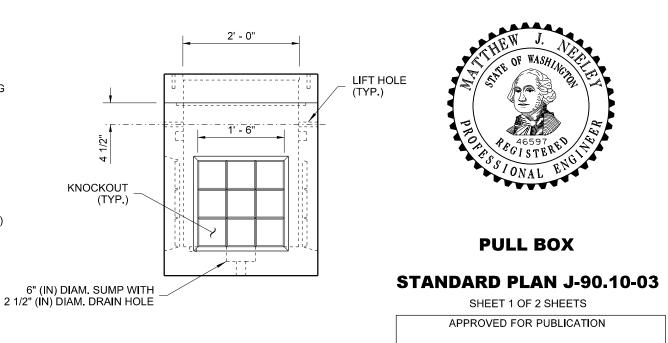


## NOTES

- 1. The Heavy Duty Lid thickness varies by installation type:
  - a.) 9" (in) for all new installations
- b.) 6" (in) for existing boxes with no roadway overlay
- c.) Such that it is flush with the surface of the new overlay, when a new overlay is specified
- 2. Minimum lid thickness shown. The diamond pattern shall be a minimum of 3/32" (in) thick.
- 3. Slip-resistant lids shall be identified with a permanent marking on the underside of the lid, indicating the type of surface treatment (see Contract Documents for details) and the year of manufacture. The marking shall use 1/8" (in) thick lines formed with a weld bead, and shall be placed prior to galvanizing.
- 4. For Standard Duty Lids, attach a 1/4-20 UNC × 1" (in) S. S. ground stud, coated with anti-sieze compound. For Heavy Duty Lids, install a 1/2-13 UNC × 1 1/4" (in) S. S. bolt in a 5/8" (in) diameter cored hole in the ductile iron lid gusset as a ground stud. All ground studs shall include (3) S. S. nuts and (2) S. S. flat washers. See **Standard Plan J-90.50** for grounding and bonding details.
- 5. The bonding jumper between the lid and frame shall be #8 AWG (min.) x 4' (ft) tinned braided copper.
- 6. System identification letters shall use 1/8" (in) wide lines. Cover marking for steel lids shall be formed by casting or with a mild steel weld bead. Cover marking for ductile iron lids shall be recessed. See **COVER MARKING DETAIL** and **Standard Specification section 9-29.2(4)** for additional details. Ductile iron lids shall also provide a minimum 1 1/2" (in) wide x 3 1/2" high x 3/16" (in) thick, flat area for lifting purposes.
- 7. Cement concrete shall be Class 4000.
- 8. Plastic plugs shall be put into the lid inserts after fabrication and the lid installation.
- 9. Conduit Capacity = 40 inches (sum total of all conduit diameters).

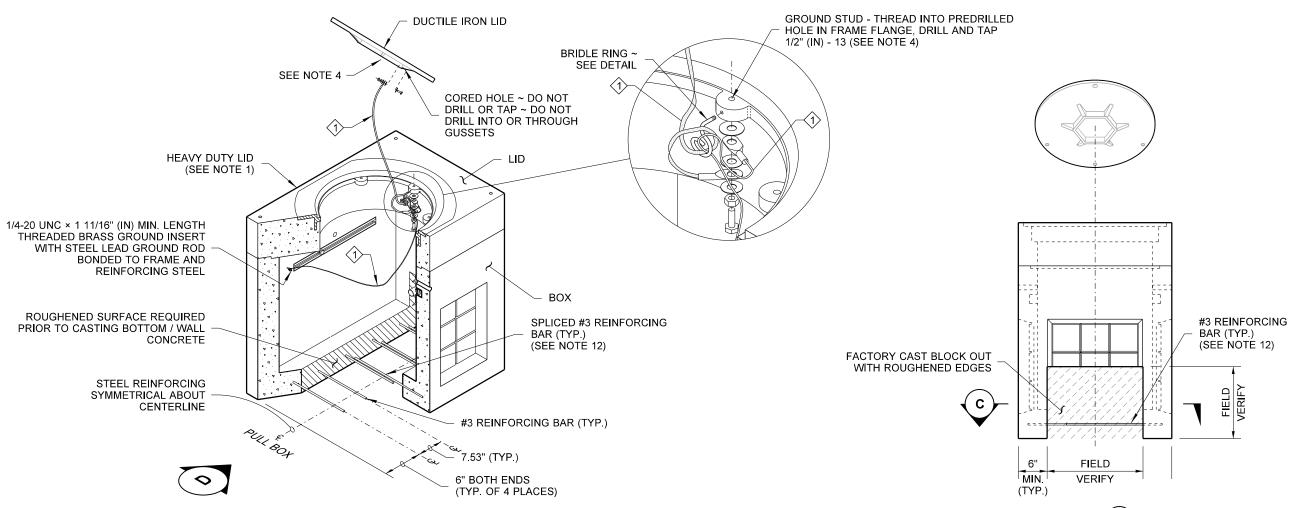
VIEW

- 10. This drawing depicts a typical Pull Box assembly. Reinforcing not shown. Each manufacturer's Pull Box assembly will vary. Refer to the approved manufacturer's shop drawings for all dimensions and the actual arrangement.
- 11. The lid is an assembly consisting of the metal lid and frame, reinforcing steel, brass ground inserts, and concrete.
- #3 reinforcing bar shall be capable of being bent out of the way and restored, to allow for conduit installation.



STATE DESIGN ENGINEER

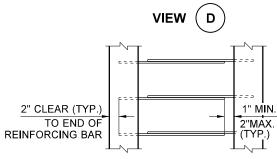
Washington State Department of Transportation



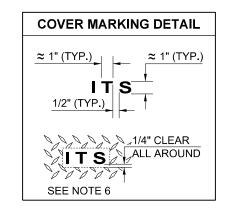
## OPEN BOTTOM PULL BOX ASSEMBLY (SHOWN WITH HEAVY DUTY LID)

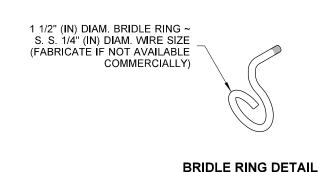
SEE PULL BOX, SHEET 1, FOR DIMENSIONS NOT SHOWN

\* BOLTS, NUTS AND WASHERS ~ ASTM F593 OR A193,
TYPE 304 OR TYPE 316
STAINLESS STEEL (S.S.)

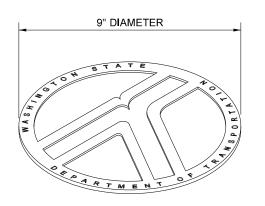




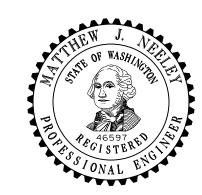




**ISOMETRIC CUTAWAY** 



LOGO DETAIL



## **PULL BOX**

## STANDARD PLAN J-90.10-03

SHEET 2 OF 2 SHEETS

APPROVED FOR PUBLICATION

