Date: December 22, 2022

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

3. General:
   • Submit an Engineer's Estimate of Probable Construction Costs.
   Response: To be submitted prior to plan release.
   • These plan sheets are also included in the Mass Grading and ESC plan set. Please review those comments and make any necessary revisions to this plan set based on those comments as necessary.
   Response: Comments reviewed and coordinated.
   • The storm sewer design was not reviewed at this time. Please submit a final stormwater study with the resubmittal.
   Response: Will follow up with this item and submit early next week.
   • The second review for this plan set will require a 10 business day review period due to the plans lacking information.
   Response: Acknowledged.
   • Include a sign plan.
   Response: Added to plan set

4. Sheet 4:
   • Show and label the 100-yr WSE on this sheet and throughout the plan set.
   Response: Added to grading plan
   • Grading is shown extending onto the adjacent lot, Lot 6 Savannah Ridge 1st Plat. No information is shown regarding what will be done due to existing features. Please clarify.
   Response: Grades revised.
   • Please see Design and Construction Manual Lee's Summit Section 5601.8.A and incorporate all required information into a Master Drainage plan within this set of plans.
   Response: Done
   • The fringe drainage along the west edge of the property is being directed in a different direction than it is currently. Please provide additional information to ensure it will not cause any negative effects to the adjacent properties.
   Response: Drainage boundary was not shown correctly previously. See new ridge line on drainage map. Existing drainage patterns are being maintained.

5. Sheets 5-7:
   • Provide underdrains at all low points.
   Response: Sue, Please provide details on where underdrains are to be located. I don't see any details or design criteria showing this information.
   • Show information on connection to existing streets, such as a saw cut line and any required notes.
   Response: Notes added.
   • It is unclear how the entrance to the water tower will connect with the proposed street.

Response: More detail added on concrete apron and connection to drive for water tower

• Include the Lakewood Way stationing at the Sta. 0.00.00 NE Orchard Drive label in Profile view.

Response: Done.

• Revise the street name title on Sheet 6.

Response: Done.

• Include ADA-accessible route details, using the City of Lee's Summit design standards, across intersections under stop control. In addition, the profile view of the roadway sections must be updated to clearly show the locations of these stop controlled intersections.

Response: Street grades updated, so that the cross slopes are ADA compliant through the crosswalks. The crosswalk locations are shown in the profiles.

6. Sheets 8-10: No information is provided on these sheets.

   Response: More information has been added.

7. Sheets 11-13: A complete review has not been done. However, some comments follow:

   • Include rip-rap dimensions for constructability.

   Response: Dimensions added

   • Include rip-rap calculations to verify the design is adequate.

   Response: Calcs still need completed. Do you have a method you'd like us to use?

   • Include the following note on any profile sheet applicable: "Compacted Fill shall be placed to a minimum 18" above the top of the pipe prior to installation." Show and label the limits of the compacted fill placement in the Profile view. Use hatching for clarity.

   Response: Notes added.

   • Please show the hydraulic grade line for the design storm on the profile view of the storm system. If the pipe cannot manage the 100 year event without surcharging, then a suitable overflow route must be established for the excess. Finish floor elevations must be a minimum of 2 feet higher than the calculated 100 year water surface elevation.

   Response: To be provided on next submittal. Pipes may need upsized in certain areas to keep 100 year in structures.

   • Please relocate overlapping text for clarity on Line 2 Plan and Profile views.

   Response: Revised.

   • Please clarify the Line 2 connection to the existing storm sewer. It is referred to as both proposed and existing in the labels.

   Response: Revised.

8. Sheets 14-16:

   • Include a pavement design section.

   Response: Typical sections added on Sheet 11

   • The curb and gutter detail or pavement detail must show that the aggregate base and compaction of native subgrade extends a minimum of one (1) foot beyond the back of curb.

   Response: See typical sections on Sheet 11

9. Sheet 17: No information is provided on this sheet.

Response: Updated.

10. Sheet 18: Please revise notes on this sheet to refer the correct city, process, and reference documents.

Response: Revised.

11. Sheet 19: Please look at ways to make this exhibit a bit larger and more clear. Perhaps rotate and scale back some line weights, for example. Locate drainage area information where it won't block drainage

area boundaries.

Response: Revised.

12. Sheet 20: Storm Drainage Calculations are incomplete. Please include pipe and inlet calculations for all storm structures for both the 100-yr event and the design event, if different.

Response: Calculations added.

Sheets 21-24: These plan sheets are also included in the Mass Grading and ESC plan set. Please review those review comments and make any necessary revisions to this plan set based on those comments as are necessary.

Response: Revised.

13. Sheet 25: No information is provided on this sheet.

Response: traffic control sheet will be finished with next submittal.

Traffic Review - Corrections

1. Sheet 5-7 - Please provide horizontal curve data.

Response: Added

2. Sheet 5 - Minimum K value for sag curve on Residential Collector is 37 (Sta. 5+73.84).

Response: Revised.

3. Sheet 7 - Minimum K value for sag curve on a Local is 26 (Sta. 1+19.36).

Response: Revised.