

BOARD OF WATER SUPPLY NOTES

1. Unless otherwise specified, all construction activities affecting Board of Water Supply (BWS) facilities in this project shall be in accordance with the "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", dated 1994, as amended, of the Hawaii Highways Division, Department of Transportation, and the City and County of Honolulu Board of Water Supply's "WATER SYSTEM STANDARDS", dated 2002, the "WATER SYSTEM EXTERNAL CORROSION CONTROL STANDARDS, VOLUME 3", dated 1991, and all subsequent amendments and additions.

2. All plans approved by the Board of Water Supply are based solely on the adequacy of the water supply. All other features of the water system, such as lines, grades, fittings, drainage, etc., and other features of improvements shall not be the responsibility of the Board of Water Supply.

3. Test pressure shall be 150 psi. During the 30-minute pressure test, the pressure shall not drop more than 10 psi.

4. The Contractor shall notify BWS Capital Projects Division, Construction Section in writing or call (808) 748-5730 and submit six (6) sets of 24" x 36" approved construction drawings one week prior to commencing construction activities.

5. After installation of tapping sleeve and valve prior to actual tapping operations, the assembly shall be tested at 150 psi. on both sides of the valve.

6. The Contractor shall chlorinate the entire inside surface of each pipe and fitting with disinfection solution of 5 ounces of sodium hypochlorite mixed with 10 gallons of water. (for connection only)

7. The Contractor shall be responsible for the protection of all water lines during construction. The Contractor shall be especially careful when excavating behind water lines, tees, and bends wherever there is a possibility of water line movement due to the removal of the supporting earth beyond the existing reaction blocks. The Contractor shall take whatever measures necessary to protect the water lines, such as constructing special reaction blocks (with BWS approval) and/or modifying his construction method.

8. The existence and location of underground utilities and structures as shown on the plans are from the latest available data but is not guaranteed as to the accuracy or the encountering of other obstacles during the course of work. The Contractor shall be responsible and shall pay for all damages to existing utilities. The Contractor shall not assume that where no utilities are shown, that none exist.

9. Prior to installation, the Contractor shall submit for approval by Board of Water Supply, the manufacturer's certification that all cast iron (gray or ductile) fittings for the project conform in all respects to the Water System Standards, dated 2002.

10. Polygon shape for mechanical joint glands as described in AWWA Standard C111 shall be "straight-sided" or an approved equal on a job-to-job basis.

11. Re-approval shall be required if this project is not under construction within a period of two (2) years.

12. Contractor shall cut and plug all existing unused laterals at the main whether or not shown on the plans. The damaged area shall be repaired to an equal or better condition than the immediate area. All work shall be done at the expense of the Contractor.

13. The Contractor/developer shall obtain a NPDES permit prior to chlorination and/or dewatering. A copy of the permit shall be submitted to the Board of Water Supply, Capital Projects Division, Construction Section.

14. Pipe cushion shall be of high resistivity material. The Contractor shall submit a soil certification that high resistant cushion material has a resistivity greater than 5,000 ohm-cm. Remainder of the backfill material shall be as specified in the water system standards. Pipe cushion and backfill material shall contain no hazardous substances above regulatory action levels including but not limited to lead, asbestos, mercury, chromium, cadmium, zinc, strontium, and polychlorinated biphenyls (pcb).

BOARD OF WATER SUPPLY NOTES (CONT.)

15. Cleaning shall be by the use of "pigs" introduced into the pipeline and run completely through all installed pipelines and all branch lines for fire hydrants. "Pigging" of service laterals is not required. Bare foam "pigs" shall be used to swab piping clean as each length of the pipeline is installed. Each "pig" shall consist of a cylindrical piece of polyurethane foam with a density of 3-7 pounds per cubic foot and a vinyl-coated nose. Outside diameter of the "pig" shall be equal to 1-1/4 to 1-1/2 times the inside diameter of the pipe being installed. The length of the "pig" shall be 1-1/2 to 2 times its diameter. Prior to use, the "pig" shall be submerged in a chlorine solution of 1 oz. of 5% chlorine bleach in 5 gallons of water. "Pigging" of the pipeline shall be considered incidental to the installation of the new pipeline.
16. Ball corp and ball stop shall be used in lieu of a corporation stop and stopcock, respectively.
17. Install 4 mil thick, non-metallic, blue colored, 6 inches wide warning tape over centerline of the pipe and below the base course along the entire length of trench. Tape should be marked with "caution water line buried below".
18. The Contractor shall install electronic markers to all mains and test the electronic markers prior to installations to verify proper operation. BWS personnel shall verify the number and locations of placed electronic markers before final paving of the project.
19. For ductlines crossing existing or new waterline:
A the electrical/signal ductline water crossings, adjust all electrical/signal ductline elevations to maintain 12" vertical clear separation from all waterlines at no cost to the board of water supply.

Maintain 3'-0" min. horizontal clear separation between all waterline systems and nearest electrical/signal ductlines paralleling the water system at no cost to the board of water supply.

Maintain 3'-0" min. horizontal clear separation between street light/traffic signal, standards (including any modular units) and the nearest water system. Contractor shall field verify for any conflicts at each street light/traffic signal standard location. Where conflicts occur, the contractor shall coordinate with the project engineer to revise the street light/traffic signal standard to provide the required clearances at no cost to the BWS.
20. For cut-in connection to existing:
All waterline construction requiring shutdown connection shall be scheduled for after working hours at six (6) hours maximum downtime.

ORIGINAL PLAN	SURVEY PLOTTED BY	WM/JS	DATE
	DRAWN BY		
	TRACED BY		
	DESIGNED BY		
NOTE BOOK	QUANTITIES BY		
	CHECKED BY		
No.			

APPROVED:	
Manager and Chief Engineer, BWS (for work affecting BWS facilities State R/W & BWS easements only)	DATE

CRAIG W. L. LUKE
LICENSED PROFESSIONAL ENGINEER
No. 6935-C
HAWAII, U.S.A.

THIS WORK WAS PREPARED BY ME OR UNDER MY SUPERVISION AND CONSTRUCTION OF THIS PROJECT WILL BE UNDER MY OBSERVATION. "OBSERVATION OF CONSTRUCTION" IS DEFINED IN CHAPTER 16-115, HAWAII ADMINISTRATIVE RULES, ENTITLED "PROFESSIONAL ENGINEERS, ARCHITECTS, SURVEYORS AND LANDSCAPE ARCHITECTS."

SIGNATURE
R. M. TOWILL CORPORATION

4/30/22
LIC. EXPIRATION

06/01/21

Revised Note

STATE OF HAWAII
DEPARTMENT OF TRANSPORTATION
HIGHWAYS DIVISION

WATER NOTES - 1

Sand Island Access Road
Truck Weigh Station
Federal Aid Project No. NH-064-1(010)
TMK: (1) 1-2-025: 002

Scale: As Noted
Date: February 2021

SHEET No. G-7 OF 120 SHEETS

RMTC JOB NO. : 1-19548-0E

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