ROHDE, SOYKA & ANDREWS
Consulting Engineers, P.C.

40 Garden Street
Poughkeepsie, NY 12601
Phone: (845) 452-7515 Fax: (845) 452-8335
E-Mail Address: *jmangarillo@rsaengrs.com*

Wilfred A. Rohde, P.E • Michael W. Soyka, P.E • John V. Andrews, Jr., P.E.

Memorandum

To:	Planning Board Town of Amenia	**Attn:**	Norm Fontaine Chairperson
From:	Julie S. Mangarillo, P.E., CPESC	**Subject:**	MDP and Site Plan Phase 1 Comments
Date:	October 13, 2014	**Project:**	Silo Ridge

The following material was reviewed:

- Refer to Attachment A

Submitted documents have been reviewed for conformance with Master Development Plan (MDP) approval and Site Plan Phase 1 approval.

The following general and/or discussion comments are offered for consideration by the Planning Board:

1. There are many inconsistencies among the project documents such as the MDP booklet, MDP drawings, site plan drawings, water and wastewater drawings and other documentation. These inconsistencies need to be resolved.
2. Under proposed conditions, there will be significant disturbance of steep slopes, including slopes greater than 30% slope, particularly for single-family homes in Estate Home lots. MDP drawing LA-3 "Site Paving & Site Walls" states "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." Site Plan Phase 1 drawing S1.01 "Site Retaining Wall Sections and Details" include details for retaining walls 8 feet and 11 feet high, in addition to 4 feet and 6 feet high. Current grading plans show retaining walls in excess of the 11 foot retaining wall included on drawing S1.01. Additional consideration should be given to further reducing disturbance on slopes steeper than 30% and design of retaining walls. For lots with multiple retaining walls, such as E-47 and E-48, provide cross-section views through the lots and retaining wall top and bottom elevations to better evaluate the proposed conditions.
3. The southern parcels are mentioned in some documents, such as archeological report and breeding bird survey. The Phase 1 Environmental Assessment conducted in 2007, with addendum in 2008 and tank closure report in 2014 does not include documentation of the close-out of the private landfill. Now that there is the easement and lot line revision on the southern parcel, documentation of the landfill close-out and monitoring is to be provided.
4. A waiver has been requested for providing the minimum sight distances at intersections as specified in Subdivision Code §105-22.F. Visibility at intersections and having

adequate stopping and turning sight distance is important for vehicle and pedestrian safety. The maintenance of sight distance is included in the 8/18/2014 letter from the Amenia Fire Company. We recommend the applicant comply with the minimum sight distance requirements.

5. Provide justification for the requested waivers. Some requested waivers may allow for reduced impacts.
6. Field change procedure: Field changes are commonly needed during the course of construction. A procedure should be put into place for the Town to manage requested field changes and determine when a requested field change is significant enough to require Planning Board approval for a Site Plan amendment.
7. The proposed water and wastewater systems will require testing prior to start of operations. The Planning Board should determine what level of participation the Town will have regarding the utility testing. For example, does the Planning Board want a Town representative to witness all of the utility testing? If so, a procedure will have to be put in place to ensure the Applicant is aware of this requirement and can coordinate test scheduling.
8. Comments regarding the Design Guidelines for the Estate Homes will be issued under separate cover.
9. Comments regarding the Subdivision Plat will be issued under separate cover.

The following new comments are offered for consideration by the Planning Board:

Stormwater

10. Notice of Intent (NOI) Page 12, #39 – Provide justification for not meeting 100% RRv.
11. Stormwater Pollution Prevention Plan (SWPPP) page 10 regarding use of golf course and NYSDEC regulated wetland adjacent area as sheet flow to filter strip - Provide confirmation that contributing area is not too steep and otherwise meets the design criteria for the green infrastructure practice of "Sheetflow to Riparian Buffers or Filter Strips".
12. Include an explanation in the SWPPP narrative how the impervious surfaces for Estate Homes that are subject to change based on future homebuyer preference were addressed in the SWPPP calculations. This explanation could be included under "Step 5" on page 12 or "Hydrologic Analysis" on page 13.
13. SWPPP pages 18 & 24 – Include that approval is needed prior to disturbing more than 5 acres at any one time.
14. Recommend taking credit for SWM #11 as an infiltration practice in NOI and SWPPP.
15. Testing of soils for infiltration practices needs to be completed during design, not during construction. Infiltration testing is to conform to requirements in Appendix D of NYS Stormwater Management Design Manual.
16. SWPPP Appendix E, sandfilter calculations: Are these designed "offline"? Spreadsheet indicates no overflow weir provided.

17. Provide hydraulic grade line analysis of pipe storm drainage system.
18. Provide details and restrictions for concrete truck wash-out, both in the SWPPP and the drawings, C14.04.
19. How will the NOI and Notice of Termination (NOT) be handled for individual estate lots that are sold off?

Water/Wastewater

20. In reference to Subdivision Code §105-25.E, who will be responsible for maintenance and operation of the water treatment and wastewater treatment facilities and appurtenances? Will the proposed transportation corporation have its own trained and licensed staff? Will a 3rd party, licensed contractor be hired to operate the facilities?
21. Have requirements from the "New York State Design Standards for Intermediate Sized Wastewater Treatment Systems" dated March 5, 2014 been met, particularly for separation distances of wastewater treatment plant (WWTP) from property lines and residences?
22. Provide water and wastewater connections to individual buildings. For areas of steep slopes, utility connections are to be coordinated with driveways to minimize disturbance.
23. The proposed hydrant included on Site Plan Phase 1 drawing C10.16 is to be reviewed and approved by the Fire Department.
24. Provide notes for utility testing requirements and standards on the drawings.
25. Refer to "Groundwater Exploration and Pumping Test Program", prepared by LBG, dated August 2014:
    a. Has the design engineer for water and wastewater system (Cedarwood Engineering) been provided with updated water and wastewater design flows?
    b. Similarly, Appendix J "Updated Wastewater Demand" of the Addendum to the EAF should be updated to be consistent with the design flows from this report.
    c. The report references that the Dutchess County Department of Health approved various aspects of the test program. If the DOH provided letters, those should be included in the report.
    d. Based on the report, some of the wells selected for water supply need additional testing or treatment. Follow-up documentation will have to be provided to the Town.
    e. There are more wells on-site than will be used for water supply or irrigation. How will the other wells be handled? Provide information on decommissioning.
26. Provide a plan for water supply that shows existing well locations and identifies which wells will remain in use and which will be decommissioned. Some information on existing wells is included within the individual site plans and in the "Groundwater Exploration and Pumping Test Program" prepared by LBG, dated August 2014. However, a single plan showing which wells are proposed for use and which are proposed to be decommissioned will be beneficial. Wells proposed for continued use should be labeled as drinking water supply, irrigation or monitoring wells.

