

ABOUT THIS DOCUMENT

This document and the accompanying revised plans (the “Revised Plans”) together form the complete Revised Master Development Plan (“MDP”) for the Silo Ridge Resort Community (“Silo Ridge,” or the “resort community” or “project”) required under the Town of Amenia Zoning Law for development in the Resort Development Overlay District (RDO District”) of uses other than those allowed in the Rural Agriculture District. The MDP is subject to special permit approval by the Planning Board.

The MDP is an informational outline at a conceptual level of detail for the development of Silo Ridge, and addresses the planning vision; design goals; access and road layouts; proposed buildings and uses; building footprints; building heights; building floor area; recreational facilities; elevations and architectural character; landscape character; sustainable features; golf course layout; open space system; natural resource, habitat and buffer management plans; infrastructure; phasing; and zoning compliance of the development. In addition to the plans, elevations and tables, illustrative character images are incorporated to further support the planning vision.

Many of the plans in this booklet are also contained in the Revised Plans accompanying this booklet as Appendix A. Please refer to Appendix B for a list of plan sheets with a brief description of each sheet.

This MDP is the culmination of the hard work and efforts of Silo Ridge Ventures, LLC, a joint venture of Stoneleaf Partners LLC and Discovery Land Company, and their team of professional consultants.

Images appearing in this document may be subject to usage restrictions. Please note that all illustrations in the MDP are intended to convey a concept and character, and not to portray specific plans for construction.

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1.0 PLANNING THE RESORT COMMUNITY

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1.1 OUR VISION

Silo Ridge Resort Community has been designed to be a unique, family oriented, healthy-living environment focused on year-round recreational, outdoor and sporting activities. The development plan for Silo Ridge puts the natural beauty of the region into the forefront, and provides for significant protection of open space and natural resources. Silo Ridge will have a 21 ~~unit~~ ~~Lodge (comprised of 1~~ Lodging units); a Clubhouse with spa and dining (and five of the lodging units); a renovated 18-hole championship golf course; and a mix of single-family homes, including Golf Villas; Vineyard Cottages; and other residences grouped around views, natural features, and the Village Green. The former Silo Ridge Country Club Golf Course is located on approximately 670 acres (with an additional 5.8 acres from the adjoining property owned of record by Harlem Valley Landfill Corp. to be added ~~by~~ lot line adjustment) of stunning countryside in the foothills of the Berkshire Mountains in Amenia, Dutchess County, New York, an area well-known for its pastoral landscape and agricultural heritage.

At the heart of the new resort community, the Village Green will accommodate casual gatherings, active recreation, and club activities. The Village Green will be bounded by the Lodge ~~and~~ Clubhouse buildings, and condominiums. To the west of the Village Green, a garden will serve the Clubhouse and provide direct access to residences to the north.

Silo Ridge has been designed as a series of buildings grouped in neighborhoods around views and open space which tuck into the natural topography. The design approach is in the manner of historic towns, farmsteads and villages in the surrounding Dutchess County countryside, where small pockets of development preserve open space. The landscape plan builds on a vision to create a community that integrates seamlessly with its natural surroundings. The harmony of building, site, and landscape design will contribute to the sense that the community has grown organically over time.

Silo Ridge is located just 85 miles north of New York City, with multiple daily round-trip train service from Grand Central Terminal to Wassaic Station, within one-half mile of the site. The proximity of the Metro-North Railroad station enhances the resort community vision and its ability to attract residents and tourists alike.

Silo Ridge will have the following ~~com~~ponents:

- 21 ~~H~~odging (Hotel-Condominium) units with direct access to Clubhouse amenities

- Clubhouse with dining and spa
- 18-hole Championship Golf Course
- Winery Restaurant
- 224 Residential Units
 - 159 Single-Family Homes
 - 28 Golf Villas
 - 19 Vineyard Cottages
 - 23 Village Green Homes
 - 32 South Lawn Homes
 - 57 Estate Homes
 - 52 Attached Condominiums
 - 13 Town Homes
- Gatehouse, Sales Office, Design Center, and General Store
- Golf Course, Golf Academy and Site Maintenance Facilities
- Water and Wastewater Treatment Facilities

Discovery Land Company, LLC (“Discovery”) is a privately-held, full service real estate development company based in Scottsdale, Arizona, specializing in luxury residential private club communities and resorts in the U.S. and other popular North American locations. Discovery’s projects are all distinct from one another with their own themes and architectural styles inspired by the natural environment and traditions of the project’s locale. The private clubs have world-class resort amenities, high levels of service, and club programs that work in sync to create an appealing lifestyle and a culture that is focused on family. The Company was founded 16 years ago by Michael S. Meldman with just one project. Since that time, Discovery has grown to be the premier player in the high-end resort residential niche with 16 high-quality projects in its portfolio.

1.2 EXISTING CONDITIONS

The 676±-acre site (the “Site”) ~~which~~ is comprised of the approximately 670 acre former Silo Ridge Golf Course ~~670 acres~~ plus an ~~the~~ additional 5.8± acres from the adjoining property owned of record by Harlem Valley Landfill Corp. to be added ~~by~~ via lot line adjustment. ~~The Site~~ is located west of NYS Route 22 in the Town of Amenia in eastern Dutchess County, New York, approximately 25 miles east of Poughkeepsie, NY and five miles west of Sharon, CT. The Site is approximately ½-mile southwest of the hamlet of Amenia (the “Hamlet”) and two miles north of the hamlet of Wassaic. It is accessible via US Route 44 from the east and west and NYS Route 22 from the north and south. The Wassaic Metro-North train station with service into New York City’s Grand Central Station is located approximately ½-mile south of the Site.

Approximately 170 acres of the Site consists of the former Silo Ridge Country Club, an 18-hole golf course and clubhouse with associated amenities that has been closed since 2009. The Site also includes approximately 47± acres of ponds, streams, and wetlands and 12± acres of roads, buildings, and other paved surfaces. A 2.2-acre parcel north of Route 44 is developed with a residential building. The remaining acreage consists primarily of undeveloped land, part of which is in agricultural use. This includes approximately 230 acres of wooded land on the hillsides and ridge to the west of the golf course.

Land uses within a ½-mile radius of the Site include: agricultural; commercial; community and public services; industrial; residential; recreation and entertainment; wild, forested, conservation lands and public parks; and vacant land. The predominant land use within a ½-mile radius is “wild, forested, conservation lands and public parks.” It should be noted that much of the land within the Site that is identified as “vacant land” is forested, particularly in the western portion of the Site.

The Site has varying topography, with slopes ranging from almost 100% to nearly flat. Approximately 58% of the Site has slopes greater than or equal to 15%.

Approximately 11.6± acres of the site are within the 100-year flood plain located west of the Amenia Cascade Brook near the front entrance. All other areas of the Site appear to be outside of the 100-year flood plain.

According to the Wetland Delineation Report prepared for the project, there are eight streams on the Site, two of which are perennial (flow year-round) and six of which are intermittent (dry some of the time). One of the perennial streams is the Amenia Cascade Brook, which enters the Site south of Route 44, traverses along the eastern property boundary, and exits the Site near the existing golf course entrance on Route 22. The other perennial stream is unnamed. The stream flows southeasterly and drains into the Amenia Cascade Brook off the Site. The remaining streams are denoted on the wetland delineation map. There are 12 wetlands located throughout the Site, totaling approximately 36 acres.

The Site currently obtains water from a combination of sources. The existing clubhouse is served by a water supply system consisting of an on-site groundwater supply well, water treatment equipment, and finished water storage. The existing golf course irrigation system is a separate and independent system used to irrigate the tees, greens, and fairways. In total, approximately 135± acres are currently irrigated. Irrigation water is drawn from a natural pond on the Site and distributed via a network of underground piping to irrigation sprinklers. The irrigation pond is fed by a natural spring source, a small on-site stream, and by stormwater runoff from the Site.

The existing sanitary wastewater system consists of an on-site septic system with subsurface disposal via leach field. The system operates under New York State Pollution Discharge Elimination System (SPDES) permit number NY0234966, with a permitted flow rate of 12,600 gallons per day (gpd) and a permit expiration date of 2025.

The Site is currently accessible via a main entrance on NYS Route 22. This entrance provides access to the Silo Ridge Country Club. The residential parcel north of Route 44 is accessed by a driveway on the westbound side of Route 44. The eastern boundary of the Site is Route 22, which is a major north-south transportation route through eastern Dutchess County. U.S. Route 44 bisects the Site in the northern portion of the property.

Note: See Appendix F for Soils and Geology.

~~†As used in this MDP, the term “Site” does not include the approximately 11.3 acres to be subdivided from the adjoining property owned by Harlem Valley Landfill Corp. (the “HVLC Property”) on which portions of golf holes 13 and 14 will be located, or the portion of the HVLC Property on which the golf maintenance facility and Site access road will be located.~~

1.3 CONSERVATION ANALYSIS SUMMARY

Starting at Route 22 and moving from east to west, large wetlands and water courses are punctuated by steep, wooded, rocky hills. Continuing west, there is a relatively level but undulating plain interrupted by a few steep and wooded hills, as well as natural and man-made water bodies, crossed by water courses, that emanate from the steep slopes further west. The former Silo Ridge Country Club golf course and clubhouse were developed on 170 acres of this plain. To the west of the golf course is the toe of a steep, continuous slope that rises approximately 420 feet in elevation. The land levels off at the ridgeline of this slope and begins to undulate to the west, where vernal pools are evident in the spring.

At the southern end of the Site, the eastern lot line is ~~proposed~~ to be adjusted to include approximately 5.8± acres of the adjacent property owned of record by Harlem Valley Landfill Corp. This area varies from vacant, flatter grassed areas to dense, wooded clusters.

The entire upland area of steep slopes and upper level land consists of approximately 230 acres of un-fragmented forest land with a network of trails.

Standing on the existing golf course and looking north, a tall grassland rises somewhat uniformly towards the hairpin turn on Route 44. The land within the hairpin turn affords a spectacular scenic vantage point from which to view the valley and folding hills to the south, and across the Hamlet to the Berkshires in the east.

On the extreme northeast portion of the Site, just south of West Lake Amenia Road between Route 22 and Route 44, is a cultural resource site containing historic/modern artifacts.

Planning and Design Considerations:

The most logical choice is to develop the new championship golf course in the same general location as the existing course. The Clubhouse and Lodge buildings, and residential and amenity components of the project, are located along the edges of the golf course between the wetland complex and the steep slope complex, and behind and around the intervening wooded hills that separate the golf course's front 9 from the back 9. The intent of this approach is to protect by avoidance the major contiguous portions of the wetland/water course and steep slopes/un-fragmented forest complexes, and to use the existing natural topography and vegetation as a screen/buffer to reduce the visual effect of the development from the hairpin turn vantage point. The archaeological site to the north will be avoided.

The final architectural plan reflects this conceptual arrangement in the following ways:

1. Taller buildings are located where there is the greatest visual buffer. Roads and development are aligned along edge conditions between wooded areas and open land to allow backdrop and shadowing for structures;
2. Site-specific building types are developed that respond to topographic conditions;
3. Articulated building masses, facades, roof lines and fenestration are contextual and in scale; and
4. The color and material palettes are selected to integrate and harmonize with the natural conditions of the Site.

1.4 PLANNING THE RESORT COMMUNITY

1.4.1 DESIGN GOALS

Village Green at the Center

Silo Ridge is designed with a relatively dense center of buildings focused on a Village Green, with neighboring residential groups clustered along hillsides to preserve views and open space. The architecture around the Village Green will take its cues from other nearby Hudson Valley towns, with buildings designed as a contemporary update of the vernacular styles and traditional methods found in the region. The Clubhouse and Lodge buildings and Clubhouse will anchor the Village Green, and surrounding residential buildings will play a strong supporting role.

Characteristic details will include sloped roofs with simple overall shapes; painted clapboard or wood shingled walls with contrasting trim; stone structures and stone, timber, glass, and shingle elements through the architecture of the resort community; projecting cornices, eaves, towers (or silos) and dormers; porches and balconies; and large window bays. Use of projecting cornices and large window bays will provide opportunities for distinctive architectural features that collectively contribute to a harmonious built environment. Colors will range from white to cream to more saturated colors (such as ochre and blue), and a range of accompanying trim colors. The variety of building sizes, colors and details will create the effect of a village that has developed over time.

Gentle Transition, Village to Country

Beyond the Village Green neighborhood, homes will share casual green courts in clusters that will become less dense the further they are from the center. The colors of these buildings will be neutral, predominantly colors found in the natural environment, and some will be clad in naturally aged cedar shingles in order to blend with the surrounding landscape. The landscape will also become less formal, with trees, flowering shrubs, and groundcover to complement the street trees. Site lighting will be minimal.

At the furthest distance from the Village Green neighborhood, larger homes will occupy larger lots, with coverage minimized to lessen the impact on existing trees and topography. Siting homes within the natural slope will equally limit grading and preserve forest cover. These homes will be required to be covered in naturally aged cedar shingles or cedar siding, with painted wood trim and stone accents. Plantings will emphasize native species. There will be no site lighting in these areas.

Defined Neighborhoods

Neighborhoods will be organized around views and open space features, pedestrian oriented thoroughfares within a block, and shared driveways for homes and villas. These shared spaces will limit impacts. There will be a variety of neighborhood house plan types and styles that will work together to create diversity in the spirit of places that have evolved over time.

Each neighborhood will offer a unique character differentiated by views, relationships to open space, signage details, paving, and materials. Plantings in each neighborhood will help integrate development into the surrounding natural landscape.

Respect for the Natural Landscape

Along the hillsides beyond the Village Green, building forms will be suited to the topography to blend with this rural setting. Homes will be appropriately sited on the rolling wooded landscape to minimize disturbance to the natural grade. Streets and roadways are designed to maximize views of the landscape and to rest comfortably on the topography. Forested portions of the Site, among this valley's greatest assets, will be preserved. The plan calls primarily for native tree and shrub species. Planting will be a crucial component of the integration of buildings into the surrounding countryside; it will also be used to screen and protect sensitive view corridors.

All buildings at Silo Ridge will employ a variety of roof dormers to provide fenestration for attic floors. With roofs occupied, buildings sit lower to the ground, blending better with the natural landscape.

1.4.2 TRADITIONAL NEIGHBORHOOD

The Traditional Neighborhood Design (“TND”) approach set forth in Section 121-12.1 of the Town Zoning Law was utilized to plan the resort community and creates a pedestrian friendly environment by concentrating approximately 60% of the

residential units and all Lodging units within ¼ mile radius of the core Village Green, which facilitates and encourages comfortable pedestrian travel between the various resort community components and amenities. In addition to the residential units and Lodging units, the resort community core area also includes dining facilities, below-ground parking, the Clubhouse and pro-shop, and spa. The MDP also incorporates multi-family buildings and emphasizes the use of spaces such as greens and gardens to unify the development and foster interaction among people. These elements of the project's design contribute to a sense of place and vitality, which are key elements of a traditional neighborhood concept.

~~Along with the residences in the resort community core, a~~Additional residences are located a short walk away southeast of the resort community core in the South Lawn neighborhood adjacent to the pond. These homes are located between the golf course to the west and the treed knolls and wetlands to the east. Building massing of these South Lawn residences is minimal, indicative of a typical neighborhood further from the core of a village. Detached Golf Villas are located west of the Clubhouse and 18th hole fairway, single family Estate Homes are located on a meandering country road along the western edge of the golf course and detached Vineyard Cottages are located north of Route 44 to the east of the Winery Restaurant and Artisan's Park Overlook. The Artisan's Park Overlook is intended to serve as a tourist destination and afford an opportunity for visitors of the region to enjoy the views from a safe location on DeLavernne Hill. Silo Ridge is intended to be built and heavily marketed as a second-home club community, where the majority of residential unit owners are expected to be part-time residents who occupy their homes on weekends or for short vacation stays.

The championship golf course designed by Tom Fazio will seek Audubon International's Silver Certification and will be an integral part of the community and neighborhoods. A system of walks and golf cart paths throughout the Site will connect all major components of the development. The walks and paths will be separated from the street by planting strips and planting areas, and will follow the street alignment in some places and deviate from it in other locations to adjust to natural vegetation and topography. Street trees will be provided as needed to create shade and visual interest to the streetscape.

1.4.3 AMENITY & COMMERCIAL COMPONENTS

Clubhouse/Lodge, Retail and Amenities

The Clubhouse/Lodge is a series of buildings that become key components of the resort community core area. ~~There are~~ Lodge includes 21 Hotel-Condominium units ranging from one-bedroom suites to four-bedroom, family-style units. Five (5) suites are located on the upper floor of the Clubhouse, and 16 units are located in two 8 unit buildings around the Village Green with direct access to club amenities and services.

Pursuant to Section 121-74 of the Town Zoning Law, the Hotel-Condominium units are limited to transient occupancy and part-time residences. "Transient occupancy" means that the unit cannot be occupied by any occupant for more than 48 days in any calendar year nor more than 15 contiguous days. "Part-time residences" means that the unit cannot be occupied by any occupant for more than 120 days in any calendar year nor more than 30 continuous days.

~~A~~A small convenience retail shop in the form of a "General Store" is proposed at the entry to the resort community along with the Sales Offices and Design Center.

A small, approximately 1,000 square foot pro shop will be located within the Clubhouse.

A separate amenities building is proposed for the Vineyard Cottage residential units north of Route 44. This building will house restrooms and changing areas and will provide access to a pool.

Clubhouse

The existing clubhouse will be demolished and a new 32,000 square-foot Clubhouse will be constructed at the same approximate location, just slightly south of the existing building's footprint. The uses in the new Clubhouse are generally the same as those formerly in operation in the existing clubhouse and include a private dining area, bar/lounge, private locker rooms, restroom facilities, fitness, spa, and pools. An approximately 1,000 square-foot golf pro shop will be located off of the 18th green. Five ~~lodging~~Lodge suites will be located on the upper level of the Clubhouse. The Clubhouse will include approximately 5,000 square feet of golf cart storage. The Clubhouse and its amenities will be restricted to members and guests.

Sales Office, Design Center, & General Store

Organized around an entry court, the Sales Office and Design Center will provide facilities for owners, contractors, and designers to collaborate and review design prior to and during construction of their homes. The General Store will also provide limited convenience retail for the resort community.

Family Activity Barn

The South Lawn neighborhood will be anchored by the Family Activity Barn. Inspired by the agrarian structure of the region, the Family Activity Barn will be a center of family gatherings with space for resort community events, kids' activities, and a family pool. Overlooking the fishing pond, the barn activities will be able to take advantage of a large lawn leading down to a Lakeside Pavilion and fishing dock.

Winery Restaurant

The Winery Restaurant will be an approximately 80 seat winery themed, old world style restaurant (approximately 5,000 square feet) with outdoor patio, complete with an extensive wine cellar on the lower level, located approximately 530' north of the hairpin turn on Route 44. An orchard and/or decorative grapes are expected to be part of the landscape features in this section of the project north of Route 44 in keeping with the vineyards and agricultural nature of the region. The restaurant will look to source fine food locally and promote tourism for the region.

An Artisan's Park Overlook

The Artisan's Park Overlook is located just south of the Winery Restaurant. This overlook is intended to serve as an additional tourist destination in Amenia and a safe place from which visitors can enjoy the views over the golf course and down through the valley. Parking for this overlook is at the Winery Restaurant and a path will allow for a short walk to the overlook. Benches and perennial flowers are expected to be placed in the overlook area.

Gatehouse

The primary purpose of the Gatehouse will be for personnel to greet owners and their guests, provide directions or instructions to guests, and identify persons entering the Site and their intended destination(s). It will be necessary to be an owner or owner's guest, or a guest of the Lodge or of the golf course, to enter the Site. Silo Ridge operator personnel shall have the authority to grant or deny access to the property. Moreover, resort community operator personnel shall have the authority to deny access and to remove persons who are disruptive to other people visiting the resort community and to the operation of the resort community, and who have misrepresented their stated intent or purpose for visiting the resort community.

1.4.4 VILLAGE GREEN NEIGHBORHOOD

From the entry, the main entry road will guide residents and visitors to the Village Green. In the manner of many New England towns, the center of Silo Ridge is focused upon an informal green. The Village Green is anchored along its perimeter by the Lodge, town homes and condominiums, and paths wind through the Green and its gardens, lined with mixed shade trees and smaller ornamental trees, defining spaces for organized events, active play, or passive enjoyment of the surroundings. Along the roads within the Village Green neighborhood, which will be lined with trees and lighted with traditional, pedestrian-scale pole lights, residents and their guests will encounter walkways and paths. The Village Green and its gardens create opportunities for passive recreation and views. A mix of rolling topography, level areas for small get-togethers, and ornamental plantings make these spaces inviting gathering points for neighbors and visitors. Residences not facing the Village Green will overlook the surrounding golf course.

All buildings and roads in the Village Green neighborhood take advantage of the existing topography in a manner consistent with charming towns and villages nearby. Roadways have been designed to allow both pedestrians and motorists safe access to the golf course and views beyond.

FEATURES OF THE VILLAGE GREEN NEIGHBORHOOD

The Village Green will be the organizational and functional center of Silo Ridge, and will provide the primary address for most of the major resort community buildings. It features spaces for passive and active recreation, including meandering tree-lined paths.

The Village Garden will provide a traditional Hudson Valley formal landscape with space for events and gatherings. There is a significant grade change between the Clubhouse and residences that will be negotiated by terraced gardens and planted slopes.

The Village Green will be lined with buildings of varying architectural character. These buildings will convey the feel of a small Hudson Valley town. Buildings will be generally clapboard, stucco and shingled, and will incorporate stone, wood or cementitious board siding, as well as slate, shingle, and standing seam metal roofs. These buildings will have greater variety in color, and will show greater stylistic and material diversity than buildings farther out from the Village Green, which will tend toward earthier tones in order to blend more closely to the landscape and to each other. The streetscape will incorporate paving materials such as brick and stone, tree planting, and shrubs to create comfortable spaces both to move through and to linger in.

The Village Green neighborhood will have the following features:

- Twenty-three (23) detached single-family homes, ranging from three to five bedrooms, at an average size of approximately 3,200-3,870 square feet;
- 52 attached condominiums ranging from two to four bedrooms, at an average size of approximately 2,700 square feet, some with dedicated parking below the structure, some with dedicated parking in an adjacent, shared car barn, as well as on-street parking;
- Thirteen (13) town homes containing four bedrooms, at an average size of 3,550 square feet;
- Clubhouse with pro shop, dining, spa facilities, locker rooms, bar and grill, and terraces;
- Fitness and pool facilities including lap pool, terraces, outdoor dining, and yoga pavilion;

- Twenty-one (21) ~~H~~odging units (5 in ~~the Clubhouse/Lodge~~ and 16 in two 8 unit buildings) ranging from one to four bedrooms, conveniently located to amenities;
- Paths/sidewalks and trails allowing pedestrian access between residences, the Village Green, the ~~C~~lubhouse and its amenities;
- A Village Green sized for outdoor recreation; and
- Gardens with event spaces and opportunities for passive recreation.

1.4.5 SOUTH LAWN NEIGHBORHOOD

The South Lawn neighborhood will be clustered along the open space network which addresses the golf course while taking advantage of the Site’s topographical opportunities. The South Lawn neighborhood as a whole has a distinctive character very much related to its proximity to the golf course and lake, a more intimate grouping within the whole. The topography, adjacent lake, and activity barn amenities define the neighborhood and provide direct access to outdoor activities.

Residences will feature porches, lawns, and terraces, as well as rear and side-yard spaces. Some buildings include walkout basements, while others open onto lawns fronting the lake. Like Silo Ridge as a whole, occupied roofs in the South Lawn neighborhood keep building masses lower to the ground. Dormer windows in a variety of configurations provide interest and soften roof profiles. Eaves and overhangs create shadow, interest, and detail.

