

# EXHIBIT C – Filter System Construction

## Chronology and Photo Descriptions

The WPCF Permit was issued by DEQ on January 31<sup>st</sup>, 2018, as a result of the September 18<sup>th</sup>, 2017 submission of the Application. A number of delays during and before the construction occurred, caused primarily by two factors....weather constraints, and contractor scheduling difficulties. Excavation for the first filter was begun in early June, 2018. The entire project, including grass cover seeding, was completed by the 1<sup>st</sup> of March, 2019. Jack Akin of EMC-Engineers/Scientists, LLC (EMC), Engineer-of-Record for this project, took some photos during frequent visits and on-site communications with the septic system contractor (Roury Summers of RotoRooter). The photos below are briefly described.

## Photographs

**Photo 1**, taken on June 4<sup>th</sup>, 2018, shows the initial excavation of Filter 1, the northmost filter in the system. During the excavation old septic system pipes were encountered and removed, as seen in **Photo 2**, taken on June 7<sup>th</sup>, 2018. **Photo 3**, taken on June 21<sup>st</sup>, shows the initial filter sidewall construction and some of the drain rock placed inside the construction in Filter 1. Another side view of the side wall is shown in **Photo 4**, and the gravel and soils support is shown in the June 29<sup>th</sup>, **Photo 5**. The 6<sup>th</sup> photo, taken June 21<sup>st</sup>, shows some construction being done on Filter 2. The mid- layers of gravel placed in Filters 1 and 2 are shown completed in this **Photo 7**, taken on July 25<sup>th</sup>. **Photo 8**, taken On August 10<sup>th</sup>, shows the placement of pipe from the pump vault near the septic system to the filters. **Photo 9** shows the distribution system. A 2-way distribution distributor valve is used to alternate between the two filter systems. The North Filter system is comprised of Filters 1 and 2. The South Filter system is comprised of Filters 3 and 4. Each of these filter systems utilize 5-way distributor valves downstream and in series from the 2-way distributor valves. EMC measured distributor pipe hole diameters, as seen in **Photo 10**, Taken on August 27, 2018. The zonal pipe distribution system, typical of all 4 filters of this system, is shown in **Photo 11**, taken On August 27<sup>th</sup>. On the same day, Photos 12 and 13 were also taken. **Photo 12** shows the pipes going through the side walls via grommet connections, and an extension of those pipes, one from each zone, is seen in **Photo 13**. **Photo 14**, taken on August 31<sup>st</sup>, shows the pressure test taken at Filters 1 and 2. All zones were tested, reviewed by EMC. As can be seen in the photo, pressure energy exceeded the necessary 5 feet of head. **Photo 15**, taken on August 31<sup>st</sup>, shows a worker placing the covers atop the distribution pipe holes. **Photo 16**, taken on September 7<sup>th</sup>, shows a worker with a level measuring the elevation of gravel being placed over distribution pipes. **Photo 17** shows the fabric being placed on September 19<sup>th</sup>. **Photo 18** was taken On October 24<sup>th</sup>, and shows the placement of the first layer of gravel over the base layer of 1 ½" inch diameter drain rock at Filter 3. **Photo 19** shows the main pipes running from the North Filters to the South Filters, and that photo was taken on December 5<sup>th</sup>. On the same day Photos 20 and 21 were taken. **Photo 20** shows the pipe system 2-way distributor valves, which alternate between the systems, and **Photo 21** shows the pressure test for the upper filter system. It can be seen in this photo that pressure energy was well over the required 5 foot head. **Photos 22** and **23** show exterior and interior views of the system control panel.

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