27. Show locations of existing septic system(s) for main building and maintenance building on Site Plan Phase 1 existing conditions drawings. How will existing septic system(s) be decommissioned?
    a. Refer to Phase 1 Environmental Site Assessment (ESA), prepared by IVI Due Diligence Services, Inc., dated June 8, 2007 – Page 26 states "Inasmuch as hazardous materials are used on-site on a regular basis the potential exists that deleterious materials have been introduced into the SSDS [subsurface sewage disposal system]. As such, testing of the septic tank, leach fields, and distribution boxes for contamination would be prudent." Has this testing been performed? If so, the ESA is to be updated.
28. Refer to "Water Budget Report for the Combined Irrigation Pond", prepared by The Chazen Companies and LBG, revised 8/21/2014:
    a. There is conflicting information in the report regarding which scenario will use more water; 'established' or 'grow-in.' Refer to section 2.3 "a golf course requires significantly more water during the "grow-in" phase than once the turf is established." Compared to section 4.3 "It should be noted that the entire golf course and common landscaped areas will not be growing in simultaneously. Therefore the grow-in irrigation demands depicted in the appendices are conservatively overestimating the actual grow-in irrigation needs." However, Table 2 in Section 5 shows under 'dry year' conditions, there will be less irrigation volume available for 'established vegetation' compared to 'grow-in'. Clarify this analysis.

Natural Resource Management Plan (NRMP)/ Maintenance Facility

29. The Natural Resource Management Plan (NRMP), dated June 2007 prepared with Audubon International has many recommendations and requirements, including regarding the layout of the maintenance facility. Many of these recommendations do not appear to be incorporated into the current plan. In particular, refer to Section 9.0 "The Natural Resource Management Center (Maintenance Facility)" and Appendix VII "Maintenance Facility Best Management Practices." An updated NRMP should be provided to reflect the current proposal. A letter or other documentation from Audubon International is to be provided stating the revised site plan has been reviewed and is acceptable.
30. Section 9.0 has requirements for the interior of the pesticide storage and mixing building, such as a concrete floor, keeping the building locked, good ventilation, locating the light switch and fuse box on the exterior of the building, among others. These requirements should be included within the site plan as a series of notes. These recommendations will have to be incorporated into the floor plans for the buildings.
31. Provide additional notes and labels on Site Plan Phase 1 drawing C5.11, the site plan for the maintenance facility to coordinate with the NRMP and drawing A3.15 "Maintenance Facility Building Elevations". For example, A3.15 shows the fuel island will have a canopy, in accordance with the NRMP. This should be labeled on the site plan. The fuel island is to have a concrete pad, instead of asphalt and protective bollards. These

features are to be labeled on the site plan. C5.11 seems to show the 'equipment wash area' is open, while A3.15 seems to show it is covered. This should be clarified. Any drains are to be connected to the sanitary sewer system, not the storm drainage system. This should be shown on the wastewater drawings.

32. C5.11 has "Chemical Storage Container" and "Fertilizer Storage" labeled. Indicate where the pesticide mixing will take place.
33. The NRMP refers to holding tanks that can store rinse water and be re-used (page 9-3). Are these holding tanks located in the "Chemical Storage Container" or other location?
34. The water/wastewater plans are to show water and wastewater lines to maintenance buildings, such as where the pesticide mixing will take place, to provide necessary emergency showers and eye wash stations.
35. Provide additional design information for the "soil bays" shown on C5.11. Provide screening for the dumpster shown on C5.11.
36. Update Site Plan Phase 1 Landscape drawing L3.25 area of disturbance/restoration to be consistent with the other site and grading plans. Drawing C7.11 shows disturbance up to and onto the Route 22 right-of-way at the golf maintenance facility. The corresponding landscape drawing, L3.25 labels that area as "existing vegetation to remain."
37. Include other recommendations/requirements from the NRMP not specifically listed here in the site plan drawings.

Subdivision:

38. §105-21(3) requires lots to have "a depth of undisturbed usable soil with respect to seasonal or prolonged high-water table and bedrock of not less than four feet." Provide this information or request a waiver with justification as to why this requirement does not have to be met.

The following is offered for consideration by the Planning Board from a memo dated 5/20/2014:

New or supplementary comments are shown in **bold**. Some original comments have been abbreviated if portions of the comment have been satisfied.

Roads: General Comments:

1. The main loop road, from the Main Entrance to the secondary entrance on Route 22 by the proposed Golf Maintenance Building should be brought into conformance with the NYS Fire Code for maximum grade of 10%.
    a. **The 8/18/2014 letter from the Amenia Fire Company will permit road grades in excess of 10% but not to exceed 13%. Provide a note on MDP drawing RI-1 "Roadway Identification Plan" to require any changes to proposed road grade for Phase 1 to be reviewed and approved by the Fire Department, as well as site plans for future phases 2 and 3.**

2. Gates are proposed at both ends of the main loop road. Provide details on how emergency vehicles will be able to open the gates.

   a. **A note has been provided on Site Plan drawing C5.11, but it does not specify how emergency responders will be able to access the gate at the secondary entrance. The 'response to comments' indicates an access pass will be provided to emergency services. This is to be included in the note. Include this information on MDP drawing RI-1.**

3. For driveways that exceed 500 feet, provide required turn around and turn-outs per Amenia Town Code and NYS Fire Code Section 510.