FEATURES OF THE SOUTH LAWN NEIGHBORHOOD

South Lawn will be a park setting with framed views to the golf course and to the mountainside beyond for the Family Activity Barn. It will be defined by primary access to the north and bound by the Site’s natural features to the east, south, and west including the Site’s largest pond to the west. As the organizational center of the neighborhood, the Family Activity Barn serves as an important secondary gathering place for Silo Ridge.

Residences of the neighborhood enjoy trail access to the pond.

The South Lawn neighborhood will have the following features:

- Thirty-two (32) single-family homes ranging from three to five bedrooms, with an average size of ~~3,950~~3,750 square feet;
- A Family Activity Barn with a family pool and grill; game rooms; arts and crafts; theater space; and bowling;
- A fishing dock with a small open-air pavilion structure;
- Paths/sidewalks allowing pedestrian access between the ~~F~~amily Activity Barn and the Village Green;
- Trail access along the eastern edge of the ~~pp~~ond from the upper-tiered homes; and
- Overlooks at the wooded knoll to the east.

1.4.6 GOLF VILLAS NEIGHBORHOOD

Golf Villas are located adjacent to the Clubhouse and face out over the eighteenth fairway. These homes will be set around open golf views. The Golf Villas will be tied together via landscaped streets, and are designed to step down with the grade.

FEATURES OF THE GOLF VILLAS NEIGHBORHOOD

The Golf Villa neighborhood will have the following features:

- Twenty-eight (28) single-family homes ranging from three to five bedrooms, with an average size of approximately 3,890 square feet;
- Homes overlook a meadow, stream, and the 18th hole. Homes on the western end of the neighborhood back up to the forest edge;
- Proximity to the Clubhouse, fitness center, and pool areas as well as direct access to the Golf Academy and practice areas to the north;
- Paths/sidewalks allowing pedestrian access between the residences and the Village Green to the northeast ~~and~~ ~~Estate H~~homes to the south; and
- Trail access along the eastern edge of the stream from the upper-tiered homes.

1.4.7 ESTATE HOMES NEIGHBORHOOD

Heading south through the Golf Villas, a bridge across a small stream will create entry into the Estate Homes. Estate Homes are sited along the base of the mountainside with views east towards the course, and Amenia beyond. These homes are designed to respect the existing topography and to blend into the rolling hillside. These homes are required to be covered in cedar shingles or natural wood siding with painted wood trim.

Single family home sites that abut natural areas at the toe of the forested slope on the west side of the golf course will have the limits of the yards demarcated. (See diagram on page 39 indicating ~~where these demarcations will conceptually occur demarcations (red line))~~). The ~~means and methods of this~~ demarcation will be reviewed and approved by the Planning Board during Site Plan review. In the ~~yards area between the house and the demarcations~~, both native and non-native plants will be permitted. However all homeowners ~~will be are restricted prohibited~~ from using plants or groups of plants considered to be invasive or potentially invasive. The list of invasive or potentially invasive plants will be finalized during Site Plan review.

FEATURES OF THE ESTATE HOMES NEIGHBORHOOD

The Estate Homes neighborhood will have the following features:

- Large lots, from 1/3 to greater than 2 acres, with a forest backdrop and views to Amenia and equestrian farms to the east;
- Fifty-seven (57) single-family home sites for five to six-bedroom homes, at an average of approximately 5,600 square feet; and
- Paths/sidewalks allowing pedestrian access between the residences, through the Golf Villas neighborhood and to the Village Green.

1.4.8 VINEYARD COTTAGES NEIGHBORHOOD

Planned by Looney Ricks Kiss, Architects, Inc.

The *Vineyard Cottages* are sited adjacent to the Winery Restaurant, along the hillside north of Route 44, with breathtaking views east and south. The cottages are grouped within small enclaves allowing the vineyard to weave into the neighborhood. They have been sensitively placed in the topography to create privacy for the homes and their outdoor living spaces. They are designed as 1-1/2 story to 2-1/2 story single family homes in several configurations, accommodating upward and downward slopes. Each home will be sited so as to create minimal disruption of the existing grade, and clustered along the hillside in groupings, to preserve open space between them and to maintain a discreet, picturesque profile on the landscape.

FEATURES OF THE VINEYARD COTTAGES

The Vineyard Cottages neighborhood will have the following features:

- Nineteen (19) single-family, three-bedroom homes, at an average of approximately 2,700 square feet;
- Adjacent to Winery Restaurant and Artisan’s Park Overlook; and
- Neighborhood pool club

WINERY RESTAURANT

The Winery Restaurant will be an approximately 80 seat winery themed, old world style restaurant (approximately 5,000 square feet) with outdoor patio, complete with an extensive wine cellar on the lower level, and will be located approximately 530’ north of the hairpin turn on Route 44. An orchard and/or decorative grapes are expected to be part of the landscape features in this section of the project north of Route 44 in keeping with the vineyards and agricultural nature of the region. The restaurant will look to source fine food locally and promote tourism for the region.

AN ARTISAN’S PARK OVERLOOK

The Artisan’s Park Overlook is located just south of the Winery Restaurant. This overlook is intended to serve as an additional tourist destination in Amenia and a safe place from which visitors can enjoy the views over the golf course and down through the valley. Parking for this overlook is at the Winery Restaurant and a path will allow for a short walk to the overlook. Benches and perennial flowers are expected to be placed in the overlook area.

2.0 LANDSCAPE CHARACTER

2.1 Landscaping

2.1.1 Use of Native Planting

2.2 Retaining Walls

2.3 Signage

2.4 Paving & Materials

2.5 Lighting

2.6 Visual Commitment

2.1 LANDSCAPING

The project includes extensive landscaping with primarily native species. Plantings will provide screening, buffering, visual interest, wildlife habitat, carbon reduction, erosion control, spatial definition, shade and cooling. The landscaping is designed with consideration of sensitive viewsheds from Route 44 and Route 22 and will greatly reduce the apparent mass of the project, screen the development from view, and transition the edges of the development into the overall natural landscape setting.

The conceptual landscape plan provides tree planting at varied intervals along the roads and sidewalks for shade and to establish a dominant landscape framework that subordinates the roads and built improvements. New landscaping around structures will frame views and provide pedestrian scale, while introducing seasonal variety and ornamental interest. Shade, flowering and evergreen tree plantings combined with shrub masses and herbaceous layer plantings will help to screen the development.

The following landscape commitments will enhance the natural beauty of the resort community:

- The preservation of 80% of the Site as open space, including a 230 acre hillside on the west side of the golf course.
- The project will utilize clearing and grading limits to ensure that vegetation is only removed in areas where it is necessary.
- Native plant species will be used for conservation buffers, habitat restoration areas, and out-of-play areas within the golf course in accordance with the Habitat Management Plan (“HMP”). Planting and early maintenance schedules will be followed in order to minimize the colonization of disturbed areas by invasive species. Landscaping will utilize native plant species as much as possible in accordance with the Natural Resource Management Plan (“NRMP”).
- The implementation of a comprehensive HMP for the Site, and NRMP which provides for the management of golf course and community lawns of the Site. (Please refer to Section 3.5 and Section 3.6 for more information on the HMP and the NRMP)
- The preservation of the cluster of shagbark hickories located along the edge of the golf course above the southwest bank of Wetland L/L.
- Preservation of island forest habitats on the south end of the site, to allow habitat connectivity (particularly for birds) between Wetland L/LL and the western slopes.
- In areas of steep slopes, cutting of existing vegetation will be minimized by a required field survey of each building site, including trees 8” caliper and larger, prior to Site Plan submission. In addition, design of buildings will be customized to meet site conditions and retain existing trees.
- Preservation of a naturally vegetated area of 750 feet surrounding the vernal pool (Wetland U). No more than 25% of the zone 100-750 feet from the vernal pool should be disturbed if the vernal pool is to remain a viable habitat.

2.1.1 USE OF NATIVE PLANTING

- Native plants preferably of local stock (southern New England origin) will be used for all natural plantings associated with the HMP.
- Single family home sites that abut natural areas at the toe of the forested slope on the west side of the golf course will have the limits of the ~~improved~~ yard areas demarcated. (See adjacent diagram indicating conceptual demarcations where these demarcations will conceptually occur (red line). The ~~means and~~ methods of ~~this demarcation~~ will be reviewed and approved by the Planning Board during Site Plan review. In the yards area between the house and the demarcations, both native and non-native plants shall be permitted. However, homeowners shall be prohibited from using plants or groups of plants considered to be invasive or potentially invasive. The list of invasive or potentially invasive plants will be finalized during Site Plan review.
- The governing documents of all condominium and homeowners associations shall prohibit any expansion into or use of the areas beyond the demarcated yard of any structures, play sets, gardens, shed, wood piles, vehicles etc. and provide that this protected area will not be used for the disposal of yard or other waste. Homeowners will be provided with information at purchase and at closing that discusses these restrictions.
- A landscape planting plan will be evaluated during Site Plan review. This plan will give preference to trees indigenous to the Harlem Valley.

2.2 RETAINING WALLS

Due to the hilly site conditions and rural setting, freestanding and retaining walls are a component of the overall design. Retaining walls may be used to site buildings on slopes and create outdoor terraces for individual hillside units, and may be used as a visual separation at the interface of the golf course and adjacent home sites.

Retaining walls shall be restricted to a maximum height of 6'-0". Where greater grade change needs to be accommodated, multiple lower, stepped walls may be used, and shall be softened with plantings.

Freestanding and retaining walls attached or immediately adjacent to the buildings may be more architectural in character, and may utilize a concrete masonry structure with a stucco, brick or stone veneer. Freestanding fences and screen walls may also utilize wood construction such as shingle, siding or lattice.

Freestanding and retaining walls located in the landscape and away from buildings will use locally sourced native stone with a more rustic appearance and construction, either dry-laid or with mortar deeply raked back (to appear dry laid).

2.3 SIGNAGE

Silo Ridge's signage will be simple and elegant. The entry sign on Route 22 will incorporate natural stone with subtle lettering. Custom directional, street name and traffic regulatory signs will be developed as a coordinated program. Signs will be mounted on low-rise or mid-rise painted or stained wood poles as necessary for visibility. Sign poles may utilize a natural stone base. Sign plaques may utilize a combination of materials such as wood, wrought iron, corten or other metal materials. Different neighborhoods may utilize distinctive graphics, ornament or details to lend a specific character and sense of uniqueness.

The front entry identity sign, Winery Restaurant identity sign and neighborhood signs may be illuminated by an external shielded light fixture aimed at the sign from the ground or from a concealed flange within the sign. Signs visible from public roads will be executed in an understated and elegant manner using high quality materials. Internally illuminated signs (backlit or internally lit) will not be used. There will be compliance with the Dark Skies standards discussed in Appendix E. Final sign designs will be submitted as part of Site Plan review.

Signs will be in compliance with Section 121-39 of the Town Zoning Law, which states:

"The purpose of this section is to control the location, size, quantity, character, and lighting of signs in order to maintain the attractive appearance of the Town and avoid conditions of clutter and unsightliness. Through these regulations the Town seeks to:

- 1. Protect public health and safety by ensuring that signs do not create dangerous conditions, obstruct vision necessary for traffic safety, or confuse, distract, or mislead motorists, bicyclists, or pedestrians; and*
- 2. Promote the general welfare by creating a more attractive visual environment that preserves the Town's historic and rural character, protects property values, encourages economic growth, enables businesses and other establishments to identify themselves, and minimizes negative impacts of signs on adjoining properties."*

Signage designed for Silo Ridge will welcome residents and guests while providing functional, directional, and informational resources. Signage should complement the landscape and architectural design of the community. Signs should be designed with other street amenities in establishing the character of the overall club while clearly portraying intended information. A comprehensive approach to signage will contribute to the atmosphere at Silo Ridge. Typical signage may include:

- Project Identification (Primary & Secondary)
- Project Facility Identification
- Project Circulation Identification
- Project Informational Signs

- Regulatory Signage
- Vehicular Directional
- Pedestrian Directional

2.4 PAVING & MATERIALS

Paving and other site materials will be appropriate to the site conditions, proposed function and overall context. Roads and parking areas will be asphalt and primarily designed without curbs. Road widths will be kept narrow to retain a rural aesthetic and minimize pervious area. Use of pervious asphalt or concrete pavers will be considered where appropriate in order to reduce run-off and allow infiltration. Driveways may incorporate brick or cobble paving.

In the Village Green neighborhood, the street section may also incorporate a Belgian block or granite curb, while streets in the outlying areas are rural in character and therefore designed without curbs and with grassed drainage swales (unless where curbs are required at steep slope conditions).

Sidewalks in focal areas of the Village Green may utilize stone, brick or concrete pavers, or a combination of stone and brick. Concrete with integral color and an exposed finish and regular scored joint may be used in less visible sidewalk areas. Walking and hiking paths may utilize a combination of compacted soil and decomposed granite fine materials, with natural stone used for steps and edging.

Private residences have entry walks, covered outdoor porches and terraces in a range of materials such as stone, brick, or a combination of stone and brick; materials may be sand set or mortared on a concrete slab.

Terraces at the ~~Lodge~~, Clubhouse/Lodge, Winery Restaurant, Family Activity Barn, condominiums, and other Silo Ridge buildings may utilize a combination of mortared and sand-set cut stone pavers or flagstone, and may utilize accent materials such as brick, granite or gravel fines.

Golf course cart paths and roadways will utilize asphalt, and may incorporate permeable asphalt pavers in some locations where feasible to improve infiltration and reduce run-off.

Bridges for the golf cart paths will be of natural materials such as stone veneer on formed concrete for supports and rustic timber or painted steel or corten guardrails.

The Village Green and neighborhood gardens and parks will be furnished with the traditionally styled benches, picnic tables, trash receptacles and bike racks. Bike racks will be located throughout the Site to encourage bicycle use.

All materials used for wetlands crossings will be reviewed and approved during the Site Plan review.

2.5 LIGHTING

A detailed lighting plan that specifies lighting location, intensity and trespass will be prepared during Site Plan review. Silo Ridge commits to the following nighttime lighting limits that will minimize light pollution (skyglow, light trespass, and glare):

Up-light

- No more than 2% of the light (measured in lumens) emitted from the street lighting, area lighting (parking lots, storage areas, utilitarian building-mounted lighting, etc.) and path lighting will be directed upward. All of these fixtures will have “cutoff” optical systems that direct almost all light downward.
- There will be no internally illuminated signs.

High Brightness and Glare

- No more than 300 lumens shall be emitted from any fixture between 80 degrees and 90 degrees (0 degrees is straight downward from the fixture; 180 degrees is straight overhead).
- Street, path, and area lighting poles will not exceed 20’ in height. The Winery Restaurant parking area lights are expected to be pedestrian level lamp posts or bollard style lights due to the sensitive nature of the location of this facility. Full height street lights will not be used in the Winery Restaurant parking area.
- Where bright arc tubes from metal halide lamps (bulbs) or LED products would be glaring for pedestrians beneath the fixtures, prismatic lenses or diffusers will be used to reduce the direct glare of the light source.
- No lighting will be used on the practice range for extending the hours of operation. Nighttime lighting used will be for staff use only for security, and will cease within one hour of dusk.
- No street or area lighting fixtures will be tilted upward to project light farther, since this can turn a good-quality fixture into one that produces glare or skyglow.
- No street lights will be used in the Vineyard Cottages and Estate Home neighborhoods. Portions of Village Green, Golf Villa, and South Lawn neighborhoods are expected to utilize pedestrian level lampposts as opposed to full height street lights.
- Light spillage into natural areas (forests and wetlands) will be minimized and/or avoided by ecologically-friendly lighting design and lighting regimes.

Energy Use

The outdoor lighting system will use 90% or less of the power allowed by the ASHRAE/IESNA 90.1 2010 energy standard.

Parking lots pose greater potential for pedestrian/vehicle conflict and vehicle/vehicle conflict, so these are traditionally lighted more uniformly, although the number of fixtures illuminated after business hours will be reduced. Heavily used pathways may have pole-mounted lighting or landscape lighting in order to improve the perception of safety for pedestrians, but this lighting also will be reduced or eliminated at night through controls.

~~Continuous lighting, (i.e. street lighting on regular pole spacing, located continuously along a street or roadway) will be used in areas of high traffic roadway, high vehicle/pedestrian conflict only. It will be limited to the resort core/Village Green area. All other areas may use street lighting at intersections, cross-walks, or other areas of potential safety concern.~~

Pedestrian pathway lighting will be used at steps, ramps, turns, important meeting points, or points of safety concern only. Lighting will not be continuous.

No lighting fixtures used for street lighting, area lighting, or path lighting will use a higher wattage lamp or lighting system than 150W.

Decorative Lighting

- Wall sconces, post-top lighting, pedestal lighting, or hanging lanterns used outdoors for decorative purposes will be limited to 750 lumens per luminaire unless they emit their light downward only. (400 lumens is the approximate light output of a 40W incandescent A19 bulb.)

Façade Lighting

- Any façade lighting will direct 90% or more of its lumens toward the façade, allowing no more than 10% of the lumens to escape to the sky. Façade lighting will be minimal, using no more than the power allowed by the ASHRAE/IESNA 90.1 2010 Energy Standard.
- Façade lighting will be shut off within ½ hour after curfew.

Landscape Lighting

- Landscape lighting, if used, will use lamps emitting less than 1000 lumens (equivalent to a 20watts HID lamp.)
- All landscape lighting will be switched off within ½ hour after curfew.

Curfew

- In order to preserve the quiet and darkness of night, Silo Ridge will establish a curfew, after which decorative or unneeded lighting will be extinguished. As an example, curfew may be set not later than 11 pm during the week, and 1 am on weekends (Friday included) in order to allow residents and guests later hours for dinner, activities, and entertainment. Street, area, and path lighting could possibly be reduced within a set time after curfew.

Lighting Control

- When sufficient daylight is available, outdoor lighting shall be controlled by a device that automatically turns off.
- All building facades, landscape and minor parking zone lighting shall be automatically shut off by photocells, motion sensors, presets or astronomical time clocks. Street lighting shall be completely turned off or step switching (some lights off) or dimmed after curfew. The luminaire to be controlled by automated devices shall be determined per the location and activity of that area.

2.6 VISUAL COMMITMENT

Caring for the natural beauty of the Site and protecting views from the surrounding countryside, is of prime importance. The MDP accomplishes this primarily through careful site layout, building design, and landscaping.

Site design measures include clustering of many buildings to reduce sprawl effect, the sensitive use of existing natural topography, fencing and vegetation to shield buildings with the combined net affect being ridgelines and cherished views to distant hills are preserved.

Building design measures include use of natural building materials, carefully selected building colors, placing units in the building's roof space to reduce massing, placing many parking spaces below grade, and stepping buildings with the natural contours of the land. The combined net effect is to knit many buildings back into the landscape.

Landscaping will be employed to further screen many buildings. The landscape utilized for the main screening areas will be designed to naturalize with the adjacent surroundings over time.

The interaction between effective site design, building materials and colors and exceptional screening in combination make these measures more effective than if they were undertaken independently.

A Visual Assessment will be conducted as part of Site Plan review, for the purpose of confirming that the above measures are employed to the satisfaction of the Planning Board.

3.0 SUSTAINABLE COMMUNITY

- 3.1 Sustainable Approach & Features
- 3.2 Golf Course
- 3.3 Open Space
- 3.4 Wildlife
- 3.5 Natural Resource Management Plan
- 3.6 Habitat Management Plan
- 3.7 Buffer Management Plan
- 3.8 Stormwater Management & Erosion Control

3.1 SUSTAINABLE APPROACH & FEATURES

Silo Ridge will be an environmentally sensitive community utilizing a sustainable approach. The natural beauty of the Site, its natural resources and proximity to the rail station enhance this vision. The attributes of the Site along with methods anticipated to be implemented will help achieve this sustainability goal. The approach is to offer an active healthy and family oriented lifestyle community that will provide high quality, well planned recreation facilities and residences, while preserving and protecting the natural resources of the community.

The sustainable approach, which Discovery Land Company has employed in 16 other communities, will conserve resources, utilize energy more efficiently, and reduce operation and maintenance costs which in turn will make a positive difference in contributing to a more sustainable world and will provide long term value. The staff will be stewards of the community environment. The healthy lifestyle approach will not end with the buildings and grounds as the cuisine will also provide locally sourced, organic products. The outdoors will be embraced through Discovery's signature Outdoor Pursuits program. This program helps families interact with the local culture and environment through recreation and education.

Leadership in Energy and Environmental Design (LEED) Silver certification will be pursued for the Lodge and Energy Star certification will be sought for residential units. All of the homes will meet Energy Star requirements.

Silo Ridge will have the following sustainability features:

- Proximity to the Wassaic Metro-North rail station;
- Shuttle service for residents as needed to and from rail station and Hamlet of Amenia;
- Proximity to bike path;
- Bike availability, bike racks and storage;
- The community will encourage electric vehicle transportation;
- Promotion of a healthy lifestyle including walking, biking running, golfing, swimming, and physical fitness along with healthy food choices;
- Below-grade parking at several condominium buildings;
- 80% open space;
- Restoration and enhancement of a portion of Wetlands LL.
- Protection of many habitats in accordance with the NRMP and HMP;

- Protection of water resources in accordance with the NRMP, HMP and [Stormwater Pollution Prevention Plan \(“SWPPP”\)](#);
- Lighting parameters that reduce light pollution;
- Pervious surfaces on many sidewalks and patios, using pervious materials at the Winery Restaurant parking, and managing runoff through a buffer planting area;
- Southern exposure for many buildings;
- Provision of a wastewater treatment plant is an important aspect of the sustainability of the project by enabling the clustering of the development footprint, thereby allowing large portions of the Site to remain undeveloped;
- Educational programs focus on local history and culture;
- Sustainable energy programs to provide self-sufficiency and reduce carbon footprint;
- Utilization of low energy consumption lighting (e.g., LED);
- Energy saving insulated glass systems with Low E values for control of seasonal heat gain and heat loss;
- Tight building envelopes to minimize heat loss in the winter and cooling loss in the summer;
- High R-value thermal insulation to decrease energy demand and therefore consumption.

As the building and engineering design work advances more opportunities for water efficiency, energy and atmosphere, materials and resources, indoor environmental quality and innovation during design will become evident and be analyzed in furtherance of the sustainability vision.

3.2 GOLF COURSE

The Silo Ridge golf course will be renovated by the Tom Fazio design team, under the leadership of golf course design veteran Tom Fazio. Tom Fazio emphasizes the premise that “golf courses should reflect the natural beauty of their environments” and that philosophy perfectly states the intended approach to renovating and improving the Silo Ridge golf course. The design team will utilize all the best natural elements from the existing golf course while at the same time highlighting new opportunities to improve playability, sustainability and the overall golf experience.

One of the sustainability features of the golf course is that it will be registered in the Audubon International Signature Program and will seek Silver certification (See Appendix D). Once construction is complete, involvement in an Audubon International Signature Program ensures that managers apply sustainable resource management practices in the long term stewardship of the property. In preparation for this program the NRMP was prepared. The NRMP along with the HMP will be utilized in oversight of the golf course.

The existing Silo Ridge golf course has been closed since 2009.

3.3 OPEN SPACE

Section 121-18(C)(4) of the Town Zoning Law requires that a minimum of 80% of the total land area of the Site be preserved by a conservation easement as open space. The open space may include farmland and farm structures, ponds and streams, and recreational land such as golf courses, cross-country ski trails, equestrian trails, and hiking trails. Silo Ridge complies with this 80% open space requirement. The Open Space Plan, Sheet SP-4, of the Revised Plans shows the ~~540.5~~+/- acres being preserved.

The open space land will be preserved by a conservation easement consistent with the provisions of Section 121-20(K) of the Town Zoning Law. The grantee of the conservation easement shall be a municipal or not-for-profit organization that is acceptable to the Planning Board and that is qualified to hold conservation easements under applicable law.

The conservation easement shall be expressly referenced in all deeds for the lots and condominium units. The conservation easement will also be expressly referenced in all condominium and homeowners association offering plans, and condominium and homeowners' association governing documents will require enforcement of the conservation easement.

