

August 26, 2022

**Re: PL2022093 Cobey Creek 2<sup>nd</sup> Plat – Public Water Main**

Anderson Engineering has received your comments dated August 11, 2022 and have the following responses:

City of Lee's Summit – Water Utilities  
Gene Williams, P.E. – (816) 969-1223

1. If you would, please take a look at the schematic changes requested by Water Utilities, including geometry changes near the roundabout, and geometry changes near Sunset Ridge and Cobey Creek Dr. intersection where the water main is extended west to the plat boundary. Water Utilities would like this line to be relocated to the north side of Cobey Creek Dr. **The schematic changes requested by Water Utilities have been made to the plan.**
2. In addition, please review all sheets where bends are shown **greater than 1 degree deflection in the pipe joint**. Only 1 degree deflection is allowed in the joint of the pipe, and there are numerous exceedances of this standard throughout the project. In general, the minimum radius of curvature using 1 degree per joint of pipe equates to approximately 1250 feet radius, and I am seeing numerous examples throughout the project where the radius is considerably less than 1250 feet. Let me know if you need specific examples, such as near the roundabout. I started to list them all, but it became apparent the list was going to be extensive. **Bends have been added to the plan per the aforementioned requirements.**
3. **Finally, concrete encasement when substandard vertical clearance between storm and sanitary sewer lines is not an approved method for isolating water mains per City standards or MDNR standards.** MDNR will reject the plans unless alternatives are provided. One such alternative is contained within our Design and Construction Manual, and is as follows:
  1. Certa-lok pipe installed ten (10) feet on either side of the storm or sanitary sewer line as measured from the point of conflict, restrained on both joints.
  2. Another option is to install bell harnesses across the pipe joints. **Bell harnesses are not mentioned in the D&C** but they can be utilized in this instance. They should be coated with a heat cured polyester coating like retainer glands. **Bell harnesses have been added to the plans at the crossings indicated.**

If you have any further questions, feel free to contact me at 913-284-9362 or by email at [gcates@ae-inc.com](mailto:gcates@ae-inc.com).

Sincerely,



Garrett Cates, PE  
Anderson Engineering Inc.  
941 W 141st Terr, Suite A  
Kansas City, MO 64145