   a. **Information has been provided for Site Plan Phase 1. Add a note to MDP drawing RI-1 that designs for turn-arounds and turn-outs will be provided during site plan review for Phases 2 and 3.**

4. For Site Plan review – Provide driveway profiles showing conformance with §105-22.I thru M, including all driveways are to slope down and away from the road for a minimum of 20 feet at a maximum slope of 2% and maximum allowable driveway slope of 12%.

   a. **For driveways that cannot meet driveway slope requirements, a trench drain is proposed. Include the sample driveway profile in the 'Design Guidelines for Estate Home Sites' as well as details on how to connect the trench drain to the overall project drainage system.**

Roads: Additional Comments:

7. Per the 2010 Fire Code of New York State, fire apparatus roads must have a minimum unobstructed width of 20 feet ...

   a. **Road cross-section details have been provided on Site Plan Phase 1 drawing C14.06. However, the details show tree branches encroaching on the 20 foot clear width. The details are to be revised to show the unobstructed clear width of 20 feet for a minimum unobstructed vertical clearance of 13 feet, 6 inches per NYS Fire Code 503.2.1. Additionally, show and label the road right-of-way on the detail.**

10. Public scenic overlook parking lot – .... The side slope of the driveway is very steep. Guiderail on the downhill side will most likely be required. Provide a profile of the driveway to the parking lot. ....

    a. **Boulders are proposed on the downhill side to act as guiderail. A driveway profile has been provided on sheet C5.25 for the Overlook driveway. The vertical curve of 100 feet long seems too short for the change of grade from 12% to 1%. The severity of the change in grade could cause a long vehicle, such as a fire truck, to 'bottom out'. Further, the profile should be updated to reflect the revised grading shown on drawing C7.02.**

    b. **Some other vertical curve lengths provided in the road profiles (C5.21-C5.25) similarly seem too short for the differences in grade entering and exiting the curves. These should be given another look.**

11. ... Golf Academy.... Due to steep side slope, guiderail may be needed [along emergency access].

    a. **No guiderail or other barrier has been proposed along the downhill side of the access path to the Golf Academy. Consideration should be given to guiderail or boulders as proposed at the Overlook driveway along the downhill side of the access path. Label the emergency access path on MDP drawing RI-1.**

Refer to the **MDP drawing RI-1** "Roadway Identification Plan" and road profiles provided (Site Plan drawing set C6.01-C6.05 **[updated drawing numbers C5.21-C5.25]**)

17. During the 1/16/2014 conference call to discuss road layout, a turn-around near the end of Road D was requested. This has not been provided.

    a. **A driveway near the end of Road D has been widened to allow for emergency vehicle turnaround. A note regarding this has been added to MDP sheet GP-2. This note is to be added to MDP sheet RI-1.**

21. The Estate Homes at the south end of the project, E-30 to E-33 appear to share a common driveway. Because this driveway is so long and provides access to multiple homes, provide a driveway profile. Due to the length of this common driveway, provide a turn-around and pull-offs per the NYS Fire Code Section 511.

    a. **As these houses are in Phase 2, the final design can be addressed during site plan review. Refer to 5/20/2014 comment #3, above.**

26. Per §121-30.I, provide sight triangles at road intersections, 50 feet from the corner as shown in the code. The sight triangles should be shown on the individual site plans and landscape plans to ensure proposed landscaping does not interfere with traffic safety. Similarly for visibility at intersections, refer to §105-22.F.

    a. **Per §105-22.F, for a design speed limit of 35 mph or less, the minimum sight distance at an intersection is 250 feet. The applicant has requested a waiver from §105-22.F in the letter dated 8/6/2014 prepared by DelBello Donnellan Weingarten Wise & Wiederkehr, LLP. However, visibility at intersections and having adequate stopping and turning sight distance is important for safety. The maintenance of sight distance is included in the 8/18/2014 letter from the Amenia Fire Company. We recommend the applicant comply with this requirement.**

27. Provide road design information for Vineyard section of project.

    a. **As the Vineyard section of the project is in Phase 3, the final design can be addressed during Phase 3 site plan review. Refer to the note for MDP drawing RI-1 in 5/20/2014 comment #3, above.**

SWPPP – MDP: General Comments

32. Per Town Subdivision Code §105-25.B.(2)(c)[2] "The drainage system shall be large enough to accommodate potential runoff from the entire upstream drainage area whether inside or outside of the subdivision. The Town Engineer shall approve the design and size of the drainage facilities based on anticipated runoff from a fifty-year storm under conditions of total potential development permitted by the Zoning Law in

the watershed." Per NYSDEC regulations, peak discharge from the 100-year storm under developed conditions cannot exceed the peak discharge under existing conditions. Confirm other stormwater infrastructure, such as piping and swales are designed to handle runoff from the 50-year storm under full build-out conditions.

a. **The response to consultants' comments indicates the requirement to accommodate the 50-year storm has been met. This information should be included in the SWPPP narrative or other appropriate project documentation.**

MDP SWPPP Notice of Intent (NOI)

36. Page 5, #15 & 16 – Response indicates runoff does not enter separate storm sewer system. Confirm that no runoff enters NYSDOT drainage systems along Route 44 and/or Route 22. Site Plan drawing C7.11 shows a proposed point discharge from the WWTP parking lot into NYSDOT right-of-way.

    a. **Response to NOI #16 states "Note: Runoff that is entering the NYSDOT drainage system occurs for BOTH EXISTING & PROPOSED conditions. Runoff from proposed development is treated before discharging into the NYSDOT drainage system." Recommend response to #16 be simplified to "NYSDOT," since new point discharges are proposed. However we defer to NYSDEC's review.**

39. Page **11**, #36 – Regarding Channel Protection Volume (Cpv), provide documentation that response is acceptable to NYSDEC.

    a. **We defer to NYSDEC's review of response.**

40. Page 13, #40 – Presumably additional DEC permits will be required for wastewater treatment discharge among others.

    a. **The list of additional DEC permits should be reviewed by the applicant. A 'solid waste' permit is selected, indicating solid waste (garbage, etc) could be stored on site. Similarly, no permit is selected for the discharge from the WWTP. Revise the responses to coordinate with permits requested from NYSDEC.**

