



9801 Renner Boulevard,
Suite 300
Lenexa, KS 66219

July 6, 2020

City of Lee's Summit, MO
220 SE Green Street
Lee's Summit, MO 64063

RE: PL2019333 – Paragon Star Public Off-Site Water Main Extension

We have received your comments dated June 19, 2020 for the above referenced project. Our responses follow each comment. The comment responses have been organized by the review section they pertain to.

Engineering Review

1. Butterfly valves are required for all water mains 12" or larger. Please revise gate valves to butterfly valves. The contractor will need to bevel the inside edge of the pipe connecting to the butterfly valve. Add a note requiring certification be provided to the Field Engineering Inspector upon delivery that the butterfly valves have passed a 192.5 psi test.

GBA Response: 12" Valves have been changed to butterfly valves. Note has been added to Sheet 2 and 9.

2. Include thrust blocks at plugged valves near tees.

GBA Response: Thrust Blocks have been included at plugs near tees.

3. Using 150% of normal operating pressure at the low point to test the new water main, the test pressure could be 200 psi for the DH 18 pipe and 271 psi for the DR 14 pipe which is within the pressure class of each pipe but is a lot of pressure. Testing the DR 18 and the DR 14 pipe together will place about 224 psi pressure on the low point of the RE 18 pipe.

GBA Response: Acknowledged. Note 5 has been added to Sheet 2 requiring the contractor to provide a pressure testing plan.

4. Sheet 1: Update the Summary of Quantities table to match any revisions.

GBA Response: Summary of Quantities has been updated to match revisions.

5. Sheet 2: General Note 11 references incorrect specifications. Please revise the section numbers as needed.

GBA Response: General Note 11 has been updated to reference Section 3901D for PVC pipe.

6. Sheet 4 & 5: The FH stationing shown on the Plan and Profile view don't match for the FHs near Sta. 27+48 and Sta. 30+79. Please revise.

GBA Response: FH Stationing has been reviewed and corrected.

7. Sheet 6:

- The air relief assembly at Sta. 45+25 is supposed to have a brass saddle according to the detail on sheet 9. Some brass saddles do not have the pressure rating for this location. For example, the Ford S90 saddle has a working pressure rating of 150 psi. A different type of saddle might be considered at this location.

GBA Response: A steel saddle detail has been added along with a note calling out where it needs to be used.

- There is still a "15' water main easement" label near Sta. 38+00. Please revise.

GBA Response: Label has been corrected.

8. Sheet 7: Include proposed grade. Verify that standard cover requirements are being met.

GBA Response: Proposed grade has been added.

9. Revise the estimate to match any revisions.

GBA Response: Estimate has been updated to match revisions.

We believe we have addressed all comments on this project. If you have any additional questions or concerns, please feel free to contact us.

Sincerely,

GEORGE BUTLER ASSOCIATES, INC.

Clint Loumaster, P.E.