Project Site into three distinct areas. Elevations on the Project Site range from approximately 220 feet to 410 feet, an elevation change of 190 feet. Approximately 13.5 percent of the Project Site contains Steep Slopes (15-25%), 6.2 percent contains Very Steep Slopes (25-35%), and 6.9 percent contains Excessively Steep Slopes (35% or greater). Figure 3D-1, Site Constraints, and Table 3D-1 illustrate the areas of steep slopes on the Project Site.

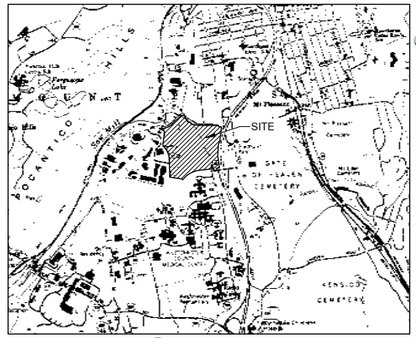
Table 3D-1 Existing Slope Analysis

Slopes	Total Area (± acres)	% of Site
Slopes Less than 15%	58.0	73.4%
Steep Slopes (15% - 25%)	10.7	13.5%
Very Steep Slopes (25% - 35%)	4.9	6.2%
Excessively Steep Slopes (35% or Greater)	5.5	6.9%
Totals	78.9*	100%

*Total may not equal due to rounding.

PLAN
GRAPHIC SCALE

(IN FEET)
1 inch = 100 ft.



LOCATION MAP
N.T.S.

LEGEND

- EXISTING PROPERTY LINE
- EXISTING PROPERTY LINE
- WETLAND SETBACK LINE
- EXISTING STONE WALL
- EXISTING 2' CONTOUR
- 410 EXISTING 10' CONTOUR

LEGEND		
COLOR	DESCRIPTION	TOTAL AREA
	STEEP SLOPES (15% - 25%)	464,562 SF
	VERY STEEP SLOPES (25% - 35%)	213,288 SF
	EXCESSIVELY STEEP SLOPES (35% OR GREATER)	239,038 SF
	FLAGGED WETLAND AREA	142,642 SF
	WETLAND BUFFER AREA	583,768 SF

vhb | **Figure 3D-1**

North 60 | Town of Mount Pleasant, NY

Site Constraints

Source: Bibbo Associates LLP

Historical Modifications to the Project Site's Topography

As part of earlier construction staging operations located onsite, remnants of soil stockpiles can be seen on the existing topographical survey in the center of the Project Site. The existing soil stockpile remnants are generally six to eight feet in height. The stockpiles were dumped by construction equipment as part of the past construction projects for the Westchester Medical Center. The construction vehicles accessed the Project Site from Hospital Road and entered the Project Site via the existing paved entrance drive on the County-owned property. An abandoned construction staging site was identified in the northwest corner of the Project Site where the existing hillside slope was cut back to create the flatter artificial fill area on the Developer-owned property. The area was previously accessed from the existing paved driveway which connects to Old Saw Mill River Road. Additional information about the existing conditions on the Developer-owned land which comprises approximately 20 acres of land on the west side of the Project Site, please see Section 2.1 of the DEIS report.

2. Potential Impacts

Steep slopes are regulated by Chapter 180, Steep Slope Protection, of the Town of Mount Pleasant Town Code. The Town Code seeks to preserve steep slopes and requires permits for the construction of new buildings; clearing of or constructing on any land area; filling, cutting or excavating operations; and/or, discharge of stormwater and/or construction and placement of stormwater runoff systems within any steep slope, very steep slope, or excessively steep slope in the Town.

The creation of the roadways and buildings located within steep slope areas, as defined in Chapter 180 of the Town Code, would require a Steep Slopes Permit Approval from the Planning Board. The Master Development Plan and Phase 1 have been developed to reduce the amount of disturbance to steep slopes to the greatest extent practicable. All proposed cut and fill areas have a maximum slope of one vertical to two horizontal and have been blended back into the existing topography. The proper implementation of the erosion control plan would ensure slopes are properly protected and stabilized during construction. The Phasing Plan for Phase 1 (see Figure 2-8) has been prepared to ensure that construction is sequenced to minimize the amount of exposed slopes at any one given time and large disturbed slopes would not be left bare during winter months.

The significant changes between the existing topography and the proposed topography are limited to the hillside grading cut required to create Western Street, the fill required for Cross Street to pass over and the filling required to create the stormwater basins. The proposed Main Street starts at existing grade on Hospital Road, but the end of Main Street includes a fill area to create a mildly-sloped, pedestrian-friendly Main Street. Each of these changes to topography would be completed during Phase 1 of the Proposed Action and are integral parts of the Master Development Plan.

The proposed area of disturbance for Phase 1 is 35.8 acres, as shown on Figure 3C-2, Phase 1 Grading Plan. During Phase 1, approximately 5.3 acres of steep slopes would be impacted comprised of 3.0 acres of steep slopes, 1.4 acres of very steep slopes, and 0.9 acres of excessively steep slopes.

Table 3D-2 Steep Slope Disturbance Analysis for Phase 1

Slopes	Total Area (acres)	Disturbed Area (acres)
Moderate Slopes		
Slopes Less than 15%	57.8	30.5
Subtotal Moderate Slopes	*57.8*	*30.5*
Steep Slopes		
Steep Slopes (15% - 25%)	10.7	3.0
Very Steep Slopes (25% - 35%)	4.9	1.4
Excessively Steep Slopes (35% or Greater)	5.5	0.9
Subtotal Steep Slopes	*21.1*	*5.3*
Totals	78.9	35.8

The table provided below displays the Phase 1 steep slope disturbance for each soil type as per the Town of Mount Pleasant Town Code Section 180-8. Steep slope areas have also been provided by soil type for the 100 foot area surrounding the proposed limits of disturbance in accordance with the Town Code. A separate table has been prepared for the Master Plan of Development and can be found later in this section. For detailed descriptions of each soil type found on the Project Site, please see section 3C of the DEIS.

Table 3D-3 Steep Slope Disturbance Analysis by Soil Type for Phase 1

15%-25% Slopes - Phase 1		
SOILS	DISTURBANCE (SF)	WITHIN 100' (SF)
SUB	686	
PnB	19,922	7,310
PnD	70,766	16,746
WdB	19,790	6,159
PnC	11,657	26,326
RdB	10,009	1,070
Ub		
TOTAL	132,830	57,611
	TOTAL AREA =	190,441

25%-35% Slopes - Phase 1		
SOILS	DISTURBANCE (SF)	WITHIN 100' (SF)
SUB	1,004	
PnB	14,251	4,051
PnD	31,979	3,371
WdB	2,750	3,237
PnC	6,741	933
RdB	3,271	1,197
Ub	216	
TOTAL	60,212	12,789
	TOTAL AREA =	73,001

35% or Greater Slopes - Phase 1		
SOILS	DISTURBANCE (SF)	WITHIN 100' (SF)
SUB	1,209	305
PnB	2,464	18
PnD	32,917	44,225
WdB	449	3,759
PnC	3,835	3,649
RdB	114	1,190
Ub		2,136
TOTAL	40,988	55,282
	TOTAL AREA =	96,270

The proposed area of disturbance for the Master Development Plan is 57.5 acres, as shown on Figure 3C-3, Master Development Grading Plan, of which approximately 8.6 acres of steep slopes would be

impacted comprised of 5.5 acres of steep slopes, 1.5 acres of very steep slopes, and 1.6 acres of excessively steep slopes. Please note, the proposed area of disturbance and disturbance to steep slopes for the Master Plan includes all the areas associated with the construction of Phase 1, previously discussed above.

Table 3D-4 Steep Slope Disturbance Analysis for the Master Development Plan

Slopes		Total Area (acres)	Disturbed Area (acres)
Moderate Slopes			
Slopes Less than 15%		57.8	
Subtotal Moderate Slopes		*57.8*	
Steep Slopes			
Steep Slopes (15% - 25%)		10.7	5.5
Very Steep Slopes (25% - 35%)		4.9	1.5
Excessively Steep Slopes (35% or Greater)		5.5	1.6
Subtotal Steep Slopes		*21.1*	*8.6*
Totals		78.9	57.5

Table 3D-5 Steep Slope Disturbance Analysis by Soil Type for Master Plan

15%-25% Slopes - Master Plan		
SOILS	DISTURBANCE (SF)	WITHIN 100' (SF)
SUB	715	1,254
PnB	26,917	15,183
PnD	103,339	109,398
WdB	27,423	0
PnC	67,417	28,279
RdB	11,107	7,602
Ub	1,208	3,297
TOTAL	238,126	165,013
TOTAL AREA =		403,139

25%-35% Slopes - Master Plan		
SOILS	DISTURBANCE (SF)	WITHIN 100' (SF)
SUB	941	1,083
PnB	15,311	455
PnD	30,514	38,492
WdB	6,268	0
PnC	8,508	17,735
RdB	4,160	2,187
Ub	216	1,226
TOTAL	65,918	61,178
TOTAL AREA =		127,096

35% or Greater - Master Plan		
SOILS	DISTURBANCE (SF)	WITHIN 100' (SF)
SUB	1,212	305
PnB	3,186	526
PnD	48,488	76,278
WdB	4,479	0
PnC	14,123	7,104
RdB	125	2,926
Ub	0	2,136
TOTAL	71,613	89,275
TOTAL AREA =		160,888

Cut and Fill Analysis

As discussed in Chapter 3C, Geology and Soils, a preliminary cut and fill analysis has been performed for Phase 1 and shows a total of 233,443 cubic yards of cut and a total of 214,979 cubic yards of fill, resulting in 66,698 cubic yards of excess cut-material to be exported from the Project Site. The Master Development Plan preliminary earthwork analysis shows a total of 688,900 cubic yards of cut and a total of 215,841 cubic yards of fill, resulting in 473,059 cubic yards of excess cut-material to be exported from the Project Site. Note that cut/fill estimates may vary depending on the final layout of underground parking. Cut/fill estimates are based on assumptions made about the extents of the site

excavation. Please note, the proposed earthwork values displayed for the Master Plan represent the earthwork required for the entire Project Site, include all the earthwork values separately listed for Phase 1.

Retaining Walls

Retaining walls are proposed throughout the Project Site in areas where proposed grade changes are significant in order to minimize the area of created slopes and reduce overall site disturbance. Retaining walls are proposed at the following locations: along the hillside cut to create Western Street, at the end of Main Street to create the raised pad for Buildings B12 and B13, between Buildings B1 and B8 to create the raised loading area, and along Science Drive/East Drive to minimize grading along the Sprain Brook right-of-way. In many cases the rear side of the proposed building foundations would act as retaining structures to minimize disturbance to the wetland buffer areas. The location of retaining walls is illustrated on the proposed Grading Plans for Phase 1 and the Master Development Plan.

3. Mitigation Measures

Construction on steep slopes, and other environmental features on the Project Site, has been avoided to the greatest extent practicable. The site plans for Phase 1 and the Master Development Plan were designed to minimize impacts to environmentally sensitive land. Where impacts to steep slopes cannot be avoided, the mitigation measures outlined below would be employed to minimize impacts. Additional mitigation measures may include the design of temporary sediment basins to collect and store sediment-laden runoff during construction in addition to the practices detailed in the Erosion Control Plan. Any sediment basin would be designed in accordance with the NYSDEC Standards and Specifications for Erosion & Sediment Control (Blue Book).

Erosion and Sediment Control Plan

An Erosion and Sediment Control Plan has been prepared for Phase 1 and would be prepared for the remaining Site Plan Approval phases of the Master Development Plan. Any Erosion and Sediment Control Plans prepared for development on the Project Site would comply with the project SPDES permit and would be designed to control soil erosion, shear failure, settlement, dust and prevent sediments from migrating offsite. The Erosion and Sediment Control Plan would be implemented at the start of construction and would continue throughout the construction period, as outlined in the New York State Standards and Specifications for Erosion and Sediment Control. The intent of the Erosion and Sediment Control plans is to minimize land disturbance at any given time, contain sediment from disturbed areas, treat runoff where possible, and stabilize disturbed soils as soon as possible. Additional details are provided in Chapter 3C, Geology and Soils.

As stated in DEIS Section 3C.3, erosion control blankets (anchored stabilization matting) shall be installed on all embankments which are graded steeper than 3 horizontal to 1 vertical. Erosion control blankets (anchored stabilization matting) provide protective cover for newly graded steep slopes,

protect against rainwater splashing/overland flow, and help promote seed germination to aid in stabilizing the disturbed area as quickly as practicable.

The following standards, as required by the Town of Mount Pleasant Town Code Section 180-7, shall be adhered to in order to help mitigate the potential impacts of the steep slope disturbance:

1. *There is no reasonable alternative for the proposed regulated activity on that portion of the site not containing steep slopes.*

   A key element of the Proposed Action is the connection between Hospital Road and Route 9A which is created by the proposed "West Street". The only way to construct this roadway is to cut through the existing steep slope area on the northern side of the Project Site.

2. *The planning, design and development of buildings and site improvements limits the rate of stormwater runoff to a zero increase with overflow to a municipal drain system where practicable and provides the maximum in structural safety, slope stability, and human enjoyment while adapting the affected site to, and taking advantage of, the best use of the natural terrain and aesthetic character.*

   Please see information regarding onsite stormwater mitigation in Section 3G of the DEIS. The Proposed Action provides walking and bicycling trails for human enjoyment around the Project Site. Proposed retaining walls and slope stabilization measures will be provided where required.

3. *The terracing of building sites is kept to a minimum.*

   Buildings are situated into the existing grade on the flatter portions of the Project Site. There are no buildings proposed on the steeper northern side of the Project Site.

4. *Roads and driveways follow the natural topography to the greatest extent possible in order to minimize the potential for erosion, and they are consistent with other applicable regulations of the Town of Mount Pleasant and current engineering practices.*

   The Roadways have been designed to follow the existing topography to the greatest extent practicable. Large portions of Main Street and West Street generally follow existing grade.

5. *Habitat is quantified and protected, no endangered species of flora or fauna are adversely impacted and any replanting shall be maintained by the applicant for two years and shall consist of indigenous vegetation that at a minimum replicates the original vegetation on the site, in kind.*

   The proposed action will adhere to the requirement.

6. *The natural elevations and vegetative cover of ridgelines are disturbed only if the crest of a ridge and the tree line at the ridge remain uninterrupted. This will be accomplished either by positioning buildings and areas of disturbance below a ridgeline or by positioning buildings and*

areas of disturbance at a ridgeline so that the elevation of the roofline of the building is no greater than the elevation of the natural tree line, so long as no more than 100 feet along the ridgeline, to a width of 100 feet generally centered on the ridgeline, is disturbed.

The proposed buildings have been situated on the flatter portions of the Project Site. An existing ridgeline runs along the existing cemetery on the east side of the Sprain Brook Parkway and the ridgeline will not be impacted by the Proposed Development.

7. *Any regrading blends in with the natural contours and undulations of the land.*

   Proposed grading has been blended back into existing topography to the greatest extent practicable.

8. *Cuts and fills are rounded off to eliminate sharp angles at the top, bottom, and sides of regraded slopes.*

   Final grading for the Project Site will be performed to eliminate any sharp angles at slope transitions.

9. *The angle of cut and fill slopes does not exceed a slope of one vertical to two horizontal, except where retaining walls, structural stabilization, or other methods acceptable to the Town Engineer are used.*

   No proposed grading exceeds a slope of one vertical to two horizontal.

10. *Tops and bottoms of cut and fill slopes are set back from the structures an adequate distance to ensure the safety of the structures in the event of the collapse of the cut or fill slopes. Generally, such distance is six feet plus 1 /2 the height of the cut or fill.*

    The proposed buildings have been situated to meet this requirement. There are no fill or cut slopes above a building that could adversely affect the safety of the building in the event of a collapse of a created slope.

11. *Disturbance of rock outcrops is by means of explosives only if labor and machines are not effective and only if rock blasting is conducted in accordance with all applicable regulations of the Town of Mount Pleasant and the State of New York. The rock shall be effectively stabilized.*

    It is not anticipated that rock blasting will be required for the Proposed Action. The goal of the construction is to use labor and machinery to remove rock from the Project Site.

12. *Disturbance of slopes is undertaken in workable units in which the disturbance can be completed and stabilized in one construction season so that areas are not left bare and exposed during the period from December 15 through April 15.*

    The Proposed Action will adhere to the requirement as per the Erosion Control Program provided for Phase 1.

13. *Disturbance of existing vegetative ground cover does not take place more than 15 days prior to grading and construction.*

    The Proposed Action will adhere to the requirement as per the Erosion Control Program provided for Phase 1.

14. *Temporary soil stabilization, including, if appropriate, temporary stabilization measures such as netting or mulching to secure soil during the grow-in period, is applied to an area of disturbance within two days of establishing the final grade, and permanent stabilization is applied within 15 days of establishing the final grade.*

    The Proposed Action will adhere to the requirement as per the Erosion Control Program provided for Phase 1.

15. *Soil stabilization is applied within two days of disturbance if the final grade is not expected to be established within 60 days.*

    The Proposed Action will adhere to the requirement as per the Erosion Control Program provided for Phase 1.

16. *Measures for the control of erosion and sedimentation are undertaken consistent with the Westchester County Soil and Water Conservation District's "Best Management Practices Manual for Erosion and Sediment Control," and the New York State Department of Environmental Conservation's "Guidelines for Urban Erosion and Sediment Control," as amended, or its equivalent satisfactory to the Planning Board.*

    The erosion and sedimentation measures provided for the Proposed Action are in accordance with the specified regulations.

17. *All proposed disturbance of slopes is undertaken with consideration of the soils limitations characteristics contained in the latest Identification Legend, Westchester County Soils Survey, as prepared by the Westchester County Soil and Water Conservation District, in terms of recognition of limitation of soils on slopes for development and application of all mitigating measures, and as deemed necessary by the Town Engineer.*

18. *Topsoil is removed from all areas of disturbance, stockpiled and stabilized in a manner to minimize erosion and sedimentation, and replaced elsewhere on the site at the time of final grading.*

    The Proposed Action will adhere to the requirement as per the Erosion Control Program provided for Phase 1.

19. *Topsoil stockpiling is not permitted on slopes of greater than 10%.*

    Topsoil stockpiles will not be created on slopes greater than 10% in accordance with the Erosion Control Program provided for Phase 1.

20. *Compaction of fill materials in fill areas is such to ensure support of proposed structures and stabilization for intended uses.*

    Fill areas will be proper compacted to ensure slope stability and support is adequate for the proposed structures.

21. *Structures are designed to fit into the hillside rather than altering the hillside to fit the structure, employing methods such as reduced footprint design, step-down structures, stilt houses, and minimization of grading outside the building footprint.*

    The proposed buildings have been designed to fit into the existing hillside where possible. In many cases, the rear elevation of the proposed buildings will be lower than the ground-floor, front elevation to reduce the amount of earthwork required in steep slope areas and wetland buffer areas behind the buildings.

22. *Development is sited on that portion of the site least likely to impact the natural landforms, geological features, and vegetation.*

    The proposed buildings has been sited in the flatter portion of the Project Site in areas least likely to be impact the natural hillside on the northern portion of the Project Site. The Proposed Action reuses the areas which have previously been altered or developed on the Project Site to the greatest extent practicable.

23. *The applicant has provided landscaping plans for after-development.*

    A proposed Landscape Plan has been developed for the Proposed Action.

24. *The development conforms with the requirements set forth in Chapter 218, Zoning, of the Code of the Town of Mount Pleasant.*

    The proposed zoning amendment which is part of the Proposed Action will create zoning requirements that are met by the proposed development.

25. *The construction equipment has adequate access so as not to disturb anything outside the approved limit of disturbance that shall be shown on the plan drawings and, when approved, staked in the field.*

    There is adequate access for construction equipment to enter the Project Site within the proposed limits of disturbance. Initially, the Project Site will be accessed via the existing paved driveway which connects to Old Saw Mill River Road on the north side of the Project Site. Additional access points are provided along Hospital Road within the limits of disturbance.

Project Phasing

In order to minimize the area of disturbance at any particular point during project construction, it is proposed that Phase 1 would be constructed in approximately ten sub-phases over a construction period of 60 months. As noted in Chapter 3G, Stormwater Management, each construction phase begins with installation of all erosion and sediment control measures and ends with final stabilization and removal of temporary erosion and sediment measures.

Retaining Walls

The use of retaining walls is proposed in selected portions of the Project Site to limit the extent of grading that would otherwise be necessary. The function of a retaining wall in the grading design of a project is to provide support to the soil by resisting the tendency of soil to slump when there is a desired change in ground elevation that exceeds the natural angle of repose of the soil. If no retaining walls were proposed, the area of ground disturbance would need to be increased to provide a shallower angle of repose of the soil to enable the proposed grading to meet the existing grading. By supporting the soil, a retaining wall limits the extent of grading that would otherwise be necessary.

E. VEGETATION AND WILDLIFE

1. Existing Conditions

Vegetative Cover

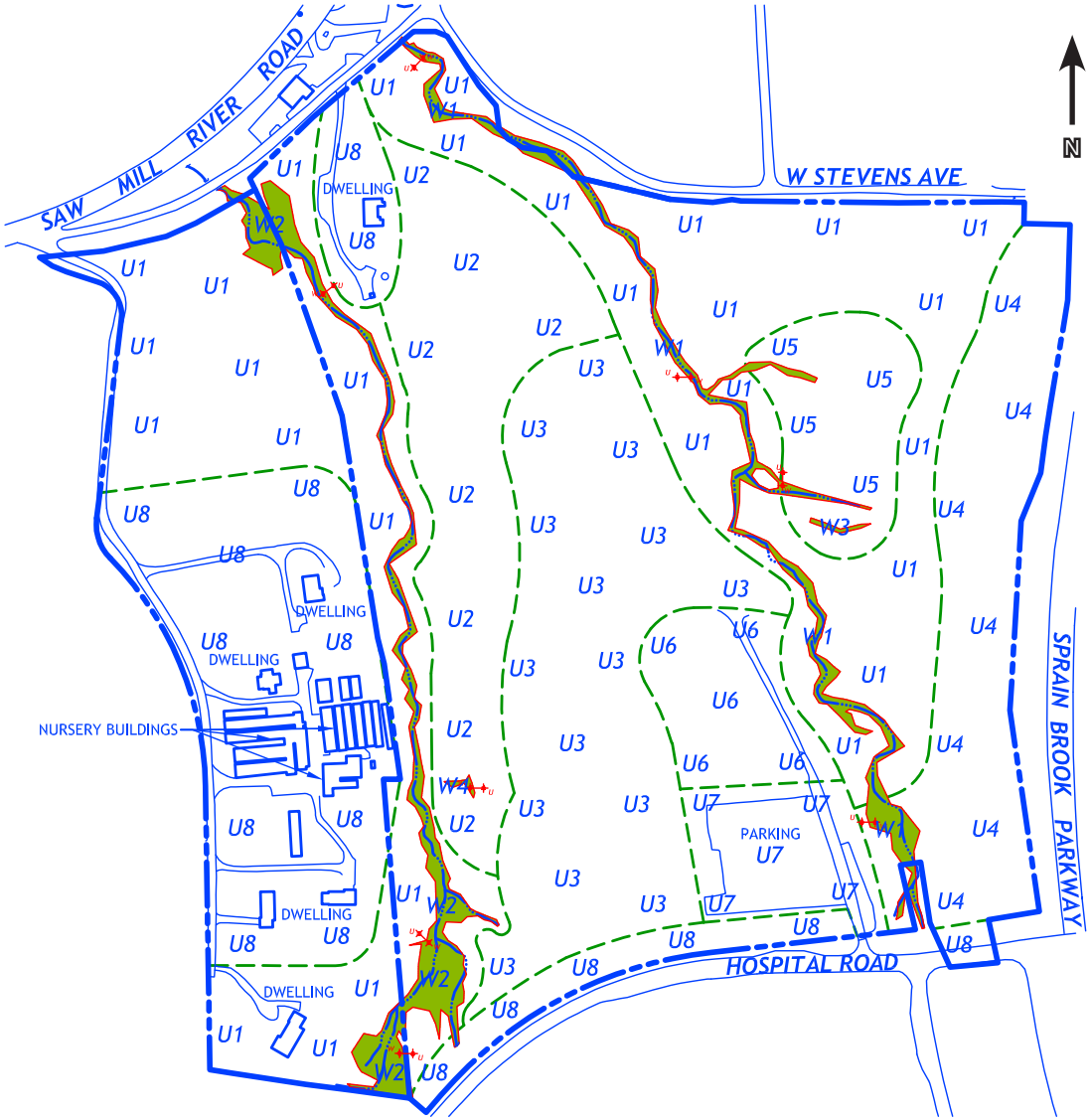
Ten distinct ecological communities, identified by primary vegetative cover type, were identified on the Project Site (see Figure 3E-1, Existing Ecological Communities Map). These areas are comprised of upland (U) and wetland (W) communities, and are common to the region and the state, according to the New York State Natural Heritage Program (NYNHP). The symbol, size, name, and state and global rarity rank of each community are provided in Table 3E-1. The majority of the Project Site is comprised of upland communities, with 75.8 acres, or 96 percent, of the site comprised of uplands and 3.3 acres, or 4 percent, of regulated wetlands and/or watercourses.

Table 3E-1 Ecological Communities

Symbol	Size (Acres)	Name	Global Ranking	State Ranking
Upland Communities				
U1	26.3	Beech-Maple Mesic Forest	G4	S4
U2	8.3	Successional Hardwood Forest	G5	S5
U3	11.5	Successional Old Field	G5	S5
U4	7.2	Successional Shrubland	G5	S5
U5	3.1	Beech-Maple Mesic Forest (Naturally Disturbed)	G4	S4
U6	2.7	Construction/Road Maintenance Spoils	UC	UC
U7	2.6	Paved Road/Parking Lot	UC	UC
U8	14.2	Mowed Lawn with Trees	UC	UC
Total Acreage	**75.8**			
Wetlands Communities				
W1	1.6	Rocky Headwater Stream	G4	S4
W2	2.1	Rocky Headwater Stream	G4	S4
W3	0.03	Red Maple Hardwood Swamp	G5	S4S5
W4	0.02	Red Maple Hardwood Swamp	G5	S4S5

Notes: UC=Unranked Cultural

The NYNHP global and state ranks are believed by the NYNHP to accurately reflect the relative rarity of each community. The global rank reflects the rarity of the community throughout its natural range and the state rank refers only to occurrences within New York State. A rank of "1" is for the rarest of species, those generally vulnerable to extinction or extirpation. A rank of "4" is for species that are apparently secure throughout their range or in New York and a rank of "5" is for species demonstrably secure



ECOLOGICAL COMMUNITIES

SYM.	NAME	SIZE (AC)
UPLAND COMMUNITIES		
U1	BEECH-MAPLE MESIC FOREST	26.3
U2	SUCCESSIONAL HARDWOOD FOREST	8.3
U3	SUCCESSIONAL OLD FIELD	11.5
U4	SUCCESSIONAL SHRUBLAND	7.2
U5	BEECH-MAPLE MESIC FOREST (NATURALLY DISTURBED)	3.1
U6	CONSTRUCTION/ROAD MAINTENANCE SPOILS	2.7
U7	PAVED ROAD/PARKING LOT	2.6
U8	MOWED LAWN WITH TREES	14.2
	TOTAL:	75.8
WETLAND & WATERCOURSE COMMUNITIES		
W1	ROCKY HEADWATER STREAM	1.3
W2	ROCKY HEAD WATER STREAM	1.9
W3	ISOLATED INTERMITTENT WATERCOURSE	0.03
W4	ISOLATED INTERMITTENT WATERCOURSE	0.02
	TOTAL:	3.3

North 60 | Town of Mount Pleasant, NY

Existing Ecological Communities

Source: William Kenny Associates, LLC

throughout its range or in New York. The NYNHP classification system does not have associated regulations but are meant for informational and characterization purposes only. All the communities within the Project Site are ranked 4 or 5, both globally and state-wide, indicating there are no significant natural communities present. Lists of observed vegetation and expected wildlife species are provided in the Ecological Assessment report in Appendix E.

Vegetation and wildlife investigations were conducted on foot and observations were made while walking systematically through the Project Site and along and within critical habitat (i.e. wetlands, watercourse and significant topographic features). Field investigations were completed in February, March and April 2018. The weather conditions at the time of the site investigations varied from clear to overcast while air temperatures ranged from the 40s to 50s Fahrenheit. Inclusions of unobserved wildlife are based on the communities' capacity to provide habitat to compatible wildlife known within the geographic region. Additional surveys will be completed during the 2020 growing season to provide a comprehensive inventory of vegetation and wildlife at the Project Site,

Descriptions of the upland and wetland communities are presented below. Their locations are shown on Figure 3E-1, Existing Ecological Communities Map.

Upland Ecological Communities

Eight upland areas were identified on the Project Site and are comprised of eight distinct cultural and ecological communities. Each community, and its ability to provide habitat functions for various species, is described below.

U1 – Beech-Maple Mesic Forest

The beech-maple mesic forest community is present in the northeastern, eastern and western portions of the Project Site. Hardwood canopy trees that are codominated by sugar maple and American beech characterize this community. However, sugar maples are at a significantly lower density than beeches at the site. Red oaks, black oaks, white oaks, black cherry, shagbark and pignut hickory and American elm are present within the community. In the western portions of the community, ironwood, American holly and red maple are common, in addition to the aforementioned species. In general, the percent canopy cover is approximately 80 to 90 percent and tree snags and fallen trees are present at a significant concentration of approximately three per acre. A shrub layer is essentially nonexistent through the eastern portions of the community; isolated stands of invasive species such as privet, multiflora rose, wineberry and burning bush as well as native spicebush. The western portion of the community has a mild density of native species such as dogwood, arrowwood vinburnum and witch hazel. The native greenbriar is very common in the southwestern portion of the Project Site. Woody vines, including poison ivy and the invasive oriental bittersweet and porcelainberry, are also dense in various portions of the community. Ground cover is for the most part absent except for the occasional invasive garlic mustard and native trout lilly. Soils are fine sandy loams and surface boulders are present in low density throughout the community, though surface rocks increase in abundance near the rocky headwater streams.

Due to the variety of vegetation and relatively undisturbed nature of this upland area, the community has a typical potential for wildlife use. The more mature trees that are present at a mild density within the forest may provide nesting, shelter and a food source for a variety of arboreal and semi-arboreal animals, while the mast crop provides a food source for white-tailed deer and turkey. Many trees contain cavities, excavated by woodpeckers or other natural means, which are utilized by a wide variety of arboreal and semi-arboreal mammals, such as white-footed mice, flying squirrels, gray squirrels and red squirrels. Avian species common to these physical structures include Northern Flicker, White-breasted Nuthatch and House Wren, in addition to the sparrow hawk, screech owl, and the saw-whet owl.

The downed and standing tree boles present throughout this upland community provides a food source for a wide variety of insects and fungi. These primary producers (fungi) assist in the breakdown of organic matter, replenishing soil nutrients and completing the microbial loop. Bacteria, while specifically decomposers, also provide a food source themselves for higher trophic level species.

U2 – Successional Hardwood Woodland

This community is a relatively narrow band immediately north and west of the successional old field. Though the community is similar to the beech-maple forest, the density of vegetation and age and type of the trees differs substantially enough to designate it as separate from its upland counterpart. With the exception of numerous, mature sugar maples, black locusts and oaks, most trees within the community are sapling or pole timber in size and include American elm, sugar maple, American beech, black cherry and oak. The trees present cover approximately 50 to 60 percent of the canopy and many of these trees (greater than three per acre) are snags (standing dead or dying tree). Unlike the beech-maple forest, shrubs are in relatively high abundance with privet, wineberry, multiflora rose, spicebush and burning bush being dominant while woody vines such as porcelainberry and oriental bittersweet are present in mild amounts. Groundcover comprised of garlic mustard, clover, wild ginger and trout lily is present throughout the woodland floor is still predominantly leaf litter. There are very few surface stones and exposed bedrock was not observed. Lastly, portions of the southern woodland appear to have been recently cleared of shrub and vine vegetation though downed trees within the community appear to have fallen from natural circumstances. Habitat opportunities are consistent with those of Upland 1.

U3 – Successional Old Field

An approximate 11.5 area of land, located in the central portion of the Project Site, appears to have been historically disturbed and cleared due to unnatural microtopography and soil profiles. The community consists primarily of herbaceous vegetation that is dominated by invasive species such as common reed, mugwort, ragweed, Japanese knotweed, garlic mustard and clover. Other species present are native wild onion and grasses. Trees, which are primarily saplings, and shrubs include yellow birch, black birch, white ash, sugar maple, honeysuckle and multiflora rose. The trees are present at a low density throughout the community while the shrub layers range from moderate to high in density. The land is fairly level in the southern and central portions of the old field due to

substantial human activity but gently slopes toward the north, transitioning to woodland. No bedrock or natural surface stones are present within the old field; surface stones present are from construction debris. Soils are divided between Paxton and Woodbridge soils but they have been clearly disturbed and are overlain with a gravelly fill mixture. Old farm drains were also identified at a few locations in the central and southern portions of the community.

Though disturbed, the densely vegetated community provides cover and burrowing habitat for numerous avian and mammalian species, including the bobwhite quail, chipping sparrow, gray catbird, meadow vole, eastern cottontail and the white-footed mouse. Reptilian species, specifically the Eastern garter snake, were observed utilizing the community during field investigations.

U4 – Successional Shrubland

This community extends along the majority of the eastern Project Site boundary and appears to have been part of the Beech-Maple community. However, due to disturbance (natural and/or human), it seems that a large quantity of canopy trees were brought down, increasing the amount of light reaching the forest floor and thus causing a rapid growth in invasive vines and shrubs. This most likely furthered the progression of a shrubland as more trees were killed by oriental bittersweet and porcelain berry, which are present in high densities throughout the community. Though some mature white pine, maples and oaks remain, red maple, white ash and sugar maple saplings are primary trees and are concentrated in the southern portion of the community. Multiflora rose is the dominant species within the community, in addition to other invasive shrubs such as privet, wineberry and burning bush. Groundcover is sparse but includes garlic mustard and various ferns. Surface stone coverage appears mild in certain areas, specifically in the southern portion of the community near the wetland and watercourse system.

Normally, shrub thickets make exceptional habitat for white-tailed deer due to the coverage and food source they provide. However, the density of multiflora rose and porcelainberry appears too great as no deer were observed within the community, unlike the remainder of the property. Nevertheless, the shrubland is an important shelter source for the birds and mammals in the adjacent beech-maple forest and the remaining tree stands would provide nesting habitat for woodpeckers, chickadees and others. Raccoons, striped skunks, and red foxes are all small mammals that could utilize the shrubland for habitat and various snake species could also utilize the habitat as hunting grounds. Fruiting shrubs in the area also provide forage for avian species overwintering in the area.

U5 – Beech-Maple Mesic Forest (Naturally Disturbed)

Located in the northeastern portion of the Project Site, this approximate 3.1-acre community appears to have historically been part of the beech-maple forest that it is surrounded by. However, similar to the successional shrubland, the area was heavily impacted by recent windstorms, resulting in the destruction of a large number of mature trees. As such, the area has become a partial woodland community due to the canopy gaps (approximately 50 percent canopy coverage), which have permitted the growth of a shrub and groundcover layer consisting of privet, multiflora rose, wineberry, spicebush, eastern woodland sedge and various grasses. Trees that remain are primarily American

beech, white ash, sugar maple, red oak, red maple, American elm and white pine and generally pole-timber in size. Vines, such as poison ivy, oriental bittersweet and porcelainberry are present but concentrated in the northwestern and northeastern portions of the community. The area is relatively level and appears to be infrequently inundated and periodically saturated but the soils, a fine sandy loam formed from compact glacial till, are well drained to moderately well drained. Surface stones are present at a very low density.

Though disturbed, the area provides almost identical habitat as the surrounding beech-maple forest but, with the addition of a more substantial shrub layer and greater quantity of fallen trees, there is an increased food source for birds and deer and for fungi and bacteria, respectively.

U6 – Construction/Road Maintenance Debris

An approximate 2.7-acre area exists in the southern portion of the Project Site that is comprised primarily of fill, gravel, sand, concrete blocks and other road maintenance and construction materials. The material has been irregularly placed on the site resulting in sharp peaks and valleys throughout this portion of the Project Site. Construction vehicles are also present within the community. Presently, the area has very little vegetation, which is concentrated on the northern, eastern and western edges of the community and includes multiflora rose, common reed, Japanese knotweed, mugwort, ragweed and other herbaceous plants and grasses.

Though vegetation is sparse, the undulating surface topography within the debris zone provides some escape cover and vegetation allows for avian perching sites. The areas of burrowable substrate within this habitat may provide breeding areas for small mammals such as eastern cottontail rabbit, moles, voles and shrews. Otherwise, the area provides little habitat value.

U7 – Paved Road/Parking Lot

Immediately south of the construction/road maintenance debris is a paved parking lot with a corresponding road. Both the lot and road are in poor condition. As such, vegetation is present along the paved edges and is present in cracks within the central portions of the lot. Vegetation includes turf grasses and weeds, specifically thale cress. The area provides little to no habitat for nearby fauna.

U8 – Mowed Lawn with Trees

Mowed lawn with trees is primarily present within the southern portion of the Project Site along Hospital Road but is also located in the western and northern portions of the Project Site. In these areas, mowed lawn with shade and ornamental trees is found adjacent to parking areas, access ways, residential structures and commercial nursery improvements. In the western and northern portions of the Project Site, the density of trees on the mowed lawn is greater than in the southern portion.

This type of area provides some habitat, primarily to avian species such as the American robin and European starling, which forage for worms and insects in grassed areas. The trees in these areas can provide a food sources as well, for example, fruit-bearing ornamentals provide a food source to foraging avian species. Small mammals such as rabbits, mice and squirrels may also use these areas.

Wetland Ecological Communities

Four wetland areas were delineated on the Project Site and are comprised of two ecological communities. The wetlands and watercourses are identified in the following table and discussed further in Chapter 3F, Wetlands, Waterbodies and Watercourses.

Table 3E-2 Wetland and Watercourse Primary Characteristics

Wetland No.	Principal Water Source(s)	Water Table Type	Vegetation Cover Type(s)
W1	Surface and shallow subsurface flow	Perched	Forested
W2	Surface and shallow subsurface flow	Perched	Forested
W3	Surface and shallow subsurface flow	Perched	Woodland
W4	Surface and shallow subsurface flow	Perched	Woodland

W1 – Rocky Headwater Stream East

The first system is a watercourse system with area of bordering forested wetland that extends and flows south to north through the eastern portion of the Project Site. Wetland vegetation is very sparse along the stream bank and intersecting intermittent watercourses due to the streambed composition. However, there are sporadic clumps of skunk cabbage and tussock sedge present in the bordering wetlands within the central and northern portions of the system. Immediately adjacent to the wetland are sparse clumps of spicebush, multiflora rose and burning bush. The southern portion of the system, by contrast, is densely vegetated with primarily multiflora rose and wineberry while native spicebush, skunk cabbage and grasses are also present in lower densities.

Due to the lack of vegetation and physical size of bordering wetland, the capacity of the wetland to provide habitat opportunities for mammals and birds are limited in the central and northern portions of the system. However, the southern portion of the system provides cover for deer, cottontails, squirrels, chipmunks and songbirds. The stream may potentially support some small cold water fish species, though the number of these individuals present would likely be low due to the small size of the stream. Microinvertebrates are also likely supported by the system and include stoneflies, midges, crayfish, caddisflies and blackflies, which are a good food source for avian species. Lastly, the fallen trees are an important habitat for fungi, bacteria and other decomposers.

W2 – Rocky Headwater Stream West

Similar to the eastern rocky headwater stream, this watercourse system has an area of bordering forested wetland that extends and flows south to north through the western portion of the Project Site. Wetland vegetation is sparse along the stream bank due to the streambed composition, but it is denser than the eastern system. In the southern portions of the wetland, skunk cabbage, soft rush, eastern woodland sedge, tussock sedge and sensitive fern are common. A small area of cattail is also present in the system. The banks along the stream are more heavily vegetated with shrubs including spicebush, multiflora rose, wineberry and privet.

Habitat opportunities are generally consistent with those of Wetland 1. Cattails also provide cover for raccoons, the eastern cottontail and wild turkeys while blackbirds and other avian species use the plant for shelter and nesting purposes. Moreover, the woodland and tussock sedge are an important food source for local waterfowl and small birds.

W3 – Isolated Red Maple Swamp and Intermittent Watercourse East

Located in the southern portion of the disturbed beech-maple community, this system is a small and very narrow watercourse, approximately 0.03-acre in size. With the exception of a few red maples and an American elm, there is some privet, wineberry and grasses.

While red maple wetlands provide a number of wildlife habitat opportunities across the food web, this wetland is so physically small that the capacity for the wetland to provide habitat opportunities is extremely limited to tree nesting habitat and a food source for birds.

W4 – Isolated Intermittent Watercourse

This small and narrow system is approximately 0.04-acre and is located immediately east of the western rocky headwater stream. Despite being smaller than the eastern watercourse, this system has a greater density of vegetation including red maple, American elm, spicebush, privet, eastern woodland sedge and some grasses. Deadwood is also present throughout the system.

As such, this community provides more ecological benefit for birds that utilize the trees and sedges and decomposers that make use of the fallen branches than the eastern isolated intermittent watercourse. Various amphibian species are also likely to inhabit the fallen dead wood to use as habitat. However, due to the hydrogeomorphic conditions of this system (i.e. a channel-shaped watercourse), the system is not a vernal pool and cannot support facultative vernal pool species. Additionally, the physical size of the system likely prevents the wetland from providing any substantial benefit to other local fauna.

Endangered and Threatened Species

The Project Site was investigated to determine the presence or absence of state or federal plant and animal species listed as endangered, threatened or special concern. No such species were observed or detected to be present based on field observations. Moreover, a review of the New York State Department of Conservation (NYSDEC) Environmental Resource Mapper (ERM) confirmed that neither rare plants or animals nor significant natural communities, including vernal pools, have been identified at or within approximately one mile of the Project Site.

Data collected from the partnership between NYSDEC and the State University of New York College of Environmental Science and Forestry (SUNY CESF), further known as the New York Natural Heritage Program (NYNHP), indicates that there are no listed threatened, rare or endangered species on the Project Site. Information regarding areas of threatened, rare and endangered species were gathered using the NYSDEC ERM. The ERM lists the following areas of rare flora and fauna within proximity to the Project Site. Three areas for rare animals were identified within proximity of the Project Site. The

first of these areas is north of Tarrytown Lakes Park Buttermilk Ridge, approximately 1.3 miles southwest from the site. Secondly is Rockefeller State Park Preserve, approximately 1.75 miles northwest from the property, and finally the Lower Hudson River, approximately 3.00 miles west from the property. No information was given regarding the species.

Only one important area for rare plants was identified within proximity of the Project Site: Cranberry Lake Preserve, approximately 2.45 miles southeast from the Project Site. Other locations identified as important areas of significant biodiversity and natural communities, are the Lower Hudson River and an Oak-Tulip Tree Forest located in Pocantico Hills, approximately 1.93 miles northwest from the Project Site.

Additionally, according to the United States Fish and Wildlife Service (USFWS) Environmental Conservation Online System (ECOS), three endangered and threatened species are known to or are believed to occur within Westchester County. These are the Indiana bat, which is endangered as well as the northern long-eared bat and the bog turtle which are both threatened.

Indiana and Northern Long-Eared Bat

According to information from the NYSDEC and the NYNHP Indiana Bat Fact Sheets, there are eight known Indiana bat hibernacula within New York State. The closest known hibernacula are approximately 65 miles northwest of the Project Site in Ulster County. The Indiana bat spends its winters hibernating in very specific types of caves, mines and abandoned structures, and its summers roosting in snags or large diameter trees with exfoliating bark. Examples of such tree species used as roosts by Indiana bats include sugar maple, shagbark hickory, white ash, green ash, white oak, black locust, American elm and slippery elm. The northern long-eared bat, similarly, uses caves and mines as hibernacula during the winter and a combination of live and deadwood as roosts during the summer.

Due to the bats use of common trees mentioned prior, as well as others not listed, as roosts, certain restrictions are put in place by the USFWS and the NYSDEC to limit incidental take. According to federal regulations for Indiana bats, tree cutting is seasonally restricted to when bats are hibernating. Trees should only be cut on the project site between November 15 and March 31. Federal regulations for northern long-eared bats is broader in scope and interpretation and are further enhanced by the NYSDEC. These regulations limit certain forestry activities during northern long-eared bats active season, from April 1 to October 31.

Along with hibernacula and roosting locations, foraging areas should be considered in determining whether the Project Site could potentially serve as a bat habitat. Large wetlands could serve as adequate hunting grounds for both bats species, as both are insectivorous with a preference for flying insects such as dragonflies. However, the most productive breeding ground for dragonflies is in marshes with large mosquito populations, and while the wetlands onsite could serve as dragonfly breeding grounds, it is unlikely that the amount would be as populous as a marsh wetland, and therefore, presence of an abundant food source for bats would be limited.

Based on the ecological assessment of the Project Site communities and surrounding areas, it is determined that there are no suitable hibernacula onsite for both the Indiana and northern long-eared bats. There are potential summer roost trees onsite, however due the limited available food source the Project Site would not be a preferred habitat of the species and would limit the potential usage of the area.

Bog Turtle

The other threatened species known to exist within Westchester County is the bog turtle. This reptile species, like the Indiana bat, has specific habitat preferences. Bog turtles prefer areas of emergent wetland vegetation of low grasses and sedges with a soft muck bottom substrate. Examples of desirable habitat include wet meadows and calcareous fens dominated by sedges and sphagnum mosses. A scrub-shrub overlay is also preferable to provide protection from predators. Open areas of hummocked tussock sedge serve as their preferred nesting habitat. Due to the lack of mucky substrate or emergent wetlands on the property, it is also unlikely that the Project Site would serve as viable habitat for bog turtles, though none have been observed or recorded.

Tree Survey

A tree survey of the Project Site was conducted in accordance with Chapter 201, Trees, of the Mount Pleasant Town Code. The survey identifies all trees located within the proposed limit of disturbance measuring greater than 10 inches in diameter at breast height. See Tree Survey Map in Appendix T. Included in this survey were 94 specimen trees, as defined by the Mount Pleasant Town Code.

2. Potential Impacts

The following section provides a description of the proposed limits of site disturbance and impacts to each vegetative cover type and threatened, rare or endangered plant species; and other trees (including specimen trees) identified above.

Vegetative Cover

The Proposed Action has been designed to minimize to the greatest extent practical significant impacts to ecologically sensitive areas of the Project Site. The majority of the proposed improvements are concentrated within more recently disturbed portions of the property and thereby minimize impacts to significant forest, wetland and watercourse communities.

In the first phase of the Proposed Action, the upland forest communities (refer to Table 3E-3, U1 and U2) decrease by approximately 9 acres, or approximately 27 percent while the remaining cover types decrease approximately 24 acres, or 59 percent. In the Master Development Plan, the forested communities cumulatively reduced by 17 acres, or 49 percent, and the remaining cover types communities are reduced by 36 acres, or 88 percent. Portions of these communities would be renaturalized following construction activity through the implementation of a Planting Plan (See

Appendix R Site Lighting and Planting Plans), which consists of the establishment of diverse native trees, shrubs and groundcovers and through the control of invasive vegetation.

Most of the proposed impacts to wetland and watercourse communities would occur in Phase 1. Approximately half of the eastern stream would be impacted by Phase 1 construction. The southern portion of the stream and associated wetlands would be disturbed to create an approximate 1.0-acre pond and emergent wetland habitat. Approximately 800 linear feet of the stream and 0.3 acres of bordering wetland would be disturbed and encompassed in the footprint of the pond. An additional 280 linear feet of the stream would be piped from the southern property boundary to allow water to enter the pond. On the northern end, the water exiting the pond would be piped 250 linear feet, flowing into the northern portion of the existing stream. Wetlands 3 and 4 and the east-forking intermittent streams of Wetland 1 will be indirectly impacted by development activity. These wetlands are wet areas that have developed over time from hillside seeps. Due to the Proposed Action, it is possible that these wetlands will be substantially drained based on impacted drainage patterns. The exact extent of this potential impact has not been analyzed. Therefore, for the purposes of this report, we consider these wetlands to be drained and lost as a result of site development. This is a combined loss of 0.22 acres of wetlands that will be converted to naturalized upland areas.

The Phase 1 proposed road crossings would occur at the northern and southern end of the western stream to allow for the construction of the proposed West Street. These unavoidable crossings are proposed to provide vehicular and pedestrian access from Hospital Road to the western portion of the Proposed Action and to Saw Mill River Road. The southern crossing would culvert 180 linear feet of stream and remove 0.23 acres square feet of wetland. The northern West Street crossing would remove 0.11 acres of wetland that borders the stream to the west. Cross Street is also proposed to cross the western stream and as a result an additional 280 linear feet of the stream would be culverted.

Additional direct impacts to the streams and wetlands that would occur from the remaining phases of the Master Development Plan are limited to the construction of construction of a proposed biotech building. The building would result in the loss of approximately 0.14 acres of wetlands. The proposed pedestrian path and North Street would span completely across and above the eastern stream and, as such, would not directly impact the stream.

Additionally, in Phase 1, a pocket wetland would be created within the forest upland in the northwestern portion of the Project Site. Two infiltration basins are also proposed in the west-central (within U2) and the northwestern (within U8) portion of the property for stormwater management. As a result of the pond and pocket wetland, the total area of onsite wetlands would increase following Phase 1 and the Master Development Plan (Table 3E-4).

The Proposed Action is not anticipated to affect threatened, endangered or protected species. No listed species were observed on the Project Site during the site evaluations in 2018 and 2019. Per NYSDEC Natural Heritage Program (NHP) records, no state-listed species have been identified

on or immediately adjacent to the Project Site. According to the NHP, the closest habit to the Project Site that is considered important for rare plants is Cranberry Lake Preserve, which 2.45 miles southeast of the Project Site. As discussed in Chapter 3E, Vegetation and Wildlife, due to existing property conditions, the Project Site is not a preferred habitat for the endangered Indiana bat and the threatened northern long-eared bat and bog turtle.

Table 3E-3 System and Community Impacts

Community		Existing Area	Phase 1				Master			
			Disturbed Area		Undisturbed Area		Disturbed Area		Undisturbed Area	
Symbol	Name	Acres	Acres	Percent of Community	Acres	Percent of Community	Acres	Percent of Community	Acres	Percent of Community
U1	Beech-Maple Mesic Forest	26.3	7.2	28%	19.0	72%	12.7	48%	13.5	52%
U2	Successional Hardwood Forest	8.3	2.1	25%	6.3	75%	4.4	52%	4.0	48%
U3	Successional Old Field	11.5	9.4	81%	2.2	19%	11.2	97%	0.4	3%
U4	Successional Shrubland	7.2	3.6	50%	3.6	50%	6.8	95%	0.4	5%
U5	Beech-Maple Mesic Forest (naturally disturbed)	3.1	0.0	0%	3.1	100%	0.1	2%	3.0	98%
U7	Construction/Road Maintenance Spoils	2.7	2.7	100%	0.0	0%	2.7	100%	0.0	0%
U8	Paved Road/Parking Log	2.6	2.6	100%	0.0	0%	2.6	100%	0.0	0%
U9	Mowed Lawn with Trees	14.2	5.9	42%	8.3	58%	13.2	93%	1.0	7%
SubTotal		**75.8**	**33.5**	**44%**	**42.4**	**56%**	**53.5**	**71%**	**22.3**	**29%**
W1	Rocky Headwater Stream	1.3	0.8	59%	0.5	41%	0.8	133%	0.6	133%
W2	Rocky Headwater Stream	1.9	0.4	22%	1.5	78%	0.6	33%	1.3	67%
W3	Red Maple Hardwood Swamp	0.03	0.03	100%	0.0	0%	0.0	0%	0.0	0%
W4	Red Maple Hardwood Swamp	0.02	0.02	100%	0.0	0%	0.0	0%	0.0	0%
SubTotal		**3.27**	**1.3**	**38%**	**2.0**	**62%**	**1.4**	**43%**	**1.8**	**56%**
Total		**79.12**	**34.7**	**44%**	**44.4**	**56%**	**54.9**	**69%**	**24.2**	**31%**

Tree Removal

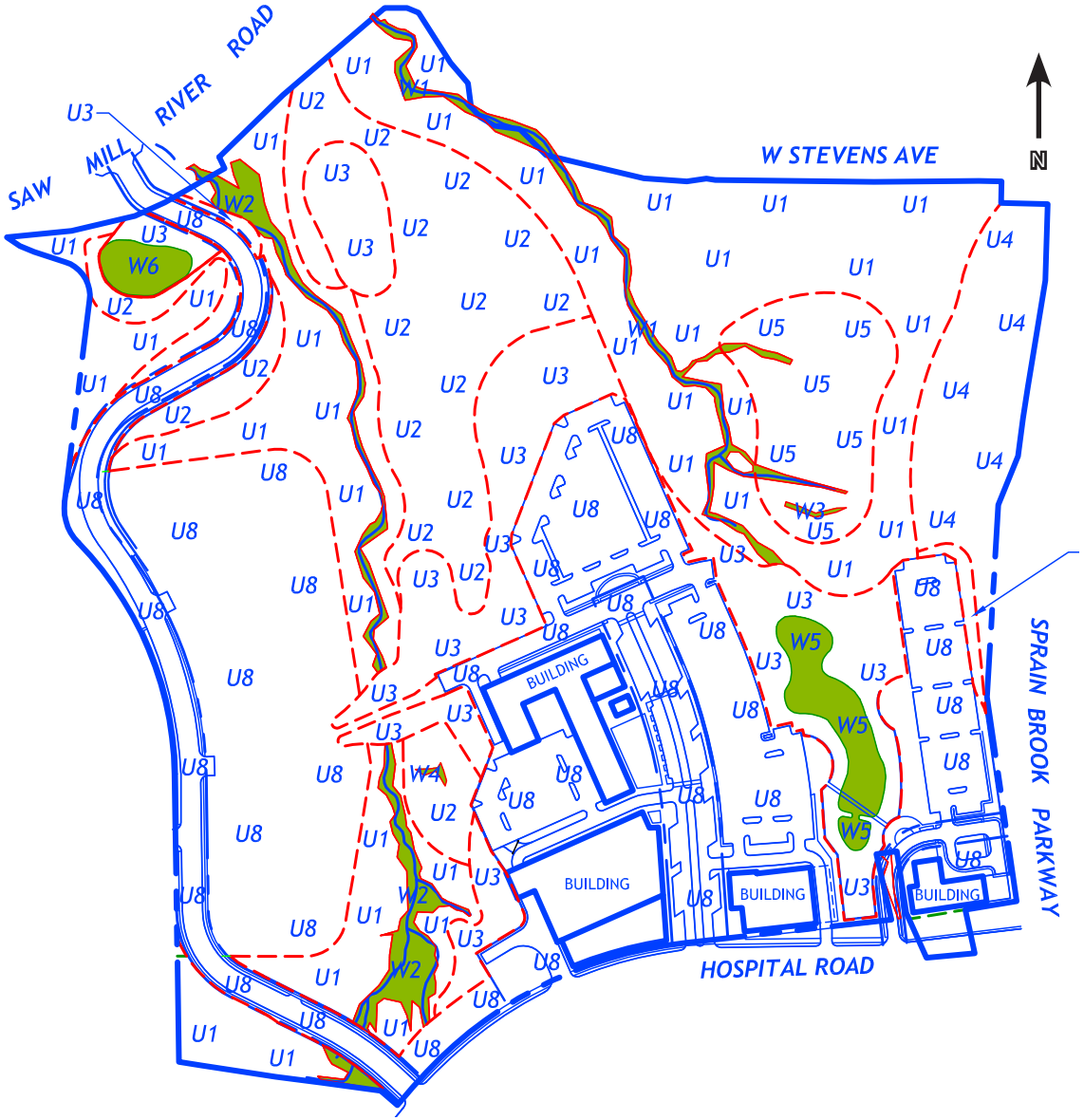
Based on the tree survey, which identifies all trees located within the proposed limit of disturbance measuring greater than 10 inches in diameter at breast height (DBH), the Proposed Action would require the removal of approximately 1,374 trees from the Project Site: 993 estimated during Phase 1 and 381estimated during the Master Development Plan. This represents approximately 81 percent of all inventoried trees.

Chapter 201, Tree Preservation, of the town code identifies activities required for development applications. Pursuant to §201-11 of the code, a tree protection, preservation and reforestation plan are required for applications. As per the code, the Proposed Action would incorporate tree protection standards for remaining trees and would follow the standards to create a reforestation plan (see Mitigation section below). These plans include calculations to determine existing tree density, proposed tree density and considers tree species type, in order to create a mature forest canopy that would establish in proposed forest areas. Following the review of the Proposed Action and during the Site Development Plan review by the Planning Board, an application for development, in compliance with the tree preservation standards, would be filed with the Town.

Cumulative Loss of Vegetation

A conceptual planting plan is proposed within Phase 1 and the Master Development Plan to revegetate areas disturbed during construction. As such, lost vegetative cover would be reestablished throughout the Project Site. While portions of the natural communities would be replaced with buildings, pavement and lawn, portions of these communities would be revegetated following development (Figure 3E-2, Phase 1 Proposed Ecological Communities Map). Following Phase 1, disturbed areas adjacent to U1, U2 and U3 would be revegetated with planted trees (areas adjacent to U1 and U2) or seeded/planted with a mix of native meadow species (areas adjacent to U3). The areas of the Successional Old Field (U3) would be replaced with a Successional Meadow, which would be dominated by native plants. As a result of this revegetation plan, U1 would be reduced by 6.5 acres, or 25 percent, while would U2 would increase by 0.66 acres, or eight percent, and 8.7 acres (75 percent) of U3 would be undisturbed or replanted. Following the Master Development Plan, U1 would be reduced to 17.2 acres (or by 24 percent) and U2 would be reduced to 4 acres (or by 52 percent). Approximately 49 percent of U4 would remain following Phase 1. When combined, Phase 1 results in a 25 percent reduction (12.4 acres) of existing naturalized upland vegetated cover (U1-U5), despite 31.4 acres of Developed

[1] These totals are 0.0 as the undisturbed portions of the community will be converted to U1 through natural succession over an extended period of time.



ECOLOGICAL COMMUNITIES

SYM.	NAME	SIZE (AC)
UPLAND COMMUNITIES		
U1	BEECH-MAPLE MESIC FOREST	19.7
U2	SUCCESSIONAL HARDWOOD FOREST	9.0
U3	SUCCESSIONAL MEADOW	8.7
U4	SUCCESSIONAL SHRUBLAND	3.5
U5	BEECH-MAPLE MESIC FOREST (NATURALLY DISTURBED)	3.1
U6	CONSTRUCTION/ROAD MAINTENANCE SPOILS	0.0
U7	PAVED ROAD/PARKING LOT	0.0
U8	DEVELOPED LANDSCAPE WITH STRUCTURES, LAWN, TREES AND PLANTINGS	31.4
	TOTAL:	75.4
WETLAND & WATERCOURSE COMMUNITIES		
W1	ROCKY HEADWATER STREAM	0.8
W2	ROCKY HEAD WATER STREAM	1.5
W3	ISOLATED INTERMITTENT WATERCOURSE	0.03
W4	ISOLATED INTERMITTENT WATERCOURSE	0.02
W5	POND WITH EMERGENT WETLAND FRINGE	1.0
W6	STORMWATER EMERGENT WETLAND	0.4
	TOTAL:	3.8

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Phase 1 Proposed Ecological Communities

Source: William Kenny Associates, LLC

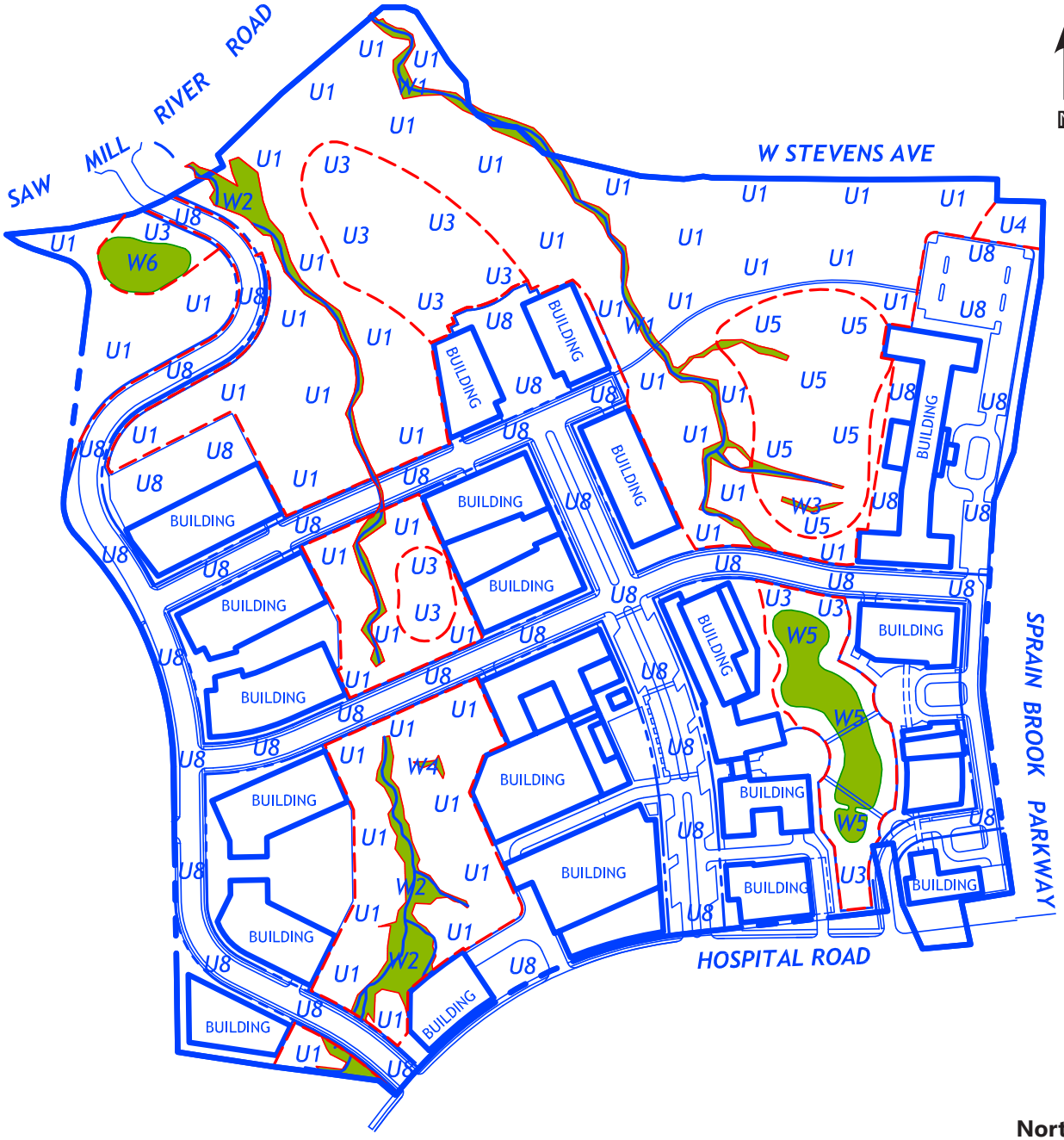
Landscape (proposed U8) being proposed onsite. This community would entirely replace the existing developed communities (U6 -U8) which total 19 acres. Following the Master Development Plan, the Project Site would be broken down into three main communities: the Beech-Maple Mesic Forest, the Successional Meadow and the Developed Landscape with Structures, Lawn, Plantings and Trees (Figure 3E-3, Master Development Plan Proposed Ecological Communities Map). Similar to Phase 1, immediately following construction, any disturbed area adjacent to the naturalized communities would be revegetated with either a forest or meadow mix of species. In the long-term, the Proposed Action proposes the reestablishment of U1 in all remaining wooded areas. Therefore, following the Master Development Plan, U1 is proposed to decrease by only 1.7 acres (seven percent) overall and would succeed U2 entirely. With proper management, the Project Site would have a high-quality forest community of 27.6 acres total. The Successional Meadow would succeed the Successional Old Field and establish in areas surrounding buildings, infiltration basins and pond where regular maintenance is provided (approximately 4.7 acres). The remaining 43 acres would be the Developed Landscape Community (proposed U8).