The conservation easement shall be in a form acceptable to the Planning Board and shall be approved by the Planning Board during Site Plan review.

In the RDO District, priority for open space preservation must be ~~given~~ to land in the Scenic Protection Overlay (SPO) (Appendix J), and Stream Corridor Overlay (SCO) Districts (Appendix I), especially the view to and from DeLavergne Hill, ridgelines, historic resources, unique ecosystems, prime agricultural land, and water resources. Portions of the Site are located in the SPO and SCO Districts, most notably the land on DeLavergne Hill including the area inside the Route 44 hairpin turn, and the ~~Amenia~~ Cascade Brook. The Site also contains land in the iconic DeLavergne Hill viewshed, some of which is also visible from Route 22 and Depot Hill Road, as well as additional State and federal wetlands, local wetlands and watercourses, vernal pools, steep slopes, and historic resources.

The following will be preserved as open space:

- The open fields south of DeLavergne Hill;
- The open field south of the Winery Restaurant;
- The wooded area between the Winery Restaurant and the Vineyard Cottages;
- The wooded area north of Route 44;
- The wooded slopes and ridges on the western portion of the property;
- The wooded knolls north of the Village Green core;
- The wetlands on the eastern portion of the property; and
- The golf course.

3.4 WILDLIFE

~~Mitigation measures~~ ~~The required measures to mitigate potential impacts on wildlife have been are~~ identified in both the SEQRA Findings and the Special Use Permit Findings for the project. In conjunction with implementation of the NRMP and HMP and preservation of open space, those measures, including such as the following, will play an important part in protecting wildlife on the Site:

- Most buildings and ~~the associated~~ development have been removed from areas within 100 feet of Wetland J/JJ to protect the habitat of the dusky salamander. ~~ZeroFive~~ (50) homes are proposed within 50 feet of Wetland J/JJ and limited development including roadway, bridge, utility crossings and associated grading is proposed within 50 feet of the remainder of Wetland J/JJ.
- Homes and development in the headwater areas of Stream M/P have been pulled away from this area to reduce impacts in this location.
- Severely eroded stream channels and existing drainage culverts will be restored in three locations, and stream bed and stream bank will be restored, where possible.
- Habitats will be enhanced with six different planting palettes for different locations throughout the Site. Five palettes of native species are being used in aquatic and upland habitat enhancement. A sixth palette is to be used to establish vegetative cover in stormwater management basin wet pools and attenuation basins.

- In certain locations, 100 foot wide conservation buffers will be implemented, and water quality buffers 50 feet wide (of terrestrial vegetation) around critical habitat and riparian buffers, respectively, will be implemented.
- Mitigation structures will be employed, including bottomless box culverts, golf course foot bridges, and wildlife tunnels to ensure habitat connectivity. In some instances, an oversized bottomless arched culvert will be used based on engineering and cost considerations, if approved by the Planning Board.
- Terrestrial habitat enhancements will provide plant communities with additional refuge, forage and, in some cases, breeding habitat for resident birds, mammals and herpetofauna.
- Aquatic habitat enhancements will provide additional functional value for aquatic and semi-aquatic wildlife species.
- Sensitive and productive habitats will be protected during construction and operation activities at the Site.
- The HMP includes two significant aquatic habitat restoration projects. The first project is a streambed restoration/streambed stabilization and erosion control project on a tributary to -Amenia Cascade Brook. The second project includes a 1.5 acre floodplain restoration in the -Amenia Cascade Brook floodplain. Note: Some golf course work previously approved in 2009 for this floodplain area has been eliminated.
- The gravelly/sandy bank along the southwest edge of Wetland L/LL will be preserved, as this area serves as a nesting area for turtle and snake species.
- To facilitate wetland and wildlife habitat preservation, open space including buffer areas surrounding wetlands will be maintained to the extent practical.
- Approximately 540.5± acres of the Site will be preserved as open space, including the preservation of a contiguous 230-acre natural area adjacent to and ecologically connected with the 2,400 acre Tamarack Preserve.
- The layout provides for a variety of interconnected spaces throughout the Site which will allow some wildlife movement.
- Additional habitat protection measures will be implemented, including provision of a 500-foot minimum buffer to the vernal pool (Wetland U).
- The NRMP will be implemented, including minimizing the removal of native vegetation; saving native plants that must be removed for later replanting; and re-vegetating with native plantings wherever possible.
- Mitigating measures to help reduce excess nutrients and pollutants into surface water bodies include Best Management Practices, Integrated Pest Management, and erosion control measures.
- The project will utilize onsite stormwater management practices and attain compliance with Phase II stormwater regulations.
- Re-vegetation of the -Amenia Cascade Brook floodplain will benefit wood turtles if they are still extant. This area of the Site has been left to go natural since the golf course closed in 2009.
- A 150-foot vegetated buffer along headwater streams R/S and V will be implemented except as specifically reduced during Site Plan review. This 150-foot buffer does not apply to the improvement of the existing Miller driveway, which will become an access road into the Winery Restaurant and Vineyard Cottage area. Permeable surfaces will be used as practicable in this area. It is noted that several units in the approved and current plan are inside the 150' buffer.
- A naturally vegetated area of 750 feet surrounding the pool (Wetland U) will be maintained. No more than 25% of the zone within 100 to 750 feet from the vernal pool will be disturbed.
- A solid waste management plan that addresses the accessibility of waste and refuse on the Site to subsidized species (raccoons, skunks) will be implemented.

3.5 NATURAL RESOURCE MANAGEMENT PLAN

The Natural Resource Management Plan prepared for the Silo Ridge Resort Community by Audubon Environmental employs organic and Integrated Pest Management strategies, and other Best Management Practices that protect both aquatic and

terrestrial resources. This synergistic approach affords maximum protection of resources. The focus is on prevention, management and monitoring to protect resources, as follows:

1. **Prevention:** Prevent environmental problems before they occur by educating the staff, designing the golf course and community from an environmental perspective, implementing source prevention practices, and using ecological risk assessment protocols to identify appropriate pesticides for use at the golf course and community.
2. **Management:** Manage potential problems at the source. Implement a construction management program, implement an Integrated Pest Management program, and incorporate land use best management practices. The program relies on redundancy of resource protection strategies, an example being the use of “Best Management Practices (BMP) trains”. A BMP Train is a protection system in which individual BMPs are linked in sequence like the cars of a train. Therefore, the more BMPs that are incorporated into the system, the better the performance of the treatment train.
3. **Monitoring:** Conduct an environmental monitoring program that evaluates the effectiveness of the management program. This includes evaluating the golf course and community protocols each year to ensure that prevention and management strategies are ongoing. This management approach has proven effective throughout the US, Asia, Canada, and Europe.

3.6 HABITAT MANAGEMENT PLAN

The objective of the HMP for Silo Ridge is to address specific concerns regarding the project’s potential effects upon on-site habitats and the resident or transient wildlife species that utilize these habitats. The Chazen Companies (“TCC”) developed the HMP to address potential risks to habitat quality and to describe the measures to be taken to mitigate these potential risks. The HMP was revised by Lisa Standley, Ph.D., Chief Environmental Scientist at VHB. A concurrent objective of the HMP is to address specific efforts to provide quality habitat for populations and assemblages of animal species that utilize the Site for critical habitat throughout all, or a portion of their annual life cycle.

Approach

The HMP utilizes information from on-site field investigations, and input from federal and state agencies, and local conservation groups.

To characterize/inventory the existing habitats and wildlife resources, TCC completed a Habitat Assessment in 2005. In total, seven field visits and 126 man-hours were dedicated to characterizing the existing Site conditions. It should be noted that many of these studies were focused on a specific task (e.g., delineating wetland boundaries), and not all of the time spent on-site was concentrated on inventorying existing habitats and wildlife resources. However, these studies were valuable for characterizing the vegetative communities and noteworthy observations of flora and fauna species were recorded during these efforts. TCC completed several intensive data collection efforts to inventory the existing habitats and wildlife resources on the Site during supplementary studies conducted in 2007. A total of 16 days and 244 man-hours were logged on-site during these supplementary studies. These supplementary studies primarily focused on determining the presence/absence of endangered, threatened, and/or rare and special concern (“ETR”) species at the Site. Focused ecological surveys conducted at the Site included an amphibian and reptile survey (including a timber rattlesnake (*Crotalus horridus*) survey), breeding bird survey, botanical survey, Phase I and II bog turtle (*Clemmys muhlenbergii*) surveys, and an Indiana bat (*Myotis sodalis*) survey. Correspondence from the NYSDEC dated May 9, 2005 indicated that Hill’s pondweed (*Potamogeton hillii*), a State-listed threatened species, is documented within NYSDEC Wetland DEC (AM-15), a portion of which is located within the Site and it is assumed that conditions within the wetland have not changed and that the plant still exists in this area. TCC completed additional visits to the Site in the spring of 2008 to review current Site conditions and assess habitat quality in support of the

management plans proposed. VHB completed additional visits to the Site in Spring and Summer 2013 to review the proposed management plans.

Investigations to identify management methods and habitat enhancement options (e.g., planting palettes) included reviews of the applicable scientific literature and technical reports focusing on best management techniques for varied habitats and species. The HMP for the Site utilizes the following multi-step approach to address habitat quality for wildlife populations at the Site:

1. Characterize and Inventory Existing Habitats.
2. Identify Critical and Sensitive Habitat and Wildlife Resources.
 - Critical habitats for wildlife populations of special management concern.
 - Sensitive habitats that may be degraded by development at the Site.
3. Conserve Existing High Quality and Critical Habitat.
4. Restore Damaged Habitats to Restore Ecological Services.
5. Enhance Existing Habitats Affected or Potentially Affected by Development.
6. Mitigate Effects of Site Development (where possible)
 - Conservation Buffer
 - Water Quality Buffer
 - Mitigation Structures
 - Terrestrial Habitat Enhancements
 - Aquatic Habitat Enhancements
7. Protect Sensitive and Productive Habitats During Operations and Activities at the Site.

The HMP addresses both habitat/species viability issues (including habitat enhancements) and buffer management issues (buffer creation and maintenance). These objectives are intertwined but not indistinguishable. Good buffers provide protections against, and mitigation of, the potentially damaging effects of sedimentation, thermal inputs, and nutrient and contaminant loadings associated with storm water flow, irrigation runoff, and general habitat disturbances (Fischer and Fischenich 2000). Habitats benefit from energy inputs, in the form of labile carbon in leaf litter, to support more productive aquatic food webs (Kominoski et al. 2007). Cooler waters also contain greater concentrations of oxygen for aquatic organisms. Good buffers also provide, in many instances, good terrestrial and aquatic edge habitat. However, good buffers require a certain degree of attenuation capability to be truly effective for the purposes expected of them. To that end, minimum requirements of width and vegetation type are identified for the two classes of buffers identified in the Buffer Management Plan.

Good habitat will provide ecological services to wildlife. Habitat-related ecological services are geared toward providing essential nesting, foraging and shelter areas for particular species of animals or assemblages of interrelated species. Good habitat may function as an effective buffer if there is sufficient area and attenuation capability. In certain instances, narrow strips of vegetation (e.g., hedgerows) provide valuable habitat for certain species of wildlife, in the absence of any water quality buffering capabilities. Contrary to performance criteria for buffers, minimal enhancements of existing habitat can result in a measurable increase in ecological services to a few dependent or transient individuals or an isolated subpopulation of animals.

The HMP and its accompanying Buffer Management Plan have been designed to provide sustainable habitat services to resident wildlife species on the Site. Maintenance schedules for mowing will be effective at maintaining grassland functionality. Forest management directives will be effective at preserving the integrity of sensitive riparian, wetland and vernal pool habitats contained within. The establishment of transitional grasslands with tree and shrub plantings in areas adjacent to tall grass will allow for the perpetual maintenance of a heterogeneous, irregular and soft edge between grasslands and forests thereby minimizing the damaging actions of nest predators and maximizing the benefits that a productive edge habitat can provide for both woodland and grassland species (Gillihan 2000). On the golf course, modified turf maintenance activities described in the IPM will protect the sustained productivity of riparian and aquatic edge buffers and habitat enhancement areas.

(Note: All bibliographic references in the text are more completely identified in the accompanying HMP)

3.7 BUFFER MANAGEMENT PLAN

The Buffer Management Plan's primary objective is to mitigate the effects of Site development. Activities leading to the degradation of aquatic and wetland resources can be mitigated to a large extent through efforts which intercept and redirect the environmental fate and transport processes that carry excess nutrients, mobile contaminants and eroding soil particles to sediment sinks in these natural features (Lowrance et al. 1984; Peterjohn and Correll 1984). Thermal pollution can be mitigated in some instances by simply replacing tree and shrub canopy coverage along stream banks to increase shading of affected streams (PADEP 2005). Damaging thermal hydrologic shocks to aquatic systems that originate as heated storm water runoff from impervious surfaces in a developed plot of land require considerably greater efforts to ameliorate the harmful effects to receiving waters. The SWPPP for the Site is the mitigation tool for addressing storm-related events where channeled overland runoff can be captured and attenuated prior to its introduction to surface waters. SWPPP design is not addressed in the Buffer Management Plan except to identify the proposed locations of SWPPP storm water management basins ("SWMB"), and to identify the extent of a 30 foot buffer area surrounding the draft design wet pool, attenuation basins, and adjacent terrestrial habitat. A standard planting list for SWMB wet pools/attenuation basins is also provide in Appendix G. The Buffer Management Plan will focus on reducing sediment, nutrient, and contaminant transport and loading associated with overland sheet flow and ephemeral drainage swales that are not captured by the SWPPP.

Development activities leading to habitat loss are more difficult to mitigate against, and in absolute terms lost habitat is difficult to recover. Wherever possible, existing high quality habitat will be targeted for conservation and insulated from all degrading effects of development (e.g., the approach used for NYSDEC administered Adjacent Areas for wetlands). However, ecological services can be conserved, or alternatively replaced, to varying extents by enhancing habitats that have suffered injury or damage in the past. In this manner the Buffer Management Plan will focus on reestablishing canopy cover for on-site streams and on enhancing aquatic edge and shoreline habitats with a variety of terrestrial and aquatic planting groups.

3.8 STORMWATER MANAGEMENT AND EROSION CONTROL

A master SWPPP has been prepared for the layout of this Master Development Plan in accordance with applicable NYSDEC regulations. As part of the Site Plan review process, a detailed final SWPPP will be prepared. The SWPPP will also include a detailed erosion and sediment control ("E&SC") plan designed in accordance with and approved by the NYSDEC. This plan will identify specific E&SC measures that will be implemented to protect adjacent aquatic resources. This will include a Phasing Plan for soil disturbance.

Erosion control measures are designed to minimize soil loss. Sediment control measures are intended to retain eroded soil and prevent it from reaching water bodies or adjoining properties. Temporary erosion and sediment control measures that will apply during construction generally include:

- Stabilized Construction Entrance
- Dust Control
- Temporary Silt Fence
- Temporary Soil Stockpile
- Temporary Seeding
- Stone Inlet Protection Barrier
- Erosion Control Blanket
- Stone Check Dams
- Temporary Sediment Basin

Permanent erosion and sediment control measures to be implemented after completion of construction include the following:

- Establishment of Permanent Vegetation
- Rock Outlet Protection

Other required mitigation measures are identified in both the SEQRA Findings and the Special Use Permit Findings for the project, and include:

- Cutting of existing vegetation will be minimized by field surveying each building site including trees 8" caliper and larger prior to Site Plan submission;
- Roadways are aligned along contour lines to reduce grading impacts and steep road/drive grades. Impacts from grading activities will be temporary and be fully mitigated by use of low retaining walls, soil stabilization and re-vegetation with native species where appropriate.
- Housing units located on steep slopes may be designed with terracing. The floor grades will be split from front to back or back to front adjacent to topographic slopes.
- A more detailed geotechnical evaluation will be performed in support of final site design during Site Plan review.
- Use double silt fencing in all areas of special concern, i.e., all wetlands and upslope of the- Amenia Cascade Brook and all other streams.
- Limit construction traffic/ heavy equipment to specifically marked travel lanes only, to minimize compaction of soils on steep slopes greater than 15%.
- Erosion control measures will be installed before construction of the project begins. Stabilized construction entrances, silt fences, sediment traps and water quality basins will be constructed to prevent soil erosion, sedimentation in surface water bodies, and tracking of soil onto adjacent roads. All erosion and sediment control structures will be designed in accordance with the New York State Standards and Specifications for Erosion and Sediment Control, August 2005.

Stormwater pollutant controls utilized during construction will include, but are not limited to, the following:

- Stabilization of construction entrances to reduce the tracking of sediment onto public roadways and permanent traffic corridors to avoid "routes of convenience" that are potentially more detrimental.
- Employment of dust control measures including the use of water trucks to reduce dust generated on site.
- Temporary stockpiling of materials, such as topsoil, in areas away from storm drainage, water bodies and/or courses, and encircled by silt fence barriers to prevent sedimentation.
- Placement of silt fencing, along the perimeter of areas to be disturbed to reduce sediment loss.

- Temporary seeding and mulching on all disturbed areas, including topsoil stockpiles, where there will not be any further disturbance for longer than 7 days to minimize erosion and sediment loss.
- Placement of stone inlet protection barriers consisting of concrete blocks surrounded by wire mesh and crushed stone around catch basins to keep sediment from entering the catch basins and storm sewer system.
- Installation of erosion control blankets on all slopes exceeding 3:42:1 to provide temporary erosion protection, rapid vegetative establishment, and long-term erosion resistance to shear stresses associated with high runoff flow velocities associated with steep slopes.
- Installation of stone check dams within drainage ditches to reduce the velocity of stormwater runoff, to promote settling of sediment, and to reduce sediment transport offsite.
- Construction of temporary sediment basins to intercept sediment laden runoff and reduce the amount of sediment leaving the disturbed areas and to protect drainage ways, properties, and rights-of-way.
- Soil disturbances will be limited to 5 acres or less at any one time. If more than 5 acres will be disturbed at any one time, permission form a 5-acre waiver from the NYSDEC will be required.

Other measures to maintain stormwater quality are as follows:

- Material resulting from the clearing and grubbing operation will be stockpiled up-slope from adequate sedimentation controls.
 - Areas designated for equipment cleaning, maintenance, and repair will be protected by a temporary perimeter berm.
 - Detergents will not be used for large scale washing (i.e., vehicles, buildings, pavement surfaces, etc.).
 - A Spill Prevention and Response Plan will be developed for the site detailing the steps that need to be followed in the event of an accidental spill.
 - Construction materials shall be stored in a dedicated staging area designed to minimize the impacts of the construction materials on stormwater quality.
 - Weekly and post-storm event inspections of all erosion and sediment control measures by a NYSDEC qualified inspector.
 - Compliance with NYSDEC Phase II Stormwater Management requirements.
 - Using pervious materials on many sidewalks and patios.
 - Using pervious materials at the Winery Restaurant parking and draining through a buffer planting area.
 - Implementation of the NRMP and HMP.
- Riparian and bank stabilization improvements to ~~–~~ Amenia Cascade Brook, along with significant floodplain re-vegetation in this area. The NYSDEC will review mitigation project activities in close proximity to the stream.
 - Most of the existing golf course provides for no buffers along wetlands or streams; as mitigation, the HMP provides for water feature improvements, at least some vegetated buffers around most water resources, and the riparian enhancements listed above.
 - Treat all stormwater generated from the commercial and residential development and the roadways serving that development to the East of Hudson standards as shown in Chapter 10 of the New York State Stormwater Management Design Manual (August 2010). These are the treatment standards required within the New York City watershed, a phosphorous restricted watershed and because of the sensitivities of the ~~–~~ Amenia Cascade Brook and Wetland AM-15. It is the preference of the Town to utilize a “treatment train” ~~which includes a series of vegetated stepped biofiltration wetlands for the stormwater outflow to pass through prior to directly discharging into the receiving waters of Amenia Cascade Brook and Wetland AM-15. These stepped biofiltration wetlands will further reduce the pollutant loads and will reduce the flashiness of stormwater entering the receiving waters. If, at the time of Site Plan review, the applicant wishes to use an alternative management practice, the applicant must demonstrate the~~

~~alternative will achieve a pollutant removal and detention of water that is equal to or greater than the stepped biofiltration wetlands. It is noted that a treatment train design approach is not necessary for stormwater management facilities which discharge into receiving waters which ultimately convey run-off (i.e. existing tributary upstream ponds, stream, drainage ditches, etc.) into Amenia Cascade Brook or Wetland AM-15 in order to minimize impacts to the existing watershed. The project includes/proposes implementation of multiple stormwater ponds, dry wells and underground sand filters to meet the East of Hudson standards and thereby to achieve the pollutant removal and detention of water that is equivalent to the Town's preferred biofiltration practices.~~

- In the South Lawn neighborhood area adjacent to Wetland AM-15 certain developed areas will slope away from the Wetland, ~~and any proposed underground chambers or cleaning devices are being secondarily run through stepped bio-filtration to clean the storm water.~~
- Locating stormwater ~~ponds-management practices~~ at least 100 feet from the ~~-~~Amenia Cascade Brook and Wetland AM-15.
- Retaining ~~all-most~~ existing forest area within buffers and on undeveloped slopes.
- Re-vegetation of the adjacent hillside south of the Miller house which slopes down to Stream R/S with plants that will stabilize the slope and prevent erosion.
- Stream V (channel and banks) just north of Route 44 and south of Route 44 just before it enters the ~~-~~Amenia Cascade Brook exhibits severe erosion. Bank stabilization and re-vegetation, along with removal of the existing brush and other debris from the banks of the stream is recommended.
- Require a 150-foot vegetated buffer along headwater Streams R/S and V unless the applicant can demonstrate during Site Plan review that a buffer of less than 150 feet in limited areas is needed. This 150-foot buffer does not apply to the proposed improvement of the existing driveway of the house, which will become an access road into the Winery Restaurant and Vineyard Cottage area. Permeable surfaces will be used as practicable in this area. It is noted that the Winery and several residential units in the prior approved MDP and current plan are inside the 150' buffer.
- Hill's pondweed – Utilize East of Hudson stormwater design for water quality. The East of Hudson stormwater standards were specifically targeted to maintain water quality in Wetland AM-15 and therefore maintain the habitat of Hill's Pondweed which depends upon clean, non-eutrophied waters.

4.0 INFRASTRUCTURE

4.1 Roads, Site Access, & Circulation

4.2 Water

4.3 Sewer System

4.4 Parking Management Strategy & Transportation

4.1 ROADS, SITE ACCESS & CIRCULATION

The current entrance to the golf course will remain and will serve the Sales Center, General Store, and the Village Green core area, including the ~~Lodge~~, Clubhouse/Lodge, and condominium and town home units. That entrance will also serve as the main entry point for the single-family units in the Village Green, South Lawn, Golf Villas and Estate Home neighborhoods at the base of the western hillside. The existing entrance from Route 22 on the adjoining parcel owned of record by Silo Ridge Ventures Property B, LLC/Charlem Valley Landfill Corp., will serve as an emergency access road for the Silo Ridge resort community Site and entrance to the golf maintenance facility. This access road and the golf maintenance facility will be

permitted by easement in favor of Silo Ridge. A connection between the east and west roadways will be maintained for emergency access and will also be used as a pedestrian path.

The northern portion of the Site, north of Route 44, will have two entry points for access to the Winery Restaurant and to the Vineyard Cottage units. The first entrance heading east on Route 44 will be at the top of DeLavernge Hill and will provide access to the Winery Restaurant, and the Vineyard Cottage units. The road continues eastward through the clusters of residential units and meets up again with Route 44, providing a secondary access point to this interior roadway.

Gates will be installed at all entrances to Silo Ridge, except that the proposed gate for the entrance at the top of DeLavernge Hill will not interfere with access to the Winery Restaurant and Artisan's Park Overlook. Rather, it would be placed on the access road to the Vineyard Cottage units located to the east of the entrance to the Winery Restaurant parking lot.

