



Polson Water Resource Recovery Facility

Construction Progress Report

(December 2017)

TO: Mark Shrives, City Manager
106 First Street East
City of Polson, MT 59860

CC: Polson City Council
Ashley Walker, W/S Superintendent

FROM: Kevin Johnson, P.E.
Project Manager – DOWL

DATE: December 28, 2017

This construction progress report includes work for the month of December 2017.

Headworks Building:

The roof structure for this building was completed this month and some various plumbing and electrical work was completed. The exterior stairway was installed and the access road to the lower level was finished along with placement of a drainage culvert across this access road. The excavation for the grit chamber was completed and a temporary enclosure was constructed for heating of the area when this concrete work for the grit chamber resumes. See Figure 1.

SBR Tanks:

The final three (3) concrete pours for the biological process (SBR) tanks were completed. The structural steel braces across the tanks are complete and the steel walkway along the top of the tank divider wall was started. The SBR tanks are now ready for the leak testing before any backfilling around these tanks can proceed. However, the leak testing has proven to be impractical and not advisable during the freezing temperatures. The structure is too large to effectively heat to keep the exterior side of the concrete walls above freezing to allow observation and possible repair of any seeps. Thus, this work is on hold until weather conditions are favorable for this quality control to proceed. The delay in leak testing causes delay in backfilling around the tanks and completion of the pipework within the backfill. Further, the concrete inlet and outlet vaults and associated process piping within the vaults cannot proceed until leak testing and backfilling are completed. See Figures 2 and 3.

UV Building:

Several additional concrete pours were completed for the lower pipe gallery and the ultraviolet light flow channels. Some various electrical conduit and building plumbing (floor drain) work and backfill work was completed for this structure. Work on forming of the post equalization tank floor is next but is currently on hold for better weather conditions to prevail. See Figure 4.

Control Building:

Work within this building in December included framing of all the interior walls of the upper floor for the office, lab, mechanical, bathroom, blower room and chemical feed rooms. Drywall installation on the ceiling is nearly completed. Heating, ventilation and electrical work for duct work penetrations and various building wiring provisions proceeded throughout the building. The process mechanical piping in the basement is nearly complete. See Figures 6 and 7.

Digesters:

Mitigation work for the remaining seeps in the digester tanks proceeded through December with work on the inside of the tanks. The tanks were refilled to check the status of the remaining seeps. While there appears to be significant improvement there are still a few areas where seeping is still present. Because of the freezing temperatures the tanks were again drained and corrective work will have to resume when weather conditions are more favorable. See Figure 8.

Misc. – Equipment Delivery

Fluidyne, Inc. is scheduled to make a final delivery now in January for the process aeration blowers and control panels. The control building is now dried in and will allow for unloading of the aeration equipment directly into the control building where they will be permanently installed.

Misc. – Site Work

Coordination with Mission Valley Power for the new electrical service resulted in some changes to how the power lines will get to the new facility. The location of a new power pole proposed by Mission Valley Power would have immediate conflicts with other buried utilities and result in trenching through the borrow ditch and tree roots on the project property. The approach was revised to include an underground crossing of Kerr Dam Road and ultimate removal of the power poles on the west side of Kerr Dam Road. There will be no aerial crossing and the necessary trenching on site was greatly simplified. The cost from Mission Valley Power was reduced but the underground drilling of conduits under Kerr Dam Road is required and will be completed by a subcontractor for Swank Enterprises. The net increase in cost of this improved approach will be approximately \$7,000. Some of the electrical site work is shown in Figure 5.

Schedule

Swank Enterprises has requested a work suspension beginning January 12 and lasting through March 4, 2018. With work halted on the leak testing of the digesters and the SBR tanks, the overall critical path of the project is affected, and all aspects of the project cannot proceed forward concurrently at the necessary pace. DOWL has recommended to the City the work suspension be allowed. The duration and conditions of the suspension will be further discussed over the next week.

Overall Project Status Summary:

Contract Time: 532 Days to Substantial Completion of Treatment Facility

Days Expended: 255 (To Dec 28); (48%)

Original Contract Amount: \$12,213,000

Change Order #1 \$29,087

Change Order #2 \$2,542

Current Contract Amount: \$12,244,629

Total To Date: \$5,530,426; (45%)



Figure 1 - Headworks Bldg. Ext. Stairs



Figure 2 - North Wall of SBR - Complete



Figure 3 - South Wall of SBR- Last Pour



Figure 4 - UV System - Flow Channel Floor



Figure 5 - Electrical Site Work



Figure 6 - Control Building Process Pipe



Figure 7 - Control Building - Upper Floor Framing and Drywall



Figure 8 - Inside Digesters - Seep Repair, Heating Provisions