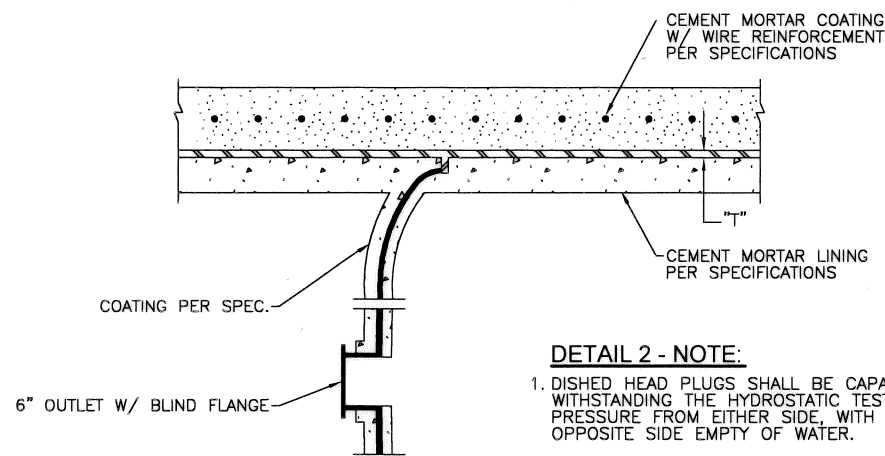


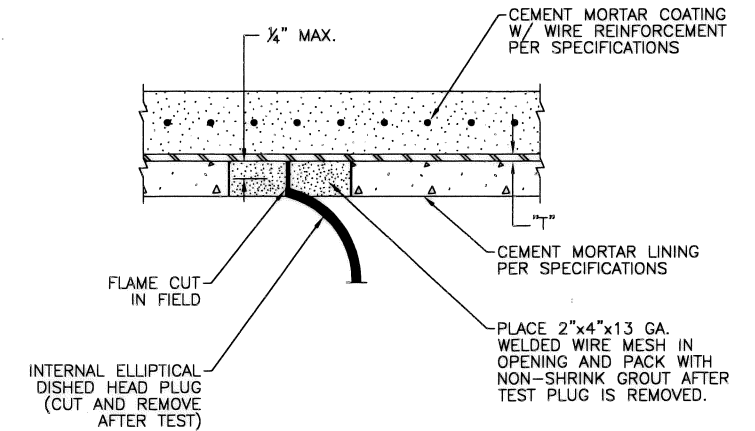
DETAIL 1 - NOTE:

1. WELD SIZE SHALL MATCH THICKNESS OF BUTT STRAP AND CARRIER PIPE, AS RECOMMENDED BY THE PIPE MANUFACTURER.
2. INTERNAL WELD NOT RECOMMENDED FOR 30" DIAMETER PIPE AND SMALLER.
3. NO ANGULAR DEFLECTION ALLOWED.



DETAIL 2 - NOTE:

1. DISHED HEAD PLUGS SHALL BE CAPABLE OF WITHSTANDING THE HYDROSTATIC TEST PRESSURE FROM EITHER SIDE, WITH THE OPPOSITE SIDE EMPTY OF WATER.



1 CLOSURE PIECE

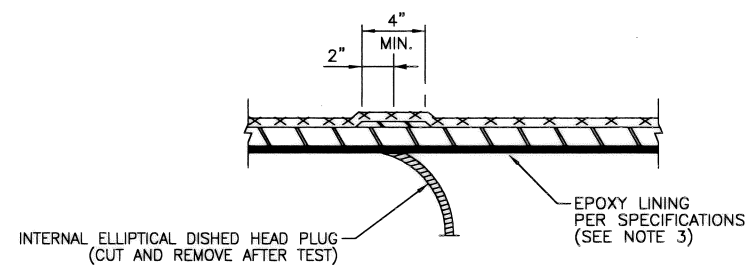
FOR STEEL PIPE WITH CEMENT MORTAR LINED AND CEMENT MORTAR COATED (SIMILAR FOR FLEXIBLE COATING AND LINING)

