PUBLIC HEALTH DIVISION
Drinking Water Services
Tina Kotek, Governor

Oregon Health Authority

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April 7, 2023

Andrew Stevens, PE
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Parametrix
700 NE Multnomah, Suite 1000
Portland, OR 97232

Re: **Pacific City JWSA (PWS #00609) – Rueppell Ave Water Pipeline Upgrades Conditional Approval (PR #47-2023)**

Dear Mr. Stevens:

Thank you for your plans submitted by Pacific City Joint Water-Sanitary Authority on April 5, 2023, to the Oregon Health Authority's Drinking Water Services (DWS) for the Rueppell Avenue Water Pipeline Upgrades Project. The plans and a land use compatibility statement were received on April 5, 2023, and a plan review fee payment in the amount of $3,300 was processed on 4/7/2023.

The project involves replacing roughly 2,670 linear feet of 2" water line with a 6" C-900 PVC water line and related appurtenances.

The project (assigned plan review #47-2023) is granted Conditional Approval with construction allowed to proceed provided the following conditions per OAR 333-061-0050(8)-(10) are met:

1. A Land Use Compatibility Statement approved by Tillamook County is submitted (Pacific City is working on this)
2. Air-relief valves are installed at high points where air can accumulate. The breather tube on air-relief valves shall be extended above ground surface and provided with a screened, downward facing elbow (OAR 333-061-0050(8)(i)).
3. Nonconductive water pipe (plastic or other material) that is not encased in conductive pipe or casing has an electrically conductive wire or other approved

conductor for locating the pipe when the pipeline is underground. The wire shall be No. 18 AWG (minimum) solid copper with blue colored insulation. Ends of wire shall be accessible in water meter boxes, valve boxes or casings, or outside the foundation of buildings where the pipeline enters the building. The distance between tracer lead access locations shall not be more than 1,000 feet. Joints or splices in wire shall be waterproof (OAR 333-061-0050(8)(k)).

4. Waterlines in proximity to and/or crossing sanitary sewers comply with requirements in OAR 333-061-0050(9) included with this letter.
5. New facilities are disinfected and tested in compliance with OAR 333-061-0050(10)(a) – (d) as applicable prior to being placed into service.

Please keep in mind that facilities may not be placed into service until Final Approval has been granted. To request this final approval once construction is finished, please complete and submit the following Project Approval Request Form along with record (as-built) plans for this project to me via e-mail at evan.e.hofeld@oha.oregon.gov.

Project Final Approval Request Form: To close out a project and request final approval from DWS, fill out the request form and email it to the reviewing DWS plan review engineer.

Thank you for your cooperation in this plan review process and if you have any questions or concerns, please feel free to contact me at 971-200-0288 or via e-mail at evan.e.hofeld@oha.oregon.gov.

Sincerely,

Evan Hofeld, PE
Oregon Health Authority – Drinking Water Services

cc:

Rachelle DeLoe, Executive Assistant
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Pacific City Joint Water-Sanitary Authority
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OAR 333-061-0050(9):

(9) Crossings-Sanitary sewers and water lines:

(a) All reference to sewers in this section shall mean sanitary sewers;

(b) In situations involving a water line parallel to a sewer main or sewer lateral, the separation between the two shall be as indicated in Figure 1;

(c) In situations where a water line and a sewer main or sewer lateral cross, the separation between the two shall be as follows:

(A) Wherever possible, the bottom of the water line shall be 1.5 feet or more above the top of the sewer line and one full length of the water line shall be centered at the crossing;

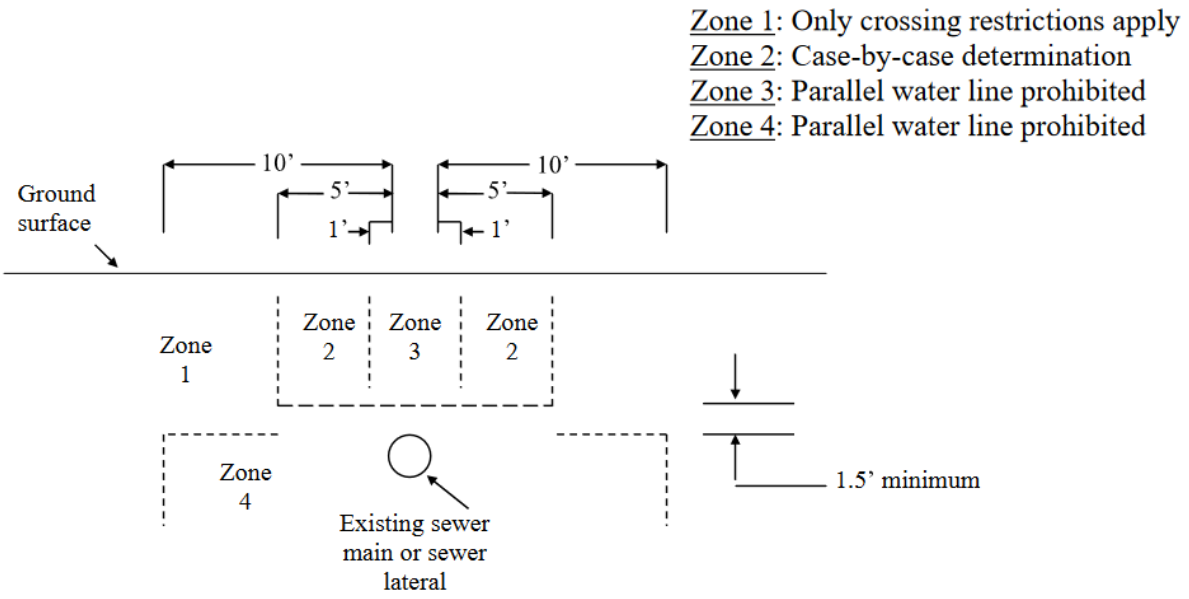
(B) Where the water line crosses over the sewer line but with a clearance of less than 1.5 feet, the sewer line shall be exposed to the sewer line joints on both sides of the crossing to permit examination of the sewer pipe. If the sewer pipe is in good condition and there is no evidence of leakage from the sewer line, the 1.5-foot separation may be reduced. However, in this situation, the water supplier must center one length of the water line at the crossing and must prepare a written report of the findings and indicating the reasons for reducing the separation. If the water supplier determines that the conditions are not favorable or finds evidence of leakage from the sewer line, the sewer line shall be replaced with a full length of pipe centered at the crossing point, of PVC pressure pipe (ASTM D-2241, SDR 32.5), high-density PE pipe (Drisco pipe 1000), ductile-iron Class 50 (AWWA C-51), or other acceptable pipe; or the sewer shall be encased in a reinforced concrete jacket for a distance of 10 feet on both sides of the crossing.