MDP SWPPP Document

43. Section IV "Project Description"

    c. Page 9, Peak runoff values in NOI is for 1 of the 4 design points, not the entire project. Provide total peak runoff for entire project. Or provide discussion as to why the peak runoff values for only 1 discharge point was provided in the NOI.

        i. **Page 14 of the SWPPP provides peak discharge values for all 4 design points. Include a "total" peak discharge that is the sum of the 4 design points. This value should match the value provided in the NOI on page 11, #37.**

48. Section X Spill Prevention Plan and Response Procedures, Pages 30 and 32 "Fertilizers" – include a reference to the 'NYS Dishwasher Detergent and Nutrient Runoff Law' which regulates use of fertilizers. Also include restrictions required in the

Aquifer Overlay District (§121-15) and any restrictions from the Habitat Management Plan.

a. **The additional notations have been provided. The response to consultants' comments included that the NRMP (Natural Resources Management Plan) would be similarly referenced. The reference to the NRMP could not be located in the SWPPP.**

57. Provide details regarding how discharges from footing drains and roof drains for structures will be managed.

    a. **A note has been added to Site Plan Phase 1 drawing C7.00. Details have been provided for footing drains and for roof drains directly connected to the drainage system on drawing C14.02. Add a detail to show disconnection of roof runoff, with energy dissipater (splash block).**

58. Flood Plain Impacts – Project now includes filling of flood plain area to plant trees in the NYSDOT right-of-way at the main entrance to the site. Any work within the flood plain requires a permit per Town Code Chapter 67 "Flood Damage Prevention". The location of this proposed fill is in proximity to a culvert that carries the Amenia Brook below Route 22. Reducing the flood plain storage capacity could have potentially significant impacts to properties upstream and downstream of the culvert. Provide a detailed analysis of the potential impacts of filling this portion of the flood plain. Provide documentation that the NYSDOT has approved the filling and planting of trees within Route 22 right-of-way.

    a. **It is our understanding an application has been made to NYSDOT. In the response to consultants' comments there are conflicting responses as to whether the Floodplain Development Permit application has been submitted or if it will be submitted. Provide the required documentation in accordance with Chapter 67.**

59. AQO - Provide the information required by §121-15 for the Aquifer Overlay District (AQO) including recharge and consumption of water calculations. The AQO has additional restrictions on storage of fertilizers and chloride salts. Provide information to show the project will be in conformance with these requirements.

    a. **Calculations for recharge and consumption of water in accordance with the Aquifer Overlay District could not be located. Response to consultants' comment regarding fertilizer storage references the Natural Resources Management Plan (NRMP). The NRMP has numerous requirements and recommendations for the layout of the Maintenance Facility and storage of fertilizer, pesticides and other chemicals. Have the requirements and recommendations of the NRMP been followed? Has the NRMP been updated for the current project? Has the special permit request for storage of more than 500 lbs of fertilizer been submitted to the Planning Board?**

    b. **The site plans C5.01-C5.11 and drawing C14.05 show proposed 1000 gallons underground propane tanks. Per §121-15.D.4 "installation of any underground fuel tank or tanks, whose combined capacity is less than 1,100 gallons, is prohibited..." How will this restriction be addressed?**

Water Supply & Wastewater Treatment:

62. Provide an existing conditions plan for water supply that shows existing well locations and identifies which wells will remain in use and which will be decommissioned. Provide information on how existing wells will be properly decommissioned.

    a. **Some information on existing wells is included within the individual site plans and in the "Groundwater Exploration and Pumping Test Program" prepared by LBG, dated August 2014. However, a single plan showing which wells are proposed for use and which are proposed to be decommissioned will be beneficial. Wells proposed for continued use should be labeled as drinking water supply, irrigation or monitoring wells.**

64. Per Town Subdivision Code §105-25.B "Underground improvements ... and public franchise utilities shall be placed in the road right-of-way between the road paving and the right-of-way line in order to simplify location and repair of the utility lines." And §105-25.C "Utility and drainage easements. Where topography or other conditions make inclusion of utilities or drainage facilities within road rights-of-way impractical, perpetual unobstructed easements at least 20 feet in width for such utilities shall be provided across property outside the road lines and with satisfactory access to the road. Ownership of these easements shall be indicated on all reservations and on the final subdivision plat."

    a. **Response to consultants' comments states "Comment noted. The applicant will seek a waiver." We defer to the Planning Board attorney regarding easements.**

65. Refer to Town Subdivision Code §105-25.E for transportation corporation requirements. §105-25.E (6) Provide results of 72-hour well capacity test.

    a. **Include in the "Groundwater Exploration and Pumping Test Program", prepared by LBG, dated August 2014 or other appropriate document that the requirement of well capacity of 600 gallons per dwelling unit over 72 hour period has been met.**

66. Town Subdivision Code §105-30.A, "When public franchise utilities are to be installed, the applicant shall submit to the Planning Board written assurances from each public utility company..." Provide the written assurances.

    a. **Response to consultants' comments indicates documentation will be provided.**

67. Provide copies of Department of Health applications and permits.

    a. **Response to consultants' comments indicates documentation will be provided.**

68. With WWTP no longer providing treatment for hamlet of Amenia, has consideration been given to relocating WWTP onto main Silo Ridge property to reduce number of utility crossings beneath Route 44?

    a. **Applicant's response states "...applicant considered relocation, but the proposed location is preferred and approved." Based upon the steep slope disturbance, visibility of the facility and potential disruptions to traffic on**

Route 44 during construction and future delivery and removal of large pieces of equipment, additional consideration should be given for relocation or additional justification as to why this is the best location should be provided.

b. **Recommend use of retaining walls to reduce disturbance on steep slopes.**

c. **Provide truck-turning analysis to confirm tractor-trailers will be able to enter, turn around and exit the WWTP without having to back up onto Route 44. Similarly, provide truck-turning analysis for the water treatment building.**

d. **Provide sight distance analysis for the proposed WWTP driveway, taking into consideration the slope of Route 44. Landscape screening will have to be carefully planned and maintained to prevent interference with sight distance.**