Roads throughout the community will be paved. Road profiles will vary depending on location. For instance, the more heavily traveled roads in the Village Green core area will be wider than those serving the more remote areas. Stone curbs may not be utilized in certain locations in order to promote drainage through vegetated swales. Sidewalks will be concrete pavers, bluestone, concrete or any combination thereof. Alternate pervious sidewalk materials will be evaluated. Pervious paving will be evaluated, for certain locations of roadway, such as the vineyard cottages, during Site Plan review.

Some typical road profiles will be as follows:

- Main Entrance North: Road (20' wide), 6" curb ~~at heading to~~ the Village Green core area, planting strip (5' minimum) with drainage swale where applicable, sidewalk (5') ~~on one side provided for access to the Village Green core and perpendicular parking around the Village Green core area.~~
- Roads A, B, D: Road (~~43'-16'~~ wide) ~~and~~ planting strip (5' minimum) with drainage swale where applicable, ~~sidewalk (5') on one side.~~ These roads will be rural in character. Road widths less than 20' will require Amenia Fire Department approval.
- Road C: Road (varies from 18' to 28' wide), 6" curb and parking ~~on along~~ one side of the Village Green core area (10' x 22'-18' perpendicular spaces) ~~at the Village Green area,~~ 6" curb at ~~South Lawn Neighborhood adjacent to wetland~~ the Family Activity Barn, planting strip (5' minimum) with drainage swale where applicable, sidewalk (5') on one side. These roads will be rural in character. Road widths less than 20' will require fire department approval.
- Road E: Road (18' to 20' wide), 6" curb and parking on one side (~~10' x 22' parallel~~) at the Village Green ~~are~~ town homes (10' x 22' parallel spaces), planting strip (5' minimum) with drainage swale where applicable, sidewalk (5') on one side. These roads will be rural in character.
- Roads ~~F, G,~~ H, I, K: Road (18' wide) ~~and~~ planting strip (5' minimum) with drainage swale where applicable, ~~sidewalk (5') on one side.~~ These roads will be rural in character. Road widths less than 20' will require Amenia Fire Department approval.

4.2 WATER

The projected average day water demand is approximately ~~420~~128,000 gallons per day (gpd) or ~~83-89~~ gallons per minute (gpm). ~~The anticipated maximum daily flow~~ The total target yield of water to be developed is approximately ~~240~~255,000 gpd (~~167-177~~ gpm) ~~with a maximum hourly flow of 607 gpm.~~

To meet the water demand of this project, groundwater sources must be capable of providing ~~467-177~~ gpm with the largest producing well out of service, and the proposed water treatment facilities must be capable of treating this volume. The distribution systems of the water treatment facilities will be designed to meet the anticipated maximum daily water demand. With the combined capacity of the Site's present groundwater wells totaling 283 gpm with the largest well out of service, the groundwater yield is sufficient to meet the anticipated maximum day demand for the project.

The project includes an onsite community water supply system consisting of new groundwater wells, well house water treatment facilities, a water storage tank and a distribution system. The water distribution system will consist of eight-inch water mains with approximately 185 individual service connections. Fire hydrants will be located along roadways. The water storage tank will be located directly south of the Winery Restaurant in the Driving Range area.

A Water-Works Corporation will be formed in accordance with the New York State Transportation Corporations Law, which will be responsible for the operation and maintenance of the public water supply system servicing Silo Ridge.

4.3 SEWER SYSTEM

An onsite wastewater collection and treatment system capable of treating ~~420~~115,000 gallons per day of wastewater will be constructed. The system will consist of a gravity collection and conveyance system supplemented by pump stations, low pressure sewers, and the wastewater treatment plant ("WWTP"). The WWTP will be constructed during the first phase of the project. The WWTP will be located on the north side of Route 44.

The projected wastewater flow is an average volume of approximately 115,000 gallons per day (gpd). For proposed layout of the sanitary system, ~~refer to~~ ~~on~~ the Overall Wastewater Master Plan, ~~refer to~~ Sheet U-1.

Gravity sewers have been selected in areas of the Site where practical. Low pressure sewers have been selected in areas where widely varying topography makes gravity sewers impractical. All low pressure sections of the system will ultimately empty into a gravity section or into a pump station. Each served building or house in the low pressure sewer areas of the collection network will be equipped with a grinder pump station that will convey wastewater to a low pressure collection trunk. There will be two pump stations that discharge to the same force main, which itself discharges to that portion of the gravity system flowing directly to the WWTP.

The WWTP will consist of advanced biological treatment, gravity settling of solids, advanced filtration to remove residual solids, and disinfection prior to a surface water discharge. The wastewater will be treated to intermittent stream standards, the highest level of treatment available, without treating to drinking water standards. In accordance with NYSDEC requirements, the WWTP will have multiple outfalls as part of the SPDES application. These outfalls will likely consist of an outfall to the Amenia Cascade Brook, as well as an outfall to an irrigation line for use in irrigating the golf course. Determination for the specific outfall discharge location will be based upon season and irrigation demand and will be further evaluated during the Site Plan and SPDES review process.

Treated water may be used to irrigate the golf course, a practice that is acceptable to the regulatory agencies. Tanks will be placed outdoors, with low-profile engineered covers for odor control. A building next to the tanks would contain the tertiary treatment processes (filtration and UV disinfection) and support facilities (office, chemical room, blower room, solids dewatering room, storage, etc.).

The wastewater treatment technology will meet all effluent quality requirements as required by NYSDEC. When met, these stringent standards will help preserve the water quality of the downstream Class C irrigation ponds, ~~Am~~ Amenia Cascade Brook

(Class Ct), and downstream water bodies. Onsite public health will be protected by disinfection of the effluent. The possible reuse of treated WWTP effluent for golf course irrigation, combined with captured storm water, ~~would will~~ eliminate the need to use potable water for irrigation. Since onsite wells will be used for potable water, this ~~would will~~ further reduce impact on the underlying aquifer. It should be noted that the Irrigation Pond is already a spring-fed water body, and some groundwater is therefore used for irrigation in that manner.

The WWTP is anticipated to be steel-frame, with roof and siding materials blending with the surrounding buildings and landscape. The low pressure sewer pump stations will be entirely subsurface, with only an at-grade access hatch for each. The community pump stations will be either entirely below-grade with an access hatch, or will consist of a small above-grade structure containing pumps and controls. Each of the community pump stations also will be equipped with an enclosed emergency generator with appropriate muffling, and will have sufficient landscaping, fencing, or architectural features to allow them to have a negligible visual impact. Pavement will be kept to a minimum, with enough paved area only to provide truck access and maneuvering for deliveries and solids hauling, and a small number of parking spaces for WWTP operators.

Odor issues will be mitigated by proper operation of aerated processes and by enclosing the treatment process inside a building or under covered tanks. The main treatment process tanks will be aerated and mixed to maintain oxygen levels and prevent septic conditions that lead to the generation of most offensive odors. Odor control technology options, if needed, include activated carbon or a scrubber. All other portions of the WWTP process are expected to yield negligible odors and will be subjected simply to standard ventilation and climate control in the building.

Any future equipment used for odor control would be located within the building. All ventilation will conform to the Ten States Standards, NFPA, and any other applicable standards.

A Sewage-Works Corporation will be formed in accordance with the New York State Transportation Corporations Law, which will be responsible for the operation and maintenance of the public sewer disposal system servicing Silo Ridge.

4.4 PARKING MANAGEMENT STRATEGY & TRANSPORTATION

Applicable Zoning Provisions and Other Standards

In pertinent part, Section 121-18 of the Town Zoning Law stipulates that the off-street parking requirements set forth in the Zoning Law do not apply in the Resort Development Overlay District. This ~~provision~~ recognizes the varying forms and circumstances of RDO District development, allowing for considerable discretion in determining the specific parking requirements for projects such as the Silo Ridge. In a similar vein, there are no specific industry standards, guidelines or recommendations regarding parking in a resort community with a mix of land uses integrated into a single plan of development, such as Silo Ridge.

Approach

Overall, provided parking will be sufficient to serve the development program. Although they are not strict requirements, Town Zoning Law parking requirements for individual uses in other districts serve as a good predictive base for the Silo Ridge's parking needs.

The mix of land uses at Silo Ridge presents opportunities for shared parking/captive parking and the application of parking management techniques. As is explained in the Urban Land Institute's report on "Shared Parking," the proximity of various land uses affects the cumulative parking requirements by reason of complimentary variations in the demand for parking at

different times of the day, days of the week, and weeks of the year. Silo Ridge examples include seasonal differences in the demand for parking for the golf course and temporal difference in parking demand for the golf course and the theater in the Family Activity Barn or Clubhouse bar.

In addition to shared parking (where parking for different land uses varies with time), the Urban Land Institute shared parking report recognizes the concept of “captive parkers,” where persons are effectively engaged in multiple land-use activities at one time, but count as only a single parking occurrence. For example, many Silo Ridge residents whose homes are within a convenient walking distance of the Clubhouse and other Village Green amenities will find it more convenient to leave their cars in their garages and walk to the village green, thereby not registering as parking at the Village Green amenities.

Finally, there is also some potential for parking reductions associated with transit use, as the development is located within 1/2 mile of the Wassaic Metro-North train station. Shuttle service will be provided between the resort community and the Wassaic Metro-North train station as well as the Hamlet of Amenia to accommodate residents of the ~~resort community development~~ who may wish to avail themselves of Village amenities or the train’s connection to places of employment. This will also provide opportunities for guests and employees to travel to and from the ~~resort community development~~ without needing to drive and park.

Another factor which influences the parking requirement is the valet parking at the Village Green core area of the resort community. This will allow for a greater number of vehicles to be stored in a given area (as opposed to self-park arrangements), while also allowing for a more effective sharing of parking resources among a greater number of land uses. Vehicle storage capacities are now accounted for and valet queuing areas have been identified in relation to the land uses which will be supported with this service.

Highlights of Provided Parking

As detailed below, the overall allocation of parking for almost all land uses will exceed what is called for by traditional requirements under the Town Zoning Law; this will leave a balance of parking that can be made available as and when required for shared parking and parking management strategies such as valet parking for the few occasions when the need arises.

Base Parking Requirements

Single-Family – 2 spaces per dwelling unit: 159 units, 318 spaces required (All homes have 2-car garages with apron space for an additional two vehicles out front, 318 spaces provided, with 318 additional but uncounted spaces)

Condominiums – 1.5 spaces per dwelling unit: 52 units, 78 spaces required (Underground parking provided for ~~54-78~~ vehicles, convenience condo parking for 6 vehicles, 8 convenience parking spaces and covered parking barn provided for 16 vehicles)

Town Homes – ~~2-1.5~~ spaces per dwelling unit: 13 units, ~~26-20~~ spaces required (10 convenience parking spaces and covered parking barn provided for 16 vehicles)

Winery Restaurant – 1 space for every 3 seats: ~~34-27~~ spaces required (34-space lot provided)

Family Activity Barn – 1 space for every 3 seats of seating area and 1 space for every 200 sf of general assembly area: 32-seat theater and 3,850 sf of general assembly area, 30 spaces required (10- convenience spaces ~~lot~~ provided in front of the activity barn with an additional 69 spaces provided in the lot located 400 feet to the north; ~~—~~49 spaces will be available for other usesuse by other development components)

Village Green Amenities VHB redo these numbers as needed

- 1 space for every 200 sf of general assembly area: 17,750 sf, 89 spaces required

- 1 space for every 250 sf of retail area (4/1,000 sf): 6,062 sf, 24 spaces required
- 1 space per bedroom for dwelling units (lodging) of less than 1,000 sf: 5 Lodging units, 5 spaces required
- 1.5 spaces per bedroom for dwelling units (lodging) of more than 1,000 sf: 16 Lodging units, 24 spaces required
- 1 space for every 333 sf of office space: 650 sf of office space, 2 spaces required
- 1 space for every gatehouse employee: 1 gatehouse employee, 1 space required
- Total Village Green Amenities: ~~145-146~~ spaces required, ~~115-57~~ spaces provided (~~25-23~~ at the Sales Center and General Store, ~~36~~ convenience clubhouse parking for 4 vehicles, ~~-26~~ on-street parking spaces at the Village Green and 4 in front of the fitness center)

TOTAL PARKING REQUIREMENT FOR USES IN THE RDO DISTRICT IF CALCULATED UNDER SECTION 121-38 OF THE ZONING LAW – ~~636-619~~ SPACES REQUIRED: 680-622 SPACES PROVIDED²

Parking for the ~~g~~Golf ~~m~~Maintenance ~~f~~Facility on the adjacent parcel, which is located in the OC District, will be provided at a rate of at least 1 space for every maintenance employee expected to be on the property at peak times. Currently, a maximum of 30 employees is expected on the Site at any one time and a 34-space maintenance parking lot is proposed, bringing the total Site requirement to ~~666-649~~ spaces with ~~714-656~~ spaces provided.

- Valet parking is proposed for the fitness center, where the Zoning Law indicates 19 spaces are required but only 4 are provided, and the 21 ~~l~~odging units (~~Underground c~~Convenience ~~Cl~~ubhouse parking provided for ~~24-4~~ vehicles). Valeting the balance of the fitness parkers (15 vehicles) and the lodging parkers (~~5-25~~ vehicles) to the 69-space Family Activity Barn lot will reduce the Village Green demand to below the ~~445-106~~ spaces without exceeding the capacity of the Family Activity Barn lot.
- It is noted that approximately ~~30-49~~ additional vehicles can be accommodated in the Family Activity Barn lot and at the Village Green through the use of valet parking, if needed.

5.0 HOMEOWNERS ASSOCIATION MANAGEMENT STRUCTURE

HOMEOWNERS ASSOCIATION (HOA) MANAGEMENT STRUCTURE

Silo Ridge Resort Community Master Home Owners Association (the “Master HOA”), will be a master home owners association responsible for managing and governing the community as a unified entity. The Master HOA will also be responsible for ensuring compliance with the conditions of the Amended Findings Statement applicable to the common areas and facilities of the Silo Ridge community, and the conservation easement. The Master HOA documents will set forth general standards for the operation and maintenance of the community that must be complied with by all constituent individual homeowners and condominium associations (each “Component”). No portion of Silo Ridge, except the WWTP and the facilities of the Sewage-Works Corporation, and the facilities of the Water-Works Corporation, will be excluded or will be exempt from membership in the Master HOA.

The Master HOA will have responsibility for maintaining, operating and managing the common areas and facilities of Silo Ridge (the “Common Areas”). The Common Areas will include but will not be limited to, all roads, infrastructure, parking lots, landscaping, irrigation, signage, wetlands, watercourses, trails, open space and other common facilities at the Site. The Common Areas will include the areas encumbered by the conservation easement (except the golf course which will be separately owned, as described below), and the buffer and management areas subject to the HMP and NRMP (outside the golf course).

The Master HOA will have direct oversight over the Sewage-Works and Water-Works Corporation.

The Board of Directors of the Master HOA will be responsible for the governance of the Master HOA and will retain a property manager to maintain the Common Areas. The Master HOA will collect an escrow fee from home owners for the post-construction review by the Town Engineer of inspection and maintenance reports required in connection with the SWPPP and will be responsible for the payment of the fee to the Town. The Master HOA will also be responsible for the ongoing care, maintenance, life-cycle and eventual replacement of the vegetative screening contained in the landscaping plan for the project. The Master HOA will also contract with a private hauler to remove all solid waste and recyclables from Silo Ridge in compliance with all applicable federal, state and local rules and regulations. The Master HOA will also be the main liaison with the organization holding the conservation easement organization on the open space.

The individual Component associations will be governed by their own Board of Directors/Managers (see attached chart) who will be responsible for governance of the buildings and amenities within each Component.

There will be five (5) homeowners association Components (for the Estate Homes, Golf Villas, Village Green single-family homes, South Lawn homes, and the Vineyard Cottages), and up to eleven condominium Components, ~~with for condominiums, town home, lodge and club associations, (nine for the flats and duplexes near the Village Green, one for the Hotel Condominiums in Buildings V-3 and V-4, and one for the Hotel Condominiums in the Clubhouse and for Building V12).~~

Costs and Expenses

The costs and expenses of operating the Master HOA and of making capital improvements to the Common Areas shall be included in the Master HOA Budget, which will be prepared annually. There shall be an allocation of the operational costs and expenses and capital improvement costs (“Master HOA Common Maintenance Charges”) among the various Components, to be collected as part of the Common Expenses of each Component as described in each Component’s Declaration and By-Laws. Each Component will be required to contribute its pro-rata share of the Master HOA Common Maintenance Charges to the Master HOA, in accordance with applicable New York law.

Individual Components shall also prepare budgets annually which will include the costs and expenses of operating and maintaining and of making capital improvements to the buildings and amenities (e.g. common entrances and hallways, swimming pool for the specific use of the unit owners of the Component) within the Component. Each individual Component’s annual budget will also include the Component’s pro-rata contribution to the Master HOA. These costs and expenses will be solely allocated among Component Owners (“Component Common Charges”).

The Master HOA will collect Master HOA Common Maintenance Charges from each of the respective individual Component’s Board, pay bills, regulate the use and enjoyment of the Site in accordance with all governmental approvals, address infra-structure repairs, and maintain the Site. Each Component will collect Component Common Charges from owners and pay bills for Component expenses. Each Component Board will be governed by the respective owners thereof, subject to the terms of the Master HOA, and will make decisions solely affecting that particular Component.

Upon the sale and conveyance of a home lot or condominium unit, the purchaser becomes a member of the Master HOA as well as the individual Component where the lot or unit is located.

Upon subsequent transfers, the new owner automatically becomes a member of the Master HOA and of the Component. No member may exempt himself from contributing toward the Master HOA Common Maintenance Charges or Component Common Charges, for example, by waiving the use of improvements maintained by the Master HOA or by the Component.

Governance

Each Component of the Master HOA will elect or designate a Member of the Board of Directors of the Master HOA, and the total number of members of the Master HOA Board of Directors shall equal the total number of Components within the

Master HOA. Each Board member serving on the Master HOA Board will also be a member of the Component Board. Each Board Member serving on the Master HOA Board shall be entitled to one (1) vote, and each vote will be weighted equally.

The Board of Directors of each Component Board will be elected by the Component's members (all owners comprise the members of the Component and the Master HOA). Each Component owner shall be entitled to one (1) vote or in the case of a condominium Component, one (1) vote or the number of votes equal to each unit owner's percentage of Common Interest. The Common Interest will be determined in accordance with all laws and regulations of the State of New York. There will be flexibility within each Component to adjust and revise the weight of voting rights of Component members during the development of Silo Ridge to take into account such factors as the number of owners of its respective Components, disparity in sizes and locations of lots and units and other relevant factors.

The sponsor shall have the right to designate a majority of the Board of each Component until at least 95% of the lots or units in the Component have closed title. The sponsor shall also have the right to designate a majority of the Master HOA Board until at least 95% of the lots and unit in all of the Components have closed title. Initially, the sponsor will retain a majority ownership of Silo Ridge and will be engaged in selling lots, homes and condominium units. Following the expiration of the Initial Control Period (as such term will be defined in the respective governing documents), control will then be in the hands of the respective home owners/condominium unit owners. The Master HOA documents will provide a mechanism to redefine the Initial Control Period if, after a reasonable time period, the Components have not been developed.

Owners of the condominiums, for example, will be members of Component associations, and each Component association will have the right to be represented by one (1) member of the Master HOA Board. Each condominium unit owner shall have the right to cast one (1) vote and will be responsible for Master HOA Common Maintenance Charges and Component Common Charges.

The golf course will be part of the Club Component. The Club Component will have direct oversight of the NRMP, HMP and the conservation easement as they pertain to the golf course. The Club Component will also be responsible for ensuring compliance with the conditions of the Amended Findings Statement applicable to the golf course.

Dispute Resolution

The Declaration and By-laws and Rules and Regulations of the Master HOA will set forth a structure and mechanism to govern the Master HOA. In turn, each Component will be subject to its own By-laws and Rules and Regulations.

6.0 ZONING COMPLIANCE

THE RESORT DEVELOPMENT OVERLAY DISTRICT (THE "RDO")

The Site is currently zoned Resort Development Overly (RDO) District, with the Rural Agricultural (RA) District, and Office/Commercial/Industry Mixed-Use (OC) District ~~as~~ the underlying zoning districts.

As more fully set forth in Section 121-18 of the Zoning Law, the RDO District provides for master planned development of large properties to promote resort development, tourism, recreation, and open space protection. The regulations of the RDO District supersede the use and dimension regulations of the underlying district ~~in cases where there is a conflict~~. Among the allowable uses in the RDO District are the following:

- All uses allowed in the RA District;

- Lodging facilities, Hotel-Condominium units, meeting rooms, and conference facilities;
- Restaurants;
- Retail, recreational, and service businesses associated with the resort use;
- Riding academy and other equestrian uses;
- Such other uses that may be approved by the Planning Board in issuing a Special Permit for a development plan consistent with the purposes of the RDO District.

The RDO District requires the preparation of a Master Development Plan for any proposed use that is not allowed in the underlying RA zoning district. According to Section 121-18~~(C)~~(3) (b) of the Zoning Law, the Master Development Plan must include a conceptual site plan showing an open space system (including preserved open space), access and road layouts, proposed buildings (including their uses, footprint, height, and total square footage), proposed recreational facilities, proposed utilities (including water supply and wastewater disposal), and a phasing plan if the project is to be built in phases. Where buildings will be visible from public roads, bicycle trails, or other publicly accessible areas, submission of proposed elevations of buildings and proposed architectural standards and covenants is required. Architectural standards and covenants may also substitute for any of the design standards that would otherwise be applied to the RDO District. Sign standards may also be developed as part of the architectural standards and may substitute for other signage requirements in the Zoning Law. The Master Development Plan must also contain a management plan for the future management of the proposed development as a unified entity.

As set forth in Section 121-18~~(C)~~(2) of the Zoning Law, the RDO District also requires the submission of a conservation analysis to the Planning Board; however, for projects for which a DEIS has been submitted prior to adoption of this provision, the DEIS substitutes for the conservation analysis. Here, the environmental analysis in the previously accepted DEIS serves as the conservation analysis for the project.

The RDO District contains a provision (Section 121-18C-(5) of the Zoning Law) limiting retail establishments that sell goods and supplies to no more than 5% of the total footprint of the proposed buildings within the development. This limitation applies to retail stores, and not to hotel, spa, or restaurant uses. This MDP includes approximately 2,000 sf of retail space in the General Store, which provides a retail to footprint ratio of +/- 0.25%, in compliance with the foregoing.

The RDO District requires a minimum of 80% of the total land area of the parcel to be preserved by a conservation easement as open space, with a maximum impervious surface coverage of 15% of the total site area. The RDO District gives priority in open space protection to land within the Scenic Protection Overlay (SPO) and Stream Corridor Overlay (SCO) Districts, especially the view to and from DeLavernne Hill, ridgelines, historic resources, unique ecosystems, prime agricultural land, and water resources. This MDP includes proposed open space of 80% of the total land and area to be protected by a conservation easement, and 5% +/- impervious coverage proposed for the total site area. Open space land preserved in the RDO District may include farmland and farm structures, ponds and streams, and recreational land such as golf courses, cross-country ski trails, equestrian trails, and hiking trails. As a condition of the Amended Findings Statement, all deeds for the home lots and for condominium units shall expressly reference the conservation easement. As a further condition of the Amended Findings Statement, restrictions will be added to the governing documents of the Master HOA and each Component association as necessary to implement the requirements of the conservation easement. Protected open space does not include land lying under non-agricultural structures taller than 20 feet, nonagricultural buildings larger than 200 square feet in footprint area, or land that is covered by impervious surfaces other than trails or golf cart paths. In addition to the 80% open space requirement, the RDO District also requires open space buffers of at least 100 feet from any existing residential uses that are not within the RDO District. Such buffers may be wooded or open and may contain trails, but may not contain any buildings or other recreational structures. This requirement does not apply where residential uses to be buffered lie across a State or County highway from the RDO District.