(C) Where the water line crosses under the sewer line, the water supplier shall expose the sewer line and examine it as indicated in paragraph (9)(c)(B) of this rule. If conditions are favorable and there is no evidence of leakage from the sewer line, the sewer line may be left in place, but special precautions must be taken to assure that the backfill material over the water line in the vicinity of the crossing is thoroughly tamped in order to prevent settlement which could result in the leakage of sewage. In this situation, the water supplier must center one length of the water line at the crossing and must prepare a written report recording the manner in which the sewer line was supported at the crossing and the material and methods used in backfilling and tamping to prevent settlement of the sewer. If the water supplier determines that conditions are not favorable

or finds evidence of leakage from the sewer line, the provisions of paragraph (9)(c)(B) of this rule apply.

(d) When a water main is installed under a stream or other watercourse, a minimum cover of 30 inches shall be provided over the pipe. Where the watercourse is more than 15 feet wide, the pipe shall be of special construction with flexible watertight joints, valves shall be provided on both sides of the crossing so that the section can be isolated for testing or repair, and test cocks shall be provided at the valves.

Figure 1: Water Line-Sewer Line Separation



OAR 333-061-0050(10)(a) – (d) Disinfection of Facilities:

(10) Disinfection of facilities:

(a) Following construction or installation of new facilities and repairs to existing facilities, those portions of the facilities which will be in contact with water delivered to users must be cleaned and flushed with potable water and disinfected according to AWWA Standards C651 through C654 before they are placed into service. Disinfection must be by chlorine unless another disinfectant can be demonstrated to be equally effective.

(b) For construction of new distribution pipelines (with any associated service connections and other appurtenances installed at the time of construction), disinfection by chlorination must be conducted as specified in paragraphs (A) through (C) of this subsection unless another method from AWWA Standard C651 is used.

(A) A solution with a free chlorine residual of at least 25 mg/l must be introduced to the pipe such that the solution will contact all surfaces and trapped air will be eliminated. The solution must remain in place for at least 24 hours.

(B) After 24 hours, if the free chlorine residual is 10 mg/l or greater, the chlorine solution must be drained and the pipe flushed with potable water. If the free chlorine residual is less than 10 mg/l after 24-hours, the pipe must be flushed and rechlorinated until a free chlorine residual of 10 mg/l or more is present after a 24 hour period.

(C) After the pipe is disinfected, flushed and filled with potable water, bacteriological samples must be collected to determine the procedures' effectiveness. At least two samples must be collected from the new pipe at least 16 hours apart and analyzed for coliform bacteria. If the pipe has held potable water for at least 16 hours before sample collection, two samples may be collected at least 15 minutes apart while the sample tap is left running. If the results of both analyses indicate the water is free of coliform bacteria, the pipe may be put into service. If either sample indicates the presence of coliform bacteria, the pipe may be re-flushed, filled with potable water and re-sampled. If this second set of samples is free of coliform bacteria, the pipe may be put into service, otherwise the disinfection and flushing process must be repeated until samples are free of coliform.

(c) For repaired pipelines that were depressurized and wholly or partly dewatered during repair or that likely experienced contamination during repair, disinfection according to the procedure specified in paragraphs (10)(b)(A) through (C) of this rule must be followed except that bacteriological samples must be collected downstream of the repair site. If the direction of flow is unknown, samples must be collected on each side of the repair site.

(d) A water line may be returned to service, following repairs or routine maintenance, prior to receiving a report on the bacteriological analysis if the following procedures have been completed:

(A) Customer meters were shut off prior to placing the water line out of service;

(B) The area below the water line to be repaired was excavated and dewatered;

(C) The exposed pipe was treated with a hypochlorite solution;

(D) The water line was flushed thoroughly, and a concentration of residual chlorine has been re-established that is comparable to the level normally maintained by the water system, if applicable; and

(E) Bacteriological analysis was conducted to verify repair effectiveness according to this section and samples were collected downstream of the repair site or on each side of the repair site if the direction of flow is unknown.