NYSEG Easement

71. There are proposed disturbances within the easement. Are these disturbances permitted?

    a. **Response to consultants' comments indicates permission will be sought.**

Drawings - General Comments:

103. In the MDP for overall existing conditions and overall site plan as well as Site Plan drawing set, on overall plan sheets, C2.00, C3.00, C5.00, C7.00, etc include property information for all properties, including individual parcels owned by the Applicants and all abutting parcels. Include owner name, acreage, tax map number and any other identifying information.

    a. **The majority of abutting properties are properly labeled on the drawing sheets. Dutchess County eParcel website shows the smaller rectangle shown on the Town of Amenia landfill property, TM 7066-00-882575, is a separate parcel, TM 7066-00-885633. This should be labeled as such on the drawings.**

    b. **Additionally, provide parcel labels for parcels on opposite side of the roads, in particular the Dutchess County Department of Public Works (DPW) property proposed to receive landscape screening and the property at the corner of West Lake Amenia Road and Route 44.**

MDP Drawing Set – Specific Comments

119. LA-2 "Site Lighting" the 2nd bullet under 'High Brightness and Glare' states "Street, path and area lighting poles will not exceed 20' in height." Per §121-38.A.4.d "Lighting within parking lots shall be on low poles of 12 feet to 15 feet maximum height, with color-corrected lamps and cut-off luminaries designed to minimize glare and light pollution... Sidewalks leading from parking lots shall be lit with bollard lighting and indirect illumination of buildings and vegetation." Revise lighting pole height to 12 to 15 feet high. Refer also to §121-40.L and §121-65.B.7 for additional lighting requirements and restrictions. Include discussion of lighting for public scenic overlook parking lot, WWTP and Golf Maintenance Building parking lot. Expand the 'Village Core Lighting

Plan" or provide additional plans to include lighting of parking lots by the Winery, WWTP and Golf Maintenance Building.

a. **Photometric Plans (SL1.00 to SL1.06) for Phase 1 have been provided. MDP drawing LA-2 no longer has text regarding light pole height. Per response to consultants' comments, light poles are no longer proposed. However, MDP drawing LA-2 still has precedent images of light poles.**

b. **Photometric drawings provided for the larger parking lots (Activity Barn, Maintenance Building, Sales Building) show dark areas in the center of the parking lots. The applicant may want to re-consider use of light poles in these areas.**

124. ENV-4 and 5 – Provide details on how buffers will be demarcated in the field.

a. **Details are provided on Site Plan Phase 1 drawing C14.01. Additional notes regarding demarcation are provided in the response to consultants' comments. This additional information should be added to the detail on C14.01. Also, recommend removal of references to Franklin County.**

Site Plan Drawing Set – Specific Comments:

137. Individual Site Plan and Grading and Drainage Sheets have references to "proposed stream restoration" (C5.01 & C7.01; C5.08 & C7.08) and "proposed floodplain restoration" (C5.03 & C7.03). Provide additional details on the proposed restorations or a reference to where additional information can be found.

a. **Response to consultants' comments indicates schematic details from the FEIS have been provided on Landscape Plans L3.01 and L3.03. L3.01 has a note to refer to the 'Master Development Plan Floodplain Restoration Planting List'. This list is in appendix G of the MDP Booklet. Drawings L3.03 and L3.08 do not include any references to the proposed stream restorations. Drawings C5.01, C5.03, C5.08, C7.01, C7.03 and C7.08 include a note "refer to draft schematic floodplain restoration planting (Figure 3.2-2)" or similar. This Figure 3.2-2 is also referenced on the Title Sheet of the Site Plan Phase 1 drawing set. However that Figure will be difficult for the site or landscaping contractor to find and implement. The proposed floodplain and stream restorations are important projects that require careful implementation. The details for the restorations should be fully incorporated into the site plan drawing set. Provide improved notes or details within the Site Plan drawing set regarding the proposed stream and floodplain restoration projects.**

138. Individual Grading and Drainage sheets (C7.01-C7.11) show ... areas where site work extends beyond the limits of the project. For example, there is proposed grading in the Route 44 right-of-way,... in the NYSEG easement, and outside of the...proposed easement for maintenance building... These areas need to be reviewed and revised. The proposed easement...may need to be expanded to include the associated site work.

a. **The applicant is seeking permission from NYSDOT for work within the Route 44 and Route 22 rights of way. It is our understanding the applicant is seeking permission for work within the NYSEG easement. There remains**

proposed grading outside of the easement for the maintenance building, shown on C7.07 and C7.11. There are multiple notes stating "All proposed work outside the proposed easement shall be coordinated and permitted by the owner." How has the grading outside of the proposed easement been incorporated into the overall metrics for the project, such as area of disturbance and cut and fill volumes?

142. C7.10 shows a point discharge of stormwater into NYSDOT right-of-way. This will have to be approved by NYSDOT. *This should also be included in the narrative of the SWPPP and the Notice of Intent (NOI) regarding discharge to an MS4...*

    a. **Information regarding discharge to an MS4 (NYSDOT) could not be located within the SWPPP narrative.**

147. Individual E&SC Plans (C12.01 – C12.08) Include buffers and stream protection overlay boundary.

    a. **The stream corridor overlay boundary and regulatory buffer, 100 foot adjacent area for NYSDEC wetland are included on the E&SC drawings. Based on conversations with the applicant's representatives, the water quality buffers and conservation buffers as shown in the Habitat Management Plan have not been included on the E&SC plans for clarity because the additional buffer boundaries create too much 'clutter' on the drawings. For water quality buffers and conservation buffers that are not proposed to be disturbed during construction, provide a method to protect the buffer during construction activity, such as silt fence or orange construction fence.**

