

Village Solars Phase 7 – Response to August 18, 2022 TG Miller Comments

General Drawing Set and SWPPP Comments

1. Comment: Provide FFEs for all of the buildings

Response: *FFE's are now included.*

2. Comment: Show the location and connection of all building downspouts as well as their associated pipe routing to the stormwater management practices.

Response: *Roof downspouts were shown on the plan sheets as well as the bioretention area detail sheet. Notes have been added to the plan to better define these areas.*

3. Comment: Will the drainage area as shown of PSC-10 be conveyed to Pond 4? Provide better detail grading .

Response: *Site plan updated with grading and elevations.*

4. Comment: Flow path for OSC-2 indicated a culvert but here is none in the field. Please clarify.

Response: *There is no culvert in the field. The flowpath was corrected on the plan and in the model.*

Comments 5 - 10: Is Dry Pond 4 an infiltration basin?, Correct invert elevation inconsistencies, add outlet invert elevation for the drain points at ditch, better clarify the use of the 4" perforated pipe, revise invert elevations from plan to model, clarify pretreatment intent.

Response: *Pond #4 has been slightly reworked as an infiltration basin. The underdrain has been relocated to be storm outlet, utilizing the native soil to exfiltrate volume. Invert elevations have been checked for consistency between the plan, the detail, and the model. A note has been added to the detail sheet that the pretreatment method will be a "filter strip."*

11. Comment: Appendix D infiltration testing will be required for Infiltration Basin, Pond 4. Has this been accomplished?

Response: *It was our understanding that this background testing had been performed as part of the earlier overall site evaluations by the previous site engineer, but as yet we have not been able to locate the data. Should it not be forthcoming, the testing as required by Appendix D certify Pond 4's infiltration rates and design will be performed.*

12. Comment: There is a pond shown on the subcatchment map but there is no further information on this structure.

Response: The missing pond design sheet has now been included to the plan set, and the site plan has been updated to show Pond 1, which is required for the attenuation of OSC-3.

13. Comment: Check the sizes and elevations of the bioretention areas on Sheet ST-5 with that of the SWPP.

Response: Corrections have been made to the table.

14. Comment: Clarify how underdrains are to be used. Will they be discharged to surface grade? Show underdrains as proposed on plans.

Response: A note has been added to the detail sheet to indicate that the underdrains are to be daylighted as per the included elevation table. Underdrains added to plans.

15. Comment: There is a discrepancy between the site plan and model for the size of the bioretention area underdrains

Response: The bioretention area details have been adjusted to 4" to match model.

16. Comment: Issues with the porosity of the filter media by surface area reduction. Revise so that they correspond to cross section.

Response: This iteration of the model used a previous version from several years ago as a template. All bioretention area layers have now been updated to match the filtration detail as well as to address the void areas of the stratum.

17. Comment: Drainage at the intersection of Warren Road and Village Circle South does not flow to the north to Design Point 2.

Response: This discrepancy has been addressed by routing OSC-7 (now OSC-1), PSC8, PSC-9, PSC-12 and OSC-8 (Now OSC-6) to its own Design Point 3. Existing modeling has been altered to match the new layout as well.

18. Comment: There appears to be a diversion structure at the north end of Village Place near DP 1. Has this been modeled?

Response: Upon conducting a field review, there is indeed a structure at the north end which appears to have been installed ad hoc at some point in time which differs from available contouring. The owner will remove this and return flow in the direction that it was originally intended.

19. Comment: Watershed map ST-7 shows an existing diversion swale along the north side of ESC-1. It is recommended that this be evaluated to determine its capacity.

Response: The swale will be walked to identify whether it can handle the needs of flowrates for Design Point 1. Still, Existing Subcatchment modeling for the 100 yr rain event shows runoff values to be in the neighborhood of 42 cfs, which is roughly the proposed output from the developed model. Things are not anticipated to change.

