

STORM DRAIN MANHOLE, TYPE II

N.T.S.

SECTION A-A
PRECAST CONCRETE REDUCING SLAB (72" TO 36")
N.T.S.

SECTION B-B
PRECAST CONCRETE REDUCING SLAB (72" TO 48")
N.T.S.

SECTION C-C
PRECAST CONCRETE REDUCING SLAB (72" TO 25"/25")
N.T.S.

GENERAL NOTES:

1. THESE DRAWINGS ARE FOR PRECAST REINFORCED CONCRETE FOR HIGHWAY USE. CAST IN PLACE STRUCTURES MAY BE USED AS APPROVED BY THE ENGINEER.
2. MEET THE REQUIREMENTS OF ASTM C-478 FOR ALL DRAINAGE STRUCTURES AND APPURTENANCES.
3. MINIMUM STEEL REQUIRED FOR BARREL AS PER ASTM C-478 SHALL BE IMBEDDED IN BASE SO THAT THE FIRST BARREL SECTION IS CONNECTED TO THE BASE BY CONTINUOUS STEEL. PROVIDE REINFORCING STEEL TYPE AND GRADE PER DOT&PF STANDARD SPECIFICATIONS.
4. CONCRETE TO HAVE 1 1/2" MINIMUM COVER.
5. USE CLASS A OR CLASS B CONCRETE PER DOT&PF STANDARD SPECIFICATIONS.
6. SEAL RISER JOINTS WITH FLEXIBLE PLASTIC JOINT SEALERS.
7. PROVIDE NON-SHRINK GROUT. PROTECT GROUT DURING CURE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED METHOD.
8. FORM ALL BLOCK-OUTS.
9. MANHOLE SHALL HAVE A MINIMUM OF ONE 6" GRADE RING.
10. ALL STORM DRAIN MANHOLES AND INLETS SHALL HAVE 18" MINIMUM SUMPS. MANHOLES WITH PETROLEUM SEPARATORS SHALL HAVE 24" MINIMUM SUMPS.
11. OFFSET IS MEASURED TO CENTERLINE OF STRUCTURE.
12. EXTEND PIPE 2" INTO MANHOLE. SEAL PIPE PENETRATIONS WITH NON-SHRINKABLE GROUT MIXED WITH POTABLE WATER PER MANUFACTURER'S RECOMMENDATIONS.
13. CATCH BASIN LEADS SHALL ENTER THE MANHOLE AT LEAST ONE PRIMARY LEAD DIAMETER ABOVE THE TOP OF THE PRIMARY LEAD UNLESS MINIMUM PIPE SLOPES CANNOT BE ACHIEVED.
14. MAXIMUM PIPE DIAMETER IS NOT TO EXCEED HALF OF THE STRUCTURE DIAMETER. PRIMARY LEADS MUST BE A MINIMUM OF 135 DEGREES APART.
15. LIVE LOAD FOR DESIGN OF THE MANHOLE BARRELS, RISERS, AND REDUCING SLABS IS AASHTO HL-93 (HS20 AND DESIGN TANDEM AXLE/WHEEL LOADS).
16. A FLAT LID WITH A SMALLER OPENING MAY ALSO BE USED IF CALLED FOR IN THE PLANS.


REDUCING SLAB NOTES:

1. USE NO. 5 FOR ALL REBAR EXCEPT STIRRUPS AND HOOPS.
2. SPACE ALL REBAR AT 6" CENTERS UNLESS OTHERWISE NOTED.
3. MAINTAIN A MINIMUM OF 1 1/2" OF CONCRETE COVER OVER ALL REBAR.
4. REINFORCING STEEL SHOWN IS A MINIMUM PER ASTM C478. PRECAST MFR TO COMPLETE AND SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR ENGINEER'S REVIEW.

MANHOLE STEP NOTES:

1. MEET CURRENT OSHA STANDARDS FOR STEPS AND ACCESS OPENINGS.
2. PLACE STEPS 12" O.C. ON AN UNOBSTRUCTED SIDE OF THE STRUCTURE, 18" MAXIMUM FROM MANHOLE BASE. IF UNOBSTRUCTED SIDE NOT AVAILABLE, PLACE STEP 6" OVER SMALLEST PIPE. WHEN USING A CONE, FIRST LADDER RUNG IS 8" MAXIMUM FROM TOP OF CONE. WHEN USING A FLAT LID, FIRST LADDER RUNG IS 4" MAXIMUM FROM TOP OF RISER.
3. PROVIDE INJECTION MOLDED POLYPROPYLENE COVERED GRADE 60 STEEL STEPS TIGHTLY IMBEDDED AT LEAST 3" INTO CONCRETE.
4. INSTALL STEPS TO RESIST A PULLOUT FORCE OF 1500 LB.
5. THE MINIMUM DIAMETER OF CLEAR ACCESS TO STEP IS 24".
6. THE CONTRACTOR SHALL TAKE SPECIAL CARE FOR ANY MANHOLE THAT FALLS IN A CURB LINE TO SEE THAT WHEN MANHOLE IS OFFSET DURING INSTALLATION THAT THE STEPS FALL UNDER THE CURB INLET.

State of Alaska DOT&PF
ALASKA STANDARD PLAN
72" STORM DRAIN MANHOLE (PRECAST CONCRETE)
TYPE II MANHOLE

Adopted as an Alaska Standard Plan by: 
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