

**Date:** May 1, 2023

**Re:** Responses to City Comments – Street and Storm Sewer  
Orchard Woods  
PEI #211142

We have received your comments and have addressed each with the enclosed plans and comment responses in *red italics* below. Please let us know if you have any questions during your review.

Thank you,  
Doug

### Engineering Review - Corrections

1. General:
  - Submit an Engineer's Estimate of Probable Construction Costs.  
*Response: OPC has been provided with this submittal.*
  - The storm sewer in this plan set is all public. Please delete or revise references to private throughout the plan set.  
*Response: All references to private storm sewer have been removed.*
  - Based on the number and type of comments, the next review will be a 10-day review.  
*Response: Acknowledged.*
2. Sheet 2:
  - Submission of shop drawings to the field inspector is required. Please revise general note 7 accordingly.  
*Response: Acknowledged.*
3. Sheets 3:
  - Please include an updated summary of quantities with the final submission.  
*Response: Acknowledged and provided.*
4. Sheets 4:
  - Please include the dotted line in the legend.  
*Response: Dotted line has been included.*
  - Please include required swale grading design information on this sheet.  
*Response: Swale information has been provided.*
5. Sheets 5-7:
  - Underdrains are required at all low points. This is usually done by adding a note, "Install underdrain as per APWA detail UD-1" of similar. Include UD-1 to the plan set.  
*Response: Acknowledged and provided.*
  - Label the roadway east of Sta. 4+20.68 s future in profile view.  
*Response: Acknowledged and provided.*
  - Include end of road markers on NE Cider Mill Drive.  
*Response: Acknowledged and provided.*
6. Sheets 8-10:
  - In lieu of Type B ramps, consider revising the sidewalk alignment in order to connect the two sidewalks similar to the SE corner of Orchard Valley and Lakewood Way. This would allow the use of Type A ramps, which are always preferable.  
*Response: If the Type B ramps were revised to Type A ramps this would create a conflict with the*

*water main. Due to this, Type B ramps were not revised to Type A ramps.*

- Type B ramps have been labeled as Type A ramps. Please either revise the label or revise the ramp type as per the above comment.

*Response: Label has been revised.*

- Please relocate all overlapping text for clarity.

*Response: Acknowledged and provided*

- Replace all “???” with design info.

*Response: Acknowledged and provided*

- Provide a specific ADA ramp design at each location. The specific design must include, at minimum, the design details specified in Section 5304.8 of the Design and Construction Manual. Elevation callouts, although required, are not sufficient. Other design details specified in this section are required, including slope callouts which comply with the criteria listed in Table LS-5, and section views specified in 5304.8.

*Response: Acknowledged and provided*

7. Sheet 11: Orchard Valley Drive and Apple Grove Drive are classified as Residential Collectors. There are no Commercial Collectors on this project. Please update this sheet as necessary.

*Response: Orchard Valley Drive has been classified as a residential collector. Apple Grove Drive has been left as a residential local street. Apple Grove Drive ties into an existing street which is classified as residential local. Therefore, the classification of the existing street is being matched.*

8. Sheet 12-14: Please include the design HGL in profile view.

*Response: Acknowledged and provided*

- Please add a storm sewer general layout to the plan set.

*Response: Acknowledged and provided*

- Provide a north arrow and scale for Line 1, as the orientation differs from Line 4.

*Response: Acknowledged and provided*

- Please relocate Structure #10 number for clarity.

*Response: Acknowledged and provided*

- HDPE is not allowed from collector crossings. Please revise the Str. 15-16 pipe material.

*Response: Acknowledged. The pipe segment between Str. 15-16 does not cross the street. The segment between Str. 16-17 and all other pipe segments which cross the street have been revised to RCP.*

- Please include the structure numbers for Str. 60 and 61 in plan view.

*Response: Acknowledged and provided*

- Please include information about removing and replacing the existing end section with structure 61 in plan view.

*Response: Acknowledged and provided*

- Please include information about the existing pipe at structure 61 in profile view.

*Response: Acknowledged and provided*

9. Sheet 18:

- Show and label the emergency spillway location in plan view.

*Response: Emergency spillway location has been shown in plan view.*

- Please include the 2-Yr WSE in place of the 1-Yr WSE.

*Response: Acknowledged and provided*

- The outlet structure opening shown on this sheet does not match those included in the Stormwater Report. Please revise as appropriate.

*Response: Outlet structure opening have been revised so that the report and plans match.*

- Please label the dimension of concrete between the 84"x9" opening and the top slab.

*Response: Dimension has been labeled.*

10. Sheet 20:

- Please include both the design event calculations and the 100-year event, if different.

*Response: A 10-year design is provided. The 10-year and 100-year event calculations have been provided.*

- Please include inlet calculations.

*Response: Inlet calculations have been provided.*

- The overall storm sewer design will be reviewed when inlet bypass and gutter spread information has been included with the inlet calculations.

*Response: Acknowledged. Inlet calculations have been provided.*

Sheets 21:

- All engineered swales are now required to be lined with a TRM of suitable design duration. Please add that information.

*Response: TRM has not been provided within swales. Calculations to justify this have been provided on sheet 22. In addition to the shear stress calculations provided, it is also the belief that if TRM was to be provided, it would be damaged during the construction of the homes proposed on the lots.*

- Replace all “???” with design info.

*Response: Design info has been provided.*