2 INTERNAL ELLIPTICAL DISHED HEAD PLUG

CEMENT MORTAR LINING AND CEMENT MORTAR COATED STEEL PIPE SPECIAL

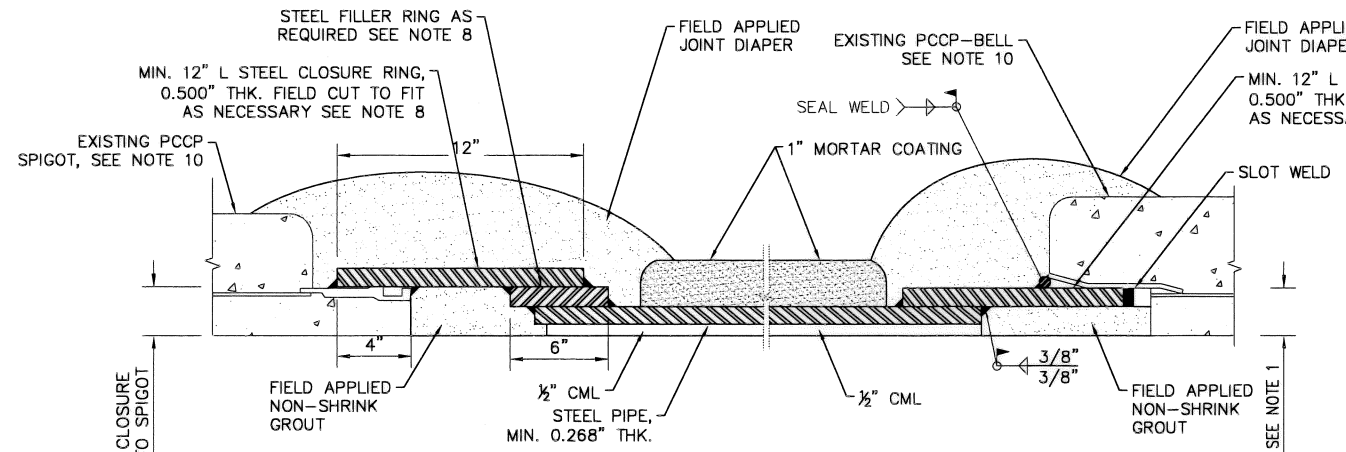
3 INTERNAL ELLIPTICAL DISHED HEAD PLUG REMOVAL

CEMENT MORTAR LINING AND CEMENT MORTAR COATED STEEL PIPE SPECIAL



4 INTERNAL ELLIPTICAL DISHED HEAD PLUG REMOVAL

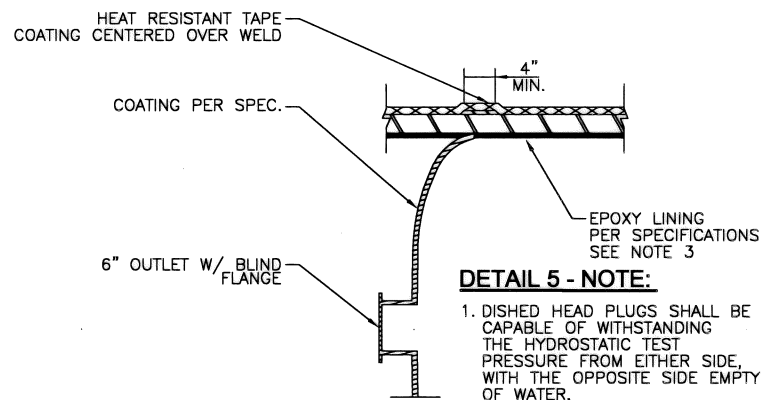
FOR STEEL PIPE WITH FLEXIBLE COATING AND LINING



6 CONNECTION PIECE DETAIL STEEL-TO-PCCP BELL/SPIGOT (OPTION 1: IF EXISTING PIPE JOINT IS NOT WELDED)

NOTES:

1. T = STEEL CYLINDER THICKNESS AND SIZE OF FILLET ATTACHMENT WELD.
2. ALL REFERENCES TO PIPE DIAMETER FOR THIS PROJECT SHALL SIGNIFY SIZE MEASURED TO INSIDE DIAMETER OF THE LINED PIPE.
3. DETAILS 4 AND 5 SHOW EPOXY LINING. CEMENT MORTAR LINING TO BE SIMILAR TO DETAILS ON THIS SHEET SHOWING CEMENT MORTAR LINED PIPE, AS APPROVED BY PROGRAM MANAGER.
4. SEE SPECIFICATIONS FOR REPAIR OF EPOXY LINING.
5. WHEN CEMENT MORTAR COATING IS USED FOR STEEL PIPE, FLEXIBLE MASTIC SEALER SHALL BE APPLIED TO THE EXTERIOR OF THE JOINT PRIOR TO JOINT ENGAGEMENT WHEN PIPE IS INSTALLED IN A TUNNEL OR ENCASEMENT PIPE.
6. OUTSIDE WELD MAY BE SUBSTITUTED FOR INSIDE WELD. INTERIOR WELDING IS NOT RECOMMENDED FOR 30" DIAMETER PIPE AND SMALLER.
7. FIELD VERIFY INSIDE DIAMETER OF JOINT RING.
8. RING THICKNESS TO BE DETERMINED BASED ON FIELD VERIFIED JOINT DIMENSIONS.
9. COATINGS ON PROPOSED PIPE TO BE SIMILAR TO EXISTING PIPE.
10. PROTECT EXISTING PIPE SECTIONS TO REMAIN IN PLACE. NOTIFY ENGINEER IF ANY SUSPECTED DAMAGE OCCURS.

