

October 23, 2018

Roy Watts

Powder Mountain Water Sewer Improvement District
District Manager
298 24th Street, Suite 150
Ogden, Utah 84401



SUBJECT: Bobcat Ridge Design Update Summary

Per ongoing discussions of the Bobcat Ridge design in conjunction with the Powder Mountain utility master plan meeting on 08-23-18, the following updates have been made to the Bobcat Ridge development:

Water:

- PRV located along Summit Pass at elevation 8655 is to be adjust from 40 to 50 psi to maintain more desirable pressure at the Summit Village core.
- PRV servicing Bobcat Ridge has been moved to White Pine Drive at elevation 8567 and will maintain a pressure minimum of 60 psi.
- Water main under Summit Pass connection reduced from 18” to 10”.
 - 10” water mainline backbone along White Pine drive is maintained
 - 8” looped mainlines for Aspen, Meadow and Bobcat Drives have been implemented. Alignments of looped lines have been changed slightly and are more accessible.
- Space for a 12” mainline has been incorporated into the road section design north along White Pine Drive per the master plan. This line is intended for future use once the future tank is located near the village. The line is not to be installed until needed.

Sewer:

- Locations of lift stations BR1 and BR2 have been moved to previously discussed locations for better access.
 - Pressure sewer pipe alignments have been updated in conjunction with new lift station locations.
 - Access road designs to lift stations have been updated accordingly.
 - Minimum 12-hour storage volume allocated for lift stations.
 - Update to BR2 Lift station detail for 12’ basin diameter.
 - Space for an 8” pressure sewer line has been incorporated into the road section design along the along the south side of White Pine Drive per the master planned “Primary” lift station. This mainline is intended for future use and is not to be installed until needed.
 - The intent is to utilize Bobcat Ridge’s existing 4” pressure sewer pipe in conjunction with an 8” pressure line to accommodate master planned buildout waste water flow.
 - Lift stations are temporary in nature. Additional information about this commitment should be provided by SMHG.
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Below are responses to comments from PMWSID dated 09/04/2018

Bobcat Sewer System Initial Review Comments

September 4, 2018

1. District requires either a major lift station that serves the entire area or a gravity line that terminates at the existing sewer main in the canyon. The two sewer lift stations for this project would be allowed provided they are temporary as offered by Summit. Define period of time for temporary operation and provide guarantee that permanent solution will be determined and constructed.

Response: Both BR1 and BR2 Lift stations have been designed to be temporary. The 12-hour wet well storage volume has been allocated for Bobcat Ridge waste water flows only. A primary lift station located in Gertsen canyon is intended to be built in the future per the Powder Mountain Utility master plan. Upon the completion of this primary station, waste water from Bobcat Ridge can be directed via gravity lines to the primary lift station. Any additional information of the timeline of the primary lift station should be proved by Summit Mountain Holding Group

2. 24 hours storage is required for each temporary pump station as well as standby power, and weather shelters for controls and generators.

Response: Per the master plan meeting on 08/23/18 between PMWSID, SMHG, and TCC, it was resolved that 12-hour storage will be required. This is provided in the current design. Backup power generators have been included in the design. Controls are designed in weather protected boxes similar to existing lift stations. See the electrical drawings for details of those components.

3. Provide documentation the GR 1 lift station has 24 hours of storage for all flows it will handle.

Response: The originally approved storage volume for GR-1 was 30 minutes. GR-1 was designed for the master planned volumes at this requirement. Therefore, based on the currently platted lots and the current proposed Bobcat Ridge lots there is approximately 4.6 hours of storage. However, 12 hours of storage is being provided for the new Bobcat Ridge lots at BR-1 and BR-2. Therefore, additional storage at GR-1 is unnecessary. Furthermore, GR-1 has additional redundancy since it is a triplex pump system and the district will have ample resources to manage flow with storage throughout the system in the event of an emergency. Please see attached for Exhibit SS-01 showing the lift stations and units that contribute to GR-01 and their storage volumes.

4. The type and construction of the temporary pump stations do not meet the product and quality standard of the District. Given temporary status of the pump stations District will accept them if a replacement pump for each pump station are provided by Developer at the time of construction.

Response: Improvement plans require the contractor to provide replacement pumps at the time of construction. See grinder station details on Sheets 706 and 707.

5. Each pump station is to be equipped with District approved telemetry equipment.

Response: Per the master plan meeting on 08/23/18 between PMWSID, SMHG, and TCC, it was resolved that Mission Telemetry equipment with standard metrics be provided for designed lift stations. We are currently working with the electrical engineering and the product supplier to provide the appropriate requirements in the electrical improvement plans. A subsequent submittal will be provided to show the details of this requirement.

6. Alignment of gravity interconnect sewer mains and force mains and pump stations locations to be modified as highlighted on the attached map.

Response: Alignments of gravity and force mains, as well as pump stations have been modified per PMWSID recommendations.

7. All pump stations and interconnect sewer and water lines must have accessible by all-weather roads constructed.

Response: Utility access roads have been designed for each new lift station.

If you have questions or need additional information, please call me at 743-1300.

Sincerely,



Ryan Cathey, PE
President
Talisman Civil Consultants, LLC