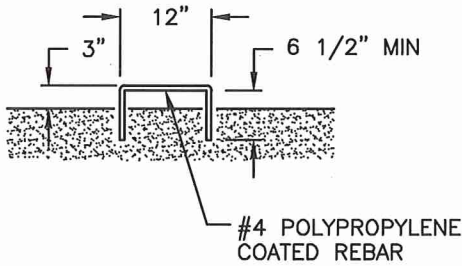
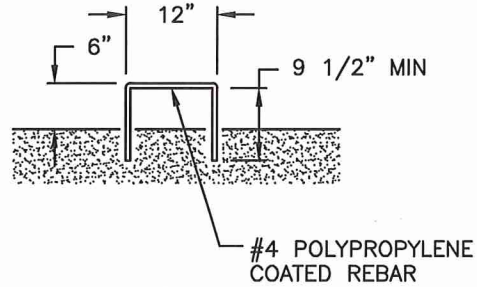


MANHOLE HANDHOLD



MANHOLE STEP



NOTES

1. MANHOLE STEPS AND HANDHOLDS SHALL BE POLYPROPYLENE COATED GRADE 60 REBAR CONFORMING TO ASTM C-478, D-4101, A-615 AND AASHTO M-199.
2. PREFABRICATED LADDERS SHALL BE MADE OF REBAR AND ENCASED IN POLYPROPYLENE AFTER FABRICATION.
3. STEPS MAY BE INSTALLED:
CAST IN PLACE, OR
DRIVEN INTO PREFORMED HOLES WITH THE CONCRETE CURED TO 3,000 PSI MINIMUM, OR
BY DRILLING TWO ONE INCH DIAMETER HOLES, 3-3/4' DEEP, 13" O.C. APPLY NON-SHRINK GROUT AROUND BARBED ENDS AND DRIVE TO FULL INSERTION.
4. PENETRATION OF THE OUTER WALL OF A STRUCTURE WITH A LEG OF A STEP OR LADDER SHALL NOT OCCUR. STEPS AND LADDER RUNGS SHALL BE SPACED AT 12 INCHES AND SHALL BE VERTICALLY ALIGNED.
5. STEPS, HANDHOLDS, LADDER RUNGS AND FASTENINGS SHALL BE DESIGNED FOR A MINIMUM LIVE LOAD OF 300 LBS AND A PULL OUT FORCE OF 1,000 LBS.
6. STEPS, HANDHOLDS, AND LADDER PARTS SHALL BE FREE OF SPLINTERS, SHARP EDGES, BURRS OR PROJECTIONS WHICH MAY CAUSE HAZARDS.
7. REQUESTS TO USE STEPS, HANDHOLDS AND LADDERS MADE FROM NON-CORROSIVE MATERIALS SUCH AS STAINLESS STEEL AND PLASTIC MAY BE ACCEPTED AFTER REVIEW AND APPROVAL BY THE CITY. GALVANIZED STEEL WILL NOT BE PERMITTED IN SANITARY SEWER AND STORM SEWER MANHOLES AND STRUCTURES.



DATE SEALED: 3/6/17

CITY OF
PUYALLUP
OFFICE
of
THE CITY ENGINEER

MANHOLE STEP
AND HANDHOLD

DRAWN BY JIM ERWIN-SVOBODA	CHECKED BY TED HILL	APPROVED BY MARK PALMER	REVISED BY V STOCKMAN	DATE REVISED: 08/15/12 02/24/17 XX/XX/XX XX/XX/XX	CITY STANDARD
FILE NAME F:\DWG\COMMON\STDS\CITY\STDS\06_MISC\06.01\06.01.03	DATE APPROVED 07/01/2009	SCALE VARIES	06.01.03		