20. Comment: Adjust location of bioretention on Lot 37 to be outside the water main easement area.

Response: Bioretention area has been adjusted.

21. Comment: Previous renditions of the plans show a bioretention area proposed for Lot 39. Please clarify when this is to be installed.

Response: We believe this comment is referencing bioretention area 7 shown in PSC-8 which should have been completed in a previous construction phase. The owner has been informed of this and the installation addressed.

22. Comment: Bioretention area 1 has not been installed on Lot 41. Please clarify if this is to be built.

Response: It is our understanding that Bioretention Area 1 should have been installed in a previous phase. The owner has been informed of this and the installation addressed.

Water

1. Comment: Show water service connections for Lots 37 and 70 being connected to Bone Plain Pressure Grid. Additional municipal main extension may be required if not previously installed.

Response: All of the proposed water services for this final Phase 7 will be from the Bone Plain Pressure grid. The water main has already been extended and the as-built drawing has been made as part of the plan package.

2. Comment: Provide water service connection details and label pipe material.

Response: The service connection details will be identical to those previously approved in earlier phases of the project, and details will be added to the final plan set prior to construction.

Sewer

1. Comment: Provide sewer lateral connection details and provided elevations for all laterals.

Response: The sewer lateral connection details will be identical to those previously approved in earlier phases of the project, and these details and elevations will be added to the final plan set prior to construction.

2. Comment: Provide sanitary clean out at ROW and provide detail.

Response: The sanitary clean out will be installed at the ROW and details will be identical to those previously approved in earlier phases of the project. Details will be added to the final plan set prior to construction.

3. Comment: Clarify if there is gravity sanitary sewer along Village Place at the proposed tie-in location for building 96. This section may be forcemain only. Unable to verify due to buried manhole in asphalt.

Response: The sewer main/manhole inverts will be field measured the second or third week of September. Should sewer elevations be too high for a gravity connection, a simple privately owned & maintained grinder pump and force main will be installed to service the building.

4. Comment: Show all service laterals crossing perpendicular to Town road.

Response: All service lateral crossings under town roads will be done as perpendicular as possible.

General

1. Comment: Label all water and sewer easements

Response: All public water and sewer easements over private lands have been shown and labeled on the plans. Utilities in Town roads do not require easements.

2. Comment: Show water and sewer services to all existing and proposed buildings.

Response: All water and sewer services over private lands for public utilities have been shown and labeled on the plans.

3. Comment: Show all existing water and sewer mains, valves and manholes throughout the site. Coordinate with Bolton Point for water system valving and two different pressure grids. Ensure 16" main along south side is clearly labeled on the plans. See image below from Bone Plain Engineers report showing proposed bold water main by developer to service buildings on higher pressure grid.

Response: All existing water and sewer mains, valves, and manholes throughout the site have been shown and labeled. Valving and the two different pressure grids have been coordinated with Bolton Point. The 16" low pressure main along the south side has been labeled, and the as-built drawing of the privately funded high pressure water main is now shown in the plan set and mirrors the diagram in the Engineer's Report. The main was installed in 2014 and should be in the Town records for this development.

4. Comment: Show all existing water and sewer services to be abandoned and label to be removed and plugged or capped at the main. Provide asphalt cut and patch detail accordingly.

Response: Existing water and sewer services to be abandoned will be labeled to be removed and plugged/capped at the main. An asphalt cut and patch detail to the Town standards will be added to the drawing set and, all work will be located on the as-built drawings as required by Bolton Point.

5. Comment: Show all property lines and road ROW.

Response: Property lines and road ROW's have been shown on the plans.

6. Comment: Coordinate proposed crosswalks on Town roads with Highway Superintendent. Review location and if any additional signage or stop control at intersections is required.

Response: Prior to requesting the final project C.O., the final locations of any crosswalks, signage, or stop control signs will be reviewed and approved by the Town Highway Superintendent.

Timothy C. Buhl, P.E. and Scott D. Gibson

9/04/2022