156. Per MDP LA-3 "all materials used for wetlands crossings will be reviewed and approved during the Site Plan review." Site Plan C14.02 "Civil Site Details 2" includes two examples for Road E bridge crossing, but no technical details. Details for an arch culvert are also shown. It is not clear where this arch culvert is proposed to be located. Provide details for all wetland and stream crossings. Bottomless box culverts are preferred over bottomless arch culverts for use by wildlife, per Findings Statement dated January 8, 2009, page 44.

    a. **Additional details on wetland crossing have been provided on drawing C14.03. We defer to the Planning Board Environmental Consultant regarding appropriateness of proposed crossings.**

157. Retaining Walls – Multiple retaining walls are proposed throughout the project. In particular, around the WWTP building. Provide design details and calculations for all retaining walls greater than four (4) feet in height.

    a. **A number of the estate homes have steep slopes and high retaining walls to compensate. MDP drawing LA-3 "Site Paving & Site Walls" states "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." Site Plan Phase 1 drawing S1.01 "Site Retaining Wall Sections and Details" include details for retaining walls 8 feet and 11 feet high, in addition to 4 feet and 6 feet high.**

b. **Based on contours, retaining walls exceed even the 11 foot height. For example Lots E-47 and E-48. Provide cross-section views through the lots and retaining wall top and bottom elevations to better evaluate the proposed conditions.**

c. **Provide additional information on retaining walls.**

Addendum to Environmental Assessment Form

169. Page 15 "Low Impact Design" use of pervious materials will have to be quantified on the site plans and in the SWPPP.

    a. **Quantification of use of pervious materials could not be located within the SWPPP.**

170. Page 35 Steep Slope Regulations – Include disturbances on slopes 15 – 30% **[Updated location: Page 32, Section V "Compliance with Zoning Requirements" "Section 121-36(A). Steep Slope Regulations"]**

    a. **Response to consultants' comments indicates text was revised. Inclusion of disturbances on slopes 15-30% in addition to disturbance on slopes greater than 30% could not be located in this section. It is acknowledged that disturbances on slopes 15-30% have been added to Table 3 of the Addendum to the EAF.**

173. Appendix D.4 Floodplain Comparison Plans: Include a comparison of flood water storage volume.

    a. **Include the "Floodplain Disturbance Volume (cy)" from Site Plan Phase 1 drawing C7.01.**

The following new comments regarding specific, minor comments on individual drawing sheets are offered for consideration by the Planning Board. Some of these comments have carried over from the marked-up set of MDP and Site Plan Phase 1 drawings that were provided to the Applicant in May 2014.

1. Drawings that have been updated in 8/11/2014 set, but did not receive revision date, include: MDP: SP-2, SP-7, SP-9, P-1, P-2, C-1 [P-1 and P-2 have revision date on cover sheet but not individual sheets] and Site Plan Phase 1 set P1.01 and P1.02.

2. Existing conditions drawings, MDP SP-1, Site Plan Phase 1 C2.00-C2.09 and other drawings: The majority of abutting properties are properly labeled on the drawing sheets. Dutchess County eParcel website shows smaller rectangle shown on the Town of Amenia landfill property, TM 7066-00-882575, is a separate parcel, TM 7066-00-885633. This should be labeled as such on the drawings. Additionally, provide parcel labels for parcels on opposite side of the roads, in particular the Dutchess County Department of Public Works (DPW) property proposed to receive landscape screening and the property at the corner of West Lake Amenia Road and Route 44.

MDP Drawings:

3. MDP SP-3 "Program Details" – include wastewater treatment plant (WWTP) and water treatment building in "Silo Ridge Amenity Building Summary"
4. MDP SP-4 "Open Space Plan" – Areas that will be disturbed or graded, but will be returned to vegetation should be shown as the light green "non-golf open space" instead of "natural woodlands/wetlands". For example, the eastern side of Road D of 'South Lawn,' additional proposed disturbance for the WWTP, stormwater management, SWM #8 by Vineyard Commons, grading along west side of Road E on either side of the water treatment building, and grading along west side of Road E between Lots E-48 and E-49.
5. MDP Drawing SP-9, Site Plan Phase 1 L3.31-L3.32 depict the front yard setback from the edge of the road pavement, while L3.33 depicts the front yard setback from the property line. It does not appear the front yard setback distance is depicted in accordance with the Town of Amenia definition in §121-11.B regarding front yard setback footnote 6 "measured from centerline of road." The definition of how to measure the front setback will be governed by the approved MDP bulk regulations, however, it should be consistent across all drawings.
6. MDP Drawing RI-1 "Roadway Identification Plan" – Additional labeling and notes required.
    a. Copy note from GP-2 "Driveway width at Lot SL-27 shall be designed to allow for an emergency vehicle turnaround". Specify the turnaround is for Road D.
    b. Show and label the emergency access road between the Sales Building and the Activity Barn parking lot.
    c. Label the oversized cart path to the Golf Academy building as an emergency access road.
    d. Add a note that driveway turn-outs for Phases 2 and 3 will be designed at that time. Road widths and road slopes for Phases 2 and 3 are to be reviewed and approved by the Fire Department at that time.
7. MDP GP-1 "Grading Plan 1" – Missing edge of pavement for Route 44. Add notes requiring NYSDOT approval for work within NYSDOT right-of-way similar to Site Plan Phase 1 drawing C5.11.
8. MDP GP-2, Note #1 – Specify the turnaround is for Road D. Add notes requiring NYSDOT approval for work within NYSDOT right-of-way similar to Site Plan Phase 1 drawing C5.02.
9. MDP SW-1 "Overall Stormwater Management Practice Identification Plan" – Recommend giving stormwater management practice SWM #6 – the ponds on either side of the main entrance, separate designations, such as 6A and 6B in order to be able to identify them individually.
10. MDP U-1 and U-2 - Update to be consistent with water and wastewater plans. Provide missing edge of pavement for Route 44 and Route 22. Label Routes 22 and 44. Add "s" to "vernal pool" to have "vernal pools". Label NYSEG easement.
11. MDP U-1 "Sanitary Sewer System Master Plan" – Check if colors for gravity sewer system and sanitary forcemain are reversed.

