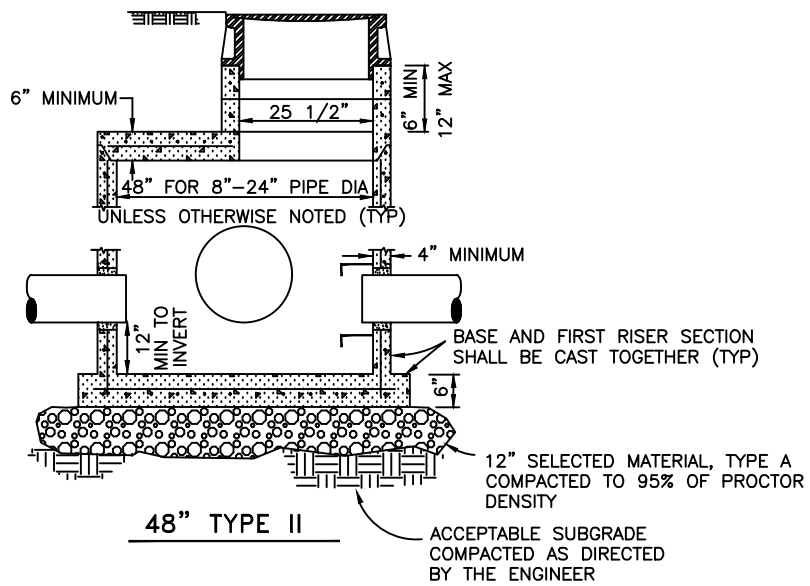
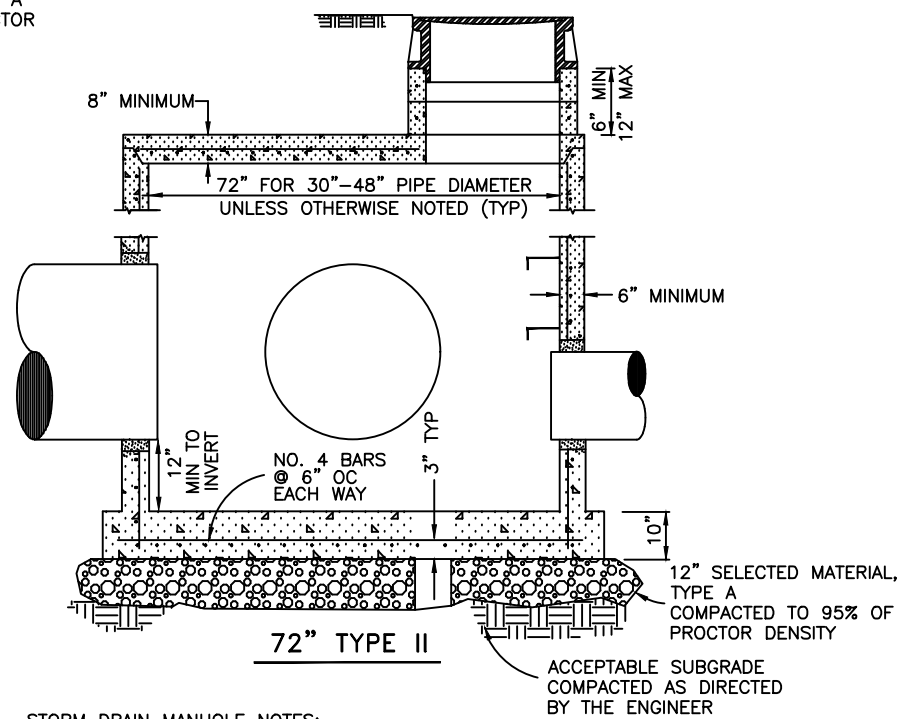