Table 3E-4 Proposed Ecological Communities

Existing Conditions to Phase 1		Existing (AC)	Proposed					Percent of Existing
Community			Undisturbed (AC)	Restored (AC)	Created (AC)	Lost (AC)	Total (AC)	
Symbol	Name							
U1	Beech-Maple Mesic Forest	26.3	19.7	0.0	0.0	-6.6	19.7	75%
U2	Successional Hardwood Forest	8.3	6.3	0.2	2.5	-1.4	9.0	108%
U3	Successional Old Field to Successional Meadow	11.5	2.2	0.7	5.9	-8.7	8.7	76%
U4	Successional Shrubland	7.2	3.6	0.0	0.0	-3.8	3.5	49%
U5	Beech-Maple Mesic Forest (naturally disturbed)	3.1	3.1	0.0	0.2	0.0	3.2	103%
U6	Construction/Road Maintenance Spoils	2.7	0.0	0.0	0.0	-2.7	0.0	0%
U7	Paved Road/Parking Log	2.6	0.0	0.0	0.0	-2.6	0.0	0%
U8	Mowed Lawn with Trees to Developed Landscape	14.2	8.3	4.4	18.8	-1.7	31.4	221%
SubTotal		**75.8**	**43.1**	**5.3**	**27.4**	**-27.5**	**75.6**	**100%**
W1	Rocky Headwater Stream	1.3	0.5	0.0	0.0	-0.8	0.5	41%
W2	Rocky Headwater Stream	1.9	1.5	0.0	0.0	-0.4	1.5	79%
W3	Red Maple Hardwood Swamp	0.03	0.0	0.0	0.0	0.0	0.0	0%
W4	Red Maple Hardwood Swamp	0.02	0.0	0.0	0.0	0.0	0.0	0%
W5	Pond with Fringe of Emergent Wetland	0.0	n/a		0.0	1.0	0.0	1.0	n/a
W6	Stormwater Emergent Wetland	0.0	n/a		0.0	0.4	0.0	0.4	n/a
SubTotal		**3.3**	**2.0**	**0.0**	**1.4**	**-1.2**	**3.5**	**106%**
Total		**79.1**	**45.1**	**5.3**	**28.8**	**-28.7**	**79.1**	**100%**

Phase 1 Conditions to Master		Existing (AC)	Proposed					Percent of Existing
Community			Undisturbed (AC)	Restored (AC)	Created (AC)	Lost (AC)	Total (AC)	
Symbol	Name							
U1	Beech-Maple Mesic Forest	19.7	13.5	2.4	8.7	-3.2	24.5	124%
U2	Successional Hardwood Forest	9.0	4.0	0.0	0.0	-9.0	0.0	0%

U3	Successional Old Field to Successional Meadow	8.7	0.4	3.0	1.3	-5.4	4.7	53%
U4	Successional Shrubland	3.5	0.4	0.0	0.0	-3.1	0.0	0%
U5	Beech-Maple Mesic Forest (naturally disturbed)	3.2	3.2	0.0	0.0	0.0	3.2	102%
U6	Construction/Road Maintenance Spoils	0.0	0.0	0.0	0.0	0.0	0.0	0%
U7	Paved Road/Parking Log	0.0	0.0	0.0	0.0	0.0	0.0	0%
U8	Mowed Lawn with Trees to Developed Landscape	31.4	1.0	31.3	10.9	0.0	43.2	138%
SubTotal		**75.6**	**22.5**	**36.6**	**20.9**	**-20.7**	**75.7**	**100%**
W1	Rocky Headwater Stream	0.5	0.5	0.0	0.0	0.0	0.5	100%
W2	Rocky Headwater Stream	1.5	1.3	0.0	0.0	-0.2	1.3	89%
W3	Red Maple Hardwood Swamp	0.0	0.0	0.0	0.0	0.0	0.0	0%
W4	Red Maple Hardwood Swamp	0.0	0.0	0.0	0.0	0.0	0.0	0%
W5	Pond with Fringe of Emergent Wetland	1.0	1.0	0.0	0.0	0.0	1.0	n/a
W6	Stormwater Emergent Wetland	0.4	1.4	0.0	0.0	0.0	0.4	n/a
SubTotal		**3.5**	**4.2**	**0.0**	**0.0**	**-0.2**	**3.4**	**97%**
Total		**79.1**	**26.7**	**36.6**	**20.9**	**-20.9**	**79.1**	**100%**



ECOLOGICAL COMMUNITIES

SYM.	NAME	SIZE (AC)
UPLAND COMMUNITIES		
U1	BEECH-MAPLE MESIC FOREST	24.3
U2	SUCCESSIONAL HARDWOOD FOREST	0.0
U3	SUCCESSIONAL MEADOW	4.7
U4	SUCCESSIONAL SHRUBLAND	0.3
U5	BEECH-MAPLE MESIC FOREST (NATURALLY DISTURBED)	3.1
U6	CONSTRUCTION/ROAD MAINTENANCE SPOILS	0.0
U7	PAVED ROAD/PARKING LOT	0.0
U8	DEVELOPED LANDSCAPE WITH STRUCTURES, LAWN, TREES AND PLANTINGS	43.2
	TOTAL:	75.5
WETLAND & WATERCOURSE COMMUNITIES		
W1	ROCKY HEADWATER STREAM	0.8
W2	ROCKY HEAD WATER STREAM	1.5
W3	ISOLATED INTERMITTENT WATERCOURSE	0.03
W4	ISOLATED INTERMITTENT WATERCOURSE	0.02
W5	POND WITH EMERGENT WETLAND FRINGE	1.0
W6	STORMWATER EMERGENT WETLAND	0.4
	TOTAL:	3.7

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Master Development Plan Proposed Ecological Communities

Source: William Kenny Associates, LLC

Vegetation to Remain

The largest existing remaining vegetation cover is the forest communities (as described above). Large portions of the streams would remain unaltered and other disturbed portions would be revegetated and enhanced following construction. The western stream and bordering wetland would largely maintain its overall area and the proposed Stormwater Emergent Wetland would be connected to this stream via pipes. This proposed wetland compensates for the loss of wetland in W2 (an overall increase by 0.04 acres). W1 would be reduced by 42 percent; however, the proposed pond with a fringe emergent wetland (W6) would connect to W1 via pipes. W6 is approximately one acre. Therefore, the wetland and watercourse communities onsite would increase by 0.5 acres or 14 percent.

Vegetated buffer locations along the property perimeter are limited to the northeastern portion of the Project Site, as the Project Action is bordered to the northeast by a residential neighborhood. The existing vegetative buffer in the northeastern Project Site of the property would be maintained. The northeastern Project Site of the property would undergo little disturbance. This would maintain a continuous forested buffer between the adjacent neighborhood and the Proposed Action. The Proposed Action is otherwise adjacent to existing commercial developments and roadways and does not warrant vegetated buffers.

Unique or Specimen Trees

A specimen tree survey was completed by Davey Resource Group in 2019, pursuant to the requirements outlined in Chapter 201 of the Mount Pleasant Town Code. In accordance with the code, "specimen trees" are defined as any large hardwood trees with a DBH over 30 inches, large softwood trees with a DBH over 36 or any small/medium sized tree with a DBH of 12 inches or more that is deemed to be in fair or good condition with a life expectancy of greater than 15 years after time of inspection. Also included are trees deemed less common or rare for the area with a DBH above 12 inches, in fair or good condition, with a life expectancy of greater than 15 years after time of inspection.

According to the survey, there are 94 specimen trees onsite: 20 trees in good condition and 74 trees in fair condition. The specimen trees account for four percent of the total inventoried tree population onsite. In Phase 1, approximately 44 specimen trees would be removed and following the Master Development Plan an additional 23 would be removed, totaling approximately 67 specimen trees to be removed. Of the approximate 1,374 trees to be removed to complete all phases of the project, 1,307 (or 95 percent) are non-specimen trees.

Increased Erosion Potential

The potential for increased soil erosion resulting from the removal of vegetation would be temporary and would be minimized to the greatest extent practical. During construction, this would be achieved through construction phasing and by temporarily stabilizing disturbed areas where construction activities are not currently active. The Project Site contains several steeply sloped areas, which are vegetated with trees. A short-term phasing plan is included in these areas to minimize erosion during construction. Following construction, the slopes and all other disturbed areas that are not developed as buildings or pavement would be revegetated to provide long-term stability. In Phase 1 of development, the Project Site is subdivided into nine areas. Each area includes its own specific construction sequencing plan based on the topography, soils, and type of work being performed.

Impact on Habitat and Habitat Functions

The clearing of vegetation and loss of wetlands have the potential to cause short-term and long-term impacts to existing habitats on the Project Site. However, significant habitat impacts would be avoided based on the lack of

existing significant habitats (according to the DEC) and due to the long-term preservation of key habitat areas through the placement of the majority of proposed buildings and related improvements in more recently disturbed and currently developed portions of the Project Site. Short-term impacts to wildlife include displacement to nearby onsite preserved natural areas. "Generalist" species are common wildlife species that adapt well to ecological niches found within and adjacent developed areas. For the most part, the proposed areas of disturbance currently provide habitat for generalist species (including American robin, blue jay, house finch, black-capped chickadee, gray catbird, tufted titmouse, raccoon, fox, coyote, opossum, red and gray squirrel), which are anticipated to return to pre-construction status. Populations of certain species may increase due to greater proportion of urban structure.

Further, long-term impacts on avian species could include some increased mortality from feral animals (if uncontrolled), bird mortality through window collisions and increased nest parasitism. However, these impacts are not expected to be significant. Additionally, through the incorporation of the wet pond and other enhancements, the Project Site would have the potential provide habitat for additional species that cannot utilize the site today, such as wading birds, warm water fish and other aquatic vegetation.

Fertilizers, Pesticides, Herbicides, Fungicides and other Chemicals

Fertilizers, pesticides, herbicides, fungicides and other chemicals are not proposed to be used in the proposed naturalized areas of the Project Site, except for very limited and targeted potential use of herbicides to control very aggressive invasive vegetation in accordance with State and Federal laws and by licensed professionals. Further, the potential usage of fertilizer, pesticides, herbicides, fungicides and other chemicals in the Proposed Action portions of the Project Site would also be conducted in accordance with State and Federal laws and by licensed professionals. Stormwater runoff from these developed areas of the property would be collected and treated using the Proposed Action's stormwater BMPs. As such, no significant impacts area expected from the potential use of fertilizer, pesticides, herbicides, fungicides and other chemicals on the Project Site.

Habitat and Wildlife Corridor Fragmentation

Long-term impacts from habitat fragmentation are not expected to be significant. Post construction, all existing naturalized habitats would be present onsite, although at a smaller in size than existing. The remaining natural habitats would be in the northern portion of the Project Site and along much of the western stream corridor and a portion of the eastern stream corridor. Further, the existing onsite habitats are fragmented and relatively small. Due to this, it is expected the number of flora and fauna species found in each habitat would remain the same and that the quantity of each species would diminish. Although much of the onsite stream corridors would be enhanced and remain post-construction and would allow for birds and insects to continue to travel through these areas much as they do today with opportunities for cover, resting and feeding.

3. Mitigation Measures

The Proposed Action incorporates mitigation measures in the short-term and the long-term. The Proposed Action works to minimizes impacts to undisturbed forests and wetlands to the greatest extent practicable. Throughout the construction phase, soil erosion and sediment control measures and vegetation and soil protection measures are proposed to prevent impacts to any ecosystem outside the limit of disturbance. This includes a construction sequencing plan, in addition to physical barriers, erosion mats and stockpile protection, drop inlet protection, sediment traps and dust and debris control, in conformance with New York Standards & Specifications of E&S

Control. The proposed plans incorporate new habitats through the creation of a pond and also includes the creation of a new pocket wetland. Following development, the Proposed Action includes a stormwater management system (see Chapter 3G, Stormwater Management) which treats the runoff for quality and quantity, so as to avoid adverse impacts to the watercourses and adjacent ecosystems both on and offsite. A detailed long-term maintenance and inspection plan is included to ensure the continuing efficacy of the stormwater management plan. Finally, a conceptual planting plan is proposed for Phase 1 and the Master Development Plan to revegetate areas disturbed during and following construction. The revegetation would include many areas that would be planted with native groundcovers, shrubs and trees to stabilize the soil surface and to provide habitat opportunities for local flora and fauna.

The Proposed Action also maximizes the utilization of existing and more recently disturbed land. The majority of the Proposed Action improvements are concentrated within currently and more recently disturbed portions of the Project Site and thereby minimize impacts to significant forest, wetland, watercourse communities and other habitats.

The limit of disturbance, in each phase, has been reduced to only that which is necessary for development. Though the Master Development Plan includes a more expansive area than Phase 1, disturbance during Phase 1 is limited to only portions that would immediately be redeveloped. The clearing limit lines would be shown on the Proposed Action site plans.

Schematic Landscape Plan

Schematic landscape plans have been developed for Phase 1 and the Master Development Plan showing proposed planting areas, as well as their design intent and function (e.g., visual buffer, wetland enhancement, wildlife, street trees, slope stabilization, formal garden, etc.). See Phase 1 Overall Site Planting Plan and Phase 2 Overall Site Planting Plan in Appendix R.

The Planting Plans include typical plant lists for each of specified functions. Species of plants native to New York would be used to the extent practicable for landscaping, soil stabilization, and stormwater mitigation features. No species identified as invasive to New York State or neighboring states would be used.

Buffer Screening

Buffer screening is provided to reduce visual impacts on neighboring properties and area roadways. Critical buffer locations, areas that required a nearly opaque and relatively dense and wide buffer along the property perimeter, are limited to the northeastern portion of the Project Site, as the Project Site is bordered to the northeast by a residential neighborhood. The existing critical vegetative buffer in the northeastern portion of the Project Site would be maintained and supplemented with additional plantings. The northeastern portion of the Project Site would undergo the least amount of disturbance. This would maintain a continuous forested buffer between the adjacent neighborhood and the Proposed Action. The Proposed Action is otherwise adjacent to other commercial developments and roadways. At these locations, new plantings would buffer these properties in a manner consistent with commercial development landscaping.

Preservation of Trees

The primary form of mitigation is the preservation and protection of trees in good condition that would not be removed during development. Overall Site Planting Plans have been developed (see Appendix R). It should be noted that the Overall Site Planting Plans would preserve, to the greatest extent practicable, existing vegetation, specifically the vegetation in the northeastern portion of the Project Site, as well as the healthy specimen trees throughout the Project Site. In addition, native vegetation would be used to augment the existing vegetation to be preserved and to replant those areas within the limit of disturbance that are not ultimately developed. Measures would also be implemented to prevent the proliferation of invasive species during construction. Examples of these measures include:

- The use of clean fill;
- Cleaning of equipment before use on the Project Site; and,
- The removal of invasive species from designed landscapes.

In addition, areas that are disturbed during construction and grading activities would be seeded to help prevent the establishment of invasive species.

Note that a detailed final landscaping and buffer plan would be developed and submitted during building permit phase. The final landscaping and buffer plan would be based upon the conceptual site planting plans to indicate the extent to which native vegetation would be used and would describe and illustrate in specific terms the proposed landscaping (e.g., species, planting densities, planting locations, spatial extent, etc.), including wetland buffer planting and storm water basin design.

To comply with the tree preservation ordinance of the Town of Mount Pleasant (Chapter 201), a detailed Specimen Tree Inventory (see Appendix P) was undertaken. Mount Pleasant's Tree Ordinance defines specimen trees as any large hardwood trees with a DBH over 30 inches, large softwood trees with a DBH over 36, or any small /medium sized tree with a DBH of 12 inches or more, that is deemed to be in fair or good condition with a life expectancy of greater than 15 years after time of inspection. The Specimen Tree Inventory also includes and inventory of trees deemed less common or rare for the area with a DBH above 12 inches, in fair or good condition, with a life expectancy of greater than 15 years after time of inspection and therefore considered Specimen Trees.

Key Findings of the Specimen Tree Inventory include:

- Inventoried 95 Specimen Trees representing 25 different species.
- Two species, Acer rubrum (red maple) and Quercus palustris (pin oak), comprise a large percentage of the specimen trees (13% and 13%).
- During the inventory of specimen trees, species Robinia pseudocacia was found in abundance as well (9%).
- The diameter size class distribution of the inventoried large hardwood/softwood tree population ranged from 30-50 inches with an average DBH of 33 inches.
- The diameter size class distribution of the inventoried small and medium sized trees ranged from 12-26 inches, with an average DBH of 16 inches.
- The overall condition of the inventoried tree population is rated fair.
- Found 74 specimen trees in Fair condition.
- Found 20 specimen trees in good condition.

In accordance with the Mount Pleasant Town Code, the Developer has identified and assessed the specimen trees onsite. The proposed Tree Preservation Plan includes specifications to protect the approximate 27 specimen trees that would be preserved onsite.

Further, detailed density calculations have been undertaken and a tree reforestation plan has been established in compliance with the Mount Pleasant Town Code. The Density Calculation Worksheets for Phase 1 and the Master Development Plan are included in Appendix Q of this DEIS. As illustrated in Appendix Q, to comply with the Tree Preservation Ordinance, the required density factor (DFS) for Phase 1 is as follows:

Table 3E-5 Tree Density Calculations – Phase 1

REQUIRED DENSITY FACTOR FOR THE SITE (DFS)
DFS = 78.9172 ACRES X 15 = 1183.76

EXISTING DENSITY FACTOR (EDF) – OVERALL SITE PHASE 1 TREES TO REMAIN = 1284.1

REQUIRED REPLACEMENT DENSITY (RDF)
RDF = DFS – EDF
RDF – 1183.76 – 1284.1 = -100.34
RDF MET – NO REPLACEMENT NECESSARY

REPLACEMENT DENSITY (RDF) PROVIDED - 378.6

REQUIRED DENSITY FACTOR FOR THE SITE (DFS) PROVIDED
EDF + RDF = 1284.1 + 378.6 = 1662.7
1662.7 > 1183.76, THEREFORE DENSITY SATSFIED

The required density factor (DFS) for the Master Development Plan is as follows:

Table 3E-6 Tree Density Calculations – Master Development Plan

REQUIRED DENSITY FACTOR FOR THE SITE (DFS)
DFS = 78.9172 ACRES X 15 = 1183.76

EXISTING DENSITY FACTOR (EDF) – OVERALL SITE MASTER DEVELOPMENT PLAN TREES TO REMAIN = 570.6

REQUIRED REPLACEMENT DENSITY (RDF)
RDF = DFS – EDF
RDF – 1183.76 – 570.6 = 613.16

REQUIRED REPLACEMENT DENSITY (RDF) PROVIDED
670.1 (FIGURES INCLUDE PHASE 1 PLANTINGS TO REMAIN)

REQUIRED DENSITY FACTOR FOR THE SITE (DFS) PROVIDED
EDF + RDF = 570.5 + 670.1 = 1240.7
1240.7 > 1183.76, THEREFORE DENSITY SATSFIED

Preservation of Existing Conditions

The Proposed Action preserves existing conditions, protects wetlands and preserves wildlife corridors to the greatest extent practiced. The undisturbed forested communities and wetland communities have a relatively low amount of total disturbance. The northern portion of the Project Site, in addition to the western stream would remain relatively undisturbed and the red maple swamp communities have no proposed activity. The most significant corridors (the onsite streams and wetlands) would largely be preserved and enhanced under the Proposed Action. Further, the potential for cumulative impacts to remaining ecosystems from an increase of site use intensity would be addressed through the incorporation of signage designating sensitive areas such as wetland boundaries or upland buffers to wetland areas. Long-term maintenance of existing wildlife features through the retention of the majority of vegetative communities on the Project Site would allow continued utilization of the area by wildlife species.

Fertilizer, Herbicide, Fungicide and Pesticide Application

For Phase 1, the potential use fertilizer, pesticides, herbicides, fungicides and other chemicals would be largely contained to the south-central portion of the Project Site. For the remaining phases of the Master Development Plan, the eastern and western property boundaries would also have some potential need for applications due to the increase in lawn area and new plantings. To the maximum extent practicable, the final landscape plans would be developed emphasizing xeriscaping and with minimal controlled use of fertilizer, herbicides, fungicides, pesticides or other chemicals. These materials have the potential to impact watercourses and wetlands when transported to them via surface and subsurface water flow. Potential impacts from the potential use of these materials would be avoided or minimized to the greatest extent practiced via the installation and maintenance of the project stormwater management plan. Stormwater runoff from nearly all developed areas would either be

collected and treated via the proposed structural management measures (e.g., surface and subsurface infiltration basins, the wet pond and pocket wetlands) or would flow through and be treated by naturally vegetated buffers that border wetlands and watercourses. For more detailed information regarding the Proposed Action's proposed stormwater management system refer to Chapter 3G, Stormwater Management.

F. WETLANDS, WATERBODIES AND WATERCOURSES

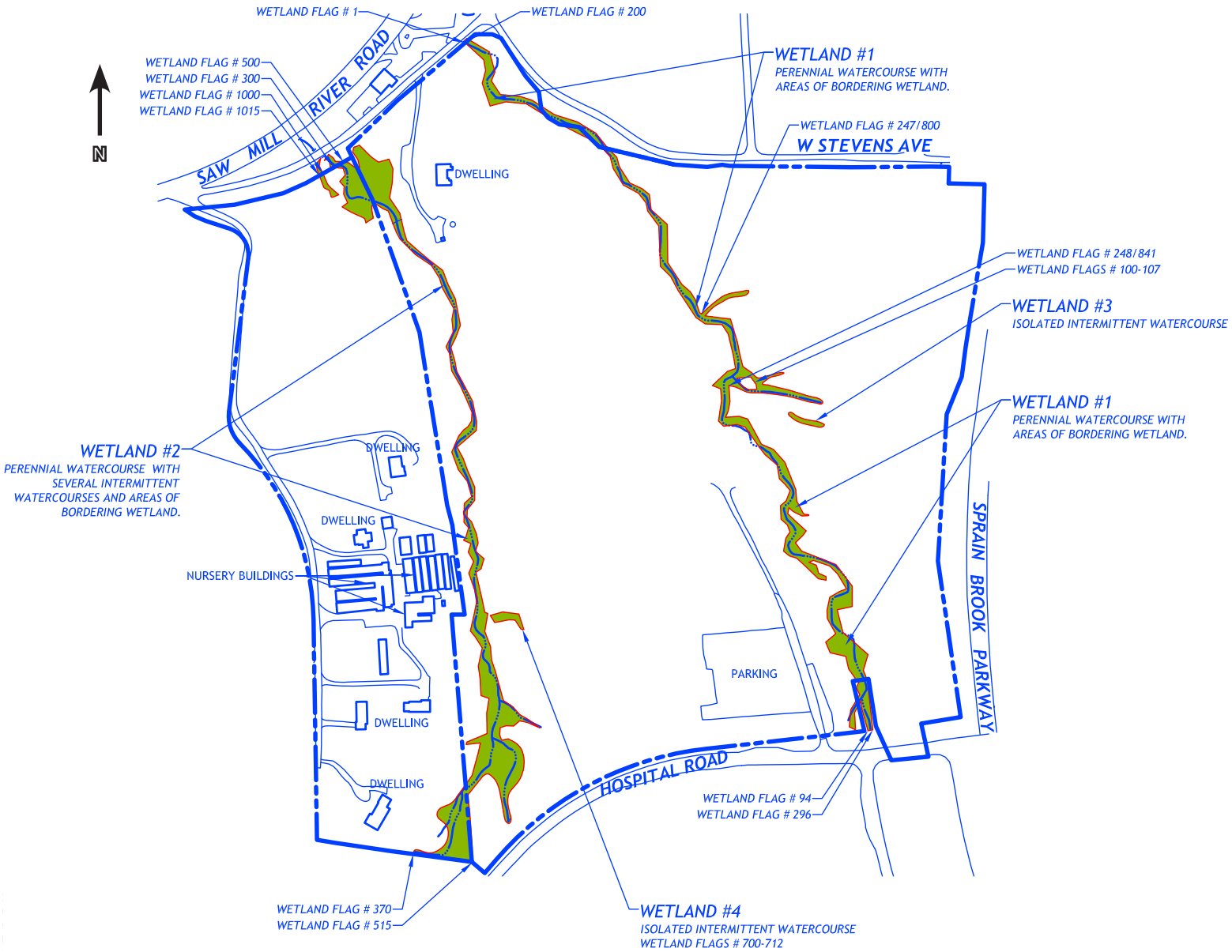
1. Existing Conditions

The Project Site lies within the watershed of the Saw Mill River, which drains to the Hudson River approximately 11 miles southwest of the Project Site. The Saw Mill River extends and flows west of the Project Site and is approximately 200 feet from the northern property boundary at its closest point. Both wetland and watercourse systems exit the Project Site to the north, draining directly into the Saw Mill River.

In addition to the NYNHP descriptors provided in Chapter 3E., Vegetation and Wildlife, two additional classification systems were used to evaluate the onsite wetland areas: the Hydrogeomorphic (HGM) approach and the United States Fish and Wildlife Service (USFWS) system. The HGM1 system groups communities according to their hydrologic and geomorphic conditions and is useful for identifying and accessing the physically-based functions of wetlands. The USFWS classification system includes vegetation and other modifiers, which are useful in understanding biological (flora and fauna) aspects of wetlands.

William Kenny Associates, LLC (WKA) investigated the Project Site for regulated watercourses, in accordance with Mount Pleasant, New York State Department of Environmental Conservation (NYSDEC), United States Army Corps of Engineers (USACOE) and New York City Department of Environmental Protection (NYCDEP) regulations. Wetland and watercourse boundaries were flagged at the Project Site with strips of pink surveying tape hung from vegetation or with small flags on wire stakes that are generally spaced a maximum of every 50 feet. The flags were placed along the boundaries of the wetland and watercourses on the Project Site. However, the boundary locations are subject to change until adopted by the regulatory agencies. The adoption process includes the accurate mapping of the delineated boundaries by a licensed surveyor and, generally, a field review of the surveyed boundaries by representatives of each agency.

Specifically, four watercourses were identified: two perennial streams with adjacent intermittent watercourses, and two separate isolated intermittent watercourses. The surveyed locations of the delineated boundaries are shown on Figure 3F-1. The following table presents each watercourse identified on the Project Site.



North 60 | Town of Mount Pleasant, NY

Existing Wetlands

Source: William Kenny Associates, LLC

Table 3F-1 Watercourse Classifications

Symbol				Jurisdiction			
	Type	Site Location	Watershed	ACOE	NYSDEC	NYSDEP	Town
W1	Perennial Stream	E	Saw Mill River	Yes	No	No	Yes
W2	Perennial Stream	W	Saw Mill River	Yes	Yes	No	Yes
W3	Intermittent Stream	E	Saw Mill River	No	No	No	Yes
W4	Intermittent Stream	W	Saw Mill River	No	No	No	Yes

W1- Rocky Headwater Stream East

The rocky headwater stream is a perennial stream bordering forested wetland that extends and flows south to north through the eastern portion of the Project Site. The system enters the Project Site from underneath Hospital Road and exits beneath Old Saw Mill River Road. The stream begins flowing north approximately 2,000 feet south of the Project Site and encompasses a watershed area of 60± acres; approximately half of this area is impervious. The stream has a water quality classification of C, which indicates fishing as the system's best use but, due to the stream depth, significant fish presence is unlikely. Three intermittent watercourses intersect the stream from the east in the central and northern portions of the Project Site. The banks along the watercourse is severely steep in many areas, especially near the central portion of the Project Site. Moreover, the stream has carved away at the Project Site for thousands of years. As such, the streambed is comprised of sand, gravel and cobble sized rock with a mild density of boulders present throughout. The watercourse is approximately five to ten feet wide in most locations and has wide depth range (three to 24 inches). Debris such as home appliances, car parts and trash are present in and adjacent to the northern portion of the system along West Stevens Avenue. Fallen trees are numerous in the northern and southern portions of the system.

W2- Rocky Headwater Stream West

Similar to the eastern rocky headwater stream, this perennial stream has an area bordering forested wetland that extends and flows south to north through the western portion of the Project Site. The system begins from a watercourse that extends offsite to the southwest for approximately 400 feet, encompassing a watershed area of 90± acres, that is highly impervious in the southern portion of the watershed. The stream has a water quality classification C(T), indicating fishing as the system's best use and specifically for trout. However, due to the stream depth it is unlikely there is a significant fish presence. On the Project Site, the system quickly combines with two other watercourses originating from onsite drainage outlets. The banks along the watercourse is severely steep in some areas, especially near the central portion of the property but, not as substantial as the eastern watercourse. Where the three watercourses meet, the W2 system widens out, bordering existing wetlands but quickly becomes heavily channeled and spans a width between five to ten feet. The depth range and streambed

composition are similar to the eastern watercourse described above. It was identified that concrete and other construction debris are prevalent along the western banks of the stream near the existing nursery. Many large and mature fallen trees are present in the northern and southern portions of the stream system.

W3- Isolated Intermittent Watercourse East

W3 is located in the southern portion of the disturbed beech-maple community. This system is a small and very narrow watercourse, approximately 0.03 acres. As identified during the site visit, the topography of the system is sloping, and the surface was inundated (approximately one inch). Despite the poorly drained soils and surface inundation, it is likely the area is seasonally wet and during drier months is indistinguishable from the surrounding environment.

W4- Isolated Intermittent Watercourse West

This small and narrow system is approximately 0.02 acres and is located immediately east of the western rocky headwater stream. The topography of the system is gently sloped toward the stream and has a slight depression in its southern portion. There is no connection that exists between the system and the adjacent watercourse. At the time of the site visit, portions of the system were inundated (less than once inch depth) and is likely seasonally inundated/saturated.

Offsite - Saw Mill River

Northwest of the Project Site is the Saw Mill River. At its closest point to the Project Site, the river is located approximately 0.07 miles northwest of the Project Site. The river extends and flows north to south from North Castle and drains into the Hudson River in Yonkers. The Saw Mill River is considered a "waters of the United States", and as such is regulated by the USACOE and is a class 'C(T)' system as per the NYSDEC Protection of Waters Program.

Per the NYSDEC Waterbody Classification System, both the rocky headwater streams are classified by the NYSDEC: W1 is a class C system and W2 is a class C(T) system. Per the NYSDEC, the best use for streams classified as a 'C' is fishing. C(T) is a higher classification, indicating that the streams best use is fishing and is also considered a protected stream. Thus, W2 is subject to the Protection of Waters regulations under the NYSDEC. The offsite Saw Mill River is also classified by the NYSDEC as a class C(T) waterbody and is a protected stream. Additionally, per a 2016 determination by the NYSDEC in accordance with the CWA, segments of Saw Mill River are considered "impaired waters" due pollutant loads and fish consumption.

WKA delineated and mapped onsite wetlands, in accordance with Mount Pleasant, NYSDEC, USACOE and NYCDEP regulations. The only onsite wetlands are those that border the perennial and intermittent streams (W1-W4). Generally, these wetlands are very narrow and are limited to the banks of the watercourses. However, there are some areas where the wetlands extend much further from the watercourse. Table 3F-2 below, provides the primary characteristics, jurisdiction and classification of each wetland. Two of the delineated wetlands at the Project Site are federally regulated wetlands and there are no mapped state wetlands in the study area. The wetlands were classified in three ways using the

following categories: hydrogeomorphic conditions (HGM), New York Nature Heritage Program (NYNHP) ecological communities and USFWS classifications.

Table 3F-2 Wetland Characteristics

	W1	W2	W3	W4
Primary Characteristics				
Principal Water Source	Surface and shallow subsurface flow	Surface and shallow subsurface flow	Surface and shallow subsurface flow	Surface and shallow subsurface flow
Vegetation Cover	Forested	Forested	Woodland	Woodland
Water Table	Perched	Perched	Perched	Perched
Soils	Ridgebury loam	Ridgebury loam	Ridgebury loam	Ridgebury loam
Size (acres)	0.56	1.08	0.03	0.02
Jurisdiction				
ACOE	Yes	Yes	No [1]	No[1]
NYSDEC	No	No	No	No
Town	Yes	Yes	Yes	Yes
Classification				
HGM	Riverine	Riverine	Slope	Slope
NYNHP	Rocky Headwater Stream	Rocky Headwater Stream	Isolated Intermittent Watercourse	Isolated Intermittent Watercourse
USFWS	Riverine, Upper Perennial, Rock Bottom, Cobble-Gravel, Permanently Flooded	Riverine, Upper Perennial, Rock Bottom, Cobble-Gravel, Permanently Flooded	Palustrine, Forested, Broad-leaved Deciduous, Seasonally Saturated	Palustrine, Forested, Broad-leaved Deciduous, Seasonally Saturated

[1] A jurisdictional determination request has been submitted to the USACOE. The determination is pending.

W1- Rocky Headwater Stream East

The wetlands bordering the eastern stream are largely limited to the banks of the stream and intermittent watercourses. The southern end of the system has the widest span of wetlands; however, is still limited to the bordering fringe, approximately 150 feet across at its widest point. Wetland vegetation surrounding the stream is very sparse along the stream bank and intersecting intermittent watercourses due to the streambed composition. However, there are sporadic clusters of skunk cabbage and tussock sedge present in the bordering wetlands within the central and northern portions of the system. Immediately adjacent to the wetland are sparse clusters of spicebush, multiflora rose and burning bush. The southern portion of the system, by contrast, is densely vegetated with primarily multiflora rose and wineberry while native spicebush, skunk cabbage and grasses are also present in lower densities. Wetland soils are poor to very poorly drained, fine sandy loams.

W2- Rocky Headwater Stream West

Similar to the eastern stream, the wetlands bordering the western stream are also limited to the banks of the stream and vegetation is generally sparse along the stream bank due to the streambed composition but, vegetation is denser than the eastern system. However, in the southern and northern

portions of the system the wetlands are wider. The widest point the southern portion is approximately 200 feet across and widest point of the northern end is approximately 180 feet across. In the southern portions of the wetland, skunk cabbage, soft rush, eastern woodland sedge, tussock sedge and sensitive fern are common. A small area of cattail is also present in the system. The banks along the stream are more heavily vegetated with shrubs including spicebush, multiflora rose, wineberry and privet. The wetland soils are poor to very poorly drained fine sandy loams.

W3- Isolated Intermittent Watercourse East

This system is a very small wetland with a seasonal intermittent watercourse. With the exception of a few red maples and an American elm, there is some privet, wineberry and grasses. Soils are poorly drained, fine sandy loams formed from compact glacial till and surface stone coverage is nonexistent.

W4- Isolated Intermittent Watercourse West

Similar to W3, this system is a very small isolated wetland and seasonally intermittent watercourse. Despite being smaller than W3, this system has a greater density of vegetation including red maple, American elm, spicebush, privet, eastern woodland sedge and some grasses. Deadwood is also present throughout the system. The soils are poorly drained, fine sandy loams formed from compact glacial till and no surface stones are present.

The USFWS National Wetlands Inventory (NWI), NYSDEC ERM, Westchester County Geographic Information System (GIS) Natural Resources Inventory (NRI) and United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) National Cooperative Soil Survey (NCSS) maps were used to determine the respective jurisdictions for wetlands within a quarter mile of the Project Site. Based on the information gathered from the NYSDEC ERM and Westchester County GIS NRI, no state regulated wetlands are within a quarter mile of the Project Site. The nearest state regulated wetland located approximately 1.26 miles east of the northeastern boundary. However, information gathered from the USFWS NWI and USDA NRCS-NCSS indicate the presence of town and federally regulated wetlands within a quarter mile of the Project Site.

As indicated by the USDA NRCS-NCSS maps, there are three areas within a quarter mile of the Project Site with hydric soils present. Hydric soils are one of three federally recognized indicators of the presence of a wetland, the other two indicators being wetland vegetation and hydrology. Based on the presence of these hydric soils, it is likely that these areas are functioning as wetlands, which would fall under the Town of Mount Pleasant jurisdiction. These areas are located approximately 0.16 miles south, 0.05 miles southwest and 0.07 miles northwest of the Project Site.

Additionally, based on information gathered from the USDA NWI and the USACOE federal wetland justification and classification standards, there is a federally regulated wetland approximately 0.07 miles northwest of the Project Site, which is the wetland bordering the Saw Mill River.

The biophysical elements (e.g. landscape position, geology, hydrology, substrate, and vegetation) of wetlands determine their functions and to what capacity they are performed. The functions they provide, and the capacity of those functions vary from wetland to wetland. To better understand these

differences as they relate to the onsite wetlands, an evaluation was completed for the wetlands identified. Each onsite wetland was assessed to determine its capacity to provide eight wetland functions:

1. Modification of groundwater discharge
2. Modification of groundwater recharge
3. Storm and floodwater storage
4. Modification of stream flow
5. Modification of water quality
6. Export of detritus
7. Contribution to abundance and diversity of wetland vegetation
8. Contribution to abundance and diversity of wetland fauna

The evaluation completed for this assessment was based in part on *The Rapid Assessment Procedure for Assessing Wetlands Functional Capacity* (Hollens and Magee 1998). This method assesses the relative importance of the wetlands for performing functions and provides a logical framework for observations, a structure for standardizing results, and a basis for achieving repeatable results among users. The results of the completed assessment for each wetland are provided in Table 3F-3.

The classification system used to evaluate the functionality is based on the biophysical characteristics of the wetlands, which is primarily a function of landscape position and associated hydrology. Though differing cover types may be found within each of the delineated wetland areas, the functionality of the wetlands was assessed from a broader "macro scale" perspective, and each wetland was evaluated as a whole, as opposed to segmenting it into smaller cover type parts. The small shifts in vegetative cover types within each wetland do not affect the overall functioning of the wetlands as much as the location and associated hydrologic position of the wetland.

Table 3F-3 Wetland and Watercourse Functional Assessment

Wetland and Watercourse Function	Wetland and Watercourse ID No.[1]			
	W1	W2	W3	W4
Modification of groundwater discharge	M-H	M-H	M	M
Modification of groundwater recharge	L-M	L-M	L	L
Storm and floodwater storage	L	L	L	L
Modification of water quality	L	L	L	L
Export of detritus	L	H	M	M
Contribution to the abundance and diversity of wetland vegetation	M	M	L	L
Contribution to the abundance and diversity of wetland fauna	M	M	L	L

[1] H: high, M: Moderate, L: Low

The capacity for the onsite wetlands to perform the wetland functions varies from wetland to wetland. The differences are due to natural (hydrogeomorphic) and human (e.g. past and current land use

activities) conditions. For a general description of each function and its potential societal value, refer to the Ecological Assessment Report in Appendix E.

2. Potential Impacts

The Proposed Action would cause direct impacts to the two onsite streams and associated wetlands (Table 3F-4). Both the Master Development Plan and Phase 1 include stream and wetland loss from road crossings and from the construction of an onsite pond and wetland system. The pond and two road crossings would be completed during Phase 1. Wetlands 3 and 4 and the east-forking intermittent streams of Wetland 1 will be indirectly impacted by development activity through the modification of drainage patterns.

Table 3F-4 Proposed Impacts to Wetlands and Watercourses

Community		Existing Area	Phase 1				Master			
			Disturbed Area		Undisturbed Area		Disturbed Area		Undisturbed Area	
Symbol	Name	Acres	Acres	Percent of Community	Acres	Percent of Community	Acres	Percent of Community	Acres	Percent of Community
U1	Beech-Maple Mesic Forest	26.3	7.2	28%	19.0	72%	12.7	48%	13.5	52%
U2	Successional Hardwood Forest	8.3	2.1	25%	6.3	75%	4.4	52%	4.0	48%
U3	Successional Old Field	11.5	9.4	81%	2.2	19%	11.2	97%	0.4	3%
U4	Successional Shrubland	7.2	3.6	50%	3.6	50%	6.8	95%	0.4	5%
U5	Beech-Maple Mesic Forest (naturally disturbed)	3.1	0.0	0%	3.1	100%	0.1	2%	3.0	98%
U7	Construction/Road Maintenance Spoils	2.7	2.7	100%	0.0	0%	2.7	100%	0.0	0%
U8	Paved Road/Parking Log	2.6	2.6	100%	0.0	0%	2.6	100%	0.0	0%
U9	Mowed Lawn with Trees	14.2	5.9	42%	8.3	58%	13.2	93%	1.0	7%
SubTotal		**75.8**	**33.5**	**44%**	**42.4**	**56%**	**53.5**	**71%**	**22.3**	**29%**
W1	Rocky Headwater Stream	1.3	0.8	59%	0.5	41%	0.8	133%	0.6	133%
W2	Rocky Headwater Stream	1.9	0.4	22%	1.5	78%	0.6	33%	1.3	67%
W3	Red Maple Hardwood Swamp	0.03	0.03	100%	0.0	0%	0.0	0%	0.0	0%
W4	Red Maple Hardwood Swamp	0.02	0.02	100%	0.0	0%	0.0	0%	0.0	0%
SubTotal		**3.27**	**1.3**	**38%**	**2.0**	**62%**	**1.4**	**43%**	**1.8**	**56%**
Total		**79.12**	**34.7**	**44%**	**44.4**	**56%**	**54.9**	**69%**	**24.2**	**31%**

The proposed pond and wetland system are located in the southern portion of the eastern stream. The pond construction would eliminate 1,300 linear feet of existing stream and 14,000 square feet of wetlands. The wetland loss would be from creating pond and wetland habitat as well as from the creation of upland habitats. Surface water flow through the corridor would continue as it does, flowing from south to north. Additionally, water entering the pond at the south would exit at the north and flow into the existing stream channel. The pond is proposed to retain and treat stormwater runoff from the southeastern portion of the Project Site. In addition, the pond and wetland system would provide typical wetland and watercourse functions such as groundwater discharge, export of debris, and would contribute to the abundance and diversity of wetland and watercourse flora and fauna.

As mentioned above, the Phase 1 proposed road crossings would occur at the northern and southern end of the western stream to allow for the construction of the proposed West Street. These crossings are proposed to provide vehicular and pedestrian access from Hospital Road to the western portion of the proposed development and to Saw Mill River Road. The southern crossing would culvert 180 linear feet of stream and eliminate 10,000 square feet of wetland. The northern West Street crossing would eliminate 4,800 square feet of wetland that borders the stream to the west. Cross Street is also proposed to cross the western stream and, as a result, an additional 280 linear feet of the stream would be culverted. Stream impacts would be minimized by using bottomless culverts that span the stream width. The culvert would allow for the continued flow of stream water and movement of wildlife below the proposed roads. Subsequent to the submitted site plans, additional design features have been developed and are proposed to further minimize the area of disturbance. Impacts will be minimized through two primary design changes. In lieu of fill slopes extending north and south of the road in the area of the wetland crossing, retaining walls will be constructed. A bridge or open bottomed structure will be used to span the stream in lieu of the currently proposed pipes. The structures will span beyond the streambanks. When site plans are revised to reflect these changes, the proposed area of disturbance will be less than currently indicated on the project drawings and in Table 3F-4 and 3F-5.

Additional direct impacts to the streams and wetlands that would occur from the remaining phases of the Master Development Plan are limited to the construction of a proposed biotech-medical building. The building would result in the loss of approximately 6,100 square feet of wetlands. Minimization of impacts would be achieved by using retaining walls adjacent to the building to minimize the areas wetland fill. The proposed pedestrian path and North Street would span completely across and above the eastern stream and, as such, would not directly impact the stream.

The indirect loss of wetlands due to modified drainage patterns will results in a net-loss of 0.22 acres. These wetlands areas have developed over time from hillside seeps. Due to the proposed stormwater management plan, it is possible that these wetlands will be substantially drained. The exact extent of this potential impact has not been analyzed. Future analysis may prove that the hydrologic conditions under proposed conditions would be adequate to sustain these areas as wetlands as defined by the ACOE and the Town. Absent of analysis, we consider these areas to be substantially drained and converted to naturalized upland areas. Potential indirect impacts to the streams and wetlands include the deposition of sediment and other pollutants carried by stormwater runoff during and following construction as well as from excessive scouring of the stream channels and wetlands from increased

flows of stormwater runoff. These potential impacts would be avoided or minimized to the greatest extent practical during construction via the installation and maintenance of the project's soil erosion and sediment control plan. The impacts would be minimized to the greatest extent practical or avoided following construction via the installation and maintenance of the stormwater management plan, see Appendix G. Additionally, another potential impact is an increase in sunlight exposure from the removal of trees and shrubs to allow for the construction of the proposed road crossings and the proposed pedestrian path crossing. The clearing of vegetation required for the pedestrian path crossing is relatively limited, narrow and aligned west to east. As such, this vegetation clearing is not expected to impact the stream from increased sunlight exposure. The area to be cleared for the road crossings also aligned west to east, decreases the potential for impacts from increased solar exposure. However, the area of vegetation clearing is substantially wide. As such, it is expected that there would be short-term impacts from increased solar exposure. The increased exposure likely would lead to the increased growth of invasive vegetation. Consequently, to minimize these potential impacts, the Proposed Action includes a planting plan that includes the planting of native trees, shrubs and groundcovers and for the control of invasive vegetation, see Appendix R.

As described previously, the two onsite watercourses and associated wetlands would be directly and, potentially, indirectly impacted by both Phase 1 and the Master Development Plan. The wetland fringe that borders each watercourse is variable in extent. For the most part, the wetland area is limited to the bank of the streams; however, there are some areas where the wetlands widen. Approximately 41,400 square feet of disturbance to wetland and watercourse areas is proposed to complete Phase 1. Approximately 17,900 square feet of upland area would be used to create a pocket wetland area and 44,200 square feet within and adjacent to the eastern stream would be permanently replaced with a pond. This results in a one-to-one ratio of wetlands lost to wetlands created onsite (Table 3F-5). Additionally, disturbance to wetland and watercourse adjacent areas is primarily limited to the areas that border the wetland and stream areas that would be directly impacted. Other proposed site disturbance has been designed to avoid the vast majority of the remaining wetland and watercourse adjacent areas. Adjacent areas that are temporarily disturbed would be re-naturalized via the establishment of native trees, shrubs and groundcovers and the control of invasive vegetation.

Table 3F-5 Wetlands and Watercourse Mitigation

Community		Existing Area	Proposed Area Phase 1		Proposed Area Master	
Symbol	Name	Acres	Acres	Percent Remaining	Acres	Percent Remaining
W1	Rocky Headwater Stream	1.3	0.5	41%	0.5	41%
W2	Rocky Headwater Stream	1.9	1.5	78%	1.3	67%
W3	Red Maple Hardwood Swamp	0.0	0.0	0%	0.0	0%
W4	Red Maple Hardwood Swamp	0.0	0.0	0%	0.0	0%
W5	Pond with Fringe of Emergent Wetland	0.0	1.0	n/a	1.0	n/a
W6	Stormwater Emergent Wetland	0.0	0.4	n/a	0.4	n/a
Total		3.3	3.5	105%	3.3	100%

During Phase 1, the potential use of fertilizer, pesticides, herbicides, fungicides and other chemicals would be largely contained to the south-central portion of the site. For the remaining phases of the Master Development Plan, the eastern and western property boundaries would also have some potential need for applications due to the increase in lawn area and new plantings. These materials have the potential to impact watercourses and wetlands when transported onsite via surface and subsurface water flow. Potential impacts from the potential use of these materials would be avoided or minimized to the greatest extent practical via the installation and maintenance of the stormwater management plan. Stormwater runoff from all developed areas would either be collected and treated via the proposed structural management measures (e.g., surface and subsurface infiltration basins, the wet pond and pocket wetlands) or would flow through and be treated by naturally vegetated buffers that border wetlands and watercourses. For more detailed information regarding the proposed stormwater management system, refer to Chapter 3G, Stormwater Management.

Following the construction of Phase 1 and the remaining phases of development, water from the Project Site would continue to flow overall from south to north, as would the western and eastern streams and adjacent wetlands. As previously discussed, potential drainage pattern changes from Phase 1 could reduce the flow of water to wetlands that are east of the southern portion of the western stream. Similarly, potential drainage pattern changes from the remaining phases of development could reduce the flow of water to wetlands that are east of the central portion of the eastern stream. To minimize these changes to the greatest extent practicable, infiltration measures could be installed upgradient of these areas to discharge more water to them. In lieu of calculating changes to the overall water budget, the Proposed Action includes mitigation to compensate for these changes, while minimizing impacts through these steps. Other modifications to drainage patterns through the increase in impervious and the implementation and maintenance of the stormwater management system are not anticipated to significantly affect overall site hydrology. Runoff from proposed impervious surfaces would be captured and conveyed so that runoff passes through one or more of several proposed best management practices for water quality treatment including four subsurface recharge chamber systems, two

infiltration basins, a pond and pocket wetland. The Master Development Plan incorporates three additional subsurface recharge chambers that would connect to the Phase 1 infiltration basins to treat stormwater runoff from the increase in impervious surfaces.

As per NYSDEC requirements, the Proposed Action includes a stormwater management plan which includes measures for runoff reduction volume, stream channel protection volume, overbank and extreme flood control. These measures protect onsite watercourses and wetlands from erosion and flooding and subsequently protect off-site wetlands and watercourses. Refer to Chapter G, Stormwater Management, for more detailed information regarding the stormwater management system.

Impacts to potential downstream aquifer recharge areas and their contributing watersheds resulting from groundwater flow are not expected. As the Proposed Action does not include wells and the extraction of groundwater, the proposed stormwater management plan includes measures to reduce runoff volumes and increase groundwater recharge to the greatest extent practical. Further, due to the installation and maintenance of the stormwater management measures, groundwater quality impacts mostly would be avoided. Stormwater runoff from all proposed development areas would be treated except for a small area of the northern portion the proposed West Street. This small area is similar in size to the existing dwelling and driveway that is located in the northern portion of the Project Site, from which stormwater runoff is not treated. The removal of the existing dwelling and driveway offsets the proposed northern portion of West Street from which stormwater runoff would not be treated.

As previously mentioned, Mount Pleasant, the NYSDEC and the USACOE have jurisdiction over certain wetlands and watercourses on the Project Site. Specifically, these agencies would require wetland permits or authorizations for the Proposed Action.

1. Mount Pleasant Wetland for activities proposed in regulated wetlands, watercourses and the 50-foot buffer areas including the of:

    a. Roads
    b. Buildings
    c. Ponds
    d. Stormwater management measures
    e. The use of fertilizers, herbicides or other similar materials

2. New York State Department of Environmental Conservation for activity proposed in the regulated watercourse (W2) including the construction of:

    a. Roads
    b. Buildings
    c. Ponds

3. United States Army Corps of Engineers: Sections 401 of the CWA authorization for construction activities relating to:

    a. Roads
    b. Buildings

c. Ponds
d. Stormwater management measures

3. Mitigation Measures

To mitigate for short-term impacts, a detailed soil erosion and sediment control plan would be implemented prior to the commencement of construction. The plan would include the installation, regular inspection and maintenance of control measures such as minimizing the area of total soil disturbance at any one-time, stabilized construction entrances, silt fencing, inlet protection, soil stockpile storage and sediment traps. A qualified site monitor would be responsible for inspecting these controls throughout construction to ensure efficacy. Areas of soil disturbance would be minimized by phasing construction activities and through the temporary stabilization of disturbed areas that are temporarily not being worked. A detailed construction phasing plan splits the site into nine areas and modifies control measures based on the needs of the specific area.

Water handling measures would be used to mitigate short-term impacts from proposed development activities within streams and wetlands. A detailed water handling plan would be implemented. This plan would include the rerouting of clean water around construction activities and would include the treatment of impacted water that would be pumped from construction areas.

To mitigate for long-term indirect impacts, a stormwater management plan would be implemented. The plan would include the installation, regular inspection and maintenance best management practices such as naturally vegetated filter strips adjacent to wetlands and watercourses, surface and subsurface infiltration practices, a wet pond and a pocket wetland. The plan has been designed in accordance with NYSDEC standards for water quality volume and runoff reduction volume, stream channel protection volume and overbank and extreme flood control. By doing so, the Proposed Action would mitigate potential indirect impacts to wetlands and watercourses.

To mitigate for long-term direct impacts to wetlands and watercourses, Phase 1 includes the construction of 0.4± acres of wetlands and one acre of a permanent pond, resulting in a 100 percent replacement of lost wetlands. A primary function of these wetlands and the pond would be to control the quantity and quality of stormwater runoff from the Proposed Action. Though stormwater detention basins are not typically included in mitigation calculations, we find these proposed measures to provide effective mitigation. In addition to providing stormwater storage and water quality treatment, other typical wetland functions provided by the proposed wetlands and pond include groundwater discharge, export of debris and contributing to the abundance and diversity of wetland and watercourse flora and fauna. They would require minimal management to ensure long-term efficacy, similar to the level that would be required for non-stormwater wetland-mitigation areas. Should the Planning Board determine a greater level of mitigation is required, the Proposed Action would take steps to mitigate wetland impacts as outline by the Army Corps of Engineers. The preferred method of mitigation is to create and/or restore an offsite wetland, at a one-to-one ratio, which would provide greater value in a protected environment, in contrast to the Project Site. Lastly, a planting plan would be included to revegetate disturbed areas and create long term stabilization of the soils. In many locations, the planting

plan would include the establishment of native groundcovers, shrubs and trees to provide habitat opportunities to local flora and fauna and to improve water quality.

G. STORMWATER MANAGEMENT

1. Existing Conditions

The Project Site lies within the watershed of the Saw Mill River, which drains to the Hudson River approximately 11 miles southwest of the Project Site. The Saw Mill River extends and flows south and is located to the northwest of the Project Site, approximately 200 feet from the northern property boundary. Both wetland and watercourse systems exit the Project Site to the north, flowing beneath Old Saw Mill River Road and Saw Mill River Road via stormwater culverts before draining into the Saw Mill River.

In general, the Project Site drains to the north toward Old Saw Mill River Road. The south-central portion of the Project Site is relatively level and the grade is moderate to severe to the north. Two small streams that extend and flow south to north in the western and eastern portions of the Project Site have over thousands of years eroded deep ravines. The majority of surface and subsurface water at the Project Site drains into these two watercourses; water in the eastern and east-central portion of the Project Site flows into the eastern system and water in the western and west-central portion of the Project Site flows into the western system. Both systems drain into Old Saw Mill River offsite to the north, which is a class C(T) stream per New York State Department of Environmental Conservation (NYSDEC).

The Project Site does not drain to a drinking water supply of New York City, therefore, the Project Site is not subject to New York City Department of Environmental Protection regulations.

Site Drainage Patterns and Stormwater Calculations

Stormwater management computations are based upon the Soil Conservation Service (SCS) a.k.a. Natural Resource Conservation Service (NRCS), TR-20 methodologies and recommendations included in the NYSDEC Stormwater Management Design Manual, requirements contained in the NYSDEC SPDES General Permit for Stormwater Discharges from Construction Activity Permit No. GP-0-20-001, and requirements found in Chapter 183 of the Mount Pleasant Town Code.

Pre- and post-development rates of stormwater runoff have been computed for comparison for the 1, 2, 10, 25, 50 and 100-year storm events using NRCC, 24- hour rainfall events. The computer software entitled "HydroCAD Version 10.00" by Applied Microcomputer Systems has been utilized to determine the peak runoff rates, plug flow extended detention times and high water elevations in the stormwater treatment facilities. The precipitation data for a 24-hour duration used for the hydrological modeling for the 1, 2, 10, 25, 50 and 100-year storm events was obtained from National Regional Climate Center.

Table 3G-1 Precipitation Values Based on 24-Hour Accumulation Period and Recurrence Interval

Storm Frequency	Precipitation (inches) - 24-Hour
1-Year	2.79
2-Year	3.42
10-Year	5.12
25-Year	6.46
50-Year	7.70
100-Year	9.18

NRCC precipitation data based on Proposed Actions address.

Existing Drainage Patterns

The Project Site currently has a parking area and a construction staging area on the south side of the site which is accessed from Hospital Road. There are also several residences and a former landscaping business located on the west side of the Project Site which are accessed from an existing paved driveway connected to Old Saw Mill River Road. A majority of the Project Site is undeveloped woodlands and meadows. Two streams flow through the Project Site to the north where they discharge to the Saw Mill River adjacent to Route 9A. The streams originate from the existing Westchester Medical Center and State of New York drainage system outfalls.

Slopes vary greatly onsite, as described in Chapter 3D, Topography and Slopes. The existing parking area and existing construction staging area are located on the mildly sloped ridgeline which extends through the center of the Project Site. The north side of the Project Site contains steep slopes which descend towards Route 9A. Very steep ravines are located along the banks of the two existing streams which separate the Project Site into three distinct areas. NRCS soil boundaries identified onsite and within the boundaries of the analysis consist of Paxton Fine Sandy Loam, Woodbridge Loam, Ridgebury Loam, and Urban Land. Paxton Fine Sandy Loam belongs to hydrologic group "C", Woodbridge Loam belongs to hydrologic group "C", and Ridgebury Loam belongs to hydrologic group "D". The Urban Land areas are treated as hydrologic group "C' for the purposes of this drainage analysis, see Appendix G, SWPPP Report.

The hydrologic model for the Proposed Action consists of two design points. The two existing watercourses which flow through the Project Site by entering into two separate culvert pipes prior to crossing under Old Saw Mill River Road on the northern side of the Project Site. The entrances of these culverts have been selected as the design points for the Proposed Action. As part of the stormwater analysis, the contributing offsite areas which are tributary to the design points have been included in the hydrologic model for the Proposed Action. The offsite areas mainly consist of the existing Westchester Medical Center facility located to the south of the Project Site. These areas flow to existing offsite stormwater ponds and the discharge pipes from the existing ponds outlet to the watercourses found on the Project Site. There are four subcatchments in the pre-development analysis. Each of the predevelopment design points receive runoff from one offsite subcatchment area and each has one onsite subcatchment which is tributary to their respective design point.

Pre-development drainage basins and flow patterns are indicated on Figure 1, *Pre-Development Watershed Boundary Map* and the larger, surrounding offsite drainage basins are shown on Figure 3 Overall Watershed Boundary Map both within the DEIS Appendix G SWPPP Report.

Pre-Development Analysis: Peak Runoff Rates

The table below summarizes the input variables utilized in the hydrologic modeling for the Proposed Action.

Table 3G-2 Sub-Basin Input Variables – Existing Conditions

Sub-Catchment	Time of Concentration (Min)	Composite Curve Number (CN)	Area of Coverage (acres)
Sub-basin "A0 Off-Site"	12.5	90	25.60
Sub-basin "B0 Off-Site"	32.3	84	34.68
Sub-basin "Pre A"	34.4	75	53.94
Sub-basin "Pre B"	27.6	70	27.75

The existing offsite sub-basins were determined using information provided by Westchester County Department of Public Works, topographic information from Westchester County GIS Mapping, and based on field observations of existing drainage features. The area of the offsite sub-basins was measured from the available mapping. The composite Curve Number (CN) for the sub-basins were calculated using aerial maps, NRCS soil maps, and field inspections. The time of concentration was calculated for each sub-basin.

Pre-development peak runoff rates for the 1, 2, 10, 25, 50 and 100-year storm events are provided in the table below.

Table 3G-3 Pre-Development Peak Runoff Rates

Design Storm (Year)	Pre-Development Peak Runoff Rate to Design Point A (cfs)	Pre-Development Peak Runoff Rate to Design Point B (cfs)
1-Year	62.67	17.38
2-Year	87.57	29.43
10-Year	152.43	68.06
25-Year	204.71	101.38
50-Year	277.74	133.15
100-Year	364.38	170.39

For a complete description of existing surface water quality conditions on the Project Site, and a description of existing point and non-point sources of pollution on the Project Site, refer to the Ecological Assessment Report, which can be found in Appendix E of this DEIS.

2. Potential Impacts

Construction of Phase 1 would result in the disturbance of approximately 35.8 acres for the proposed impervious surfaces such roofs, access roads, parking areas, walkways, and driveways. The proposed development program for the Master Development Plan would alter the existing land coverage on the Project Site. The conversion of approximately 39 percent of the woods on the Project Site to other cover types, including over 27 acres of impervious cover, would change the recharge of groundwater and subsurface flow patterns of groundwater on the Project Site. Use of detention and infiltration practices in the stormwater management program would replace the recharge potential lost to impervious cover, while re-vegetation of the remaining 16+ acres of development as lawn area would allow infiltration of precipitation.

The table provided below shows a comparison of pre-development impervious cover with post-development impervious cover for each of the sub-watersheds.

Table 3G-4 Impervious Comparison Area

	A	B	Total
Pre-development Impervious Area (SF)	181,472	0	181,472
Post-development Impervious Area (SF)	688,994	96,660	785,654
Change in Impervious (SF)	+507,522	+96,660	+604,182

Proposed Stormwater Management Plan

The stormwater systems for the Proposed Action are proposed for the qualitative and quantitative management of stormwater runoff from the Project Site. As the Project Site falls under the requirements of the State SPDES program, all stormwater facilities employed for this site have been designed to meet NYSDEC requirements for water quality volume, stream channel protection volume, overbank flood control, and extreme flood control. The Project Site ultimately discharges runoff to the Saw Mill River (Middle) which has been identified as a 303(d) "Segment Impaired by Construction Activities" in Appendix E of the NYSDEC GP-0-20-001. Uncontrolled and untreated release of stormwater runoff, during and after construction, to the 303(d) segment could exacerbate the existing water quality concerns of the Saw Mill River (Middle). The following pollutants could be present during construction and upon completion of construction. Their impact and mitigation measures are described below.

Sediments (Suspended Solids): Sources of sediment include wash off particles that are deposited on impervious surfaces and erosion from streambanks and construction sites. The impacts of total suspended solids (TSS) will be mitigated by utilizing deep sumps in all proposed catch basins and by utilizing hydrodynamic separator chambers as pretreatment practices prior to the stormwater treatment areas. The hydrodynamic separator chambers effectively remove the total suspended solids (TSS) from stormwater runoff via the internal components of the chamber which create a vortex flow, discharging the pollutants into a large sump to be periodically removed with a vacuum truck. During construction, the sediment and erosion control measure shall be enforced to control the sediment migration. Refer to Sediment and Erosion Control Plans and Construction Sequence for the additional information and methodology.

Organic Carbon: Organic matter, washed from impervious surfaces during storms, can present a problem in slower moving downstream waters. Some sources include organic material blown onto the street surface, such as grass clippings and attached to the sediment from stream banks, or from bare soil. In addition, organic carbon is formed indirectly from algal growth within systems with high nutrient loads. This pollutant shall also be handled with Sediment and Erosion Control measures during construction and utilizing the stormwater treatment systems after completion.

Bacteria: The sources of this contaminant could include pet waste, wildlife waste, sanitary and combined sewer overflows, wastewater and illicit connections to the storm drain system. Contamination in relation to sewer will not be applicable to the site, since the project will be sewered and connected to the Westchester County sewer collection system. The existing septic tanks and absorption fields located on the western side of the project site will be abandoned in accordance with Westchester County Health Department Rules and Regulations. Other sources such as pet and wildlife waste may be applicable.

Hydrocarbons: Project streets and parking areas, as well as leaking cars and grease, are the predominant source for this pollutant. During construction, hydrocarbons shall be controlled by the Sediment and Erosion Control measures. Heavy equipment will be refueled by daily deliveries to the Site. Gasoline and oil for small engine equipment will be stored in construction equipment storage sheds. Refueling will take place at least 100 feet from the watercourses and stormwater practices to preclude any possible escape of spilled fuel to stormwater. In the event of any major spill, its capture and the removal of contaminated soil will be conducted under the NYSDEC regulations for spill remediation. After completion, even though there is no specific permanent structures proposed, it is anticipated that the hydrocarbon generation from the Site would be minimal or none.

Snowmelt Concentrations: After project completion, the snowmelt runoff and pollutants carried within the runoff will be flowing to the Site's stormwater treatment system and will be mitigated accordingly. Salt applied to roads and parking lots in the winter months may be a source of chlorides. The Applicant will consider using a low salt application for onsite snow management. It is anticipated that the Town of Mount Pleasant Highway Department will use their standard salt applications during snow events consistent with standard operations for the rest of the Town. Snowmelt areas will be provided in and around the parking lots and driveways to ensure snow melt is directed to the treatment systems and is not discharged directly to the onsite wetland systems.

Phosphorus: Although the site does not fall within one of the watersheds identified in Appendix "C" of the NYSDEC General Permit GP-0-20-001 as a watershed where enhanced phosphorus removal standards are required, the site does discharge to a 303(d) segment which has been identified as being impaired by nutrients. Phosphorus pollution carried by stormwater runoff can further impair the existing surface water quality. Therefore, the stormwater management plan has been designed to provide the greatest amount of runoff volume reduction practices onsite which will reduce the impact of phosphorus laden runoff from the development. Each infiltration practice designed for the site can fully capture and store the 90% storm event prior to infiltration. Since the soils onsite were found to have relatively fast infiltration rates, each system can also capture and infiltrate the vast majority of the runoff volume associated with the 1 year storm event of 2.79" inches of rainfall. The HydroCAD output reports for the proposed diversion structures, found in the appendix of the attached SWPPP report, show the amount of runoff volume which is bypassed during the 1 year storm event and the amount treated by each practice.

Fertilizers & Pesticides: Fertilizers and pesticides containing high levels of nutrients such as nitrates can be carried in stormwater runoff and discharged into existing surface waters where the pollutants can cause excess algae growth. The temporary erosion control practices will protect the existing surface waters during the construction process as vegetative cover is being established onsite. As per the Erosion Control Program for the Project Site, all temporary erosion control measures shall remain in place until a firm stand of grass is established on all the disturbed areas not planned for impervious cover. After construction is complete it's anticipated that the use of fertilizers will be minimal and isolated to the landscaped areas immediately adjacent to the proposed buildings. Runoff reduction practices design in accordance with the Stormwater Design Manual will effectively reduce the impact of these pollutants over the long-term and therefore a separate application plan has not been proposed for the Project Site. Please note, in accordance with the Westchester County Department of Health Pesticide Reduction Law (Chapter 690 of the Laws of Westchester), no pesticides shall be applied to any County-owned property. It is not anticipated that any herbicides, pesticides or fungicides will be used on the project site and any potential future application plans shall be reviewed and approved by the Westchester County Department of Health.

The Stormwater Pollution Prevention Plan (SWPPP) for the Project Site has also been designed in accordance with the Mount Pleasant Town Code Chapter 183, Stormwater Management and Erosion and Sediment Control. The SWPPP is included in Appendix G of this DEIS.

Stormwater Quantity/Post-Development Drainage

Stormwater peak runoff rates following development of the Master Development Plan would not exceed those in the existing condition. As a result, stormwater runoff rates following development would have no adverse impacts on downstream properties or stormwater conveying systems. Similarly, considering the nature of the existing site conditions and the level of stormwater treatment proposed in the post-development condition, it is predicted that the Proposed Action would not have a negative impact on stormwater quantity or degradation in the quality to any reservoir, stream, wetlands or watercourses.

In the post-development condition, the watershed area has been divided into sub-basins which mainly contain large offsite subareas which flow to the onsite watercourses and the subareas that originated from the Proposed Action. The design points evaluated within the pre-development condition have been kept in the proposed condition to analyze the impacts at the same point. The offsite subareas flowing to the design points have the same CN numbers and the time of concentration values as the pre-development conditions. See Figure 2 in DEIS Appendix G, SWPPP, which displays each sub-catchment area for Phase 1.

Even though the post-development condition contains more impervious area than existing conditions, the proposed stormwater management facilities mitigate the stormwater quality as per the NYSDEC Rules and Regulations. The design point evaluations based on the 1, 2, 10, 25, 50 and 100-year storm events showed that the peak flows occurring at the design point are less than or equal to the pre-development conditions.

Phase 1 Stormwater Management

Subsurface Infiltration Systems (Design I-4)

Four (4) subsurface infiltration systems are proposed for the Phase 1 Plan. The infiltration systems consist of Cultec Recharger infiltration chambers to be situated in gravel beds. Infiltration System #1 which would treat the upper portion of the proposed Western Street, would use Cultec Recharger 360HD chambers. Infiltration System #2 which would treat the rooftop runoff from proposed buildings B1 and B4 located on the proposed Main Street, would use Cultec Recharger 360HD chambers. Infiltration System #3 which would treat the large surface parking lot is located to the north of the proposed hotel. System #3 would use Cultec Recharger 330XLHD chambers. Infiltration System #4 which would treat a portion of the North Parking Lot is located at the end of the Phase 1, Main Street. System #4 would use Cultec Recharger 330XLHD chambers. The proposed subsurface infiltration systems recharge stormwater runoff back into the onsite soil and each system is designed as an offline practice which treats the 90 percent1 design storm and bypasses larger storm events via diversion structures. The 90 percent storm per the NYSDEC Code is the WQv required to capture and treat.

Infiltration Basin (Design I-2)

Two infiltration basins would be constructed as part of the Phase 1 Plan. The infiltration basin consists of a flat bottom basin to be located in a highly permeable area of the Project Site and effectively recharges runoff back into the onsite soil which reduces post development runoff volumes from the site. Infiltration Basin #1 is to be located on the north side of proposed Cross Street and to the west of the North Parking Lot. Infiltration Basin #1 would treat runoff from the West Parking Lot and the segment of Cross Street to be constructed in Phase 1. Infiltration Basin #2 would be located on the northern portion of the Project Site, where an existing residence and lawn area is currently located. The existing residence is to be removed from the area during the construction of the basin. The infiltration basin

[1] The 90% storm per the NYSDEC code = the WQv to capture and treat the 90th percentile of all 24-hour storm events statistically.

would treat runoff from impervious surfaces located on the proposed main street portion of the Project Site and the remaining portion of the North Parking Lot. The two proposed infiltration basins are both tributary to Design Point A. The infiltration basins have been designed with outlet structures which allow for storage of the entire 90 percent design storm and extended detention for the larger storm events. A rip-rap spillway is provided above the 100-year peak water elevation for emergency use only if the outlet structure fails to control the peak level of the basin.