12. MDP U-2 "Overall Water Supply System Master Plan" – Show and label water supply wells.

Site Plan Phase 1 Drawings:

13. Site Plan drawing C1.01 "Legend and General Notes",
    a. Under 'General' #14, update references to EPA to refer to NYSDEC and SPDES regulations.
    b. Under 'General' #15 revise wording to reference Town of Amenia Code Section §121-68 in addition to §105-28B.
    c. Under 'Demolition' include a note requiring the contractor to obtain a demolition permit prior to demolishing any structures.
    d. Under 'Erosion Control' #13 and #32, include the more aggressive stabilization time frame if more than 5 acres are authorized to be disturbed at one time.
14. There is no individual existing conditions drawing for the area for the proposed wastewater treatment plant, similar to C2.01 to C2.10
15. C2.01 – Add "West" to "Lake Amenia Road".
16. C2.01 and C2.02 – label existing NYSDOT culverts
17. C2.01, C3.01, C5.01, C12.01 – Consistently show and label 'Floodway' line.
18. C2.03, C3.03, C5.03, C7.03, C12.03 – Consistently show and label 'Floodway' line, 'Floodplain' line, and Stream Corridor Overlay (SCO) line.
19. C2.03 – Label existing septic system for existing maintenance building.
20. C2.04 – Label existing septic system for existing main building.
21. C2.09 – Label wetland or provide other reference on south side of entrance road. Add property label to TM 7066-00-969308, N/F Whalen Leasing. Label culvert crossing Route 22.
22. C2.10 "Overall Zoning Boundary Overlay Plan" – Check Aquifer labels, they may be reversed.
23. C3.01 – Label culvert removal per MDP drawing ENV-4.
24. C3.02 – update base drawing. Add note regarding work within DOT right-of-way similar to C5.02.
25. C3.09 – Add notes regarding work within DOT right-of-way. Label NYSEG easement
26. C5.01, C7.01 – Provide improved reference to stream restoration work to make it easier to find. Refer to 5/20/2014 comment #137, above.
27. C5.02 – Limits of disturbance line overlaps "Public Overlook" text.
28. C5.03, C7.03 - Provide improved reference to floodplain restoration work to make it easier to find. Refer to 5/20/2014 comment #137, above.
29. C5.04 – Specify material for emergency access road to Golf Academy, such as asphalt. Label Clubhouse and Fitness Center.

30. C5.05 – Label wetland QQ. Show the "existing trail to be abandoned" within the NYSDEC wetland buffer, similar to C3.05.
31. C5.08 - Show the "existing trail to be abandoned" within the NYSDEC wetland buffer, similar to C3.08. Provide improved reference to stream restoration work to make it easier to find. Refer to 5/20/2014 comment #137, above.
32. C5.10 - Add notes regarding work within DOT right-of-way at WWTP entrance, similar to C7.10.
33. C5.11 – Provide additional labeling of features and coordination with A3.15 and L3.25 as discussed above under "NRMP".
34. C7.02 – Provide note regarding work within DOT right-of-way similar to C5.02. Label culverts that are under Route 44.
35. C7.03 – Confirm label for "12'x12' box culvert (under Route 22)" is pointing to correct location.
36. C7.04 – Label Clubhouse, Fitness Center and Water Treatment Building.
37. C7.05 – Label wetland QQ. Show the "existing trail to be abandoned" within the NYSDEC wetland buffer, similar to C3.05.
38. C7.08 - Show the "existing trail to be abandoned" within the NYSDEC wetland buffer, similar to C3.08. Provide improved reference to stream restoration work to make it easier to find. Refer to 5/20/2014 comment #137, above.
39. C12.01 – Label stream restoration work. Include additional notes for minimization of sediment during removal of culvert and bridge, as shown on MDP ENV-4, such as only performing work during low-flow period.
40. C12.02 – Update base drawing and limits of disturbance. Label Route 44 culverts.
41. C12.03 – Label Floodplain restoration work. Label Route 22 culverts.
42. C12.05 - Show the "existing trail to be abandoned" within the NYSDEC wetland buffer, similar to C3.05.
43. C12.08 - Show the "existing trail to be abandoned" within the NYSDEC wetland buffer, similar to C3.08. Label stream restoration work.
44. C13.01 – "General Construction Sequencing Notes" – Check numbering.
    a. Slopes: "f" states "all graded slopes greater than 2H:1V shall use a rolled erosion control product…" The SWPPP and Drawing C12.00 Note #6 requires erosion control matting for slopes 4:1 or steeper. Revise this note to comply with 4:1 requirement.
45. C14.01 "Civil Site Details 1"
    a. Addendum to EAF has a reference to pervious cart paths. If pervious cart paths are proposed, provide a detail. Indicate on Site Plans where the pervious cart paths are proposed.
    b. "Conservation Buffer Marker" – add additional notes, such as 'minimum of 1 sign per house lot' and 'for water quality buffer a minimum of 1 sign ever 200 feet'

from response to consultants' comments. Remove references to Franklin Township.

46. C14.02 "Civil Site Details 2"
    a. Provide a detail for disconnection of roof runoff, with energy dissipater (splash block).
    b. 'Curb Inlet' and 'Field Inlet' – remove references to NJDOT and replace with NYSDOT.
    c. For 'Yard Inlet Details' and 'Underground Sand Filter Detail' add "drains to waterways" on the grate similar to 'Curb Inlet' detail.
    d. For 'Drain Manhole' specify the lid is to be labeled 'storm drainage' or similar to differentiate it from sanitary sewer manholes.
47. C14.04 – Add detail for concrete wash-out area. Include notes restricting location of concrete wash-out, such as within a certain distance of waterbodies.
48. Update Site Plan Phase 1 Landscape drawing area of disturbance/restoration to be consistent with the other site plans. For example, drawing C7.11 shows disturbance up to and onto the Route 22 right-of-way at the golf maintenance facility. The corresponding landscape drawing, L3.25 labels that area as "existing vegetation to remain."

Additional comments will be provided as additional information and revised documents are provided. Additional comments may also be provided on documents already received as the project progresses.

We trust these comments are useful in your review. Please let us know if we can be of additional assistance. Thank you.

