



DISTRIBUTION CONSTRUCTION STANDARD
EUGENE WATER & ELECTRIC BOARD - EUGENE, OREGON

TEMPORARY STEEL PLATING, CORE CUTTING AND MANHOLE VAULT FRAME AND COVER ADJUSTMENT REQUIREMENTS FOR TRAFFIC AREA GRADE CHANGES

Approved Jan 27, 2016

GC5-2.8500

REV
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1.0 CONSTRUCTION NOTES:

BEFORE MILLING BEGINS:

Step 1

- 1.1 Excavate surrounding asphalt, PCC (Portland Cement Concrete) and existing backfill to 2" below road milling depth. Excavation area shall not be more than 10" horizontally from the manhole frame.
- 1.2 Remove existing to 36" or 38" manhole frame, cover and cut steel riser tube or remove entire steel riser tube as required.

Step 2

- 1.3 Place temporary steel plate over the steel riser or top of the vault slab as needed.
- 1.4 Backfill to existing road grade with temporary AC (Asphalt Cement). If excavation is more than 60" diameter, hot mix asphalt (HMAC) must be used to ensure no temporary patch is left beyond 60" core when rising.

CORE CUT AND MANHOLE FRAME ADJUSTMENT REQUIREMENTS:

Step 3

- 1.5 Core cut circular excavation 10" minimum from manhole frame.
- 1.6 Cut down to and remove steel plate and temporary asphalt.
- 1.7 Raise manhole frame and cover to final grade by either welding tabs to existing steel riser or welding a new steel riser section (cut to the appropriate length and angle to match grade) to the existing steel riser.
- 1.8 Install Rapid Set Flowable Fill (RSFF) around riser tube to 12" below new road grade.
- 1.9 Install rebar hoops and pour Rapid Set Concrete at a minimum depth of 12" on top of the RSFF and around manhole frame. Ensure there are no voids between steel manhole frame and concrete. Provide a broom finish to concrete. At 70° F, Rapid Set Concrete will attain a minimum compressive strength of 4800 psi in 3 hours within the core cut as shown. Protect from traffic loading until concrete has cured to 4800 psi. In colder weather, concrete will take longer to cure and can be heated to speed up cure time.

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1.10 Finish joint with asphalt seal and sand per the permitting authorities' standards of construction requirements.

2.0 DESIGN NOTES:

2.1 It is the responsibility of the design tech to coordinate a "manhole reference" with EWEB surveyors prior to road construction. This "manhole reference" identifies the location of the manhole vault opening for a future core cut once the paving has been completed.

3.0 REFERENCE STANDARDS:

- A Refer to EC5-2.8000 for Solid and steel manhole vault riser tubes.
- B Refer to EC5-2.8500 for Manhole vault frame and covers.
- C Refer to GC5-2.9000 for Typical 7' 11" x 13' x 8' 7" concrete manhole vault installation requirements.
- D Refer to GC5-2.2600 for 7' 11" x 13' x 8' 7" concrete manhole vault with 2' 10" opening.

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