Wet Pond (Design P-2)

One wet pond is proposed for the Phase 1 Plan. The wet pond stormwater practice would consist of a permanent pool of water with extended detention capacity which is to be controlled by an outlet structure. A sediment forebay has been designed to provide pretreatment at the inlet side of the pond. The water quality volume associated with the 90 percent storm is provided partially in the permanent pool and partially in the extended detention area in accordance with the Stormwater Design Manual. The proposed pond would be approximately six to seven feet in depth with shallower areas along the side slopes. The wet pond would treat the runoff generated from the proposed hotel rooftop and the hotel driveway area. The pond would also receive stormwater from the outfall of the existing offsite stormwater basin located to the south of the proposed hotel. The proposed wet pond would be constructed to replace a portion of the existing watercourse which flows through the Project Site to Design Pont B. The existing watercourse suffers from erosion and carries sediment runoff through the Project Site. Additionally, the proposed wet pond would detain the stormwater, allowing time for quality treatment of the runoff to ultimately reduced peak runoff rates, which flow to the remaining portion of the existing stream.

Pocket Wetland (Design W-4)

One pocket wetland (W-4) is proposed for the Project Site and would be established in Phase 1 Plan. The pocket wetland is proposed to consist of a forebay located at the inlet, a shallow marsh area, and a micropool at the outlet structure. Pocket Wetland has been designed for extended detention to provide 24-hour center of mass detention time for the one-year storm event (2.8 inches). The pocket wetland would also provide extended detention storage above the permanent pool for the larger storm events. The pocket wetland outlet control structure is a special precast concrete structure with a baffle and flow controlling holes with a specific diameter and inverts to accurately reduce the flows and provide the required detention time. The pocket wetland would treat the lower portion of West Street in the northwest corner of the Project Site. A high groundwater table was located in the area of the proposed pocket wetland and the wetland has been designed so that the bottom of the deep pools would flow into the existing groundwater table. This would help sustain wetland plantings within the basin. The design and sizing calculations for the pocket wetland can be found in Appendix I of the SWPPP (see Appendix G of this DEIS).

Required pretreatment for the stormwater runoff would be accomplished using subsurface Hydro-International First Defense High Capacity hydrodynamic separator chambers prior to each practice. The pretreatment practices are to be sized based on the peak flow generated by the one-year storm, 2.8

inches of rainfall in 24-hours. The hydrodynamic separator is proposed to meet the requirements of propriety treatment systems set forth in the NYSDEC Stormwater Design Manual.

Stormwater runoff would be captured in drop inlet catch basins and all proposed stormwater conveyance piping would be constructed with high density polyethylene pipe (HDPE). Additional pretreatment for the stormwater management systems would consist of 24" sumps in all preceding catch basins.

The stormwater infiltration practices would meet the required three-foot separation distance to groundwater or bedrock layer2. Preliminary infiltration rates have been applied to each practice based on field observations, NRCS soil types, and initial infiltration test runs. Final infiltration testing shall be performed for the practices prior to construction in order to confirm the preliminary results and the infiltration practices shall be revised accordingly. See DEIS Appendix G, SWPPP, for additional soil testing information.

Master Development Plan Stormwater Management

In addition to the practices listed in the previous section, associated with the construction of Phase 1, further stormwater management practices would be implemented for the Master Development Plan. Full buildout of the Master Development Plan would include the installation of three additional subsurface infiltration systems and one infiltration basin.

Subsurface Infiltration Systems (Design I-4)

Additional subsurface infiltration systems would be installed to capture and treat runoff from the additional rooftops and roadways to be constructed at the site beyond the limits of Phase 1. The proposed infiltration systems consist of Cultec Recharger infiltration chambers to be situated in gravel beds. Similarly, to Phase 1, the infiltration systems would recharge stormwater runoff back into the onsite soil and each system is designed as an offline practice that would treat the 90 percent design storm and bypass larger storm events via diversion structures.

A majority of the stormwater management infrastructure to be constructed in Phase 1 would be utilized as part of the Master Development Plan. Many of the catch basins, drainage pipes, manholes, and stormwater practices were purposefully sited in areas which allow the stormwater management component to remain in place when the site transitions from Phase 1 to the Master Development Plan.

However, there are several components of the Phase 1 stormwater management design which would no longer be effective when full buildout of Master Development Plan commences. The subsurface infiltration system which treated the surface parking area adjacent to the proposed hotel would be removed as part of the Master Development Plan, in order to construct the Educational Science Center. The stormwater runoff from this area would be treated in the proposed wet pond as part of the Master Development Plan. Additionally, one small infiltration basin (SWP-2) which treats a portion of Cross

[2] Verified by test pits witnessed by Bibbo Associates, LLP on January 16, 2018 and January 19, 2018.

Street and the proposed West Parking Lot during Phase 1 would be removed and replaced by the larger open infiltration basin proposed with the Master Development Plan.

Water Quality Volume

The required stormwater quality volume would be determined using the formulation specified in the "New York State Stormwater Management Design Manual - Chapter 4: Unified Stormwater Sizing Criteria".

The water quality volume (WQv) is the volume of runoff generated by a 90 percent rainfall event. In the area of the Project Site, the rainfall event associated with this volume is 1.50-inches of rainfall within a 24-hour period. As per NYSDEC design standards, each infiltration practice provided must be able to capture and store the WQv generated by its tributary area which relates to a 90 percent rainfall.

The proposed Pocket Wetland (W-4), also designed in accordance with the "New York State Stormwater Management Design Manual - Chapter 4: Unified Stormwater Sizing Criteria Unified Stormwater Sizing Criteria," provides water quality treatment by providing extended detention time for the one-year storm volume for at least 24 hours. The pocket wetland also provides 50 percent of this WQv as permanent water and the remaining 50 percent as a volume providing a minimum of 24 hours of extended detention. Pocket Wetland (W-4) provides forebay at the pipe inlets and a permanent pool at the outlet. The forebays have been sized to hold a minimum of 10 percent of the required WQv. The permanent pool which consists of a sum of the forebays and the micropool has been sized to contain at least 50 percent of the same. HydroCad hydrologic model illustrates the required high-water elevations and plug flow/center of mass extended detention times within facility, as required.

Post-Development Peak Runoff Rates

Specifically, stormwater would be directed overland or via a piping network to the stormwater treatment facilities. The outlet control and diversion structures have been designed to detain stormwater volumes within the facilities. Additionally, emergency overflow weirs have been provided over the 100-year, 24-hour storm high water elevation for each facility, to prevent uncontrolled spillage in case of clogging in the outlet control system. These devices are strictly an emergency provision and would not be activated within normal stormwater quality basin operations. Additionally, each stormwater facility has been sized such that peak rates at the design point of runoff generated from 1, 2, 10, 25, 50, and 100-year, 24-hour Type III storm events are attenuated to such an extent that no adverse impact would result from the development of the Proposed Action.

Phase 1 Stormwater Rate of Runoff Analysis

Modeling of the rate of stormwater runoff has been performed for the pre- and post-development conditions, as shown in the table below for each of the 1, 2, 10, 25, 50 and 100-year storm events. In post-development conditions, the peak runoff discharges from the stormwater practices have been combined with the overland sub-basin flow to the design point and compared to the pre-development condition peak runoffs in Tables 3G-4 and 3G-5.

Table 3G-5 Phase 1 Peak Runoff Discharges & Runoff Volumes to Design Point A

Design Storm (Year)	Pre-Development Peak Runoff (cfs)	Post-Development Peak Runoff (cfs)
1 year storm event		
Peak flow (cfs)	62.67	49.69
Runoff volume (cf)	277,125	200,988
2 year storm event		
Peak flow (cfs)	87.57	63.84
Runoff volume (cf)	413,194	300,220
10 year storm event		
Peak flow (cfs)	152.43	111.80
Runoff volume (cf)	818,458	631,628
25 year storm event		
Peak flow (cfs)	204.71	157.32
Runoff volume (cf)	1,160,846	939,840
50 year storm event		
Peak flow (cfs)	277.74	207.13
Runoff volume (cf)	1,488,097	1,237,978
100 year storm event		
Peak flow (cfs)	364.38	268.04
Runoff volume (cf)	1,887,228	1,607,979

Table 3G-6 Phase 1 Peak Runoff Discharges & Runoff Volumes to Design Point B

Design Storm (Year)	Pre-Development Peak Runoff (cfs)	Post-Development Peak Runoff (cfs)
1 year storm event		
Peak flow (cfs)	17.38	10.91
Runoff volume (cf)	230,831	219,740
2 year storm event		
Peak flow (cfs)	29.43	19.41
Runoff volume (cf)	334,042	321,985
10 year storm event		
Peak flow (cfs)	68.06	49.39
Runoff volume (cf)	646,182	631,489
25 year storm event		
Peak flow (cfs)	101.38	85.84
Runoff volume (cf)	912,811	898,093
50 year storm event		
Peak flow (cfs)	133.15	129.30
Runoff volume (cf)	1,169,050	1,153,597
100 year storm event		
Peak flow (cfs)	170.39	169.27
Runoff volume (cf)	1,482,781	1,465,888

Master Plan Stormwater Rate of Runoff Analysis

Table 3G-7 Master Plan Peak Runoff Discharges & Runoff Volumes to Design Point A

Design Storm (Year)	Pre-Development Peak Runoff (cfs)	Post-Development Peak Runoff (cfs)
1 year storm event		
Peak flow (cfs)	62.67	45.67
Runoff volume (cf)	277,125	203,727
2 year storm event		
Peak flow (cfs)	87.57	65.65
Runoff volume (cf)	413,194	301,906
10 year storm event		
Peak flow (cfs)	152.43	145.62
Runoff volume (cf)	818,458	658,658
25 year storm event		
Peak flow (cfs)	204.71	204.70
Runoff volume (cf)	1,160,846	978,776
50 year storm event		
Peak flow (cfs)	277.74	256.31
Runoff volume (cf)	1,488,097	1,285,407
100 year storm event		
Peak flow (cfs)	364.38	313.47
Runoff volume (cf)	1,887,228	1,660,448

Table 3G-8 Master Plan Peak Runoff Discharges & Runoff Volumes to Design Point B

Design Storm (Year)	Pre-Development Peak Runoff (cfs)	Post-Development Peak Runoff (cfs)
1 year storm event		
Peak flow (cfs)	17.38	9.42
Runoff volume (cf)	230,831	217,564
2 year storm event		
Peak flow (cfs)	29.43	16.40
Runoff volume (cf)	334,042	315,716
10 year storm event		
Peak flow (cfs)	68.06	38.59
Runoff volume (cf)	646,182	610,499
25 year storm event		
Peak flow (cfs)	101.38	77.01
Runoff volume (cf)	912,811	862,523
50 year storm event		
Peak flow (cfs)	133.15	111.09
Runoff volume (cf)	1,169,050	1,103,018
100 year storm event		
Peak flow (cfs)	170.39	137.57
Runoff volume (cf)	1,482,781	1,396,173

Wetland Disturbance

Wetland #2

Soil disturbance is required within a portion of onsite local, Wetland #2, in order to create the onsite wet pond between the Main Street corridor and the proposed hotel building. The proposed wet pond shall be constructed during Phase 1 and would remain as part of the stormwater management system for the Master Plan. Wetland #2 originates from the outfall of the existing drainage basin located at the corner of Hospital Road and Woods Road. Wetland #2 flows to Design Point B in the hydrologic model of the Project Site. The existing drainage basin discharges onto the Project Site via a 36-inch corrugated metal culvert pipe. The existing perennial watercourse which is created by the stormwater outfall is approximately five to 10 feet in width and the depth varies from three inches to 24 inches. Existing construction debris and roadside litter is observed throughout the existing wetland area. The plan proposes to create a wet pond in the vicinity of the existing wetland which would extend through the first 1,000 feet of the existing watercourse. The total disturbance proposed to Wetland #1 is described in Chapter 3F. The pond would allow for stormwater treatment by creating a permanent pool with extended detention capacity above. The proposed pond is typically six to seven feet in depth. Shallower zones shall be incorporated into the final design of the pond to create a habitat for a diverse range of wetland plants and animals. The pond level is controlled by a proposed outlet structure which discharges

back to Wetland #2 on the north side of the proposed pond. The controlled discharge point is located in a shallow, wide portion of the existing wetland to prevent downstream erosion. Since the existing watercourse suffers from existing erosion issues and has been negatively impacted by the continuous construction staging located along the edge of the wetland, the creation of the proposed stormwater pond would result in improved stormwater quality and reduced peak flows within the wetland. The remaining portion of Wetland #2 is to remain undisturbed and protected as part of the Master Plan of development.

Wetland #1

A portion of Wetland #1 would be impacted in order to create the network of roadways for the Proposed Action. Wetland #1 originates from an outfall of an existing stormwater basin located along Hospital Road in a similar manner to Wetland #2 discussed in the above section. The drainage basin discharges onto the Project Site via a 30-inch reinforced concrete culvert pipe and combines with other offsite wetland areas in the southwest corner of the Project Site.

Wetland #1 consists of a perennial watercourse with similar characteristics as the previously discussed Wetland #2. The watercourse flows to the north side of the Project Site to Design Point A where it enters culverts which flow under Old Saw Mill River Road and Route 9A, ultimately discharging into the Saw Mill River. As part of the Phase 1 Plan development of the Project Site the proposed West Street would cross over the wetland in the southwest corner of the Project Site. This would require a culvert crossing for the existing watercourse. It is proposed that the culvert would be a corrugated, high density polyethylene pipe with a 24-inch inside diameter, approximately 112 feet in length. Concrete headwalls would be constructed at the inlet and outlet of the culvert. The culvert crossing would remain in place as part of the Master Plan of development for the Project Site. A second culvert crossing, similar to the crossing discussed above, is also required in order for the proposed Cross Street to be constructed through the central portion of the Project Site. Total soil disturbance within Wetland #1 is approximately 0.50 acres for full build out of the Master Development Plan.

For a discussion of access to, ownership of, and responsibility for maintenance requirements during construction and long-term maintenance of any stormwater management facilities for the Master Development Plan and Phase 1, refer to the SWPPP, which can be found in Appendix G of this DEIS.

For a discussion of Federal, State and local permits that would be required for any watercourse impact, including an analysis of the effects of site development on the hydrology of on and offsite wetlands and watercourses, from the Master Development, see DEIS Chapter 3F, Wetlands, Waterbodies and Watercourses.

3. Mitigation Measures

Stormwater peak runoff rates following development would not exceed those in the existing condition. As proposed, stormwater runoff rates following development would have no adverse impacts on downstream properties or stormwater conveying systems. Similarly, considering the nature of the

existing site conditions and the level of stormwater treatment proposed in the post-development condition, it is anticipated that the Proposed Action would not have a negative impact to stormwater quantity or degradation in the quality to any reservoir, stream, wetlands or watercourses. See SWPPP in Appendix G for detailed description of SPDES General Permit and draft copies of the NYSDEC Notice of Intent and NYSDEC SWPPP Acceptance Form for Phase 1 of the Project Action.

The stormwater management planning process included several design decisions and techniques to help minimize the impacts of development. Roadway pavement and sidewalk widths were designed with the minimum width practicable while meeting the requirements of the Mount Pleasant Town Code. Preservation of natural buffers and undisturbed areas was also a key element of the design. A large portion of the north side of the Project Site is proposed to remain undisturbed woodlands as part of the Master Development Plan. Although a portion of the onsite wetland are proposed to be disturbed, the wetland areas were already previously impacted by surrounding development and their health would be improved by the proposed stormwater management plan. (See Chapter 3F, Wetlands, Waterbodies and Watercourses, for additional details regarding wetlands impacts and mitigation.)

The natural areas of the Project Site were also preserved by locating proposed construction disturbance in areas which had been previously developed. The proposed Main Street area of the Project Site is located where the existing paved parking lot and construction staging area are currently located. The proposed West Street is located over a portion of the existing paved common driveway which connects the existing onsite residences to Route 9A. This effectively limits the amount of new impervious required for the construction of the roadways.

Parking reductions were also a factor in the stormwater planning for the Proposed Action. The Proposed Action includes realistic parking requirements for each proposed onsite use in order to eliminate any unnecessary parking areas which may be in excess of the actual site needs. Dedicated bicycle paths and the proposed shuttle bus route would help promote less vehicular traffic as well, which helps manage the parking requirements for the Project Site. Multilevel parking structures have been proposed under several of the buildings to eliminate the need for large, surface level parking lots which greatly reduces the amount of impervious surfaces proposed for the site. (See Chapter 3I, Traffic and Transportation, for additional details regarding traffic and transportation.)

In addition to the stormwater treatment practices, proper soil restoration techniques shall be conducted where soil disturbance occurs onsite in accordance with the specifications set forth in Chapter 5 of the NYSDEC Stormwater Design Manual. At a minimum, the following soil restoration measures should be taken during construction. A new 6-inch layer of topsoil would be spread where the existing topsoil has been stripped. De-compaction shall be performed in areas that experience heavy traffic during construction and existing impervious areas which are to be converted to pervious areas. The area of the proposed infiltration practice shall be protected during construction to maintain nature and healthy soil conditions.

The intent of the design is not to modify the existing drainage patterns at the Project Site. All stormwater treatment practices were sited at locations that can receive and treat the maximum amount of site areas.

One of the goals of the design was to capture and treat stormwater close to the source and recharge the treated runoff back into the soil to reduce overall stormwater runoff volumes.

The site layout has been planned to minimize impacts to existing surface water resources by providing facilities that comply with NYSDEC and local standards. This includes ensuring that all surface water runoff from the Proposed Action would be captured and treated in accordance with the details provided in the attached SWPPP report. Nine total stormwater treatment practices have been proposed, including four subsurface infiltration systems, two infiltration basin, one wet pond, and one pocket wetland. The implemented stormwater practices would result in improved stormwater quality as well as reduced peak discharge rates at both of the project design points under the post development conditions.

Listed below is information for each stormwater management practice which have been designed for the site to mitigate the potential stormwater impacts associated with the Proposed Action. For additional descriptions of the stormwater management practices proposed for the Project Site, please see Section 3G.2 of this report. NYSDEC requirements for runoff reduction volume are detailed in Appendix G, SWPPP Report (refer to Section 2.1.2 Runoff Reduction Volume in both the Phase 1 SWPPP and the Master Plan SWPPP).

Infiltrator System #1 (INF SYS-1)
Onsite Location: West of Wetland #1, located near former landscape business
Purpose: Water quality treatment (SMP with Runoff Reduction Capacity)
Capacity/Treatment: Total storage volume = 11,361 cubic feet

Infiltrator System #2 (INF SYS-2)
Onsite Location: East of Proposed Building B4, located under proposed open lawn area
Purpose: Water quality treatment (SMP with Runoff Reduction Capacity)
Capacity/Treatment: Total storage volume = 11,655 cubic feet

Infiltrator System #3 (INF SYS-3)
Onsite Location: North of proposed Hotel B14, located adjacent to East Parking Lot
Purpose: Water quality treatment for Phase 1 only (SMP with Runoff Reduction Capacity)
Capacity/Treatment: Total storage volume = 11,655 cubic feet

Infiltrator System #4 (INF SYS-4)
Onsite Location: East of North Parking Lot (Phase 1), east of proposed Building B11 (Master Plan)
Purpose: Water quality treatment (SMP with Runoff Reduction Capacity)
Capacity/Treatment: Total storage volume = 5,393 cubic feet

Infiltrator System #5 (INF SYS-5)
Onsite Location: South of proposed Building B21, west of Wetland #1
Purpose: Water quality treatment for Buildings B20 and B21 in the Master Plan
(SMP with Runoff Reduction Capacity)
Capacity/Treatment: Total storage volume = 23,371 cubic feet

Infiltrator System #6 (INF SYS-6)
Onsite Location: South of proposed Building B11, at intersection of Main Street and Cross Street
Purpose: Water quality treatment for Building B16 and portion of Cross Street in the Master Plan
(SMP with Runoff Reduction Capacity)
Capacity/Treatment: Total storage volume = 9,187 cubic feet

Infiltrator System #7 (INF SYS-7)
Onsite Location: East of proposed Building B24
Purpose: Water quality treatment for Building B24 and North Street
(SMP with Runoff Reduction Capacity)
Capacity/Treatment: Total storage volume = 9,890 cubic feet

Infiltrator System #8 (INF SYS-8)
Onsite Location: North of proposed Building B18
Purpose: Water quality treatment for Building B18 and a portion of East Drive
(SMP with Runoff Reduction Capacity)
Capacity/Treatment: Total storage volume = 14,049 cubic feet

Pocket Wetland (SWP-1)
Onsite Location: Northwestern corner of the Project Site, adjacent to West Street
Purpose: Water quality treatment with extended detention capacity
Capacity/Treatment: Permanent pool volume = 7,835 cubic feet,
Additional storage volume above permanent pool = 49,071 cubic feet

Infiltration Basin #1 (SWP-2)
Onsite Location: West of North Parking Lot, north of Cross Street
Purpose: Water quality treatment with extended detention capacity for Phase 1 only
Capacity/Treatment: Water quality volume provided = 11,307 cubic feet,
Additional storage volume above water quality volume = 22,732 cubic feet

Infiltration Basin #2 (SWP-3)
Onsite Location: North side of the site, in vicinity of existing residence
Purpose: Water quality treatment with extended detention capacity
Capacity/Treatment: Water quality volume provided = 41,586 cubic feet,
Additional storage volume above water quality volume = 41,603 cubic feet

Wet Pond (SWP-4)
Onsite Location: Between Central and East Parking Lots, partially within Wetland #2
Purpose: Water quality treatment with extended detention capacity
Capacity/Treatment: Permanent pool volume = 130,213 cubic feet,
Additional storage volume above permanent pool = 214,696 cubic feet

Infiltration Basin #3 (SWP-5)
Onsite Location: North of proposed Building B12 and B13
Purpose: Water quality treatment with extended detention capacity
Capacity/Treatment: Water quality volume provided = 56,993 cubic feet,
Additional storage volume above water quality volume = 45,792 cubic feet

Erosion and Sediment Control During Construction

Erosion and sediment controls would be employed during construction. It is the intent to provide effective erosion control by minimizing land disturbance at any given time, containing sediment from disturbed areas, treating runoff where possible, and stabilizing disturbed soils as soon as possible. See Chapter 3C, Geology and Soils, as well as the SWPPP, for additional details regarding erosion and sediment control and short-term maintenance and inspection requirements during construction.

Listed below are the Temporary Erosion & Sediment Control Practices specified on the Erosion Control Plan. All practices shall be installed and maintained in conformance with the New York Standards & Specifications for Erosion & Sediment Control:

- Silt Fence
- Soil Stockpile
- Construction Entrance
- Drop Inlet Protection
- Dust & Debris Control
- Sediment Trap
- Erosion Blankets

Silt fence for the site will consist of a geotextile fabric installed at the toe of all disturbed slopes, and parallel to the contours. The silt fence is intended to reduce runoff velocity, and intercept sediment-laden runoff. Construction details specifying the proposed installation and type of permissible silt fence can be found on the plans. The silt fencing will also control litter and construction debris from leaving the site and polluting stormwater discharge. There shall be no chemicals stored onsite.

A stabilized construction entrance should be installed where construction vehicles enter on to existing roadways from the site. The construction entrance is designed to prevent outgoing trucks from tracking soil onto the road. Construction details specifying installation requirements can be found on the plan.

Drop inlet protect for the site will consist of silt fencing surrounding the catch basins. The purpose of the staked silt fence is to prevent water with large amounts of sediment to enter the drainage system through the inlets.

A water truck shall be maintained on-site for dust control as required. Construction debris, such as sheet metal and wood scrap, paper and insulation products, styrofoam cups and paper wrappers which could become windblown litter over and off the site if neglected. Suitable and ample refuse containers shall be provided on the site and emptied when full. Any scattered debris shall be picked up and placed in containers on a continuous basis.

Temporary sediment traps are proposed to control sediment laden runoff and store the accumulated sediment for proper disposal. The sediment traps have been designed to meet the standards of the New York Standards & Specifications for Erosion & Sediment Control. Construction details specifying installation and sizing requirements can be found on the plan.

Erosion control blankets (anchored stabilization matting) provide protective cover for newly graded steep slopes, protect against rainwater splashing/overland flow, and help promote seed germination. Erosion blankets shall be installed on all embankments which are graded steeper than 3 horizontal to 1 vertical. Construction details specifying installation requirements can be found on the plan.

In addition to the temporary erosion and sediment control practices listed above, additional measures shall be implemented to mitigate potential pollution during the construction phase of the project. The general contractor supervising site construction shall be responsible for the implementing the follow measures to control and prevent non-sediment pollution during construction activities; prevent the generation of pollutants due to improper handling, storage, and spills; and prevent the movement of toxic substances from the site into surface waters:

Material Handling & Construction Staging Areas

- All construction waste materials shall be collected and removed from the site regularly by the general contractor. The general contractor shall supply waste barrels for proper disposal of waste materials. All personnel working on the site shall be instructed of the proper procedures for construction waste disposal.

- All construction equipment and maintenance materials shall be stored in a construction staging area. Silt fence shall be installed down gradient of the construction staging area. Shipping containers shall be utilized to store hand tools, small parts, and other construction materials, not taken off site daily. Construction waste barrels, recycling barrels and if necessary hazardous waste containers shall be located within the limits of the construction staging area.

Waste Management & Establishment of Washout Areas

- Although it is not anticipated any hazardous waste materials will be utilized during construction, any hazardous waste materials shall be disposed of in accordance with federal, state, and local regulations. No hazardous waste shall be disposed of onsite. Hazardous waste materials shall be stored in appropriate and clearly marked containers and segregated from the other non-waste materials. All hazardous waste shall be stored in a structurally sound and sealed shipping containers located in the staging areas. Material safety data sheets, material inventory, and emergency contact numbers will be maintained in the office trailer. All personnel working on the site shall be instructed of the proper procedures for hazardous waste disposal.

- Temporary sanitary facilities (portable toilets) shall be provided onsite during the entire length of construction. The sanitary facilities shall be located in the project staging area, or in

an alternate area away from the construction activities on the site. The portable toilets shall be inspected weekly for evidence of leaking holding tanks.

- All recyclables, including wood pallets, cardboard boxes, and all other recyclable construction scraps shall be disposed of in a designated recycling barrel provided by the contractor and removed from the site regularly. All personnel working on the site shall be instructed of the proper procedures for construction waste recycling

Proper Equipment Fueling & Spill Prevention

- Throughout the construction of the project, several types of vehicles and equipment will be used onsite. Fueling of the equipment shall occur within the limits of the construction staging area. Fuel will be delivered to the site as needed, by the general contractor, or a party chosen by the general contractor. Only minor vehicle equipment maintenance shall occur on-site, all major maintenance shall be performed off-site. All equipment fluids generated from minor maintenance activities shall be disposed of into designated drums and stored in accordance with the hazardous waste storage as previously discussed.

Permanent Erosion and Sediment Control Practices

The intent of the permanent erosion and sediment control practices is to permanently stabilize the ground surface via vegetative and structural practices, while controlling and reducing runoff velocities. The following permanent erosion and sediment control practices area proposed for the Project Site:

- Land grading
- Vegetation
- Rock outlet protection

Land grading is the reshaping of the existing land surface in accordance with the grading plan. Proper land grading is an essential component of the erosion control plan, as well as the stormwater pollution prevention plan. Proper grading ensures that the intended drainage areas are directed to the stormwater management practices.

Vegetation is proposed to be provided on all disturbed soils not covered by the proposed building, driveway, or parking area. Permanent vegetation would reduce runoff velocities, filter stormwater runoff, and minimize soil erosion. Optimum times for planting are the early spring and fall; however, plantings can be started in the summer provided adequate mulch and moisture is supplied.

Rock outlet protection is proposed at the outfall of the outlet pipe from the bioretention basin. The intent of the rock outlet protection is to reduce the depth, velocity, and energy of water to prevent downstream erosion. The flows generated by the 10-year storm have been used to size the proposed rock outlet protection areas in association with the requirements provided in Figure 5B.12 of the New York Standards & Specifications for Erosion & Sediment Control.

Long Term Maintenance and Inspection Requirements

Once final stabilization is achieved, and construction is completed, maintenance and inspections would be limited to the infiltration systems, hydrodynamic separators, and stormwater basins. The owner, its successors and/or assigns shall completely familiarize themselves with the project plans, details and notes. A copy of the Maintenance & Inspection Checklist from the New York State Stormwater Management Design Manual, and other specific inspection information, has been included in the SWPPP to serve as a guide for maintaining and inspecting the infiltrator systems and stormwater basins.

Ownership and Maintenance

The proposed roadways and their associated stormwater management systems shall be offered for dedication to the Town of Mount Pleasant to own and maintain. Beyond the limits of the dedicated right of ways, the responsibility for the long-term maintenance of drainage facilities which serve the individual buildings, terraces, driveways, parking areas would fall on the owner(s) of record. Some of the stormwater management systems mutually benefit multiple buildings and project areas which would require long term maintenance agreements to be drafted which include all involved parties and their respective responsibilities.

As per Mount Pleasant Town Code Chapter 183, in order to ensure that the stormwater management practices and associated infrastructure have been constructed in accordance with the approved plans, the Town of Mount Pleasant may require a performance bond, equal to the estimated cost of construction, be held for at least one year after the completion of the construction. The bond would be released following a one year inspection to confirm that the practices are functioning as intended. Additionally, a maintenance bond may be required to be provided to the Town of Mount Pleasant to ensure that the erosion control practices and stormwater facilities, both during and after construction, are being properly operated and maintained. If the Town of Mount Pleasant identifies inadequate operation and maintain of the stormwater facilities, the Town has the ability to draw from the maintenance bond to pay for the inspection, maintenance and operational costs required for the stormwater facilities.

H. UTILITIES

1. Existing Conditions

Water Supply

The County-owned portion of the Project Site is located within the Westchester County Water District #3. The Kensico Water District, a Town of Mount Pleasant Water District, s located to the north of the Project Site (see locations relative to the Project Site in Figure 3H-1, Water Districts). An existing interconnection between the two districts exists to the west of the Project Site; this interconnection is typically closed. Westchester County Water District #3 has an existing demand of 700,000 gallons per day which is drawn from a storage tank with a capacity of 1,500,000 gallons. There is an existing 12" water main located on the Westchester Medical Center Campus. The Kensico Water District purchased approximately 779,000,000 gallons (2,100,000 gallons per day) from New York City Water Board (Kensico Water District, 2018 Annual Drinking Water Quality Report). The Kensico Water District water is drawn from the Delaware Aqueduct and stored in two storage tanks with the combined capacity of 4,000,000 gallons. There is an existing connection point to the Kensico Water District via an existing 12" water main on Old Saw Mill River Road.

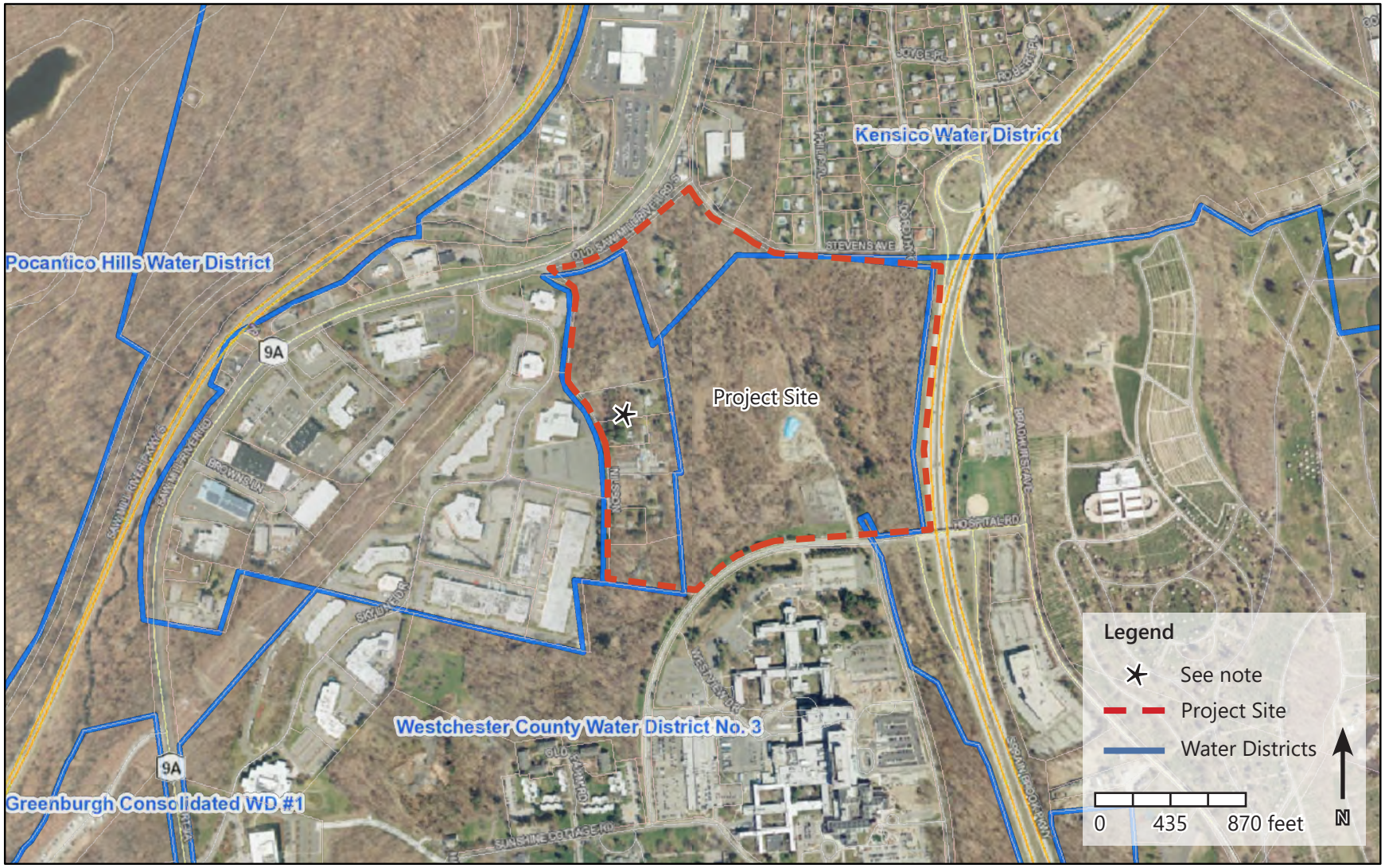
Existing pressure is between 145 and 152 psi in the vicinity of the Project Site as measured on the Kensico Water District's system. Westchester County Water District #3 yields pressures averaging between 75-85 psi. Hydrant flow tests shall be used to verify the flows generated at any anticipated connection point.

The Developer Parcel is not located in a water district. The existing residential lots are served by drilled wells.

Sanitary Sewer

The Project Site is located within the Mount Pleasant Sewer District and is composed of both vacant land on the County Parcel and single-family residential housing on the Developer Parcel. The County-Parcel (vacant) does not generate any sanitary sewage, and does not have any onsite sewage facilities. The Developer Parcel has individual subsurface sewage disposal systems. The Mount Pleasant Sewer District is regulated by the Westchester County Department of Environmental Facilities (WCDEF).

The following information regarding the Mount Pleasant Sewer District facilities is provided based on information gathered by the Project Engineer. There is an existing 8" CIP sewer main located on the north side of Old Saw Mill River Road. The existing 8" CIP sewer main discharges into a 42" reinforced concrete pipe, sewer trunk line, which carries the sewage to Westchester County's Yonkers Joint Wastewater Treatment Plant. Based on the Project Engineer's discussions with WCDEF, the existing Westchester County Yonkers Joint Wastewater Treatment Plant facility has additional capacity within their system for future projects of the nature of the Proposed Action. Additional information regarding



*Note: The Developer-owned portion of the Project Site is served by drilled wells and would be connected to either the Kensico Water District or Westchester County Water District #3 upon completion of the Proposed Action.

North 60 | Town of Mount Pleasant, NY

Water Districts

Source: Westchester County GIS (2016)

the available capacity of the existing sewage treatment plant will be provided when it has been made available from WCDEF.

Note, there are no combined sewers in the vicinity of the Project Site. Storm drainage would be handled onsite as detailed in Chapter 3G, Stormwater Management.

Other Utilities

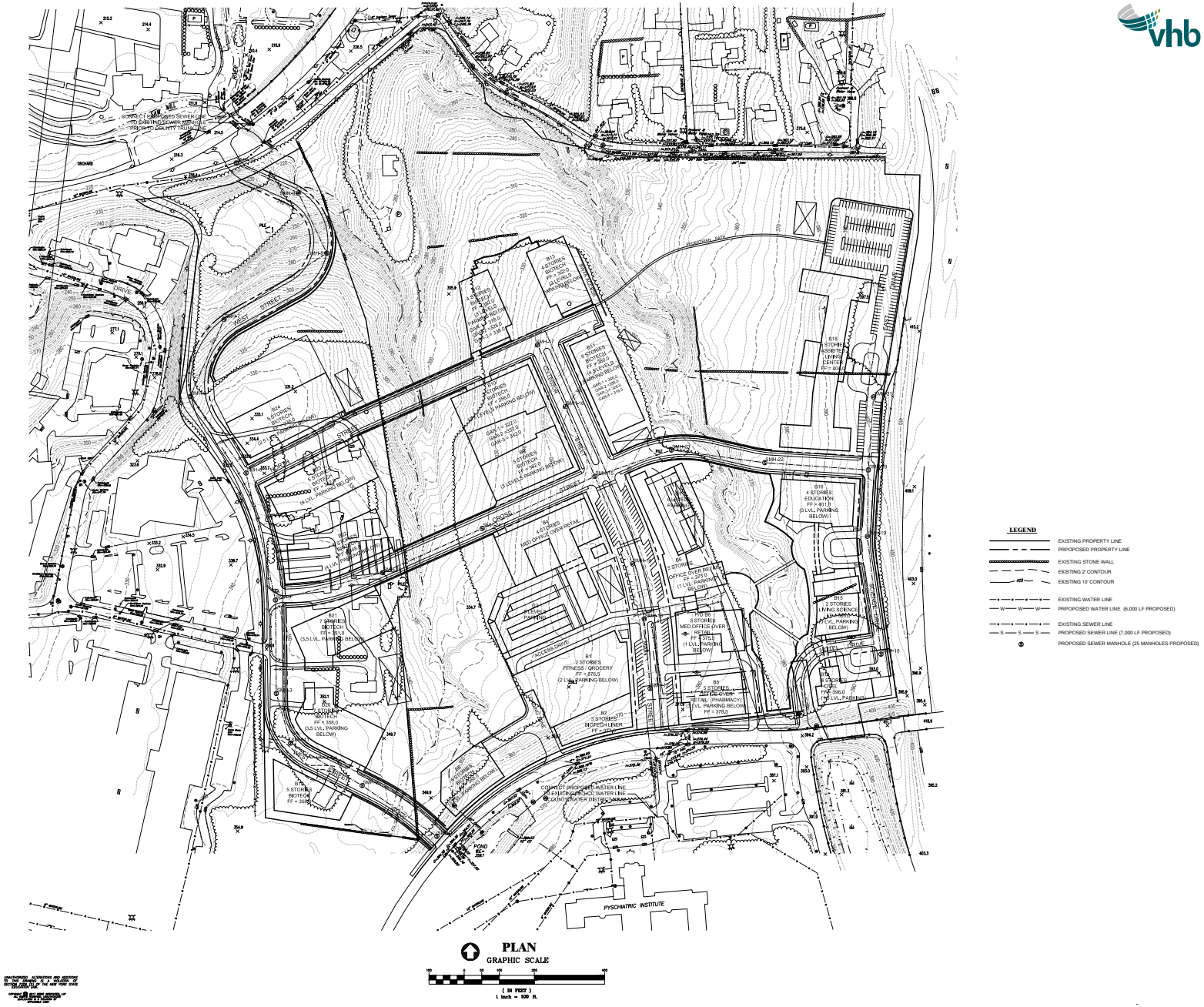
There are several other existing utility services which would be provided to support the Proposed Action. These utility services include electricity, natural gas, broadband internet and television, and telephone. The Project Site is served by Consolidated Edison (Con Ed) Electric and Gas. Con Ed has indicated there is ample power supply available to support the electric demands of the Proposed Action. Con Ed has also indicated that they can provide interruptible gas service to the project. A will serve letter has been provided for both electric and natural gas. (See Appendix D). Cable television, internet and telephone services within the vicinity of the Project Site are provided by either Altice (Cablevision) or Verizon.

2. Potential Impacts

Water Supply

The water supply for the Project is proposed to be supplied from a connection either to the Kensico Water District or Westchester County Water District #3. To meet the water demand requirements of the North 60, the Proposed Action includes the installation of a potable water transmission pipe that would connect the Project Site to the existing water system, either to the Kensico Water District via the existing 12" water main on Old Saw Mill River Road or to the Westchester County Water District #3 via connection to the existing 12" water main located on the Westchester Medical Center campus. Ownership of the water line would be public, and maintenance would be the responsibility of either the Kensico Water District or Westchester County Water District #3. In the event it is found to be a mutual benefit to both water district entities, the Project Site may utilize connection points to both water districts via the existing interconnection described above or a future additional interconnection. See Figure 3H-2, Site Utilities Plan, for the proposed location of the new sanitary and potable water transmission lines.

The average daily water demand for the Proposed Action is summarized in Table 3H-1.



North 60 | Town of Mount Pleasant, NY

Site Utilities Plan

Source: Bibbo Associates, LLP

Table 3H-1 Average Daily Water Demand for Proposed Action (potable and irrigation) – N.Y.S.D.E.C Standards

Proposed Use	Phase 1	Master Development Plan*	Usage Rate	Usage Phase 1 (gpd)	Usage Master Development Plan (gpd)	Water Saving Usage Master Development Plan (gpd)
Medical Office	100,000 SF	400,000 SF	15 gpd/emp.	6,660	26,670	21,336
Bio-Tech/Research & Development	220,000 SF	2,144,000 SF	15 gpd/emp.	7,155	69,675	55,740
Neighborhood Shopping	80,000 SF	214,000 SF	0.10 gpd/sf	8,000	21,400	17,120
Hotel	100,000 SF	100,000 SF	110 gpd/bdrm	13,200	13,200	10,560
Children's Science & Education Center	Not in Phase 1	142,000 SF	5 gpd/patn	N/A	1,780	1,424
TOTAL	***500,000 SF***	***3,000,000 SF****		***35,015***	***132,725***	***106,180***
Irrigation of landscaped areas	N/A	971,400 (approximately)	0.089 gpd/sf	N/A	86,455	86,455[1]
Cooling Towers[2]	*500,000 SF*	3,000,000 SF			62,000	62,000[1]
TOTAL USAGE					***281,180***	***254,635***

Note: *The Master Development Plan represents full build-out including Phase 1.
**Total Floor Area of Buildings
[1] 20% water saving reduction is not applied to irrigation or Cooling Towers
[2] Cooling Tower usage for Master Development Plan provided by Stantec Consulting Services Inc.

The demand required by the Proposed Action Master Development Plan is as follows:

- Average daily domestic demand is 254,635 gallons per day (gpd; using the 20% reduction based on the use of water conservation fixtures)[1]
- Peak hour domestic demand is 390 gpm (using a peak hour factor of 3.3 based on the PCI report)
- Irrigation demand is assumed to be applied in 3 zones yielding 480 gpm
- Total Average Daily Demand is 865 gpm, rounded up to 900 gpm.

A public water-supply source must be able to supply the maximum daily water demand requirements of a proposed development, which is defined by the regulatory agencies as twice the average water demand. Therefore, the combined maximum daily water demand for the Proposed Action is 509,270 gpd (254,635 gpd x 2).

[1] Average Daily Demand is calculated based on the most current New York State Department of Environmental Conservation Design Standards for Intermediate Sized Wastewater Treatment Systems, March 5, 2014 Edition and Stantec Consulting Services Inc. Water Demand Calculations.

The average daily demand of the Kensico Water District for 2018 was approximately 2.20 mgd and the maximum daily demand was 4.18 mgd. The average daily demand of Westchester County District #3 was 0.75 mgd and the maximum daily demand was 0.95 mgd. As a result of the Proposed Action and other anticipated improvements within the Kensico Water District, the annual average daily demand from the Kensico District is anticipated to be 2.90 mgd and annual maximum daily demand is projected to be 5.59 mgd. The Proposed Action anticipated average daily withdrawal rate is 329,394 gpd (approximately 15.6% of the current permitted withdrawal rate) and Maximum Day Withdrawal is 658,788 gpd (approximately 11.2% of the projected withdrawal rate).

According to the Town of Mount Pleasant, it has the ability to meet the combined water demands of all potential and proposed uses. The water connection pipe between the Proposed Action and the Kensico Water District shall be designed for delivery of 900 gpm. A significant portion of the irrigation demand can be scheduled for early morning and off peak, which would further reduce peak demand.

As a result of the Proposed Action and other anticipated improvements within Westchester County Water District #3, the annual average daily demand is anticipated to be 1.08 mgd and annual maximum daily demand is projected to be 1.61 mgd. The Proposed Action anticipated average daily withdrawal rate is 329,394 gpd (29.9% of the permitted withdrawal rate) and Maximum Day Withdrawal is 658,788 gpd (20.1% of the projected withdrawal rate).

There are adequate residual pressures and required flows to service the domestic demands of the Proposed Action, according to water modeling conducted for the Proposed Action. As detailed above, existing pressure is between 145 to 152 psi in the vicinity of the Project Site as measured on the Kensico Water District's system. Westchester County Water District #3 also yields adequate pressures averaging between 75-85 psi. A hydrant flow test shall be used to verify the flows generated by the computer model at the connection point.

The Kensico Water District treatment process consists of ultraviolet and chemical disinfection. The Water Treatment Plant facility is adequately sized to treat the maximum discharge capacity of the existing Commerce Street Pump Station of 8 mgd. There would be no additional treatment or chemical treatment storage infrastructure necessary to serve the Proposed Action. The Westchester County Water District #3 System treatment process consists of ultraviolet and chlorination disinfection which occurs at the existing Gates of Heaven Pump Station.

Standards for the design of the water system are based on American Water Works Association (AWWA) for piping materials, Westchester County Department of Health (WCDOH) for the separation distances and frost coverages, and NYSDEC Design Standards for Intermediate Sized Wastewater Treatment Systems dated March 5, 2014, and Ten State Standards.

Figure 3H-2, Site Utilities Plan, depicts the proposed water supply system for the Proposed Action. The Site Utilities Plan specifies the distribution system materials, preliminary sizes, and horizontal separation distances from other utilities. Detailed Plans and Profiles of the water distribution system would be prepared, as required by WCDOH, during the site plan design process, and would comply with the

AWWA, Ten State Standards and the requirements of the WCDOH. Final sewer collection and water distribution system profiles would be provided as part of the WCDOH approval process.

The existing wells on the Developer Parcel of the Project Site would be abandoned in accordance with all applicable laws and regulations after completion of the Proposed Action and connection of all project components to the Kensico Water District and/or Westchester County Water District #3.

Fire Demand

The proposed water connection to the Proposed Action has been analyzed in regard to the fire flows plus average daily domestic flows anticipated and its effects on the Kensico and Westchester County water distribution systems. Due to the head loss in the dead end sections of the Kensico Water District, at times of maximum daily demand, operating pressures drop and the system can only provide limited fire flows. The Westchester County Water District #3 system also can only provide limited fire flows. Therefore, in addition to improvements on either system the Proposed Action would utilize fire pumps to enhance the available fire protection.

Commercial fire flow demand is based on material, type of construction, and use of the building. Based on water modelling for the Proposed Action, a maximum fire demand of 3,500 gpm for 3 hours is required to be stored in addition to the daily demand. Therefore, the maximum fire flow demand of 0.63 mgd is added to the projected average daily demand of 2.90 mgd yielding a required storage capacity of 3.53 mg required. Current storage capacity of the existing distribution system is 4.0 mg. Future plans to merge the Kensico Water District with the Town's Pocantico Water District would yield an additional 0.3 mg of available storage. Future anticipated improvements to the Pocantico system would yield a storage capacity of 0.6 mg for a total system capacity of 4.6 mg. It should be noted that the Town has approved recent developments with a 1,500 gpm fire demand.

Insurance Services Office (ISO) Standards review water systems based on a minimum residual pressure of 20 psi. A hydrant flow test shall be used to verify that there is adequate residual pressure and required flows to service the North 60.

Sanitary Sewer

The Applicant proposes to connect the Proposed Action to Town of Mount Pleasant Sewer District. The Proposed Action includes installation of a gravity sewer main to connect the site improvements to the Town of Mount Pleasant Sewer District for sanitary sewer service. Layout of proposed utilities is included in Figure 3H-2, Site Utilities Plan. The Project Site currently lies within the Town of Mount Pleasant Sewer District and the Proposed Action would be serviced by the Westchester County Yonkers Joint Wastewater Treatment Plant.

The project would connect to the existing Westchester County 42" trunk line, the connection will be made via the installation of an up stream manhole and 12" PVC Sewer main which will receive flows from the Proposed Action. As detailed above, based on discussions with WCDEF, the current average inflow is 120 mgd. The WCDEF has indicated that the existing Westchester County Yonkers Joint

Wastewater Treatment Plant facility has additional capacity within their system for future projects of the nature of the Proposed Action.

According to the Project Engineer, for sanitary sewage, the Proposed Action is estimated to use 106,180 gpd. There are no known planned or proposed projects in the vicinity of the Project Site that may impact the capacity of the sewer district. Based on the Project Engineer's preliminary discussions with WCDEF, the existing Westchester County Yonkers Joint Wastewater Treatment Plant facility has additional capacity within their system for future projects of the nature of the Proposed Action. Consistent with Westchester County guidelines, the projected flows would be mitigated by inflow and infiltration (I & I) mitigation measures to the existing system.

The wastewater disposal, collection and conveyance design would be in accordance with all applicable standards. Detail of the proposed utility system design and connections would be provided as details are refined through the site plan approval process. Impacts related to installation of proposed infrastructure include temporary construction impacts for that activity. Potential temporary impacts to steep slopes and wetland buffers due to installation of infrastructure are described in Chapter 3C, Topography and Slopes, and Chapter 3F, Wetlands, Waterbodies and Watercourses.

Final sewer collection and water distribution system profiles would be provided as part of the WCDOH approval process. Dewatering for the utility installation is not anticipated. It is anticipated that the existing system has capacity to accommodate both the Proposed Action and other proposed developments in the vicinity of the Project Site.

Other Utilities

The Proposed Action's projected utility loads for electric and natural gas service have been determined to be 32.7 MVA connected load and 20.0 MVA diversified load and 171,944.6 CFH respectively. As detailed above, Con Ed has indicated there is ample power supply available to support the electric demands of the Proposed Action. Con Ed has also indicated that they can provide interruptible gas service to the Proposed Action. A will serve letter has been provided. (See Appendix D). The Applicant would coordinate an extension of telecommunication services to the Project Site with the involved providers. The specific service provider has not been determined at this time. There are no known planned or proposed projects in the vicinity of the Project Site that may impact the capacity of other utilities to serve the project.

As detailed in Chapter 2, Project Description, Biotechnology/medical technology buildings are envisioned to be designed with LEED components. The Proposed Action has been designed as a smart growth low-impact development, with features that are intended to promote energy efficiency, water conservation, and protection of natural resources. Included in the proposal are special features which may include ENERGY STAR appliances and Water Sense fixtures.

3. Mitigation Measures

Water Supply

The Town of Mount Pleasant, Westchester County, as well as the Project Engineer's analyses have indicated that there is adequate capacity to expand either the Kensico Water District or Westchester County Water District #3 to accommodate the Proposed Action's domestic water demand. Connection to the Town of Mount Pleasant infrastructure is available at the Project Site's Old Saw Mill River Road frontage and to the County's infrastructure at the Project Site's Hospital Road frontage on the Westchester Medical Center campus.

The Proposed Action would include water conserving fixtures such as low-flow toilets and shower heads and irrigation time restrictions (such as early morning and evenings only or every other day). The water conserving fixtures proposed are anticipated to save approximately 20% gpd of the total average daily domestic water flow.

As reported, the expansion of the Kensico Water District's system would not provide adequate fire flow to protect the Proposed Action. Water District upgrades are recommended to accommodate the needed fire flows. Other alternatives for fire protection are being explored and may include utilizing the expansion of the existing Westchester County Water District #3 to provide fire protection needs. Additionally, an onsite storage tank may also be proposed to allow for storage of the required fire protection volume.

The Town of Mount Pleasant and/or Westchester County own the water infrastructure assets not located on the Project Site and are responsible for all common infrastructure. As part of the extension of its service area, the Town of Mount Pleasant and/or Westchester County would ultimately own and maintain the water infrastructure on the Project Site. The Kensico Water District operators or Westchester County would be responsible for the operation of the potable water system.

The water service area is proposed to be expanded to include limits of the Project Site, and all applicable regulations and procedures would be followed to accomplish this in order to supply water to the Project Site. Any necessary easements and maintenance agreements would be provided as required as the project progresses, in order to connect to water supply.

Expansion of either the Kensico Water District system or Westchester County Water District #3 system to the Project Site would require:

- NYSDEC water supply permit
- WCDOH permits

Proposed site layout has been planned to minimize the demand for the irrigation water service by limiting the lawn areas as much as the design allows and by providing meadow growth for the areas such as stormwater detention basins.

Proposed site layout has also been planned to minimize the total length of the water system extension as much as possible, by providing a loop layout for the Proposed Action to provide adequate flow conditions to all the development in case of a breakage of water mains.

Operational and maintenance activities for the proposed water supply system would consist of periodic hydrant flushing and repairs, as necessary. The water distribution system layout has been designed to be located within the shoulders of the roadways as much as possible to avoid impacts to the roadways and other structures in case a repair requires excavation.

Therefore, in the opinion of the Applicant, there are no potential significant adverse impacts of the Proposed Action to water supply that require additional avoidance, minimization or mitigation.

Sanitary Sewer

The Town of Mount Pleasant Sewer District, as well as the Project Engineer's analysis has indicated that there is adequate capacity to accommodate the Proposed Action. The sewer district encompasses the Project Site. Connection to the Town of Mount Pleasant infrastructure is available at the Project Site's Old Saw Mill River Road frontage.

The Town of Mount Pleasant owns the sewer infrastructure assets that are not on the Project Site. The Town of Mount Pleasant would own the sewer infrastructure on the Project Site and be responsible for the maintenance of the infrastructure. Agreements shall be required regarding maintenance and responsibility. Easements for pipes and appurtenances shall also be drafted once engineering is completed and locations are determined. Approvals would be obtained as necessary from NYS Department of Health, NYSDEC, and Westchester County Departments of Health and Planning.

Wastewater generated from the Project Site is proposed to be minimized with the use of low flow fixtures and toilet facilities. The proposed length of the collection system is minimized to the greatest extent practicable. There would be no additional pre-treatment, treatment or chemical storage associated with the sewage treatment work as part of the Proposed Action. All collection piping would be installed in accordance with the Ten States Standards.

The Proposed Action proposes to connect to an existing waste water treatment plant facility with a permit from NYSDEC. The plant has available capacity to accommodate the Proposed Action. As typically recommended by Westchester County, sanitary discharge from the Proposed Action would need to be mitigated by providing system improvements to mitigate Inflow and Infiltration (I&I) with a target ratio of 3:1. The Applicant will coordinate I&I efforts with the WCDEF. Due to the relatively large average daily sewer demand of the Proposed Action, reaching the full goal of 318,540 gpd of I&I repairs and improvements may not be immediately achievable. The WCDEF will need to identify areas of concern within their existing sewer system and the Proposed Action will work with WCDEF toward implementing improvements as deemed satisfactory.

There are no potential significant adverse impacts of the Proposed Action to sanitary sewer that require additional avoidance, minimization or mitigation.

Other

As detailed above, the project buildings would be designed with features to promote energy efficiency and other sustainability metrics. There are no potential significant adverse impacts of the Proposed Action to electric, gas, or telecommunications that require additional avoidance, minimization or mitigation.

I. TRAFFIC AND TRANSPORTATION

Maser Consulting P.A. prepared a Traffic Impact Study ("TIS"), dated November 15, 2019 (see Appendix H) for the Proposed Action. The TIS describes the existing roadway network and public transportation serving the Project Site, existing traffic volumes, neighborhood (cut-through) traffic, and traffic accident data. The TIS also identifies potential traffic impacts of the Proposed Action (Phase 1 and Master Development Plan) including future traffic volumes, impacts on key intersections and roadway capacity, and describes proposed modifications to site access, area roadways and public transportation. The TIS compares the potential impacts of the Proposed Action to the existing conditions and background growth under "No-Build" conditions in the year 2024. It also identifies mitigation measures necessary to avoid potential significant adverse traffic impacts. The TIS also includes an analysis of the potential impacts of alternatives to the Proposed Action, including development with by-right zoning and residential development of the Project Site.

1. Existing Conditions

Existing Roadway Network

The following major roadways serve as the primary routes to and from the Project Site:

1. Sprain Brook Parkway
2. Hospital Road (Peripheral Road)
3. Woods Road
4. Bradhurst Avenue (NYS Route 100)
5. Grasslands Road (NYS Route 100C & NYS Route 100)
6. NYS Route 9A

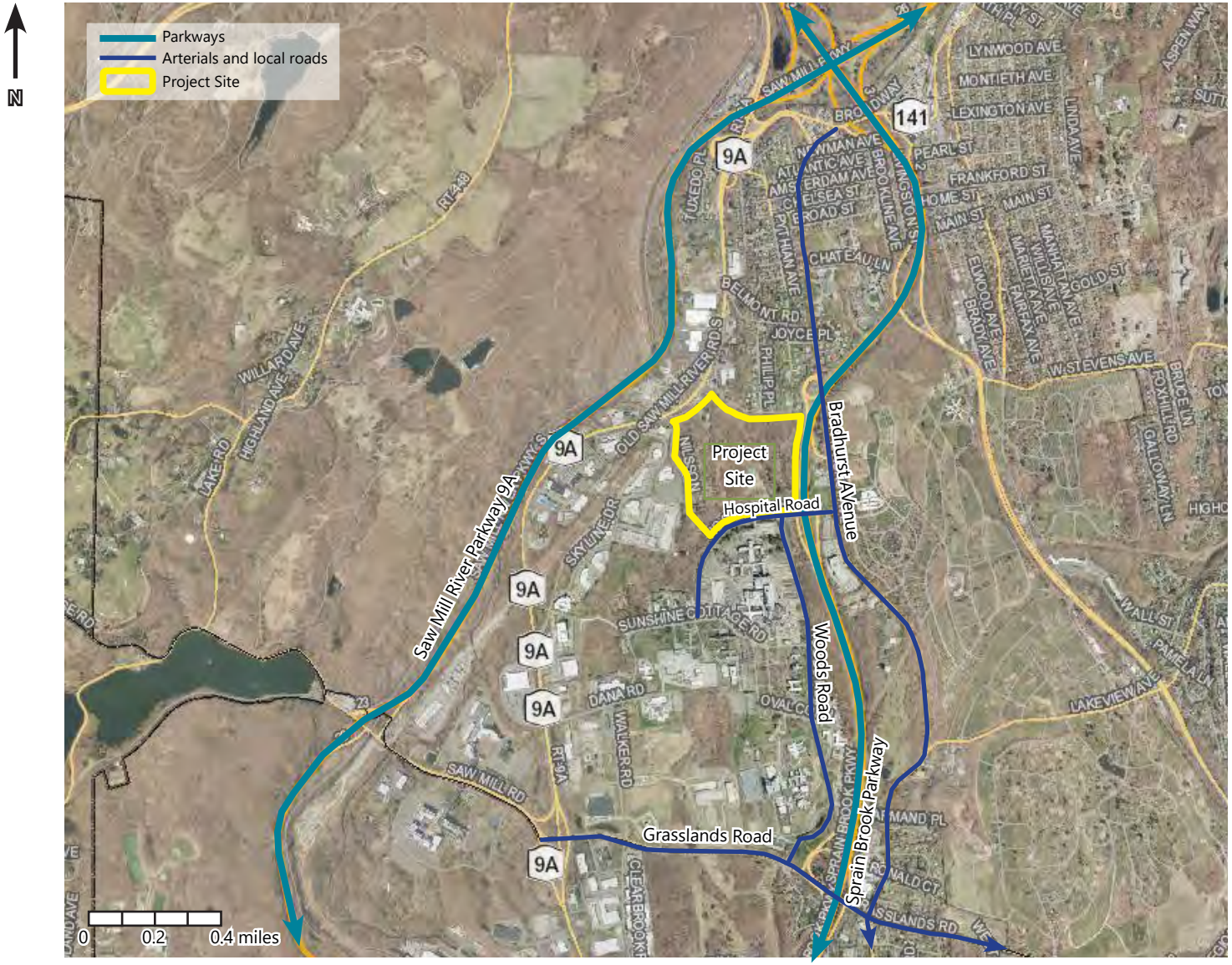
The existing roadway network and study area intersections in the vicinity of the Project Site are presented in Figures 3I-1 and 3I-2.

Sprain Brook Parkway

The Sprain Brook Parkway is a limited access north/south roadway under the jurisdiction of the New York State Department of Transportation (NYSDOT) consisting of three lanes in each direction. The posted speed limit is 55 miles per hour (MPH) and the roadway pavement is in generally fair to good condition with no tractor trailers permitted. There are no sidewalks or bicycle lanes along this roadway.

Since it is a limited access facility, access surface streets, which provide direct access to the site, are:

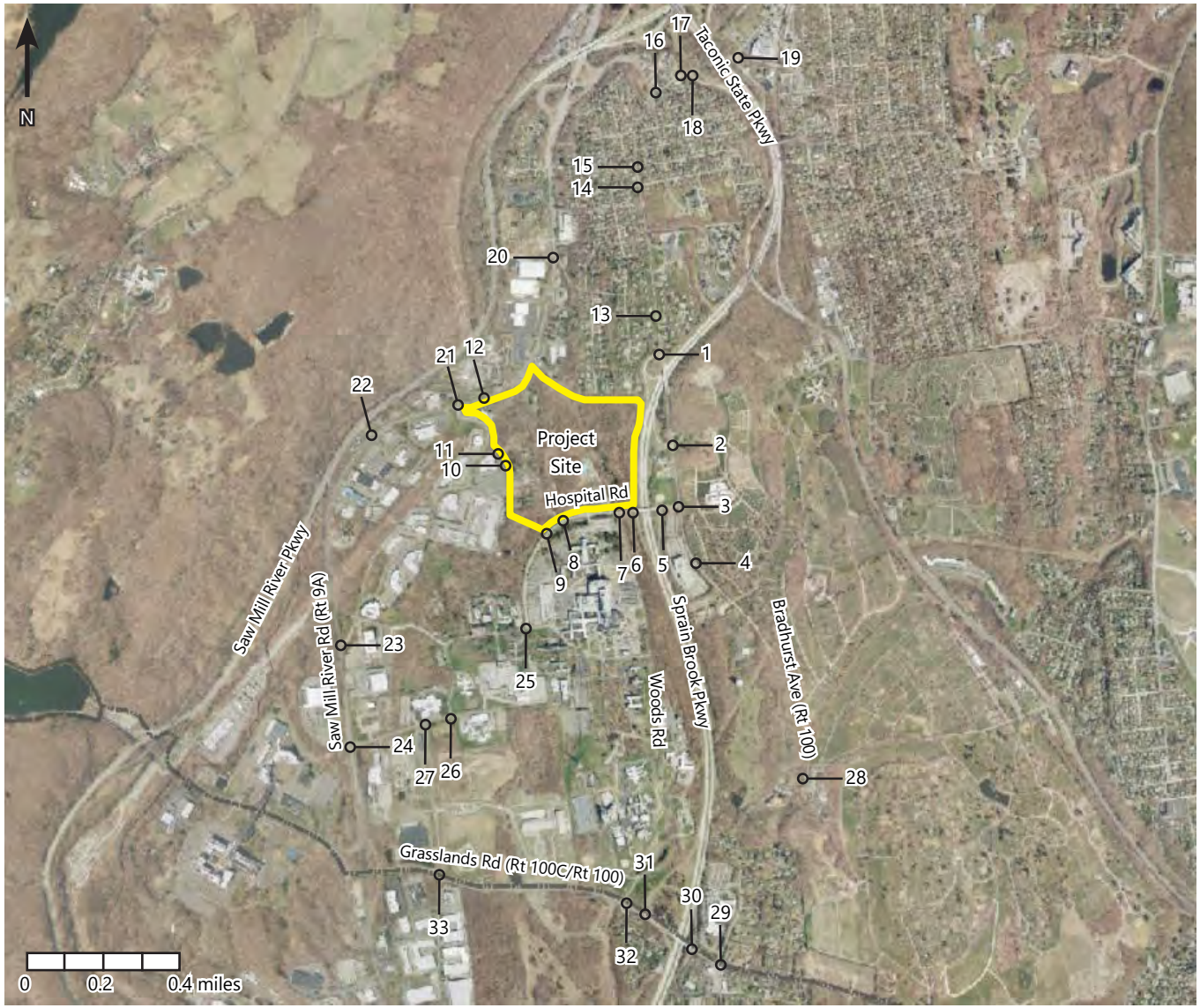
- Northbound off ramps and a southbound on ramp to Hospital Road. Stop sign controls.
- Northbound/southbound on ramps and a southbound off ramp to Bradhurst Avenue (Route 100). Stop sign controls.
- Northbound and southbound on/off ramps to Route 100C (Grassland Road). Signal controls.



North 60 | Town of Mount Pleasant, NY

Surrounding Road Network

Source: Westchester County GIS (2016)



Intersections

1. Bradhurst Ave (NYS Rt 100) & Sprain Brook Pkwy South Exit/Entry Ramp
2. Bradhurst Ave (NYS Rt 100) & Sprain Brook Pkwy North Exit/Entry Ramp
3. Bradhurst Ave (NYS Rt 100) & Hospital Rd
4. Driveway at 19 Bradhurst Ave (Rt 100)
5. Hospital Rd & Sprain Brook Pkwy North Exit Ramp
6. Hospital Rd & Sprain Brook Pkwy South Entry Ramp
7. Hospital Rd & Woods Rd
8. Hospital Rd & Lot 10
9. Hospital Rd & Route 9A Connector
10. Route 9A Connector & Driveway #3
11. Route 9A Connector & Driveway #4
12. Saw Mill River Rd & Nilsson
13. Joyce Place & Bradhurst Ave (NYS Rt 100)
14. Broad St & Bradhurst Ave (NYS Rt 100)
15. Chelsea St & Bradhurst Ave (NYS Rt 100)
16. Brighton Ave & Bradhurst Ave (NYS Rt 100)
17. Memorial Dr & Broadway
18. Broadway & Taconic State Pkwy South Entry Ramp
19. Broadway & W Cross St
20. Saw Mill River Rd (NYS Rt 9A) & Belmont Rd
21. Saw Mill River Rd (NYS Rt 9A) & Skyline Dr
22. Saw Mill River Rd (NYS Rt 9A) & Saw Mill River Pkwy North Entry/Exit Ramp
23. Saw Mill River Rd (NYS Rt 9A) & Skyline Dr
24. Saw Mill River Rd (NYS Rt 9A) & Dana Rd
25. Sunshine Cottage Rd & Hospital Rd
26. Dana Rd & Hammond House Rd
27. Dana Rd & Walker Rd
28. Bradhurst Ave (NYS Rt 100) & Lakeview Rd
29. Bradhurst Ave (NYS Rt 100) & Grasslands Rd
30. Grasslands Rd (NYS Rt 100C/NYS Rt 100) & Sprain Brook Pkwy North Entry/Exit Ramp
31. Grasslands Rd (NYS Rt 100C/NYS Rt 100) & Sprain Brook Pkwy South Entry/Exit Ramp
32. Grasslands Rd (NYS Rt 100C/NYS Rt 100) & Woods Rd & Taylor Rd
33. Grasslands Rd (NYS Rt 100C/NYS Rt 100) & Walker Rd & Clearbrook Rd

North 60 | Town of Mount Pleasant, NY

Study Intersections

Source: Westchester County GIS (2016)

Based on observations, there is significant queuing on the northbound off ramps to Hospital Road and Route 100C during the Weekday AM Peak Hour. That queue (especially at Route 100C) extends onto the mainline with vehicular queues along the shoulder. At the northbound off ramp to Hospital Road, vehicles use the shoulder to turn right towards Bradhurst Avenue when the left lane queue develops due to traffic volume and traffic control. It should be noted that both ramps are impacted by the signalized intersection to the east along Bradhurst Avenue (NYS Route 100).