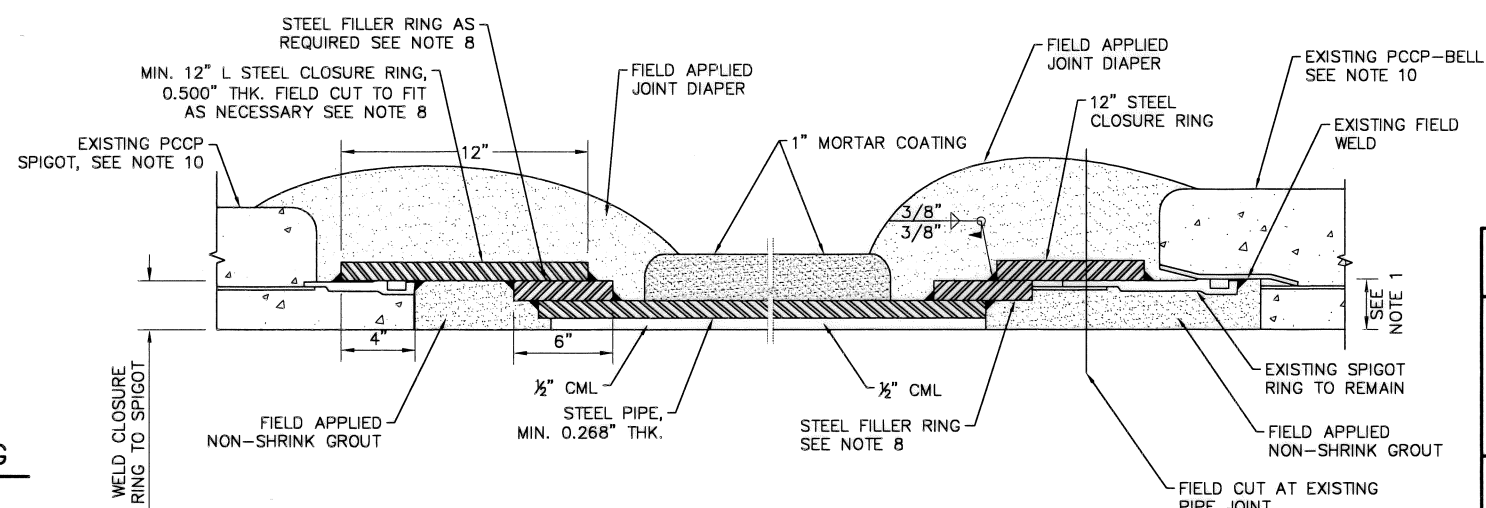


DETAIL 5 - NOTE:

1. DISHED HEAD PLUGS SHALL BE CAPABLE OF WITHSTANDING THE HYDROSTATIC TEST PRESSURE FROM EITHER SIDE, WITH THE OPPOSITE SIDE EMPTY OF WATER.

5 INTERNAL ELLIPTICAL DISHED HEAD PLUG

FOR STEEL PIPE WITH FLEXIBLE COATING AND LINING



7 CONNECTION PIECE DETAIL STEEL-TO-PCCP BELL/SPIGOT (OPTION 2: IF EXISTING PIPE JOINT IS WELDED)

CITY OF HOUSTON HOUSTON PUBLIC WORKS	
STANDARD LDWL STEEL PIPE DETAILS (SHEET 2 OF 2) (NOT TO SCALE)	
APPROVED BY: ACTING CITY ENGINEER	APPROVED BY: DIRECTOR OF HOUSTON PUBLIC WORKS
EFF DATE: MAR-20-2018	DWG NO: 02518-02