The Planning Board may waive the 35-foot height limit in the RDO District, provided that a visual impact analysis is performed, to ensure that no significant views are adversely impacted, that any impacts on views are mitigated to the maximum extent practical, and that the building is sited to minimize visual impacts by taking advantage of natural topography. ~~Buildings V3, V4, V5 and V6 as shown on the Revised Plans. No buildings~~ require height waivers. As noted above, no building is permitted to be more than 5 stories in height, counting the stories from average grade at the front of the building, and excluding any story contained within a roof. All buildings at Silo Ridge will comply with the limitation on the number of stories. An analysis of the project's potential visual impacts, which includes photosimulations, renderings, an architectural and landscape character booklet, and a video to demonstrate the potential visibility, will be prepared and submitted as part of Site Plan review. The analysis will illustrate which buildings will be visible from the viewpoints selected by the Planning Board and the viewpoints from which buildings that need height waivers will be visible.

The density and dimensional standards in Section 121-11 of the Zoning Law, and all other density and dimensional regulations in the Zoning Law other than those contained in Section 121-18, do not apply to the RDO District and are superseded by the RDO. Other dimensional and density standards are approved by the Planning Board in the Master Development Plan, based upon the physical characteristics of the site, the character of the proposed development, relevant performance standards contained within the Zoning Law, and the requirements of the SEQRA process. The proposed density/dimensional/bulk table for Silo Ridge, previously set forth in the FEIS, is now provided on page 36 of this book.

The primary purpose of the Gatehouse will be for personnel to greet owners and their guests, provide directions or instructions to guests, and identify persons entering the Site and their intended destination(s). It will be necessary to be an owner or owner's guest, or a guest of the Lodge or of the golf course, to enter the Site. Silo Ridge operator personnel shall have the authority to grant or deny access to the property. Moreover, resort community operator personnel shall have the authority to deny access and to remove persons who are disruptive to other people visiting the resort community and to the operation of the resort community, and who have misrepresented their stated intent or purpose for visiting the resort community.

~~In addition to the waiver of the 35' height limitation noted above, p~~Permission is required to maintain the roads as private streets and to install gates at all four entrances to the Site (except the Winery Restaurant); to install a gate at the entry way of the WWTP; to disturb approximately ~~20.43±~~ acres of slopes greater than thirty percent (30%) (See "B" below); to fill two small wetland areas not regulated by the Army Corps of Engineers ("ACOE") or NYSDEC; and to build a portion of the access road to the Vineyard Cottages within the 100 foot residential open space buffer.

The layout of streets, blocks, public spaces, and buildings in the RDO District are required to follow the principles of Traditional Neighborhood Development ("TND") described in Section 121-12.1 of the Zoning Law to the extent practical, unless the Planning Board determines that this requirement does not apply. As provided in Section 121-12.1~~(H)~~(2), the requirements of subsections B, D, E, F, and G of that Section may nevertheless apply if such requirements are consistent with the proposed resort community use of the property.

Silo Ridge does not comply in some respects with the TND principles with regard to the Estate Homes, Vineyard Cottages, private streets, and gated entrances to the Site. The Planning Board previously determined that full compliance with the TND principles is not practical for, and is not consistent with, this project.

Compliance with Other Zoning Requirements

In addition to the foregoing, there are several provisions in the Zoning Law that require the Planning Board to make findings about the project's impact on scenic resources and steep slopes.

Section 121-36(A), Steep Slope Regulations:

Section 121-36 of the Zoning Law requires the implementation of certain erosion and sediment control mechanisms and practices on steep slopes greater than 15% to avoid soil erosion and sedimentation.

Section 121-36 also prohibits any disturbance on slopes of 30% or greater, including cutting of vegetation or construction of driveways unless: (1) the applicant can demonstrate that there is no feasible alternative and that the impacts of land disturbance will be fully mitigated by the best available engineering, erosion control, and visual impact mitigation practices; or (2) the applicant can demonstrate that the impacts of disturbing these steep slopes do not negatively impact visual resources, that the areas impacted are part of a broader plan for a site that weighs and balances the full range of environmental issues, and that such disturbance is fully mitigated by engineering and soil erosion control practices. The project anticipates disturbance to approximately ~~34.43±~~ acres of slopes greater than 30% and approximately ~~440-123±~~ acres of slopes between 15% and 30%.

To reduce impacts to 30% slopes or greater, under this revised MDP, the single family Estate Homes will be located further to the east, where less disturbance will occur to slopes greater than 30%. Tree clearing will also be reduced by approximately 0.9 acres. However, this will increase impervious surface coverage, as the development is spread over greater areas of the Site. Previously proposed single family homes at the area of headwaters to Wetland J have been eliminated and impacts to more than 800 lineal feet along Stream J have been eliminated.

Response 3.1-5-GP33 in the FEIS describes the engineering practices that will be implemented to ensure that there are no adverse impacts resulting from grading and development on slopes of 30% or greater.

With respect to visual impacts, a confirmatory visual analysis will be conducted during Site Plan approval of each phase of the project.

Section 121-14, Stream Corridor Overlay District

Section 121-14 of the Zoning Law, ~~the~~ Stream Corridor Overlay District ~~regulations~~, requires site plan approval for activities involving more than 10,000 square feet of grading within the SCO District. The Project will involve approximately ~~6-7.34±~~ acres (~~261,360~~319,740 sf) of grading within the SCO along ~~Amenia/Cascade-Amenia Cascade~~ Brook and therefore requires site plan approval under this provision. Within the SCO District, the Planning Board may grant Site Plan approval only if it finds that, with appropriate conditions attached, the proposed activity will not result in degradation of scenic character and will be aesthetically compatible with its surroundings, and will not result in erosion or stream pollution from surface or subsurface runoff.

The SCO District includes all land lying within 150 feet of the top of the bank on each side of the ~~Amenia/Cascade-Amenia Cascade~~ Brook. No principal structure can be located within 100 feet of the ~~Amenia/Cascade-Amenia Cascade~~ Brook, and no accessory structure 200 square feet or larger can be located within 50 feet of the ~~Amenia/Cascade-Amenia Cascade~~ Brook. Development in the SCO District is only permitted if it will not result in degradation of the scenic character or the stream, and will not result in erosion or stream pollution from surface or subsurface runoff.

In making a determination as to whether development in the SCO District will result in erosion or stream pollution from surface or subsurface runoff, the Planning Board shall consider slopes, drainage patterns, water entry points, soil erosivity, depth to bedrock and high water table, and other relevant factors.

Pursuant to Section 121-18(C) (10) (a) of the Zoning Law, the Planning Board may waive specific requirements of the Stream Corridor Overlay District, where streams and water features are integrated into the Master Development Plan, provided that

the Master Development Plan provides for water quality protection and mitigation of water quality impacts consistent with the purposes of the Stream Corridor Overlay District.

Mitigation measures will be implemented to ensure that erosion and sediment control are adequate to protect water quality.

With respect to visual impacts, a confirmatory visual analysis will be conducted during Site Plan approval of each phase of the project.

Section 121-14.1, Scenic Protection Overlay District (Appendix J):

The SPO District includes land lying within 800 feet of the Route 22 and Route 44 right-of-ways, and within 500 feet of the Harlem Valley Rail Trail. Pursuant to Section 121-14.1 of the Zoning Law, the purpose of the SPO District is to regulate land uses within designated scenic corridors and ridgeline areas to protect the Town's scenic beauty and rural character. Accordingly, development in the SPO District is only permitted if it will not significantly impair scenic character and will be aesthetically compatible with its surroundings. Such development must also locate and cluster buildings in a manner that minimizes their visibility from public places, and that minimizes the removal of native vegetation.

The Site lies within the scenic viewshed from DeLavernge Hill. This viewshed is identified as an important scenic resource in the Town and in the surrounding area. Within the SPO District, Site Plan approval may only be granted if, with appropriate conditions attached, the proposed activity::

- Will not significantly impair scenic character and will be aesthetically compatible with its surroundings. As discussed previously, a detailed analysis of the project's potential visual impacts has been provided and mitigation is incorporated where necessary to reduce the significance of any impacts. (See Appendix G. of FEIS)
- Will minimize the removal of native vegetation, except where such removal may be necessary to open up or prevent the blockage of scenic views and panoramas from publicly accessible places. The development plan makes use of the varying topography of the site to reduce the amount of tree clearing that will be needed. Existing tree masses are used where feasible to act as screening features or to be incorporated into the overall design scheme of the project.
- Will locate and cluster buildings and other structures in a manner that minimizes their visibility from public places. The site design utilizes clustering by creating groupings of buildings around courtyards or greens, and by creating a Village Green core where more dense land uses are concentrated.
- Will be at least 40 feet below the crest line of any ridge and will not disturb the continuity of the tree line when viewed from a publicly accessible place.
- Will not result in clearing a building site area, including accessory structures and parking area, greater than 30,000 square feet in area for a single-family residence.
- Will comply with the requirements of Section G (Landscape), H (Architecture), I (Fences) and J (Rural Siting Principles) of Section 121.14.1 of the Zoning Law, except where site features are screened from public roads or trails.

The highest point of any building is 100'± lower than any crest of any ridge line in the region around the Site and therefore the project complies with this requirement of the Zoning Law.

The SPO District set forth architecture, landscaping, and fencing standards which apply to new developments in the SPO District. Silo Ridge will adhere to these standards, as illustrated in this MDP.

Wetlands and Watercourses

Section 121-35 of the Zoning Law regulates wetlands and watercourses. The requirements of this Section are in addition to any requirements that may apply to a watercourse located in the SCO District. This regulation is based upon the Town's determination that the protection of its wetlands and watercourses helps to maintain water quality and the health of natural ecosystems, reduces flooding, erosion and sedimentation, and protects important wildlife habitat areas.

Pursuant to Section 121-35(C), the Planning Board may impose conditions on development in addition to NYSDEC and ACOE requirements where those additional conditions are necessary to minimize damage to wetlands and watercourses. Such conditions may include modifications in the size and scope of the project, as well as changes in the location of structures or other improvements on the parcel. The Planning Board is not limited by the regulations of the NYSDEC and ACOE, and may impose protections on wetlands and related upland habitat areas that are more stringent than required by these agencies provided that such conditions are reasonable and based upon the advice of a qualified expert.

The project anticipates disturbance to the following:

- Watercourses to be completely filled: E-1, G, O
- Watercourses to be partially filled: E-2, J, M/P, QQ
- Wetland/Pond to be completely filled: I, K, O
- Wetland/Pond to be altered: D, G-1, J-1, N
- Green Island Pond (DEC # P1122) and Irrigation Pond (DEC # P1121) merged and increased by 0.68 AC

The Conclusion of the SEQRA Process and Adoption of the Findings Statement

Since the time of the submission of the Applicant's initial Special Permit/MDP application on April 3, 2008, the following actions have been taken by the Planning Board, as "Lead Agency" under the New York State Environmental Review Act ("SEQRA"):

o On September 16, 2008, the Planning Board accepted the Final Environmental Impact Statement ("FEIS") and deemed it to be complete, based upon its determination that the FEIS provides a sufficient basis for the Planning Board and all involved agencies to carry out their decision-making and findings responsibilities under section 617.11 of the SEQRA regulations:

o After accepting the FEIS as complete, the Planning Board caused a Notice of Completion and the FEIS to be circulated, published and posted on a link to the Town's official website as required by SEQRA:

o The Planning Board accepted written comments on the FEIS through October 24, 2008, and considered the written comments that its received from involved and interested agencies and members of the public during its preparation and issuance of a Findings Statement:

o Finally, on January 8, 2009, the Planning Board adopted a

Findings Statement that: (1) considers the relevant environmental impacts, facts and conclusions disclosed in the FEIS, (2) weighs and balances the relevant environmental impacts with social, economic and other considerations, (3) provides a rationale for the Planning Board's decision, (4) certifies that the requirements of SEQRA, have been met; and (5) certifies that consistent with social, economic, and other essential considerations from among the reasonable alternatives available, the action is one that avoids or minimizes adverse environmental impacts to the maximum extent practicable, and (5) certifies that adverse environmental impacts will be avoided or minimized to the maximum extent practicable by incorporating those mitigation measures that were identified as practicable as conditions to the Findings Statement.

Compliance With Major Project Special Permit Criteria (Section 121-63 Of The Zoning Law)

In order to grant a Major Project Special Permit, the Planning Board needs to establish that a Major Project:

1. Will comply with all land use district, overlay district and other specific requirements of this and other chapter and regulations, and will be consistent with the purposes of this chapter and of the land use district in which it is located.

The Site is located in the Rural Agricultural District and the Resort Development Overlay District. It is also located within the Aquifer Overlay District (AO) and portions of the Site are within the Scenic Protection Overlay District and the Stream Corridor Overlay District. This MDP meets the minimum required 80% open space requirement and is below the maximum 15% impervious surface area (approximately 5% ±). ~~However, Buildings V3, V4, V5 and V6 will exceed the 35-foot height limitation in the RDO District. The Planning Board is permitted to waive the 35-foot height limit to allow a maximum height of five stories counted from the average grade at the front of the building (excluding any story within a roof), provided that visual impacts will not be significant. Thus, a waiver will be requested for Buildings V3, V4, V5 and V6. In addition to the waiver of the 35-foot height limitation noted above, p~~Permission is required to maintain the roads as private streets and to install gates at all four entrances to the Site (except the Winery Restaurant); to install a gate at the entry way of the WWTP; to disturb approximately ~~34.43±~~ acres of slopes greater than thirty percent (30%) (See "B" below); to fill two small wetland areas not regulated by the Army Corps of Engineers ("ACOE") or NYSDEC; and to build a portion of the access road to the Vineyard Cottages within the 100 foot residential open space buffer. The RDO District gives the Planning Board discretion regarding dimensional and density standards, including parking. The nature of Silo Ridge is such that much of the parking will be shared among the different uses onsite. See Section 4.4 of this MDP.

A visual analysis was prepared for the project as required by the

SPO District. The Findings (page 92, VII.4.) state that the "adverse

environmental effects revealed in the EIS process will be minimized

or avoided to the maximum extent practicable by implementing the

mitigation measures identified herein.

The Applicant seeks permission to satisfy its obligations under the Town's Workforce Housing Law by making a substantial contribution toward the cost of providing sewer infrastructure to the hamlet of Amenia. Specifically, the Applicant proposes to satisfy its Workforce Housing Law obligations by constructing 181,375 gallons per day of excess capacity in its wastewater treatment plant at no cost to the Town, reserved exclusively for the anticipated hamlet of Amenia sewer system.

2. Will not result in excessive off-premises noise, dust, odors, solid waste, or glare, or create any public or private nuisances.

Even for the more intensive use of the Site under the previously approved MDP, it is projected that the difference in noise levels between present and anticipated future conditions will not exceed 3 dB, which is not generally perceptible. During construction, dust control measures will be implemented to minimize the potential for off-site dust impacts. No outdoor construction activities will occur on Sundays.

The wastewater treatment plant will be designed to meet all applicable County and State regulations, and will not generate any excessive odors. The Harlem Valley transfer station and the Dutchess County Resource Recovery Plant have adequate capacity to handle the increase in solid waste from the project. Given the position of structures and the distance from public rights-of-way, the project is not expected to cause any glare impacts.

The proposed uses are allowable uses within the RDO District, and are therefore considered desired uses within the Town. The proposed uses will not cause any public or private nuisance.

3. Will not cause significant traffic congestion, impair pedestrian safety, or overload existing roads, considering their current width, surfacing, and condition, and any improvements proposed to be made to them by the applicant.

- The project was the subject of extensive and detailed traffic analyses when the previous MDP was approved in 2009, and at that time, it was determined that it would not cause significant traffic congestion, impair pedestrian safety, or overload existing roads. Through additional, detailed analyses, it was determined that this revised MDP will generate between 55 percent and 59 percent less traffic than the MDP approved in 2009 and that peak-hour traffic activity on Route 22 has increased by only 3 percent in the past 6 years. To provide an updated evaluation of potential traffic impacts from the revised MDP on the local transportation system from the modified project presented in this revised MDP, updated weekday PM peak-hour projected traffic volumes at the intersections previously identified as being potentially impacted were reviewed and, where the projected traffic volumes were substantially less than previously projected, an evaluation of highway capacity as measured in Level of Service (LOS) and traffic delays was conducted. The updated evaluation concludes that all intersections analyzed will maintain an acceptable Level of Service except:

- The evaluation of Route 22 at Lake Amenia Drive and Dunn Road (CR 81) indicates a slight deterioration in operating conditions for the side roads, with the average delay on Dunn Road approach expected to increase from 32.2 seconds in the No Build condition to 34.9 seconds in the Build condition, a 2.7 second increase associated with project traffic. The Applicant will re-assess this location upon project completion in conjunction with input from NYSDOT.
- The evaluation of Route 22 at the existing main access to the Site indicates deterioration during peak periods, with substantial increases in delay projected for vehicles exiting the Site. Detailed warrant analyses were undertaken to see if the projected Site traffic volumes will rise to the level which, in conformance with NYSDOT standards, would justify the installation of a traffic signal, a northbound left-turn lane or a southbound right-turn lane. The results of these analyses indicates that a left-turn lane for traffic on Route 22 turning into the Site will be warranted, but that the projected traffic volumes will not warrant either a traffic signal or a southbound right-turn lane. The Applicant will construct the left-turn lane at its expense.
- The intersection capacity analyses reveal that, with the construction of the proposed northbound left-turn lane at the existing Site driveway, traffic impacts will be confined to the left-turn movement exiting the Site at full buildout (the eastbound right turn and northbound left turn movements will operate at acceptable LOS B or better) and that there will be available capacity to accommodate demand. However, per the Federal Manual on Uniform Traffic Control Devices, lower threshold values may be used after an adequate trial of other remedial measures. The Applicant will therefore reevaluate this intersection for signalization after each phase of development in consultation with NYSDOT.
- The evaluation of the Vineyard Cottages access with Route 44 indicates that vehicles exiting the driveway will experience an average peak-hour delay of approximately 12 seconds. The mitigation for the impact identified in the 2009 Findings Statement includes the construction of an eastbound left turn lane on Route 44 and a requirement that the driveway be situated at a location that would provide the greatest sight lines. The Applicant will reevaluate this intersection for potential construction of a left-turn lane when construction of the Vineyard Cottages is proposed.
- The unsignalized intersection of the proposed southern Site driveway with Route 22 will be used for maintenance personnel and emergency access only and, therefore, no improvements are required or proposed as no traffic is being added to the driveway.
- At the proposed unsignalized intersection of Route 44 with the access to the Winery Restaurant parcel, the evaluation of this driveway indicates that vehicles exiting the driveway will experience an average peak-hour delay of approximately 15 seconds. No mitigation is required at this location under the 2009 Findings Statement.
- The project also incorporates a number of non-motorized transportation features and no impact to pedestrian safety is anticipated

4. Will be accessible to fire, police, and other emergency vehicles.

Silo Ridge will be accessible to police, fire, and other emergency vehicles. The design of the project was developed with cooperation and input from emergency services personnel to make certain that the needs of these providers would be met. This MDP includes an emergency roadway around the southern end of the Site that connects the east and west sides of the development. This road provides an alternate means of access that does not require going past the core of the resort community, which could better enable emergency services personnel to assist in an emergency on the west side of the Site. Furthermore, representatives of the Project team met with the Town of Amenia Fire Chief Chris Howard on September 18, 2013 and January 16, 2014 for initial and detailed discussions on the Project layout from the perspective of emergency access, circulation, and safety. Roadway widths, fire hydrant spacing, turning radii, and access were discussed and it was the Fire Chief's opinion that the site plan appeared reasonable with respect to those items. Ongoing consultation with the fire department will occur during the design process, to ensure that adequate fire safety measures are incorporated into the plan.

5. Will not overload any public water, drainage, or sewer system, or any other municipal facility.

The project will not overload any public water, drainage, or sewer system, or any other municipal facility.

Water

No impacts to public water supplies are anticipated. The project's estimated average daily water demand is ~~120,000~~128,000 gpd, with a maximum daily flow demand of ~~167-177~~ gpm. Water supply of 283 gpm can be provided with the largest producing well out of service by a series of on-site groundwater wells. The installation and operation of the water supply system will be regulated by the NYSDOH as a public water supply. Certain wells may be relocated during the design and review coordination with the Dutchess County and New York State Health Departments prior to permit approvals.

Stormwater (Drainage)

Stormwater generated from the project will be managed consistent with applicable NYSDEC requirements and State Pollutant Discharge Elimination System (SPDES) General Permit for Stormwater Discharges from Construction Activity GP-0-10-001. Stormwater runoff from the site will be collected and conveyed via a combination of closed (piped) and open (swale) systems. Stormwater quantity controls and quality treatment systems will be installed consistent with NYSDEC requirements, and sized to accommodate 50- and 100-year storm events. Moreover, all stormwater generated from commercial and residential development and the roadways for the project will be subject to the "East of the Hudson" standards, as set forth in Chapter 10 of the New York State Stormwater Management Design Manual (August 2010). The East of Hudson standards are the stringent treatment standards required within the New York City (phosphorus restricted) Watershed, although it should be noted that the Site is not actually located within the New York City Watershed.

Wastewater (Sewer)

No adverse impacts to municipal sewer systems are anticipated. The project is estimated to generate an average daily flow of ~~120~~115,000 gpd of wastewater. A new onsite wastewater collection and treatment system will be constructed to manage the project's wastewater. The wastewater system will be constructed to treat effluent in compliance with NYSDEC SPDES requirements.

Other Municipal Facilities

While the project will create modest increases in demand for municipal services, the impacts will be off-set by additional tax revenues.

6. Will not materially degrade any watercourse or other natural resource or ecosystem, or endanger the water quality of an aquifer.

Out of the approximate 36 acres of wetlands onsite, the project will result in 0.11 acres of wetland disturbance and 0.012 acres of temporary disturbance, all of which will be mitigated as discussed in this revised MDP. An Erosion and Sediment Control Plan and Stormwater Pollution Prevention Plan have been prepared for the Site in accordance with NYSDEC regulations. A Natural Resource Management Plan, which includes an Integrated Pest Management Plan, was also prepared, which describes prevention and monitoring strategies to minimize the project's potential impact to terrestrial and aquatic resources. A Habitat Management Plan and Buffer Management Plan have also been prepared. All of these plans are discussed in this revised MDP.

Approximately 38 acres of previously undisturbed areas will be disturbed during grading and construction activities. Erosion and sediment control practices and compliance with permitted requirements for all onsite wetland disturbances will serve to reduce secondary impacts to vegetative communities. Mitigation measures identified in Section 3.3 of the FEIS and in the Amended Findings Statement will further reduce potential impacts. The layout in conjunction with the HMP has been designed to minimize permanent disturbance to sensitive habitats, restore degraded habitats and preserve natural open space and wildlife habitat. The layout of the project will leave approximately 80% of the Site as open space, including approximately 230 acres along the hillsides and the entire length of the ridge, continuing to allow for wildlife movements.

7. Will be suitable for the property on which it is proposed, considering the property's size, location, topography, vegetation, soils, natural habitat, and hydrology, and, if appropriate, its ability to be buffered or screened from neighboring properties and public roads.

The Site meets the physical requirements of the RDO District, such as size and access from a County or State highway. The project has been designed to make use of existing topography as much as possible so that landforms and vegetation help to screen buildings from view. Development was arranged onsite to utilize existing tree masses for screening and softening and to limit clearing of woodland habitat. Trees will be provided at varying intervals along roads and sidewalks for shade and cadence. New landscaping around structures will focus views and provide pedestrian scale, color and ornamental interest. Stormwater management facilities have been sited in areas with preferable soils. The hillside and ridge in the western portion of the site are remaining largely undisturbed to protect wildlife and existing habitat.

8. Will be subject to such conditions on operation, design and layout of structures, and provision of buffer area as may be necessary to ensure compatibility with surrounding uses and to protect the natural, historic, and scenic resources of the Town.

Conditions of operation, design and layout, and buffers have been included as mitigation measures in the Amended Findings Statement, toward protecting natural, historic and scenic resources of the Town.