During the PM Peak Hour, there is a significant build-up of traffic on the northbound lanes due to the elimination of the right turn lane before the merger of the Sprain Brook Parkway and the Bronx River/Taconic Parkway. That build up extends south of Hospital Road.

Hospital Road (Peripheral Road)

Hospital Road is under County control with a speed limit of 25 MPH and extends from Bradhurst Avenue to Sunshine Cottage Road (Hammond House Road). Depending on locations, there is one through lane per direction with a left or right turn lane provided and is signalized at its intersection with Bradhurst Avenue (NYS Route 100). There are no restrictions on trucks or buses and there are no sidewalks or bicycle lanes along this roadway. Hospital Road is in generally fair to good condition.

Woods Road

Woods Road is under County control with a posted speed limit of 25 MPH and extends from Hospital Road to Grasslands Road (NYS Route 100C). In general, there is one lane in each direction with turn lanes at selected locations. There are no sidewalks or bicycle lanes and no truck or bus restrictions. The roadway is under signal control at its intersection with NYS Route 100C and stop-sign controlled at its intersection with Hospital Road. Woods Road is in generally fair to good condition. There is no significant queuing along this roadway.

Bradhurst Avenue (NYS Route 100)

Bradhurst Avenue (NYS Route 100) is a two-lane roadway in generally fair to good condition. The roadway is under the jurisdiction of NYSDOT with a posted speed limit of between 30 and 40 MPH depending on location. The roadway has no sidewalks or bicycle lanes and trucks and buses are permitted.

Observations indicated that there is significant queuing in the southbound lanes at the Hospital Road intersection during the AM Peak Hour. There is also queuing in the southbound lane during the AM Peak Hour and the PM Peak Hour at its intersection with Grasslands Road (NYS Route 100 & NYS Route 100C). The intersections of Hospital Road/NYS Route 100 and NYS Route 100C/NYS Route 100 are signalized.

Grasslands Road (NYS Route 100C & NYS Route 100)

Grasslands Road is under the control of NYSDOT and has a posted speed limit of 35 to 45 MPH depending on location. East of Bradhurst Avenue the roadway has one lane in each direction with turning lanes at selected locations. West of Bradhurst Avenue the roadway is a multi-lane intersection with two through lanes in each direction with left turn lanes at selected locations. West of Walker Road the roadway reduces to a three-lane

section. There are no sidewalks or bicycle lanes along this roadway. Truck and bus traffic are permitted. Grasslands Road is in generally fair to good condition.

There is significant queuing on Grasslands Road both eastbound and westbound during the AM Peak Hour. Traffic in the eastbound direction is primarily made up of traffic destined to Westchester County College or traffic bypassing I-287 eastbound to reach White Plains and its vicinity. Queuing is also impacted by the "spillover" traffic exiting the Sprain Brook Parkway northbound off ramp.

The queuing along Bradhurst Avenue or Grasslands Road can only be eliminated by adding lanes. However, this would most likely require additional Right-of-Way. Grasslands Road is the primary east/west truck route for this area.

NYS Route 9A

NYS Route 9A is a four-lane roadway under jurisdiction of NYSDOT. It has a posted speed limit of 45 MPH with no sidewalks or bicycle lanes in the vicinity of the Project Site. The pavement is in generally fair to good condition. South of Skyline Drive there is a northbound on/off ramp to the Saw Mill River Parkway. NYS Route 9A is the primary north/south truck route.

Public Transportation

Westchester Bee Line Bus Service

Within the study area, the Westchester Bee Line provides local bus service via:

- **Route 14 Bus** (Peekskill, Ossining, White Plains including the Westchester Medical Center and White Plains Transit Center)
- **Route 15 Bus** (Peekskill, Yorktown, Pleasantville, White Plains including Westchester Medical Center, Hawthorne Train Station and White Plains Transit Center)
- **Route 1C Bus** (Bronx, Yonkers, Grasslands including the Westchester Medical Center)
- **Route 1X Express Bus** (Bronx, Yonkers, Grasslands including the Westchester Medical Center)
- **Route 40 Bus** (Mount Vernon, White Plains, Grasslands including the Westchester Medical Center and White Plains Transit Center)
- **Route 41 Limited Bus** (Bronx, White Plains, Valhalla including the Westchester Medical Center and White Plains Transit Center)
- **Route 43 Express Bus** (Bronx, Valhalla including the Westchester Medical Center).

Copies of the schedule and route map for each of the above Bus Routes are contained in Appendix B of the TIS.

Metro-North Railroad

In conjunction with the Westchester Bee Line Bus Service outlined above, mass-transit to the study area is also accommodated by the Metro-North Railroad (Harlem Line) at the Hawthorne Station via the Route 15 Bus and White Plains Station (White Plains Transit Center) via the Route 14 Bus, Route 15 Bus, Route 40 Bus and Route

41 Bus. Copies of the Metro-North Train Schedule and North Hawthorne Station and White Plains Station Parking and Access Information are contained in Appendix B of the TIS.

Westchester Medical Center (WMC) Health Shuttle

A free shuttle service is provided within the Medical Center area extending to the medical office building located at 19 Bradhurst Avenue. The service has numerous stops and runs every 15 minutes from Monday through Friday. A copy of the WMC Health Shuttle schedule and routes is also contained in Appendix B of the TIS.

Year 2019 Existing Traffic Volumes

Based on a review of the Automatic Traffic Recorder (ATR) data, the Weekday Peak Hours are significantly higher than the Weekend (Saturday Peak Hours), therefore detailed intersection turning movement counts were only conducted for the Weekday AM and PM Peak Hours.

In order to establish existing traffic conditions in the vicinity of the Project Site, turning movement traffic counts including pedestrian counts were conducted on Wednesday, May 1, 2019 and Tuesday, September 10, 2019 between the hours of 6:30 AM and 9:30 AM to determine the Weekday Peak AM, and 2:00 PM and 6:30 PM to determine the Weekday Peak PM Hour at the intersections listed below (see Figure 3I-2 and Table 3I-1).

The intersections in Table 3I-1 are listed in the order shown in the project scope. It should be noted that due to the location of the intersections and for continuity to the adjacent roadway network, the TIS intersection numbering is shown with the associated figure designation.

Table 3I-1 Study Area Intersections

TIS Intersection Number	First Figure Shown On	Study Area Intersections
29	D	Route 100A/100C and Bradhurst Avenue (Route 100)
4	A	Bradhurst Avenue (Route 100) and 19 Bradhurst Avenue Driveway
3	A	Bradhurst Avenue (Route 100) and Hospital Road
5	A	Hospital Road and Sprain Brook Parkway NB Off Ramp
6	A	Hospital Road and Sprain Brook Parkway SB On Ramp
7	A	Hospital Road and Woods Road
25	C	Hospital Road and Sunshine Cottage Road
2	A	Bradhurst Avenue and Sprain Brook Parkway NB On Ramp
1	A	Bradhurst Avenue and Sprain Brook Parkway SB On/Off Ramps
24	C	Route 9A and Dana Road
27	C	Dana Road and Walker Road
26	C	Dana Road and Hammond House Road
22	C	Route 9A and Saw Mill River Parkway NB On/Off Ramp
21	C	Route 9A and Skyline Drive (North)
23	C	Route 9A and Skyline Drive (South)
35	E *	Route 9A & Old Saw Mill River Road (South)
34	E *	Route 9A & Old Saw Mill River Road (North)
20	C	Route 9A and Belmont Road
19	B	Broadway and West Cross Street
16	B	Bradhurst Avenue and Brighton Avenue
17	B	Bradhurst Avenue and Broadway//Memorial Drive
28	D	Bradhurst Avenue and Lakeview Avenue
13	B	Bradhurst Avenue and Joyce Place
30	D	Route 100C and Sprain Brook Pkwy NB On/Off Ramps
31	D	Route 100C and Sprain Brook Pkwy SB On/Off Ramps
32	D	Route 100C and Woods Road/Taylor Road
33	D	Route 100C and Walker Road/Clearbrook Road
36	E *	Old Saw Mill River Road & West Stevens Avenue
15	B	Bradhurst Avenue and Chelsea Street
14	B	Bradhurst Avenue and Broad Street
Additional Intersections Studied		
18	B	Broadway and Sprain Brook Parkway SB On Ramp
7	A	Hospital Road and Woods Road / Proposed Site Driveway 1
8	A	Hospital Road and Proposed Site Driveway 2
9	A	Hospital Road and Proposed Route 9A Connector
10	A	Proposed Route 9A Connector and Proposed Site Driveway 3
11	A	Proposed Route 9A Connector and Proposed Site Driveway 4
12	A	NYS Route 9A and Proposed Route 9A Connector

* The NYS Route 9A/Saw Mill River Road North (Intersection 34), NYS Route 9A/Old Saw Mill River Road South (Intersection 35), and Old Saw Mill River Road/West Stevens Avenue (Intersection 36) were counted to qualitatively evaluate existing cut through traffic through the neighborhood (not Level of Service).

In addition, Automatic Traffic Recorders (ATR's) were placed in the vicinity of the Project Site at the following locations:

1. NYS Route 100 (Bradhurst Ave) south of Sprain Brook Pkwy SB On/Off Ramps
2. NYS Route 100 (Bradhurst Ave) north of Hospital Road
3. Woods road south of Hospital Road
4. Hospital Road west of Woods Road
5. NYS Route 9A north of Old Saw Mill River Road

Based upon a review of the above traffic count data, the peak hours were generally identified as follows.

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

The resulting Year 2019 Existing Traffic Volumes are shown on Figures No. 2A, 2B, 2C, 2D and 3A, 3B, 3C, 3D in Appendix C of the TIS for each of the Peak Hours, respectively. A copy of the turning movement traffic counts and ATR data is contained in Appendix P of the TIS.

Neighborhood (Cut Through) Traffic

The NYS Route 9A/Old Saw Mill River Road North (Intersection 34), NYS Route 9A/Old Saw Mill River Road South (Intersection 35), and Old Saw Mill River Road/West Stevens Avenue (Intersection 36) were counted to qualitatively evaluate existing cut through traffic through the neighborhood (not Levels of Service). While not readily apparent based on the magnitude of the traffic volumes during the AM and PM peak hours at the intersection of Belmont Road and NYS Route 9A or Bradhurst Avenue and Joyce Place, a closer inspection indicates the existence of a cut through of traffic during the peak PM hour. For example, the right turn for northbound NYS Route 9A on Belmont Road is some 84 vehicles during the PM peak hour. During the same hour there is a right turn of 93 vehicles from Joyce Place onto southbound Bradhurst Avenue. These traffic volumes are high when compared to the density of the neighborhood. This indicates that there is traffic cutting through the neighborhood. Based on the traffic counts, there is a lesser amount of traffic (if any) that chose to use Old Saw Mill River Road to reach the same southbound ramp.

Inspection of the roadway network provides the rational for this cut through, namely:

- Northbound NYS Route 9A traffic (including traffic from Skyline Drive) desiring to go south on the Sprain Brook Parkway can use the right turn at Belmont Road and the right turn at Joyce Place to reach the southbound on-ramp to the Sprain Brook Parkway, which is located south of Joyce Place.
- Some northbound traffic on Bradhurst Avenue destined to northbound NYS Route 9A, Saw Mill River Parkway, or the Taconic State Parkway, turn left onto Joyce Place and take a right turn at Belmont Avenue to travel north on NYS Route 9A. Thus, avoiding the lane reduction on the Sprain Brook Parkway or the hard-left turn at Brighton Avenue.

This cut through traffic uses NYS Route 9A northbound to its intersection with Route 117 to reach the Taconic State Parkway or the Saw Mill River Parkway northbound.

Accident Data

Accident data was obtained from the NYSDOT Records Access Office along Hospital Road in the vicinity of the Project Site for the most recent three full year period (January 1, 2015 to December 31, 2018). This data is summarized by location, date, time, traffic control, accident class, number of vehicles/injuries, light conditions, road surface condition, weather, manner of collision and apparent contributing factors. As summarized on Table No. 5 in Appendix Q of the TIS, there were eight reportable accidents in 2015, seven reportable accidents in 2016, 14 reportable accidents in 2017, and 19 reportable accident in 2018 along Hospital Road in the vicinity of the Project Site. A review of the accident data indicates typical types of accidents which includes rear-end accidents with apparent contributing factors such as failure to yield right of way, following too closely and driver inattention. Appendix Q of the TIS also contains a copy of the Accident Summary Table and NYSDOT Accident Severity Summary Report.

In addition, Priority Investigation Locations (PILs) and Safety Deficiency Locations (SDLs) Reports for the latest available year (2018) were obtained along NYS Route 100, NYS Route 9A and NYS Route 100C from the NYSDOT Records Access Office to determine if there were any High Accident Locations (HALs) within the study area. These High Accident Locations are based on the Accident Rates calculated by the NYSDOT and compared to NYSDOT Average Accident Rates based on type of roadway. These Accident Rates are based on the annual numbers of accidents (property damage, injury, fatality accidents) per annual vehicle miles of travel and shown on the PIL/SDL Report contained in Appendix Q of the TIS.

The following is a summary of the High Accident Locations (HAL) within the study area:

- There are no HALs along NYS Route 100 (Bradhurst Avenue) including the Bradhurst Avenue/Hospital Road intersections and the Sprain Brook Parkway Ramps.
- The section of NYS Route 9A between Skyline Drive and Old Saw Mill River Old (between Reference Marker 9A 8703 2089 and Reference Marker 9A 8703 2093) had a total of 59 accidents along this section of NYS Route 9A.
- The section of NYS Route 100C between Sprain Brook Ramps (between Reference Marker 100C 8701 1010 and 100C 8701 1012 had a total of 47 accidents along this section of NYS Route 100C. However, the NYSDOT should address the overall safety issues for this section of Route 100C.

Copies of the Reference Market Location Map and PIL/SDL Report are contained in Appendix Q of the TIS.

2. No-Build Condition

Year 2024 No-Build Traffic Volumes

For the purpose of analysis, a Design Year of 2024 has been used for the Phase 1 Traffic Analysis.

Based on a review of NYSDOT historical traffic volume data for NYS Route 9A, NYS Route 100 and NYS Route 100C corridor, there has been minimal growth in traffic volumes in the area. A copy of the NYSDOT historical

count data is contained in Appendix P of the TIS. This study utilizes a growth rate of 0.25 percent per year, which would equal 5 percent over the 20-year period. However, to provide a conservative analysis, this 5 percent growth was assumed to occur over the first five years (2024), thus the Year 2019 Existing Traffic Volumes were increased by this 5 percent to account for general background traffic volume growth and other minor developments in the area. The resulting Year 2024 Projected Traffic Volumes are shown on Figures No. 4A, 4B, 4C, 4D and 5A, 5B, 5C, 5D in Appendix C of the TIS for each of the Peak Hours, respectively.

In addition, traffic for the following approved developments in the area were included in the background traffic volume to obtain the Year 2024 No-Build Traffic Volumes.[1]

- Loop Road Holdings (Regeneron Expansion) – Greenburg – Phase 1/Phase 2
- Landmark at Eastview South Campus - Greenburg – Phase 1
- Landmark at Eastview North Campus Mt. Pleasant – Phase 1/Phase 2
- WMC Health – Mt. Pleasant[2]

The anticipated traffic from the above other development volumes were assigned to the roadway network based on the anticipated traffic patterns and the resulting Total Other Development Traffic Volumes are shown on Figures No. 6A, 6B, 6C, 6D and 7A, 7B, 7C, 7D in Appendix C of the TIS for each of the Peak Hours, respectively. Appendix D of the TIS contains the individual other development traffic volumes used in Phase 1.

The Other Development Traffic Volumes (Figures No. 6A, 6B, 6C, 6D and 7A, 7B, 7C, 7D in Appendix C of the TIS) were then added to the Year 2024 Projected Traffic Volumes (Figures No. 4A, 4B, 4C, 4D and 5A, 5B, 5C, 5D in Appendix C of the TIS) resulting in the Year 2024 No-Build Traffic Volumes as shown on Figures No. 8A, 8B, 8C, 8D and 9A, 9B, 9C, 9D in Appendix C of the TIS, for each of the Peak Hours, respectively.

Year 2024 No-Build – With Proposed Route 9A Connector

As part of the Phase 1 development, a Connector Road between Hospital Road and NYS Route 9A is proposed. As a result, traffic that would be redistributed (diversions) from the area roadways (Sprain Brook Parkway, Taconic Parkway, NYS Route 100 and Hospital Road) was reassigned to the proposed Route 9A Connector Road and are shown on Figures No. 10A, 10B, 10C, 10D and 11A, 11B, 11C, 11D in Appendix C of the TIS and the resulting Redistributed Year 2024 No-Build Traffic Volumes with the Proposed Route 9A Connector are shown on Figures No. 12A, 12B, 12C, 12D and 13A, 13B, 13C, 13D in Appendix C of the TIS for each of the Peak Hours, respectively.

3. Potential Impacts

Phase 1 – Year 2024 Build Traffic Volumes

The hourly trip generation rates and anticipated site generated traffic volumes are summarized in Table No. 1 of Appendix E of the TIS for each of the peak hours (Table No. 1 is also copied below).

[1] Loop Road Holdings (Regeneron Expansion), Landmark at Eastview South Campus, and Landmark at Eastview North Campus traffic volumes were obtained from the Loop Holdings DEIS/FEIS.

[2] Assumes Existing Medical Building ½ occupied

In order to assign the anticipated site Generated Traffic Volumes (Table No. 1 of Appendix E of the TIS) to the surrounding roadway network, it was necessary to establish arrival and departure distributions. These distributions were based on the proposed site layout/driveways, area population, existing traffic volumes and expected traffic patterns. The resulting arrival and departure distributions for the Retail (Commercial) development are shown on Figures No. 14A, 14B, 14C, 14D and 15A, 15B, 15C, 15D, the Medical/Bio Tech Research development are shown on Figures No. 16A, 16B, 16C, 16D and 17A, 17B, 17C, 17D, and the Hotel are shown on Figures No. 18A, 18B, 18C, 18D and 19A, 19B, 19C, 19D for each of the Peak Hours, respectively, in Appendix C of the TIS. It should be noted that due to the capacity constraints at the NYS Route 100C/Spain Brook Parkway Ramps, no diversions or assignment of existing traffic is anticipated to the new connector road. It also should be noted that not all trips to the Phase 1 development would be "new" to the adjacent roadway system. As shown on Table No. 1, a 25% "pass-by" credit for the commercial uses (retail, grocery store, fitness center, and pharmacy) from the existing traffic stream was taken. It should also be noted that no reduction in trip generation (credit) for "interplay" between the various uses (hotel, medical office, Bio-Tech, and commercial uses) within the development were taken.

The site generated traffic volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting site generated traffic volumes for each of the study area intersections are shown on Figures No. 20A, 20B, 20C, 20D and 21A, 21B, 21C, 21D for the Residential (Commercial) development, Figures No. 22A, 22B, 22C, 22D and 23A, 23B, 23C, 23D for the Medical/Bio Tech Research development, and Figures No. 24A, 24B, 24C, 24D and 25A, 25B, 25C, 25D for the Hotel in Appendix C of the TIS.

The resulting site generated traffic volumes were then added to the Year 2024 No-Build Traffic Volumes to obtain the Year 2024 Build Traffic Volumes for Phase 1. The resulting Year 2024 Build Traffic Volumes – Phase 1 are shown on Figures No. 26A, 26B, 26C, 26D and 27A, 27B, 27C, 27D for each of the peak hours, respectively in Appendix C of the TIS.

TABLE NO. 1

PHASE 1

HOURLY TRIP GENERATION RATES &
ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

NORTH 60	ENTRY		EXIT		TOTAL	
	HTGR*	VOLUME	HTGR*	VOLUME	HTGR*	VOLUME
HOTEL (1) (120 ROOMS)						
WEEKDAY PEAK AM HOUR	0.28	34	0.19	23	0.47	57
WEEKDAY PEAK PM HOUR	0.31	37	0.29	35	0.60	72
MEDICAL OFFICE (2) (100,000 S.F.)						
WEEKDAY PEAK AM HOUR	1.60	160	0.28	28	1.88	188
WEEKDAY PEAK PM HOUR	0.20	20	1.42	142	1.62	162
BIO-TECH (3) (220,000 S.F.)						
WEEKDAY PEAK AM HOUR	0.315	69	0.105	23	0.42	92
WEEKDAY PEAK PM HOUR	0.07	15	0.42	93	0.49	108
RETAIL (4) (15,000 S.F.)						
WEEKDAY PEAK AM HOUR	1.62	24	1.38	21	3.00	45
WEEKDAY PEAK PM HOUR	2.105	32	2.105	32	4.21	64
GROCERY STORE (5) (20,000 S.F.)						
WEEKDAY PEAK AM HOUR	3.47	69	3.20	64	6.67	133
WEEKDAY PEAK PM HOUR	3.95	79	3.65	73	7.60	152
FITNESS (6) (20,000 S.F.)						
WEEKDAY PEAK AM HOUR	0.64	13	0.76	15	1.40	28
WEEKDAY PEAK PM HOUR	2.04	41	1.88	38	3.92	79
PHARMACY (7) W/ DRIVE-THROUGH WINDOW (20,000 S.F.)						
WEEKDAY PEAK AM HOUR	4.56	91	4.56	91	9.12	182
WEEKDAY PEAK PM HOUR	5.66	113	5.66	113	11.32	226
TOTAL						
WEEKDAY PEAK AM HOUR	----	197	----	191	----	388
WEEKDAY PEAK PM HOUR	----	265	----	256	----	521
W/ 25% "PASS-BY" CREDIT						
WEEKDAY PEAK AM HOUR	----	-48	----	-48	----	-96
WEEKDAY PEAK PM HOUR	----	-65	----	-65	----	-130
"NEW" TRIPS						
WEEKDAY PEAK AM HOUR	----	149	----	143	----	292
WEEKDAY PEAK PM HOUR	----	200	----	191	----	391
TOTAL "NEW" TRIPS						
WEEKDAY PEAK AM HOUR	------	412	------	217	------	629
WEEKDAY PEAK PM HOUR	------	272	------	461	------	733

HOURLY TRIP GENERATION RATES (HTGR)
(1) BASED ON ITE LAND USE 310 - HOTEL
(2) BASED ON HTGR AT 19 BRADHURST AVENUE (225,000 S.F. MEDICAL OFFICE BUILDING)
(3) BASED ON ITE LAND USE 760 - RESEARCH AND DEVELOPMENT CENTER
(4) BASED ON ITE LAND USE 820 - SHOPPING CENTER - PEAK HOUR OF GENERATOR
(5) BASED ON ITE LAND USE 850 - SUPERMARKET - PEAK HOUR OF GENERATOR
(6) FITNESS BASED ON ITE LAND USE 492 - HEALTH/FITNESS CLUB - PEAK HOUR OF GENERATOR
(7) PHARMACY BASED ON ITE LAND USE 881 - PHARMACY WITH DRIVE-THROUGH WINDOW - PEAK HOUR OF GENERATOR

Neighborhood (Cut Through) Traffic

The opening of the NYS Route 9A connection (Hospital Road to NYS Route 9A) would provide traffic currently cutting through the neighborhood a preferred alternate to complete their desired route. In addition, the opening of this roadway would divert a significant portion of the current left turn traffic from Hospital Road onto Bradhurst Avenue thereby reducing the volume of Bradhurst Avenue. The above connection would result in substantially less traffic through the neighborhood. In addition, a connection to Old Saw Mill River Road to provide access to businesses, including truck deliveries, would also be provided.

Master Development Plan (Phase 2)

Following the same methodology outlined for the existing volumes, No Build volumes, and Phase 1 Build volumes, the Master Plan Development Plan traffic volumes were developed as outlined below. (Appendix F of the TIS contains the Phase 2 Traffic Volume Figures.)

For the purpose of analysis, a Design Year of 2039 has been utilized in completing the Phase 2 Traffic Analysis. As discussed, there has been minimal growth in traffic volumes in the area. For the 20-year projections, the Year 2019 Existing Traffic Volumes were increased by a growth factor of 5 percent. The resulting Year 2039 Projected Traffic Volumes are shown on Figures No. 28A, 28, 28C, 28D and 29A, 29B, 29C, 295D in Appendix F of the TIS for each of the Peak Hours, respectively. In addition, traffic for the following other approved developments in the area were included in the background traffic volume to obtain the Year 2039 No-Build Traffic Volumes. [3]

- Loop Road Holdings (Regeneron Expansion) – Greenburg – Phase 1/2/3
- Landmark at Eastview South Campus - Greenburg – Phase 1
- Landmark at Eastview North Campus Mt. Pleasant – Phase 1/2/3
- WMC Health - Mt. Pleasant[4]

The anticipated traffic from the above other development volumes were assigned to the roadway network based on the anticipated traffic patterns and the resulting Total Other Development Traffic Volumes are shown on Figures No. 30A, 30B, 30C, 30D and 31A, 31B, 31C, 31D in Appendix F of the TIS for each of the Peak Hours, respectively. Appendix G of the TIS contains the individual other development traffic volumes used in Phase 2.

The Other Development Traffic Volumes (Figures No. 30A, 30B, 30C, 30D and 31A, 31B, 31C, 31D in Appendix F of the TIS) were then added to the Year 2039 Projected Traffic Volumes (Figures No. 28A, 28B, 28C, 28D and 29A, 29B, 29C, 29D in Appendix F of the TIS) resulting in the Year 2024 No-Build Traffic Volumes as shown on Figures No. 32A, 32B, 32C, 32D and 33A, 33B, 33C, 33D in Appendix F of the TIS for each of the Peak Hours, respectively.

As part of the Phase 1 development, a Connector Road between Hospital Road and NYS Route 9A is proposed. The resulting diversions are shown on Figures No. 34A, 34B, 34C, 340D and 35A, 35B, 35C, 35D in Appendix F of the TIS and the resulting Redistributed Year 2039 No-Build Traffic Volumes with the Proposed Route 9A

[3] Loop Road Holdings (Regeneron Expansion), Landmark at Eastview South Campus, and Landmark at Eastview North Campus traffic volumes were obtained from the Loop Holdings DEIS/FEIS.

[4] Assumes Existing Medical Building ½ occupied.

Connector are shown on Figures No. 36A, 36B, 36C, 36D and 37A, 37B, 37C, 37D in Appendix F of the TIS for each of the Peak Hours, respectively.

The Master Development Plan (Phase 2) is proposed to consist of a total of 3 million sf consisting of the 120 room hotel, 400,000 sf of medical office, 2,144,000 sf of bio-tech/research, a 142,000 sf Children's Science and Education Center and 209,000 sf of retail space (20,000 sf grocery store, 20,000 sf fitness, 20,000 sf pharmacy with drive-through and 149,000 sf of general retail are assumed for analysis purposes). The hourly trip generation rates and anticipated site generated traffic volumes are summarized in Table No. 3 in Appendix H of the TIS for each of the peak hours (Table No. 3 is also copied below).

In order to assign the anticipated Phase 2- Site Generated Traffic Volumes (Table No. 3 in Appendix H of the TIS) to the surrounding roadway network, it was necessary to establish arrival and departure distributions. These distributions were based on the proposed site layout/driveways, area population, existing traffic volumes and expected traffic patterns. The resulting arrival and departure distributions for the Retail (Commercial) development are shown Figures No. 38A, 38B, 38C, 38D and 39A, 39B, 39C, 39D in Appendix F of the TIS, the Medical/Bio Tech Research development are shown on Figures No. 40A, 40B, 40C, 40D and 41A, 41B, 41C, 41D in Appendix F of the TIS, and the Hotel are shown on Figures No. 42A, 42B, 42C, 42D and 43A, 43B, 43C, 43D in Appendix F of the TIS for each of the Peak Hours, respectively. As shown on Table No. 3, a 25% "pass-by" credit for the commercial uses was taken. In addition, a 25% "mass transit" credit was taken for the medical office and Bio-Tech uses. [As discussed in Section F1 of the TIS, a new shuttle service is proposed between the Proposed Action and WMC to the Metro North Hawthorne Station]. Under the Master Development Plan, a 10% "interplay" credit was also taken for the commercial uses for "interplay" between the various uses (hotel, medical office, Bio-Tech, and commercial uses). [Confirmation of these credits will be continually monitored as Phase 2 is developed as part of the "Monitoring Program".]

The site generated traffic volumes were assigned to the roadway network based on the arrival and departure distributions referenced above. The resulting site generated traffic volumes for each of the study area intersections are shown on Figures No. 44A, 44B, 44C, 44D and 45A, 45B, 45C, 45D in Appendix F of the TIS for the Residential (Commercial) development, Figures No. 46A, 46B, 46C, 46D and 47A, 47B, 47C, 47D in Appendix F of the TIS for the Medical/Bio Tech Research development, and Figures No. 48A, 48B, 48C, 48D and 49A, 49B, 49C, 49D in Appendix F of the TIS for the Hotel.

The resulting site generated traffic volumes were then added to the Year 2039 No-Build Traffic Volumes to obtain the Year 2039 Build Traffic Volumes for Phase 2. The resulting Year 2039 Build Traffic Volumes – Phase 2 are shown on Figures No. 50A, 50B, 50C, 50D and 51A, 51B, 51C, 51D in Appendix F of the TIS for each of the peak hours, respectively.

TABLE NO. 3

PHASE 2

HOURLY TRIP GENERATION RATES &
ANTICIPATED SITE GENERATED TRAFFIC VOLUMES

NORTH 60	ENTRY		EXIT		TOTAL	
	HTGR*	VOLUME	HTGR*	VOLUME	HTGR*	VOLUME
HOTEL (1) (120 ROOMS)						
WEEKDAY PEAK AM HOUR	0.28	34	0.19	23	0.47	57
WEEKDAY PEAK PM HOUR	0.31	37	0.29	35	0.60	72
MEDICAL OFFICE (2) (400,000 S.F.)						
WEEKDAY PEAK AM HOUR	1.60	640	0.28	112	1.88	752
WEEKDAY PEAK PM HOUR	0.20	80	1.42	568	1.62	648
BIO-TECH (3) (2,144,000 S.F.)						
WEEKDAY PEAK AM HOUR	0.315	675	0.105	225	0.42	900
WEEKDAY PEAK PM HOUR	0.07	150	0.42	900	0.49	1050
MUSEUM (3) (142,000 S.F.)						
WEEKDAY PEAK AM HOUR	0.315	45	0.105	15	0.42	60
WEEKDAY PEAK PM HOUR	0.07	10	0.42	60	0.49	70
TOTAL						
WEEKDAY PEAK AM HOUR	----	1360	----	352	----	1712
WEEKDAY PEAK PM HOUR	----	240	----	1528	----	1768
W/ 25% "MASS TRANSIT" CREDIT						
WEEKDAY PEAK AM HOUR	----	-340	----	-88	----	-428
WEEKDAY PEAK PM HOUR	----	-60	----	-382	----	-442
"NEW" TRIPS						
WEEKDAY PEAK AM HOUR	----	1020	----	264	----	1284
WEEKDAY PEAK PM HOUR	----	180	----	1146	----	1326
RETAIL (4) (149,000 S.F.)						
WEEKDAY PEAK AM HOUR	1.62	241	1.38	206	3.00	447
WEEKDAY PEAK PM HOUR	2.105	314	2.105	314	4.21	628
GROCERY STORE (5) (20,000 S.F.)						
WEEKDAY PEAK AM HOUR	3.47	69	3.20	64	6.67	133
WEEKDAY PEAK PM HOUR	3.95	79	3.65	73	7.60	152
FITNESS (6) (20,000 S.F.)						
WEEKDAY PEAK AM HOUR	0.64	13	0.76	15	1.40	28
WEEKDAY PEAK PM HOUR	2.04	41	1.88	38	3.92	79
PHARMACY (7) W/ DRIVE-THROUGH WINDOW (20,000 S.F.)						
WEEKDAY PEAK AM HOUR	4.56	91	4.56	91	9.12	182
WEEKDAY PEAK PM HOUR	5.66	113	5.66	113	11.32	226
TOTAL						
WEEKDAY PEAK AM HOUR	----	414	----	376	----	790
WEEKDAY PEAK PM HOUR	----	547	----	538	----	1085
W/ 10% "INTERPLAY" CREDIT						
WEEKDAY PEAK AM HOUR	----	-41	----	-38	----	-79
WEEKDAY PEAK PM HOUR	----	-55	----	-54	----	-109
W/ 25% "PASS-BY" CREDIT						
WEEKDAY PEAK AM HOUR	----	-99	----	-99	----	-198
WEEKDAY PEAK PM HOUR	----	-135	----	-135	----	-270
"NEW" TRIPS						
WEEKDAY PEAK AM HOUR	----	274	----	239	----	513
WEEKDAY PEAK PM HOUR	----	357	----	349	----	706
TOTAL "NEW" TRIPS						
WEEKDAY PEAK AM HOUR	------	1328	------	526	------	1854
WEEKDAY PEAK PM HOUR	------	574	------	1530	------	2104

Public Transportation – Connectivity North 60 – Westchester Medical Center (WMC)

As part of the Proposed Action, it is anticipated that the existing bus and shuttle system would be expanded to provide additional stops within the Proposed Action area. These locations would have to be coordinated with Westchester County and the WMC.

In addition, as part of the Master Development (Phase 2), a new shuttle service would be provided to and from local Metro North Station(s), located in close proximity to the Project Site as part of the Phase 2 development. The initial location would be to/from the Hawthorne Train Station. Other locations would be added based on ridership demands. This would provide access to train service for both the Proposed Action and WMC. The schedule of this service would start with the Weekday AM and PM peak hours and could be expanded based on demand. It is anticipated that these shuttles would meet every northbound or southbound train during the Weekday AM and PM peak hours. The Applicant will explore the potential of a bicycle share program between the Proposed Action and the Grasslands Campus. The Proposed Action would provide ample bike racks as well as bike paths throughout the Project Site.

Public Transportation – Transportation Shuttle

It is recommended a new shuttle service be provided between the Proposed Action (and WMC) to the Metro North Station(s) located in close proximity to the Project Site as part of the Master Development Plan. The initial location would be to/from the Hawthorne Train Station. Other locations can be added based on ridership demands. This service provides an alternate mode of transportation for existing and future employees of the two campuses who live further to the north or south or in an area where the existing bus service is inconvenient.

To be effective, this service should meet northbound or southbound trains during the Weekday AM (7:00 AM – 9:00 AM) and PM (4:00 PM – 6:00 PM) peak hours at the Hawthorne Station. The number of stops on the Project Site should be limited with adequate shelters to provide for superior service. After completion, the service should be monitored to determine if service should be expanded to other time periods.

Results of Analysis

In order to determine existing and future traffic operating conditions at the study area intersections, it was necessary to perform capacity analyses. The following is a brief description of the analysis method utilized in the TIS:

Signalized Intersection Capacity Analysis

The capacity analyses for signalized intersections were performed in accordance with the procedures described in the Highway Capacity Manual – 6th Edition, 2017 published by the Transportation Research Board. The terminology used in identifying traffic flow conditions is Levels of Service. A Level of Service "A" represents the best condition and a Level of Service "F" represents the worst condition. A Level of Service "C" is generally used as a design standard while a Level of Service "D" is acceptable during peak periods. A Level of Service "E" represents an operation near capacity. In order to identify an intersection's Level of Service, the average amount of vehicle delay is computed for each approach to the intersection as well as for the overall intersection.

Unsignalized Intersection Capacity Analysis

The unsignalized intersection capacity analysis method utilized in TIS was also performed in accordance with the procedures described in the Highway Capacity Manual – 6th Edition, 2017. The procedure is based on total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. The average total delay for any particular critical movement is a function of the service rate or capacity of the approach and the degree of saturation. In order to identify the Level of Service, the average amount of vehicle delay is computed for each critical movement (major street left turns and minor street movements) to the intersection.

Additional information concerning criteria for signalized and unsignalized Levels of Service can be found in Appendix I of the TIS.

In order to evaluate current and future traffic operating conditions at each of the study area intersections, a SYNCHRO analysis which takes into consideration appropriate lane widths/grades (measured using Google Earth), truck percentages/pedestrian activity (based on the traffic counts) and other factors were performed at the study area intersections utilizing the procedures described above to determine the Levels of Service and average vehicle delays.

Tables No. 2 and 4 in Appendix J of the TIS summarize the results of the capacity analysis (Levels of Service, Delays and Volume-to-Capacity (V/C) Ratios) for the Year 2019 Existing, Year 2024 (and 2039) No-Build and Year 2024 (and 2039) Build Conditions for Phase 1 and Phase 2, respectively. The resulting Level of Service Summary Tables are contained in Appendix J of the TIS. Copies of the SYNCHRO analysis also shows the existing geometry including lane widths, traffic control including signal phasing/timing (where appropriate) as well as the results of the analysis including the calculated queues and storage lengths. Appendix K of the TIS contains the Phase 1 – Synchro Analysis and Appendix L of the TIS contains the Phase 2 – Synchro Analysis. The Synchro computer program is needed to run the traffic simulation. The Town's traffic consultant will be provided with the necessary Synchro/Simulation Files for their review.

The TIS provides a description of the existing geometrics, traffic control as well as any recommended improvements at each of the study are intersections.

A summary of the recommended roadway improvements is given below.

<u>Summary of Roadway Improvements</u>

When fully developed, the Master Development Plan would be served by four (4) driveways. Two driveways would be to Hospital Road (located opposite Woods Road and driveway to Lot 10) and two driveways would be to the new NYS Route 9A Connector (West Street).

However, since the development is divided into two phases, Phase 1 would be served by the driveways to Hospital Road with the driveways to West Street developed for Phase 2.

Associated with the Proposed Action there would be certain recommended roadway improvements, namely:

Phase 1

Construct a new roadway connecting NYS Route 9A and Hospital Road. The roadway should have sufficient width to provide for one through lane per direction and for a left turn lane as required. Based on anticipated vehicles, the intersection on either end of the connector may require signalization sometime during Phase 1. In addition, Hospital Road would need to be widened/restriped to provide a left turn lane (eastbound) at its intersection with the new connector road, proposed Main Street (Driveway 2) and Woods Road (Driveway 1). These recommended roadway improvements are shown in Figure 3I-3, below.

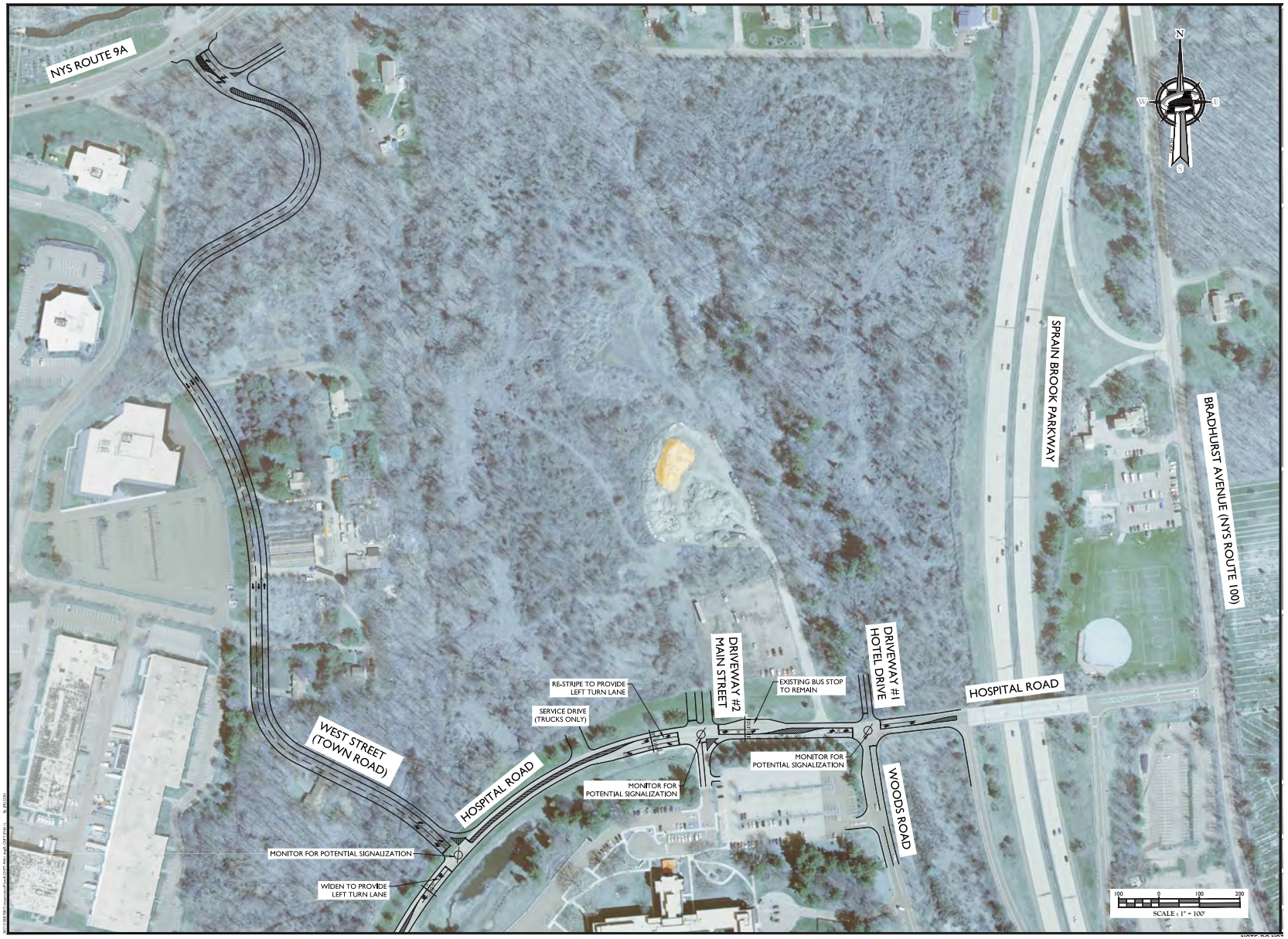
Phase 2

This includes an addition of an eastbound through lane on Hospital Road. At Woods Road, this lane would be designated as a right turn lane. A right turn lane on Woods Road would also be required.

The intersection of Hospital Road and Bradhurst Avenue cannot be widened due to Right-of-Way jurisdiction. However, a roundabout could be developed on property owned/leased by the Applicant and Westchester County. With the construction of a roundabout, left turns from the existing northbound off-ramps would be eliminated (due to limited distance) with traffic directed to turn right and use the roundabout.

In addition to the above, the intersection of Hospital Road with Woods Road and/or the driveway to Lot 10, would have to be monitored to determine if traffic signals are warranted. These recommended roadway improvements are shown in Figure 3I-4, below.

The above improvements will be funded by the Applicant.



North 60 | Town of Mount Pleasant, NY

Phase 1 - Recommended Roadway Improvements

Source: Maser Consulting P.A.

North 60 | Town of Mount Pleasant, NY

Phase 2 - Recommended Roadway Improvements

Source: Maser Consulting P.A.

Pedestrian/Bicycle/Ridesharing Accommodations

All traffic signals along Hospital Road will be designed to accommodate pedestrian/bicycle traffic. Push buttons and countdown indication will be included in the design. In addition, crosswalks with detectable warning fields will be included in the design.

For Phase 1 the existing sidewalks serving the bus stop will be extended to the Main Street intersection (Driveway 2). For the Master Development Plan, sidewalks within the Project Site will accommodate pedestrians. Sidewalks within the Medical Center can be installed in the future on an as needed basis. Bicycle traffic can be accommodated along Hospital Road and within the proposed development area.

The Project Site will be designed to designate areas for ride sharing and livery service (i.e., Uber, Lyft, loading and unloading). They will be located in designated parking areas. As the Project Site develops, these areas will be expanded to other locations within the site (possibly within future parking structures) to ensure that they do not interfere with overall circulation on site.

Parking

Parking will be in accordance with a Parking Management Plan as referenced in Chapter 2, Project Description. The Proposed Action would allow for grouped parking by providing at-grade parking or parking within parking structures.

Table 3I-2 below summarizes the parking requirements by the anticipated groupings based on building location relative to at-grade or parking structure parking. The tables show minor deficiencies in the grouping of the proposed parking. However, based on the program uses, it is not anticipated that all spaces will be used at all times. Therefore, the Proposed Action provides for sufficient parking.

If needed, a parking analysis would be performed as the Proposed Action progresses toward full buildout and additional parking would be sought if deemed necessary.

Table 3I-2 Proposed Parking-Master Development Plan Grouped by Parking Structure

Building (grouped by parking)	Use	Area of Use (SF)	Parking Index[1]	**Required Parking**	Parking Structure	Parking Use	Parking Area Provided (SF)	Parking Levels	Total Parking Area Provided	Parking Structure (Spaces @395 sf)	Parking Structure (Spaces @325 sf)	At Grade Parking	**Parking Provided[2]**
B1	Retail	106,200	5.0	**531**									
B2	Biotech	48,900	2.5	**122**									
B4	Retail	36,900	5.0	**185**									
B4	Medical Office	100,000	4.0	**400**									
B5	Retail	20,400	5.0	**102**									
B5	Medical Office	100,000	4.0	**400**									
B6	Retail	50,500	5.0	**253**									
B6	Medical Office	200,000	4.0	**800**									
					B1	Retail	76,100	2.0	152,200	384			**384**
					B4	Office/Retail	27,000	1.0	27,000	68		40	**108**
					B5	Office/Retail	39,400	3.0	118,200	297			**297**
					B6	Office/Retail	60,185	4.5	270,833	684			**684**
					G3	Office/Retail	44,100	7.0	308,700		945		**945**
					G7	Office/Retail	15,500	7.0	108,500		329	40	**369**
	Total Spaces Required			**2,792**						Total Spaces Provided			**2,787**
B8	Biotech	126,600	2.5	**317**									
					B8	Biotech	33,300	3.7	123,210	311			**311**
	Total Spaces Required			**317**						Total Spaces Provided			**311**

Building (grouped by parking)	Use	Area of Use (SF)	Parking Index[1]	**Required Parking**	Parking Structure	Parking Use	Parking Area Provided (SF)	Parking Levels	Total Parking Area Provided	Parking Structure (Spaces @395 sf)	Parking Structure (Spaces @325 sf)	At Grade Parking	**Parking Provided[2]**
B9	Biotech	142,000	2.5	**355**									
B10	Biotech	142,000	2.5	**355**									
B11	Biotech	154,000	2.5	**385**									
B12	Biotech	89,600	2.5	**224**									
B13	Biotech	89,600	2.5	**224**									
					B9	Biotech	38,400	3.7	142,080	359			**359**
					B10	Biotech	38,400	3.7	142,080	359			**359**
					B11	Biotech	30,800	4.5	138,600	347		40	**387**
					B12	Biotech	30,400	3.0	91,200	228			**228**
					B13	Biotech	30,400	3.0	91,200	228			**228**
	Total Spaces Required			**1,543**						Total Spaces Provided			**1,560**
B14	Hotel	100,000	1.0	**120**									
		(120 Rooms)			B14	Hotel	36,000	1.5	54,000	137			**137**
	Total Spaces Required			**120**						Total Spaces Provided			**137**
B15	Sci	41,200	2.5	**103**									
B16	Sci	100,800	2.5	**252**									
					B15	Sci						24	**24**
					G17	Sci	55,400	3.0	166,200	420			**420**
	Total Spaces Required			**355**						Total Spaces Provided			**444**

Building (grouped by parking)	Use	Area of Use (SF)	Parking Index[1]	**Required Parking**	Parking Structure	Parking Use	Parking Area Provided (SF)	Parking Levels	Total Parking Area Provided	Parking Structure (Spaces @395 sf)	Parking Structure (Spaces @325 sf)	At Grade Parking	**Parking Provided[2]**
B18	Biotech	214,000	2.5	**535**									
					B18	Biotech	62,400	2.0	124,800	314		208	**522**
	Total Spaces Required			**535**						Total Spaces Provided			**522**
B19	Biotech	112,000	2.5	**280**									
B20	Biotech	212,000	2.5	**530**									
B21	Biotech	238,000	2.5	**595**									
B22	Biotech	210,000	2.5	**525**									
B23	Biotech	179,000	2.5	**448**									
B24	Biotech	186,300	2.5	**466**									
					B19	Biotech	22,400	4.5	100,800	252		26	**278**
					B20	Biotech	57,500	3.7	212,750	537			**537**
					B21	Biotech	57,500	4.0	230,000	580			**580**
					B22	Biotech	46,650	4.0	186,600	472		46	**518**
					B23	Biotech	46,650	3.7	172,605	437		10	**447**
					B24	Biotech	75,000	2.5	187,500	473			**473**
	Total Spaces Required			**2,843**						Total Spaces Provided			**2,832**
Total Building Program Area		3,000,000	**Total Spaces Required**	**8,505**							**Total Spaces Provided**		**8,592**
								Total within Structure		8,158	Total at Grade		434

[1.] Parking Index provided by Maser Consulting

[2.] Proposed Parking Provided within the Parking Structure based on information provided by Torti Gallas & Partners. Final layout of parking within Parking Structures to be provided in the future.

Phase 1

Phase 1 development would include development primarily at the southeastern and southcentral portions of the Project Site along with certain infrastructure and parking areas as detailed in the Phase 1 Phasing Plan. Overall, the program for Phase 1 as detailed in Chapter 2 will include:

- 4-story medical office over retail
- 2-story health and wellness center/grocery with 2 levels of parking below
- 3-story bio-technology
- 5-story office over retail (pharmacy) with 3 levels of parking below
- 6-story hotel with 1.5 level of parking below

Parking for Phase 1 will utilize at grade parking as well as parking within parking structures. Greater than 80% of the required parking has been provided within 300 feet of the Phase 1 building limits. See Table 3I-3.

For Phase 1, ride sharing and livery service pick-up locations will be marked on Main Street and in the parking lot north of the hotel. As the Proposed Action progresses toward complete program buildout, additional spaces will be marked in the vicinity of proposed building groupings.

Table 3I-3 Proposed Parking-Phase 1 Grouped by Parking Structure

Building (grouped by parking)	Use	Area of Use (SF)	Parking Index[1]	**Required Parking**	Parking Structure	Parking Use	Parking Area Provided (SF)	Parking Levels	Total Parking Area Provided	Parking Structure (Spaces @395 sf)	Parking Structure (Spaces @325 sf)	At Grade Parking	**Parking Provided[2]**
Medical Office		100,000	4.0	**400**									
Biotech / Research and Development		220,000	2.5	**550**									
Neighborhood Shopping		80,000	5.0	**400**									
					B1	Retail	76,100	2.0	152,200	384			**384**
					B4	Office/Retail	27,000	1.0	27,000	68			**68**
					B5	Office/Retail	39,400	3.0	118,200	297			**297**
					North Parking	Office/Retail						281	**281**
					West Parking	Office/Retail						116	**116**
					Central Parking	Office/Retail						212	**212**
					Main Street	Office/Retail						79	**79**
	Total Spaces Required			**1,350**						Total Spaces Provided			**1,437**

Building (grouped by parking)	Use	Area of Use (SF)	Parking Index[1]	**Required Parking**	Parking Structure	Parking Use	Parking Area Provided (SF)	Parking Levels	Total Parking Area Provided	Parking Structure (Spaces @395 sf)	Parking Structure (Spaces @325 sf)	At Grade Parking	**Parking Provided[2]**
B14	Hotel	100,000	1.0	**120**									
		(120 Rooms)			B14	Hotel	36,000	1.5	54,000	137			**137**
					East Parking	Hotel						217	**217**
	Total Spaces Required			**120**					Total Spaces Provided				**354**
	Total Building Program Area	500,000	**Total Spaces Required**	**1,470**							**Total Spaces Provided**		**1,791**
							Total Garage			886	Total at Grade		905

[1.] Parking Index provided by Maser Consulting

[2.] Proposed Parking Provided within the Parking Structure based on information provided by Torti Gallas & Partners. Final layout of parking within Parking Structures to be provided in the future.

Accident Data

Based on a review of the accident data and since the traffic volumes along Hospital Road are anticipated to remain the same with the Phase 1 Site Generation and anticipated Route 9A Connector Road diversions, it is expected that the Phase 1 development would not have a significant impact on the accident rates along Hospital Road. Under the Full Build-Out (Phase 2), the construction of a roundabout at the intersection of Bradhurst Avenue and Hospital Road with the associated modifications to the Sprain Brook Parkway northbound off-ramps would improve operating conditions along Hospital Road under the Full Build-Out Condition.

- The section of NYS Route 9A between Skyline Drive and Old Saw Mill River Old (between Reference Marker 9A 8703 2089 and Reference Marker 9A 8703 2093) had a total of 59 accidents along this section of NYS Route 9A.
    - The NYSDOT should address the overall safety issues for this section of Route 9A. However, the improvements proposed as part of the Route 9A/Hospital Road Connector would address many of the safety issues, especially with the link provided for Old Saw Mill River Road. This would permit vehicles from properties to the east of Route 9A to use Old Saw Mill River Road to turn left under signal control.
- The section of 100C between Sprain Brook Ramps (between Reference Marker 100C 8701 1010 and 100C 8701 1012 had a total of 47 accidents along this section of NYS Route 100C. However, the NYSDOT should address the overall safety issues for this section of Route 100C. Based on the location of the Project Site and anticipated arrival/departure distributions, the proposed development is not expected to add a significant amount of traffic at these locations.

Copies of the Reference Market Location Map and PIL/SDL Report are contained in Appendix Q of the TIS.

Monitoring Program

As currently envisioned, it would take some time for the Proposed Action to be fully developed. In addition, over time the uses within the Proposed Action may change resulting in higher or lower traffic generations.

The goal for the Monitoring Program is to:

- Provide the greatest flexibility for the Proposed Action without the need for extensive traffic evaluations with associated roadway improvements each and every time there is a development change.
- Provide the Town and other agencies assurances that the traffic generated by the Proposed Action are mitigated.

To implement this Monitoring Program ("Trip Bank"), it is necessary to determine the specific roadway and traffic control measures needed to support a specific traffic volume. This step has been completed in previous sections where the level of development (Phase 1 and 2) would include certain improvements; they are:

Phase 1

The total driveway volume (as evaluated) would be 724 trips during the AM peak hour and 864 trips during the PM peak hour assuming the roadway and traffic controls are in place. Based on these, it is recommended that a Trip Bank of 1,000 vehicles per hour (vph) for any hour be set for Phase 1.

Phase 2

The total driveway volume (as evaluated) would be 2,051 trips during the AM peak hour and 2,373 trips during the PM peak hour assuming the roadway and traffic controls are in place. Based on these, it is recommended that a Trip Bank of 2,500 vph for any hour be set for Phase 2.

To implement the Monitoring Program, the following steps are recommended after the first buildings are occupied, and the associated roadway/traffic control improvements are in place.

1. For future site plan application, the Applicant would submit to the Planning Board traffic counts at the driveways to the Project Site on a typical weekday.
2. The Applicant would also submit estimates of traffic to be generated by the proposed application. They would be added to the highest hourly volume from Step 1. This results in the anticipated traffic volumes for the proposed level of development.
3. The traffic volumes from Step 2 would then be compared to the Trip Bank for that phase plus 10% to account for normal variations. If the resulting developed volume is lower than the Trip Bank plus 10%, **no future analysis is required**. If it is higher, Step 4 is implemented.
4. A new traffic evaluation is to be prepared with the Planning Board specifying which locations (from the previous locations evaluated) need to be reevaluated. The Applicant would prepare the study with specific recommendations to the Planning Board. The study should document what, if any improvements are required or the measures that the Applicant proposes to reduce the anticipated number of vehicles by the use of various traffic management techniques.
5. The Planning Board would review the resubmitted information and make a decision as to the appropriate course of action.
6. The Monitoring Program will continue to operate until full completion of the Master Development Plan.

The above steps are required every time there is a new site plan application.

4. Mitigation Measures

Based upon the results of the traffic analysis discussed below, several transportation improvements have been recommended for the initial phase of the Proposed Action as well as full development. These improvements include:

- The opening of a connective roadway between NYS Route 9A and Hospital Road would significantly reduce traffic through the neighborhood
- Widening of Hospital Road to 4+ lanes

- Construction of a roundabout at the intersection of Bradhurst Avenue and Hospital Road with associated modifications to the Sprain Brook Parkway northbound off-ramps
- Integration of the Proposed Action with current bus and shuttle services with Westchester Medical Center
- Provision of a new shuttle service to Metro North
- A monitoring program under the control of the Town's Planning Board is recommended to ensure that required roadway improvements are "in place" or under construction to support the proposed development
- Based on the above, traffic to and from the project can be accommodated in a safe and efficient manner.

The Town is currently in the process of drafting a new Comprehensive Plan.[5] This process, under the title "Envision Mount Pleasant," is in the public engagement phase which includes an online survey and in-person workshops.

To date, there have been three visioning workshops for Envision Mount Pleasant – one in May 2018, one in August 2018, and another in October 2018 – where consultants spoke with stakeholders about the strengths and challenges faced in communities. Topics discussed at these meetings included sustainability and resiliency, natural environment and open space, mobility, economy, building environment, and community, culture and education.

Input received during this public engagement process will inform the updated Comprehensive Plan document, which will guide future land use decision-making throughout the Town.

Public input received so far has included the following traffic, transportation and mobility priorities relevant to the Proposed Action:

- Sustainability & Resiliency
    - the need for great energy efficiency options, and the growing demand for mobility choices, such as walkability and biking
- Mobility
    - support for walkability in and around the Town
    - lack of bike paths, lack of connections between areas in the Town, including the hamlets, and lack of any transportation choices
    - traffic congestion and safety
    - improved access with improvements to transit, such as bike racks, bike paths, and improved bus service between hamlets
    - traffic calming measures to improve safety for pedestrians and motorists

[5] Town of Mount Pleasant. "Comprehensive Plan Information". Available from: https://www.mtpleasantny.com/home/pages/comprehensive-plan-information. Accessed on January 9, 2020.

Though the process of updating the Town of Mount Pleasant Comprehensive Plan is currently ongoing, based on available public documents, the Proposed Action aligns well with public feedback received thus far.

5. Other Traffic Considerations

Heavy Vehicle Percentages

As part of the ATR data collection, vehicle classification of the type of vehicles were also conducted along the existing roadway network (Bradhurst Avenue, Hospital Road, and Woods Road). Table 3I-4 summarizes the Daily Vehicle Classification percentages for each of the above roadways.

Table 3I-4 Daily Vehicle Classification Percentages

	AADT VPD	PASSENGER VEHICLES (1)	BUSES	2 AXLE – 6 TIRE SINGLE UNIT TRUCKS	3+ AXLES
Bradhurst Avenue					
SB	3,733	94.4%	0.6%	3.7%	1.2%
NB	4,796	93.1%	0.6%	5.2%	1.1%
Hospital Road					
WB	2,471	91.9%	1.4%	6.1%	0.6%
EB	2,105	94.8%	1.7%	3.0%	0.5%
Woods Road					
NB	2,677	93%	0.7%	5.4%	0.9%
SB	2,565	92.8%	0.5%	6.3%	0.4%

(1) Includes motorcycles, pick-up, vans, and other 2-axle / 4-tire vehicles

A copy of the ATR Vehicle Classification Counts and AADT'S are contained in Appendix T of the TIS.

In addition, the Turning Movement Traffic Counts (Appendix P of the TIS) calculates the Peak Hour Heavy Vehicle Percentages for each of the study area intersections which were used in the Synchro Analysis.

It should be noted that the type of development proposed (i.e., medical office and Bio-Tech) is not expected to generate a significant amount of 3+ axles trucks. In fact, the Proposed Action would be equal or less than the current truck traffic along Hospital Road/Woods Road.

Bridges over Sprain Brook Parkway

There are two bridges in the vicinity of the Project Site, the Hospital Road Bridge and the Bradhurst Avenue Bridge (north of Hospital Road).

The Bradhurst Avenue Bridge is four lanes and has been recently rehabilitated. Since Bradhurst Avenue has only two lanes, this four-lane bridge has the capacity to handle the additional traffic generated by the Master Development Plan.

The Hospital Road Bridge is a three-lane bridge that has the capacity to handle the Master Development Plan traffic volumes. However, due to the age of the bridge, it will most likely need to be rehabilitated in the near future. The rehabilitation of the bridge given the ramps to the Sprain Brook Parkway will create a significant number of issues. Since this bridge is owned by NYSDOT, they should be encouraged to evaluate the potential for changes in the ramp location (to the north), as well as the potential for widening Bradhurst Avenue to accommodate existing and future traffic during this rehabilitation process.

Autonomous Vehicles

There is the potential for the use of autonomous vehicles in the future. Due to the current state of the art technology and current usage, limited use of autonomous vehicles is anticipated for Phase 1 of the Proposed Action.

During the buildout of the Maser Development Plan, the use of autonomous vehicles is expected to increase. The implementation of the traffic monitoring program as described in Section F5 of the TIS will be able to establish their use and accommodate the traffic and parking needs accordingly.

At-Grade Railroads

With the exception of the Lakeside Avenue Crossing, there are no other railroad crossings impacted by the Proposed Action. Given the location of the Project Site and alternate routes to and from the Project Site, the use of the Lakeside Avenue Crossing would be minimal (1% to 2% of project traffic). Thus, the Proposed Action will have minimal impact on this railroad crossing.

Emergency Services

Response times for emergency services are significantly impacted by queuing of vehicles at signalized locations. The primary signalized intersections within the study area are along Hospital Road, Grasslands Road, and Bradhurst Avenue.

The Proposed Action will have limited impact along Grasslands Road. However, at the intersection of Bradhurst Avenue and Hospital Road, the Proposed Action will increase traffic volumes which have the potential of extending queues at this signalized location. As indicated in the TIS as part of Phase 1, the construction of a new connection road between Hospital Road and Route 9A is proposed. This connector road will divert existing traffic away from this intersection. At the end of Phase 1, there will be similar traffic volume and queues compared to existing conditions. Thus, the Proposed Action is expected not to significantly increase emergency service response times for Phase 1.

As the Master Development Plan develops, the mitigation calls for the construction of a roundabout at Bradhurst Avenue/Hospital Road, which is designed to reduce queues and improve safety. Thus, the Master Development Plan has addressed the potential impact on emergency services.

Bicycle Lane along Bradhurst Avenue

Except in limited areas, the existing Right-of-Way and topography limits the ability to construct an exclusive bicycle lane along Bradhurst Avenue.

Vehicle Connection to Mid Westchester Executive Park

There is an existing emergency connection between Mid Westchester Executive Park and the existing driveway to the previous landscape property. With the conversion of the driveway to a Town Road (Route 9A Connector), this emergency access will continue.

There have been discussions between the two property owners to convert the emergency connection to a full connection but there is no final agreement. Thus, the potential for a future connection does exist but is not part of the Proposed Action.

NYSDOT Improvements

The NYSDOT is currently rehabilitating the NYS Route 100C Bridge over NYS Route 9A. In addition, NYSDOT is constructing a roundabout at NYS Route 100C and Old Saw Mill River Road in the vicinity of Regeneron. There are no other major improvements proposed by the NYSDOT surrounding the Project Site.

J. COMMUNITY SERVICES

1. Existing Conditions

a) Police Services

The Town of Mount Pleasant Police Department (MPPD) serves an area of approximately 32 square miles, including the Project Site and surrounding areas in the hamlets of Hawthorne, Thornwood and Valhalla, the unincorporated section of Pleasantville, and portions of Sleepy Hollow, Pocantico Hills, Briarcliff and Chappaqua. The MPPD has a Chief of Police, a Captain, two Patrol Lieutenants, 46 sworn police officers and a civilian support staff.[1] The MPPD headquarters is located at Mount Pleasant Town Hall, One Town Hall Plaza in Valhalla, approximately three miles driving distance from the Project Site.

In addition to the MPPD, the Westchester County Department of Public Safety (aka "Westchester County Police Department") provides police protection to County parkways and properties, including the County-owned portion of the Project Site, and supplemental police services to municipalities within Westchester County.[2] The Westchester County Department of Public Safety headquarters is located at 1 Saw Mill River Parkway in Hawthorne.

b) Fire and Emergency Services

The Project Site is within the service area of the Grasslands Fire Brigade, which provides fire suppression and life safety services to the Grasslands Campus and Westchester Medical Center during the day on weekdays.[3] Grasslands Fire Brigade consists of 19 volunteer members and has six pieces of apparatus and a chief's car. The headquarters of the Grasslands Fire Brigade are at 4 Dana Road in Valhalla, approximately one mile driving distance from the Project Site.

In addition to Grasslands Fire Brigade, the Hawthorne Fire Company (Hawthorne FC) provides fire and emergency medical (EMS) services to the Project Site and surrounding areas. Hawthorne FC is an all-volunteer fire company. The Hawthorne FC has seven Company Officers, including the Commissioner, seven Line Officers, and many volunteer firefighters.[4] The headquarters of the Hawthorne FC are located at 25 Home Street in Hawthorne, approximately 1.5 miles driving distance from the Project Site.

Hawthorne FC has the following apparatus: two fire engines, a ladder truck, and two utility vehicles.

[1] Town of Mount Pleasant Police Department. "Our Department". Available from http://www.mppdny.com/about-us.html. Accessed on January 7, 2020.

[2] Westchester County Department of Public Safety. "Westchester County Department of Public Safety". Available from https://publicsafety.westchestergov.com/. Accessed on January 7, 2020.

[3] Westchester County. "Grasslands Fire Brigade". Available from https://emergencyservices.westchestergov.com/divisions/fire-services/grasslands-fire-brigade. Accessed on January 7, 2020.

[4] Hawthorne Fire Company. "Members". Available from http://www.hawthornefireems.com/members/. Accessed on January 7, 2020.

The Westchester EMS (WEMS) also provides EMS service including paramedic fly-car service throughout Westchester County. WEMS is headquartered at 45 Kensico Drive in Mt. Kisco. In 2017 the medics responded to nearly 3,000 calls within the 35-square-mile service area that includes the Project Site.[5]

c) Recreation and Open Space

The Town of Mount Pleasant maintains 14 Town parks and portions of four school sites, as well as several ornamental and turf areas throughout the Town. The Town also contains three Westchester County parks, and portions of the Westchester County North County Trailway, as well as two New York State parks. The following table highlights these resources.

