

### From The Director's Office:

#### New Radio Tower at the Level C Reservoir Site

The City is partnering with the Clackamas 800 Radio Group (C800) to construct a public safety network radio tower and ancillary equipment at one of our existing reservoir sites. In May 2016 voters approved the Clackamas County Emergency Radio Communications System Replacement Bond (Ballot Measure 3-476). As part of this bond measure, 14 new radio tower sites will be added to the existing 10 sites. One of the new sites is proposed to be on the City's Level C Water Reservoir property located north of Elligsen Road above the "Pheasant Ridge RV Park".

The C800 Group owns and operates a public safety voice and data communications system that benefits public safety providers who protect the citizens of Clackamas County. C800's service area is 1,879 square miles and the service population is 397,385 (2015).

The C800 group wants to lease a 50' x 60' parcel within the Reservoir property to install a 180.0 foot tall lattice communications tower with the top of the terminal at 196' 6" along with 12' x 24' equipment building, emergency generator and propane tank. The equipment will be enclosed with a six foot high black vinyl clad chain-link fence with privacy slats, three strand barbwire and an alarm system. A 28.7 feet by 148.7 feet area will be designated as an access area to the Ground Space along with 1,676 square foot Utility Easement area within the access area to provide electricity to the Ground Space.

C800 will be responsible for the maintenance of the Access Area, Ground Space, and Communication Facility including the roadway, fence, building, alarms, etc.

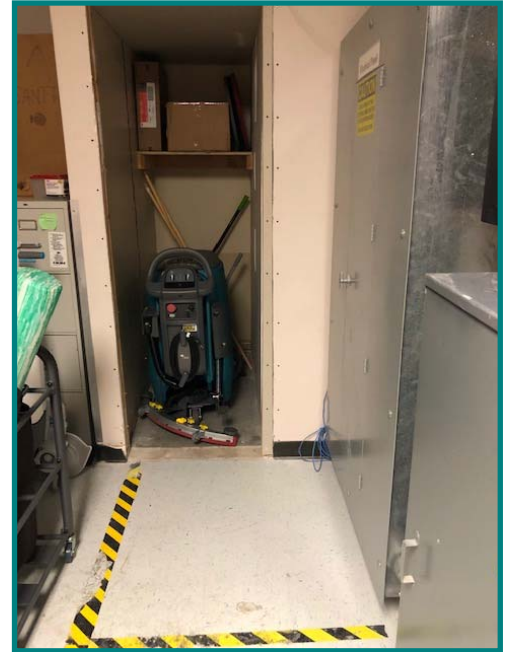
The C800 group has provided an executed copy of the easement or access license for the right of way of ingress and egress to and from the Property from the adjacent landowner. The lease agreement with the City requires the C800 Radio Group to pay \$12,000 per year lease fee and the fee will increase by three percent each year.