9. Will be consistent with the goal of concentrating retail uses in hamlets, avoiding strip commercial development, and buffering non-residential uses that are incompatible with residential use.

The project's retail uses and restaurants will provide for onsite entertainment and convenience. These uses are not intended to create a new "town center" that would compete with the Hamlet of Amenia. In fact, there is intended to be a synergy between Silo Ridge and the Hamlet, where retail uses in the Hamlet would experience positive effects due to the existence of Silo Ridge. The non-residential uses on the Site are concentrated in the center of the Site with surrounding residential uses to encourage pedestrian activity and create a vibrant core area. However, certain non-residential uses are located outside this core area, including the Winery Restaurant, Artisan's Park Overlook, and wastewater treatment plant.

10. Under the previously approved MDP, the WWTP was designed to have sufficient capacity to serve both the project and the Hamlet. Pursuant to Section 121-42(P)(2)(d) of the Town Zoning Law, the contribution of this capacity satisfied the workforce housing requirement for the project. Since that time, the Town determined that the cost to the Town of the necessary conveyance system would be prohibitive. Accordingly, under this revised MDP, the WWTP will have sufficient capacity only to serve the project.

To satisfy its obligation under Section 121-42 of the Zoning Law, the Applicant will pay a fee-in-lieu of workforce housing for the first 160 residences. The Applicant acknowledges that in connection with future site plan approval of more than 160 market rate units, it is obligated to either provide additional workforce housing units equal to ten percent (10%) of the number in excess of 160, up to a total of seven (7) additional units, or satisfy that portion of the requirement by payment of a fee-in-lieu or one of the other means set forth in Section 121-42(P)(2) of the Town Zoning Law.

~~To satisfy its obligation under Section 121-42 of the Zoning Law, the Applicant will either cause one or more related entities to construct on its behalf sixteen (16) rental workforce housing units on the 8.47-acre parcel of property located in the Hamlet on the west side of North Street north of East Main Street and south of Cascade Road (tax parcel no. 167-00-186672) or pay a fee in lieu of workforce housing. The Applicant acknowledges that in connection with future site plan approval of more than 160 market rate units, it is obligated to either provide additional workforce housing units equal to ten percent (10%) of the number in excess of 160, up to a total of eight (8) additional units, or satisfy that portion of the requirement by payment of a fee in lieu or one of the other means set forth in Section 121-42(P)(2) of the Town Zoning Law.~~

11. Will meet the applicable Site Plan requirements for approval.

The project will meet all site plan requirements applicable to resort community development in the RDO District.

12. If a property is in a “residential” district, will have no greater overall off-site impact than would full development of the property with uses permitted by right, considering relevant environmental, social, and economic impacts.

As noted above, the Site is currently classified in the RDO District, with the underlying zoning district classification RA (Rural Agricultural) District. With respect to the RA District, it should be noted that the primary use of “Agriculture” is classified in the Zoning Law as a “business” use. Moreover, allowable uses within the RDO District are primarily tied to resort community development, including the following: lodging facilities (including Hotel-Condominium units), conference facilities, restaurants, retail, recreational and service businesses associated with the resort community use, among other things.

In addition, the Zoning Law specifically states that the RDO District provides use and design flexibility to encourage the development of resort communities and more intensive development than is allowed by underlying zoning. This flexibility is offered in exchange for protection of “open space resources, including scenic viewsheds, ridgelines, water resources, and ecosystems.” The project protects 80% of the Site as open space, including the hillside and ridge in the western portion of the site. The Applicant has also partnered with Audubon International for management of the site’s natural resources, including aquatic and terrestrial ecosystems, and has worked diligently with the Town’s ecological expert to ensure sufficient study and protection of such ecosystems.

Finally, the project will provide very considerable tax revenues to the Town and Webutuck Central School District, and due to its nature as a resort community, it will generate little increase in demand for public services. As previously noted, the project is intended to be built and marketed primarily as a second home, resort style community. The project also represents an opportunity for increased employment and tourism in Amenia and the region, which will result in significant direct and indirect benefits to the local economy.

APPENDIX A: REVISED PLANS (ATTACHED)

APPENDIX B: LIST OF PLAN SHEETS & DESCRIPTIONS OF EACH SHEET

APPENDIX B: LIST OF PLAN SHEETS & DESCRIPTIONS OF EACH SHEET

Sheet T1 Title Sheet:

- Project Name and Applicant information
- Vicinity Map identifies the location of the project and its relation to Amenia

- Site Location Map indicates the project boundaries and adjoining property owners along with the associated lot and tax map numbers.
- List of Drawings shows the description of drawings that make up the MDP along with dates of drawings and revision dates
- Project Team: This lists the organizations that are most involved with the project at this point in time.

Sheet SP-1 Existing Site Conditions:

- This plan shows the existing conditions of the Silo Ridge property including but not limited to golf course, roads, buildings, wetlands and watercourses, boundaries, contours. This is looking down on the site from above (typical) at a scale of 1" = 300'. The scale is shown in the Title Block at the lower right hand corner (typical). This "scale" represents 1" measured on the plan equals 300' at the actual site.
- Typically to get oriented on a plan you locate something you are familiar with. As an example, Route 22 can be seen at the bottom of the page and the existing Silo Ridge Clubhouse can be seen at approximately the center of the page. The direction arrow at the upper left hand corner of the sheet indicates north is to the right.
- Contour lines indicate the elevation of the ground above sea level at 5' intervals. The closer the contour lines are to each other the steeper the grade. As an example, the dark band of contour lines (close together) about 2/3 of the way up the sheet indicates steep terrain.
- The project boundary is the bold dashed line surrounding the property.

Sheet SP-2 Overall Site Plan:

- This sheet shows the layout of the Master Plan as designed by Hart Howerton (HH). This is an overall layout plan indicating buildings, roads, golf course layout and water features. The intent is for this sheet to be an illustrative plan that is supported by more technical details on later sheets in the MDP.

Sheet SP-3 Program Details:

- This sheet includes the Unit Count, Program Detail and other Master Development Plan Information. The items included in this table are reflective of what is shown on the Site Plans of each neighborhood (SP-6 – SP-11). For example V-10 is shown on the Site Plan - Village Green, you then locate V-10 on the Program Details sheet and find further information such as # of units, square footage, maximum height, and ownership offering, among other things.
- The detail on this sheet is also broken down by proposed Phasing.

Sheet SP-4 Open Space Plan:

- This sheet indicates the open space areas when the project is completed. Per Resort District Overlay in July 2007 Zoning Law, 80% open space is required. This plan indicates how the 80% open space calculation was derived. The open space is broken down into different habitat designations which are color coded.

Sheet SP-5 Overall Phasing Plan:

- This sheet shows the concept of how the project is expected to be phased by color coding the phases on the Master Plan. Each color identifies a different phase.
- The Phasing Schedule shows the anticipated time allocated to each component of each phase.
- The Phasing proposed is conceptual and as sales, marketing and financing details are further defined, the overall phasing will be updated accordingly to reflect this.

Sheet SP-6 Site Plan – Village Green:

- This sheet is an enlargement plan of the Village Green area, which includes roads, driveways, parking areas, plantings, pool and terrace areas, and building roof plans. Building roof plans are in burnt sienna, brown and tan, lawn areas in light green and trees shown in dark green.
- The scale is 1" = 60'- 0"

Sheet SP-7 Site Plan – South Lawn:

- This sheet is an enlargement plan of the South Lawn area, which includes roads, drives, parking areas, plantings, building roof plans, and pool and terrace areas. Building roof plans are in burnt sienna, brown and tan, lawn areas light green, and trees shown in dark green.
- The scale is 1" = 60'- 0"

Sheet SP-8 Site Plan – Golf Villas:

- This sheet is an enlargement plan of the Golf Villas area, which includes roads, drives, parking areas, plantings, and building roof plans. Building roof plans are in tan, lawn areas light green, and trees shown in dark green.
- The scale is 1" = 60'- 0"

Sheet SP-9 Site Plan – Estate Homes:

- This sheet is an enlargement plan of the Estate Homes area, which includes roads, drives, paths, plantings, and building roof plans. Building roof plans are in tan, lawn are light green and trees shown in dark green.
- The scale is 1" = 150'- 0"

Sheet SP-10 Site Plan – Vineyard Cottages:

- This sheet is an enlargement plan of the Vineyard Cottages area which includes the building roof plans, driveways, and plantings.
- The scale is 1" = 30'- 0"

Sheet SP-11 Site Plan – Winery:

- This sheet is an enlargement plan of the Winery area which includes the building footprints, driveways, parking areas, plantings, and Artisan's Park Overlook area.
- The scale is 1/32" = 1'- 0"

Sheet SP-12 Site Sections – Village Green:

- ~~This sheet shows a section view of the houses in the Village Green area including the Terrace stairway, trees and Hotel Lawn. The section location is depicted in the Key Plan box on the bottom right of this drawing.~~
- This sheet shows two section views of the Village Green area including the Condominiums and Lodge/Clubhouse and a section including Town Homes and Condominiums.

Sheet SP-13 Site Sections – Village Green Homes:

- ~~This sheet shows two section views of the Village Green area which includes including the Condominiums and Lodge/Clubhouse and a section including Town Homes and Condominiums. This sheet shows a section view of the houses in the Village Green area. The section location is depicted in the Key Plan box on the bottom right of this drawing.~~

Sheet SP-14 Site Sections – Golf VillasSouth Lawn:

- This sheet shows ~~two~~ section views of the ~~South Lawn~~ Golf Villa area.

~~Sheet SP-15 Site Sections – South Lawn ~~Golf Villas~~:~~

- This sheet shows a section view of the ~~Golf Villa~~ South Lawn area.

~~Sheet SP-16 Site Sections – Golf Villas:~~

- ~~• This sheet shows a section view of the Golf Villa:~~

~~Sheet SP-17 6 Site Sections – Estate Homes:~~

- This sheet shows a section view of a typical Golf Villa as it relates to the contours of the site. This section includes roads, sidewalks, parking, trees, lawns, drives, yards, sidewalk terraces and transitions into the golf course.

~~Sheets SP-18 & SP-19 – Not Used~~

~~Sheet SP-17 20 Site Sections – Vineyard Cottages:~~

- This sheet shows a section view of the Vineyard Cottage area which includes sidewalks, parking lot, plantings, trees and an observation area.

~~Sheet SP-18 20 Site Sections – ~~Phase 1~~ Winery:~~

- This sheet shows a section view of the Winery area which includes sidewalks, parking lot, plantings, trees and an observation area.

~~Sheets SP-21 & 22 – Not Used~~

~~Sheet SP-23 Site Sections – Vineyard Cottages:~~

- ~~• This sheet shows a section view of the Vineyard Cottage area.~~

~~Sheet A-1 Architectural Elevations – Residential:~~

- This sheet shows Architectural elevations of Condominiums, Town Homes, and typical Single Family Homes.

~~Sheet A-2 Architectural Elevations – ~~Amenities~~ Clubhouse:~~

- This sheet shows Architectural elevations of the ~~Amenity~~ Clubhouse buildings.

~~Sheet A-3 Architectural Elevations – Amenities:~~

- This sheet shows Architectural elevations of the Amenity buildings.

~~Sheet A-4 Architectural Elevations – Amenities:~~

- This sheet shows Architectural elevations of the Amenity buildings.

~~Sheet A-5 ~~Winery~~ Restaurant Elevations:~~

- This sheet shows the 4 conceptual architectural elevations of the “winery” themed restaurant

~~Sheet A-6 Winery Perspectives ~~Renderings from Visual Points # 1 and #4~~:~~

- This sheet shows 2 photo_simulations of the winery from the visual analysis provided during the SEQR process

Sheet P-1 Parking Plan:

- This sheet shows the layout for the condominium and town home parking structures as well as surface and on-street parking at the Village Green, Sales Center, and Activity Barn.

Sheets GP-1 to GP-~~2~~ Grading Plans:

- These sheets show the layout of roads, buildings, retaining walls and proposed grading contours in two foot increments. The darker contours represent the proposed grades. The contour numbers represent the elevation in feet above sea level.

Sheet U-1 Overall Wastewater Master Plan:

- This sheet indicates the wastewater conveyance system with colored lines identifying specific pipe uses.
- The Legend shows the colors identifying pipe uses.

Sheet U-2 Overall Water Supply System Master Plan:

- This sheet indicates the water supply system with colored lines identifying specific pipe uses.
- The legend shows the colors identifying pipe uses.

Sheet LA-1 Site ~~Diagram~~ — Planting:

- This sheet shows the proposed HMP plan.
- Photos indicate proposed typical native plantings to be used.

Sheet LA-2 Site ~~Diagram~~ — Lighting:

- This sheet shows the proposed site lighting along the main roadways. This is conceptual in nature and will be more fully refined during Site Plan to verify compliance with Lighting Standards and Parameters.

Sheet LA-3 Site ~~Diagram~~ — Paving ~~and~~ Site Walls:

- This sheet shows the proposed concept hardscape and curbing locations. See Key for the appropriate color coded symbols.
- This sheet also shows photos of typical stone walls and stairs are also shown with a description of how we plan to blend into the natural landscape. This concept plan reflects the landscape architect's ~~and architect's~~ understanding of key ~~landscape~~ stone wall features.

Sheet LA-4 Site ~~Diagram~~ — Signage:

- This sheet shows a plan view of the proposed location of resort signage.

Sheet LA-5 Pool Precedent Images:

- This sheet shows examples of other Pools. We intend on using these as a conceptual guide in the pool design.

Sheet LA-6 Winery Precedent Images:

- This sheet shows examples of other Winery and Valley views. We will use these as a guide for the look we want to achieve.

Sheet ENV-1 Environmental Constraints Map:

- This sheet shows slopes, wetlands, golf course and buffers.

Sheet ENV-2 Habitat Management Plan ~~---~~Existing Conditions, Sheet ENV-3 Habitat Management Plan ~~---~~Proposed Conditions, and Sheets ENV-4 to ENV-6 Habitat Management Plan ~~---~~ Buffering Plans:

- These ENV sheets depict the habitat management zones and buffer zones for the golf course and adjacent natural areas.

APPENDIX C: PROFESSIONALS ASSOCIATED WITH THE PROJECT

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DISCOVERY LAND CO, LLC (DEVELOPMENT MANAGEMENT)

Discovery Land Company, LLC (“Discovery”) is a privately-held, full service real estate development company based in Scottsdale, Arizona, specializing in luxury residential private club communities and resorts in the U.S. and other popular North American locations. Discovery’s projects are all distinct from one another with their own themes and architectural styles inspired by the natural environment and traditions of the project’s locale. The private clubs have world-class resort amenities, high levels of service, and club programs that work in sync to create an appealing lifestyle and a culture that is focused on family. The Company was founded 16 years ago by Michael S. Meldman with just one project. Since that time, Discovery has grown to be the premier player in the high-end resort residential niche with 16 high-quality projects in its portfolio.

STONELEAF CONSTRUCTION, LLC (CONSTRUCTION MANAGEMENT)

Stoneleaf Construction LLC (“Stoneleaf”) was created as a partnership between two prominent families in the construction industry with a common vision of creating premium lifestyle communities in close proximity to major metropolitan areas. The families, each in business for two generations, have well over 100 years of combined construction and development experience. From high end customized work to major infrastructure projects, Stoneleaf has a diverse background of talent in many disciplines. Stoneleaf’s partners have obtained project entitlements, overseen site planning and product design, managed the construction of luxury homes as well as upscale communities from groundbreaking to completion, constructed clubhouses, marina, athletic and recreational facilities, and designed and built major infrastructure projects including bridges, tunnels, data centers, power substations and fiber optic infrastructure, among others projects. All totaled, the Stoneleaf partners have managed and built construction and development projects costing well over \$10 billion dollars, domestically and internationally, including over 1,600 homes in more than fifteen communities in the Northeastern United States.

HART HOWERTON (PLANNERS, ARCHITECTS, & LANDSCAPE ARCHITECTS)

Hart Howerton is a team land planners, architects, landscape architects, and interior designers with headquarters in New York and San Francisco and field offices in various cities throughout the United States and internationally. We specialize in the

planning and design of new communities and resorts, particularly where a unique environment or new kind of market requires innovative thinking.

Our Approach

We work very closely and partner with our clients – becoming a part of their development team – to understand their vision, business objectives, and market opportunities. We consider market, financial, political and historical conditions as a way to guide a project’s design. We combine the broad experience and technical depth of a large international firm with the kind of direct, active, personal service of principals usually found only in smaller firms.

We seek out the best local partners and experts to form teams that can effectively execute a project vision. And, we stay with a project from conceptualization to completion and beyond, while a new environment develops and a new community takes shape.

Philosophy

What distinguishes our firm from some others in the field is a combination of characteristics:

- Our outlook is long-term. We help our clients manage land as an asset that increases in value over many years.
- Our plans are market-driven. We utilize the professions of planning, architecture, and landscape architecture to create a competitive edge in the marketplace.
- Our practice is inter-disciplinary, combining planning, architecture and landscape architecture into a single profession—designing complete environments.
- We have been among the leaders in environmentally responsive development, finding new ways to combine preservation with development.
- We have had the opportunity to plan many prominent world-class places that have become a significant legacy in their communities.

Our objective is to take on a limited number of high-quality projects each year, and to work closely with our clients to produce outstanding results. We bring to each project the background of a large international practice, but we are still organized to provide the enthusiasm, fast response, and attention to detail that results from the personal attention of the principals, and we manage our workload to make that possible.

Our commitment to Designing Complete Environments helps clients realize long-term success in managing their land whilst making a meaningful contribution to our built environment. We like to look at new ways of doing things; that’s what’s fascinating to us — breaking new ground.

TOM FAZIO® (GOLF COURSE DESIGNER)

Throughout his 40+ years in golf course design, Tom Fazio and his staff of talented designers have been recognized for creating award-winning courses throughout the United States. No living designer has more credits on Golf Digest’s list of America’s 100 Greatest Golf Courses and Golfweek’s collection of America’s Best. The Golf Digest poll for Best Modern Day Golf Course Architect was discontinued after Tom claimed the award three consecutive times, and he has also received The Old Tom Morris Award from the Golf Course Superintendents Association of America.

Fazio attributes this success to maintaining a team concept in design shared by his dedicated staff of design associates, many of whom have worked with Tom for anywhere from 25 to 35+ years. This visionary group, with a diverse base of knowledge and

united love for the game of golf, enables FAZIO Design to continue to create courses that are noted throughout the industry for their excellence.

Fazio emphasizes the premise that “golf courses should reflect the natural beauty of their environments.” Maintaining that principle, FAZIO Design strives to follow design priorities that include creating harmonious transitions from existing topographical conditions, developing courses that offer golfers of varying skill a challenging yet enjoyable experience, and providing each client with optimum use of the property.

Tom and Sue Fazio have six children and reside in Hendersonville, North Carolina. They are active in the community and support many local charities, art and theatre associations as well as educational institutions. Tom and Sue founded the Boys and Girls Club of Henderson County in 1993. Tom also supports various children’s causes throughout the nation with the Tom Fazio Children’s Charity Fund, which benefits from fundraising endeavors such as Tom’s book Golf Course Designs.

VHB (CIVIL ENGINEER)

VHB provides planning, transportation, land development, and environmental services and employs over 900 staff in 22 offices along the East Coast, including White Plains. Since its founding in 1979, VHB has partnered with public- and private-sector clients to provide the best technical skills in each practice area through a seamless, integrated approach to collaboration. Premier industry publication Engineering News-Record ranks the firm #78 of the Top 500 Design Firms nationwide, and VHB is a frequent recipient of project awards and accolades for engineering and environmental excellence and smart growth planning. Overall, VHB delivers innovative and pragmatic solutions in civil engineering; transportation planning, engineering, and operations; bridge design and inspection; environmental review, permitting, and restoration; landscape architecture; site, community, and regional planning; land surveying; community and stakeholder outreach; real estate advisory services; and sustainability and climate action planning.

~~INSITE ENGINEERING, SURVEYING & LANDSCAPE ARCHITECTURE, P.C.~~ CEDARWOOD ENGINEERING SERVICES, PLLC. (WASTEWATER & WATER UTILITY ENGINEER)

~~Cedarwood has over 30 years of varied, in-depth water and wastewater facilities engineering experience including investigations, planning, design, operations consulting, facilities operations, and instruction in operations and regulatory environmental protection. (Insite) is a diversified consulting firm providing professional services in the following areas:~~

- ~~• Civil Engineering~~
- ~~• Surveying and Mapping~~
- ~~• Landscape Architecture and Planning~~

~~Insite provides professional services backed by a reputation of delivering timely innovative solutions to our many municipal, corporate, and private clients. Our company philosophy is to deliver quality services in a timely fashion, giving full consideration to cost effective solutions.~~

~~The staff at Insite is led by experienced professionals licensed in the fields of engineering, surveying, and landscape architecture who have managed thousands of assignments to successful completion. The entire staff exhibits a special pride in their work as experts in their respective fields, and also in collaborating on multidiscipline design teams. Insite’s staff is supported by a variety of advanced equipment and technology including computer aided design and drafting (CADD) systems, geographic~~

~~information systems (GIS), fully automated survey data collection, and global positioning systems (GPS) surveying. Insite is located in Carmel, New York, conveniently serving southeastern New York and western Connecticut.~~

ATELIER LUMIERE (LIGHTING DESIGNER)

Since 2005, atelier lumiere has illuminated a wide variety of projects around the world from high end residential projects, hospitality destinations, commercial office space, educational facilities, to large scale multi-use developments. Led by Kazumi Tanimura who has 20 years of experience in architectural lighting, atelier lumiere is strengthened by a staff with various backgrounds such as architecture, graphics and photography in addition to the optical and electrical knowledge.

atelier lumiere continually balance function and atmosphere, visualizing an architectural space as a combination of physical definitions and artistic impressions. Emulating the master painters when lighting a space - with lamps as our paints and fixtures as our brushes, we show texture through shadow, mood through color and energy through the dynamic interplay of lighting effects. Our goal is to help achieving the client's vision with a visual effect to humans both physically and emotionally.

atelier lumiere believes that the best designs are realized through seamless collaboration among the entire design team, and we pride ourselves on our close relationships with our clients, architects, artists and other consultants. Understanding the construction process and the importance of maintaining control over schedule and budget, we are committed to the kind of diligent research and ongoing growth that is required to keep ahead of the constantly expanding technology behind light sources, luminaires and control systems.

atelier lumiere attunes to the impact of lighting at the scale of the human as well as the larger natural environment, thus constantly employing new technologies and innovative design strategies to create a pleasing balance between user preference and environmental consciousness.

BASWOOD (WASTEWATER TREATMENT PLANT)

Baswood delivers innovative, technology-based solutions that provide effective BOD removal and biosolids reduction for a wide range of industrial, municipal, and commercial applications. Baswood systems are designed to handle high-strength waste streams, have low operational energy demand, and operate virtually odor free. They are compact, customizable, and require less manpower to operate than other treatment options.

MATTHEW ROLLINS (HORTICULTURIST)

A Dutchess County resident since 1963, Matthew was the owner/president of Rollins Landscaping and Garden Center (rollinslandscaping.net) from June 1979 - July 2013. Matthew has an Associate's degree from S.U.N.Y. Alfred in Landscape Development and a Bachelor of Science from Ohio State University in Landscape Horticulture.

DELBELLO DONNELLAN WEINGARTEN WISE & WIEDERKEHR, LLP (LEGAL)

The four partners in the Land Use and Real Estate Development Practice Group of DelBello Donnellan Weingarten Wise & Wiederkehr, LLP have more than a century of combined legal experience in both the private and public sectors. The practice group counsels clients at all stages of real estate development, from project conceptualization and preliminary zoning due diligence, through federal, state and local land use approvals and permits, and in conjunction with related State Environmental Quality Review Act and National Environmental Policy Act compliance. The Land Use and Real Estate Development Practice Group represents major corporations, developers and property owners in connection with all types of commercial and

residential real estate and economic development projects and related governmental incentive programs, including those of Empire State Development Corporation, New York State's lead economic development agency, the New York State Department of Environmental Conservation (the Brownfield Cleanup Program), and of industrial development agencies and local development corporations throughout Westchester County and the Hudson Valley.