Table 3J-1 Parks and Recreation Resources in the Town of Mount Pleasant

Parks and Facilities	Community	Acres	Activities
Hardscrabble Wilderness Area	Briarcliff	235	Camping, hiking, nature
Mountain Trail Park	Pleasantville	5	Hiking
Bear Ridge Lake	Pleasantville	2	Fishing, ice skating, picnicking
Old Farm Hill Park	Pleasantville	22	Undeveloped
Water District Field	Thornwood	6	Soccer, baseball, softball
Opperman's Pond	Pleasantville	6	Fishing, ice skating, picnicking
Mt. Pleasant Town Pool & Community Center	Valhalla	12	Bocce, basketball, volleyball, swimming, picnicking, playground, community center
Broadway Field	Hawthorne	6	Basketball, baseball, softball, volleyball, picnicking, playground, shelter
Pheasant Run Park	Pleasantville	16	Undeveloped
Carroll Park	Thornwood	12	Baseball, softball, fishing, ice skating, picnicking, playground
Westlake High School	Thornwood	20	Tennis, soccer, basketball, baseball, softball
Stonegate Park	Valhalla	12	Basketball, baseball, softball, picnicking, hiking, nature, shelter
Valhalla High School	Valhalla	n/a	Tennis, soccer, baseball, softball
Bradhurst Park & Community Center	Hawthorne	7	Baseball, softball, picnicking, playground, community center
Lakeside Park	Valhalla	6	Soccer
Pat Henry Field	Valhalla	2	Baseball, softball
Hawthorne Elementary School	Hawthorne	17	Baseball, softball, playground
Columbus Avenue School	Thornwood	16	Baseball, softball, playground
Bronx River Reservation Field	Valhalla	2	Baseball, softball
Graham Hills	Mount Pleasant	431	Hiking, walking, mountain biking, nature
Pocantico Lakes	Briarcliff	n/a	Fishing, hiking, walking, horse trails, nature

[5] Westchester EMS. "Services". Available from https://www.wemsny.org/services. Accessed on January 7, 2020.

Kensico Dam Plaza	Valhalla	n/a	Bicycling, hiking, walking, in-link skating, nature, picnicking, playground
North County Trailway		22 miles	Walking, bicycling, nature
Rockefeller State Park Preserve	Pleasantville	1,771	Horse trails, nature, picnicking, hiking, walking, fishing
Old Croton Aqueduct State Historic Park		26 miles	Walking, biking, nature, horse trails

Source: https://www.mtpleasantny.com/sites/mountpleasantny/files/uploads/town_parks_and_facilities.pdf, https://parks.westchestergov.com/images/stories/pdfs/2018YourMpGuideWEB.pdf, https://parks.ny.gov/

The parks and recreation resources closest to the Project Site are Bradhurst Park and Community Center, located east of the Project Site just opposite the Sprain Brook Parkway, North County Trailway, and Rockefeller State Park Preserve, both located west of the Project Site. The Project Site is also located close to several cemeteries including Gate of Heaven Cemetery, Mount Pleasant Cemetery, Mount Eden Cemetery, Kensico Cemetery, and Sharon Gardens, which are all located east of the Project Site opposite the Sprain Brook Parkway.

The Project Site consists of the 60-acre County Parcel and the 20-acre Developer Parcel. Current open space attributes include woodland and forested, as well as wetlands and watercourses. The open space portions of the Project Site are not open to the public or used for passive or action recreation.

d) Solid Waste and Recycling

The Project Site is mostly vacant under existing conditions. Non-vacant portions of the Project Site include a construction staging area, asphalt parking lot, five single-family dwellings, a two-family dwelling, a nursery, storage sheds, an in-ground pool, asphalt drives and parking areas and related improvements. These existing uses generate a minimal amount of solid waste.

Residential solid waste and recycling are collected by the Town of Mount Pleasant through a private service, CRP Sanitation. The Town accepts recycling materials including: metal cans, glass, plastic (numbers 1-7), empty aerosol cans, clean aluminum foil and trays, newspaper, cardboard, brown grocery bags, magazines and junk mail. Televisions, air conditioners and computer monitors can be picked up on Wednesdays by appointment. A Household Materials Recovery Facility is located at 15 Woods Road on the Grasslands Campus.

Commercial solid waste and recycling services are provided by private contracts with private carting companies.

e) Schools

The Project Site is located in two different school districts: the County Parcel is located in the Mount Pleasant Central School District (CSD), and the Developer Parcel is located in the Pocantico Hills CSD. See Figure 3J-1, School District Boundaries.

North 60 | Town of Mount Pleasant, NY

School District Boundaries

Source: Westchester GIS (2016)

Mount Pleasant CSD

The County-Parcel that is within the Mount Pleasant CSD does not generate any property taxes to the Mount Pleasant CSD.

The Mount Pleasant CSD encompasses the hamlets of Hawthorne and Thornwood as well as portions of the hamlet of Valhalla and the Village of Pleasantville.

The Mount Pleasant Central School District comprises four schools: Hawthorne Elementary (K-2), Columbus Elementary (3-5), Westlake Middle School (6-8) and Westlake High School (9-12). The middle and high school share the same campus along with the District Office.

The 2019-2020 projected district enrollment is 1,928, which is up from the 2018-2019 district enrollment of 1,901.[6] Mount Pleasant CSD also projects total enrollment to increase to 1,957 in the 2020-2021 school year.

The most recent adopted budget for the Mount Pleasant CSD is the 2019-2020 budget. The total Mount Pleasant CSD budget for 2019-2020 is $64,201,310 – an increase of $2,260,439 (3.65%) from the prior school year. Based on a total school district enrollment of 1,928 students, the average cost per pupil for 2019-2020 would be approximately $32,299.

Table 3J-2 Average Cost Per Pupil (2019-2020)

A 2019-2020 Budget	B 2019-2020 Enrollment	C Cost Per Pupil (A÷B)
$64,201,310	1,928	$32,299

According to information provided by the Mount Pleasant Central School District[7], approximately 87.4% of the per pupil cost is paid by local tax levy; the remainder of the budget comes from the State or other sources.

Table 3J-3 Tax Levy Per Pupil (2019-2020)

A Cost per Pupil	B % of Per Pupil Cost Paid by Local Tax Levy	C Tax Levy Per Pupil (A x B)
$32,229	87%	$28,039

[6] Mount Pleasant Central School District. *2019-2020 Adopted Budget*. Available from https://echalk-slate-prod.s3.amazonaws.com/private/districts/404/resources/79f72b50-5ab0-4e09-9086-991b1fdfcc5c?AWSAccessKeyId=AKIAJSZKIBPXGFLSZTYQ&Expires=1873377591&response-cache-control=private%2C%20max-age%3D31536000&response-content-disposition=%3Bfilename%3D%2219-20%2520Budget%2520Book%2520Adopted%2520Budget%2520Final%2520Revised.pdf%22&response-content-type=application%2Fpdf&Signature=64oMmjR%2FHHw5r3%2BkWtdtO3QPYFM%3D. Accessed on January 8, 2020.

[7] Mount Pleasant CSD 2019-2020 Adopted Budget.

While analysis of the per pupil tax levy assists in determining the allocation of tax levies based on projected enrollment, it is the marginal expense for new students that must be analyzed when calculating the true impact of the development. Simply using the per pupil tax levy as a basis for estimating the total cost of additional students generated overestimates the marginal cost of educating an additional student. The marginal cost is defined as all of the actual costs of educating these students. There are many items in the school budget that are fixed and would not be affected by a modest increase of additional students. These fixed items include administrative services such as district clerk; district meetings; central administration, business administration, auditing and treasurer, public information, data processing, curriculum development and supervision.

The budget includes costs for administrative, program and capital costs. Approximately 55% of the total budget, or $35,170,370 million is allocated for instructional costs. Based on a student population of 1,928, the instruction costs per pupil are approximately $18,242, of which 87% or approximately $15,870 is paid by local tax levy.

Table 3J-4 Program Costs and Tax Levy Per Pupil

A Instructional Costs (57% of total budget)	B 2019-2020 Enrollment	C Instructional Costs Per Pupil (A÷B)	D % Paid by Local Tax Levy	E Per Pupil Instructional Costs Paid by Local Tax Levy (C x D)
$35,170,370	1,928	$18,242	87%	$15,870

Pocantico Hills Central School District

As discussed in Chapter 3K, Fiscal and Market Impacts, the portion of the Project Site owned by the Developer currently generates $56,936 in annual property taxes to the Pocantico CSD.

The Pocantico Hills Central School District (Pocantico Hills CSD) serves an area of about 5.5 square miles. Communities served by the Pocantico Hills CSD include parts of Briarcliff, Elmsford, Hawthorne, Pleasantville, Sleepy Hollow, and Valhalla.

From pre-kindergarten to eighth grade, students attend Pocantico Hills Central School and then make the choice to attend Briarcliff High School, Pleasantville High School, or Sleepy Hollow High School. Pocantico Hills CSD pays tuition for its students in grades 9 through 12 to attend their choice of one of these three high schools. The Pocantico CSD pays tuition to the high schools based on their non-resident tuition rates as set by New York State. The 2019-2020 Pocantico Hills CSD budget includes $5.2 million for high school tuition costs, or approximately 16.4% of the total budget.

The 2019-2020 projected Pocantico Hills CSD enrollment is 482, which is the same as the 2018-2019 enrollment.

Tuition rates that Pocantico Hills pays to partner high school districts are based on the Non Resident Tuition rates (NRT) calculated by the New York State Education Department, based on financial

information derived from the financial statements of the respective high school districts. The following table shows the distribution of high school tuition payments across high schools.

Table 3J-5 Distribution Across High Schools

High School	Tuition Payments
Pleasantville HS	$1,023,619
Briarcliff HS	$3,684,407
Sleepy Hollow HS	$479,817

Source: Pocantico Hills CSD Draft Budget Report Fiscal Year 2019-2020 (4/11/2019).

The total Pocantico Hills CSD budget for 2019-2020 is $30,813,330 – a decrease of $217,760 from the prior year. Based on a total school district enrollment of 482 students, the average cost per pupil for 2019-2020 would be approximately $63,928.

Table 3J-6 Average Cost Per Pupil (2019-2020)

A 2019-2020 Budget	B 2019-2020 Enrollment	C Cost Per Pupil (A÷B)
$30,813,330	482	$63,928

According to information provided by the Pocantico Hills CSD, approximately 83% of the per pupil cost is paid by local tax levy; the remainder of the budget comes from the State or other sources.

Table 3J-7 Tax Levy Per Pupil (2019-2020)

A Cost per Pupil	B % of Per Pupil Cost Paid by Local Tax Levy	C Tax Levy Per Pupil (A x B)
$63,928	83%	$52,837

While analysis of the per pupil tax levy assists in determining the allocation of tax levies based on projected enrollment, it is the marginal expense for new students that must be analyzed when calculating the true impact of the development. Simply using the per pupil tax levy as a basis for estimating the total cost of additional students generated overestimates the marginal cost of educating an additional student. The marginal cost is defined as all of the actual costs of educating these students. There are many items in the school budget that are fixed and would not be affected by a modest increase of additional students. These fixed items include administrative services such as district clerk; district meetings; central administration, business administration, auditing and treasurer, public information, data processing, curriculum development and supervision.

The budget includes costs for administrative, program and capital costs. Approximately 76% of the total budget, or $21,475,099 is allocated for program costs. Based on a student population of 482, the program costs per pupil are approximately $44,554, of which 83% or $36,980 is paid by local tax levy.

Table 3J-8 Program Costs and Tax Levy Per Pupil

A Program Costs (76% of total budget)	B 2019-2020 Enrollment	C Program Costs Per Pupil (A÷B)	D % Paid by Local Tax Levy	E Per Pupil Instructional Costs Paid by Local Tax Levy (C x D)
$21,475,099	482	$44,554	83%	$36,980

2. Potential Impacts

a) Police Services

The Proposed Action is expected to introduce approximately 1,333 employees to the Project Site in Phase 1 and 6,895 employees at full development of the Master Development Plan. Residential use is not included in the Proposed Action, therefore, there would be no residential population on the Project Site. The introduction of a new employment center at the Project Site is expected to result in increased demand for police protection services.

The Applicant has met with the MPPD to discuss the Proposed Action and is continuing to work with the MPPD to ensure any concerns regarding the Proposed Action are addressed in the final design and operations.

The Proposed Action would also incorporate features to increase site safety and reduce demand for police protection, including outdoor lighting, private security, and an internal circulation design to minimize the potential for vehicle and pedestrian accidents.

It is expected that the increase tax revenues generated by the Proposed Action would offset any incremental increased costs for police protection services by the MPPD and Westchester County Department of Public Safety.

Therefore, it is the Applicant's opinion that no significant adverse impacts on police services are expected due to the Proposed Action.

b) Fire and Emergency Services

The Proposed Action is expected to introduce approximately 1,333 employees to the Project Site in Phase 1 and 6,895 employees at full development of the Master Development Plan. Residential use is not included in the Proposed Action, therefore, there would be no residential population on the Project

Site. The introduction of a new employment center at the Project Site is expected to result in increased demand for fire and EMS services.

The Project Applicant has met with the Hawthorne FC to discuss the Proposed Action and is continuing to work with the Hawthorne FC to ensure any concerns regarding the Proposed Action are addressed in the final design and operations.

The Proposed Action would be designed to provide adequate site access to fire apparatus and emergency response vehicles. Additionally, the proposed buildings would be constructed to meet the latest New York State Uniform Fire Prevention and Building Code and would be equipped with sprinklers and fire alarms.

As discussed in Section 3H, Utilities, the proposed water connection to the Proposed Action has been analyzed in regard to the fire flows plus average daily domestic flows anticipated and its effects on the Kensico and Westchester County water distribution systems. Due to the head loss in the dead end sections of the Kensico Water District, at times of maximum daily demand, operating pressures drop and the system can only provide limited fire flows. The Westchester County Water District #3 system also can only provide limited fire flows. Therefore, in addition to improvements on either system the Proposed Action may utilize fire pumps and potentially fire water storage tanks to enhance the available fire protection.

A hydrant flow test shall be used to verify that there is adequate residual pressure and required flows to service the Proposed Action.

It is expected that the increase tax revenues generated by the Proposed Action would offset any incremental increased costs for fire and EMS services by the Hawthorne FC. WEMS is a nonmunicipal nonprofit agency and would not be impacted by tax revenues.

Therefore, it is the Applicant's opinion that no significant adverse impacts on fire and EMS services are expected due to the Proposed Action.

c) Recreation and Open Space

Proposed Open Space Features

The Master Development Plan includes the preservation of approximately 36 acres (46.3%) of existing open space on the Project Site. As shown in Figure 2-17, Open Space Diagram, several areas would be preserved as natural open space while other areas would be designed and landscaped active or passive open space. The natural areas would be preserved and restored to improve the riparian corridors and hillsides, creating a healthy wildlife habitat. The natural areas of the Project Site would be open to the public with mulch walking paths which would include interpretive signage focusing on ecological education. Benches would be provided for resting and opportunities to enjoy the natural environment and small pedestrian bridges would provide access across the streams. Walking paths through natural areas would be subject to the any applicable Westchester County rules and regulations.

Developed areas would include a distributed network of open spaces that provide convenient access for gathering, socializing, recreation, and educational opportunities. These open spaces would be open to the public and would provide respite and interest for workers, shoppers, visitors, and area residents. Designed open space elements of the Master Development Plan are as follows:

- Promenade and Stream Valley Pond – The Promenade and Stream Valley Pond are designed to function as an aesthetic feature, recreational space, and to provide stormwater treatment and attenuation. The eastern stream passes under Hospital Drive, from an existing off-site storm water pond, entering the Project Site through a pipe. Upon arrival, the stormwater enters a small fore-bay to allow for the settlement of solids before entering the main pond. The pond is designed to maintain a permanent depth of 4 feet with approximately 1 acre of surface area, and to attenuate up to a 100-year storm. Special treatment of the base soils is required to maintain a permanent pool. Aerators are included for oxygenation. The total area of berms, embankments, and water surface is slightly less than 2 acres. A portion of the pond would have a hard edge and pedestrian promenade at its perimeter to allow for access and other portions would likely have a variety of hard and soft edge treatments. A small plaza, approximately 7,700 SF, overlooking the pond would provide activity and gathering space. Benches would be provided throughout to provide opportunities for rest and enjoyment and a pedestrian bridge would allow connectivity across the stream.

- Neighborhood Square (16,325 SF) – A neighborhood square would provide opportunities for several activities including a lawn and plaza, a water feature, seating, lighting, landscaping and public art.

- Entry Plaza (2,219 SF) – An entry plaza at the intersection of Hospital Road and the proposed Main Street would serve as a gateway feature to the Project Site. Retail facades shape the space and provide a lively backdrop to the space. The plaza features special pavers, public art, and movable tables and chairs for a variety of seating options.

- Overlook Plaza (55,216 SF) – A plaza located toward the north center portion of the Project Site would provide a paved plaza, lawn spaces, seating, lighting, landscaping, and public art.

- West Green (7,446 SF) – A small green space would be located in the western portion of the Project Site and would be primarily planted with lawns and seating.

- Center Green (9,445 SF) – Another small green space would be provided in the center of the Project Site and would include planted and lawn areas with seating.

- Courtyards – Courtyards would be established, as designated on the Open Space Diagram, throughout the Project Site to face and link with the natural open space system and provide a campus feeling to portions of the site.

Open space elements in Phase 1 would include the preservation and restoration of portions of the natural open space network including the northern portion of the Project Site and establishment of the Promenade and Stream Valley Pond, Neighborhood Square, and Entry Plaza.

Potential Impacts

The open space features proposed on the Project Site, for both Phase 1 and the overall Master Development Plan, are designed in size and program to serve the population who would work on and visit the Project Site, such as shoppers, diners, hotel guests, visitors of the Children's Science and Education Center, the numerous employees of the on-site uses, visitors to the surrounding Grasslands Campus, and others. The open space features would be privately maintained by the Applicant, so would not adversely impact the Town of Mount Pleasant Recreation and Parks Department. It is expected that the open space to be provided on the Project Site would serve the on-site population to the extent that there would be negligible new use of existing public open space facilities.

The overall amount of open space (existing wooded and meadow areas) on the Project Site would decrease by approximately 41.7 acres; however, both the natural areas and the designed and landscaped plazas and greens would be improved and opened to the public. Natural areas would be preserved and restored to create useful and functional wildlife habitat in areas that currently provide inadequate habitat subject to dumping and erosion. Publicly accessible walking paths, totally approximately one-half mile, will take North60 users and the public through the restored and enhanced stream valleys. Interpretive signage will provide education for on-site ecological issues. The area of newly created parks, plazas, and courtyards totals 6.2 acres. Walking paths and the proposed plazas and greens would open these currently inaccessible areas to the public, adding new open space opportunities to the Town.

Based on the above, the Proposed Action would have beneficial impacts on open space by increasing public accessibility to the Project Site and preserving and restoring natural areas. The incorporation of public open space throughout the Master Development Plan would reduce the potential need for more open space outside of the Project Site.

d) Solid Waste and Recycling

The Proposed Action would introduce up to 3,000,000 SF of new development at the Project Site, which is expected to result in a substantial increase in solid waste generation. As shown in Table 3J-9 below, the uses proposed for Phase 1 are expected to generate approximately 61.6 tons per month (tpm) of solid waste. Upon completion of the Master Development Plan, 261.1 tpm of solid waste.

Table 3J-9 Parks and Recreation Resources in the Town of Mount Pleasant

Program	Solid Waste Factor	Phase 1 Employees	Phase 1 Solid Waste	Master Development Plan Employees	Master Development Plan Solid Waste
Medical Office	13 lbs. per week per employee[(1)]	444 employees	5,772 lbs./week	1,778 employees	23,114 lbs./week
Bio-Tech/Research & Development	13 lbs. per week per employee[(1)]	477 employees	6,201 lbs./week	4,645 employees	60,385 lbs./week
Neighborhood Shopping	79 lbs. per week per employee[(2)]	145 employees	11,455 lbs./week	389 employees	30,731 lbs./week
Hotel	75 lbs. per week per employee[(3)]	67 employees	5,025 lbs./week	67 employees	5,025 lbs./week
Children's Science & Education Center	79 lbs. per week per employee[(2)]	Not in Phase 1	0 lbs./week	16 employees	1,264 lbs./week
Total (lbs./week)			*28,453 lbs./week*		*120,519 lbs./week*
Total (tpm)			*61.6 tpm*		*261.1 tpm*

Source: New York City Department of Sanitation. Table 14-1, "Solid Waste Generation Rates" in the New York City *CEQR Technical Manual* (2014).

Notes: (1) Factor for office buildings
(2) Factor for general retail
(3) Factor for hotels

The Proposed Action would include a solid waste collection strategy utilizing a private hauler. Solid waste would be source-separated or comingled depending on the requirements of the hauler, transported off-site, and disposed of according to all applicable local and state regulations. Solid waste collection would meet the Town of Mount Pleasant's sanitation requirements as well as the Westchester County Source Separation Law. Thus, it is the Applicant's opinion that the Proposed Action would not result in a significant adverse impact upon the Town's solid waste services.

Regulated Medical Waste

Once operational, the proposed bioscience and technology center will generate solid waste, some of which may be Regulated Medical Waste (RMW) and other specialty wastes. The exact nature of the waste production and the quantities will not be known until specific tenants are identified. All waste would be managed in accordance with applicable state and federal regulations.

New York State has provided regulatory oversight of RMW since the early 1980s, which covers all aspects of handling, storage, treatment and disposal of this waste.[8] RMW activities are governed jointly by the NYSDOH and the NYSDEC, under the following regulatory framework:

- Title 15 of Article 27 of the ECL
- 6 NYCRR Subpart 360-10
- 6 NYCRR Subpart 360-17
- 6 NYCRR Part 364 □ Public Health Law 1389 aa-gg
- 10 NYCRR Part 70

The NYSDOH is responsible for on-site waste management procedures for hospitals, freestanding diagnostic and treatment centers, residential health care facilities and clinical laboratories. The NYSDEC is responsible for overseeing storage, treatment and destruction processes for facilities not covered under NYSDOH jurisdiction, as well as off-site transport of RMW for all generators, tracking, responding to illegal disposal incidents, and for all off-site storage, transfer, treatment and disposal facilities.

All future tenants of the Project Site would be required to comply with all applicable NYS regulations for the handling, storage, transport and disposal of RMW. RMW generated at these facilities would be stored on-site prior to transportation off-site by permitted vendors to regulated/permitted disposal facilities.

Based on this information, no significant adverse impacts on human health are anticipated from the management of RMW.

e) Schools

The Proposed Project does not include any residential uses and will, therefore, not generate any public school children. However, as noted in Chapter 3K, Fiscal and Market Impacts, the Proposed Project would generate approximately $2.21 million in annual property taxes to the Pocantico Hills CSD and approximately $4.66 million in annual property taxes to the Mount Pleasant CSD. This represents a substantial increase over the $0 and $56,936 currently generated by the Project Site to the Mount Pleasant CSD and Pocantico Hills CSD, respectively. Since no school children would be generated by the Proposed Action and there would be a significant fiscal benefit to each school district, there would be no significant adverse impacts to schools as a result of the Proposed Action.

3. Mitigation Measures

a) Police Services

[8] NYSDEC. "Regulated Medical Waste". Available from https://www.dec.ny.gov/chemical/8789.html. Accessed on January 8, 2020.

In the Applicant's opinion the Proposed Action is not expected to result in significant adverse impacts on police services; therefore, no mitigation measures beyond those already incorporated into the Proposed Action are proposed. These measures would include outdoor security lighting, private security, and an internal circulation design to minimize the potential for vehicle and pedestrian accidents.

b) Fire and Emergency Services

As reported, the expansion of the Kensico Water District's system would not provide adequate fire flow to protect the North 60. Water district upgrades are recommended to accommodate the needed fire flows. Other alternatives for fire protection are being explored and may include utilizing the expansion of the existing Westchester County Water District #3 to provide fire protection needs. Additionally, an on-site storage tank may also be proposed to allow for storage of the required fire protection volume.

c) Recreation and Open Space

Reduction in overall open space acreage would be mitigated by the improved functionality and accessibility of the proposed open space features and restoration. As noted in the section above, it is anticipated that the size and scope of the proposed open space features would be adequate to serve the on-site population (comprised of workers, visitors, shoppers, hotel guests, etc.) so that potential adverse impacts to the Town's parks and recreation facilities would be negligible. Further, open spaces on the Project Site would be privately maintained so no adverse impacts are expected for the Town's Recreation and Parks Department. All new open space resources and improvements that are part of the Proposed Project would be contained within the Project Site. No other mitigation is proposed.

d) Solid Waste and Recycling

The Proposed Action would meet all applicable requirements for solid waste disposal and recycling in the Town of Mount Pleasant and Westchester County. As such, no additional mitigation measures are proposed.

e) Schools

The Proposed Action would not result in additional school children residing at the Project Site and would contribute substantially more in property taxes to the Mount Pleasant CSD and Pocantico Hills CSD than under existing conditions. Therefore, no mitigation measures are proposed.

K. FISCAL IMPACTS

1. Existing Conditions

Demographics

The Town of Mount Pleasant population is 27,231, per the 2017 American Community Survey (ACS) 5-year Estimates. This does not include unincorporated municipalities such as the Villages of Sleepy Hollow or Pleasantville. Approximately 22 percent of the population is under 18 while approximately 15 percent are over 65. The Town has 1,888 housing units, of which 87.8% are owned and 12.2% are rented. There are 8,065 family households and 1,432 non-family households in Mount Pleasant. Median household income is $124,028.

Existing Tax Revenues

The Developer Parcel currently generates a total of $109,363 in property taxes, of which $52,427 goes to the Town, County and special districts and $56,936 is distributed to the Pocantico Hills Central School District. Special districts for the Project Site include County Solid Waste, County Sewer Sawmill, Hawthorn Ambulance, Hawthorne Fire, Mount Pleasant Consolidated Lighting District, Mount Pleasant Library, and Mount Pleasant Refuse. The County-owned portion of the Project Site is not located in any special taxing districts (as per the Town tax roll). The table below breaks out the existing property taxes by tax lot.

Table 3K-1 Existing Taxes by Lot

Section-Block-Lot	Street Address	Acreage	Assessed Value	Taxes for Town, County, Special Districts	Taxes for Pocantico Hills CSD
116.8-1-9	Hospital Road	59.7134	$0	$0	$0
111.20-1-80	Saw Mill River Road	7.8048	$24,000	$15,022.67	$15,276.33
116.8-1-3	48 Saw Mill River Road	2.1015	$10,500	$6,000.69	$6,683.40
116.8-1-4	48 Saw Mill River Road	0.9585	$7,500	$4,286.22	$4,773.85
116.8-1-5	Saw Mill River Road	2.2107	$8,850	$5,057.73	$5,633.15
116.8-1-6	42 Saw Mill River Road	2.5637	$15,700	$8,972.47	$9,993.27
116.8-1-7	44 Saw Mill River Road	1.0000	$8,950	$5,114.88	$5,696.80
116.8-1-8	46 Saw Mill River Road	2.5646	$13,950	$7,972.35	$8,879.37
TOTALS		***78.9172***	***$89,450***	***$52,427.01***	***$56,936.17***

Market Data

A market and financial feasibility study ("Weitzman Study") of the Proposed Action was prepared in October, 2019 by Weitzman Associates, LLC for the Westchester County Department of Planning (see Appendix M, North 60 Market and Financial Feasibility Study). This study provides an economic and

demographic analysis; life science market analysis; healthcare market analysis; hotel market analysis; retail market analysis; residential market analysis; traditional office market analysis; living science museum market analysis; financial feasibility analysis; findings from interviews, and a conclusion. The Weitzman Study analyzed uses in both Phase 1 and the Master Development Plan. Note that the square footages analyzed in the Weitzman Study for Phase 1 slightly differ from what is proposed in the Proposed Action (see table below). Also note that the final square footage of each use is subject to change based on market condition. The uses presented in this DEIS as part of the Proposed Action represent a conservative scenario for analysis purposes.

Table 3K-2 Proposed Action and Weitzman Study Analyzed Uses

Use	Proposed Action	Weitzman Study
Bio-Tech		
Phase 1	220,000 sf	192,000 sf
Master Development Plan	2,144,000 sf	2,008,160 sf
Medical Office		
Phase 1	100,000 sf	75,000 sf
Master Development Plan	400,000 sf	400,000 sf
Retail		
Phase 1	80,000 sf	87,500 sf
Master Development Plan	214,000	214,000 sf
Hotel		
Phase 1	100,000 sf	100,000 sf
Master Development Plan	100,000 sf	100,000 sf
Living Science Center		
Phase 1	0 sf	0 sf
Master Development Plan	142,000 sf	142,000 sf
Residential		
Phase 1	0 sf	135,840 sf
Master Development Plan	0 sf	135,840 sf
TOTALS		
Phase 1	**500,000 sf**	**590,340 sf**
Master Development Plan	**3,000,000 sf**	**3,000,000 sf**

The Weitzman Study economic and demographic analysis reviewed key economic and demographic variables which influence demand for the various uses proposed in the Proposed Action. These variables include: unemployment, consumer spending, US gross national product (GDP) growth, national interest rates, economic and employment growth, tax policy implications, labor market skills, regional location, local and regional industry growth, population and household trends, age, education, income, employment sector trends, major employers in New York State and Westchester County, and other factors. Findings of the economic and demographic analysis are summarized as follows:

- The national economy is strong, as evidenced by low unemployment, consumer spending growth, and low interest rates.
- The local region is growing and improving. The New York Metropolitan Area economy is in excellent condition from an economic standpoint, with a robust overall employment base, which is growing. Local governments have deployed significant capital for infrastructure projects around the metropolitan area. Westchester County benefits from convenient access to New York City and may become an even greater spillover location for companies considering locations outside of the five boroughs. Westchester County supports a young and educated workforce.
- The region has a wealthy and educated population. Median and average household income in the New York Metropolitan Area, Westchester County and the Town of Mount Pleasant have grown moderately since 2010 and are projected to grow through 2023, supporting greater residential purchasing power. The number of young individuals living in Westchester County with advanced degrees has increased over the past decade.
- Westchester County has a higher proportion of elderly people than Mount Pleasant and the New York Metropolitan Area. Seniors are a key demand driver for medical services and senior housing.
- The fastest growing employment sector over the last year in the New York Metropolitan Area was Education and Health Services. Mount Pleasant has status as a medical cluster and is poised to capture additional healthcare employment growth.

2. Potential Impacts

Demand and Absorption

The Weitzman Study includes analysis of demand and absorption for the uses proposed in Phase 1 and for the Master Development Plan. For additional details and methodology, see Appendix M. Below are summaries of the demand and absorption rates included in the Weitzman Study for life sciences (bio-tech), medical office, retail, hotel, and living science center uses. The Weitzman Study also includes analysis of residential and office uses. Neither of these uses is included in the Proposed Action, however, summaries of this information from the Weitzman Study is included in Alternative B (Alternative Plan Under the Existing Zoning) and Alternative C (Alternative Development Program) in Chapter 4, Alternatives.

Life Sciences

Phase 1 is proposed to include approximately 200,000 gross square feet of space for life science uses (note that life science uses are referred to as bio-tech and/or research and development throughout this

DEIS[1]), of which approximately 130,000 square feet would be usable or leasable space, to be open to tenants in early 2022. The Weitzman Study concludes, based on awareness of pipeline projects, that net demand for life science spaces ranges between 322,000 to 607,000 usable square feet from 2019 to 2029. As such, adequate demand exists for Phase 1.

The Weitzman Study also concludes that it would take 35 to 57 months' worth of demand to fully lease the 130,000 usable square feet. Therefore, Phase 1 buildings would be fully leased sometime between 2023 and 2026.

The Master Development Plan includes an additional 1.8 million gross square feet of life science space, of which approximately 1.17 million square feet would be usable space. The Weitzman Study includes a conservative scenario and an optimistic scenario for absorption of the Master Development Plan. The conservative scenario concludes that life science employment in Westchester County would have to grow by approximately 3,900 jobs for there to be sufficient demand to fully lease life science space in the Master Development Plan. The Weitzman Study further estimates that it would take 285 to 470 months' worth of demand to fully lease all 1.3 million usable square feet (including Phase 1) of life science space, therefore, the buildings would be fully leased between 2044 and 2060. The optimistic absorption schedule included in the Weitzman Study suggests that it would take 171 to 251 months' worth of demand to fully lease all 1.3 million usable square feet of life science space on the Project Site, and therefore the buildings would be fully leased between 2034 and 2042.

The Weitzman Study concludes the following regarding life science real estate demand:

> While our research and analysis indicate that there is likely sufficient demand for North 60's Phase 1 to be absorbed in line with the preliminary construction schedule and terms currently set forth in the ground lease, it is far more uncertain when there will be enough demand to justify future phases. We take the position that with a concerted effort that works to ensure the success of Phase 1, the optimistic absorption schedule presented above is achievable. However, we recommend that the lease be updated to allow for a more prolonged schedule in order for enough demand to be generated over time.

Healthcare

Phase 1 includes approximately 100,000 square feet of medical office use while the Master Development Plan incorporates a total of 400,000 square feet of medical office space. The Weitzman Study analyzes leasing constraints faced by the Proposed Action and direct competition from Westchester Medical Center, and projects that there may not be sufficient demand to lease all 400,000 square feet of medical office space until 2032 or 2033.

[1] The Weitzman Study defines "life sciences" as: "The life science industry is a broad business sector that encompasses firms focused on product manufacturing, research, distribution, and technology production. It includes firms involved with genetic research, pharmaceutical production, data science, and medical technology, among other specializations. It is a diverse ecosystem of companies that complement and enhance one another to bring about innovation."

Hotel

A 100,000 square foot hotel is proposed for Phase 1, with no additional hotel use in later phases of the Master Development Plan. The Weitzman Study estimates that the proposed hotel would reach a stabilized occupancy rate at 78 percent by the year 2025 and that the proposed hotel is well suited for this location.

Retail

The Weitzman Study assumes approximately 85,000 square feet of retail use (also referred to as neighborhood shopping in this DEIS) in Phase 1 and that given nearby uses and population, as well as the proposed development in Phase 1, there is sufficient demand for retail use in Phase 1.

The Master Development Plan includes approximately 214,000 square feet of retail use to complement the other proposed uses. The Weitzman Study concludes that "successful lease-up of the medical office and life science space at the Project Site will in turn create demand for the complementary retail uses."

Living Science Center

The Master Development Plan anticipates development of an approximately 142,000 square foot Children's Science and Education Center. The Weitzman Study anticipates sufficient demand for this use.

Site Population

The Proposed Action would introduce approximately 1,133 employees to the Project Site in Phase 1 and 6,895 employees at full development of the Master Development Plan. Estimated employees by use are shown in the table below. Residential use is not included in the Proposed Action, therefore, there would be no residential population on the Project Site.

Table 3K-3 Estimated Employees on the Project Site

Use	Proposed Square Feet	Multiplier	Estimated Employees
Bio-Tech			
Phase 1	220,000 sf	1 per 300 sf of usable space[1]	477
Master Development Plan	2,144,000 sf	1 per 300 sf of usable space[1]	4,645
Medical Office			
Phase 1	100,000 sf	1 per 225 sf[2]	444
Master Development Plan	400,000 sf	1 per 225 sf[2]	1,778
Retail			
Phase 1	80,000 sf	1 per 550 sf[2]	145
Master Development Plan	214,000 sf	1 per 550 sf[2]	389
Hotel			
Phase 1	100,000 sf	1 per 1,500 sf[2]	67
Master Development Plan	100,000 sf	1 per 1,500 sf[2]	67
Living Science Center			
Phase 1	0 sf	Based on potential revenue[3]	0
Master Development Plan	142,000 sf		16
TOTALS			
Phase 1	**500,000 sf**		**1,133**
Master Development Plan	**3,000,000 sf**		**6,895**

[1] Multiplier and calculation of usable space from Weitzman Study

[2] Multipliers from U.S. Green Building Council

[3] Employees estimated using potential revenue identified in the Weitzman Study using IMPLAN.

Property Tax Revenue

Redevelopment of the Project Site would generate additional tax revenue to each of the applicable taxing districts, including the Town, County, Mount Pleasant Central School District, Pocantico Hills Central School District, and the various special districts. Although the County Parcel is not currently located in any of the special taxing districts, it is assumed for this analysis that those taxing districts located on the adjacent parcels owned by the Developer would extend to capture the entire Project Site. This tax estimation is based on an income capitalization approach that uses an estimated preliminary net operating income, a cap rate of 8.25 percent, and the 2019 Town of Mount Pleasant equalization rate of 1.40. Based on these factors, it is estimated, for analysis purposes only, that Phase 1 taxes generated would be approximately $1,660,000. Phase 1 development would only occur on the County Parcel; therefore, it is assumed for this analysis that the current property taxes on the Developer Parcel would remain at the current rate of $109,363, generating a net increase in Town taxes of $1,550,000. The total $1,660,000 in taxes includes approximately $133,000 to the Town and $200,000 to the County. The Pocantico Hills Central School District would continue to receive approximately $57,000, while the

Mount Pleasant Central School District would receive an increase to approximately $1,100,000. The tax breakdown for Phase 1 is shown in the table below.

Table 3K-4 Estimated Taxes Generated by Phase 1

Taxing Jurisdiction	Tax Rate	Phase 1 Taxes
Town Tax	149.604482	$133,337
County Tax	224.341144	$199,947
County Solid Waste	18.876795	$16,824
County Sewer Sawmill	36.18522	$32,250
Hawthorne Ambulance	6.926053	$6,173
Hawthorne Fire	90.658854	$80,801
Mt Pleasant Consolidated Lighting District	6.443417	$5,743
Mt Pleasant Library	17.121144	$15,259
Mt Pleasant Refuse	21.337361	$19,017
Mt Pleasant CSD	1367.157315	$1,093,076
Pocantico Hills CSD	649.099247	$56,936
TOTALS		**$1,659,363**

It is estimated that with the Master Development Plan, the Proposed Action would generate a total of approximately $9,300,000 (inclusive of Phase 1). This includes approximately $823,000 to the Town, $1,234,000 to the County, $1,236,000 to the Pocantico Hills Central School District, and $4,919,000 to the Mount Pleasant Central School District. The Developer currently pays $109,363 in property taxes and the County-owned property does not generate any taxes. The Master Development Plan would generate approximately $9,300,000, representing an increase of almost $9,200,00 when the project is fully complete.

Table 3K-5 Estimated Taxes Generated by the Master Development Plan

Taxing Jurisdiction	Tax Rate	Phase 1 Taxes
Town Tax	149.604482	$823,224
County Tax	224.341144	$1,234,476
County Solid Waste	18.876795	$103,873
County Sewer Sawmill	36.18522	$199,115
Hawthorne Ambulance	6.926053	$38,112
Hawthorne Fire	90.658854	$498,866
Mt Pleasant Consolidated Lighting District	6.443417	$34,456
Mt Pleasant Library	17.121144	$94,212
Mt Pleasant Refuse	21.337361	$117,412
Mt Pleasant CSD	1367.157315	$4,918,842
Pocantico Hills CSD	649.099247	$1,236,411
TOTALS		**$9,300,000**

Sales and Hotel Tax Revenue

The retail portions of the Proposed Action would also pay sales taxes to New York State, Westchester County, and the Metropolitan Transportation Authority. The retail uses are anticipated to be neighborhood retail uses such as a grocery store, health and wellness center, pharmacy, and other similar types of retail. Potential sales tax from the Proposed Action, for Phase 1 or the Master Development Plan, has not been estimated because specific tenants and retail types are not yet known. Sales taxes are distributed as follows: New York State (4%), Westchester County (1.5%) , old local share (1.5%), new local share (1%)[2], and the Metropolitan Transportation Authority (0.375%), for a combined rate of 8.375%.

The hotel proposed to be built in Phase 1 would also generate revenue for Westchester County through the Room Occupancy Tax, which charges a tax of 3 percent upon the rent for every occupied room rental. Revenue from the Room Occupancy Tax is allocated (85%) to meet the needs of the homeless and for the purpose of tourism (15%).[3] It is not yet known what the occupancy or vacancy rates would be for the proposed hotel, therefore, the Room Occupancy Tax is not estimated.

Anticipated Economic Impacts to the Local Economy During Construction

In addition to the economic benefits realized from local property taxes and sales taxes, there would be a number of additional direct and indirect economic benefits associated with the Proposed Action. An input-output methodology employing IMPLAN software was used to determine the economic impact of the Proposed Action on the Westchester County economy. Construction spending by the Developer would provide a significant benefit to the local, regional and state economies. This investment, during both construction and operation, would also spur secondary economic benefits. As worker wages and payments to suppliers are spent and recirculated in the area economy, additional jobs, income and revenue would be created in a variety of industries, such as eating and drinking establishments, retail stores, wholesalers, and service providers. It is expected that a portion of this benefit would be captured locally, particularly within the nearby hamlets of Valhalla and Hawthorne. In the short-term, it is estimated that an annual average of 576 jobs would be supported by the construction of Phase 1 over a 3.25-year period. This includes 410 direct jobs, 126 induced jobs, and 40 indirect jobs.[4]

In order to generate an estimate of the overall economic activity related to the development of Phase 1, the estimated construction budget phased over the projected 3.25-year construction period has been

[2] Note that not all of the old and new local share is allocated to the Town. Localities and school districts' share is determined by the percentage of population in the locality or school district to the whole area.

[3] Source: https://finance.westchestergov.com/room-occupancy-tax-faq, accessed January 8, 2020.

[4] *Employment* is defined to include full and part time annual average jobs for both employees and self-employed workers. Seasonal workers are accounted for in this definition of employment.

Direct Effect is a series of (or single) production changes or expenditures made by producers/consumers as a result of an activity or policy. These initial changes are determined by an analyst to be a result of this activity or policy (i.e., construction jobs directly related to on-site activity).

Indirect Effect is the impact of local industries buying goods and services from other local industries (i.e., jobs supported from construction-related spending).

applied to the IMPLAN model for Westchester County. The model indicates that the annual direct construction expenditures would result in an annual output of approximately $94,115,349 in Westchester County during the construction period.

Table 3K-6 Phase 1 Construction Period Economic Impacts

Impact Type	Jobs	Labor Income	Total Value Added	Output
Direct Effect	410	$32,628,121	$41,858,291	$65,664,214
Indirect Effect	40	$3,761,217	$5,739,060	$8,796,008
Induced Effect	126	$7,355,481	$12,893,032	$19,655,127
TOTAL EFFECTS	**576**	**$43,744,819**	**$60,490,383**	**$94,115,349**

Source: Impact Summary, Minnesota IMPLAN Group, Inc.

It is estimated that an annual average of 1,066 jobs (757 direct jobs, 233 induced jobs, and 75 indirect jobs) would be supported during the remainder of construction of the Master Development Plan, not inclusive of Phase 1. The construction of the remainder of the Master Development Plan would result in a total output of approximately $174 million in Westchester County.

Table 3K-7 Master Development Plan Construction Period Economic Impacts (Not Inclusive of Phase 1)

Impact Type	Jobs	Labor Income	Total Value Added	Output
Direct Effect	757	60,335,652	77,404,007	121,425,724
Indirect Effect	75	6,955,212	10,612,623	16,265,506
Induced Effect	233	13,601,695	23,841,689	36,346,098
TOTAL EFFECTS	1,066	80,892,558	111,858,319	174,037,328

Source: Impact Summary, Minnesota IMPLAN Group, Inc.

The model further estimates that Master Development Plan construction period direct, indirect, and induced economic activity would result in approximately $1,300,000 in sales tax revenue annually, as well as other taxes, as shown in Table 3K-8.

Induced Effect is the response by an economy to an initial change (Direct Effect) that occurs through re-spending of income by a component of Value Added. Money is recirculated through the household spending patterns causing further local economic activity (i.e., jobs created through household spending of income from direct jobs).

Labor Income includes employee compensation (wages and benefits paid to employees) and proprietor income (profits earned by self-employed individuals).

Value Added is the combination of Labor Income, other property type income (such as corporate profits and interest income) and indirect business taxes. Value Added can also be defined as gross regional product.

Output is the value of production and is equal to Value Added plus intermediate expenditures (monies spent purchasing goods and services to create an industry's production).

Table 3K-8 Master Development Plan Construction Period State/Local Tax Impact

Description	Employee Compensation	Tax on Production and Imports	Households	Corporations
Dividends				$10,402
Social Ins Tax- Employee Contribution	$75,550			
Social Ins Tax- Employer Contribution	$158,255			
TOPI: Sales Tax		$1,329,494		
TOPI: Property Tax		$2,816,296		
TOPI: Motor Vehicle Lic		$27,186		
TOPI: Other Taxes		$259,237		
TOPI: S/L NonTaxes		$7,208		
Corporate Profits Tax				$162,344
Personal Tax: Income Tax			$2,933,572.	
Personal Tax: NonTaxes (Fines-Fees			$237,407	
Personal Tax: Motor Vehicle License			$59,944	
Personal Tax: Property Taxes			$58,992	
Personal Tax: Other Tax (Fish/Hunt)			$14,659	
TOTAL EFFECTS	**$233,804**	**$4,439,421**	**$3,304,574**	**$172,746**

Source: Impact Summary, Minnesota IMPLAN Group, Inc.

Economic Impacts When Operational

As previously discussed, it is estimated that the It is estimated that Phase 1 would create 1,133 jobs. An additional 710 induced jobs, and 523 indirect jobs would be supported when Phase 1 is fully operational. This employment would produce a total labor income of approximately $246 million, with a total economic output of $477 million.

Table 3K-9 Phase 1 Operational Economic Impacts

Impact Type	Jobs	Labor Income	Total Value Added	Output
Direct Effect	1,133	164,423,054	187,912,004	272,125,155
Indirect Effect	523	40,315,979	63,361,802	94,691,150
Induced Effect	710	41,394,433	72,557,090	110,613,019
TOTAL EFFECTS	**2,366**	**246,133,466**	**323,830,896**	**477,429,323**

Source: Impact Summary, Minnesota IMPLAN Group, Inc.

The Master Development Plan (including Phase 1) is estimated to support 6,895 permanent direct jobs. These jobs would support an additional 9,519 indirect and induced jobs to the region. The total 16,414 jobs would produce labor income of approximately $1.8 billion, with a total economic output of $3.6 billion to the region when fully operational.

Table 3K-10 Master Development Plan Operational Economic Impacts

Impact Type	Jobs	Labor Income	Total Value Added	Output
Direct Effect	6,895	1,193,491,271	1,395,626,755	2,058,844,198
Indirect Effect	4,239	328,752,706	510,715,801	762,678,496
Induced Effect	5,280	307,924,600	539,721,361	822,825,497
TOTAL EFFECTS	**16,414**	**1,830,168,577**	**2,446,063,917**	**3,644,348,191**

Source: Impact Summary, Minnesota IMPLAN Group, Inc.

The economic impacts of bioscience operations are particularly significant because the jobs it creates tend to be higher paying. According recent industry reports[5], all of the various subsectors that are incorporated into the bioscience industry have average wages that exceed most other major industries in the United States. Long-term wage growth has also been consistently higher than many industries in the private sector. These higher wages typically result in higher household spending which benefits the local and regional economy. Bioscience innovation can assist in the expansion of new markets for various new products and services, which creates new businesses and jobs and provides additional valuable services and goods for consumers.

3. Mitigation Measures

The Proposed Action would result in a net positive impact for the taxing districts of approximately $1,550,000 for Phase 1 and $9,300,000 for Master Development Plan (including Phase 1). The Proposed Action would also generate revenue from sales tax and the Room Occupancy Tax. Construction spending and associated annually supported jobs would be substantial. Approximately 6,895 direct jobs would be created by the Master Development Plan which would create additional positive economic impacts to the local and regional economies. Construction spending during the construction periods and permanent jobs to be created by Phase 1 and the Master Development Plan would result in significant economic output, which would support local and regional businesses, workers, and residents.

It is not anticipated that the Proposed Action would result any adverse impacts to the taxing districts or local economy and no mitigation is required.

[5] *Investment, Innovation and Job Creation in a Growing U.S. Bioscience Industry*, by TEConomy Partners LLC and BIO, 2018.

L. HISTORIC ARCHEOLOGICAL AND CULTURAL RESOURCES

This chapter identifies historic, archeological and cultural resources at the Project Site and in its vicinity, and presents an analysis of the potential impacts of the Proposed Action on these resources. Hartgen Archeological Associates, Inc. prepared a Phase I Archeological Investigation for the Proposed Action (see Appendix I), the results of which are presented in this chapter. Any proposed measures to mitigate potential impacts to historic, archeological and cultural resources are also identified in this chapter.

1. Existing Conditions

Historic Resources on and Surrounding the Project Site

The *Phase I Archeological Investigation* included research using the New York State Cultural Resource Information System (CRIS) and the Westchester County Inventory of Historic Places to identify the presence of listed or eligible historic sites within one-half-mile of the Project Site. This research identified two National Register Listed (NRL) properties and one National Register Eligible (NRE) district (the Grasslands Medical/Correctional Facility Historic District) within one-half-mile of the Project Site. There are no sites listed on the Westchester County Inventory of Historic Places within one-half-mile of the Project Site. In the central-northern portion of the Project Site, the existing 19th century house at 84 Old Saw Mill River Road is a contributing structure to the Grasslands Medical/Correctional Facility Historic District. Table 1 presents the results of the historic research.

Table 3L-1 Inventoried Properties On and Within One-Half-Mile of the Project Site

Property Name	USN	Status	Description	Location and Proximity to Project Site
Taconic State Parkway	02NR05036	NRL	Follows a north-south path extending 105.3 miles from the Kensico Dam Plaza to I-90; constructed between 1923 and 1963	2,200 feet northwest
Rockefeller Pocantico Hills Estate Historic District	18PR07074	NRL	Expansive historic landscape that was developed in the later 19th and the first half of the 20th century	800 feet northwest
Grasslands Medical/Correctional Facility	11908.000250	NRE	400 acres, late 19th century through the 1980s; 5 miles north of White Plains; property is bordered on the east by the Sprain Brook Parkway, on the north by Stevens Avenue, on the west by the Old and New Saw Mill River Roads, and by	Encompasses the Project Site

			privately-owned mixed use properties; and on the south by Route 100C and property owned by the New York City Department of Environmental Protection	
Maple Cottage (#22)	11908.000272	Contributing property to the NRE Grasslands Medical/Correctional Facility	84 Old Saw Mill River Road; mid-19th century construction	Within the northwestern corner of the Project Site
Ruth Taylor Psychiatric Institute (#23)	11908.000273	Contributing property to the NRE Grasslands Medical/Correctional Facility	Constructed in 1935; three-story brick structure with an irregular floor plan and a flat roof	300 feet south of the southern boundary of the Project Site
48 Saw Mill River Road	11908.000417	Not eligible	Built mid-20th century.	Within the western section of the Project Site
48A Saw Mill River Road	11908.000418	Not eligible	Built mid-20th century.	Within the western section of the Project Site
42 Saw Mill River Road	11908.000419	Not eligible	Built mid-20th century.	Within the southwestern section of the Project Site
44 Saw Mill River Road	11908.000420	Not eligible	Built mid-20th century.	Within the southwestern section of the Project Site
46 Saw Mill River Road	11908.000421	Not eligible	Built mid-20th century.	Within the southwestern section of the Project Site

While the documentary research conducted during the *Phase I Archeological Investigation* identified the Grasslands Medical/Correctional Facility and Maple Cottage (#22), both of which are on the Project Site, as NRE, subsequent consultations with OPRHP led to determinations that neither of these resources are NRE (see Appendix I).

Archeological Resources

The *Phase I Archeological Investigation* prepared by Hartgen for the Proposed Action includes an area of potential effects (APE) of approximately 57.6 acres, including all portions of the Project Site that would be directly altered by construction of the Proposed Action.

The *Phase I Archeological Investigation* included a site visit to determine existing conditions at the Project Site. The site visit determined that the Project Site is largely undeveloped and steeply sloped, but has been subject to disturbance in select areas.

Disturbance associated with filling for roadway construction was observed along the eastern/southeastern boundary of the Project Site, near Sprain Brook Parkway and Hospital Road. There is an old construction parking lot/staging area in the southern portion of the Project Site that is situated adjacent to an area used for County artificial fill to the north. There are buried utilities within a lawn area along Hospital Road south of the construction parking lot along Hospital Road. Wooded areas west of the construction parking lot have also been subject to modern artificial fill activities, including trash and building debris. Residential structures and a greenhouse facility are present in the western/southwestern portions of the Project Site. The *Phase I Archeological Investigation* notes that most of these structures were constructed between 1957 and 1991, based on review of historical maps and aerial images. Additional modern artificial fill activities have occurred near these residential structures in the southwestern portion of the Project Site. The western boundary of the Project Site contains gravel and push piles of soil and other debris. The northwestern portion of the Project Site, near the intersection of Old Saw Mill River Road and Saw Mill River Road also contains extensive modern artificial fill. There is a 19th century house in the central-northern portion of the Project Site at 84 Old Saw Mill River Road. This house is a contributing structure to the Grasslands Medical/Correctional Facility Historic District. There are temporary shed structures located south of this house.

Documentary research using CRIS revealed the presence of 11 reported archeological sites within one mile of the Project Site, including eight precontact sites that are generally concentrated along the Saw Mill River to the southwest of the APE (see Table 2). The *Phase I Archeological Investigation* notes that *precontact archeological sensitivity for the Project is moderate to high, and is particularly high along the ridge overlooking the tributary of the Saw Mill River in the southeastern portion of the Project, and in the southern portion of the Project near the reported precontact sites. Large areas of the Project are sloped in excess of 12%; the precontact archeological sensitivity in these areas are low* (p. 7).

Table 3L-2 Archeological Sites within One Mile of the Project Site

OPRHP Site No.	NYSM Site No.	Site Identifier	Description	Proximity to Project
11904.000171		Landmark at Eastview Area 6 Prehistoric and Historic Site	Precontact site consisting of 227 precontact artifacts which include 1 Lamoka stemmed point, 1 quartz biface, 1 quartz biface fragment, 1 quartz core, 1 chert flake, 26 quartz flakes, 8 body sherds of Precontact pottery, 172 faunal bones	5,100 feet southwest
11908.000019		Site 95 – Fieldstone Feature	Historic site consisting of an above ground fieldstone foundation	3,700 feet southwest

11908.000297		Home Depot Locus 1 Prehistoric Site	Late Archaic Precontact camp site consisting of 1 chert Bare Island point, 1 quartz side notched point, 1 broken chert biface, 176 chert and quartz retouch flakes, 55 chert and quartz production flakes, 11 production blocks, 9 production shatter and 1 fire cracked rock	3,400 feet southwest
11908.000298		Home Depot Locus 2 Prehistoric Site	Precontact workshop consisting of 7 chert and quartz retouch flakes2 chert and basalt production flakes, 1 production shatter, and 1 hammerstone	3,200 feet southwest
11908.000299		Home Depot Locus 3 Prehistoric Site	Late Woodland precontact workshop consisting of 1 broken quartz Levanna point, 10 chert and quartz retouch flakes, 15 chert and quartz production flakes, 1 tertiary production flake, 4 production shatter, and 1 biface	3,500 feet southwest
11908.000300		Saw Mill River Bluff Site	SUBi- 1680; Precontact site where 2 quartz flakes and 8 chert flakes were found	3,300 feet southwest
11908.000333		DEP Water Treatment Precontact Site	NRE; Middle Archaic to Late Woodland precontact site where 152 quartz flakes, 98 shatter, 4 bifaces, 1 utilized flake, 8 slate flakes, 9 quartzite flakes, 1 knife, 5 chert shatter, 46 chert flakes, and 1 scraper recovered	3,800 feet south
11908.000342	11985	J. Butler Site	SUBi- 2928; historic house site constructed prior to 1867	5,000 feet southwest
11908.000399		NAR Pocantico Hills Pond	Subsurface cellar hole with associated artifact scatter; possible 18th century home of Revolutionary War veteran	4,000 feet west
	9252	Unnamed site	Collection of projectile points from surface collection from 1978 site file. Site covers over 500 acres. Specific locations of point finds are not specified.	Intersects with southernmost portion of APE
	9253	Unnamed site	Collection of projectile points from surface collection from 1978 site file	4,300 feet southeast

The archeological sensitivity of the Project Site was confirmed by OPRHP in a letter dated May 1, 2019 (see Appendix I), which recommended the *Phase I Archeological Investigation*.

The *Phase I Archeological Investigation* included shovel tests in all areas that were determined to be previously undisturbed and not containing steep slopes in excess of 12 percent. The Phase IB field reconnaissance was conducted between August 12 and August 16, 2019, and on September 23, 2019. In total, 333 shovel tests were excavated on the archeologically sensitive portions of the Project Site. The *Phase I Archeological Investigation* revealed two archeological sites in the southeastern portion of the APE, known as the Saw Mill River Precontact Site and the J. Van Tassel Historic Site.

As described in the *Phase I Archeological Investigation,* the Saw Mill River Precontact Site,

> *was located along a small ridge overlooking the unnamed tributary of the Saw Mill River, which flows from the southeastern corner to the north central portion of the APE. This site is located between the tributary and the construction access road, and likely extended further to the west prior to disturbances due to dumping and the installation of the access road and construction parking lot* (p. 8).

The Saw Mill River Precontact Site was determined to be a small camp site with an unknown date, and measures approximately 500-feet-by-60-feet.

Additionally, the J. Van Tassel Historic Site, "was identified to the east of the Saw Mill River Precontact Site, across the tributary" (p. 9). This site was determined to be a domestic deposit site from the mid-to-late-19th century, and measures approximately 150-feet-by-100-feet.

The *Phase I Archeological Investigation* recommends avoidance for both the Saw Mill River Precontact Site and the J. Van Tassel Historic Site, or if avoidance is not feasible, Phase II archeological investigations of these areas. Otherwise, "[n]o significant cultural materials were recovered in the remainder of the Project. Many areas contained steep slope and/or evidence of disturbance. No further archeological investigation is recommended for the remainder of the Project" (p. 10).

2. Potential Impacts

As discussed above, the *Phase I Archeological Investigation* determined the presence of two archeological sites (Saw Mill River Precontact Site and J. Van Tassel Historic Site) within the Project Site. The *Phase I Archeological Investigation* recommended avoidance of the archeological sites or a Phase II archeological investigation if avoidance is not feasible.

The remainder of the Project Site was not found to have significant cultural materials and contained steep slopes and/or evidence of disturbance. No further archeological investigation was recommended for these remaining areas.

Under the Proposed Action, construction activities would occur at the Project Site impacting the above-mentioned archeological resources. As such, a Phase II archeological investigation would be undertaken prior to construction in satisfaction of the recommendations of the *Phase I Archeological Investigation*. The results of the Phase II archeological investigation would more clearly define the nature and extent of the archeological sites and would identify any mitigation measures that may be necessary to avoid significant adverse impacts thereon. Construction activities would incorporate any necessary mitigation measures that may be identified by the Phase II archeological investigation.

With respect to cultural resources in the vicinity of the Project Site, the Proposed Action is not expected to have any significant adverse impacts. Although the Project Site is largely undeveloped, it is surrounded by development including highways, residential neighborhoods, an office/industrial park and the Westchester Medical Center. As such, development of the Project Site would be in character

with its surroundings, and a substantial portion of the Project Site would remain undeveloped upon completion of the Master Development Plan.

3. Mitigation Measures

As discussed above, mitigation measures to protect the two identified archeological sites on the Project Site would be identified during a Phase II archeological investigation. The Proposed Action would implement any recommended mitigation measures. No other potential significant adverse impacts that would require mitigation have been identified.

M. HAZARDOUS MATERIALS

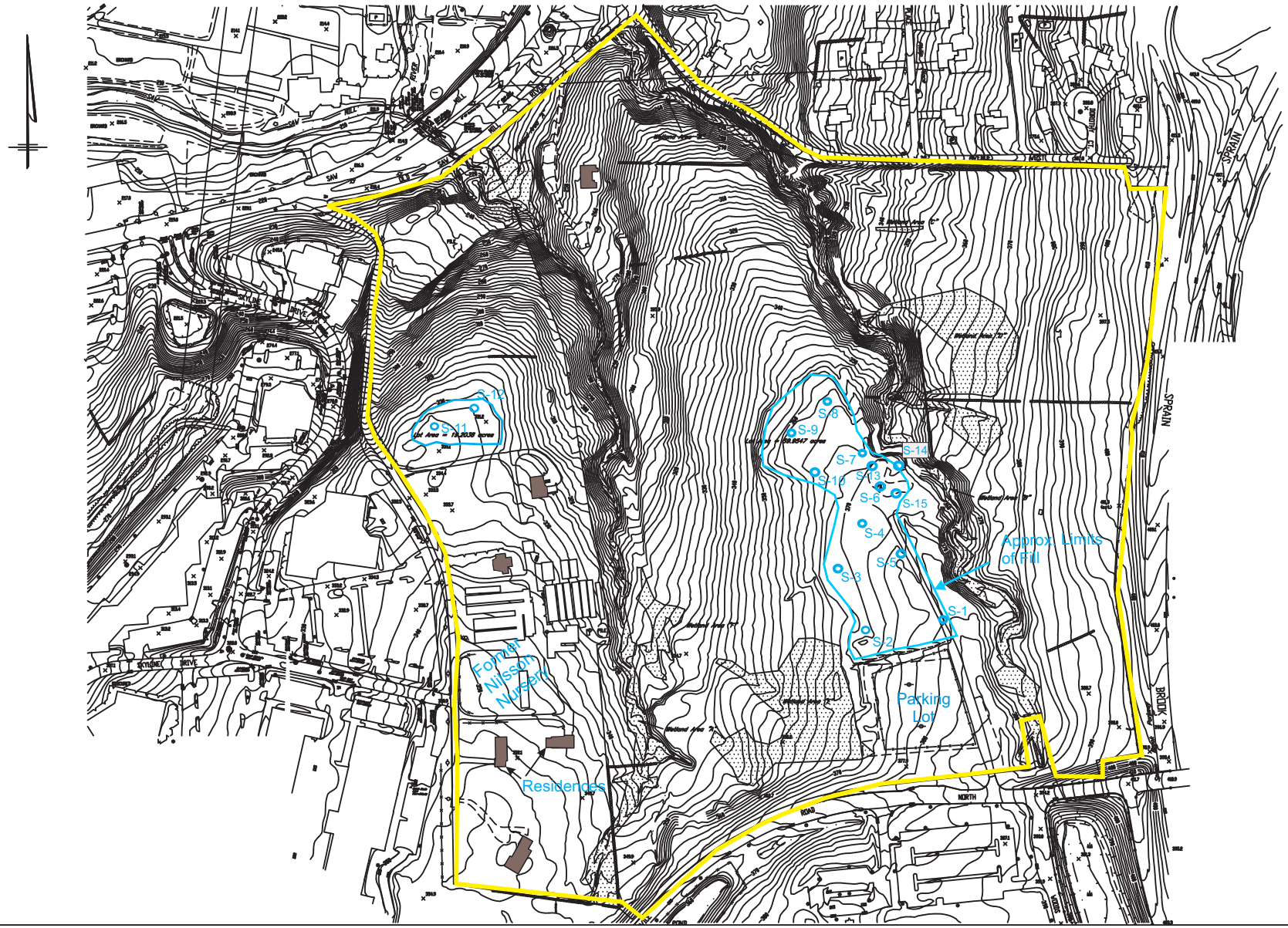
1. Existing Conditions

A Phase I / Phase II Environmental Site Assessment (ESA) was conducted for the Project Site during the months of May to July 2019. See Appendix J. The ESA involved a multi-task investigation to establish current and historic environmental conditions on the site. The specific findings of this Environmental Site Assessment are, as follows:

1) The Project Site was not identified as a hazardous materials generator or storage site in the environmental regulatory database review.
2) Historical sources, including aerial photographs and Town records indicate that the Project Site has had residences since the late 1800's. A commercial nursery (Nilsson Nurseries) operated at the site since the 1940's but closed in 2012. The County Parcel (60 acres) has remained largely undeveloped.
3) The Project Site and environs were inspected on May 9 and May 20, 2019. The purpose of the site visit was to review the physical use and appearance of the Project Site and neighboring properties as well as activities on and adjacent to the Project Site.
4) The eastern approximately 60 acres has been long owned by Westchester County, and has remained relatively undeveloped. It contains overgrown fields. A two-family residence is located in the northern portion of the former County property near Old Saw Mill River Road.
5) A fenced parking lot is located at the southern edge of the Project Site near the intersection of Hospital Road and Woods Road. The parking lot is currently used by construction workers for the Westchester Medical Center. Currently, fill from the Medical Center construction is stockpiled in a level area north of the parking lot. The fill includes construction debris such as asphalt and concrete.
6) The western portion of the Project Site contains approximately 19.2 acres and is occupied by five single-family residences and the remaining buildings of a former commercial nursery, Nilsson Nurseries. The former Nilsson Nurseries property contains dilapidated greenhouses, garages and office space. The structures are in disrepair and the grounds are overgrown. The garages contained refuse and equipment from the former business and landscaping debris remains at the rear (east side) of that property. Several partially filled drums of ethylene glycol (antifreeze) were observed in the garage.
7) Six underground fuel oil storage tanks are located on the Project Site, serving each of the onsite residences. Four of the tanks in the western portion of the Project Site were tightness tested in 2010 and were found to have passed the tightness test. The tank at 46 Saw Mill River Road could not be tested due to a damaged vent pipe, but soil testing around the tank confirmed there was no impact to the environment from that tank. The condition of the 1000-gallon underground tank at the residence near Old Saw Mill River Road could not be determined. A 275-gallon aboveground fuel oil tank is located next to the garage at the

48A Saw Mill River Road property. The tank appeared in good condition, but it had no secondary containment.