Julie S. Mangarillo, P.E., CPESC

cc: Larissa DeLango
John Fenton
Michael Klemens, Ph.D.
13-352-12-01
David Everett, Esq.
Mary Ann Johnson, AICP
George Janes, AICP

Attachment A

10/13/2014

Documents reviewed include, but are not limited to the following:

1. Letters from DelBello Donnellan Weingarten Wise & Wiederkehr, LLP to Town of Amenia Planning Board re: Silo Ridge Resort Community, dated July 3, 2014, August 6, 2014 and August 21, 2014.
2. Addendum to Environmental Assessment Form for Silo Ridge Resort Community prepared by VHB Engineering, Surveying and Landscape Architecture, P.D., Amended June 19, 2014 and August 20, 2014
3. Stormwater Pollution Prevention Plan for Silo Ridge Community Master Development Plan prepared by VHB Engineering, Surveying and Landscape Architecture, P.D., dated April 2014, revised June 2014 and August 2014
4. Phase 1 Environmental Site Assessment, prepared by IVI Due Diligence Services, Inc., dated June 8, 2007.
5. Addendum Letter Phase 1 Environmental Site Assessment, prepared by IVI Due Diligence Services, Inc., dated June 3, 2008.
6. Tank Closure Report, prepared by EnviroClean Petroleum Services LLC, dated August 29, 2014
7. Natural Resource Management Plan, prepared by Audubon Environmental, dated June 2007.
8. Consultant Comments: Site Plan and MDP, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C. and Silo Ridge Ventures LLC, dated July 3, 2014, revised August 14, 2014.
9. Memorandum of Local and Regional Plan Consistency, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., dated June 17, 2014
10. Memorandum of "TND" design principles, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., dated June 2, 2014 and revised August 26, 2014
11. Draft Memorandum of Understanding (MOU) with Dutchess Land Conservancy (DLC) and executed MOU, dated July 17, 2014.
12. Memorandum of Understanding (MOU) with Dutchess County dated February 12, 2014 regarding plantings.
13. Agreement between Harlem Valley Landfill Corp. and Silo Ridge regarding lot line adjustment and easement for maintenance facility.
14. Special Permit and Site Plan application for Harlem Valley Landfill Corp property.
15. Redline of MDP text (June 23, 2014) compared to previously approved MDP dated October 8, 2009.
16. Amended Master Development Plan for Silo Ridge Resort Community, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., dated October 8, 2009, amended August 7, 2014
17. Draft List of Waivers, prepared by Silo Ridge Ventures LLC, dated June 26, 2014
18. Water Budget Report for the Combined Irrigation Pond, prepared by Chazen Engineering, Land Surveying & Landscape Architecture Co., P.C., and Leggette, Brashears & Graham, Inc., dated August 21, 2014.

19. Groundwater Exploration and Pumping Test Program, prepared by Leggette, Brashears & Graham, Inc., dated August 2014.

20. Redline Text for Updated Habitat Management Plan for Silo Ridge Resort Community, dated March 3, 2014, revised July 1, 2014, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C.

21. Design Guidelines for Estate Home Sites, prepared by Silo Ridge, dated August 21, 2014.

22. Amenia Fire Company #1 Letter, dated August 18, 2014

23. Submittal to NYSOPRHP, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., dated August 1, 2014 with reports attached.

24. Pre-application to NYSDEC, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., dated July 18, 2014

25. Application to NYSDOT prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., dated August 12, 2014, with attachments

26. Breeding Bird Survey – Parcel 1, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., dated June 2014

27. Invasive and Noxious Weed Plants of New York, prepared by Audubon Environmental

28. Silo Ridge Resort Community Updated Invasive Plants List – Not to be used in Landscaping, dated July 1, 2014.

29. Color Coded Plant List, prepared by Silo Ridge Ventures, LLC dated July 1, 2014

30. Letter regarding HDPE Pipe Substitution, prepared by Cedarwood Environmental Services, PLLC, dated August 19, 2014.

31. Silo Condition Inspection Report, prepared by Rennia Engineering Design, PLLC, undated

32. Proposal for improvements at Amenia Fish and Game, prepared by Rennia Engineering Design, PLLC, dated August 21, 2014

33. Master Development Plans for Silo Ridge Resort Community, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., issued March 3, 2014, latest issue August 11, 2014 (Set includes Drawings SP-1 through SP-18; A-1 through A-6; RI-1, P-1, P-2, C-1, GP-1 and GP-2, SW-1, U-1, U-2; LA1 through LA-6; and ENV- 1 through ENV-6)

34. Phase 1 Site Plans for Silo Ridge Resort Community, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., issued March 3, 2014, latest issue August 11, 2014 (Set includes Drawings C1.01; C2.00; C2.01 – C2.09; C2.10; C3.00; C3.01 – C3.09; C3.10; C4.01; C5.00; C5.01 – C5.11; C5.12; C5.21-C5.25; C6.01 – C6.05; C7.00; C7.01 – C7.11; C8.01 – C8.07; C11.00; C12.00; C12.01 – C12.09; C12.10; C12.11 – C12.13; C13.00; C13.01; C14.01 – C14.06; A1.01; A3.01 – A3.04; A3.05 – A3.06.2; A3.07 – A3.10; A3.11 – A3-13; A3.14; A3.15; A3.16; A3.17; L0.00; L1.01 – L1.05; L1.10; L2.01; L3.01 – L3.08; L3.09; L3.10 – L3.11; L3.21 – L3.25; L3.26; L3.31 – L3.33; L4.01 – L4.03; L5.01; P1.01 – P1.02; S1.01; and SL1.00-SL1.06)

35. Preliminary Subdivision Plat for Silo Ridge Resort Community, prepared by VHB Engineering, Surveying and Landscape Architecture, P.C., dated August 20, 2014 (Set includes Drawings PL0.00; PL0.01 – PL0.02; PL1.01 – 1.07).

36. Water and Wastewater Collection Utility Plan, prepared by Cedarwood Environmental Services, dated July 2014 (Set includes Drawings C9.00 – C9.27; C10.01 – C10.18).