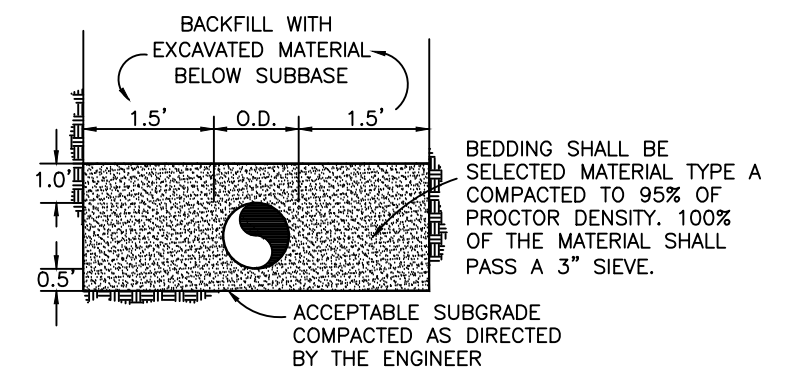
48" TYPE I



48" TYPE II

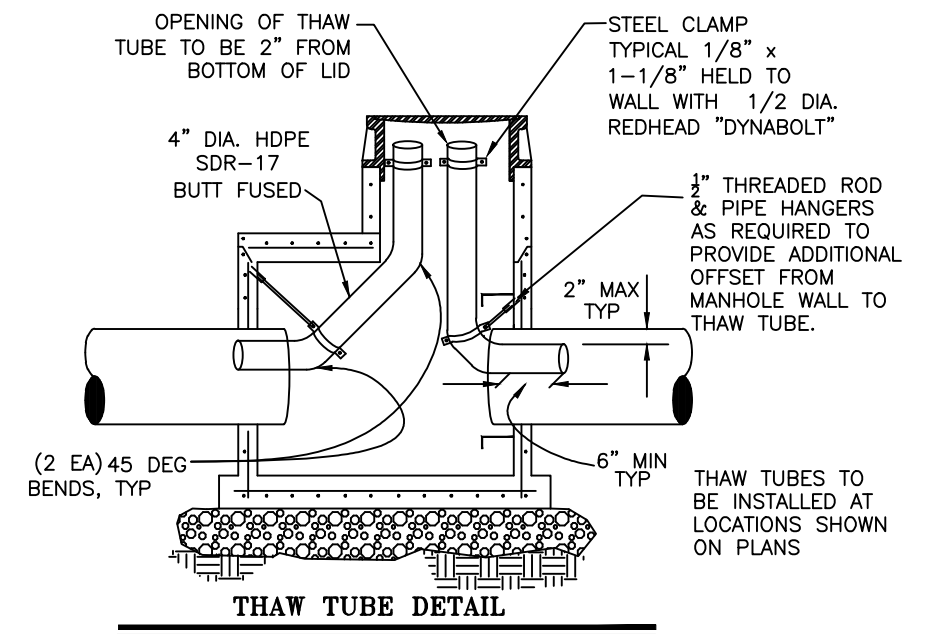


72" TYPE II



PIPE BEDDING DETAIL

NOT TO SCALE



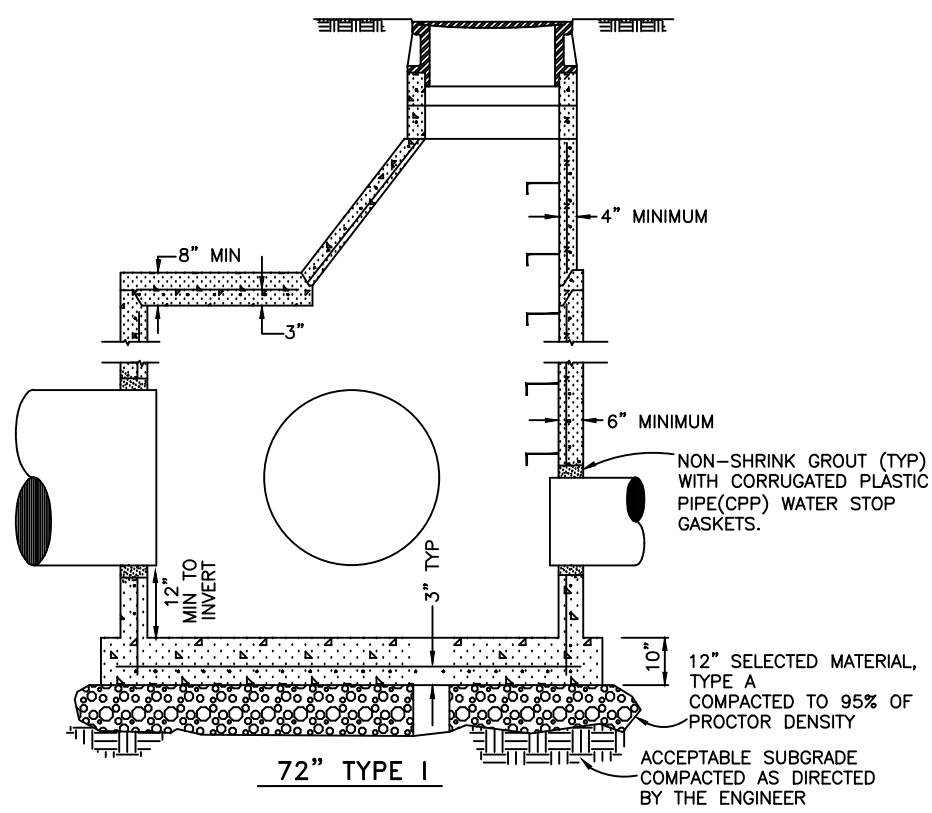
THAW TUBE DETAIL

STORM DRAIN MANHOLE NOTES:

1. OPENINGS IN MANHOLE TO RECEIVE PIPE SHALL BE 1" TO 2" LARGER THEN THE OD AND PIPE. LARGER OPENINGS SHALL BE FILLED AS DIRECTED BY THE ENGINEER. INSIDE GROUT SURFACE SHALL BE SMOOTH. PROVIDE CPP WATER STOP GASKETS.
2. TYPICALLY, STORM DRAIN MANHOLES DO NOT REQUIRE INSULATION. HOWEVER, SPECIAL CASES REQUIRE INSULATION OF ALL OUTSIDE SURFACES. SEE PLANS.
3. SEAL RISER JOINTS WITH FLEXIBLE PLASTIC JOINT SEALERS.
4. MANHOLE STEPS SHALL BE APPROVED GALVANIZED STEEL OR PLASTIC AND MEET CURRENT OSHA STANDARDS.
5. ALL GROUT SHALL BE NON-SHRINK. PROTECT GROUT DURING CURE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDED METHOD.