8) A search of the regulatory agency databases was performed as part of this environmental review. The Project Site is not listed on the National Priorities List or the Emergency Response Notification System. The Project Site does not appear to be subject to any current regulatory enforcement actions by Federal, State, or local regulatory agency.
9) The Project Site was not identified as a hazardous materials generator or storage site in the environmental regulatory database review. No sites that store, transport or dispose of hazardous waste materials were identified on adjoining properties.
10) The database indicates that 37 leaking tank incidents were reported within 0.5 miles from the Project site and 17 DEC spill incidents were reported within one-quarter mile from the Project Site.
11) A spill was reported in January 2000 for the Nilsson Nurseries related to the removal of two underground storage tanks. According to the database, soil contamination was observed during the tank removal. According to the Team Environmental *Phase 1 ESA Review & Database Update Report* (March 27, 2017) approximately one dumptruck load of impacted soil was removed and transported from the Project Site. The spill incident was closed on February 1, 2001 to the satisfaction of Westchester County and no longer impacts the Project Site. The closed spill incident is considered a Historic Recognized Environmental Condition (HREC).
12) Soil samples were collected from areas of former filling on May 9, 2019, May 20, 2019 and on June 26, 2019. A large area of historic filling is located north of the parking lot, in the south-central portion of the Project Site. Test pits were excavated at 10 locations north of the parking lot. Two additional soil samples (S-11 and S-12) were collected from fill piles observed on the western portion of the Project Site near Saw Mill River Road. Additional samples (S-13 to S-15) were collected around sample location S-6 to better characterize soil in that area. See Figure 3M-1, Soil Sampling Location Plan.
13) The analytical results for the fifteen historic fill soil samples showed no concentrations of volatile organic compounds (VOC's) above the laboratory detection limits. Concentrations of pesticide – herbicide compounds were below the laboratory detection limits. Metals concentrations were generally below the DEC unrestricted use soil clean-up objectives (DER-10). Selenium concentrations were slightly above the DEC clean-up objective (3.9 ppm) in samples S-1 through S-10. The sample from location S-6 had concentrations of chromium and lead above the DEC unrestricted use clean-up levels.
14) Samples from locations S-1, S-6 (and related S-13, S-14, S-15), and S-7 had concentrations of semi-volatile organic compounds (SVOC) above the DEC unrestricted use clean-up guidelines with several compounds above the restricted commercial use guidelines. Sample S-6 taken from an above-grade soil pile at the edge of the access road, had the highest concentrations of semi-volatiles.
15) More recently deposited piles of concrete, asphalt and fill are located directly north of the parking lot. This material was generated during recent renovations and expansion of the Westchester Medical Center. In order to characterize this material, five (5)



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Soil Sampling Location Plan

Source: Tim Miller Associates

composite samples were collected from the above-grade fill piles on June 26, 2019 and were labeled F-1 through F-5. The samples were screened with a PID meter and collected with hand tools at generally 6 to 12 inches in depth. Samples F-1 through F-5 are representative of recent construction fill. The analytical results for samples F-1 through F-5 from recent construction related fill indicate that no parameters (VOC, SVOC, pesticides, PCBs and RCRA 8 metals) were above DEC unrestricted use soil clean-up guidelines. This fill soil can be used onsite as part of the Proposed Action.

2. Potential Impacts

The investigation has found recognized environmental conditions on the Project Site that have the potential to affect the Project Site. This opinion is based on the information collected and reviewed for this report. The recognized environmental conditions include:

1) Six underground fuel oil tanks associated with the onsite residences are in-use on the Project Site. Although five of the tanks were tightness tested in 2010, the tanks current condition cannot be determined.

2) A 275-gallon aboveground fuel oil tank is located adjacent to the garage at 48A Saw Mill River Road. The tank appeared in good condition with no observed leaks or spills but it had no secondary containment.

3) Several 55-gallon drums of ethylene glycol were observed in two garages from the former Nilsson Nurseries.

Once operational, the proposed bioscience and technology center will generate solid waste, some of which may be Regulated Medical Waste and other specialty wastes. The exact nature of the waste production and the quantities would not be known until specific tenants are identified. As discussed in Chapter 3J, Community Services, all waste would be managed in accordance with applicable state and federal regulations.

Regulated Medical Waste

New York State has provided regulatory oversight of Regulated Medical Waste (RMW) since the early 1980s, which covers all aspects of handling, storage, treatment and disposal of this waste.[1] RMW activities are governed jointly by the NYSDOH and the NYSDEC, under the following regulatory framework:

› Title 15 of Article 27 of the ECL
› 6 NYCRR Subpart 360-10
› 6 NYCRR Subpart 360-17
› 6 NYCRR Part 364 ϒ Public Health Law 1389 aa-gg

[1] https://www.dec.ny.gov/chemical/8789.html

› 10 NYCRR Part 70

The NYSDOH is responsible for onsite waste management procedures for hospitals, freestanding diagnostic and treatment centers, residential health care facilities and clinical laboratories. The NYSDEC is responsible for overseeing storage, treatment and destruction processes for facilities not covered under NYSDOH jurisdiction, as well as offsite transport of RMW for all generators, tracking, responding to illegal disposal incidents, and for all offsite storage, transfer, treatment and disposal facilities.

All future tenants of the Project Site would be required to comply with all applicable NYS regulations for the handling, storage, transport and disposal of RMW. RMW generated at these facilities would be stored onsite prior to transportation offsite by permitted vendors to regulated/permitted disposal facilities.

Based on this information, no significant adverse impacts on human health are anticipated from the management of RMW.

3. Mitigation Measures

Mitigation measures to be undertaken prior to construction include the following:

1) Prior to the issuance of the Certificate of Occupancy for the Phase 1 buildings, all drums of ethylene glycol will be removed from the two garages from the former Nilsson Nurseries.

2) Prior to the issuance of the certificate of occupancy for the phase 1 buildings, the six underground fuel oil tanks connected to the six residences will be tightness tested by a qualified tank testing contractor, if the homes remain in use. If the homes are scheduled for demolition then the tanks would be removed in accordance with applicable regulations. Secondary containment will be provided for the 275-gallon above ground tank near the garage at 48A Saw Mill River Road.

3) A fill soil management plan will be developed with the Town and the WCDOH, for the three locations with elevated concentrations of semi-volatile compounds (S-1, S-6 (and related S-13, S-14 and S-15), and S-7). As permitted, some materials may be kept onsite in a capped location.

4) Fill piles associated with the Westchester Medical Center construction can be reused onsite. Concrete, asphalt and organic material such as tree stumps will be removed from the Project Site if the material cannot be recycled onsite.

N. NOISE

The Proposed Action would introduce new sources of noise that have the potential to affect noise-sensitive uses in the surrounding area. This chapter includes background noise information, a summary of applicable noise regulations, a description of noise-sensitive receptors, evaluation of noise from construction activities and operation of the proposed facilities, an assessment of the effects of noise according to state and local noise policies and ordinances, and an evaluation of construction noise mitigation measures and best management practices.

1. Existing Conditions

a) Noise Background

Noise is defined as unwanted or excessive sound. Sound becomes unwanted when it interferes with normal activities such as sleep, work, or recreation. The individual human response to noise is subject to considerable variability since there are many emotional and physical factors that contribute to the differences in reaction to noise.

Sound (noise) is described in terms of loudness, frequency, and duration. Loudness is the sound pressure level measured on a logarithmic scale in units of decibels (dB). For community noise impact assessment, sound level frequency characteristics are based upon human hearing, using an A-weighted (dBA) frequency filter. The A-weighted filter is used because it approximates the way humans hear sound. The A-weighting scale was developed and has been shown to provide a good correlation with the human response to sound and is the most widely used descriptor for community noise assessments[1]. The faintest sound that can be heard by a healthy ear is about 0 dBA, while an uncomfortably loud sound is about 120 dBA.

A variety of sound level descriptors can be used for environmental noise analyses. These descriptors relate to the way sound varies in level over time. The following are common sound level descriptors used in this evaluation:

Energy-Average Sound Level (Leq) is a single value that represents the same acoustic energy as the fluctuating levels that exists over a given period of time. The Leq takes into account how loud noise events are during the period, how long they last, and how many times they occur. Leq is commonly used to describe environmental noise and relates well to human annoyance. An Leq over an 8-hour period is commonly used to evaluate construction noise and is denoted Leq [8hr].

Statistical Sound Levels – Sound level metrics such as L01, L10, L50 or L90 represent the levels that are exceeded for a particular percentage of time over a given period. For example, L10 is the level which is exceeded for 10 percent of the time. Therefore, it represents the higher end of the range of sound levels.

[1] Harris, Cyril M. *Handbook of Acoustical Measurements and Noise Control*. Third ed. N.p.: McGraw-Hill, n.d. Print.

The L90, on the other hand, is the level that is exceeded 90 percent of the time and therefore is representative of the background sound level.

Maximum Sound Level (Lmax) – Many sources of sound, including mobile sources and stationary sources, change over time. It is common to describe sound in terms of the maximum (Lmax) sound level emissions. Table 3N- 1, below, presents the maximum sound levels associated with common outdoor and indoor sources

Table 3N-1 Common Outdoor and Indoor Sound Levels

Outdoor Sound Levels	Sound Pressure (μPa)*		Sound Level (dBA)**	Indoor Sound Levels
Jet Over-Flight at 300 m	6,324,555	-	110	Rock Band at 5 m
		-	105	
Gas Lawn Mower at 1 m	2,000,000	-	100	Inside New York Subway Train
		-	95	
Diesel Truck at 15 m	632,456	-	90	Food Blender at 1 m
		-	85	
Noisy Urban Area—Daytime	200,000	-	80	Garbage Disposal at 1 m
		-	75	Shouting at 1 m
Gas Lawn Mower at 30 m	63,246	-	70	Vacuum Cleaner at 3 m
		-	65	Normal Speech at 1 m
Suburban Commercial Area	20,000	-	60	
		-	55	Quiet Conversation at 1 m
Quiet Urban Area—Daytime	6,325	-	50	Dishwasher Next Room
		-	45	
Quiet Urban Area—Nighttime	2,000	-	40	Empty Theater or Library
		-	35	
Quiet Suburb—Nighttime	632	-	30	Quiet Bedroom at Night
		-	25	Empty Concert Hall
Quiet Rural Area—Nighttime	200	-	20	
		-	15	Broadcast and Recording Studios
Rustling Leaves	63	-	10	
		-	5	
Reference Pressure Level	20	-	0	Threshold of Hearing

Source: Federal Highway Administration. *Highway Noise Fundamentals*. September 1980.

* μPA – MicroPascals, which describe pressure. The pressure level is what sound level monitors measure.

** dBA – A-weighted decibels, which describe pressure logarithmically with respect to 20 μPa (the reference pressure level).

The following general relationships exist between noise levels and human perception:

- A one or two dBA increase is not perceptible to the average person;
- A three-dBA increase is a doubling of acoustic energy, but is just barely perceptible to the human ear; and
- A 10-dBA increase is a tenfold increase in acoustic energy but is perceived as a doubling in loudness to the average person.

Because sound levels are measured in decibels, adding sound levels is not linear. For example, when there are two equal sources of sound added together, the overall level increases 3 dB (e.g., 60 dB plus 60 dB equals 63 dB).

b) Noise Policies and Ordinances

New York State Department of Environmental Conservation

The New York State Department of Conservation (NYSDEC) program policy provides guidance on the methods to assess potential noise impact and avoid or reduce adverse impacts.[2] The NYSDEC policy addresses noise assessments and mitigation for both construction and operation of a proposed Project.

As shown in Table 3N-2, below, the NYSDEC policy includes guidelines for assessing noise impacts and mitigation. If long-term operations due to a proposed project would increase noise by three dB or less, there would be a minimal effect in future noise conditions and there is no need for mitigation. Changes in noise less than three dB are typically considered to be imperceptible in most environments. If a project would increase ambient noise levels by 3 to 6 dBA, there is potential for adverse noise impact for the most sensitive receptors, and there may be a need for mitigation. For increases in noise of 6 to 10 dBA, there is a greater potential for impact, and mitigation is generally needed. For increases in ambient noise of 10 dBA or more, mitigation is warranted where reasonable.

When a noise study indicates that the proposed action may result in significant impact, NYSDEC requires the applicant to implement reasonable and necessary measures to mitigate or eliminate the adverse effects. If a significant adverse impact is identified, in addition to physical mitigation measures, such as reducing sound at the source or installing noise barriers, an applicant should also consider best management practices (BMPs) to reduce noise by means of modifying noise-generating equipment, limiting the time of noisy operations, or relocating noise sources farther away from receptors.

Since construction activities are short-term in relation to operational noise, separate thresholds are generally used to assess construction noise. According to NYSDEC policy, a proposed action should generally not raise ambient sound levels above 65 dBA in non-industrial settings or above 79 dBA in industrial environments. Therefore, given the temporary nature of construction noise, an increase in ambient noise of 10 dBA or more that would increase levels above 65 dBA is considered a reasonable

[2] New York State Department of Environmental Conservation. "Assessing and Mitigating Noise Impacts". Program Policy, February 2001.

construction noise threshold. Beyond these levels, it is recommended that BMPs be used to minimize the effects of construction noise.

Table 3N-2 NYSDEC Guidelines for Assessing Long-Term Operational Noise Impact and Mitigation

Noise Level Increase (dB)	Impact Determination	Need for Mitigation
0 to 3	No impact	None
3 to 6	Potential adverse impact for the most sensitive receptors	Mitigation may be needed for the most sensitive receptors.
6 to 10	Potential adverse impact depending on existing noise level and character of land use	Mitigation is generally needed for most residential receptors.
10 or more	Adverse impact	Mitigation is warranted where reasonable.

Source: Table created based on NYSDEC Program Policy for Assessing and Mitigating Noise, 2001, VHB.

The NYSDEC program policy does not supersede any local noise ordinances or regulations. Therefore, the Noise Ordinance of the Town of Mount Pleasant is outlined, below.

New York State Department of Transportation

The NYSDOT has a noise policy (The Environmental Manual, Chapter 4.4.18) on how to assess potential highway noise impact in fulfillment of Federal Highway Administration (FHWA) regulations 23 CFR 772. However, this noise policy only applies to highway improvement projects which are approved by the FHWA and where a proposed project would introduce new highways or make substantial improvements to existing highways. Therefore, the NYSDOT noise policy does not apply to the current Proposed Action.

Town of Mount Pleasant Noise Ordinance

The Town of Mount Pleasant has developed a Noise Ordinance at Chapter 139 of the Town Bylaws to prevent excessively loud noise which may jeopardize the well-being and comfort of its citizens. Accordingly, the Town has defined unnecessary noise and enumerated specifically prohibited acts. The town prohibits unnecessary noise which is defined as any excessive or unusually loud sound which annoys, disturbs injures, or endangers the comfort or safety of a considerable number of persons. The Noise Ordinance defines specific acts that are prohibited. Acts related to the Proposed Action include:

- **Containers and Construction Materials**. No person shall load, unload, handle, transport, open, close or destroy any containers or construction material in such a manner as to create unnecessary noise.

- **Exhausts.** No person shall cause or permit the discharge into the open-air exhaust of any device, including but not limited to any steam engine, diesel engine, internal combustion engine or turbine engine, so as to create unnecessary noise.

- **Commercial Construction.** There shall be no commercial construction on any Sunday in the Town of Mount Pleasant.

In a separate article of the Noise Ordinance, the Town has placed sound level standards on certain activities. The use of air-conditioning and air-handling equipment is prohibited if its produces sound levels exceeding 55 dBA at the property line of receptor in areas zoned residential, single-family or multiple dwelling units or if the air-handling units produce sound levels exceeding 5 dBA above the existing background. Air compressors can only be operated if they are equipped with a muffler that provides 20 dBA of insertion loss. Paving breakers should be operated with a muffler that provides 5 dBA of insertion loss.

The noise ordinance also includes general sound level limitations by receiving land use. These limits apply at the property line of the source property in a residential district or at the boundary lines of the receiving land use district for non-residential districts. In residential districts, noise should not exceed 65 dBA (or 60 dBA L10) between the hours of 8:00 am and 6:00 pm or 55 dBA (50 dBA L10) during the corresponding nighttime hours. These criteria are decreased by 5 dBA if the noise impulsive or tonal. In commercial or retail districts, noise is limited to 65 dBA or 60 dBA L10.

Specific prohibitions are placed on construction activities. In a residential district, construction noise exceeding an L10 sound level of 70 dBA at 400 feet from the construction is not allowed between the hours of 8:00 am and 6:00 pm. Construction occurring between 6:00 pm and 8:00 am is not allowed to exceed an L10 sound level of 55 dBA when measured 400 feet from the site. In all other districts, L10 sound levels cannot exceed 75 dBA at 400 feet from the site during normal business hours and cannot exceed 80 dBA at 400 ft from the site outside of normal business hours. Notwithstanding the above provisions, construction cannot occur between the hours of 5:00 pm and 8:00 am without first obtaining a permit from the town. In a separate article on construction activities, the Noise Ordinance permits construction activities to occur only between the hours of 8:00 am and 6:00 pm on weekdays and 8:00 am to 5:00 pm on Saturdays. Construction is prohibited in Sundays and Holidays.

c) Ambient Conditions

The Project Site is situated in a densely populated suburb adjacent to a medical college and commercial/industrial business park. The main source of artificial sound is from street traffic, including passenger vehicles, buses and commercial trucks, which frequently travel along Hospital Road, Route 9A and Route 100. High-speed passenger vehicles also travel along the Sprain Brook Parkway, east of the Project Site.

d) Noise-Sensitive Uses

The Proposed Action is located adjacent to residential, institutional and recreational land uses. According to NYSDEC noise policy, these land uses are typically considered to be noise receptors. Noise has been evaluated at the following existing noise receptor areas (see Figure 3N-1).

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Noise Monitoring Locations

Source: VHB Engineering, Surveying, Geology, and Landscape Architecture P.C.

Stevens Avenue – The receptors along Stevens Avenue, Philip Place, and Dorothy Court are primarily residential. The nearest residences are north of the Project Site at a distance of approximately 30 feet from the Project Site. These residences are primarily single-family homes. While these homes are adjacent to the Project Site, the nearest home at 187 Stevens Avenue is approximately 250 feet from nearest proposed building included in the Master Development Plan. These receptors are located in a residential zoning district.

Little Years Day Care – Little Years Day Care is a day care center at 1 Skyline Drive to the west of the Project Site. It is located adjacent to Route 9A and within a larger business park. The park includes various commercial and industrial uses including pharmaceuticals, warehouses, and other office uses. The day care facility is approximately 100 feet from the Project Site, but nearly 350 feet from the nearest proposed building under the Master Development Plan. This receptor is located in a commercial zoning district.

Westchester Medical Center – Westchester Medical Center is located approximately 350 feet south of Project Site. Westchester Medical Center is an in-patient hospital that offers a variety of the medical services. This noise-sensitive receptor has the potential to be affected by both operational and construction-related noise introduced by the Proposed Action. Although other receptors are closer to proposed buildings in the Master Development Plan, Westchester Medical Center is the closest receptor to building that is proposed in the Phase 1 Project. This receptor is located in a residential zoning district.

North East Westchester Special Recreation – North East Westchester Special Recreation is located approximately 300 feet east of the Project Site, across the Sprain Brook Parkway. The property provides community-based therapeutic recreation for children and adults with developmental disabilities. The receptor is located approximately 650 feet from any development occurring in the Phase 1 Project. This noise-sensitive receptor has the potential to be affected by both operational and construction-related noise introduced by the Proposed Action. This receptor is located in a residential zoning district.

e) Noise Measurement Results

Noise measurements were conducted to characterize the existing ambient conditions. The noise monitoring was conducted with an American National Standards Institute (ANSI) Type 1 noise monitor (Larson Davis SoundExpert LxT). Short-term noise measurements (15-min) were conducted on Friday, June 28, 2019 during the daytime period (1:00 PM to 3:00 PM).

The following describes the four short-term noise measurement locations (Figure 3N-1). All sound level meters were located at a height of five feet above ground. The predominant source of ambient sound was traffic on local roadways for all measurement locations. Table 3N-3 below summarizes the noise measurement results at each site including the equivalent sound level (Leq), the maximum sound level (Lmax), three statistical measures (L10, L50, and L90) and the minimum sound level (Lmin).

This table shows that sound levels ranged from 51.8 to 71.5 dBA (Leq) during the daytime. The receptors are located in commercial or residential zoned districts that all have maximum daytime sound level limit

of 65 dBA according to the Noise Ordinance. Based on the noise measurements, maximum sound levels at M2, M3, and M4 and Leq sound levels at M4 currently exceed the commercial and residential daytime limit due to primarily to current traffic conditions. The quietest location was Stevens Avenue which is north of the Project Site and experiences less roadway noise than other sites. The loudest location was at the North East Westchester Special Recreation which is located next to the Sprain Brook Parkway.

Table 3N-3 Existing Noise Measurement Results

Site	Location	Measurement Time	Leq (dBA)	Lmax (dBA)	Lmin (dBA)	L10 (dBA)	L50 (dBA)	L90 (dBA)
M1	Stevens Avenue	1:54 PM	51.8	64.2	45.1	55.2	48.1	46.4
M2	Little Years Day Care	1:24 PM	59.2	70.9	52.7	61.7	57.7	54.6
M3	Westchester Medical	2:55 PM	60.8	74.7	50.4	64.8	57.1	52.3
M4	North East Special Rec.	2:20 PM	71.5	75.8	65.9	72.9	71.5	69.5

Source: VHB, 2019.
Note: Measurements conducted by VHB on June 28, 2019.

2. Potential Impacts

The Proposed Action would introduce new sources of noise that may affect existing noise-sensitive receptors in the immediate area surrounding the Project Site during construction and operation of the Proposed Action. This section presents the results of the noise impact assessment according to the NYSDEC noise policy and the Town of Mount Pleasant Noise Ordinance.

a) Stationary Source Noise Impact Assessment

Operational sources of noise associated with the Proposed Action primarily include rooftop heating, ventilation, and air conditioning (HVAC) mechanical equipment. Details of the HVAC systems for the Proposed Action are still highly preliminary and would be developed throughout the design process of Proposed Action. At the time of this DEIS filing, two potential HVAC pathways have been identified. The first pathway ("Option A") would utilize a central chiller and boiler plant that would service all or most of the proposed buildings. Such plant would be located in an at-grade central plant building, interior to the Project Site and away from the identified receptor locations. Each building would then have hot water/chilled water rooftop air handling units to provide space conditioning to each proposed building using hot and chilled water from the central plant. The alternative HVAC scenario ("Option B") under consideration is to provide packaged rooftop units to each of the proposed buildings without a central plant. Boilers would be located indoors at each of the proposed buildings. Both scenarios would require a similar number of rooftop units distributed across the proposed buildings.

HVAC Option A is expected to be relatively quieter than HVAC Option B. Under Option A, HVAC equipment such as chillers and boilers would be contained within a central plant building that would be constructed with sufficient wall materials to significantly attenuate noise emanated from the mechanical equipment inside. Such a building would likely be centrally located on the Project Site which would increase the distance between these sound sources and receptor locations. Additionally, the rooftop units required under Option A are slightly quieter that the rooftop units currently considered for

Option B. However, all rooftop equipment is not expected to cause a substantial increase in noise due to the distances between the proposed buildings and the receptor locations, the elevated location of the rooftop equipment and shielding provided by any penthouse mechanical rooms, parapet walls and the rooftop itself. As there are less proposed buildings in Phase 1 as compared to the Master Development Plan and these proposed buildings are centrally located on the Project Site, there is less potential for stationary source noise in the Phase 1 Project to increase sound levels.

The mechanical equipment would be designed, constructed and located in a manner so as not to result in a significant adverse noise impact per NYSDEC policy and to comply with the Town of Mount Pleasant Noise Ordinance. According to the noise ordinance, sound levels from the air handling units must not exceed 55 dBA or 5 dBA above the background sound level at the property line. Additionally, noise from the Project's stationary sources may not exceed 65 dBA during the day and 55 dBA during the night at receptors in residentially zoned districts and 65 dBA at all times for all other zoning districts. Modern mechanical rooftop equipment is designed for efficient operation and effective noise attenuation. Sound level reductions, as required, would be achieved from the attenuation provided by a mechanical penthouse, rooftop screening walls or by specifying quieter equipment.

Sound levels from generators are highly variable depending on generator size and enclosure type. Information about potential emergency generators is not yet available for the Proposed Action. Any emergency generator used for the proposed development would be designed, constructed and located to comply with NYSDEC policy and the Town of Mount Pleasant Noise Ordinance. Such generators would be appropriately specified to include the necessary enclosure and exhaust silencer to meet the attenuation requirements. Generators would only operate during periodic testing and emergencies.

As the mechanical equipment would be designed, constructed and located in a manner to comply with NYSDEC policy and the Town of Mount Pleasant Noise Ordinance, no significant adverse stationary source noise impacts are anticipated for both Phase 1 and the Master Development Plan.

b) Mobile Source Noise Impact Assessment

The Proposed Action has the potential to increase mobile source noise associated with vehicle trips generated by the implementation of the Project. Changes in noise associated with roadway traffic is generally correlated to roadway volumes. Based on the noise measurements conducted in Section 2.c), roadway noise is a primary contributor to the noise environment at the receptor locations. Existing traffic on nearby roadways is mix of light-duty and heavy-duty vehicles. Sprain Brook Parkway, while only servicing light-duty vehicles, carries high volumes at increased speeds leading to comparatively loud sound levels for receptors in its vicinity. Hospital Road carries a mix of vehicle types including buses on the Westchester Bee-Line system. The other major roadway adjacent to receptor locations is Route 9A which is a minor arterial carrying moderate traffic volumes and variety of vehicle types. Stephens Avenue is low-volume local roadway with minor contributions of mobile source noise.

Both Phase 1 and the Master Development Plan have the potential to increase roadway noise due to trip generation induced by the Project. Phase 1 would generate less trips than the Master Development Plan due to the smaller development size. The majority of trips generated by the Project would be light-

duty vehicles with some larger vehicles associated with pick-up and delivery activities. The greatest potential for increased roadway noise associated with the Project would be during the morning and evening weekday peak periods when the most trips are generated. This corresponds to the time-frame when nearby roadways are already most likely to see the highest roadway volumes. Trips generated by both Phase 1 and the Master Development Plan are expected to primarily travel on already heavily-trafficked roadways such as Sprain Brook Parkway, Route 9A, Hospital Road and Route 100. The receptor locations along Stephens Avenue would not see a substantial change in mobile source noise as no trips associated with the Proposed Action are anticipated to travel on this roadway. Therefore, there would be no significant adverse noise impact due to mobile sources.

c) Construction Activities

The potential for noise impact due to construction activities would depend upon the phase of construction, the type, amount and location of construction equipment, and the amount of time such equipment operates over a workday. Construction of the Proposed Action would include demolition of the existing structures on-site, land clearing, installation of underground utilities, construction of the new building foundations, and lastly, construction of the proposed buildings and all site improvements.

Table 3N-4, below, describes the construction equipment that is likely to be used during demolition and foundation/building erection phases of the Proposed Action. Although specific construction equipment and methods have not yet been determined for the Proposed Action, the equipment identified in Table 3N-4 is representative of typical construction methods for these types of projects. This table presents the maximum sound level at 50 feet from each piece of equipment, the utilization factor (which is a measure of how often the equipment is operating throughout the workday), and the construction phases in which the equipment is included. The equipment reference noise levels are based on the Federal Highway Administration (FHWA)'s Roadway Construction Noise Model database. The equivalent sound level (Leq), which includes contributions from all construction equipment, ranges from 85 to 95 dBA at 50 feet.

Impact pile driving for the proposed building foundations may occur during a portion of the excavation/foundation phase of the construction process; this activity would generate the highest noise levels, 101 dBA at 50 feet. Subsequent activities involved in the foundation construction and other aspects of the construction would be substantially quieter – between 85 and 86 dBA at 50 feet.

Table 3N-4 Construction Noise Predictions at 50 feet

Equipment	Lmax at 50 feet (dBA)	Utilization Factor	Construction Phase			
			Demolition	Excavation	Erection (with Pile	Interior Fit-Out
Air Compressor	80	40%			Yes	Yes
Backhoe	80	40%	Yes	Yes		
Concrete Mixer	85	40%			Yes	Yes
Crane	85	20%			Yes	
Crawl Loaders (dozers)	85	40%	Yes	Yes		
Dump Truck	84	40%	Yes	Yes	Yes	Yes
Excavator	85	40%	Yes	Yes		
Impact Pile Driving	101	20%			Yes	
Leq at 50 feet			**86 dBA**	**86 dBA**	**95 dBA**	**85 dBA**

Source: VHB, 2019.

The receptor location closest to a proposed building in the Phase 1 Project is Westchester Medical Center at approximately 400 feet. During the loudest phase construction (Foundations/Erection), construction noise would be approximately 77 dBA at this receptor location. The receptor location closest to a proposed building in the Master Development Plan is 187 Stevens Avenue at approximately 250 feet. During the loudest phase construction (Foundations/Erection), construction noise would be approximately 81 dBA at this receptor location.

Construction of the Proposed Action would be conducted in accordance with the Town of Mount Pleasant Noise Ordinance to minimize potential impact. The Town Noise Ordinance allows commercial construction between the hours of 8:00 am and 6:00 pm on weekdays and 8:00 am to 5:00 pm on Saturdays. Construction is prohibited in Sundays and Holidays. Construction noise would likely exceed the NYSDEC criteria at some noise receptors in the study area and may exceed the Town Noise Ordinance without the use of appropriate mitigation measures (not included in the sound level estimates of Table 3N-4). Therefore, best management practices (BMPs), presented in Section 4.a), below, should be implemented to minimize the potential effects of construction noise.

3. Mitigation Measures

a) Operational Mitigation

The specific design of HVAC equipment has not yet been defined at this phase of the Proposed Action. As needed, approaches to mitigating operational noise may include specifying low-noise equipment and/or introducing a rooftop screening wall and would be determined throughout the design process. The mechanical equipment would be designed, constructed and located in a manner so as not to result in a significant adverse noise impact per NYSDEC policy and to comply with the Town of Mount Pleasant Noise Ordinance.

b) Construction Noise Mitigation/BMPs

As assessed in Table 3N-4, above, typical construction noise may range from 85 to 95 dBA at 50 feet, depending on the equipment being used and the phase of construction. Construction noise may exceed the NYSDEC construction noise criteria and sound level criteria of the Town Noise Ordinance without the implementation of mitigation measures. Specific construction noise BMPs to reduce adverse construction noise impacts should include an appropriate mix of the following:

- Replacing vehicular back-up alarms with strobes, as allowed within OSHA regulations, to eliminate the annoying impulsive sound;
- Assuring that equipment is functioning properly and is equipped with mufflers and other noise-reducing features;
- Locating especially noisy equipment as far from sensitive receptors as possible;
- Using quieter construction equipment and methods, as feasible, such as smaller backhoes and excavators;
- Properly maintaining equipment to avoid louder operation associated with mechanical issues;
- Limiting the periods of time when construction may occur is a common approach to minimizing impact. Adhering to the time of day restrictions in the Town of Mount Pleasant Noise Ordinance would minimize impact to existing adjacent noise-sensitive receptors. The noisiest construction activities would be timed so as not to interfere with nearby residential, institutional and recreational uses to the maximum extent practicable; and
- Maintaining strong communication and public outreach with adjacent neighbors is a critical step in minimizing impact. Providing information about the time and nature of construction activities to the community can often minimize the effects (actual and perceived) of construction noise.

O. AIR QUALITY

The Proposed Action is the development of a mixed-use community that incorporates approximately three million square feet of bio-tech/research and development related uses including medical offices, a Children's Science and Education Center, neighborhood retail, and a hotel as part of a comprehensive Master Development Plan. It has the potential to bring sensitive receptors, such as residences, closer to sources of pollutant emissions and to increase emissions from traffic on nearby roadways. This chapter describes the existing air quality of the study area, evaluates the probable air quality impacts of the Proposed Action, and provides recommendations to mitigate potential air quality impacts.

The Existing Conditions section presents the regulatory context for evaluating air quality, describes the pollutants of concern and determines the background concentrations for the pollutants based on air monitoring stations. The section also describes the existing sources of pollutant emissions near the Proposed Action determined by reviewing geographical information systems and state and federal environmental databases.

The Probable Impacts of the Proposed Action section assesses future air quality conditions associated with the Proposed Action. The analysis considers the increases in vehicular emissions due to project-related traffic and provides a hotspot screening analysis to ensure the applicable regulatory thresholds are not exceeded. The evaluation also qualitatively considers potential impacts from construction.

The Proposed Mitigation Measures section presents recommendations to minimize the potential air quality impacts associated with the Proposed Action during construction.

1. Existing Conditions

Existing ambient air quality for the Project Site has collected and is summarized in this section of the DEIS. The Project Site's current status with regard to the National Ambient Air Quality Standards (NAAQS) has been identified. Finally, existing pollutant concentrations have been determined using the State's air monitoring network.

a) Regulatory Context

Six principal air pollutants have been designated by the US Environmental Protection Agency (USEPA) as "criteria" pollutants that are proven detriments to public health. These air pollutants include sulfur dioxide (SO_2), carbon monoxide (CO), ozone (photochemical oxidants), particulate matter less than 10 micrometers (PM_{10}) and less than 2.5 micrometers ($PM_{2.5}$), nitrogen dioxide (NO_2) and lead (Pb). NAAQS have been established for these pollutants.

The 1990 U.S. Clean Air Act Amendments (CAAA) resulted in states being divided into attainment and non-attainment areas, with classifications based upon the severity of their air quality problems. Air quality control regions are classified and divided into one of three categories: attainment, unclassified, or non-attainment depending upon air quality data and ambient concentrations of pollutants.

Attainment areas are regions where ambient concentrations of a pollutant are below the respective NAAQS; non-attainment areas are those where concentrations exceed the NAAQS. An unclassified area is a region where data are insufficient to make a determination and is generally considered as an attainment area for administrative purposes. A single area can be in attainment of the standards for some pollutants while being in non-attainment for others.

Westchester County is designated as a non-attainment area (moderate severity) for the 8-hour ozone standard. Westchester County is designated as either a maintenance or attainment status for the remainder of the pollutants and is no longer subject to the 1-hour ozone standard as of June 15, 2005. The area has been re-designated from a non-attainment area and is currently a maintenance area for CO as of May 20, 2002 and $PM_{2.5}$ (for the 2006 standard) as of April 18, 2014. Westchester County is in "attainment" for all of the remaining criteria pollutants (PM_{10}, Pb, NO_2, and SO_2) for ambient air.

b) Air Quality Standards

The USEPA has established NAAQS that set limits on air pollutants considered harmful to public health. The State of New York has adopted similar standards as those set by the USEPA, with the exception of lead, total suspended particulates (TSP), particulate matter (PM_{10}, $PM_{2.5}$), and hydrocarbons. The respective Federal and State standards are summarized in Table 3O-1. There are no specific local air quality standards for the Town of Mount Pleasant and, therefore, the NAAQS are the criteria that the project would need to adhere to.

Carbon Monoxide. CO is a product of incomplete combustion. It is a colorless and odorless gas that prevents the lungs from passing oxygen to the blood stream. Brief exposure to high levels of CO can also impair vision, physical coordination, and the perception of time. According to the USEPA, 60% of CO emissions result from motor vehicle exhaust, while other sources of CO emissions include industrial processes, non-transportation fuel combustion and natural sources (i.e., wildfires). In cities, as much as 95% of CO emissions result from mobile sources.[1]

Ozone: Volatile Organic Compounds (VOCs) and Nitrogen Oxide (NO_X). VOCs and NO_X are important pollutants because of their role in forming ozone, which is also referred to as photochemical smog. Both of these pollutants are emitted from vehicular sources. VOCs are evaporative emissions from unburned fuel. NO_X, a brownish gas with a pungent odor, is a product of high temperature combustion; it is a pulmonary irritant, and short exposure may increase susceptibility to acute respiratory disease.

Particulate Matter. Particulate matter (PM) is a term referring to particles found in the air. Some particles are large enough to be seen as dust, soot, or smoke, while others are too small to be visible. As previously discussed, PM_{10} refers to particulate matter that is 10 micrometers or smaller in size. Similarly, $PM_{2.5}$ refers to particulate matter that is 2.5 micrometers or smaller in size. Small particles can have adverse health effects because of their ability to reach the lower regions of the respiratory tract. Particulate matter comes from a variety of sources. Emissions from highway and non-road vehicles

[1] Environmental Protection Agency, National Air Quality and Emissions Trends Report, 1999, March 2001.

compose approximately 28% of total PM emissions.[2] Fuel combustion in power plants and industrial processes accounts for another five percent of PM. The largest direct source of PM is fugitive dust from paved and unpaved roads, agricultural and forestry activities, wind erosion, wildfires, and managed burning. PM is also formed indirectly in the atmosphere by the reaction of gaseous pollutants, such as NO_X.

Table 3O-1 National (Federal) and State of New York Ambient Air Quality Standards

Pollutant	Primary Standards		Secondary Standards	
	Level	Averaging Time	Level	Averaging Time
Carbon Monoxide	9 ppm (10 mg/m^3)	8-hour	None	
	35 ppm (40 mg/m^3)	1-hour		
Lead	0.15 µg/m^3 (1)	Rolling 3-month Average	Same as Primary	
Nitrogen Dioxide	53 ppb(23)	Annual (Arithmetic Mean)	Same as Primary	
	100 ppb	1-hour	None	
Particulate Matter (PM_{10})	150 µg/m^3	24-hour	Same as Primary	
Particulate Matter ($PM_{2.5}$)	12.0 µg/m^3	Annual	15.0 µg/m^3	Annual
	35 µg/m^3	24-hour	Same as Primary	
Ozone	0.07 ppm (2015 std)	8-hour(3)	Same as Primary	
	0.075 ppm (2008 std)	8-hour (3)	Same as Primary	
	0.08 ppm (1997 std)	8-hour (3)	Same as Primary	
Sulfur Oxides	75 ppb(4)	1-hour	0.5 ppm	3-hour

(1) In areas designated nonattainment for the Pb standards prior to the promulgation of the current (2008) standards, and for which implementation plans to attain or maintain the current (2008) standards have not been submitted and approved, the previous standards (1.5 µg/m3 as a calendar quarter average) also remain in effect.
(2) The level of the annual NO_2 standard is 0.053 ppm. It is shown here in terms of ppb for the purposes of clearer comparison to the 1-hour standard level.
(3) Final rule signed October 1, 2015, and effective December 28, 2015. The previous (2008) O_3 standards additionally remain in effect in some areas. Revocation of the previous (2008) O_3 standards and transitioning to the current (2015) standards will be addressed in the implementation rule for the current standards.
(4) The previous SO_2 standards (0.14 ppm 24-hour and 0.03 ppm annual) will additionally remain in effect in certain areas: (1) any area for which it is not yet 1 year since the effective date of designation under the current (2010) standards, and (2)any area for which an implementation plan providing for attainment of the current (2010) standard has not been submitted and approved and which is designated nonattainment under the previous SO2 standards or is not meeting the requirements of a SIP call under the previous SO_2 standards (40 CFR 50.4(3)). A SIP call is a USEPA action requiring a state to resubmit all or part of its State Implementation Plan to demonstrate attainment of the required NAAQS.

[2] Environmental Protection Agency, National Air Quality and Emissions Trends Report, 1999, March 2001.

c) Existing Pollutant Concentrations

NYSDEC maintains an air quality monitoring system that measures and records the concentrations of various air pollutants within the State.[3] These monitoring data were used to assess the existing air quality levels, or background concentrations, in the area. Background concentrations are ambient pollution levels from other stationary, mobile, and area sources.

The Project Site is located in NYSDEC Region 3. The background concentrations of criteria pollutants in the project area were determined using the monitoring data collected at receptor locations closest to the site within Region 3. For those pollutants not monitored in Region 3, their background concentrations were determined using the monitoring data collected at the closest receptor locations to the Project Site from Region 2 (New York City). The following summarizes the relevant air quality monitoring data for the study area.

A review of the NYSDEC monitoring data indicates that the closest monitoring site to the Project Site that monitors CO is the Botanical Gardens (Region 2) monitor. The maximum 1-hour and 8-hour CO background concentration is 2.0 ppm and 1.2 ppm, respectively. This existing 1-hour background concentration of CO is approximately six percent of the maximum 1-hour levels of CO allowed by the NAAQS. The existing 8-hour background concentration of CO is approximately 13 percent of the maximum 8-hour levels of CO allowed by the NAAQS.

The nearest NO_2 monitoring Project Site with complete data is Botanical Garden in Region 2. For NO_2, the average annual arithmetic mean background value is 14.4 ppb for the most recent three years (2016 - 2018). The existing background concentration level of NO_2 represents approximately 27 percent of the maximum annual concentration of NO_2 allowed by the NAAQS. The 1-hour NO_2, is 55.2 ppb, or 55 percent of the NAAQS.

For ozone, the closest monitoring site to the subject property is White Plains (Region 3). The average 8-hour ozone background value over the most recent three years of data (2016-2017) is 0.075 ppm, equivalent to 107 percent of the maximum 2015 8-hour concentration of ozone allowed by NAAQS which is consistent with the nonattainment status. Westchester County is a "Previous Nonattainment Area" which is no longer subject to the 1-hour ozone standard as of June 15, 2005; and, therefore, the 1-hour value is not reported.

For Pb, the monitoring site with available data nearest to the Project Site is "IS 52" in Region 2. At this receptor location, the maximum rolling three-month average background concentration is 0.003 micrograms per cubic meter ($\mu g/m^3$). This background concentration level of Pb represents approximately two percent of the maximum lead concentration allowed by the NAAQS, well below the standard.

[3] New York State Ambient Air Quality Reports (2014 through 2018), http://www.dec.ny.gov/chemical/8536.html

For PM_{10}, the closest monitoring site to the Project Site is IS 52 (Region 2). The 2nd highest 24-hour background value for PM_{10} averaged over the most recent three years (2016-2018) is 28 µg/m^3. This existing 24-hour background concentration of PM_{10} is approximately 19 percent of the maximum 24-hour levels of PM_{10} allowed by the NAAQS.

For $PM_{2.5}$, the closest monitoring site to the Project Site is White Plains (Region 3). The average 24-hour $PM_{2.5}$ background value over the most recent three years of data (2016-2018) is 15.7 µg/m^3. Similarly, the average annual arithmetic mean background value for $PM_{2.5}$ is 6.0 µg/m^3. The existing 24-hour background concentration level of $PM_{2.5}$ represents approximately 45 percent of the maximum 24-hour concentration of $PM_{2.5}$ allowed by the NAAQS. Similarly, the existing annual background concentration level of $PM_{2.5}$ is equivalent to approximately 50 percent of the maximum $PM_{2.5}$ concentration allowed by the NAAQS for a one-year period.

For SO_2, the closest monitoring site to the Project Site is the Botanical Garden (Region 3). The average of the 99th percentile 1-hour background value over the most recent three years (2016-2018) for SO_2 is 6.2 ppb, approximately eight percent of the maximum 1-hour concentration levels of SO_2 allowed by the NAAQS. The background concentrations for all criteria air pollutants are summarized in Table 3O-2.

Table 3O-2 Existing Monitored Pollutant Concentrations

Pollutant	Location	Averaging Time	Existing Pollutant Concentration	NAAQS (NYSDEC)	Existing Concentration vs NAAQS(%)
Carbon Monoxide (CO)	Botanical Garden	8-Hour	1.2 ppm	9 ppm	13%
	Botanical Garden	1-Hour	2.0 ppm	35 ppm	6%
Nitrogen Dioxide (NO_2)	Botanical Garden	Annual	14.4 ppb	53 ppb	27%
	Botanical Garden	1-Hour	55.2 ppb	100 ppb	55%
Ozone (O_3)	White Plains	8-Hour	0.075 ppm	0.070 ppm	107%
Lead	IS 52	3 Month	0.003 µg/m³	0.15 µg/m³	2%
Particulate Matter (PM_{10})	IS 52	24-Hour	28 µg/m³	150 µg/m³	19%
Particulate Matter ($PM_{2.5}$)	White Plains	Annual	6.0 µg/m³	12 µg/m³	50%
	White Plains	24-Hour	15.7 µg/m³	35 µg/m³	45%
Sulfur Dioxide (SO_2)	Botanical Garden	1-Hour	6.2 ppb	75 ppb	8%

Source: 2018, 2017 and 2016 New York State Ambient Air Quality Reports for Region 2 and Region 3 (http://www.dec.ny.gov/chemical/8536.html).
Notes:
ppm = parts per million
ppb = parts per billion
µg/m³= micrograms per cubic meter

d) Existing Emissions Sources

Proximate Air Pollution Sources. A review of aerial photography, geographical information systems and environmental databases shows that multiple emission sources exist in the Project Site and nearby. NYSDEC maintains an Environmental Facilities Navigator, which is an interactive online map utility that identifies various facilities of environmental interest, including air emissions sources.[4] According to a review of the Environmental Facilities Navigator (accessed July 2019), three air facility permits have been issues at locations that are proximate to (i.e., within one-half-mile of) the Project Site. These three locations primarily produce emissions from the operation of combustion sources, such as boilers, generators and chillers. The Department of Public works also operates a paint spray at its bus maintenance facility.

[4] Available at: http://www.dec.ny.gov/gis/facilities/.

The USEPA also maintains a publicly-accessible electronic database of air emissions sources within its Envirofacts Data Warehouse system, known as the Air Facility System (AFS).[5] The AFS contains compliance and permit data for stationary air pollution sources regulated by the USEPA, State, and local agencies. Based upon a review of the AFS data (accessed July 2019), several catalogued air emissions sources are identified as being proximate to (i.e., within one-half-mile of) the Project Site, including the sources listed in Table 3O-3, operating with minor emissions associated with gas stations and synthetics emissions.

Table 3O-3 Proximate Stationary Air Pollution Sources

Facility Name	Address
NY Medical College/Grasslands Reservation	100 Grasslands Road, Valhalla, NY
Westchester County Health Care Company	NY Route 100C, Valhalla, NY
Westchester County Department of Public Works-Valhalla Campus	35 Woods Road, Valhalla, NY
Bisj Corp- Gas Station	19 Saw Mill River Road, Hawthorne, NY
Ken Gendrons- Gas Station	170 Saw Mill River Road, Hawthorne, NY
Xand Corp	11 Skyline Drive, Hawthorne, NY

2. Potential Impacts

The following presents the air quality impacts related to the Phase 1 development and the Master Development Plan development. The analyses include a localized mobile source study and an assessment of construction activities. As the Proposed Action would potentially affect traffic conditions at local intersections, a hot-spot screening was performed according to NYSDOT guidelines. Additionally, a qualitative analysis of potential construction activities that would result from Phase 1 and the Master Plan was considered, and control measures are recommended to reduce pollutant emissions.

a) Localized (Hot-Spot) Mobile Source Analysis

The determination for a required microscale analysis is based on the consideration of various criteria and a screening analysis was conducted to assess the study area intersections. The criteria are described below and follow the USEPA's modeling guidelines[6] and the NYSDOT Technical Environmental Manual (TEM) guidelines.[7] The study area intersections were assessed for weekday morning and evening peak

[5] Available at https://www.epa.gov/sites/production/files/widgets/ef-afs.html.

[6] *Guideline for Modeling Carbon Monoxide From Roadway Intersections*, US Environmental Protection Agency, Office of Air Quality Planning and Standards, Technical Support Division; Research Triangle Park, NC; EPA-454/R-92-006 (Revised); September 1995

[7] NYSDOT Environmental Procedures Manual, Chapter 1.1, Environmental Analysis Bureau, Last updated April 2018.

hour conditions for the year 2039 (Estimated Time of Completion-ETC),[8] 2049 (ETC+10) and 2059 (ETC+20).

Level of Service (LOS) Screening. The first level of screening involves a review of the operations of the intersections. Intersections impacted by a project, with a build Estimated Time of Completion (ETC), ETC+10, and ETC+20 LOS of only A, B, or C, are generally excluded from microscale air quality analysis. Based on this first screening, nine intersections in the study area are projected to operate at LOS D or worse under future conditions. As such, these nine intersections were carried forward in the screening assessment.

Capture Criteria. Once the LOS screening has been completed the capture criteria are assessed for these intersections and essentially screen for those intersections that experience a 10 percent or greater increase in project-generated traffic volumes between No Action and Build conditions. Of the nine intersections considered for the capture criteria, five intersections demonstrated volume increases greater than 10 percent. These five intersections were further considered.

Volume Threshold Screening. If any of the criteria listed above are realized, then a traffic volume threshold should be considered to further determine the need for a microscale air quality analysis. The vehicle threshold table (Table 3c of the NYSDOT TEM) tie the volume threshold with emission factors and was utilized for the volume threshold screening. Based on emission factors determined by running the MOVES2014 model, a maximum approach volume of 4,000 vehicles per hour (vph) is the threshold. None of the five study area intersections considered have approach volumes that are projected to exceed 4,000 vph under ETC, ETC+10 or ETC+20 conditions.

Based on the screening assessment, the Proposed Action does not meet the applicable thresholds for detailed microscale air quality analysis provided in the NYSDOT TEM. Therefore, no microscale air quality analysis is necessary, and no significant adverse impacts are anticipated. Since no microscale air quality analysis is required, no violations of NAAQS would result from the Proposed Action. This screening confirms that as the Phase 1 and Master Development Plan project become operational, no adverse air quality impacts are expected. As such, no significant adverse local air quality impacts are projected.

b) Construction Activities

Construction activities associated with the Phase 1 and Master Development Plan could result in temporary increases of air quality pollutants. The primary source of potential emissions is from fugitive dust resulting from construction operations (e.g., clearing, grading) and tailpipe emissions from equipment. Fugitive dust consists of soil particles that become airborne when disturbed by heavy equipment operations or through wind erosion of exposed soil after groundcover (e.g., lawn, pavement) is removed. Measures would be taken to reduce pollutant emissions during construction in accordance with all applicable laws, regulations, and building codes. These include dust suppression measures, idling restriction, and the use of ULSD. To minimize fugitive dust emissions, a water truck would be utilized (as needed) during construction activities where land surfaces would be disturbed. This construction related

[8] ETC is equivalent to the build year, or the year the build-out is complete.

air quality impact (i.e., fugitive dust) associated with construction would be temporary and geospatially diversified as different areas of the Project Site are developed. During construction, emission controls from construction vehicles and machinery would include proper maintenance and reduced idling onsite. The Proposed Actions construction vehicles would adhere to the State's anti-idling law [9]. Overall, the impacts on ambient air quality from construction activities associated with site-specific development are not expected to be significant.

3. Mitigation Measures

The purpose of this air quality study was to assess whether the Proposed Action would comply with the state and federal air quality requirements, and whether it complies with the 1990 Clean Air Act Amendments (CAAA) following the NYSDEC, the NYSDOT, and USEPA policies and procedures. As detailed above, the analyses performed indicate that the Proposed Action would not result in any exceedances of applicable air quality standards. As such, no additional mitigation is required, beyond standard measures described above related to construction activities.

Overall, air quality in the Project Site would not be expected to be substantially affected by the construction because of emission control procedures and the temporary nature of construction activities. Emissions from the operation of construction machinery are short term and not generally considered substantial. With the implementation of the various mitigation measures to minimize construction-related air quality impacts, no significant adverse impacts would be expected. Mitigation measures would include:

- During construction, emission controls for construction vehicle emissions would include, as appropriate, proper maintenance of all motor vehicles, machinery, and equipment associated with construction activities, such as, the maintenance of manufacturer's muffler equipment or other regulatory-required emissions control devices and adherence to the anti-idling laws.
- Appropriate methods of dust control would be determined by the surfaces affected (i.e., roadways or disturbed areas) and would include, as necessary, the application of water, the use of stone in construction roads, and vegetative cover.

[9] NYS Environmental Conservation Law, 6 NYCRR, Subpart 217-3. This law prohibits heavy duty vehicles, including non-diesel and diesel trucks and buses with a gross vehicle weight rating of more than 8,500 pounds, from idling for more than five minutes at a time.

P. GREENHOUSE GAS EMISSIONS, ENERGY CONSERVATION, GREEN BUILDING AND SUSTAINABILITY

1. Existing Conditions

As atmospheric concentrations of greenhouse gases ("GHG") rise globally, temperatures on earth are increasing. Human impacts on the climate system include increasing concentrations of atmospheric GHG (e.g., carbon dioxide, hyrdofluorocarbons and their substitutes, methane, and nitrous oxide), through agriculture, burning of fossil fuels, and use of resources.

In an effort to address the rising concern and awareness of the potential negative impacts of global warming and GHG emissions, NYSDEC, under the *Greenhouse Gas Emissions Policy* issued on July 15, 2009, took the lead on assessing and potentially mitigating for impacts related to GHG emissions from new developments. As identified in the NYSDEC policy, GHG emissions from development projects include mobile and immobile sources. Mobile GHG sources are not permanent components of the Proposed Action. Stationary sources of GHG are permanently part of the Proposed Action and emissions from those sources are classified as direct or indirect. Direct emissions are GHG emissions from fuel that is consumed at the Project Site. Indirect emissions are associated with energy expended at the Project Site but are purchased from a utility. The NYSDEC GHG policy requires identification of feasible measures to minimize both mobile and stationary sources of GHG emissions generated as a result of a Proposed Action.

The 60-acre eastern portion of the Project Site is mostly vacant land, some of which is currently being used as construction staging by Westchester Medical Center. An asphalt parking lot is also present in the southern portion of the Project Site adjacent to Hospital Road while a single-family dwelling and asphalt drive is present in the northern portion of the Project Site. The 20-acre western portion of the Project Site currently contains five single-family residences, a small nursery, storage sheds, asphalt drives and parking areas and related improvements. Vehicles traveling to and from the Project Site are currently the primary source of GHG emissions. The use of electricity associated with the residential uses on the Project Site is an indirect stationary GHG source.

2. Potential Impacts

The Proposed Action will meet all applicable New York State building codes including the New York State Energy Conservation Construction Code. The New York State Energy Conservation Construction Code regulates the design and construction of energy-efficient building envelopes and the installation of energy-efficient mechanical, lighting and power systems. The Code establishes minimum requirements for energy-efficient buildings.

The Proposed Action will require the use of electricity for lighting and air conditioning, natural gas for cooking, heat, and hot water, and water for drinking, laundry, and sanitation. The Proposed

Action will implement the following energy saving measures, several of which are listed in the NYSDEC *Guide for Assessing Energy Use and Greenhouse Gas Emissions in an Environmental Impact Statement* as "measures that can increase energy efficiency, reduce energy demand, and reduce GHG emissions from proposed projects".

The design and construction of the biotechnology/medical technology space for Phase 1 and the Master Development Plan will be capable of obtaining LEED Silver certification from the U.S. Green Building Council for certain buildings as required by the Lease. The Proposed Action will use green building techniques during construction, materials selection, and operational practices to achieve a sustainable and environmentally-friendly project as required by applicable building codes. The Proposed Action has been designed as a smart growth low-impact development, with features that are intended to promote energy efficiency, water conservation, and protection of natural resources. Included in the proposal are special features which may include ENERGY STAR appliances and Water Sense fixtures. The site design employs healthy communities concepts and promotes pedestrian and bicycle circulation including on-site walking trails and a cycletrack. The bike/ped path will promote bike/ped circulation throughout the Project Site. The Proposed Action will provide shuttle service to the Valhalla and Hawthorne Metro-North train stations. These initiatives, along with the Applicant's commitment to restore the existing on-site wetland and preserve more than 36.5 acres (46.3%) of the Project Site as open space, will result in a low-impact, sustainable campus. The Proposed Action will have a recycling program as required by law which will include the recycling of paper, plastic, and glass.

Water Conservation Measures

- Water Sense technology plumbing fixtures will be used to minimize water usage.
- Energy Star compliant appliances will be provided.
- Landscaping with native plants will occur where possible.

Air Quality Measures

- Low VOC paints and sealants will be used to maintain air quality index.

Material Conservation Measures

- Possible off-site construction of building components to minimize material waste and on-site debris.

Energy Saving Measures

- A combination of LED and CFL lighting will be used to minimize electric usage.
- High efficiency tankless water heaters may be installed to provide on demand hot water to save on energy consumption.
- Energy Star compliant appliances may be installed.
- Potential use of solar for some of the energy source.
- Insulation to reduce heat loss in the winter and heat gain in the summer.

- The windows will be double paned, insulating glass for winter heating and low emissivity for summer cooling.

Greenhouse Gas Sources

The Proposed Action will increase the GHG emissions that will be generated from the Project Site from both mobile and stationary sources.

The mobile sources of the Proposed Action will include the following GHG sources:

- Vehicles and traffic to and from the Project Site.

The Proposed Action will increase the total AM Peak Hour and PM Peak Hour traffic by 629 new trips during the AM Peak Hour and 733 new trips during the PM Peak Hour for Phase 1 and 1,854 new trips during the AM Peak Hour and 2,104 new trips during the PM Peak Hour for the Master Development Plan.

The stationary sources of the Proposed Action will include the following GHG sources:

- Electrical use for lighting and cooling.
- Natural gas for heating of buildings, cooking, and hot water.

The Proposed Action will use natural gas for heat, hot water, and cooking fuel. Natural gas emits the least amount of carbon dioxide emissions compared to other fuels types such as oil or coal.

Specific preliminary measures to decrease the GHG emissions of the Proposed Action include:

- A combination of LED and CFL lighting will be used to minimize electric usage.
- High efficiency tankless water heaters may be installed to provide on demand hot water to save on energy consumption.
- Energy Star compliant appliances may be installed.
- Insulation to reduce heat loss in the winter and heat gain in the summer.
- The windows will be double paned, insulating glass for winter heating and low emissivity for summer cooling.

The specific design and emissions reduction measures through the implementation of the measures outlined above will be determined as the design of the Proposed Action advances through the site plan approval process.

3. Mitigation Measures

While there will be additional GHG emissions as a result of the Proposed Action, the emissions will be less than a traditional single family subdivision with a similar number of homes due to the location of the Project Site, which reduces the overall amount of vehicles miles traveled. In addition, the Applicant is committed to incorporating energy saving measures in the Proposed Action design that will minimize the increase in future GHG emissions.

The Proposed Action has been conceived as a model of environmental sustainability from the conception of a plan that responds to the existing natural features to biotechnology/medical technology buildings that are envisioned as models of energy efficiency and that are designed with LEED components. Not only environmentally sustainable, the Proposed Action has been envisioned to be economically and socially sustainable, as well – including a mix of uses and a new Children's Science and Education Center. Sustainable Strategies include:

- A mix of uses that can reduce the number of vehicle trips and miles traveled.
- The development pattern has been designed to promote pedestrian use.
- Street trees line all streets to provide shade.
- Buildings and streets have been sited to respond to the significant existing topography by:
  - Reducing the amount of required grading.
  - The majority of parking is podium parking beneath the buildings thereby reducing the amount of impervious surfaces that would otherwise be required.
  - Impact to existing trees and wetlands has been minimized.
- New ponds and wetlands are created to address storm water management that includes native aquatic and terrestrial vegetation that will aid in cleansing run-off. This will also provide greater biodiversity for the Project Site.
- Bio-swales and pervious paving are envisioned to promote infiltration.
- Disturbed woodland edges will be planted with native understory trees and shrubs to both increase biodiversity and beauty.
- Most buildings have been oriented with short facades facing west and/or angled to minimize thermal heat gain in summer months and to reduce cooling loads.
- Biotechnology/medical technology buildings are envisioned to be designed with LEED components.
- Some buildings are envisioned to have green roofs to aid in storm water management and to reduce impervious surfaces.
- The North County Trailway is located just to the west and bicycle parking will be provided throughout so that users can take advantage of commuting options.
- Conveniently located bus stops will be provided with access to the commuter rail station.
- Interpretive trails will provide educational opportunities about the ecosystem and about our role in the environment.
- The Children's Science and Education Center provides educational opportunities for the region.

The specific energy saving measures will be determined as the design of the proposed action advances through the site plan approval process but, at a minimum, will include the measures identified above. Additional energy saving and sustainability measures may be incorporated into the Proposed Action as Project design advances. The GHG emission due to the implementation of the Proposed Action is not expected to significantly impact regional GHG and therefore no mitigation measures are proposed.

Q. CONSTRUCTION

1. Construction Sequencing and Phasing

Construction Sequencing

The phasing of development on the Project Site for Phase I of the Proposed Action is outlined below. As detailed, construction during each phase would start with site clearance and preparation, including establishing site access for construction, construction staging areas, and installation of erosion and sediment control measures. This would be followed generally by rough grading, utility and drainage structure installation, building/parking construction with associated site improvements, and sediment disposal. Plans for Phase 1A through Phase 1J are detailed below and depicted on the project phasing plan (see Figure 2-8 in Chapter 2, Project Description).

Phase 1A

Estimated Duration: 3 months

Earthwork Balance: N/A

1. Install all erosion and sediment control measures for Phase 1A as shown on the Erosion and Sediment Control Plans (see Site Plans in Appendix O). Note: initial access for equipment mobilization for Phase 1A will be from the existing driveway to Saw Mill River Road at the northeast corner of the Project Site. Construction traffic control signage and gates will be installed at the Site Driveways.
2. Begin demolition/removal operations of existing dwellings and ancillary site features within the limits of Phase 1A. All excess material and construction debris generated by removal operations will be removed from the Project Site and properly disposed of in accordance with all local, State and federal guidelines.
3. Establish contactor staging area for construction trailers, equipment mobilization and stockpiles for future West Street excavation. Establish designated parking areas for workers and vendor.
4. All areas within Phase 1A which are not to be utilized for staffing or stockpile area will be immediately stabilized with seed and mulch.

Phase 1B

Estimated Duration: 6 months

Earthwork Balance: 68,428 CY excess cut

1. Install all erosion and sediment control measures for Phase 1B in the locations shown on the Erosion and Sediment Control Plans.

2. Clear and grub Phase 1B work area. All stumps generated during clearing operations will be removed from site and disposed of. There will be no on-site burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be transported via the existing driveway to the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for West Street and stormwater basin (SWP-1). Beginning at Old Saw Mill River Road and construction retaining walls. All excess material resulting from West Street earthwork operations shall be seeded and stabilized in accordance with the temporary seeding specifications. Note: Stabilized construction entrances from Old Saw Mill River Road and existing driveway shall be utilized for construction vehicle access during this phase. Connection to Saw Mill River Road (Route 9A) will not be utilized until such time that all necessary permanent traffic control measures have been installed.
5. Install proposed drainage structures, associated inlet protection, connected piping, and curbs within limits of Phase 1B.
6. Install Item-4 sub-base for proposed road, construct sidewalks, and asphalt pavement to binder course within limits of Phase 1B.
7. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with seeding specifications.
8. Remove any accumulated sediment from stormwater basin (SWP-1) (to be utilized as temporary sediment basin during construction), install permanent basin plantings and make any modifications necessary to basin outlet structure for conversion from temporary sediment basin to permanent stormwater management practice.
9. Install required traffic control measures at Old Saw Mill River Road and Saw Mill River Road (Route 9A) in accordance with NYS Department of Transportation (NYSDOT) and Town Requirements.
10. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed, all drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1C

Estimated Duration: 3 months

Earthwork Balance: 7,907 CY excess fill

1. Install all erosion and sediment control measures for Phase 1C in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1C work area. All stumps generated during clearing operations will be removed from the Project Site and disposed of. There will be no on-site burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for

seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.

4. Begin earthwork operations for the remainder of West Street within the limits of Phase 1C. All excess material resulting from Phase 1C earthwork operations will be stockpiled in the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
5. Install proposed drainage structures, associated inlet protection, connection piping, and curbs within limits of Phase 1C.
6. Install subsurface infiltration system #1. Infiltration system will remain offline until final stabilization has been achieved.
7. Install Item-4 sub base for proposed road, construct sidewalks and asphalt pavement to binder course for remainder of West Street within the limits of Phase 1C.
8. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
9. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed, all drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1D

Estimated Duration: 9 months

Earthwork Balance: 10,906 CY excess fill

1. Install all erosion and sediment control measures for Phase 1D in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1D work area. All stumps generated during clearing operations will be removed from Project Site and disposed of. There will be no on-site burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil shall be stockpiled in the locations shown on the Erosion and Sediment Control Plans within the limits of Phase 1D. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for Hotel Drive, Stormwater Basin (SWP-4) and construct retaining walls. All excess material resulting from Phase 1D earthwork operations will be stockpiled within the limits of Phase 1D and any stockpile material which remains unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
5. Begin construction of building B14.
6. Install proposed subsurface water and sewer mains from West Street to end of Hotel Drive.
7. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1D.

8. Install Item-4 sub-base for Hotel Drive, construct sidewalks, and asphalt pavement to binder course.
9. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with seeding specifications.
10. Remove any accumulated sediment from stormwater basin (SWP-4) (to be utilized as temporary sediment basin during construction), install permanent basin plantings and make any modifications necessary to basin outlet structure for conversion from temporary sediment basin to permanent stormwater management practice.
11. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed and all drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1E

Estimated Duration: 3 months

Earthwork Balance: 2,368 CY excess cut

1. Install all erosion and sediment control measure for Phase 1E in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1E work area. All stumps generated during clearing operations will be removed from Project Site and disposed of. There will be no on-site burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the locations shown on the Erosion and Sediment Control Plans within the limits of Phase 1E. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for the hotel parking area. All excess material resulting from Phase 1E earthwork operations will be stockpiled in the stockpile/staging area established during Phase 1A. Any stockpiled material which remains unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
5. Install proposed drainage structures, associated inlet protection, connection piping, subsurface utilities and curbs within limits of Phase 1E.
6. Install subsurface infiltration system #3. Infiltration system will remain offline until final stabilization has been achieved.
7. Install Item-4 subbase for hotel parking area, construct sidewalks and asphalt pavement for parking area and top course of Hotel Drive.
8. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
9. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of and infiltration system can be placed online.

Phase 1F

Estimated Duration: 3 months

Earthwork Balance: 3,782 CY excess cut

1. Install all erosion and sediment control measure for Phase 1F in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1F work area. All stumps generated during clearing operations will be removed from Project Site and disposed of. There will be no on-site burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the locations shown on the Erosion and Sediment Control Plans within the limits of Phase 1F. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for infiltration basin (SWP-3). All excess material resulting from Phase 1F earthwork operations will be stockpiled in location shown on the Phase 1 Phasing Plan within the limits of Phase 1F. Any stockpiled material which remains unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
5. Install proposed drainage structures, associated inlet protection and connection piping within Phase 1F.
6. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
7. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1G

Estimated Duration: 6 months

Earthwork Balance: 31,716 CY excess fill

1. Install all erosion and sediment control measure for Phase 1G in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1G work area. All stumps generated during clearing operations will be removed from Project Site and disposed of. There will be no on-site burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the locations shown on the Erosion and Sediment Control Plans within the limits of Phase 1G. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for Main Street and North Street Parking Lot. Excess material stockpiled from previous phases in staging areas during Phase 1A will be utilized for fill in North Parking Lot. Any stockpiled material which remains unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.

5. Install proposed drainage structures, associated inlet protection, connection piping, subsurface utilities and curbs within limits of Phase 1G.
6. Install subsurface infiltration system #2. Infiltration system will remain offline until final stabilization has been achieved.
7. Install Item-4 subbase for Main Street and North Parking Lot, construct sidewalks and asphalt pavement to binder course.
8. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
9. Once final stabilization is achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1H

Estimated Duration: 9 months

Earthwork Balance: 100,057 CY excess cut

1. Install all erosion and sediment control measure for Phase 1H in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1H work area. All stumps generated during clearing operations will be removed from Project Site and disposed of. There will be no on-site burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for Central Parking Lot. All excess material resulting from Phase 1H earthwork operations will be stockpiled in the stockpile/staging area established during Phase 1A. Any stockpiled material which remains unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
5. Begin construction of Building B5.
6. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1H.
7. Install Item-4 subbase for Central Parking Lot, construct sidewalks and asphalt pavement to binder course.
8. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
9. Once final stabilization has been achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1I

Estimated Duration: 9 months

Earthwork Balance: 81,281 CY excess fill

1. Install all erosion and sediment control measure for Phase 1I in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1I work area. All stumps generated during clearing operations will be removed from Project Site and disposed of. There will be no on-site burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin earthwork operations for Cross Street and West Parking Lot.
5. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1I.
6. Install Item-4 subbase for Cross Street and West Parking Lot, construct sidewalks and install asphalt pavement to binder course.
7. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
8. Once final stabilization has been achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

Phase 1J

Estimated Duration: 9 months

Earthwork Balance: 24,361 CY excess fill

1. Install all erosion and sediment control measure for Phase 1J in the locations shown on the Erosion and Sediment Control Plans.
2. Clear and grub Phase 1J work area. All stumps generated during clearing operations will be removed from Project Site and disposed of. There will be no on-site burial of this material.
3. Strip and stockpile topsoil from proposed work area. Topsoil will be stockpiled in the stockpile/staging area established during Phase 1A. Stockpiled material to remain unused for seven (7) days will be seeded and stabilized in accordance with the temporary seeding specifications.
4. Begin construction of Buildings B1, B2, G3 and B4.
5. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1J.