The Land Use and Real Estate Development Practice Group has vast experience representing clients before all branches of government, including local legislatures, planning boards and zoning boards, and industrial development agencies and other public benefit corporations. The firm is highly experienced with appeals of governmental decisions and with land use litigation generally, including disputes regarding the governmental exercise of the power of eminent domain. The firm is also a registered New York State lobbyist, and represents a substantial number of its clients in Albany before the Legislature, the Office of the Governor and other state agencies, including the Department of Environmental Conservation and the Department of Transportation.

Over the course of the last twenty years, the firm has worked on the highest profile and most sophisticated and complex real estate and economic development projects, public/private partnerships and urban renewal redevelopments in the Hudson Valley region.

CERTILMAN BALIN ADLDER & HYMAN, LLP (LEGAL)

Certilman Balin Adler & Hyman, LLP is a full service law firm founded in 1965. The firm's departments include real estate, corporate and securities, banking and commercial lending, litigation, bankruptcy and debtor/creditor rights, land use, environmental law and condominium, homeowners association and cooperative law.

The firm has a national, state and local client base and has become one of the region's leading law firms, as attested to by the success of our clients.

Specifically, our Condominium, Homeowner Association and Cooperative Practice Group is one of the most active in the nation. Since New York State law first allowed the development of condominiums in 1964, this team has represented developers and converters in the filings of more condominium and cooperative offerings than any other firm in the country. As a result, our clients' properties can be found throughout New York, across the United States and abroad.

Experienced in every type of residential and commercial condominium, cooperative, homeowner association development, and timeshare, our highly regarded attorneys have taught at local law schools and hold leadership positions at various national, state, and local builders' associations. Members of this group have served on the New York State Bar Association Committee on Condominiums and Cooperatives and on the Bar Association Liaison Committee with the Attorney General of the State of New York.

A representative list of our Condominium, Homeowner Association and Cooperative Practice Group clients include AvalonBay Communities, Inc., AVR Realty, Beechwood Organization, Cappelli Organization, Engel Burman Housing, Holiday Organization, Horizon Group, Island Estates, K. Hovnanian Companies, Montage Hotel and Resorts, Park Ridge Organization, Pulte Corp. RXR, The Briarwood Organization, Simone Development Company, Timber Ridge Homes, Tritec Realty and the Zucker Organization

APPENDIX D: AUDUBON SIGNATURE PROGRAM LEVELS

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The program begins when the development project registers, and continues through construction, grand opening, and long-term management. Audubon Signature services and requirements also vary depending on the program level. The program involves:

- An initial site assessment conducted by Audubon International staff.
- The development of a Natural Resource Management Plan (NRMP) that serves as a construction and operations manual for the property.
- Implementation of the Natural Resource Management Plan.
- Site visits during major phases of the project.
- Training and education for construction and operational personnel.
- An on-site Environmental Audit to assess compliance with program and site-specific requirements.
- Long-term management in accordance with Audubon Signature standards.

A project that complies with the minimum requirements for all Signature Projects and meets applicable site-specific requirements is designated as a Certified Audubon Signature Sanctuary.

Gold Level: The highest level Signature Program for U.S. and international projects includes multiple new land uses (e.g., residential, recreational areas, and commercial development), but is available to single-land-use projects, as well. Projects must register prior to the completion of the design. A staff member of Audubon Environmental Services, Inc. prepares an Environmental Master Plan, which guides siting, design, and management decisions relative to environmental aspects of the project. They also prepare the Natural Resource Management Plan and supplement Audubon International staff to offer extensive environmental education and on-site technical assistance in sustainable development and best management practices.

Note: Silo Ridge Resort was already in the approval and planning stages when Audubon was contacted for participation and therefore could not qualify for the Gold Level status.

Silver Level: For U.S. or international projects that involve one or more land uses (e.g., residential community with golf course or other amenities) in the planning stage, including a major redevelopment. A staff member of Audubon Environmental Services, Inc. prepares the Natural Resource Management Plan and supplements Audubon International staff in providing education and technical assistance in sustainable development and best management practices. Training and guidance for construction and operational personnel are also provided to guard against costly mistakes and ensure that the project achieves success.

Bronze Level: For U.S. projects that involve only a single new land use (e.g., sports complex, church, golf course) in the planning stage, including a major redevelopment. The Natural Resource Management Plan for the project is drafted by project consultants, rather than Audubon Environmental Services, Inc., but must meet Audubon International approval. Audubon International staff work primarily with the land or facility manager for educational purposes, reviews the Natural Resource Management Plan, and conducts the on-site audit to make final certification determination.

APPENDIX E: LIGHTING

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DESIGN PRINCIPLES FOR SILO RIDGE

~~Balancing the need for nighttime lighting with the goal of reducing energy use and light pollution is challenging. The best practice is to put light on roadways in places that have the highest potential for vehicle/vehicle conflict or vehicle/pedestrian conflict. At Silo Ridge, continuous pole-mounted roadway lighting will be limited to main roads, and conflict areas (crosswalks~~

~~and intersections). Vehicle headlights will supply needed illumination between light poles. This meets the LEED® goals for reducing energy consumption and material consumption (SS8, Energy Performance Credit EA1).~~

Parking lots pose greater potential for pedestrian/vehicle conflict and vehicle/vehicle conflict, so these are traditionally lighted more uniformly, although the number of fixtures illuminated after business hours will be reduced. Heavily used pathways may have pole-mounted lighting or landscape lighting in order to improve the perception of safety for pedestrians, but this lighting also will be reduced or eliminated at night through controls.

Building facades and signage may be considered for lighting also, but they will be lighted from the top downward wherever possible, and “floodlighting” or “façade washing” from the ground will be avoided since stray light could annoy neighbors. Instead, nighttime visibility can be achieved with lighting techniques that provide lines or dots of light (for example) to highlight key architectural details, instead of washes of light on large surfaces. This reduces energy use as well as light pollution.

Building entrances need to be illuminated for safety, and this is enforced by code. Public entrances may have small amounts of low-output decorative lighting (750 lumens per fixture, maximum). Additional lighting may be used as long as it is fully shielded so that it emits no light above horizontal. Service entrances will use fully-shielded lighting only, so that all light is emitted downward but sufficient enough for security surveillance. Any non-shielded lighting that is needed for deliveries, for example, will be switched on temporarily only.

Landscape lighting can accentuate exterior plantings while providing wayfinding and a psychological sense of brightness. Too often, landscape lighting equipment uses high wattage sources, but it takes very little wattage (and lumens) to get a dramatic effect, if the landscape lighting is carefully prepared. Landscape lighting that relies primarily on downward lighting from trees or building eaves can be combined with small amounts of uplight to achieve this effect. Lamp wattages will be limited to 20W maximum light sources (1200 lumens per fixture, maximum), and specified fixtures will be carefully located, aimed, and louvered to maximize esthetic effect, while reducing glare and distraction. Landscape lighting will be extinguished at the curfew hour.

Silo Ridge proposes using warm-color sources (2700K-3000K) that are close to incandescent in appearance. These include warm-color ceramic metal halide lamps, pin-based compact fluorescent lamps, small numbers of halogen lamps, and warm-color LED products. This will support the traditional look of flame and early incandescent lights. (Blue-white light from cool color temperature LED, metal halide or mercury lamps, or orange light from High Pressure Sodium lamps will not be used.) Color rendering and color temperature for outdoor lamping have a strong influence on viewer’s visibility and visual impression on surrounding.

Smaller-scale lighting fixtures and poles will be specified to reinforce the residential scale of the community. ~~Pole-mounted street lights will range between 12’ and 15’ in height on streets, and will be spaced 60’-75’ (50’-65’ minimum) feet apart on the few streets that are continuously lighted. Parking lots will use poles up to 20’ in height in order to reduce the total number of fixtures required.~~ Lighting will be designed in accordance with Town of Amenia Zoning Law §121-40L:

§121-40L

L. Exterior illumination and glare. No use shall produce glare so as to cause illumination beyond the boundaries of the property on which it is located in excess of 0.5 footcandle. All exterior lighting, including security lighting, in connection with all buildings, signs or other uses shall be shielded and directed downward and away from adjoining streets and properties. The Planning Board may require special efforts to reduce the

impacts of exterior lighting, such as limiting hours of lighting, planting screening vegetation, or installing light shields to alleviate the impact of objectionable or offensive light and glare on neighboring residential properties and public thoroughfares.

Contrast is the single most important aspect of nighttime visibility. Without sufficient contrast, the amount of lighting must be increased to make the object more visible. Objects, words, people... everything is more visible as its contrast against the background increases. White painted crosswalk stripes against black pavement are highly visible, for example. High-contrast markings, possibly using retro-reflective paints or similar materials can make the edges of roadways more visible than overhead lighting can. ~~In Silo Ridge, the highly reflective paint shall be incorporated in the low traffic roadway in the Estate Homes neighborhood, for example so that the lights reflect off of the paints when the automobile headlights pass by and that real-time reflection provides visual guidance for the drivers.~~

Safety

Regardless of the illuminance levels, outdoor lighting will help to discourage criminal activity and provide pedestrians with a sense of security and safety. However, lighting all paths causes visual clutter, which translates to energy waste and unnecessary light pollution as well as high initial and operational lighting costs. Establish and confirm the needs of light in a specific outdoor circulation at night based on the activity. The intersections might have the recommended illuminance, but rumble strips could be more effective in slowing drivers as they enter the intersection, thereby making the intersection safer.

Maintenance

Group relamping and cleaning shall be scheduled regularly in order to maintain the targeted illuminance levels criteria and make the most efficient use of the luminaire and control equipment. If maintenance is poorly or rarely performed, actual illuminance value will drop and cause insufficient and unsafe conditions. Maintenance for LED luminaires is particularly problematic because although LED luminaires have a fairly long life, the lamp lumen depreciation values (LLD) at that rated life is 70% or perhaps even as low as 50% of the initial rating. The relamping or replacing time for the LED luminaire shall be calculated not at the rated life, but as the illuminance level gets lower than the target.

Lighting uniformity and Target Light Levels (Illuminance)

In general, Silo Ridge designers and engineers will design for the lowest light levels in these standards, knowing that the community desires low light levels, and knowing that with lower ambient light levels and less fixture glare, the eye's dark adaptation allows it to see well at low light levels.

Illuminance is the amount of light (lumens) falling on a given area and is measured in footcandles (SI Units: Lux). The Illuminating Engineering Society of North America (IESNA) and related subcommittees publish Recommended Practices (RP) and a Lighting Handbook that contains illuminance guidelines. Refer to the IES Lighting Handbook 10th Edition Section 26 - Lighting for Exteriors and RP-8-00 - Roadway lighting.

DESIGN INTENT STATEMENT ON OUTDOOR LIGHTING

Sustainability of lighting encompasses many issues: energy use because of power generation impacts on air quality and global climate change; use of materials because of their embodied energy; toxic by-products of mining, manufacturing and transportation; and light's unintended negative impact on flora, fauna, and human biology. The unwanted consequences of outdoor lighting include three main issues: Light Pollution (Sky Glow), Light Trespass, and Glare.

Energy Use

Shutting off lights when not needed, reducing usage to only the amount of light needed, and using energy-efficient lighting products are the three principal ways to reduce energy use in the Silo Ridge community. Reduced energy use in turn reduces environmental pollution, resulting damage to the environment and human health, and reduces the need to build costly power plants.

Light Pollution, Light Trespass, and Glare

Light Pollution (Sky Glow) is unwanted stray light in the atmosphere from light emitted directly upward by luminaires, or reflected from the ground. Particles in the air scatter the light, creating a glowing haze above a city or site. This light pollution is both a waste of energy because it serves no purpose, and it diminishes the ability of people and astronomical instruments to observe the night sky. Furthermore, light pollution and stray light disrupt the migration pattern of birds and can negatively affect the survival of frogs and sea turtles and other creatures.

Light pollution can be minimized by using the lowest wattage lamps that achieve the target light levels, and by selecting luminaires (light fixtures) that emit minimal, if any, light directly upward. Light emitted horizontally from light fixtures (from 90° to 100° as measured from straight downward) contributes most strongly to light pollution, so it is important to use fixtures that direct less light at those angles.

Light Trespass is light emitted toward neighboring properties where it is not wanted. Sometimes this light enters bedroom windows, making it difficult for people to sleep, and sometimes it becomes a distracting or annoying patch of brightness seen from a distance.

Street lights that emit light near horizontal angles, and wallpacks (lensed wall fixtures that emit a lot of horizontal light, such as the fixture shown below) are the biggest culprits for Light Trespass, although pole-mounted parking lot or sportsfield lighting fixtures can cause problems also.

Light trespass can be minimized or eliminated through the careful selection, location, and aiming of luminaires. It is important to choose luminaires that direct their light onto the intended areas, away from neighboring properties.

Glare is created when a light source is very bright relative to its background. It can be distracting or uncomfortable (called “Discomfort Glare”), or can interfere with a driver or pedestrian’s ability to see clearly. The latter is called “Disability Glare” or “Veiling Glare” and is very dangerous.

Glare can be reduced by choosing luminaires that direct light only where it is needed. By shielding the excessive brightness of the lamp or optical system from important viewing angles, we can improve the clarity of seeing for both the driver and pedestrian.

LEED®

Leadership in Energy and Environmental and Design (LEED®) is a program through the United States Green Building Council (USGBC) that has established goals for sustainable projects. This report will outline the goals for the Silo Ridge Hotel and Clubhouse’s site lighting.

Lighting Zones and Responsible Outdoor Lighting

LEED® Sustainable Sites Credit (SS8: Light Pollution Reduction) aims to reduce light pollution and impact on the nocturnal environment. This is accomplished by restricting the light leaving the interiors of buildings on the site, limiting light trespass, and limiting upward light.

The LEED® rating system classifies projects according to the following light zones: LZ1 – Dark (Parks and Rural Settings), LZ2 – Low (Residential), LZ3 – Medium (Commercial/Industrial, High-Density Residential), and LZ4 – High (Major City Centers, Entertainment Districts). Silo Ridge’s main street with clubhouse and retail/restaurant areas qualifies as LZ2 and the following are the LEED® requirements for this zone.

LZ2 — Low (Primarily residential zones, neighborhood business districts, light industrial areas with limited nighttime use and residential mixed-use areas).

Design exterior lighting so that all site and building mounted luminaires produce a maximum initial illuminance value no greater than 0.10 horizontal and vertical footcandles at the site boundary and no greater than 0.01 horizontal footcandles 10 feet beyond the site boundary. Document that no more than 2% of the total initial designed fixture lumens are emitted at an angle of 90 degrees or higher from nadir (straight down). For site boundaries that abut public rights-of-way, light trespass requirements may be met relative to the curb line instead of the site boundary.

The IESNA Luminaire Cutoff Classifications describe the light distribution of outdoor fixtures as Full Cutoff, Cutoff, Semi-Cutoff, and Non Cutoff. The “Full Cutoff” luminaire in the IES classification meet the LEED® requirement because no light is emitted at or above 90°.

The IESNA Luminaire Classification System (LCS)

- Full cutoff – The luminous intensity (in candelas) at or above an angle of 90° above nadir is zero, and the luminous intensity (in candelas) at or above a vertical angle of 80° above nadir does not numerically exceed 10% of the luminous flux (in lumens) of the lamp or lamps in the luminaire.
- Cutoff – The luminous intensity (in candelas) at or above an angle of 90° above nadir does not numerically exceed 2.5% of the luminous flux (in lumens) of the lamp or lamps in the luminaire, and the luminous intensity (in candelas) at or above a vertical angle of 80° above nadir does not numerically exceed 10% of the luminous flux (in lumens) of the lamp or lamps in the luminaire.
- Semicutoff – The luminous intensity (in candelas) at or above an angle of 90° above nadir does not numerically exceed 5% of the luminous flux (in lumens) of the lamp or lamps in the luminaire, and the luminous intensity (in candelas) at or above a vertical angle of 80° above nadir does not numerically exceed 20% of the luminous flux (in lumens) of the lamp or lamps in the luminaire.
- Noncutoff – There is no candela limitation in the zone above maximum candela.

OTHER SUSTAINABILITY GOALS AND STANDARDS

Dark Skies

The International Dark-Sky Association (IDA) strives to preserve the beauty, wonder, and scientific resource of the night sky. It offers a voluntary rating system for outdoor luminaires. Manufacturers can submit their product performance data to the IDA for an evaluation of light pollution potential. Approved products receive a Fixture Seal of Approval (FSA), allowing the

product to be advertised as IDA-Approved™ dark sky friendly product. Since this program is relatively new and voluntary, not all outdoor lighting manufacturers seek the FSA. However, all fixtures using lamps higher than 150W recommended for use at the Silo Ridge will strive to meet the IDA's FSA, and will be clearly shown and described during site plan review.

Controls to reduce energy usage

Another good idea for reducing light pollution and unnecessary energy use is turning off outdoor lighting after business hours, or reducing lighting levels late at night when there is less traffic in roadways and parking lots. A community such as Silo Ridge is likely to have many fewer residents and staff using walkways and parking lots late at night, so some of the lighting can be shut off completely, and other areas shut down to half level late at night. For example, the employee parking lot can have all but the closest parking area lighting shut off at a curfew hour. Street lighting could be reduced to half level at night, by either every other post-top fixture extinguished or dimmed the light level in each LED luminaries.

Sustainability (Green Principles, including toxicity and component materials)

Silo Ridge is setting an example of responsibility in sustainability. It follows that the luminaires installed on the site should follow “green” principles. As an example, Silo Ridge will avoid products that use polycarbonate, PVC, and ABS materials because they can have toxic implications in manufacturing or in use. Although LEED® certification standards do not ban these materials, it discourages their use.

Mercury is a heavy metal that can be toxic to humans and animals. Almost all conventional light sources except for incandescent lamps use tiny amounts of mercury as an integral part of the light production. While this sounds frightening, the alternative is worse. Fluorescent and metal halide lamps are far more efficient than incandescent or even LED light sources at this point in time, so they use much less power for the same amount of illuminance produced. If we were to revert to incandescent lamps and LED light source for all light production, we would be doubling to quadrupling our energy use, which would result in far greater production of hazardous mercury through fossil fuel power plant emissions. At this point in time it is impractical to completely eliminate mercury from lamps, so we recommend using lamps that exhibit long life, low mercury content, and excellent energy efficiency. We also recommend recycling burnt lamps, so that mercury can be recycled and kept out of waste streams where they could cause environmental damage. LED light sources can be specified for street lighting low-level path lighting, some soft building accent lighting, and step lighting.

Green principles encourage the use of reducing material use, reusing materials, and recycling materials at the end of their useful life. The intent of LEED® credits 4.1 and 4.2 (Recycled Content) is to increase demand for building products that incorporate recycled content materials, thereby reducing impacts resulting from extraction and processing of virgin materials.

Outdoor light fixtures and poles, as well as interior lighting fixtures, principally use steel and aluminum for their durability. Steel and aluminum can be recycled at the end of their useful life. At this point in time, few lighting products on the market promote their recycled content. As specifiers for LEED® projects, we are encouraging manufacturers to consider:

- increasing recycled content of their products;
- designing products for disassembly (i.e. when product reaches end of life, the various parts can be easily separated for recycling or reuse);
- recyclable or biodegradable packaging; and
- responsible production processes.

Local manufacturing

The LEED® rating systems offers points for using a specific portion of materials that were manufactured (defined as manufacturing completed) within a 500 mile radius of the Site. This reduces the greenhouse gases generated through transporting goods long distances, and works to strengthen local economies. Credits MR 5.1 and 5.2 of the LEED® Materials and Resources section explicitly exempt mechanical, electrical, and plumbing (MEP) equipment from this requirement. In the spirit of this credit, however, manufacturers within a 500-mile radius of Amenia NY will be in the first tier of considerations for Silo Ridge.

Lighting Performance - Outdoor

When lighting is designed for a community, we want it to bring out the beauty of the architecture and landscape, but it also must perform well functionally. This means it must provide the lighting levels and quality of light that helps residents, guests, and staff to perform the visual work that helps them gather information about their environment or task. This translates to seeing moving and parked cars, faces and gestures of people around them, signage, edges of sidewalks and stairs and roadways, pedestrians in a crosswalk, ice on pavement, etc. Because there are so many different types of visual tasks and spaces, the criteria for good quality lighting will vary. Target illuminances (footcandles), uniformity ratios, energy limits, and other criteria are derived from Illuminating Engineering Society of North America (IESNA) standards and the New York Energy Conservation Code (NYECC).

It is important that new or replacement fixtures be durable, easy to maintain, and energy-efficient, because an installation that lasts a long time and is inexpensive to operate is also more economical and more sustainable in the long run.

Good lighting practice for outdoor nighttime visibility includes:

- providing enough light to help users see important details in an area
- providing sufficient lighting uniformity that important details in the darker areas can still be seen
- minimizing disabling glare for pedestrians and drivers, and
- avoiding excessive brightness that can temporarily blind users as they move from brighter areas to darker areas.

It is important to understand that the human visual system can see in bright sunshine and also in moonlight, but not at the same time. It takes time for the visual system to adapt to brighter or lower light levels. In general, it can only see details within a range of 10 to 1 in luminance (measurable brightness), and without careful design, nighttime environments can easily exceed this range by 10 or 100 times. The result is that excessively bright luminaires, walls, or signs can make it difficult or impossible for users to see a patch of ice on the sidewalk or a deer darting out across the roadway due to the time required for human eyes to adapt and adjust in the surrounding brightness.

APPENDIX F: SOILS & GEOLOGY

APPENDIX F: SOILS & GEOLOGY

SOILS: EXISTING CONDITIONS

According to the United States Department of Agriculture (USDA) Dutchess County Soil Survey¹⁶ for this site, 17 soil types are identified on the ~~670~~676±-acre Site, as illustrated on “Soils Map.” The following offers the location and detailed description of the various soil classifications identified for this site.

Copake gravelly silt loam, rolling (CuC): This soil unit consists of very deep, well drained soils formed in glaciofluvial deposits high in limestone fragments. Permeability is moderate or moderately rapid in the surface layer and subsoil, and very rapid in the substratum. Surface runoff is medium and the erosion hazard is moderate. Slopes are complex and range from 5 to 16%. Depth to bedrock is more than 60 inches and the seasonal high water table is at a depth greater than 6 feet. This unit has been identified in the northeast portion of the site.

Copake gravelly silt loam, hilly (CuD): This soil unit consists of very deep, well drained soils formed in glaciofluvial deposits high in limestone fragments. Permeability is moderate or moderately rapid in the surface layer and subsoil, and very rapid in the substratum. Surface runoff is medium and the erosion hazard is severe. Slopes are complex and range from 15 to 30%. Depth to bedrock is more than 60 inches and the seasonal high water table is at a depth greater than 6 feet. This unit has been identified in the northeast portion of the site.

Copake channery silt loam, fan, 3-8% slopes (CwB): This soil unit consists of very deep, gently sloping and well drained soils formed in glacial outwash deposits. Slopes are generally smooth. Permeability is moderate or moderately rapid in the surface layer and subsoil, and very rapid in the substratum. Surface runoff is slow and the erosion hazard is slight. Depth to bedrock is more than 60 inches and the depth to the seasonal high water table (April-May) ranges from 3 to 6 feet. This unit meets the criteria for prime farmland. This mapping unit has been identified in the central portion of the Site.

Dutchess-Cardigan complex, hilly, rocky (DwD): This unit consists of very deep, well drained Dutchess soils and moderately deep, well drained Cardigan soils that formed in glacial till deposits. The Dutchess soil has a depth to bedrock of more than 60 inches and the seasonal high water table is at a depth of more than 6 feet. The Cardigan soil has a depth to bedrock of between 20 and 40 inches and a seasonal high water table at a depth of more than 6 feet. Both the Dutchess and Cardigan soils in this group have moderate permeability, rapid surface runoff, and severe erosion potential. This soil complex is identified on the northern portion of the Site, north of US Route 44.