6. REINFORCEMENT IN BASE, RISER, CONE, FLAT LID, AND ADJUSTING RINGS SHALL COMPLY WITH AASHTO SPECIFICATION M199/ASTM478.

SECTION	MANHOLE SIZE		(SHALL COMPLY WITH AASHTO M 199 /ASTM 478)
	48"	72"	
FLAT BASE	0.39 SQ IN/FT EACH WAY	0.39 SQ IN/FT EACH WAY	*CIRCUMFERENTIAL REINFORCING ALL AREAS ARE MINIMUM CROSS-SECTIONAL AREA OF REINFORCEMENT PER FOOT OF SECTION.
RISER SECTION*	0.12 SQ IN/FT	0.18 SQ IN/FT	
CONE SECTION*	0.12 SQ IN/FT	0.18 SQ IN/FT	
FLAT LID**	0.12 SQ IN/FT EACH WAY	0.12 SQ IN/FT EACH WAY	
ADJUSTING RING	0.024 SQ IN	0.024 SQ IN	

**OPENINGS IN FLAT LIDS SHALL BE ADDITIONALLY REINFORCED WITH A MINIMUM OF THE EQUIVALENT OF 0.2 SQ IN OF STEEL AT 90'.



72" TYPE I

TYPICAL CONCRETE STORM DRAIN MANHOLES

NOT TO SCALE

3/13/17	WATER STOP GASKETS	RHP
2/3/10	NEW SD1	GSC,RHP
3/23/07		RHP
DATE		BY

NOT TO SCALE

DESIGNED:	
DRAWN:	STAFF
CHECKED:	RHP,GSC
DATE:	3/23/07

CITY OF FAIRBANKS, ALASKA
ENGINEERING DIVISION

STANDARD DETAILS
STORM DRAIN MANHOLES, THAW TUBES AND BEDDING SD1