6. Install Item-4 subbase for parking areas, construct sidewalks and install asphalt pavement to binder course.
7. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.
8. Once final stabilization has been achieved, all temporary erosion and sediment control measures can be removed. All drainage structures will be inspected and all accumulated sediment will be removed and disposed of.

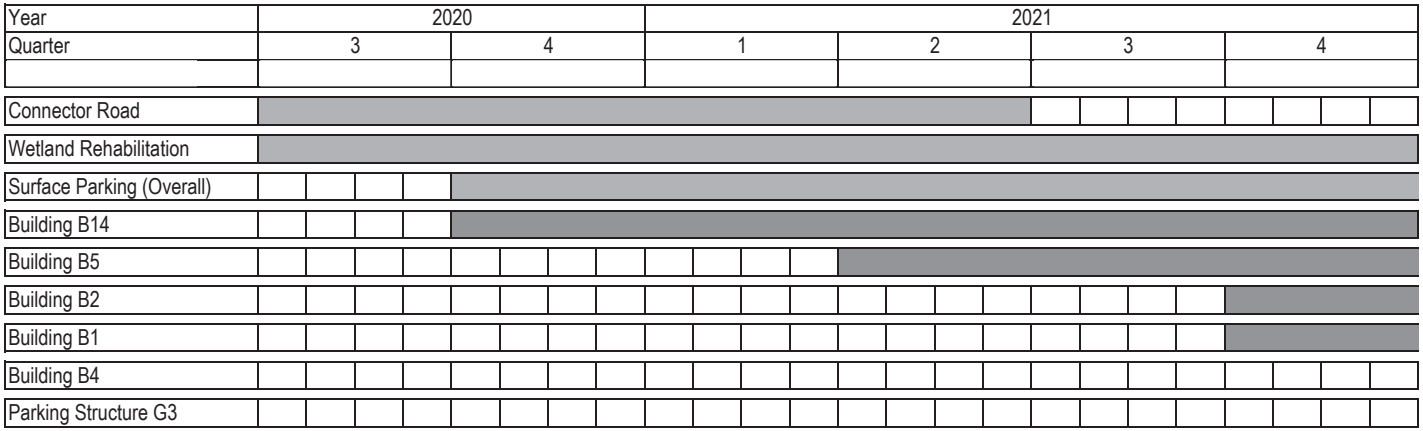
Construction Schedule

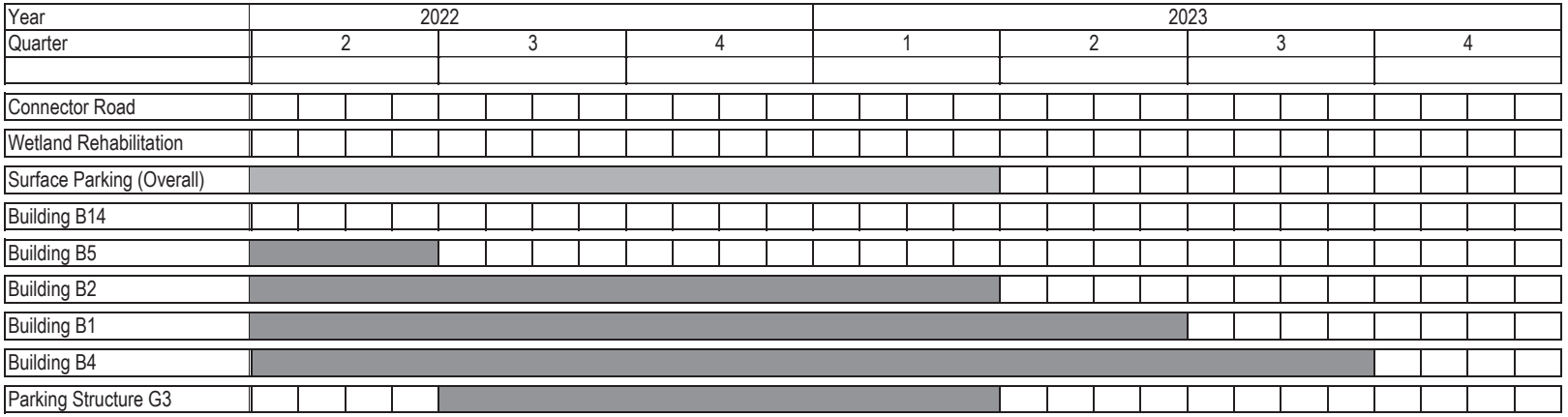
Phase 1 construction is anticipated to begin upon project approvals and would take approximately 60 months to complete. See Figure 3Q-1, Phase 1 Construction Phasing Plan (larger scale drawing is provided in Appendix O).

Work would begin with establishment of initial site access for construction vehicles and the construction of West Street, the connector road for the Project Site. Wetland rehabilitation activities would be undertaken at the beginning of construction and should be completed within approximately one year. Installation of surface parking would take roughly six months. Building construction would occur simultaneously, and would be sequenced as outlined above and depicted on Figure 3Q-1, beginning with the (Building B14), followed by the (Building B5), the (B2 and B1), and the building (B4). While this is the anticipated construction sequencing of the individual buildings within Phase 1, the final order in which individual buildings are constructed within Phase 1 may vary depending on the market and tenant requirements. Individual variations in the order of construction within the parameters of Phase 1 would not impact the overall site plan approval or necessitate a revision to the site plan. Changing the order in which buildings are constructed also would not cause any additional environmental impacts.

Phasing and scheduling for the Master Development Plan beyond Phase 1 is still to be determined. Once the Master Development Plan is approved by the Town Board, individual site plans for various subsequent phases of the Proposed Action would have to be consistent with the approved Master Development Plan, and would be subject to approval by the Planning Board.

Phasing and scheduling for the Master Development Plan beyond Phase 1 is still to be determined. Once the Master Development Plan is approved by the Town Board, individual site plans for various subsequent phases of the Proposed Action would have to be consistent with the approved Master Development Plan, and would be subject to approval by the Planning Board.





North 60 | Town of Mount Pleasant, NY

Phase 1 Construction Schedule

Source: Wescorp-Fareri Associates

2. Potential Impacts

Noise impacts associated with construction are anticipated to be temporary and unavoidable, and would be limited to the period of construction detailed above. As detailed in Chapter 3N, Noise, the potential for noise impacts due to construction activities would depend upon the phase of construction, the type, amount and location of construction equipment, and the amount of time such equipment operates over a workday. Localized noise impacts resulting from construction activity would be from heavy equipment. Although specific construction equipment and methods have not yet been determined for the Proposed Action, typical construction equipment for projects of the nature of the Proposed Action include backhoes, bulldozers, concrete mixers, dump trucks, cranes, excavators, and dump trucks.

Construction activities associated with Phase 1 and the Master Development Plan could result in temporary increases of air quality pollutants. The primary source of potential emissions is from fugitive dust resulting from construction operations (e.g., clearing, grading) and tailpipe emissions from equipment. Air quality impacts (i.e., fugitive dust) associated with construction would be temporary and geospatially diversified as different areas of the Project Site are developed.

Construction on steep slopes and other environmental features on the Project Site has been avoided to the greatest extent practicable. Construction of Phase 1 would result in the disturbance of approximately 35.8 acres for the proposed impervious surfaces such as roofs, access roads, parking areas, walkways, and driveways. Localized clearing and grading would result in disturbance to presently stable soils and removal of vegetation, which could result in water quality impacts due to raised sedimentation levels.

Minor temporary impacts to flora and fauna would occur due to the removal of vegetation and disturbance of certain habitat areas. Portions of these communities would be renaturalized following construction activity through the establishment of an abundance and diversity of native trees, shrubs and groundcovers and through the control of invasive vegetation. See Chapter 3E, Vegetation and Wildlife, for further detail.

Traffic would be generated related to construction activities and equipment, routing of construction vehicles and equipment/trucking, employee arrival/departure, construction staging and storage, and Project Site security. The number of vehicles entering and leaving the Project Site would vary based on the phase of construction. Stabilized construction entrances from Old Saw Mill River Road and the existing driveway will be utilized for construction vehicle access until such time that all necessary permanent traffic control measures have been installed for connection to Saw Mill River Road (Route 9A). Traffic control measures would be implemented in accordance with all state and local requirements, and construction trucks would be required to use local truck routes as designated by the Town.

The development of the site will require truck trips for every operation but the operations do not become cumulative. Truck traffic can be separated into two categories, regular deliveries and bulk deliveries which are further divided into phases which are associated with; 1) site work, 2) building superstructure construction and 3) finish work.

Regular deliveries related to import of construction materials such as; drainage, water and sewer pipe, sewer and drainage structures, silt fence, trap rock, seed and mulch during the site development phase and then rebar, building components and landscape materials in later phases. These truck trips occur regularly at scheduled times because they require careful off-loading and storage of materials. These trips do not occur multiple times in the same day.

The construction activities that generate the greatest number of daily trips typically occur over the course of a limited number of days, sometimes weeks but, as noted above, do not occur simultaneously. These are peak trips as follows:

Cut/fill: One of the many benefits of developing a project in multiple phases is the ability to make adjustments on a phase by phase basis to address issues such as imbalance of cut and fill volumes. Every effort to balance the site will be made to avoid the need to truck and dispose of excess fill which is very costly. The excess cut material removed to construct West Street in Subphase 1B is planned to be stockpiled within the limits of Subphase 1A where the existing landscape buildings are to be removed. This area has the ability to store all excess, excavated material from Subphase 1B in a stockpile with an average height of 18 feet. The stockpiled soil shall be appropriately stabilized and protected with erosion control measures as per details found on the Project Plans. The excess material shall be used in Subphases 1C, 1D, 1G, 1I, and 1J as needed. Each of these subphases required additional fill material to be placed within the limits of the subphase. The material stockpiled within the limits of Subphase 1A will be transported to the subsequent subphases via a short trip on Hospital Road to the proposed Main Street entrance of the site. At the completion of Phase 1 it is estimated that 18,464 cubic yards of excess material will remain after construction. The additional material shall be stockpiled and stabilized onsite to be used during future phases of development on the Project Site. If a trucking and disposal operation offsite were to become necessary it would typically involve up to 20 trucks making two trips per day, representing approximately 40 truck trips to the site per day.

Paving operations: A good paving output on a daily basis is approximately 1,000 tons of asphalt. This would require ten trucks running four trips for approximately 40 trucks trips to the site per day.

Superstructure concrete: A significant daily concrete pour is approximately 700 cubic yards. At 11 yards per truck, that generate the need for twenty trucks running three trips for approximately 60 trips to the site per day.

Truck routes will be established with input from the Town, County and State. However, limitations on the surrounding roadway infrastructure indicate that the main corridor to the property will be Interstate 287, Route 100C and NYS Rte 9A. As these roads are designed for heavy duty commercial traffic, the proposed truck loads which are regulated by law are not expected to cause damage to those roads. However, it is also understood that development of the property will require performance bonds that are put in place prior to commencement of work to address these issues should they unexpectedly occur.

Blasting

As detailed in Chapter 3C, Geology and Soils, based upon soils testing performed to date, blasting is not anticipated. If rock is encountered in deeper excavations it is likely to be weathered and accordingly will be ripable with the use of large excavation equipment.

Adjacent Land Uses

The Project Site is located adjacent to residential, institutional and recreational land uses, including the Little Years Day Care to the west of the Project Site adjacent to Route 9A, Westchester Medical Center to the south of the Project Site, and the North East Westchester Special Recreation center to the east of the Project Site across the Sprain Brook Parkway. These adjacent land uses may be affected by several of the temporary impacts outlined above, including noise impacts from construction and increased traffic on adjacent roadways. As detailed, required traffic control measures at Old Saw Mill River Road and Saw Mill River Road (Route 9A) will be installed in accordance with NYS NYSDOT and Town requirements. Ingress/egress for the Project Site will initially be provided by the existing paved driveway connected to Old Saw Mill River Road which is adjacent to the Little Years Day Care. The day care facility is likely to experience some noise produced by the construction activities associated with the construction of West Street, specifically if rock chipping or hammering is required to cut the roadway into the existing hillside. Once West Street is completed and connected to Hospital Road, construction vehicles can utilize Hospital Road to enter and exit the Project Site. Impacts to the Westchester Medical Center located on the opposite side of Hospital Road are expected to be minimal. Over the years the Westchester Medical Center has been able to function through many construction projects expanding and improving the existing hospital facilities. A proper Maintenance and Protection of Traffic Plan for Hospital Road will be key to safely managing the impact of construction vehicles on Hospital Road. Please note, there are no construction activities proposed near the adjacent residential community located on West Stevens Avenue during Phase 1. The construction of Building B18 and its associated parking lot are the closest areas of disturbance to the neighboring residences. It is not anticipated that rock chipping or blasting would be required for construction in this particular area of the Project Site and impacts to the West Stevens Avenue neighborhood are expected to be minimal. No construction equipment or vehicles will utilize West Stevens Ave or its connecting residential streets for ingress/egress to the Project Site. With the implementation of proposed mitigation measures detailed below, significant impacts to adjacent land uses are not anticipated.

3. Mitigation Measures

Construction of the Proposed Action would be conducted in accordance with the Town of Mount Pleasant Noise Ordinance to minimize potential impacts. Specific construction noise Best Management Practices would also be implemented to reduce adverse construction noise impacts, as detailed in Chapter 3N, Noise.

Measures would be taken to reduce pollutant emissions during construction in accordance with all applicable laws, regulations, and building codes. These include dust suppression measures and idling restrictions. To minimize fugitive dust emissions, a water truck would be utilized (as needed) during

construction activities where land surfaces would be disturbed. During construction, emission controls from construction vehicles and machinery would include proper maintenance and reduced idling on-site. Overall, with implementation of proposed mitigation measures, the impacts on ambient air quality from construction activities are not expected to be significant.

The site plans for Phase 1 and the Master Development Plan were designed to minimize impacts to environmentally sensitive land. Construction phasing outlined in this section has been prepared to ensure that construction is sequenced to minimize the amount of exposed area and slopes at any one given time. An Erosion and Sediment Control Plan has been prepared for Phase 1 and would be prepared for the remaining phases of the Master Development Plan. The Erosion and Sediment Control Plan would be implemented at the start of construction and would continue throughout the construction period, as outlined in the New York State Standards and Specifications for Erosion and Sediment Control. The proper implementation of the Erosion and Sediment Control Plan will ensure soils and slopes are properly protected and stabilized during construction.

As detailed in Chapter C, Geology and Soils, a fill soil management plan would be developed with the Town and the Westchester County Department of Health for specific removal and disposal of excess and contaminated soils and demolition debris in accordance with all applicable regulations. This will occur prior to the start of construction.

In addition, the site layout has been planned to minimize impacts to existing surface water resources by providing facilities that comply with NYSDEC and local standards. This includes ensuring that all surface water runoff from the proposed Project including during construction would be captured and treated in accordance with the details provided in the Stormwater Pollution Prevention Plan.

With implementation of the proposed mitigation measures outlined in the applicant's opinion, significant impacts resulting from construction of the Proposed Action are not anticipated.

4

Alternatives

In accordance with the adopted Scope, this DEIS includes an analysis of six alternatives to the Proposed Action. The following alternatives are evaluated below and a table comparing each alternative to the Proposed Action is found at the end of this chapter (See Table 4-4: Impacts from the Proposed Action and Project Alternatives).

- Alternative A: No Action Alternative
- Alternative B: Alternative Plan Under the Existing Zoning
- Alternative C: Alternative Development Program
- Alternative D: Alternative Access
- Alternative E: Alternative Phasing Program
- Alternative F: Reduced Environmental Impact Alternative

4.1 Alternative A: No Action Alternative

The No Action Alternative is required by SEQRA regulations to be described in a draft environmental impact statement. This alternative assumes the Project Site would remain in its existing condition, with no site improvements and no new site development. With this alternative, none of the adverse, or positive, impacts of the Proposed Action would occur. In

this case, the Project Site would remain primarily undeveloped wooded land with a construction staging site and a house on the County-Parcel and a former nursery complex and five single-family homes on the Developer-Parcel. The Project Site would not be developed with a research and development bio-tech and medical complex, public open space, roads, utilities or other improvements. No grading or alteration of topography, no loss of existing vegetation, and no impacts to wetlands would occur. No new traffic, effects on community services, or visual impacts would take place. However, while this alternative would eliminate any potential adverse impacts of the Proposed Action, it would not yield any beneficial effects expected to result from the construction of the development, such as increased tax revenue for the Town, County, and school districts; increased job and career opportunities; improved Route 9A connectivity to Westchester Medical Center; new public open spaces; restored wetlands; new retail amenities; new hotel; a new Children's Science and Education Center.

4.2 Alternative B: Alternative Plan Under the Existing Zoning

With Alternative B the Project Site would be redeveloped as permitted under the requirements of the existing zoning districts. The 60-acre County-Parcel is located in the R-20 One-Family Residential District. The 20-acre western portion of the Project Site owned by the Developer-Parcel is located in the OB-6 Office Building, Distribution, Limited Fabrication District. This alternative assumes these zoning designations would remain and development would include 52 five-bedroom single-family homes on the County-Parcel and 292,000 square feet of office space, with parking for 872 vehicles, on the Developer-Parcel. The conceptual plan for Alternative Plan is shown on Figure 4-1, Alternative B: Alternative Plan Under Existing Zoning.

The conceptual plan for Alternative B shows that approximately 55.2 acres would be disturbed to accommodate development of the Project Site, which is less than the 57.5 acres that would be disturbed in the Proposed Action. Fewer wetland areas would be impacted as well. Alternative B would also generate less traffic than the Proposed Action. The amount of taxes that could be generated with Alternative B is not known, however, Alternative B would likely generate a higher number of school-aged children, as well as some impacts to public parks, utilities, and emergency services that would need to be off-set by those taxes.

Alternative B would not generate the new economy career opportunities and substantial number of jobs or realize the significant economic benefits that would occur with the Proposed Action. It also would not complement the other uses on the Grasslands Reservation like the proposed bio-tech complex would. Further, Alternative B would not carry out several of the benefits that are proposed with the Proposed Action, including the restoration of the on-site wetlands; significant job and economic growth; a children's science and education center; retail, hotel, bio-tech and medical office uses that complement and serve the other uses on Grasslands Reservation; and new public open spaces including wooded trails and public plazas.

This Alternative Plan Under Existing Zoning is examined in this DEIS for compliance with the adopted SEQRA Scope for this project. In the Applicant's opinion, this Alternative is not considered a viable alternative development scenario because it is inconsistent with the requirements of the Lease Agreement and would not meet the goals or development objectives of the County or the Applicant.

Fareri Property

Zoning: OB6
Program:
Office: 292,000 SF
Parking:

Below Building (4)	240 spaces
Garages (2)	542 spaces
Surface	40 spaces
Total	872 spaces

Area of Disturbance:	580,950 SF
Area of SWM Ponds:	23,240 SF
(4% of area of disturbance)	
Wetland Area Impacted:	14,800 SF
Mitigation Area Provided:	29,600 SF

* Note: land areas are approximate.

Zoning Compliance Table – OB6		
Zoning Provision	Required	Provided
Min. Lot Size	10 AC	19.2 AC 836,518 SF
Max. FAR	.35	.35
Max. Building Coverage	30%	17.1%
Max. Building and Paved Area Coverage	60%	26.8%
Min. Lot Width	None	N/A
Min. Front Yard	100'	100' from south Property Line
Min. of 1 Side Yard	50'	90' from west Property Line
Min. of 1 Side Yard (abutting residential)	100'	100' from east Property Line
Min. Side Yard Total	150'	190'
Min. Rear Yard	50'	530'+ from north Property Line
Min. Floor Area/DU	N/A	N/A
Max. Height	40', 3 Stories	40', 3 Stories
Min. Usable Open Space / DU	N/A	N/A
Off-Street Parking (see assumed mix below)	866 spaces	872 spaces
Medical Office 4/kSF*	292 spaces	
Research/Lab 2.1/kSF	154 spaces	
Office 2.87/kSF	420 spaces	

*A ratio for Medical Office is not listed in the Zoning Code. For all uses not listed, applicant must provide "reasonable and sufficient" parking as determined by the Planning Board.

Grasslands Reservation

Zoning: R-20
Program:

SFD Residential:	52 5-Bedroom DU
	4,970 - 7,890 SF each
	(not including 2-car garage)

Area of Disturbance:	1,822,200 SF
Area of SWM Ponds:	75,700 SF
(4% of area of disturbance)	
Wetland Area Impacted:	12,255 SF
Mitigation Area Provided:	24,500 SF

* Note: land areas are approximate.

Zoning Compliance Table – R-20		
Zoning Provision	Required	Provided
Min. Lot Size	20,000 SF	20,000 SF - 104,600 SF
Max. Lot Coverage	15%	2% - 12%
Min. Lot Width	100'	100'+
Min. Front Yard	50'	50'+
Min. of 1 Side Yard	15'	15'+
Min. Total Side Yards	40'	50'+
Min. Rear Yard	50'	50'+
Min. Floor Area/DU	1,200 SF	4,970 SF - 7,895 SF
Max. Height	35', 2.5 Stories	35', 2.5 Stories
Min. Usable Open Space / DU	1,200 SF	1,200 SF+
Off-Street Parking	2/DU	2/DU+

North 60 | Town of Mount Pleasant, NY

Alternative B: Alternative Plan Under the Existing Zoning

Source: Torti, Gallas + Partners

4.3 Alternative C: Alternative Development Program

Under Alternative C, the development would include a new mixed-use community that incorporates approximately 3 million square feet of bio-tech/research and development related uses including medical offices, a children's science and education center, neighborhood retail, a hotel, and low impact residential uses that would cater to the scientific community and may include student housing, and/or micro-unit and co-living housing as part of a comprehensive Master Development Plan. Residential uses to be analyzed under this alternative include up to 660 units of low impact residential uses, of which 210 residential units would be constructed in Phase 1. The residential uses would likely replace approximately 660,000 square feet of bio-tech uses in the Master Development Plan, although exactly which use would be replaced would be determined by demand as the project in phased in. If bio-tech uses were replaced by the full 660,000 square feet of residential use, 1,484,000 square feet of bio-tech would be achieved on the Project Site in the Master Development Plan. Under Alternative C, although some uses would differ from the Proposed Action, points of access, building placement, and building footprints would remain the same. Project review and approvals, as described in DEIS Chapter 2, Project Description, would be the same for Alternative C. See Figure 4-2, Alternative C: Alternative Development Program.

Retail	
Medical Office	
Biotech	
Education	
Hotel	
Living Science Center	
Residential	
Assisted Living	
Parking	

North 60 | Town of Mount Pleasant, NY

Alternative C: Alternative Development Program

Source: Torti, Gallas + Partners

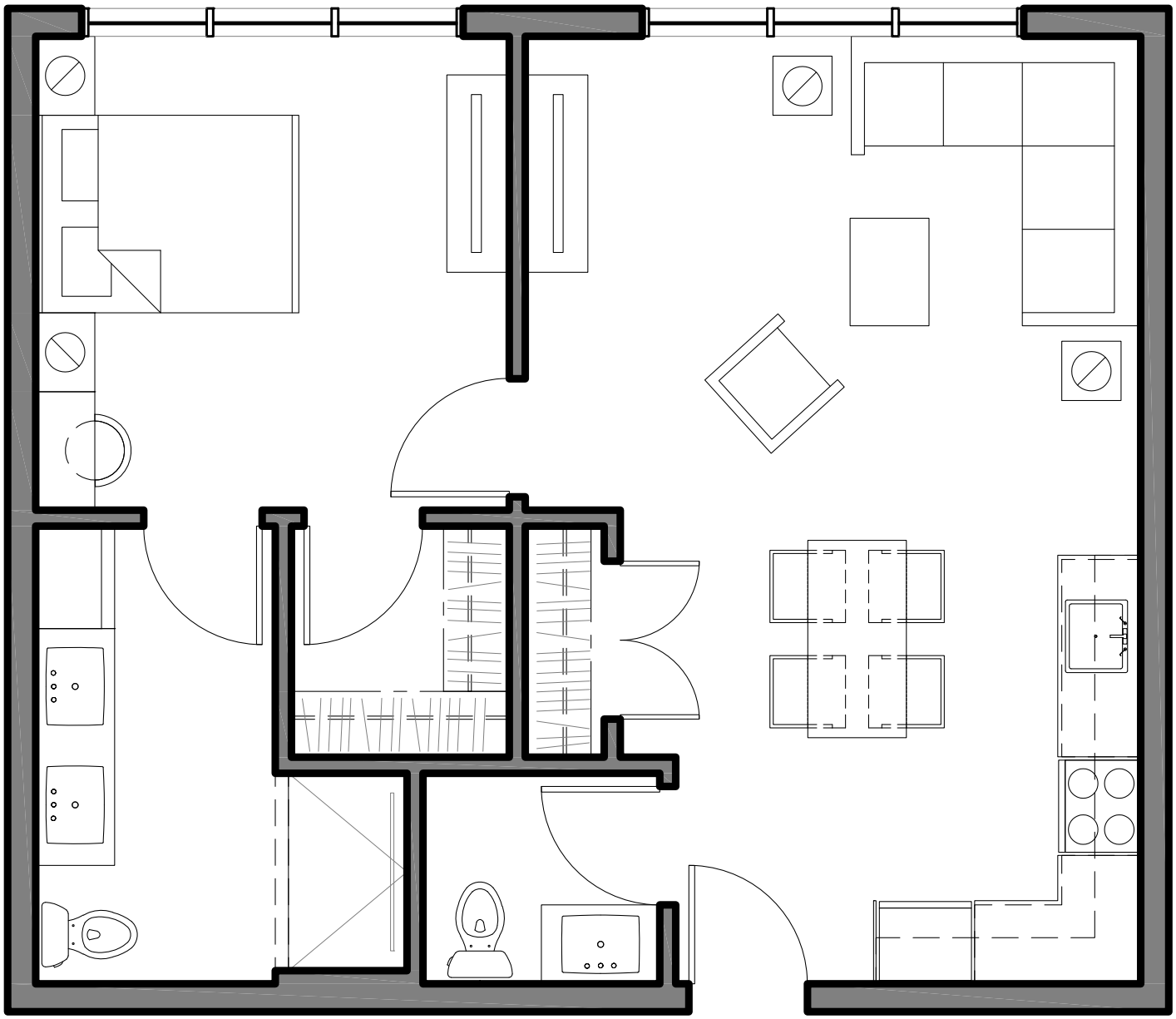
As the following analysis demonstrates, this Alternative Development scenario, which incorporates low-impact residential uses for bio-technology students and young professionals, is the most economically viable, and potentially preferable alternative considered for the Project Site. Based on the conclusions and recommendations of the Weitzman Study, there is demand for residential use as part of the Proposed Action and residential use is essential to creating a viable and attractive living sciences complex. Alternative C would result in the greatest overall economic benefit in terms of creating a vibrant bio-technology hub with low-impact housing options on-site.

Low impact housing is an approach to housing development that uses various planning and design practices to conserve community resources and reduce infrastructure and municipal costs, thereby mitigating potential environmental and fiscal impacts associated with development. This type of housing is appropriate for the proposed project, mixed into a bio-tech complex. It is anticipated that many of these units would be occupied by employees or students of uses on the project site or adjacent medical and school uses. Low-impact housing proposed for the North 60 includes the following:

"Micro-Unit" – a micro-unit is typically a relatively small studio or one-bedroom apartment with some communal or common living space within the building that is shared by all residents of the building. Common/shared space would likely include areas for living, entertaining and interacting as well as study areas with desks and internet access for building residents. This residential framework is well-suited to bio-tech employees and graduate students.

"Co-living" units (also called "lily pads") will provide shared housing occupied by employees or students of uses on the project site or adjacent medical and school uses. These co-living units are essentially shared apartments for two, three or four persons where each resident has their own bedroom. Living rooms and kitchens would be shared by all residents of the co-living apartment.

See Figures 4-3 through 4-8 for typical low impact housing floorplans.

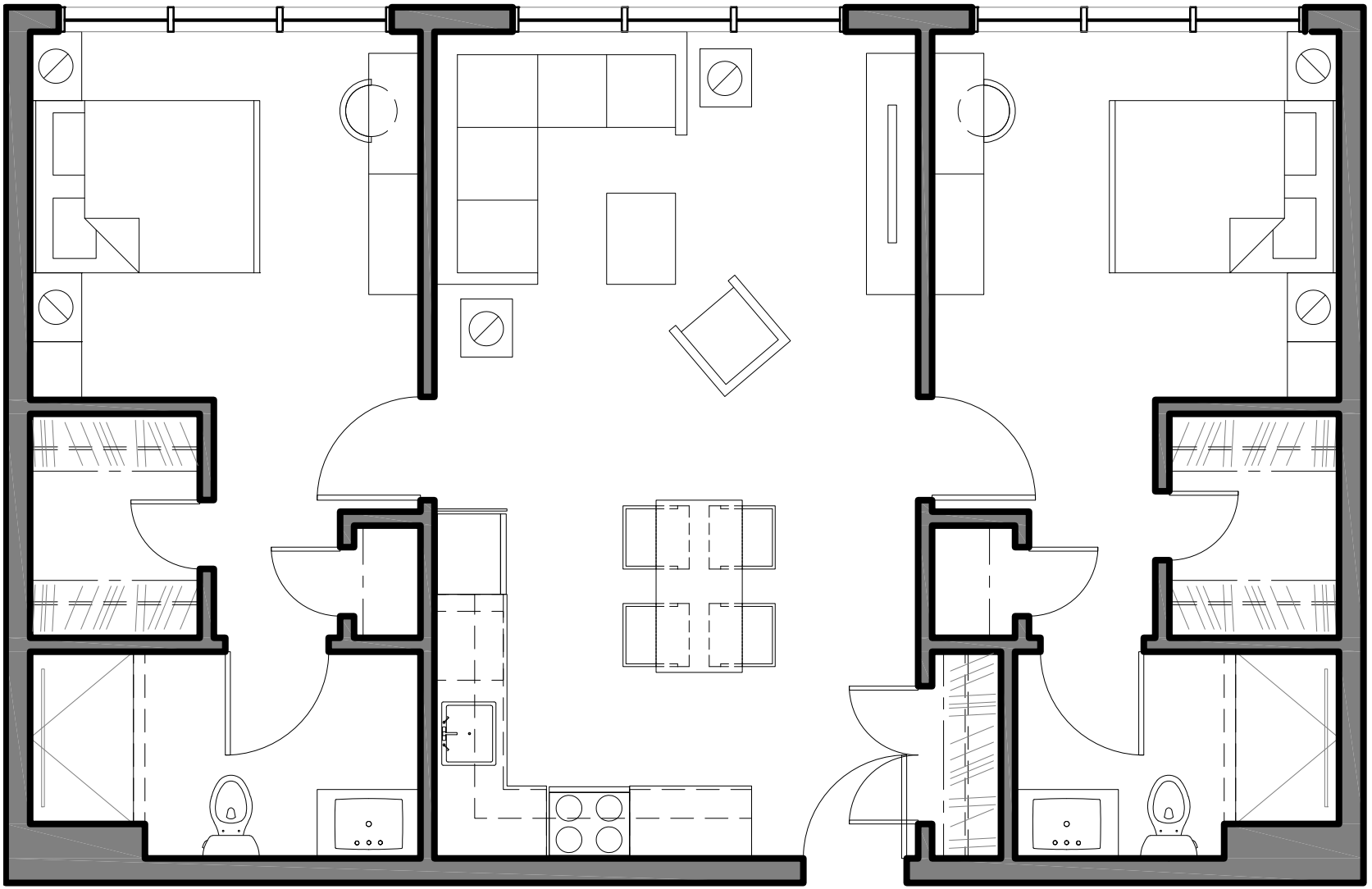


FULL 1 BEDROOM

672 SQ.FT.

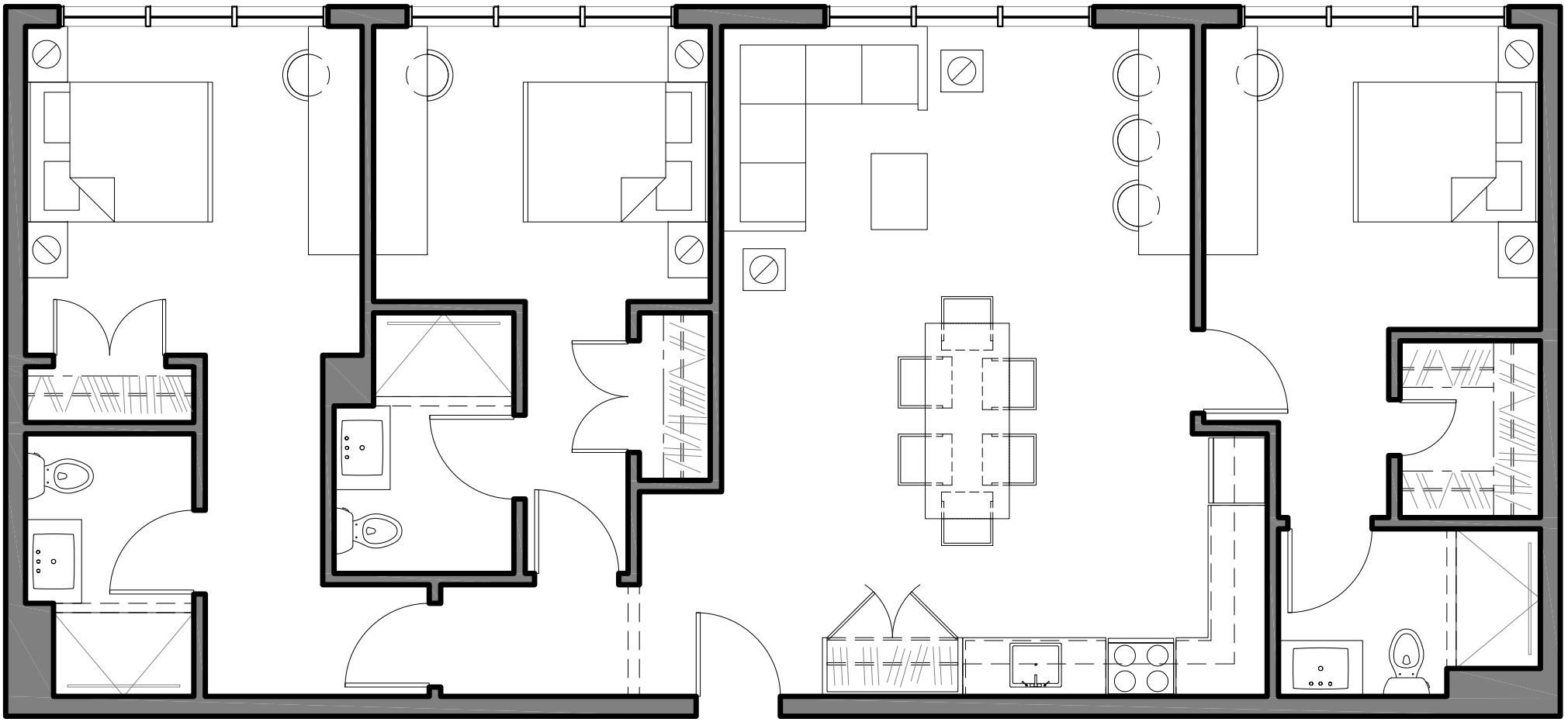
North 60 | Town of Mount Pleasant, NY

Alternative C: Alternative Development Program
Typical Floorplan - Full 1 Bedroom
Source: Fareri Associates



North 60 | Town of Mount Pleasant, NY

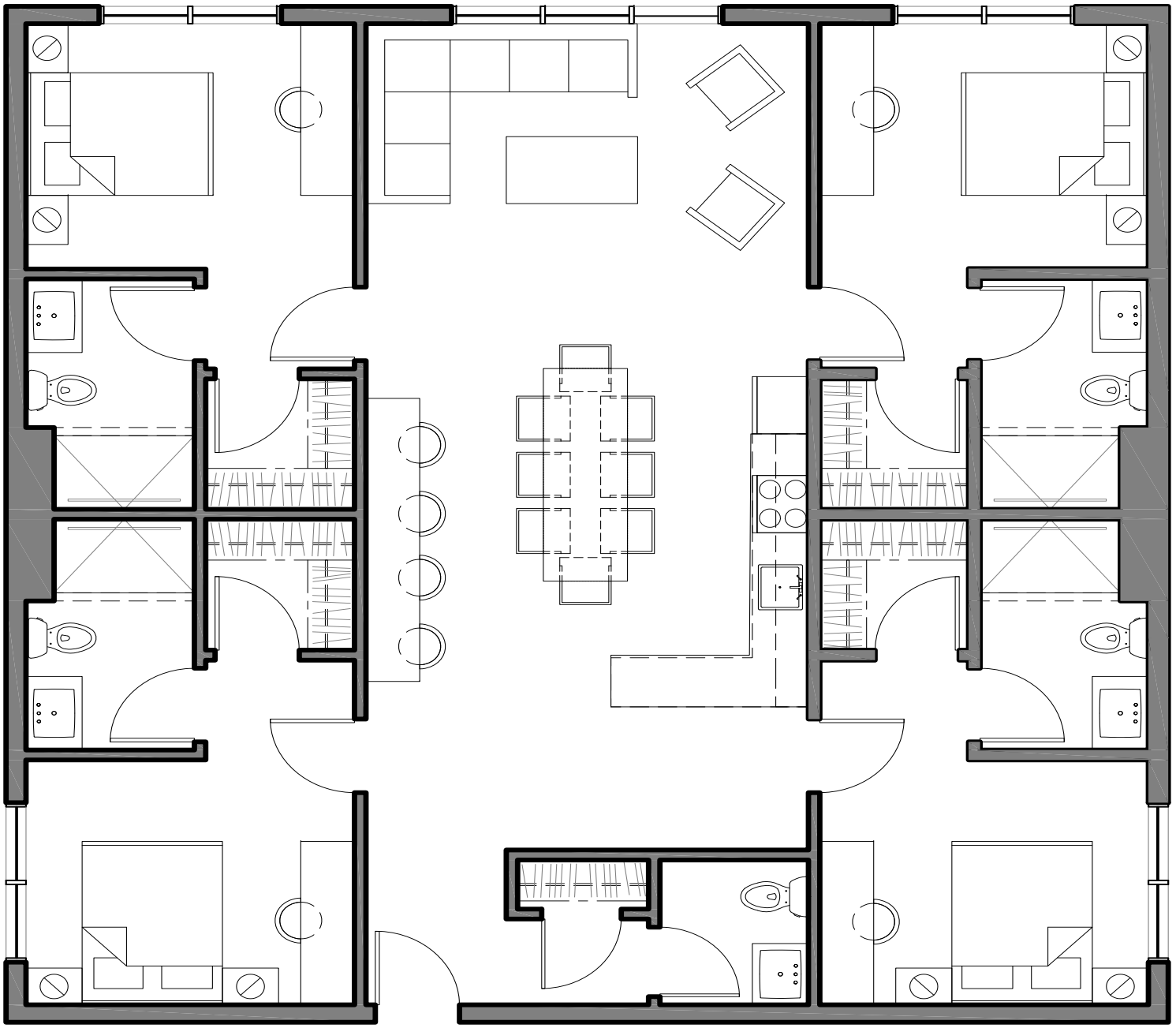
Alternative C: Alternative Development Program
Typical Floorplan - Co-Living 2 Bedroom
Source: Fareri Associates



CO LIVING 3 BEDROOM
1289 SQ.FT

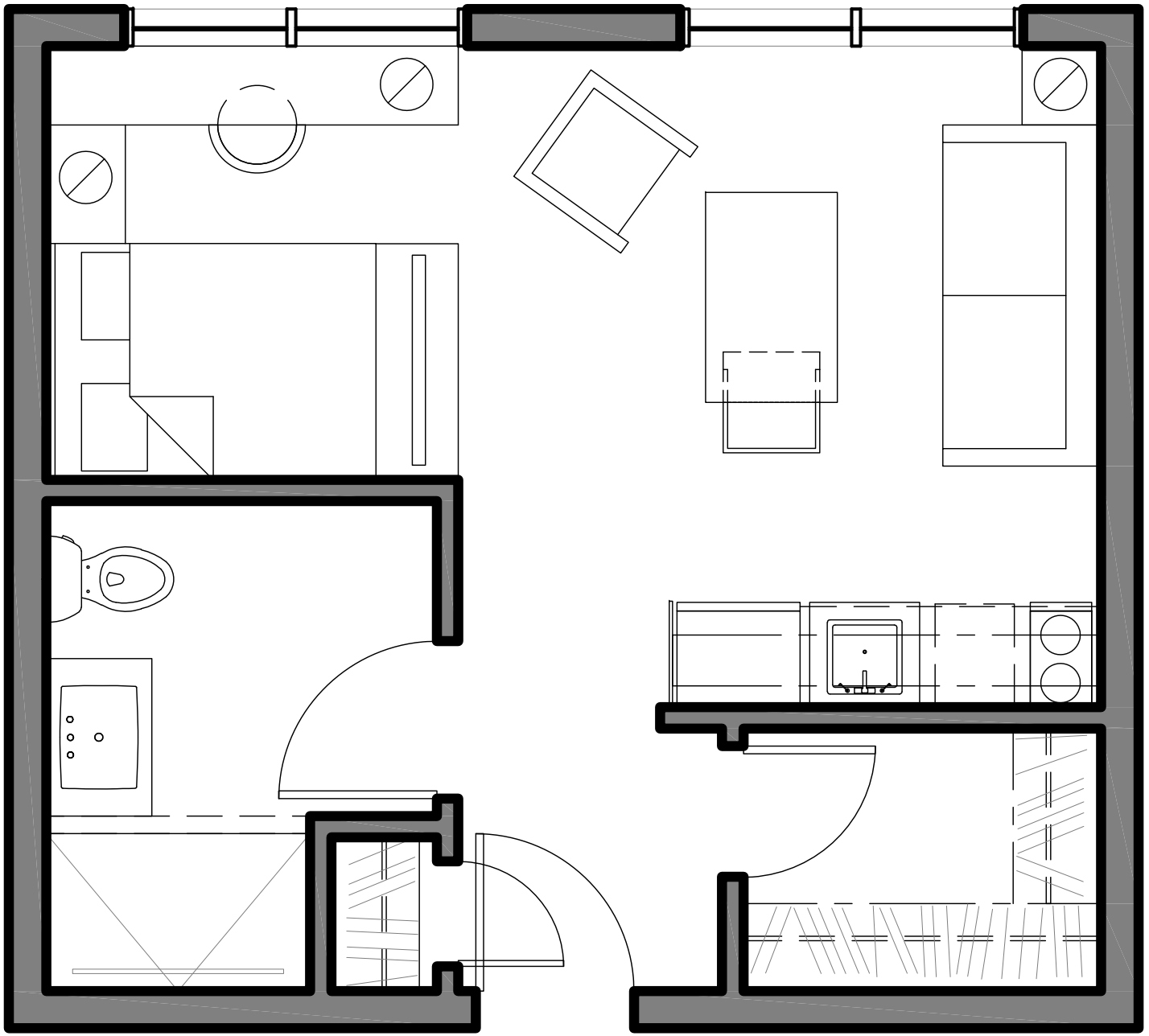
North 60 | Town of Mount Pleasant, NY

Alternative C: Alternative Development Program
Typical Floorplan - Co-Living 3 Bedroom
Source: Fareri Associates



North 60 | Town of Mount Pleasant, NY

Alternative C: Alternative Development Program
Typical Floorplan - Co-Living 4 Bedroom
Source: Fareri Associates

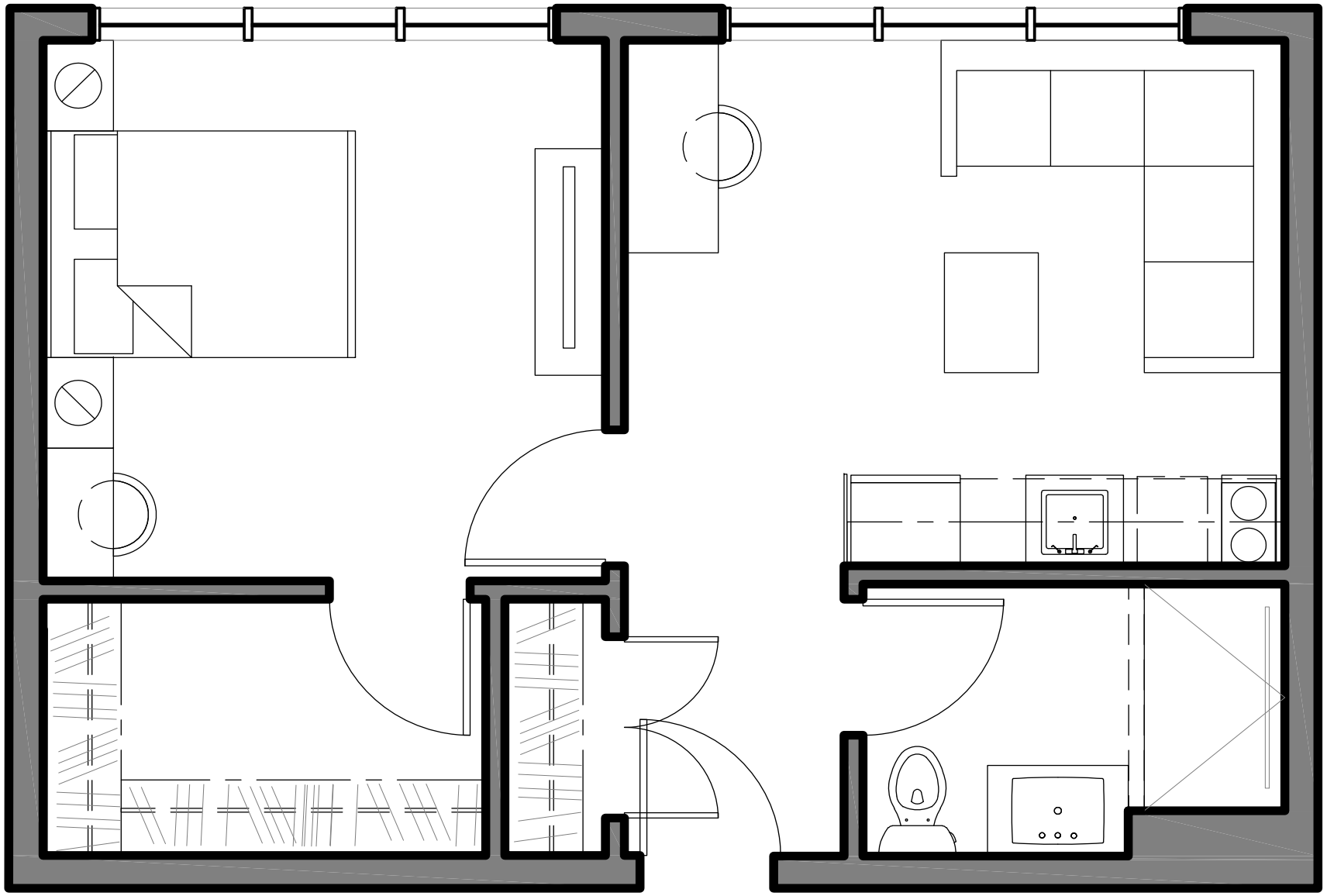


MIRCO (1)

360 SQ. FT.

North 60 | Town of Mount Pleasant, NY

Alternative C: Alternative Development Program
Typical Floorplan - Micro (1)
Source: Fareri Associates



MIRCO (2)

474 SQ.FT.

North 60 | Town of Mount Pleasant, NY

Alternative C: Alternative Development Program
Typical Floorplan - Micro (2)
Source: Fareri Associates

Land Use, Zoning and Public Policy

As discussed in DEIS Chapter 3A, Land Use and Zoning, the Proposed Action is intended to complement other uses on the Grasslands Reservation and other nearby uses. Alternative C would achieve these goals and would add residential use which would not only complement these uses but provide housing necessary to serve these uses and to support the bio-tech complex. Although some forms of low impact housing would be new to the Town, it is noted that student housing is located on the Grasslands Reservation as part of the New York Medical College. The Westchester Medical Center also has some living quarters on their campus. The proposed housing in Alternative could provide additional opportunities for the College's students, existing employees on the Grasslands Reservation, and the new employees of the bio-tech development. Further, the Weitzman Study (see Appendix M) concludes that residential uses are essential for serving and attracting the proposed bio-tech uses.

The proposed OB-5 MP zoning district would permit this type of housing on the Project Site.

With regard to County fair housing policy, while the Town of Mount Pleasant does not require an Affirmative Fair Housing Marketing Plan, under this alternative development scenario, the Applicant would engage in affirmative marketing to target households identified as least likely to apply due to their representation in the housing market. The Applicant would actively market any on-site housing opportunities to such populations.

The terms of the Lease Agreement recognize that all approvals are subject to the rules and regulations of the Town of Mount Pleasant only. Under this Alternative Development Program the Applicant's proposed plan, however, anticipates that a majority of renters would be graduate students, nursing students, first year medical residents, entry-level employees for Westchester Medical Center and area biotech firms, either on the North 60 campus or in close proximity to the campus. It is anticipated that a majority of those groups should have incomes at, or below HUD guidelines.

Visual Resources and Community Character

Building height, bulk and placement would be the same in Alternative C as with the Proposed Action. Architectural features and building amenities would vary slightly to accommodate residential uses but would not vary to a degree that would create additional impacts beyond those identified in DEIS Chapter 3B, Visual Resources and Community Character. Lighting on the Project Site would also be the same, or similar, to that proposed in the Proposed Action and would also comply with Dark Sky standards.

Geology and Soils

Amount and location of land disturbance under Alternative C would be the same as the Proposed Action, therefore, potential impacts to geology and soils, as well as mitigation measures, would be the same as those identified in DEIS Chapter 3C, Geology and Soils.

Topography and Slopes

Amount and location of land disturbance under Alternative C would be the same as the Proposed Action, therefore, potential impacts to topography and slopes, as well as mitigation measures, would be the same as those identified in DEIS Chapter 3D, Topography and Slopes.

Vegetation and Wildlife

Amount and location of land disturbance under Alternative C would be the same as the Proposed Action, therefore, potential impacts to vegetation and wildlife, as well as mitigation measures, would be the same as those identified in DEIS Chapter 3E, Vegetation and Wildlife.

Wetlands, Waterbodies and Watercourses

Amount and location of disturbance to wetlands under Alternative C would be the same as the Proposed Action, therefore, potential impacts to wetland, as well as mitigation measures, would be the same as those identified in DEIS Chapter 3F, Wetlands, Waterbodies and Watercourses.

Stormwater Management

Amount and location of land disturbance and pervious surfaces under Alternative C would be the same as the Proposed Action, therefore, potential impacts to stormwater conditions, as well as mitigation measures, would be the same as those identified in DEIS Chapter 3G, Stormwater Management.

Utilities

Water and sewage usage for Alternative C would likely be greater than the Proposed Action because residential uses could have different rates of usage than the proposed commercial uses. As with the Proposed Action, Alternative C would be designed with features to promote water conservation and energy efficiency. It is anticipated that there would be adequate capacity to serve the water, sewer, electric, and gas demand of Alternative C. All mitigation measures proposed in DEIS Chapter 3H, Utilities, would apply to Alternative C.

Traffic and Transportation

As shown in the table below, Alternative C would have an overall slightly lower trip generation than the Proposed Action in Phase 1 but a higher overall trip generation in the Master Development Plan. These estimates are conservative, however, because the proposed housing would be located on Main Street, within walking and biking distance of other uses on the Project Site. The residential uses would change the expected traffic patterns with a lower weekday peak AM hour entry volume and higher exit volume. Alternative C would incorporate the same mitigation measures as the Proposed Action.

Table 4-1 Alternative C Trip Generation Volumes

Use	Entry Volume	Exit Volume	Total Volume
Net New Multi-Family Residential – Phase 1			
Weekday Peak AM Hour	-70	50	-20
Weekday Peak PM Hour	58	-61	-3
Net New Multi-Family Residential – Master Development Plan			
Weekday Peak AM Hour	-135	162	27
Weekday Peak PM Hour	185	-138	47

Source: Hourly Trip Generation Rates based on ITE Land Use 220-Multi-Family

Community Services

Police, Fire, and Emergency Services

Alternative C would introduce approximately 656 employees to the Project Site in Phase 1 and 5,465 employees at full development of the Master Development Plan. Residential use would introduce approximately 385 residents to the Project Site in Phase 1 and 1,209 residents at full development of the Master Development Plan. The introduction of a new biotechnology employment center with on-site housing at the Project Site is expected to result in increased demand for police protection services commensurate with an estimated 4.4% increase in the Town population increase.

Similar to the Proposed Action, Alternative C would also incorporate features to increase site safety and reduce demand for police protection, including outdoor lighting, private security, and an internal circulation design to minimize the potential for vehicle and pedestrian accidents. The Project Applicant would continue to coordinate with the MPPD to ensure any site plan concerns are addressed in the final design and operations.

It is expected that the increase tax revenues generated by this Alternative would offset any incremental increased costs for police protection services by the MPPD and Westchester County Department of Public Safety. Therefore, it is the Applicant's opinion that no significant adverse impacts on police services would result due to the development of Alternative C.

The introduction of a new biotechnology employment center with on-site housing at the Project Site is expected to result in increased demand for fire and EMS services.

Similar to the Proposed Action, Alternative C would be designed to provide adequate site access to fire apparatus and emergency response vehicles. Additionally, the proposed buildings would be constructed to meet the latest New York State Uniform Fire Prevention and Building Code and would be equipped with sprinklers and fire alarms. The Project Applicant has met with the Hawthorne FC to discuss the Proposed Action and would continue to work with the Hawthorne FC to ensure any concerns regarding the final Proposed Action or Alternative are addressed in the final design and operations.

It is expected that the increase tax revenues would offset any incremental increased costs for fire and EMS services by the Hawthorne FC. WEMS is a nonmunicipal nonprofit agency and would not be impacted by tax revenues. Therefore, it is the Applicant's opinion that the

development of Alternative C would have no significant adverse impacts on fire and EMS services.

Recreation and Open Space

The Alternative C site plan has the same site configuration, building footprints and other site plan details as the Proposed Action - - only the programming of the interior building space would change under Alternative C whereby 660,000 square feet of bio-tech space would be replaced with 660 units of low impact residential development.

Alternative C would provide the same public recreation and open space amenities as described in DEIS Chapter 3J, Community Services. These recreation amenities will be available not just to residents and employees of the Project Site but to the all area residents. Although recreation and open space opportunities would be located on the Project Site, the introduction of a residential population of approximately 1,209 to the Project Site would likely result in more use of Town facilities than would occur under the Proposed Action. Alternative C would increase the current population by in the Town of Mount Pleasant by approximately 4.4 percent, which would potentially increase demand on Town facilities by up to 4.4 percent.

It is anticipated that the increase in tax revenue, as well as the mitigation measures identified in DEIS Chapter 3J, Community Services, would offset any potential impacts to recreation and open space. The active and passive on-site recreation and open space amenities would add to the open space and recreation amenities currently available to the Mount Pleasant community.

Solid Waste and Recycling

Residential rates of solid waste generation are typically higher than medical office and bio-tech uses, therefore, the residential uses in Alternative C would create slightly more solid waste and recycling materials than the Proposed Action.

The Alternative C uses proposed for Phase 1 are expected to generate approximately 64.4 tons per month (tpm) of solid waste. Upon completion of the Master Development Plan, 271.8 tpm of solid waste would be generated. This is greater than the solid waste and recycling estimated from the Proposed Action, which is 61.6 tpm for Phase 1 and 261.1 tpm for the Master Development Plan.

As with the Proposed Action, a private hauler would be used, solid waste would be source-separated, and sanitation requirements of the Town and County would be met.

Schools

As identified in DEIS Chapter 3J, Community Services, the Project Site is located in two different school districts: the 60-acre County Parcel is located in the Mount Pleasant Central School District, and the 20-acre Developer-Parcel is located in the Pocantico Hills School District. It is proposed that the residential uses included in Alternative C would be located in the buildings located along the proposed Main Street so that residents can take advantage of the proposed plazas and open spaces and commercial uses while being in close proximity to the bio-tech and office uses located elsewhere on the Project Site and the surrounding medical and school uses. The proposed Main Street and adjacent buildings are located within the Mount Pleasant

Central School District. Therefore, it is assumed that any school-age children would attend schools in the Mount Pleasant Central School District. It is also assumed, to be conservative, that all school-age children on the Project Site would attend public schools.

A School Student Generation Study (School Study) was prepared for Alternative C to estimate the number of potential school-age children that would be generated by the inclusion of 660 residential units (see Appendix S). The School Study uses multipliers appropriate to the types of residential units to be built with Alternative C and concludes that due to the low impact nature of the proposed housing, and the number of students and young professionals likely to occupy the Project Site, only approximately 8 school-age children would reside on the Project Site and attend schools in the Mount Pleasant Central School District. It was further estimated that the cost to educate 8 students in the Mount Pleasant Central School District would be approximately $126,960 based on $15,870 (see DEIS Chapter 3J, Community Services). As identified in DEIS Chapter 3K, Fiscal Impacts, projected property tax revenue would be approximately $4,918,842, resulting in a net benefit to the Mount Pleasant Central School District of approximately $4,791,882 with the Master Development Plan. It is expected that the Mount Pleasant Central School District would have capacity for an additional 8 students, who would likely be spread throughout the 13 grades.

It is also noted that the Project Site is now occupied with five single family homes and one two-family home, which generate approximately 6 school-age children. These existing homes are located within the Pocantico School District. Under the Alternative Development Program, the net increase in site generated school-age children is two.

The Pocantico Hills Central School District would not receive any new students and would see an increase in tax revenue of $1,179,475 over the current $56,936 it currently receives from the portion of the Project Site owned by the Applicant.

Fiscal and Market Impacts

Demographics

The table below shows the potential unit mix of Alternative C. The exact breakdown of units is not yet known; however, all residential uses would be low impact and designed to serve the living sciences uses on the surrounding Grasslands Reservation and the new bio-tech uses. The residential uses included in Alternative C are estimated to generate approximately 1,209 residents with the Master Development Plan, as shown in the table below. Phase 1 would include 210 residential units, or 31.8 percent of the proposed 660 units with the Master Development Plan. Therefore, it is estimated that the residential population of Phase 1 would be approximately 385 residents.

Table 4-2 Potential Unit Mix for Alternative C

Unit Type	%	Number of Units	Population
Micro Unit	20%	132	132
Studio Unit	20%	132	132
One Bedroom Unit	20%	132	219
Co-Living Unit (2 person lily pad)	20%	132	264
Co-Living Unit (3 person lily pad)	10%	66	198
Co-Living Unit (4 person lily pad)	10%	66	264
TOTAL	**100%**	**660**	**1,209**

Source: It is assumed that micro units and studio apartments would have 1 person per unit, and co-living units would have 1 person per bedroom. One bedroom units are assumed to have 1.66 persons per unit, based on Rutgers University Center for Urban policy Research, Residential Demographic Multipliers – Estimates of the Occupants of New Housing, June 2006 (for 5+ units, rent, 1 BR, all values).

As identified in DEIS Chapter 3K, Fiscal Impacts, the population of Mount Pleasant is 27,231. Alternative C would increase the current population by approximately 4.4 percent.

Demand and Absorption

A residential market analysis was performed in the Weitzman Study (referenced in DEIS Chapter 3K, Fiscal Impacts and included as DEIS Appendix M). The Weitzman Study concludes that there is demand for residential use as part of the Proposed Action and that residential use is essential to creating a viable and attractive living sciences complex. Key conclusions of the Weitzman Study are quoted as follows:

- The rental housing demand analysis suggests that there are approximately 75,000 income-qualified ($50,000+) households in the Primary Market Area around the Project Site, and over 250,000 households in all of Westchester County (the Secondary Market Area). Based on our analysis and known competition from existing, vacant supply, there is net demand for 3,872 housing units in the Primary Market Area, and 16,564 units in the Secondary Market Area. Tested at various absorption rates, new multifamily rental product is evidently well-supported by the demographics of Westchester County. For example, in order for a rental building at the Project Site to lease-up at 10 units per month, the building would need to capture 3.1% of extant and future demand in the Primary Market Area.
- There are 23 institutions of higher education throughout Westchester that drive demand for student housing. While there is no complete catalogue of student housing in Westchester, the comparable properties we reviewed reveal that rental rates ranged widely from about $1,000 to $7,000 per semester, depending on whether or not the respective academic institution is subsidizing the rent. There is little to no precedent for co-living and micro-units in Westchester County. One successful example of micro-units, "UNO" in Yonkers, has achieved successful leasing and charges upwards of $1,550 per month. Co-living and micro-units are better-tested in dense urban markets such as New York City, but it is possible that they could succeed at the Project Site.
- We reviewed four case studies of existing and under-development life science campuses across the United States in order to determine how much (if any) housing

they include. The case studies were selected due to their locations in either suburban settings, or smaller urban areas. The analysis concludes that life science campuses have 0.31 to 2.50 units of housing for every 1,000 gross square feet of life science real estate, which is necessary to attract tenants by providing on-site (or nearby) housing for employees. The average and weighted average of these case studies, respectively, were 1.63 units and 1.05 units per 1,000 gross square feet. Based on the average and weighted average housing-to-space ratios derived from the case studies, the two million gross square feet of life science real estate proposed for the Project Site should be accompanied by 2,100 to 3,250 housing units to accommodate employees. However, we note that not all of these housing units must be built directly on the North 60 site in order for life science development to be successful, though a portion of them (approximately 30%) should be. This results in our recommendation to construct approximately 30%, or 630 to 975 housing units, on the Project Site. The housing units at the Project Site should be small (studios and one-bedroom units) to accommodate the needs of a millennial workforce. Thus, this housing would most likely not be an additional burden on the school system in the Town of Mount Pleasant.

- Our case study analysis further exemplifies the necessity for residential housing development at the Project Site. In order to attract and retain life science tenants and maximize the land value of the Proposed Action the development must provide amenities and housing for employees that require close proximity to their work.

Property Tax Revenue

The residential uses proposed in Alternative C would be rented units rather than individually owned units. It is therefore assumed that property tax generated by Alternative C would be the same or similar to the estimated $9.3 million in property taxes to be generated by the Proposed Action at completion of the Master Development Plan.

Employment

Construction costs for Alternative C would be the same or similar to the construction costs of the Proposed Action and would therefore support approximately a similar number of construction jobs identified for the Proposed Action in DEIS Chapter 3K, Fiscal Impacts.

The number of permanent jobs, however, would be fewer than those estimated for the Proposed Action because there would be less commercial development. As shown in the table below, the Master Development Plan would generate or support approximately 12,524 jobs, including 5,465 direct project-generated jobs and 7,059 induced and indirect jobs, resulting in 3,890 fewer total jobs than estimated in the Proposed Action. Although Alternative C would generate fewer jobs than the Proposed Action, Alternative C would still result in substantial economic benefits to the local and regional economies, including a total economic output of over $2 billion.

Table 4-3 Alternative C Master Development Plan Operational Economic Impacts

Impact Type	Jobs	Labor Income	Total Value Added	Output
Direct Effect	5,465	$905,701,607	$1,045,627,629	$1,532,629,065
Indirect Effect	3,088	$239,122,153	$372,926,692	$556,697,192
Induced Effect	3,971	$231,542,136	$405,844,107	$618,719,338
TOTAL EFFECTS	**12,524**	**$1,376,365,897**	**$1,824,398,429**	**$2,078,045,595**

Source: Impact Summary, Minnesota IMPLAN Group, Inc.

Historic, Archaeological and Cultural Resources

Amount and location of land disturbance under Alternative C would be the same as the Proposed Action, therefore, potential impacts to historic, archaeological and cultural resources, as well as mitigation measures, would be the same as those identified in DEIS Chapter 3L, Historic, Archaeological and Cultural Resources.

Hazardous Materials

Alternative C would take place on the Project Site, therefore, the findings of existing environmental conditions on the Project Site identified in the Phase I Environmental Site Assessment would remain the same as presented in DEIS Chapter 3M, Hazardous Materials. Any remediation identified in DEIS Chapter 3M, Hazardous Materials, would also occur. Bio-tech and medical uses would still be present on the Project Site with Alternative C, therefore, any potential impacts and mitigation measures identified in DEIS Chapter 3M, Hazardous Materials, would remain the same.

Noise

Potential noise impacts addressed in DEIS Chapter 3N, Noise, would be due to the Proposed Action's mechanical equipment, traffic generation, and construction activities. The mechanical equipment required for Alternative C would be similar or the same as the Proposed Action. Construction activities would be the same as the Proposed Action. And, although traffic generation would be slightly higher with Alternative C, it would not be significantly high enough to expect a change in the noise analysis. Noise mitigation outlined in DEIS Chapter 3N, Noise, would apply to Alternative C.

Air Quality

Impacts to air quality in the Proposed Action are associated with construction. It is anticipated that the construction impacts in Alternative C would be the same as the Proposed Action, therefore, the same mitigation measures would apply, and no new impacts would be created.

Greenhouse Gas Emissions, Energy Conservation, Green Building and Sustainability

Alternative C would include the same sustainability components and the same site design as the Proposed Action and would meet all applicable NYS building codes. Alternative C is not anticipated to create any additional impacts to greenhouse gas emissions beyond the Proposed Action.

Construction

Construction phasing and activities for Alternative C would be the same as those of the Proposed Action because Project Site access, building placement, and building footprints would be the same. Only the uses in the buildings would differ. Therefore, any potential impacts and mitigation measures identified in DEIS Chapter 3Q, Construction, would be the same for Alternative C.