## Facilities Division

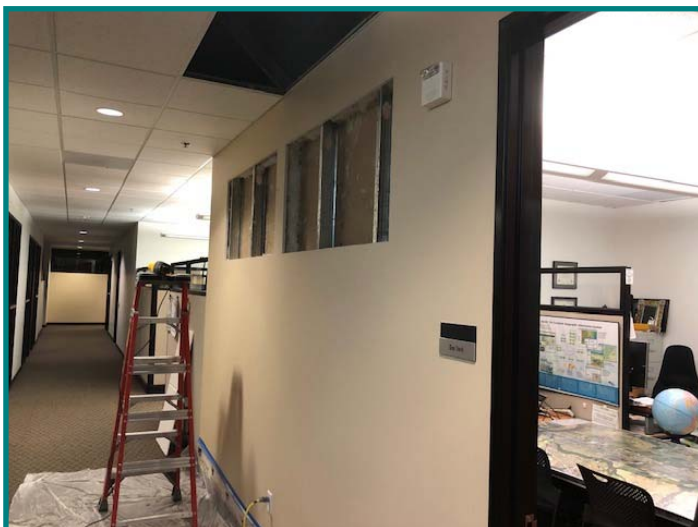
### In-House Remodeling Projects

The Facilities Division has been burning the candle on both ends with several minor in-house remodels. The most efficient and least impactful means of accomplishing these project was to complete the work in the evenings while the facilities are not in use. The smaller of the two projects consisted of reconstructing a small, underutilized area in the Community Centers storage room to provide an area for the janitor's new floor scrubber. The space allows for the scrubber to be charged and still keep it out of the three foot clearance area that is required for the nearby electrical panels. Additionally, the area provided enough space for a extra shelving to be installed above the scrubber for added storage and an additional battery charging station.



The larger and more complex project, was the installation of two interior windows and three large poster mounting frames and between the upstairs hallway and the GIS Managers office. The office, commonly referred to as the cave due to its poor lighting, is located in the center of the upper floor. The project required careful layout of the windows in order to avoid HVAC condensation lines as well as communication and electrical wires. Once the layout process was completed, the excess sheetrock and soundproof insulation was removed, new metal framing was installed in the openings. We then reattached the existing sheetrock to the framing and

windows in order to place and secure the openings. Not only did the project successfully bring increase the quality and amount of natural lighting from the surrounding area, it improved the look and feel of what was once an expansive and boring hallway.



## Roads & Storm Water Division

### Safety Railing Replacement on 95th Avenue at the AGC Building

A vehicle accident on 95th Avenue had taken out the railing in front of the Associated General Contractors (AGC) Building. Railing was required at this location to assure the safety of pedestrians and vehicles, due to the 15 foot grade difference between the sidewalk and the adjacent property. The railing was severely damaged several months ago. The crew responded immediately to isolate and secure the area for the general public. Staff ordered the replacement railing which required over three months for fabrication. Upon delivery the railing was installed by the Roads crew with some help from the Storm crew. Staff was able to cut out and replace the railing sections all in one day.



## Roads & Storm Water Division

### Storm Water Flow Control Repairs

During annual maintenance, the Storm team members found a flow control device inside a manhole that had become separated from the overall structure. This failure caused it to allow too much flow through the system thereby damaging several other structures in the downstream storm system. Typical banding system repairs used to secure the flow control device to the wall cost ~\$5,000. The crew developed a less expensive option of using a custom pipe clamp system to re-secure the flow control device while still meeting all applicable Public Works Standards. The alternative solution cost ten times less than the prescribed method.

Once all the parts required for the repairs were gathered the team implemented an efficient plan to reconstruct the damaged structures. Throughout the following weeks the stormwater crew will be scheduling and completing the two remaining structures that need repair. The pictures provided below show the crew performing a Confined Space Entry into the flow control manhole and repairing it.



## Utilities Division

### Annual Water Distribution Flushing Program

The Water crew wrapped up the annual water distribution system's flushing program this month. The water crew flushes the system annually as a proactive method to maintain high quality water for our customers. The program involves flushing the entire system starting at the water treatment plant and then working away from the plant to the edges of the city. The work involves opening hydrants and blow offs in a specific sequence to increase the velocity of the water in the system piping creating a scouring effect, which in turn removes sediment, loose deposits and tubercles. Flushing the system decreases the water age in dead end mains, improving the water quality and restoring chlorine residuals in the system.

The flushing program also provides an additional opportunity to inspect the condition and operation of the hydrants and blow off valves themselves. During flushing if a hydrant is not operating properly it is repaired within a day of discovery to restore its fire protection capabilities.



Chris-Flushing



Sam-Flushing



Steve-Blow Offs

### Sewer Hot Spots

The sewer crew, (Paul Havens and Paul Walker below) continues to clean lines and address "hot spots" which are manholes or sewer lines that need to be inspected and cleaned more regularly than others. Some of these manholes are harder to reach than your standard manhole in the street. The sewer crew will occasionally need to get creative by dragging hose, driving off road, or assembling long sections of suction pipe in order to reach into deep manholes.



Paul H. and Paul W. inspecting and cleaning sanitary system