Fluvaquents-Udifluvents complex, frequently flooded (Ff): This unit consists of nearly level, very deep, somewhat poorly drained to very poorly drained Fluvaquents and very deep, moderately well drained to somewhat excessively drained Udifluvents. It is subject to frequent flooding and soil characteristics such as texture, gravel content, and drainage are variable within short distances. Surface runoff is slow to ponded and the erosion hazard is moderate. Depth to bedrock is more than 60 inches and the seasonal high water table is at a depth of between 0.5 feet and 6 feet. This map unit is identified in a small area in the central portion of the Site, adjacent to a wetland area.

Galway-Farmington complex, hilly (GfD): This unit consists of moderately deep, well drained and moderately well drained Galway soils and shallow, well drained and somewhat excessively drained Farmington soils that formed in glacial till deposits. Slopes are complex and range from 15 to 30%. Permeability is moderate, surface runoff is rapid, and erosion hazard is severe. For Galway soils, the depth to bedrock is 20 to 40 inches and the seasonal high water table is perched at a depth of 1.5 to 3 feet. For Farmington soils, the depth to bedrock is 10 to 20 inches and the seasonal high water table is at a depth of more than 6 feet. This map unit is identified in a small area in the central portion of the Site adjacent to a wetland area.

Hollis-Chatfield-Rock outcrop complex, steep (HoE): This unit consists of shallow, well drained and somewhat excessively drained Hollis soils; moderately deep, well drained and somewhat excessively drained Chatfield soils; and areas of rock outcrop. It is typically found on hills and side slopes that are underlain by folded schist, granite, or gneiss bedrock. Slopes are complex and range from 25% to 45%. Hollis soils have a typical depth to bedrock of 10-20 inches, while Chatfield soils have a depth to bedrock of 20-40 inches. Both soils have very rapid surface runoff, a very severe erosion hazard, and a depth to the seasonal high water table of more than 6 feet. This soil complex is mapped in a small area of the eastern central portion of the site near Route 22.

Nassau-Cardigan complex, rolling, very rocky (NwC): This unit consists of shallow, somewhat excessively drained Nassau soils and moderately deep, well drained Cardigan soils that formed in glacial till deposits. Slopes are complex and range from 5 to 16%. Both soils have moderate permeability, medium surface runoff, moderate erosion hazard, and a depth to the seasonal high water table of more than 6 feet. Nassau soils have a depth to bedrock of between 10 and 20 inches and Cardigan soils have a depth to bedrock of 20 to 40 inches. This map unit is identified in the western portion of the Site.

Nassau-Cardigan complex, hilly, very rocky (NwD): This unit consists of shallow, somewhat excessively drained Nassau soils and moderately deep, well drained Cardigan soils that formed in glacial till deposits. It is found on hills and side slopes that are underlain by folded shale bedrock.

Nassau soils are commonly on upper slopes and near areas of rock outcrop and Cardigan soils are commonly on lower concave slopes. Rock outcrop covers 2% to 10% of the surface. Slopes are complex and range from 15% to 30%. Both soils have moderate permeability, rapid surface runoff, severe erosion hazard, and a depth to the seasonal high water table of more than 6 feet. Nassau soils have a depth to bedrock of between 10 and 20 inches and Cardigan soils have a depth to bedrock of 20 to 40 inches. This soil complex is mapped in a very small area in the western hills of the Site.

Nassau-Rock outcrop complex, steep (NxE): This unit is comprised of shallow, somewhat excessively drained Nassau soils and areas of rock outcrop. Slopes are complex and range from 25% to 45%. Permeability is moderate, surface runoff is very rapid, and the erosion hazard is very severe. The depth to bedrock is 10 to 20 inches and the seasonal high water table is at a depth of more than 6 feet. NxE soils are found on the far western edge of the Site.

Nassau-Rock outcrop complex, very steep (NxF): This unit is comprised of shallow, somewhat excessively drained Nassau soils and areas of rock outcrop. It is found on hills and side slopes that are underlain by folded shale bedrock. Slopes are complex and range from 45% to 70%. Permeability is moderate, surface runoff is very rapid, and the erosion hazard is very severe. The depth to bedrock is 10 to 20 inches and the seasonal high water table is at a depth of more than 6 feet. This complex is mapped in the eastern hillsides of the Site and in areas north of Route 44.

Stockbridge silt loam, 8-15% slopes (SkC): This unit consists of very deep, sloping and well drained soils formed in glacial till deposits. Permeability is moderate in the surface layer and subsoil, and slow in the substratum. Surface runoff is rapid and erosion hazard is moderate. Depth to bedrock is more than 60 inches and the seasonal high water table is at a depth greater than 6 feet. Stockbridge soils are generally located within the central portion of the Site north and south of the hairpin turn in US Route 44. This soil is identified as a soil of statewide significance by the Natural Resources Conservation Service (NRCS), indicating it is viable for agriculture.

Stockbridge silt loam, 15-25% slopes (SkD): This unit consists of very deep, moderately steep, well drained Stockbridge soils that formed in glacial till deposits. Slopes are smooth. Permeability is moderate in the surface layer and subsoil and slow to moderately slow in the substratum. The depth to bedrock is more than 60 inches and the seasonal high water table is at a depth of more than 6 feet. Stockbridge soils are generally located within the central portion of the Site north and south of the hairpin turn in US Route 44.

Stockbridge silt loam, 25-45% slopes (SkE): This unit consists of very deep, steep, and well drained Stockbridge soils that formed in glacial till deposits. Slopes are smooth. Permeability is moderate in the surface layer and subsoil, and slow or moderately slow in the substratum. Surface runoff is very rapid and erosion hazard is very severe. Depth to bedrock is more than 60 inches and the seasonal high water table is at a depth greater than 6 feet. Stockbridge soils are generally located within the central portion of the Site north and south of the hairpin turn in US Route 44.

Stockbridge-Farmington complex, hilly, rocky (SmD): This unit consists of very deep, well drained Stockbridge soils and shallow, well drained and somewhat excessively drained Farmington soils that formed in glacial till deposits. Slopes are complex and range from 15 to 30%. Permeability is moderate in the surface layer and subsoil, and slow or moderately slow in the substratum. Surface runoff is rapid and erosion hazard is severe. Depth to bedrock is more than 60 inches and the seasonal high water table is at a depth greater than 6 feet. SmD soils are identified in a band running north/south through the central portion of the Site.

Udorthents, smoothed (Ud): This unit consists of very deep, somewhat excessively drained to moderately well drained soils that have been altered by cutting and filling. Slopes are dominantly 0 to 8% but range from 8 to 25% on the sides of excavations and along highways. The characteristics of this soil are so variable that an onsite soil investigation is typically needed to determine suitability for proposed land uses. This unit is mapped in the southeastern portion of the Site, adjacent to Route 22.

Udorthents, wet substratum (Ue): This unit consists of moderately well drained soils that have been altered by filling. It is found on filled depressions, drainageways, and areas of tidal marsh. Slopes are dominantly 0 to 3%, but range up to 8%. The characteristics of this soil unit are so variable that an onsite soil investigation is typically needed to determine suitability for proposed land uses. This unit is mapped in a small area along Route 22 in the northern portion of the Site.

Wayland silt loam (Wy): This unit consists of very deep, nearly level, and poorly drained and very poorly drained Wayland soils that formed in alluvium deposits. It is found on flood plains. Slopes are smooth and range from 0 to 3%. Permeability is moderate to moderately slow in the surface layer and slow in the subsoil and substratum, surface runoff is slow, the erosion hazard is slight, and the depth to the seasonal high water table is 0.5-1.0 foot. The Table below provides a summary of the specific limitations for each soil unit within the project area. The construction limitation designations of “slight,” “moderate,” and “severe” refer to level of engineering which may be necessary to develop on a particular soil type. Soils with “slight” limitations are generally favorable for development and any limitations are easily overcome. Soils with “moderate” or “severe” limitations may require some special design, planning, or maintenance to address or minimize the limitation

Soil Category Approximate Disturbance (Acres)

Statewide Importance 63±

Prime Farmland < 0.1±

Hydric 0.9±

Partially Hydric < 0.1±

APPENDIX G: SPECIAL HABITAT VALUE PLANT LISTS

APPENDIX G: SPECIAL HABITAT VALUE PLANT LISTS

Refer to the Habitat Management Plan in Section 3.6 for more information.

AQUATIC HABITAT – AQUATIC BENCH PLANTS, WETLAND SHELF AND EROSION CONTROL/RESTORATION GROUP FOR STORM WATER MANAGEMENT BASINS.

Grasses

- Ernst Seeds “Retention Basin Wildlife Mix”

Sedges

- Bearded Sedge (*Carex comosa*)
- Fringed Sedge (*Carex crinita*)
- Wool Grass (*Scirpus cyperinus*)

Rushes

- Soft Rush (*Juncus effusus*)
- Hardstem Bull Rush (*Scirpus acutus*)

Forbes

- Sweet Flag (*Acorus americanus*)
- Pickernelweed (*Pontederia cordata*)
- Burreed (*Sparganium americanum*)
- Arrow Arum (*Peltandra virginica*)

P0 – LITTORAL SHELF GROUP FOR EMERGENT AQUATIC HABITAT ENHANCEMENT MARGINS

Plant species for the P0 group have been selected to be consistent with the littoral aquatic communities present in the onsite and contiguous wetlands at the Silo Ridge property. Prior to establishing a final list, a qualitative survey will be completed to confirm the species proposed for this planting and to identify new species that can be added to the list.

Sedges

- Fringed Sedge (*Carex crinita*)
- Shallow Sedge (*Carex lurida*)
- Wool Grass (*Scirpus cyperinus*)

Rush

- Soft Rush (*Juncus effusus*)
- Dark Green Bull Rush (*Scirpus atrovirens*)

Forbes

- Broadleaf Cattail (*Typha latifolia*)

~~P1 – SHORELINE GROUP FOR AQUATIC HABITAT ENHANCEMENT MARGINS~~

~~Grasses~~

- ~~Rice Cut Grass (*Leersia oryzoides*)~~
- ~~Seed Mix – New England Wetland Plants “Wet Mix”~~

~~Sedges~~

- ~~Water Sedge (*Carex aquatilis*)~~
- ~~Awl Sedge (*Carex stipata*)~~

Rushes

- Soft Rush (Juncus effusus var. Pylaei)
- Hardstem Bull Rush (Scirpus acutus)
- Dark Green Bull Rush (Scirpus atrovirens)

Forbes

- Swamp Milkweed (Asclepias incarnata)
- Marsh Marigold (Caltha palustris)
- Spotted Joe-pye Weed (Eupatorium maculatum)

Shrubs

See P4 Shrubs for Shrub plants list in P1 – Use OBL or FAC/WET

HR2—HR/F2 – HIGH ROUGH AND FESCUE MIX FOR IN-PLAY BUFFERS AND HABITAT ENHANCEMENTS

- Sheep fescue (*Festuca ovina*)
- Red fescue (*Festuca rubra*)
- Fine-leaved fescue (*Festuca trachyphylla*, *Festuca filiformis*)
- Little bluestem (*Schizachyrium scoparium*)
- Tufted hairgrass (*Deschampsia cespitosa*)

NOTE: Grasses listed in the HR palette are representative. Other cultivars may be added based on disease resistance, drought tolerance, and growth form, to develop a suitable, sustainable grass cover that is compatible with the golf course usage while also protecting natural habitat values.

P1 – SHORELINE GROUP FOR AQUATIC HABITAT ENHANCEMENT MARGINS

Grasses

- Rice Cut Grass (*Leersia oryzoides*)
- Seed Mix – New England Wetland Plants “Wet Mix”

Sedges

- Water Sedge (*Carex aquatilis*)
- Awl Sedge (*Carex stipata*)

Rushes

- Soft Rush (*Juncus effusus var. Pylaei*)
- Hardstem Bull Rush (*Scirpus acutus*)
- Dark Green Bull Rush (*Scirpus atrovirens*)

Forbes

- Swamp Milkweed (*Asclepias incarnata*)
- Marsh Marigold (*Caltha palustris*)
- Spotted Joe-pye Weed (*Eupatorium maculatum*)

Shrubs

See P4 Shrubs for Shrub plants list in P1 – Use OBL or FAC/WET

P2 – SHORT GRASSES AND FORBS FOR IN-PLAY BUFFERS AND HABITAT ENHANCEMENTS

Grasses

- Dropseed (*Sporobolus asper*)
- Little Bluestem (*Schizachyrium scoparium*)
- Poverty Grass (*Danthonia spicata*)
- Sideoats Gramma (*Bouteloua curtipendula*)
- Tufted Hairgrass (*Deschampsia cespitosa*)
- Purple Lovegrass (*Eragrotis spectabilis*)

Forbs

- Common Evening Primrose (*Oenothera biennis*)
- Columbine (*Aquilegia canadensis*)
- Heath Aster (*Aster ericoides*)
- New England Aster (*Aster novae-angliae*)
- Canada Trick-trefoil (*Desmodium canadense*)
- Wild Lupine (*Lupinus perennis*)
- Wild Bergamot (*Monarda fistcosa*)
- Sundrops (*Oenothera fruticosa*)
- Beardtongue (*Penstemon digitalis*)
- Perennial Phlox (*Phlox paniculata*)
- Cut-leaf Coneflower (*Rudbeckia laciniata*)
- Blue Vervain (*Verbena hastata*)

NOTE: Grasses listed in the HR palette are representative. Other cultivars may be added based on disease resistance, drought tolerance, and growth form, to develop a suitable, sustainable grass cover that is compatible with the golf course usage while also protecting natural habitat values.

P3 – TALL GRASSES AND FORBS

Grasses

- Big bluestem (*Andropogon gerardii*)
- Side-oats gramma (*Bouteloua curtipendula*)
- Poverty grass (*Danthonia spicata*)
- Hairgrass (*Deschampsia cespitosa*)
- Wild rye (*Elymus canadensis*)
- Purple love-grass (*Eragrostis spectabilis*)
- Switch grass (*Panicum virgatum*)
- Little bluestem (*Schizachyrium scoparium*)
- Indian nut-grass (*Sorghastrum nutans*)
- Cordgrass (*Spartina pectinata*)
- Dropseed (*Sporobolus asper*)

Forbes

- Common Evening Primrose (*Oenothera biennis*)
- Columbine (*Aquilegia canadensis*)
- Heath Aster (*Aster ericoides*)
- New England Aster (*Aster novae-angliae*)
- Canada Trick-trefoil (*Desmodium canadense*)
- Wild Lupine (*Lupinus perennis*)

- Wild Bergamot (*Monarda fistcosa*)
- Sundrops (*Oenothera fruticosa*)
- Beardtongue (*Penstemon digitalis*)
- Perennial Phlox (*Phlox paniculata*)
- Cut-leaf Coneflower (*Rudbeckia laciniata*)
- Blue Vervain (*Verbena hastata*)

P4-GT - SHRUBS AND TREES FOR OUT-OF-PLAY BUFFERS AND HABITAT ENHANCEMENTS

Shrubs (ObiWet) (use with P1 Plant Palette)

- Bog laurel (*Kalmia polifolia*)

Shrubs (FacWet) (Use with P1 Plant Palette)

- Red chokeberry (*Aronia arbutifolia*)
- Sweet pepperbush (*Clethra alnifolia*)
- Swamp dogwood (*Cornus amomum*)
- Gray dogwood (*Cornus foemina/racemosa*)
- Red twig dogwood (*Cornus sericea*)
- Inkberry (*Ilex glabra*)
- Winterberry (*Ilex verticillata*)
- Southern arrowwood (*Viburnum dentatum*)
- Nanny berry or wild raisin (*Viburnum lentago* or *V. cassinoides*)
- Highbush cranberry (*Viburnum opulus* var. *americana* or *V. trilobum*)
- Elderberry (*Sambucus canadensis*)
- Hardhack (*Spiraea tomentosa*)
- Lowbush blueberry (*Vaccinium angustifolium*)
- Highbush blueberry (*Vaccinium corymbosum*)

Trees (FacWet) (Use with P1 Plant Palette)

- Red maple (*Acer rubrum*)
- Silver maple (*Acer saccharinum*)
- River birch (*Betula nigra*)
- Atlantic white cedar (*Chamaecyparis thyoides*)
- Green ash (*Fraxinus pennsylvanica*)
- American larch (*Larix laricina*)
- Tupelo (*Nyssa sylvatica*)
- Swamp white oak (*Quercus bicolor*)
- Eastern white cedar (*Thuja occidentalis*)
- Black Willow (*Salix nigra*)

Shrubs (FacUpland)

- Witch hazel (*Hamamelis virginiana*)
- Chokecherry (*Prunus virginiana*)
- Staghorn sumac (*Rhus hirta/typhina*)
- Maple-leaf viburnum (*Viburnum acerifolium*)

Trees (FacUpland)

- Red maple (*Acer rubrum*)
- Eastern service berry (*Amelanchier canadensis*)
- Paper birch (*Betula papyrifera*)

- Shagbark Hickory (*Carya ovata*)
- Hornbeam (*Carpinus caroliniana*)
- Beech (*Fagus grandifolia*)
- Eastern red cedar (*Juniperus virginiana*)
- Hophornbeam (*Ostrya virginiana*)
- White spruce (*Picea glauca*)
- Red pine (*Pinus resinosa*)
- Eastern white pine (*Pinus strobus*)
- Bigtooth aspen (*Populus grandidentata*)
- Pin cherry (*Prunus pennsylvanica*)
- White oak (*Quercus alba*)
- Scarlet oak (*Quercus coccinea*)
- Red oak (*Quercus rubra*)
- Black oak (*Quercus velutina*)
- Sassafras (*Sassafras albidum*)

~~P5 — AQUATIC BENCH PLANTS, WETLAND SHELF AND EROSION CONTROL/RESTORATION GROUP FOR STORM WATER MANAGEMENT BASINS.~~

Grasses

- ~~Ernst Seeds “Retention Basin Wildlife Mix”~~

Sedges

- ~~Bearded Sedge (*Carex comosa*)~~
- ~~Fringed Sedge (*Carex erinita*)~~
- ~~Wool Grass (*Scirpus cyperinus*)~~

Rushes

- ~~Soft Rush (*Juncus effusus*)~~
- ~~Hardstem Bull Rush (*Scirpus acutus*)~~

Forbes

- ~~Sweet Flag (*Acorus americanus*)~~
- ~~Pickeralweed (*Pontederia cordata*)~~
- ~~Burreed (*Sparganium americanum*)~~
- ~~Arrow Arum (*Peltandra virginica*)~~

FLOOD PLAIN RESTORATION

- Upperstory Trees
- Red Maple (*Acer Rubrum*)
- Sweet Birch (*Betula Lenta*)
- White Pine (*Nyssa Sylvatica*)
- Swamp White Oak (*Quercus Bicolor*)
- Understory Trees
- Serviceberry (*Amelanchier Canadensis*)
- Alternate Leaved Dogwood (*Cornus Alternifolia*)
- Witch Hazel (*Hamamelis Virginiana*)
- Red Cedar (*Juniper Virginiana*)
- Chokecherry (*Prunus Virginiana*)

- Shrubs and Ferns
- Sweet Pepperbrush (Clethra Alnifolia)
- Silky Dogwood (Cornus Amomum)
- Gray Dogwood (Cornus Racemosa)
- American Hazelnut (Corylus Americana)
- Winterberry (Ilex Verticillata)
- Spicebush (Lindera Benzoin)
- Royal Fern (Osmunda Regalis)
- Elderberry (Sambucus Canadensis)
- Meadowsweet (Spirea Latifolia)
- Cranberrybush Viburnum (Viburnum Trilobum)

APPENDIX H: LEED CERTIFICATION

APPENDIX H: LEED CERTIFICATION

The LEED green building rating system -- developed and administered by the U.S. Green Building Council, a Washington D.C.-based, nonprofit coalition of building industry leaders -- is designed to promote design and construction practices that increase profitability while reducing the negative environmental impacts of buildings and improving occupant health and well-being.

The LEED rating system offers four certification levels for new construction -- Certified, Silver, Gold and Platinum -- that correspond to the number of credits accrued in five green design categories: sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and Innovation & Design Process.

LEED Scorecard

SUSTAINABLE SITES POSSIBLE: 26

- SSp1 Construction activity pollution prevention REQUIRED
- SS1 Site selection 1
- SS2 Development density and community connectivity 5
- SS3 Brownfield redevelopment 1
- SS4.1 Alternative transportation - public transportation access 6
- SS4.2 Alternative transportation - bicycle storage and changing rooms 1
- SS4.3 Alternative transportation - low-emitting and fuel-efficient vehicles 3
- SS4.4 Alternative transportation - parking capacity 2
- SS5.1 Site development - protect or restore habitat 1
- SS5.2 Site development - maximize open space 1
- SS6.1 Stormwater design - quantity control 1
- SS6.2 Stormwater design - quality control 1
- SS7.1 Heat island effect - nonroof 1
- SS7.2 Heat island effect - roof 1
- SS8 Light pollution reduction 1

WATER EFFICIENCY POSSIBLE: 10

- WEp1 Water use reduction REQUIRED
- WEc1 Water efficient landscaping 4
- WEc2 Innovative wastewater technologies 2
- WEc3 Water use reduction 4

ENERGY & ATMOSPHERE POSSIBLE: 35

- EAp1 Fundamental commissioning of building energy systems REQUIRED
- EAp2 Minimum energy performance REQUIRED
- EAp3 Fundamental refrigerant Mgmt REQUIRED
- EAc1 Optimize energy performance 19
- EAc2 On-site renewable energy 7
- EAc3 Enhanced commissioning 2
- EAc4 Enhanced refrigerant Mgmt 2
- EAc5 Measurement and verification 3
- EAc6 Green power 2

MATERIAL & RESOURCES POSSIBLE: 14

- MRp1 Storage and collection of recyclables REQUIRED
- MRc1.1 Building reuse - maintain existing walls, floors and roof 3
- MRc1.2 Building reuse - maintain interior nonstructural elements 1
- MRc2 Construction waste Mgmt 2
- MRc3 Materials reuse 2
- MRc4 Recycled content 2
- MRc5 Regional materials 2
- MRc6 Rapidly renewable materials 1
- MRc7 Certified wood 1

INDOOR ENVIRONMENTAL QUALITY POSSIBLE: 15

- EQp1 Minimum IAQ performance REQUIRED
- EQp2 Environmental Tobacco Smoke (ETS) control REQUIRED
- EQc1 Outdoor air delivery monitoring 1
- EQc2 Increased ventilation 1
- EQc3.1 Construction IAQ Mgmt plan - during construction 1
- EQc3.2 Construction IAQ Mgmt plan - before occupancy 1
- EQc4.1 Low-emitting materials - adhesives and sealants 1
- EQc4.2 Low-emitting materials - paints and coatings 1
- EQc4.3 Low-emitting materials - flooring systems 1
- EQc4.4 Low-emitting materials - composite wood and agrifiber products 1
- EQc5 Indoor chemical and pollutant source control 1
- EQc6.1 Controllability of systems - lighting 1

- EQc6.2 Controllability of systems - thermal comfort 1
- EQc7.1 Thermal comfort - design 1
- EQc7.2 Thermal comfort - verification 1
- EQc8.1 Daylight and views - daylight 1
- EQc8.2 Daylight and views - views 1

INNOVATION POSSIBLE: 6

- IDc1 Innovation in design 5
- IDc2 LEED Accredited Professional 1

REGIONAL PRIORITY POSSIBLE: 4

- RPc1 Regional priority 4

TOTAL 110

40-49 Points: CERTIFIED

50-59 Points: SILVER

60-79 Points: GOLD

80+ Points: PLATINUM

APPENDIX J: TOWN OF AMENIA SCENIC PROTECTION OVERLAY DISTRICT