4.4 Alternative D: Alternative Access

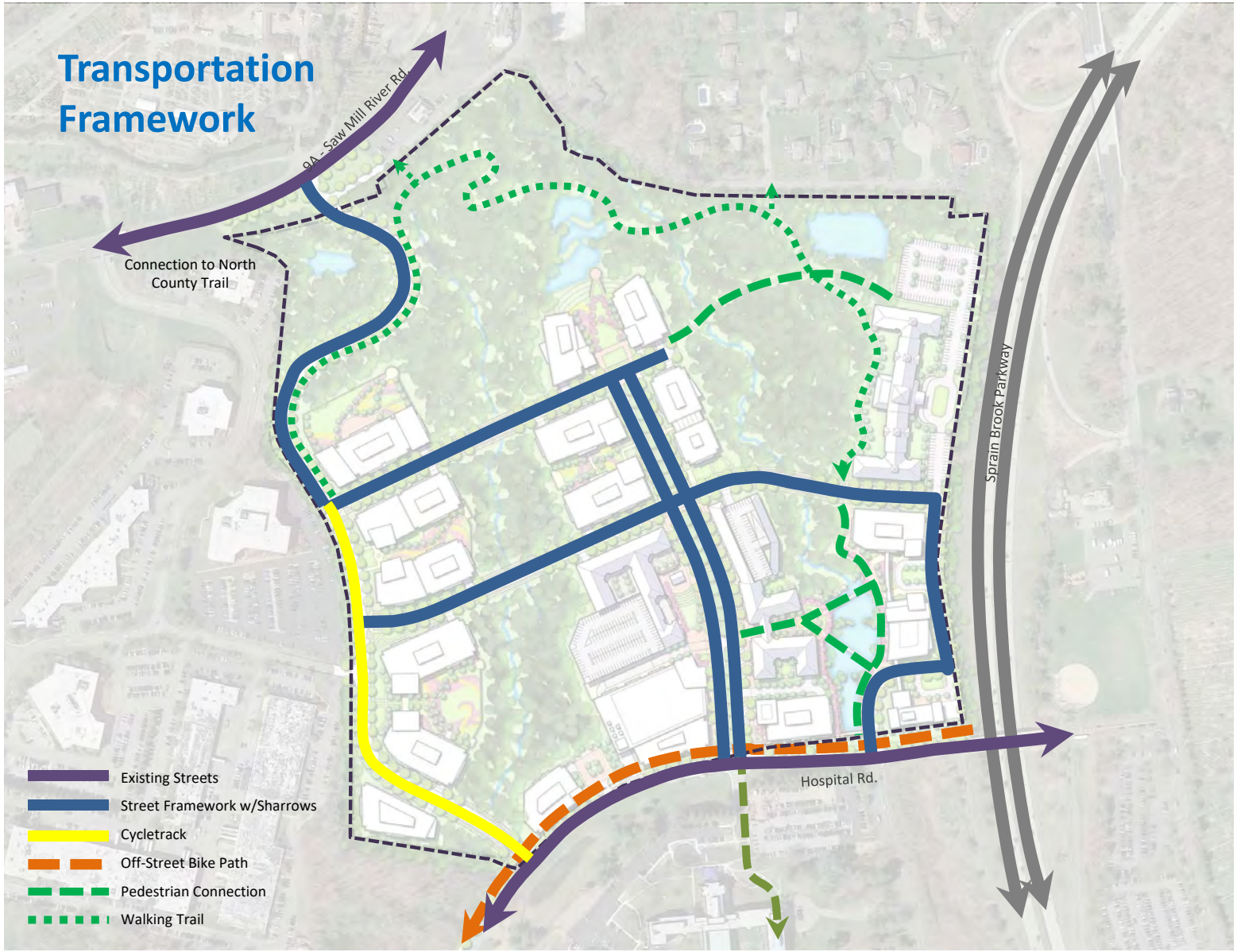
This Alternate Access Alternative is examined in this DEIS for compliance with the adopted SEQRA Scope for this project. Under the Proposed Action, access will be provided to the Project Site from Hospital Road to the south and from the NYS Route 9A connection (Hospital Road to NYS Route 9A) to provide traffic currently cutting through the residential neighborhood to the north a preferred alternate to complete their desired route. Direct access to the Project Site is not available from the Sprain Brook Parkway due to regulatory restrictions.

Alternative D examines a scenario where an additional site access point would be provided from West Stevens Avenue at the north end of the Project Site. An additional access roadway would connect from Main Street to West Stevens Avenue. See Figure 4-9, Alternative D: Alternative Access.

The West Stevens Avenue additional site access would result is a significant redistribution of traffic along Hospital Road, Sprain Brook Parkway Ramps and Bradhurst Avenue in the order of 5% to 10% to the residential neighborhood. That traffic would take neighborhood roads to NYS Route 9A and Bradhurst Avenue (i.e. via Joyce Place) to the Sprain Brook Parkway Ramps. This diversion of traffic would result in a significant impact in the neighborhood with minimal benefit to the study area intersections around the Project.

In the Applicant's opinion, this Alternative is not considered a viable alternative development scenario because it would not improve access to the Project Site, and it would result in more neighborhood (cut through) traffic along West Stevens Avenue and the residential neighborhood to the north.

Further, an access from West Stevens Avenue would require substantial site disturbance within the large open space buffer to the north of the Project Site. The additional access roadway in this area would also interrupt the proposed walking trail and pedestrian connection in the northeast portion of the Project Site.



North 60 | Mount Pleasant, NY

Alternative D: Alternative Access

Source: Torti, Gallas + Partners

4.5 Alternative E: Alternative Phasing Program

Under this alternative, the phasing plan is evaluated to determine if modifications to the phasing plan would result in a reduction in adverse impacts. As proposed, once the Master Development Plan is approved by the Town Board, individual site plans for various phases of the proposed development would have to be consistent with the approved Master Development Plan and would be subject to approval by the Planning Board. The project lease envisions a multi-year development, phased-in as market conditions present themselves and gives the Applicant the ability to ultimately develop approximately three million square feet of mixed-use development, with over two million square feet of the development earmarked for bio-technology.

The Alternative Phasing Program considers an alternate phasing plan of the proposed program. Under this alternative, Phase 1 development would include development primarily at the southeastern and southcentral portions of the Project Site along with certain infrastructure and parking areas. Overall, the program for Phase 1 as detailed above would include:

- 4-story medical office over retail
- 2-story health and wellness center/grocery with 2 levels of parking below
- 3-story bio-technology
- 5-story office over retail (pharmacy) with 3 levels of parking below
- 6-story hotel with 1.5 levels of parking below

Like the Proposed Action, construction sequencing under the Alternative Phasing Program involves ten separate sub-phases, identified as Phases 1A through 1J. Each sub-phase begins with earthwork, site preparation, and installation of all erosion and sediment control measures and ends with final stabilization of the construction area. However, Alternative E accounts for variability in market-driven phasing decisions; individual buildings would be constructed based on marketability and anticipated lease-up. Considering a potential change in market conditions, the Alternative E subphases analyze a different sequencing of the individual buildings, with construction of the hotel and hotel parking area during the final sub-phases. As with the Proposed Action, the phasing has been planned to limit the area of disturbance at any given time while achieving the market driven construction goals and program requirements. Plans for Phase 1A through 1J of the Alternative Phasing Program are outlined below.

Phase 1A

Install all erosion and sediment control measures for Phase 1A, located along the western edge of the Project Site, including the existing dwellings and ancillary site features in that area. As with the Proposed Action, initial access for equipment mobilization for Phase 1A will be from the existing driveway to Saw Mill River Road at the northeast corner of the Project

Site. This phase includes demolition/removal operations of the existing dwelling and ancillary site features, and establishment of a contractor staging area.

Phase 1B and 1C

Install all erosion and sediment control measures for Phase 1B and 1C, to include the area of the future West Street from Old Saw Mill River Road to Hospital Road (Phase 1B to include northern portion of West Street and Phase 1C to include southern portion). Begin earthwork operations for West Street and stormwater basin (SWP-1). Install proposed drainage structures, associated inlet protection, connected piping, and curbs within limits of Phase 1B/1C. Install the proposed road, sidewalks, and required traffic control measures at Old Saw Mill River Road and Saw Mill River Road (Route 9A) in accordance with NYS Department of Transportation (NYSDOT) and Town Requirements.

Phase 1D

Install all erosion and sediment control measures for Phase 1D, which includes the area surrounding the proposed infiltration basin (SWP-3) at the northwest corner of the Project Site. Begin earthwork operations for infiltration basin (SWP-3) and install proposed drainage structures, associated inlet protection and connection piping within Phase 1D.

Phase 1E

Install all erosion and sediment control measure for Phase 1E, to include the area of the proposed Main Street and North Street Parking Lot. Begin earthwork for Phase 1E and install subsurface infiltration system #2, proposed drainage structures, associated inlet protection, connection piping, subsurface utilities and curbs within limits of Phase 1E. Install Item-4 subbase for Main Street and North Parking Lot, construct sidewalks and asphalt pavement to binder course.

Phase 1F

Install all erosion and sediment control measure and begin earthwork operations for Phase 1F, to include the area of the Central Parking Lot and Building B5. Begin construction of Building B5. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1F. Install Item-4 subbase for Central Parking Lot, construct sidewalks and asphalt pavement to binder course.

Phase 1G

Install all erosion and sediment control measures and begin earthwork operations for Phase 1G, to include Cross Street and West Parking Lot. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1G. Install Item-4 subbase for Cross Street and West Parking Lot, construct sidewalks and install asphalt pavement to binder course.

Phase 1H

Install all erosion and sediment control measure for Phase 1H, to include the areas of Buildings B1, B2, G3 and B4. Clear and grub Phase 1H work area. Begin construction of Buildings B1, B2, G3 and B4. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs. Install Item-4 subbase for parking areas, construct sidewalks and install asphalt pavement to binder course.

Phase 1I

Install all erosion and sediment control measures and begin earthwork operations for Phase 1I, to include the area for Hotel Drive, Stormwater Basin (SWP-4) and the Hotel building (B14). Begin construction of building B14. Install proposed subsurface water and sewer mains from West Street to end of Hotel Drive. Install proposed drainage structures, associated inlet protection, connected piping, subsurface utilities and curbs within limits of Phase 1I. Install Item-4 sub-base for Hotel Drive, construct sidewalks, and asphalt pavement to binder course.

Phase 1J

Install all erosion and sediment control measures and begin earthwork operations for Phase 1J, to include the hotel parking area. Install subsurface infiltration system #3. Install Item-4 subbase for hotel parking area, construct sidewalks and asphalt pavement for parking area and top course of Hotel Drive. Stabilize all disturbed areas with topsoil, seed and mulch in accordance with the seeding specifications.

Both the Proposed Action phasing plan and the Alternative Phasing Program have been designed to result in the fewest adverse impacts to the natural environment while strategically achieving the Applicant's development goals. Prior to the commencement of construction, the Applicant, Applicant's engineer, contractor, and representatives of all regulatory agencies would review all aspects of the proposed construction at a pre-construction meeting at the Project Site to determine the appropriate phasing according to market conditions.

4.6 Alternative F: Reduced Environmental Impact Alternative

Alternative "F" has been developed to show the extent of the development that could occur if the Proposed Action was designed to avoid environmentally sensitive lands. This Alternative would result in disturbance of approximately 16 acres of land. Development would include development primarily at the central and southcentral portions of the Project Site along with certain infrastructure and parking areas as detailed below in Alternative "F" Plan. See Figure 4-10 Alternative F: Reduced Environmental Impact Alternative.

LEGEND

- EXISTING PROPERTY LINE
- PROPOSED PROPERTY LINE
- WETLAND SETBACK LINE
- EXISTING STONE WALL
- EXISTING 2' CONTOUR
- EXISTING 10' CONTOUR (410)
- PROPOSED STORMWATER TREATMENT AREA
- PROPOSED ROADWAY W / CURBING
- PROPOSED PARKING
- PROPOSED CONCRETE SIDEWALK
- PROPOSED RETAINING WALL
- PROPOSED BUILDING

LEGEND		
COLOR	DESCRIPTION	TOTAL AREA
	STEEP SLOPES (15% - 25%)	464,562 SF
	VERY STEEP SLOPES (25% - 35%)	213,288 SF
	EXCESSIVELY STEEP SLOPES (35% OR GREATER)	239,038 SF
	FLAGGED WETLAND AREA	142,642 SF
	WETLAND BUFFER AREA	583,768 SF

PLAN
GRAPHIC SCALE
100 0 50 100 200 400
(IN FEET)
1 inch = 100 ft.

North 60 | Town of Mount Pleasant, NY

Alternative F: Reduced Environmental Impact Alternative

Source: Torti, Gallas + Partners

Overall, the program would potentially include:

- 4-story Residential over retail with 1 level of parking below
- 5-story Residential over retail with 4.5 level of parking below
- 2-story health and wellness center/grocery with 2 levels of parking below
- 5-story office over retail (pharmacy) with 3 levels of parking below
- 3-story bio-technology
- 5-story bio-technology
- 5-story bio-technology
- (2) - 7-story parking

The buildings (as shown on Figure 4-10) with the associated use and size (in square feet) is listed below:

Building B1	Retail	106,200 sq. ft.
Building B2	Biotech	48,900 sq. ft.
Building B4	Retail	21,500 sq. ft.
Building B4	Residential	158,200 sq. ft.
Building B5	Retail	20,400 sq. ft.
Building B5	Office	108,800 sq. ft.
Building B6	Retail	25,000 sq. ft.
Building B6	Residential	226,100 sq. ft.
Building BA	Biotech	89,600 sq. ft.
Building BB	Biotech	89,600 sq. ft.

Parking for Alternative "F" would require 2,767 spaces. To satisfy this requirement parking provided would utilize at grade, subsurface parking structures as well as above grade parking structures.

Anticipated water demand for Alternative "F" would be approximately 62,000 gpd or 140 gpm not including irrigation or cooling tower demand.

This Reduced Environmental Impact Alterative reflects the fact that the connections from the center portion of the Project Site to either the eastern portion of the Site or the western portion of the Site would not be possible.

This Reduced Environmental Impact Alternative is examined in this DEIS for compliance with the adopted SEQRA Scope for this project. In the Applicant's opinion, this Alternative is not considered a viable alternative development scenario because it is inconsistent with the requirements of the Lease Agreement and would not meet the goals or development objectives of the County or the Applicant.

Table 4-4 Impacts from the Proposed Action and Project Alternatives

	Proposed Action	A-No Action	B-Alternative Plan Under Existing Zoning	C-Alternative Development Program	D-Alternative Access	E-Alternative Phasing Program	F-Reduced Environmental Impact Alternative
Land Use, Zoning and Public Policy	The land use pattern on the Project Site would transform from mostly vacant land on the 60 acre parcel and five single-family homes on the 20 acre developer parcel to a master planned mixed-use bio-technology campus with complementary uses. The Project Site has not been designed to function as an isolated campus but rather to be open and integrated with the surrounding community and to complement the existing surrounding suburban community character. The Town does not currently have a single zoning district with use, area and bulk controls designed to regulate this type of development. The Proposed Action includes rezoning the entire project site to the OB-5 Office Business District and a text amendment to provide the required mechanisms to appropriately regulate the development. The OB-5 Master Plan District has limited applicability and is consistent with the purpose and intent of the OB districts. The Proposed Action is also consistent with the various local, regional, and state land use studies, plans and policies.	No changes to existing land uses on either the County Parcel or the Developer Parcel. No Project related impacts to surrounding land uses. No rezoning required under the No Action Alternative. The No Action Alternative would not meet the County's economic development objectives for County Parcel.	The land use pattern on the Project Site would transform from mostly vacant land on the 60 acre parcel and five single-family homes on the 20 acre Developer Parcel to a development consistent with existing zoning (R-20 zoning for the County Parcel and OB-6 zoning for the Developer Parcel). This Alternative Plan Under Existing Zoning is examined in this DEIS for compliance with the adopted SEQRA Scope for this project. In the Applicant's opinion, this Alternative is not considered a viable alternative development scenario because it is inconsistent with the requirements of the Lease Agreement and would not meet the goals or development objectives of the County or the Applicant.	The land use pattern would be the same at the Proposed Action except this alternative includes up to 660 low-impact residential units in place of a portion of bio-tech or other uses. The proposed housing in Alternative C could provide additional opportunities for nearby college students, existing employees on the Grasslands Reservation, and the new employees of the bio-tech development. The low-impact housing would complement existing surrounding uses. The proposed OB-5 MP zoning district would permit this type of housing on the Project Site. This Alternative provides for residential uses which are essential for serving and attracting the proposed bio-tech uses.	Alternative D would create adverse impacts to existing land uses in the residential community to the north from additional access point.	Impacts to land use, zoning and public policy would be the same as those identified for the Proposed Action. Only the order in which individual sub-phases are constructed would change.	To strictly avoid sensitive environmental features, the eastern and western portions of the Project Site would not have direct access to the central portion of the site. The Developer Parcel and County Parcel would not be developable as one interconnected campus. Development of the County Parcel would require rezoning of the site from R-20 to a zone that would allow a mix of residential and office uses. Inconsistent with the Lease Agreement.
Visual Resources and Community Character	The visual character of the Proposed Action would be different from the existing conditions. The Proposed Action would replace a mostly vacant property. The architectural design of the Proposed Action would capture the intrinsic natural character of the region and also embody the visionary and technological focus of the development. Building heights will vary across the Project Site to create an interesting blend of heights and engaging environment as if built over many years. Lighting will comply with Dark Sky standards. Views to and from the Project Site would not be adversely impacted.	Existing visual resources and community character would remain unchanged. The property would remain mostly vacant with no new development.	The visual character of the site would transform from mostly vacant with 5 single family homes to a single-family subdivision and office park. Active and passive new public open spaces including wooded trails and public plazas would not be developed.	Building height, bulk and placement would be the same as the Proposed Action. Architectural features and building amenities would vary slightly to accommodate residential uses but would not vary to a degree that would create additional impacts beyond those identified for the Proposed Action. Lighting on the Project Site would also be the same, or similar, to that proposed in the Proposed Action and would also comply with Dark Sky standards.	Potential adverse impacts to community character would affect the residential community to the north.	Impacts to visual resources and community character would be the same as those identified for the Proposed Action. Only the order in which individual sub-phases are constructed would change.	Only the central Portion of the Project Site would be developed. Active and passive new public open spaces including wooded trails and public plazas would not be developed. More surface parking areas and fewer open landscaped plazas would be visible from Hospital Road.
Geology and Soils	Phase 1 38.2 acres of disturbance 66,698 cu. yds cut exported from site Master Plan 57.47 acres of disturbance 473,059 cu. yds cut exported from site	The existing geology and soils would remain intact without any land disturbance.	County Parcel – disturbance to 41.8 acres. Developer Parcel – disturbance to 13.3 acres.	Phase 1 38.2 acres of disturbance 66,698 cu. yds cut exported from site Master Plan 57.47 acres of disturbance 473,059 cu. yds cut exported from site	Substantially greater site disturbance would be required to add the additional site driveway in the northeast portion of the Project Site in Alternative D.	Phase 1 38.2 acres of disturbance 66,698 cu. yds cut exported from site Master Plan 57.47 acres of disturbance 473,059 cu. yds cut exported from site	Disturbance to approximately 16 acres of land.
Topography and Slopes	Phase 1 5.7 acres of steep slopes would be impacted (3.6 acres of steep slopes, 1.2 acres of very	The existing topography and slopes would remain intact without any land disturbance.	County Parcel – disturbance to steep slopes.	Phase 1 5.7 acres of steep slopes would be impacted (3.6 acres of steep slopes,	For Alternative D, substantially greater impact to steep slopes would be	Phase 1 5.7 acres of steep slopes impacted (3.6 acres of	Phase 1 - Avoids disturbance to 0.9 acres of excessively steep slopes.

	Proposed Action	A-No Action	B-Alternative Plan Under Existing Zoning	C-Alternative Development Program	D-Alternative Access	E-Alternative Phasing Program	F-Reduced Environmental Impact Alternative
	steep slopes, and 0.9 acres of excessively steep slopes). Master Plan 8.6 acres of steep slopes would be impacted (5.2 acres of steep slopes, 2.0 acres of very steep slopes, and 1.4 acres of excessively steep slopes).		Developer Parcel – no impact to steep slopes.	1.2 acres of very steep slopes, and 0.9 acres of excessively steep slopes). Master Plan 8.6 acres of steep slopes would be impacted (5.2 acres of steep slopes, 2.0 acres of very steep slopes, and 1.4 acres of excessively steep slopes).	required to add the additional site driveway in the northeast portion of the Project Site.	steep slopes, 1.2 acres of very steep slopes, and 0.9 acres of excessively steep slopes). Master Plan 8.6 acres of steep slopes impacted (5.2 acres of steep slopes, 2.0 acres of very steep slopes, and 1.4 acres of excessively steep slopes).	Master Plan - Not applicable - The Developer Parcel and County Parcel would not be developed as one interconnected campus.
Vegetation and Wildlife	1,374 trees (measuring 10" DBH) will be removed from the Project Site: 993 during Phase I and 381 during the Master Development Plan. There are 94 specimen trees onsite: 20 in good condition and 74 in fair condition. Specimen trees account for 4% of the total inventoried tree population onsite. In Phase I, 44 specimen trees will be removed and following the Master Development Plan an additional 23 will be removed, totaling 67 specimen trees to be removed. Of the 1,374 trees to be removed to complete all phases of the project, 1,307 (or 95 percent) are non-specimen trees. Long-term impacts from habitat fragmentation are not expected to be significant.	No impacts to vegetation and wildlife. No trees removed.	County Parcel – tree removal through much of site for development of single-family homes. Developer Parcel –Limited tree removal.	1,374 trees (measuring 10" DBH) will be removed from the project site: 993 during Phase I and 381 during the Master Development Plan. Alternative C would have the same impact as the Proposed Action.	For Alternative D, substantially greater number of trees would be removed to add the additional site driveway in the northeast portion of the Project Site.	1,374 trees (measuring 10" DBH) will be removed from the project site: 993 during Phase I and 381 during the Master Development Plan.	Phase 1 - Disturbance to approximately 16 acres of land and removal of an estimated 493 trees for Phase 1 development. Master Plan - Not applicable - The Developer Parcel and County Parcel would not be developable as one interconnected campus.
Wetlands, Waterbodies and Watercourses	The Proposed Action will cause direct impacts to the two onsite streams and associated wetlands. Mitigation will restore wetland and watercourse character and function.	No disturbance to wetlands. No wetland restoration or wetland mitigation.	County Parcel – wetland area impacted: 12,255 SF. Mitigation area provided: 24,500 SF. Developer Parcel – wetland area impacted: 14,800 SF. Mitigation area provided: 29,600 SF.	Amount and location of disturbance to wetlands would be the same as the Proposed Action, therefore, potential impacts to wetland, as well as mitigation measures, would be the same.	Potential additional wetland disturbance would depend on final site plan development and final placement of the additional site driveway.	Amount and location of disturbance to wetlands would be the same as the Proposed Action, therefore, potential impacts to wetland, as well as mitigation measures, would be the same.	No disturbance to wetlands or wetland buffers. No wetland restoration or wetland mitigation.
Stormwater Management	Stormwater peak runoff rates following development will not exceed those in the existing condition. As proposed, stormwater runoff rates following development would have no adverse impacts on downstream properties or stormwater conveying systems. Similarly, considering the nature of the existing site conditions and the level of stormwater treatment proposed in the post-development condition, it is predicted that this development will not represent a negative impact to stormwater quantity or degradation in the quality to any reservoir, stream, wetlands or watercourses. Even though the post-development condition contains more impervious area than existing conditions, the proposed stormwater management facilities mitigate the stormwater quality impacts as per the NYSDEC Rules and	Without any land disturbance and any increase in pervious surfaces, there would be no change to existing stormwater conditions on the Project Site.	A complete Stormwater Management Plan would be required as part of any site development approval. County Parcel – area of stormwater management ponds: 75,700 SF. Developer Parcel – area of stormwater management ponds: 23,240 SF.	Amount and location of land disturbance and pervious surfaces would be the same as the Proposed Action, therefore, potential impacts to stormwater conditions, as well as mitigation measures, would be the same.	A complete Stormwater Management Plan would be required as part of any site development approval.	Amount and location of land disturbance and pervious surfaces would be the same as the Proposed Action, therefore, potential impacts to stormwater conditions, as well as mitigation measures, would be the same.	A complete Stormwater Management Plan would be required as part of any site development approval.

	Proposed Action	A-No Action	B-Alternative Plan Under Existing Zoning	C-Alternative Development Program	D-Alternative Access	E-Alternative Phasing Program	F-Reduced Environmental Impact Alternative
	Regulations. The stormwater systems for the project are proposed for the qualitative and quantitative management of stormwater runoff from the Project Site.						
Utilities	<u>Master Development Plan Water Supply</u> Average daily domestic demand is 254,635 gallons per day (gpd; using the 20% reduction based on the use of water conservation fixtures). Peak hour domestic demand is 385 gpm (using a peak hour factor of 3.3 based on the PCI report). Irrigation demand is assumed to be applied in 3 zones yielding 480 gpm. Total Average Daily Demand is 865 gpm, rounded up to 900 gpm. The Proposed Action will generate an estimated 106,180 gpd sanitary sewage. Con Ed has indicated there is ample power supply available to support the electric and natural demands of the Proposed Action. Con Ed has also indicated that they can provide interruptible natural gas service to the North 60.	No increase in average daily domestic water/sewer demand beyond the existing pre-development levels. No increase in energy usage beyond the existing pre-development levels.	Average daily domestic demand is 124,591 gallons per day (gpd; using the 20% reduction based on the use of water conservation fixtures). Peak hour domestic demand is 105 gpm (using a peak hour factor of 3.3 based on the PCI report). Irrigation demand is assumed to be applied in 3 zones yielding 460 gpm. Total Average Daily Demand is 565 gpm, rounded up to 570 gpm. This alternative will generate an estimated 38,456 gpd sanitary sewage.	Average daily domestic demand is 260,934 gallons per day (gpd; using the 20% reduction based on the use of water conservation fixtures). Peak hour domestic demand is 400 gpm (using a peak hour factor of 3.3 based on the PCI report). Irrigation demand is assumed to be applied in 3 zones yielding 480 gpm. Total Average Daily Demand is 880 gpm, rounded up to 900 gpm.. This alternative will generate an estimated 38,456 gpd sanitary sewage.	The overall development program for Phase 1 and the Master Development Plan would be the same as for the Proposed Action and, as such, demand to utilities systems would be the same.	The overall development program for Phase 1 and the Master Development Plan would be the same as for the Proposed Action and, as such, demand to utilities systems would be the same.	Average daily domestic demand is 105,906 gallons per day (gpd; using the 20% reduction based on the use of water conservation fixtures). Peak hour domestic demand is 190 gpm (using a peak hour factor of 3.3 based on the PCI report). Irrigation demand is assumed to be applied in 3 zones yielding 130 gpm Total Average Daily Demand is 320 gpm. This alternative will generate an estimated 62,000 gpd sanitary sewage.
Traffic and Transportation	<u>Phase 1 Trip Generation</u> Weekday Peak AM Entry - 412 Exit - 217 Total – 629 Weekday Peak PM Entry - 272 Exit - 461 Total – 733 <u>Master Plan Trip Generation</u> Weekday Peak AM Entry - 1328 Exit - 526 Total – 1854 Weekday Peak PM Entry - 574 Exit - 1530 Total – 2104 With planned mitigation measures, traffic to and from the Project Site can be accommodated in a safe and efficient manner.	No site generated traffic from the County Parcel. Existing traffic volumes from the 5 single family homes on the Developer Parcel would remain unchanged.	Lower trip generation than the Proposed Action.	Slightly lower trip generation than the Proposed Action in Phase 1 (-20 in the Weekday Peak AM and -3 in the Weekday Peak PM) but a higher overall trip generation in the Master Development Plan (+27 in the Weekday Peak AM ad +47 in the Weekday Peak PM).	The West Stevens Avenue additional site access would result is a significant redistribution of traffic along Hospital Road, Sprain Brook Parkway Ramps and Bradhurst Avenue in the order of 5% to 10% to the residential neighborhood.	The overall development program for Phase 1 and the Master Development Plan would be the same as for the Proposed Action and, as such, trip generation and distribution would be the same.	All traffic would access the site from Hospital Road. Existing traffic volumes from the 5 single family homes on the Developer Parcel would remain unchanged. The need for off-site mitigation measures would be reevaluated based on the final site plan.
Community Facilities and Services	The Proposed Action is expected to introduce approximately 1,333 employees to the Project Site in Phase 1 and 6,895 employees at full development of the Master Development Plan. On-site population (comprised of workers,	No additional site generated resident or employee population and no additional demand for community facilities and services	Substantially greater impact to community facilities and resources, particularly public schools: Total on-site residents: 220 School-age children: 76	<u>Phase I</u> 656 employees 385 on-site residents <u>Master Plan</u>	Impacts to community facilities and services would be the same as those identified for the Proposed Action.	Impacts to community facilities and services would be the same as those identified for the Proposed Action. Only the order in	The reduced impact alternative would introduce new on-site residential population and employees to the County Parcel.

	Proposed Action	A-No Action	B-Alternative Plan Under Existing Zoning	C-Alternative Development Program	D-Alternative Access	E-Alternative Phasing Program	F-Reduced Environmental Impact Alternative
	visitors, shoppers, hotel guests, etc.) could result in an increase in the demand for police, fire and emergency services.	beyond current levels from 5 existing single family homes.	On-site employees: 1,280	5,465 employees 1,209 on-site residents 4.4% increase in Town population. Alternative C could result in some impacts to police, fire, and emergency services, however, it is expected that tax revenue would offset these impacts.		which individual sub-phases are constructed would change.	
Fiscal and Market Impacts	$9.2 million in estimated new real estate taxes annually to Westchester County, the Town of Mount Pleasant and the School Districts. Estimated $7 million annually in additional rent revenues to Westchester County. Approximately 1,000 new construction jobs. The Proposed Action would introduce approximately 1,133 employees to the Project Site in Phase 1 and 6,895 employees at full development of the Master Development Plan.	The County Parcel would remain tax exempt and the Developer Parcel would continue to pay property taxes based on the current improvements to those properties. No new construction jobs or permanent jobs would be created.	The County Parcel would generate property taxes for 52 single-family homes. This would be an increase over current property tax generation for the County Parcel but residential development would not generate new jobs, annual rent, or retail and hotel taxes. The Developer Parcel would generate property taxes, rents and new on-site employment commensurate with typical office park development.	Property taxes to be generated would be the same or similar to the Proposed Action estimate of $9.3 million. Fewer permanent jobs generated than under the Proposed Action. On-site housing for biotech employees and students is considered vital to the economic viability of the project based on Weitzman Study.	Overall development program would be the same as the Proposed Action and fiscal/market impacts would be the same.	Overall development would be the same as the Proposed Action and fiscal/market impacts would be the same.	County Parcel - would generate property taxes for 810,500 SF of development including 173,100 SF of retail, 228,100 SF of biotech, 25,000 SF of office, and 384,300 SF of residential use. Master Plan - Not applicable - The Developer Parcel and County Parcel would not be developable as one interconnected campus.
Historic, Archaeological and Cultural Resources	Two archeological sites (Saw Mill River Precontact Site and J. Van Tassel Historic Site) have been identified within the Project Site. Construction activities would occur at the Project Site impacting the above-mentioned archeological resources. With respect to cultural resources in the vicinity of the Project Site, the Proposed Action is not expected to have any significant adverse impacts.	No land disturbance would result in no impacts to historic, archaeological and cultural resources.	Similar to the Proposed Action, construction activities would impact the two archeological resources.	Amount and location of land disturbance is the same as the Proposed Action.	Similar to the Proposed Action, construction activities would impact the two archeological resources.	Similar to the Proposed Action, construction activities would impact the two archeological resources.	The two archeological sites are located outside the limits of disturbance.
Hazardous Materials	Recognized environmental conditions on the Property include: Six underground fuel oil tanks associated with the onsite residences are in-use on the property. Although five of the tanks were tightness tested in 2010, the tanks current condition cannot be determined. A 275-gallon aboveground fuel oil tank is located adjacent to the garage at 48A Saw Mill River Road. The tank appeared in good condition with no observed leaks or spills but it had no secondary containment. Several 55-gallon drums of ethylene glycol were observed in two garages from the former Nilsson Nurseries. Once operational, the proposed bioscience and technology center will generate solid waste, some of which may be Regulated Medical Waste (RMW) and other specialty wastes. The exact nature of the waste production and the quantities will not be known until specific	Recognized environmental conditions would remain on-site Underground fuel storage tanks and existing drums of ethylene glycol would not be removed from the site, and a fill soil management plan would not be implemented for three locations with elevated concentrations of semi-volatile compounds.	Recognized environmental conditions on the Property would be remediated prior to redevelopment. A fill soil management plan would be implemented for three locations with elevated concentrations of semi-volatile compounds on the County Parcel. Underground fuel storage tanks and existing drums of ethylene glycol would be removed from the Developer Parcel.	Project Site access, building placement, and building footprints would be the same as the Proposed Action so impacts and remediation would be the same.	Project Site access, building placement, and building footprints would be the same as the Proposed Action so impacts and remediation would be the same.	Project Site access, building placement, and building footprints would be the same as the Proposed Action so impacts and remediation would be the same.	Recognized environmental conditions associated with the Developer Parcel would remain on-site. Underground fuel storage tanks and existing drums of ethylene glycol would not be removed from the site. Development of the County Parcel would likely necessitate development of a fill soil management plan for three locations with elevated concentrations of semi-volatile compounds.

	Proposed Action	A-No Action	B-Alternative Plan Under Existing Zoning	C-Alternative Development Program	D-Alternative Access	E-Alternative Phasing Program	F-Reduced Environmental Impact Alternative
	tenants are identified. All waste will be managed in accordance with applicable state and federal regulations. All future tenants of the Project Site will be required to comply with all applicable NYS regulations for the handling, storage, transport and disposal of RMW. RMW generated at these facilities will be stored on-site prior to transportation off-site by permitted vendors to regulated/permitted disposal facilities. Based on this information, no significant adverse impacts on human health are anticipated from the management of RMW.						
Noise	Mechanical equipment will be designed, constructed and located in a manner to comply with NYSDEC policy and the Town of Mount Pleasant Noise Ordinance, no significant adverse stationary source noise impacts are anticipated for both the Phase 1 and Master Plan Project. Trips generated by both the Phase 1 and Master Plan Project are expected to primarily travel on already heavily-trafficked roadways and receptor locations along Stephens Avenue would not see a substantial change in mobile source noise. Therefore, there would be no significant adverse noise impact due to mobile sources. Construction of the Proposed Action would be conducted in accordance with the Town of Mount Pleasant Noise Ordinance to minimize potential impact.	No noise impacts due to the Proposed Action's mechanical equipment, traffic generation, and construction activities would occur.	Construction of Alternative B would result in limited short term noise impacts during construction.	Since access, building placement, site plan and utilities would be the same as the Proposed Action and only programming within the buildings would change, noise impacts would be the same.	Additional construction noise and traffic noise affecting the northeast portion of the Project Site and adjacent areas would occur with Alternative D.	Noise impacts would be the same as the Proposed Action.	Construction of Alternative F would result in limited short term noise impacts during construction.
Air Quality	Construction activities associated with the Phase 1 and Master Plan Project could result in temporary increases of air quality pollutants. As the Phase 1 and Master Plan Project become operational, no adverse air quality impacts are expected.	There would be no short term impacts to air quality associated with construction of Proposed Action.	Construction activities would result in limited short term impacts to air quality including temporary increases of air quality pollutants.	Since access, building placement, site plan and utilities would be the same as the Proposed Action and only programming within the buildings would change, air quality impacts would be the same.	Construction activities would be expanded to the northeast portion of the Project Site and associated air quality impacts would affect the vicinity of the construction activities.	Impacts to air quality would be the same as the Proposed Action.	Construction activities would result in limited short term impacts to air quality including temporary increases of air quality pollutants.
Greenhouse Gas Emissions, Energy Conservation, Green Building and Sustainability	The project will meet all applicable NYS building codes including the NYS Energy Conservation Construction Code, which regulates the design and construction of energy-efficient building envelopes and the installation of energy-efficient mechanical, lighting and power. Specific preliminary measures to decrease the GHG emissions of the Project include: A combination of LED and CFL lighting will be used to minimize electric usage. High efficiency tankless water heaters may be installed to provide on-demand hot water to save on energy consumption. Energy Star compliant appliances may be installed.	No changes to existing site generated greenhouse gas emissions or energy use (primarily from the Developer Parcel) would occur.	The project would be required to meet all applicable NYS building codes.	Since access, building placement, site plan and utilities would be the same as the Proposed Action and only programming within the buildings would change, impacts to greenhouse gas emissions, energy conservation, green building and sustainability would be the same.	The project would be required to meet all applicable NYS building codes.	Since access, building placement, site plan and utilities would be the same as the Proposed Action and only programming within the buildings would change, impacts to greenhouse gas emissions, energy conservation, green building and sustainability would be the same.	Greenhouse gas emissions and energy use associated with the development of the County Parcel would be proportionately less commensurate with the reduction in Phase 1 development. No changes to existing site generated greenhouse gas emissions or energy use from the Developer Parcel.

	Proposed Action	A-No Action	B-Alternative Plan Under Existing Zoning	C-Alternative Development Program	D-Alternative Access	E-Alternative Phasing Program	F-Reduced Environmental Impact Alternative
	Insulation to reduce heat loss in the winter and heat gain in the summer. The windows will be double glazed, insulating glass for winter heating and low emissivity for summer cooling. The specific design and emissions reduction measures through the implementation of the measures outlined above will be determined as Project design advances through the site plan approval process.						
Construction	Construction of the Proposed Action would likely result in several temporary environmental impacts. Impacts generally associated with construction consist of: noise from the operation of heavy equipment; fugitive dust and emissions from the operation of construction equipment; construction traffic relating to employee arrival/departure and material deliveries; and increased soil erosion from on-going earthwork operations. It is anticipated that construction of Phase 1 will take approximately 60 months to complete.	No construction and no construction related impacts would occur.	Construction of the Proposed Action would likely result in several temporary environmental impacts. Impacts generally associated with construction consist of: noise from the operation of heavy equipment; fugitive dust and emissions from the operation of construction equipment; construction traffic relating to employee arrival/departure and material deliveries; and increased soil erosion from on-going earthwork operations.	Since access, building placement, site plan and utilities would be the same as the Proposed Action and only programming within the buildings would change, construction phasing and construction related impacts would be the same.	Additional construction related impacts resulting from additional site access and driveway in the northeastern portion of the Project Site would occur.	Construction related impacts would be the same as those identified for the Proposed Action. Only the order in which individual sub-phases are constructed would change.	Construction would likely result in several temporary environmental impacts such as noise from the operation of heavy equipment; fugitive dust and emissions from the operation of construction equipment; construction traffic relating to employee arrival/departure and material deliveries; and increased soil erosion from on-going earthwork operations. The Alternative, with less overall development, would have a shorter Phase 1 construction schedule.

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Adverse Environmental Impacts that Cannot Be Avoided

All potential significant adverse impacts of the Proposed Action would be mitigated to the maximum extent practicable, consistent with the requirements of SEQRA. Regardless, any development of land would result in certain unavoidable impacts. Some of these would be short-term impacts associated with the construction, while others would be long-term impacts associated with the physical alteration of the Project Site.

5.1 Short-Term Construction Impacts

The proposed area of disturbance for Phase 1 is 36.3 acres. Build out of Phase 1 is expected to take approximately 60 months to complete. However, such impacts would be temporary in nature, since heavier equipment would be utilized during the earlier phases of construction and would remain on-Site. Short-term impacts related to the Proposed Action would be primarily construction-related and would include:

- **Traffic** – Traffic would be generated related to construction activities and equipment, routing of construction vehicles and equipment/trucking, construction staging and storage, and Site security. Stabilized construction entrances from Old Saw Mill River Road and existing driveway will be utilized for construction vehicle access until such time that all necessary permanent traffic control measures have been installed for connection to Saw Mill River Road (Route 9A).
- **Noise** – Heavy equipment would elevate sound levels near the construction activities.

- **Air Quality** – Heavy equipment would elevate vehicle exhaust emissions near the construction activities.
- **Water Quality** – Localized clearing and grading would result in disturbance to presently stable soils and removal of vegetation, which could result in some water quality impacts due to raised sedimentation levels. Additionally, contamination of surface waters by petroleum products (e.g., fuels, grease, oils) could occur from construction equipment used during construction activities.
- **Flora and Fauna** – Minor temporary impacts to flora and fauna would occur due to the removal of vegetation and disturbance of certain habitat areas. This loss of habitat would result in temporary wildlife displacement.
- **Construction Waste** – Routine project construction activity, as well as excavation and demolition of existing paved areas, would yield quantities of material that must be disposed of separately from daily operational waste.

Construction will be performed in a logical progression, which would be initiated by the installation of sediment and erosion control measures. Mitigation also includes limiting construction to designated daytime hours and maintaining mechanical construction equipment in good working order to help limit sound levels. It is important to note that upon completion of construction, all short-term impacts would subside or would be eliminated.

A beneficial short-term impact of the Proposed Action would be the generation of approximately 1,000 temporary construction jobs. It is noted that not all 1,000 construction workers would be on site at any given time, but this is the projected number of jobs over the construction period. The construction period schedule for Phase I of the proposed development is anticipated to be approximately 60 months.

5.2 Long-Term Impacts

In addition to the short-term, construction-related impacts described above, the Proposed Action would also result in longer-term, more permanent impacts that cannot be avoided. The chart below outlines some of the potential long-term impacts and proposed mitigation measures. The long-term impacts listed below are unavoidable, but not necessarily significant.

Table 5-1 Impact and Mitigation Summary

Impact Category	Impact	Potential Mitigation Measures
Land Use, Zoning and Public Policy	The land use pattern on the Project Site would transform from mostly vacant land on the 60-acre County Parcel and five single-family homes on the 20 acre Developer Parcel to a master planned mixed-use bio-technology campus with complementary uses. The Project Site Site has not been designed to function as an isolated campus but rather to be open and integrated with the surrounding community and to complement the existing surrounding suburban community character. The Town does not currently have a single zoning district with use, area and bulk controls designed to regulate this type of development. The Proposed Action includes rezoning the entire Project Site to the OB-5 Office Business District and a text amendment to provide the required mechanisms to appropriately regulate the development. The OB-5 Master Plan District can only apply to parcels that are "at least 60 acres and bordering a state or county highway" and, therefore, such district has limited applicability. The Proposed Action is also consistent with the various local, regional, and state land use studies, plans and policies.	The northern portion of the Project Site will remain undeveloped resulting in a meaningful natural buffer between the future development and residential uses to the north. The architecture for the Proposed Action would capture the intrinsic natural character of the region and also embody the visionary and technological focus of the development.
Visual Resources and Community Character	The visual character of the Proposed Action would be different from the existing conditions. The Proposed Action would replace a mostly vacant property. The architectural design of the Proposed Action would capture the intrinsic natural character of the region and also embody the visionary and technological focus of the development. Building heights will vary across the Project Site to create an interesting blend of heights and engaging environment as if built over many years. Views to and from the Project Site would not be adversely impacted.	The Proposed Action includes an extensive landscape and hardscape plan as well as a carefully planned site lighting scheme. The primary facades are envisioned to be composed of materials that bridge between traditional and modern aesthetics sourced in a responsible way with the design conveying a strong technological identity. The northern portion of the Project Site will remain undeveloped and serve as a natural buffer between the Proposed Action and the single-family residential homes to the north.
Geology and Soils	Phase 1 ▪ 38.2 acres of disturbance ▪ 66,698 cu. yds cut exported from site Master Plan ▪ 57.47 acres of disturbance ▪ 473,059 cu. yds cut exported from site	An Erosion and Sediment Control Plan will be maintained throughout the construction period.

Topography and Slopes	Phase 1 ▪ 5.7 acres of steep slopes would be impacted (3.6 acres of steep slopes, 1.2 acres of very steep slopes, and 0.9 acres of excessively steep slopes). Master Plan ▪ 8.6 acres of steep slopes would be impacted (5.2 acres of steep slopes, 2.0 acres of very steep slopes, and 1.4 acres of excessively steep slopes).	▪ Construction on steep slopes has been avoided to the greatest extent practicable. ▪ An Erosion and Sediment Control (E&SC) Plan will be maintained throughout the construction period. ▪ Each construction phase will begin with the implementation of E&SC measures and end with removal of temporary E&SC measures. ▪ The use of retaining in select locations will limit the amount of grading necessary.
Vegetation and Wildlife	▪ 1,374 trees (measuring 10" DBH) will be removed from the Project Site: 993 during Phase I and 381 during the Master Development Plan. ▪ There are 94 specimen trees on-site: 20 in good condition and 74 in fair condition. Specimen trees account for 4% of the total inventoried tree population on-site. In Phase I, 44 specimen trees will be removed and following the Master Development Plan an additional 23 will be removed, totaling 67 specimen trees to be removed. Of the 1,374 trees to be removed to complete all phases of the project, 1,307 (or 95 percent) are non-specimen trees. ▪ Long-term impacts from habitat fragmentation are not expected to be significant.	▪ Preliminary calculations show quantities of 604 trees to be planted. ▪ The Proposed Action has been designed to maximize utilization of existing and more recently disturbed land, preserve forested areas and wildlife corridors. ▪ To the maximum extent practicable, the final landscape plans will be developed emphasizing xeriscaping and with minimal use of fertilizer, herbicides, fungicides, pesticides or other chemicals.
Wetlands, Waterbodies and Watercourses	The Proposed Action will cause direct impacts to the two on-site streams and associated wetlands.	The streams will be cleaned of debris and trash to enable their original character to be restored.
Stormwater Management	Stormwater peak runoff rates following development will not exceed those in the existing condition. As proposed, stormwater runoff rates following development would have no adverse impacts on downstream properties or stormwater conveying systems. Similarly, considering the nature of the existing Project Site conditions and the level of stormwater treatment proposed in the post-development condition, it is predicted that this development will not represent a negative impact to stormwater quantity or degradation in the quality to any reservoir, stream, wetlands or watercourses. Even though the post-development condition contains more impervious area than existing conditions, the proposed stormwater management facilities mitigate the stormwater quality impacts as per the NYSDEC Rules and Regulations. The stormwater systems for the Proposed Action are proposed for the qualitative	A Stormwater Pollution Prevention Plan, which includes the applicable stormwater management practices for the development, has been prepared, and includes all the supporting documentation for the hydrologic analysis, watershed maps, system design, and water quality computations (see Appendix G, Stormwater Pollution Prevention Plan of this DEIS). A detailed Erosion and Sediment Control Plan will mitigate the short-term impacts of the development during construction. The Erosion and Sediment Control Plan will include descriptive specifications concerning land grading, topsoiling, temporary vegetative cover, permanent vegetative cover, vegetative cover selection and mulching, and erosion checks. The stormwater management plan for the Project Site has also been designed in

	and quantitative management of stormwater runoff from the Project Site.	accordance with The Mount Pleasant Town Code Chapter 183 – "Stormwater Management and Erosion and Sediment Control".
Utilities	<u>Master Development Plan Water Supply</u> Average daily domestic demand is 329,394 gallons per day (gpd; using the 20% reduction based on the use of water conservation fixtures)[1] Peak hour domestic demand is 663 gpm (using a peak hour factor of 3.3 based on the PCI report) Irrigation demand is assumed to be applied in 3 zones yielding 223 gpm Total Average Daily Demand is 886 gpm, rounded up to 900 gpm. The Proposed Action will generate an estimated 349,804 gpd sanitary sewage. Con Ed has indicated there is ample power supply available to support the electric and natural demands of the Proposed Action. Con Ed has also indicated that they can provide interruptible natural gas service to the Project Site.	There is adequate capacity to expand either the Kensico Water District or Westchester County Water District #3 to accommodate the Proposed Action's domestic water demand. The Proposed Action has been designed with features that are intended to promote energy efficiency, water conservation, and protection of natural resources. The water service area is proposed to be expanded to include limits of the Project Site, and all applicable regulations and procedures would be followed to accomplish this in order to supply water to the Project Site. There is adequate capacity within the Town of Mount Pleasant Sewer District to accommodate the Proposed Action. Connection to the Town of Mount Pleasant infrastructure is available at the Project Site's Old Saw Mill River Road frontage. The Town of Mount Pleasant owns the sewer infrastructure assets that are not on the Project Site. The Town of Mount Pleasant would own the sewer infrastructure on the Project Site and be responsible for the maintenance of the infrastructure. Agreements shall be required regarding maintenance and responsibility Wastewater generated from the Project Site is proposed to be minimized with the use of low flow fixtures and toilet facilities.
Traffic and Transportation	<u>Phase 1 Trip Generation</u> Weekday Peak AM Entry - 412 Exit - 217 Total – 629 Weekday Peak PM Entry - 272 Exit - 461	The opening of a connective roadway between NYS Route 9A and Hospital Road will significantly reduce traffic through the neighborhood Widening of Hospital Road to 4+ lanes Construction of a roundabout at the intersection of Bradhurst Avenue and Hospital Road with associated modifications

[1] Average Daily Demand is calculated based on the most current New York State Department of Environmental Conservation Design Standards for Intermediate Sized Wastewater Treatment Systems, March 5, 2014 Edition and Stantec Consulting Services Inc. Water Demand Calculations.

	Total – 733 <u>Master Plan Trip Generation</u> Weekday Peak AM Entry - 1328 Exit - 526 Total – 1854 Weekday Peak PM Entry - 574 Exit - 1530 Total – 2104 With planned mitigation measures, traffic to and from the Proposed Action can be accommodated in a safe and efficient manner.	to the Sprain Brook Parkway northbound off-ramps Integration of the Proposed Action with current bus and shuttle services with Westchester Medical Center Provision of a new shuttle service to Metro North Stations. A monitoring program under the control of the Town's Planning Board is recommended to ensure that required roadway improvements are "in place" or under construction to support the Proposed Action
Community Facilities and Services	The Proposed Action is expected to introduce approximately 1,333 employees to the Project Site in Phase 1 and 6,895 employees at full development of the Master Development Plan. On-site population (comprised of workers, visitors, shoppers, hotel guests, etc.) could result in an increase in the demand for police, fire and emergency services.	The Proposed Action has been designed to include fire prevention and security measures, thereby minimizing and mitigating potential impacts on Town Services. Tax revenues generated by the Proposed Action will contribute to local police, fire, and emergency services, off-setting any additional increase in service costs.
Fiscal and Market Impacts	$9.2 million in estimated new real estate taxes annually to Westchester County, the Town of Mount Pleasant and the School Districts. Estimated $7 million annually in additional rent revenues to Westchester County. Approximately 1,000 new construction jobs. The Proposed Action would introduce approximately 1,133 employees to the Project Site in Phase 1 and 6,895 employees at full development of the Master Development Plan.	Given the nature of the Proposed Action, the generated property taxes, sales taxes and other fiscal benefits are expected to exceed any service costs by affected taxing jurisdictions based on the information gathered for this DEIS.
Historic, Archaeological and Cultural Resources	Two archeological sites (Saw Mill River Precontact Site and J. Van Tassel Historic Site) have been identified within the Project Site. Construction activities would occur at the Project Site impacting the above-mentioned archeological resources. With respect to cultural resources in the vicinity of the Project Site, the Proposed Action is not expected to have any significant adverse impacts.	The *Phase I Archeological Investigation* recommends avoidance of the archeological sites or a Phase II archeological investigation if avoidance is not feasible. Construction activities would incorporate any necessary mitigation measures that may be identified by the Phase II archeological investigation.
Hazardous Materials	Recognized environmental conditions on the Property include: 1. Six underground fuel oil tanks associated with the on-site residences are in-use on the property. Although five of the tanks were	Mitigation measures to be undertaken prior to construction include the following: 1. Prior to the issuance of the certificate of occupancy for the Phase 1 buildings, all drums of ethylene glycol will be

	tightness tested in 2010, the tanks current condition cannot be determined. 2. A 275-gallon aboveground fuel oil tank is located adjacent to the garage at 48A Saw Mill River Road. The tank appeared in good condition with no observed leaks or spills but it had no secondary containment. 3. Several 55-gallon drums of ethylene glycol were observed in two garages from the former Nilsson Nurseries. Once operational, the proposed bioscience and technology center will generate solid waste, some of which may be Regulated Medical Waste (RMW) and other specialty wastes. The exact nature of the waste production and the quantities will not be known until specific tenants are identified. All waste will be managed in accordance with applicable state and federal regulations. All future tenants of the Project Site will be required to comply with all applicable NYS regulations for the handling, storage, transport and disposal of RMW. RMW generated at these facilities will be stored on-site prior to transportation off-site by permitted vendors to regulated/permitted disposal facilities. Based on this information, no significant adverse impacts on human health are anticipated from the management of RMW.	removed from the two garages from the former Nilsson Nurseries. 2. Prior to the issuance of the certificate of occupancy for the Phase 1 buildings, the six underground fuel oil tanks connected to the six residences will be tightness tested by a qualified tank testing contractor, if the homes remain in use. If the homes are scheduled for demolition then the tanks would be removed in accordance with applicable regulations. Secondary containment will be provided for the 275-gallon above ground tank near the garage at 48A Saw Mill River Road. 3. A fill soil management plan will be developed with the Town and the WCDOH, for the three locations with elevated concentrations of semi-volatile compounds 4. Fill piles associated with the Westchester Medical Center construction can be reused on-site. Concrete, asphalt and organic material such as tree stumps will be removed from the Project Site if the material cannot be recycled for use on-site.
Noise	Mechanical equipment will be designed, constructed and located in a manner to comply with NYSDEC policy and the Town of Mount Pleasant Noise Ordinance, no significant adverse stationary source noise impacts are anticipated for both the Phase 1 and Master Plan Project. Trips generated by both the Phase 1 and Master Plan Project are expected to primarily travel on already heavily-trafficked roadways and receptor locations along Stephens Avenue would not see a substantial change in mobile source noise. Therefore, there would be no significant adverse noise impact due to mobile sources. Construction of the Proposed Action would be conducted in accordance with the Town of Mount Pleasant Noise Ordinance to minimize potential impact.	The selection of specific HVAC equipment has not yet been defined at this phase of the Proposed Action. As needed, approaches to mitigating operational noise may include specifying low-noise equipment and/or introducing a rooftop screening wall and will be determined throughout the design process. The mechanical equipment will be designed, constructed and located in a manner so as not to result in a significant adverse noise impact per NYSDEC policy and to comply with the Town of Mount Pleasant Noise Ordinance. Specific construction noise BMPs include: Assuring that equipment is functioning properly and is equipped with mufflers and other noise-reducing features; Locating especially noisy equipment as far from sensitive receptors as possible;

		Using quieter construction equipment and methods, as feasible, such as smaller backhoes and excavators; Properly maintaining equipment to avoid louder operation associated with mechanical issues; Limiting the periods of time when construction may occur is a common approach to minimizing impact. Adhering to the time of day restrictions in the Town of Mount Pleasant Noise Ordinance. The noisiest construction activities would be timed so as not to interfere with nearby residential, institutional and recreational uses to the maximum extent practicable; and Maintaining strong communication and public outreach with adjacent neighbors. Providing information about the time and nature of construction activities to the community.
Air Quality	Construction activities associated with the Phase 1 and Master Plan Project could result in temporary increases of air quality pollutants. As the Phase 1 and Master Plan Project become operational, no adverse air quality impacts are expected.	During construction, emission controls for construction vehicle emissions will include, as appropriate, proper maintenance of all motor vehicles, machinery, and equipment associated with construction activities, such as, the maintenance of manufacturer's muffler equipment or other regulatory-required emissions control devices and adherence to the anti-idling laws. Appropriate methods of dust control would be determined by the surfaces affected (i.e., roadways or disturbed areas) and would include, as necessary, the application of water, the use of stone in construction roads, and vegetative cover.
Green House Gas Emissions, Energy Conservation, Green Building and Sustainability	The Proposed Action will meet all applicable NYS building codes including the NYS Energy Conservation Construction Code, which regulates the design and construction of energy-efficient building envelopes and the installation of energy-efficient mechanical, lighting and power. Specific preliminary measures to decrease the GHG emissions of the Proposed Action include: • A combination of LED and CFL lighting will be used to minimize electric usage. • High efficiency tankless water heaters may be installed to provide on-demand hot water to save on energy consumption.	The Proposed Action has been conceived as a model of environmental sustainability from the conception of a plan that responds to the existing natural features to buildings that are envisioned as models of energy efficiency. Sustainable Strategies include: • A mix of uses that can reduce the number of vehicle trips and miles traveled. • The development pattern has been designed to promote pedestrian use. • Street trees line all streets to provide shade.

	• Energy Star compliant appliances will be installed when provided by the Owner. • Insulation to reduce heat loss in the winter and heat gain in the summer. • The windows will be double glazed, insulating glass for winter heating and low emissivity for summer cooling. The specific design and emissions reduction measures through the implementation of the measures outlined above will be determined as Project design advances through the site plan approval process.	• Buildings and streets have been sited to respond to the significant existing topography by: ➢ Reducing the amount of required grading. ➢ The majority of parking is podium parking beneath the buildings thereby reducing the amount of impervious surfaces that would otherwise be required. ➢ Impact to existing trees and wetlands has been minimized. • New ponds and wetlands are created to address storm water management that includes native aquatic and terrestrial vegetation that will aid in managing run-off. This will also provide greater biodiversity for the Project Site. • Bio-swales and some pervious paving are envisioned to promote infiltration of rainwater into the subsoil. • Pervious paving and stone fines may be used in plazas to enable rain water infiltration into the subsoil. • Disturbed woodland edges will be planted with native understory trees and shrubs to both increase biodiversity and beauty. • Most buildings have been oriented with short facades facing west and/or angled to minimize thermal heat gain in summer months and to reduce cooling loads. • Some buildings are envisioned to have green roofs to aid in storm water management and to reduce impervious surfaces. • Solar energy will be investigated as a possible energy source for some of the needs. • Conveniently located bus stops will be provided with access including via shuttle to the commuter rail station. • Interpretive walking trails will provide educational opportunities about the ecosystem and about our role in the environment. • The Children's Science and Education Center provides educational opportunities for the region. The specific energy saving measures will be further developed as Project design advances through the site plan approval process but, at a minimum, will include the

		measures identified above. The GHG emission due to the implementation of the Proposed Action is not expected to significantly impact regional GHG and therefore no mitigation measures are proposed.
Construction	Construction of the Proposed Action would likely result in several temporary environmental impacts. Impacts generally associated with construction consist of: noise from the operation of heavy equipment; fugitive dust and emissions from the operation of construction equipment; construction traffic relating to employee arrival/departure and material deliveries; and increased soil erosion from on-going earthwork operations. It is anticipated that construction of Phase 1 will take approximately 60 months to complete.	A sequencing plan, rock removal plan, Sediment and Erosion Control Plan and Stormwater Pollution Prevention Plan are anticipated to mitigate any significant impacts that could result from construction activities.

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Irreplaceable and Irretrievable Commitment of Resources

Construction of the Proposed Action would result in a permanent commitment of both natural and human resources. Those resources that would be consumed, converted, or made available for further uses are described below.

6.1 Natural Resources

The construction of the Proposed Action would commit land resources that are currently undeveloped for the development at the Master Development Plan 400,000 sf of medical office space, 2,144,000 sf of bio-tech/research space, 214,000 sf of retail space, 100,000 sf of hotel space and 142,000 sf of children's science and education space. Construction of Phase 1 of the Proposed Action would result in disturbance to 38.2 acres of land including impacts to 5.7 acres of steep slopes (3.6 acres of steep slopes, 1.2 acres of very steep slopes, and 0.9 acres of excessively steep slopes). In total, the Master Development Plan would result in disturbance to 57.47 acres of land including 8.6 acres of steep slopes (5.2 acres of steep slopes, 2.0 acres of very steep slopes, and 1.4 acres of excessively steep slopes).

The two on-site watercourses and associated wetlands will be directly and, potentially, indirectly impacted by both Phase I and the Master Development Plan of the Proposed Action. Approximately 1,374 trees (measuring 10" DBH) will be removed from the Project Site: 993 during Phase I and 381 during the Master Development Plan.

The Proposed Action would result in an increase in impervious surfaces (buildings, roads, and parking), which would alter on-site drainage patterns. Proposed mitigation measures including

a tree reforestation plan and wetland mitigation plan will offset impacts to these natural resources. The wetland mitigation plan has been developed to improve the current wetland condition and function.

6.2 Human Resources

Human resources, in terms of person hours, would be irreversibly committed upon the commencement of construction activities for implementation of the Proposed Action. The construction phases of the Proposed Action would require a commitment of labor. The hours needed for construction would be limited and short-term in nature, as construction is anticipated to endure for approximately 60 months for Phase I. Schedule for the Master Development Plan is still to be determined. This need for construction workers, however, can be viewed as a beneficial impact to the construction industry, as approximately 4,000 jobs are expected to be created during construction. Upon completion of construction, it is anticipated that approximately 6,895 permanent full-time jobs would be created on-site. Other labor commitments, such as the services of police and fire department personnel, and public works personnel, are not expected to significantly increase as a result of the Proposed Action.

The commitment of natural and human resources associated with the implementation of the Proposed Action would be offset and balanced by its proposed conservation and environmentally responsible design providing a coordinated planned development that substantially avoids sensitive natural resources while preserving a substantial area of open space. In addition, the commitment of such resources would also be offset and balanced by the substantial local and regional economic benefits, including net positive annual fiscal revenues and permanent jobs.

Based on the foregoing, no significant irretrievable or irreversible commitment of resources is anticipated as a result of the Proposed Action.

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Growth Inducing Impacts

Communities are often concerned, not only with the impacts of individual projects, but the overall impact of all development projects taken together. In this case, the Town of Mount Pleasant has been developing an update to its Comprehensive Plan concurrently with the subject proposal. In addition, Westchester County, in consultation with the Town of Mount Pleasant, undertook an extensive Market and Financial Feasibility Study ("The Weitzman Study") for the redevelopment of the Project Site. See DEIS Appendix M for the full Market and Financial Feasibility Study. The Weitzman Study concludes that an expansion of the concentration of bio-tech and medical office and related uses at the Project Site will result in positive economic local and regional impacts.

The anticipated impact from the Proposed Action is economic in nature and the Proposed Action is expected to have positive regional economic development impacts from substantial job creation and induced secondary sound economic growth in the Town of Mount Pleasant and surrounding communities. The Proposed Action involves the construction of a mixed-use complex that incorporates approximately 3 million square feet of bio-tech/research and development related uses as part of a Master Development Plan for the approximately 80-acre site. Phase 1 of the Master Development Plan development would include 500,000 sf of development. While the Proposed Action itself will not have a direct impact on residential population or have any direct adverse impacts on either the Mount Pleasant School District or the Pocantico Hills Central School District, the on-site employment could have an impact on the demand for housing in the area. These fiscal and market implications are detailed in the Weitzman Study.

One major concern of any development project is the potential to encourage development of undeveloped properties that may exist nearby. Given Mt. Pleasant's status as an existing medical cluster, the Proposed Action is expected to capture future growth in the bio-technology industry.

Ultimately, the implementation of the Proposed Action is expected to have a significant fiscal benefit and expansion of the existing bio-technology hub in this section of Westchester County could stimulate development within the region and increase market demand for additional commercial uses. The Master Development Plan (including Phase 1) is estimated to support 6,895 permanent direct jobs. These jobs would support an additional 9,519 indirect and induced jobs to the region. The total 16,414 jobs would produce labor income of approximately $1,830,000, with a total economic output of $3.6 billion to the local and regional economy when fully operational. It is expected that a significant portion of the projected economic output would be captured locally resulting in a substantial beneficial impact on the retail and business community in the Town of Mount Pleasant, particularly within the hamlets of Valhalla and Hawthorne. The future Project Site population including workers and visitors to the Project Site will generate demand for services such as coffee shops, banks, restaurants and personal service establishments.

Table 7-1 Master Development Plan Operational Economic Impacts

Impact Type	Jobs	Labor Income	Total Value Added	Output
Direct Effect	6,895	1,193,491,271	1,395,626,755	2,058,844,198
Indirect Effect	4,239	328,752,706	510,715,801	762,678,496
Induced Effect	5,280	307,924,600	539,721,361	822,825,497
TOTAL EFFECTS	***16,414***	***1,830,168,577***	***2,446,063,917***	***3,644,348,191***

Source: Impact Summary, Minnesota IMPLAN Group, Inc.

8

Use and Conservation of Energy

8.1 Energy Sources to be Used

Construction of the Proposed Action would result in the consumption of gasoline, oil, and electricity used in the operation and maintenance of construction equipment. Upon completion of construction, operation of the Proposed Action would result in the use of fuel (electricity, natural gas, and other fuels) for heating, lighting, air conditioning, and other operational utilizations. The Proposed Action would connect to Consolidated Edison (Con Ed) Electric and Gas. Con Ed has indicated there is ample power supply available to support the electric demands of the Proposed Action. Con Ed has also indicated that they can provide Interruptible gas service to the project. Solar will be investigated as a potential energy source for some of the energy needs.

8.2 Energy Consumption, Efficiency, and Conservation Measures

The design and construction of the biotechnology/medical technology space for Phase 1 and the Master Development Plan will be capable of obtaining LEED Silver certification from the U.S. Green Building Council for certain buildings as required by the Lease. The Proposed Action would use green building techniques during construction, materials selection, and operational practices to achieve a sustainable and environmentally friendly project as required by applicable building codes. The Proposed Action has been designed as a smart growth low-impact development, with features that are intended to promote energy efficiency, water conservation, and protection of natural resources. Included in the proposal are special features which may include on-site renewable energy generation in the form of ENERGY STAR

appliances and Water Sense fixtures. The site design employs healthy communities' concepts and promotes pedestrian and bicycle circulation including on-site walking trails and a cycletrack. The bike/ped path would promote bike/ped circulation throughout the Project Site. The Proposed Action would provide shuttle service to the Valhalla and Hawthorne Metro-North train stations. These initiatives, along with the Developer's commitment to restore the existing on-site wetland and preserve more than 36.5 acres (46.3%) of the Project Site as open space, would result in a low-impact, sustainable campus.

Specific preliminary measures to conserve energy use for the Proposed Action include:

- A combination of LED and CFL lighting would be used to minimize electric usage.
- High efficiency tankless water heaters may be installed to provide on demand hot water to save on energy consumption.
- Energy Star compliant appliances may be installed
- Building envelope insulation to reduce heat loss in the winter and minimize heat gain in the summer.
- The windows will be double glazed insulating glass for winter heating and low solar emissivity for summer cooling.

The Proposed Action has been conceived as a model of environmental sustainability from the conception of a plan that responds to the existing natural features to buildings that are envisioned as models of energy efficiency and that are designed with LEED components. Not only environmentally sustainable, the proposed development has been envisioned to be economically and socially sustainable, as well – this includes a mix of uses and a new Children's Living Science Center. Sustainable Strategies include:

- A mix of uses that can reduce the number of vehicle trips and miles traveled.
- The development pattern has been designed to promote pedestrian use.
- Street trees line all streets to provide shade.
- Buildings and streets have been sited to respond to the significant existing topography by:
  - Reducing the amount of required grading.
  - The majority of parking is within parking levels beneath the buildings thereby reducing the amount of impervious surfaces that would otherwise be required.
  - Impact to wetlands has been minimized.
- New ponds and wetlands are created to address storm water management that includes native aquatic and terrestrial vegetation that will aid in treating run-off. This would also provide greater biodiversity for the Project Site.
- Bio-swales and pervious paving in some areas are envisioned to promote infiltration of rainwater into the subsurface.
- Disturbed woodland edges will be planted with native understory trees and shrubs to both increase biodiversity and beauty.
- Most buildings have been oriented with short facades facing west and/or angled to minimize thermal heat gain in summer months and to reduce cooling loads.

- Biotechnology/medical technology buildings are envisioned to be designed in a manner consistent with LEED Silver standards.
- Some buildings are envisioned to have green roofs to aid in storm water management, reduce building solar heat gain and to reduce impervious surfaces.
- The North County Trailway is located just to the west and bicycle parking will be provided throughout so that users can take advantage of commuting options.
- Conveniently located bus stops will be provided with shuttle service to the nearby Metro-North commuter rail stations.