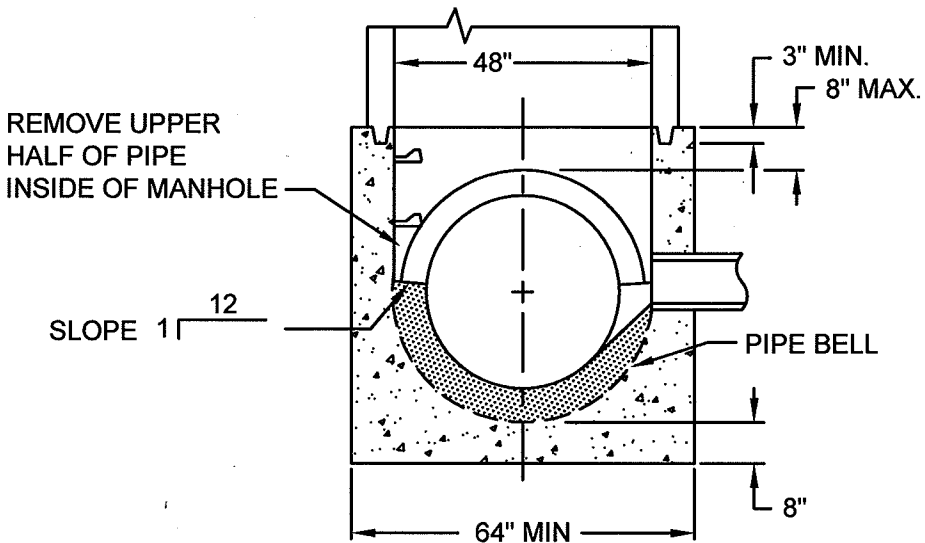


CAST-IN-PLACE BASE FOR 60"-144" MANHOLES

- CONCRETE SHALL BE STRUCTURAL CONCRETE HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
- REINFORCING STEEL SHALL HAVE A YIELD STRENGTH OF 60,000 PSI.
- PROVIDE GROUT OR PREFORMED PLASTIC SEAL (MASTIC) AT JOINT WITH PRECAST MANHOLE SECTION. GROUT OR SEAL NOT REQUIRED WHEN BASE CAST IN CONTACT WITH PRECAST SECTION.

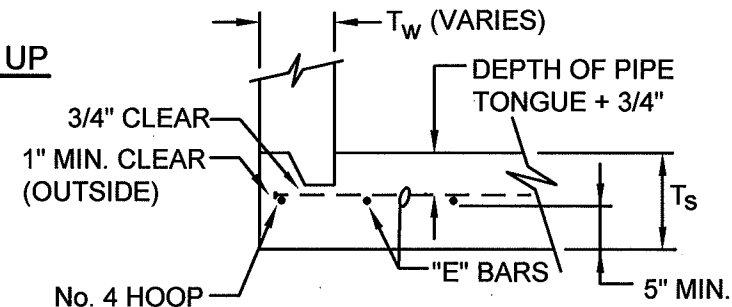


CAST-IN-PLACE BASE FOR 48-INCH MANHOLE

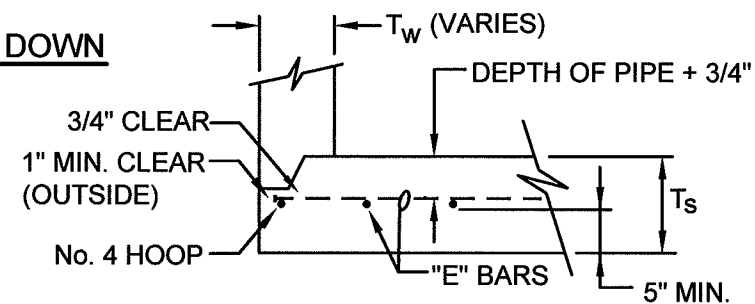
- CONCRETE SHALL BE STRUCTURAL CONCRETE HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI.
- BASE MAY BE POURED TO A HEIGHT OF 8" ABOVE TOP OF SEWER.
- PROVIDE GROUT OR PREFORMED PLASTIC SEAL (MASTIC) AT JOINT WITH 48" RISER SECTION. GROUT OR SEAL NOT REQUIRED WHEN BASE CAST IN CONTACT WITH RISER SECTION.

MH SIZE	DEPTH (Invert to Street)	T _s	"E" BARS	"F" BARS
60"	0 - 15'	7"	#4 @ 10"	#4 @ 10"
	15' - 30'	9"	#4 @ 9"	#4 @ 9"
72"	0 - 15'	7"	#4 @ 7"	#4 @ 7"
	15' - 30'	9"	#4 @ 6"	#4 @ 6"
84"	0 - 15'	8"	#4 @ 6"	#4 @ 6"
	15' - 30'	10"	#5 @ 9"	#5 @ 9"
96"	0 - 15'	9"	#4 @ 6"	#4 @ 6"
	15' - 30'	11"	#5 @ 7"	#5 @ 7"
108"	0 - 15'	10"	#5 @ 9"	#5 @ 9"
	15' - 30'	12"	#6 @ 9"	#6 @ 9"
120"	0 - 15'	11"	#5 @ 8"	#5 @ 8"
	15' - 30'	13"	#6 @ 8"	#6 @ 8"
132"	0 - 15'	12"	#5 @ 8"	#5 @ 8"
	15' - 30'	14"	#6 @ 7"	#6 @ 7"
144"	0 - 15'	13"	#5 @ 7"	#5 @ 7"
	15' - 30'	16"	#6 @ 7"	#6 @ 7"

BELL UP



BELL DOWN



PRECAST BASE SLAB FOR 48"-144" MANHOLES

- ALL PRECAST CONCRETE SHALL CONFORM TO THE REQUIREMENTS OF THE CITY OF PORTLAND MANUFACTURING STANDARDS FOR PRECAST CONCRETE (MSPCP), AS REVISED.
- REFER TO MSPCP FOR SIZE AND REINFORCEMENT SCHEDULE.
- PROVIDE PREFORMED PLASTIC SEAL (MASTIC) AT JOINT WITH PRECAST MANHOLE SECTION, ACCORDING TO MANUFACTURER'S SPECIFICATIONS.
- 48" BASE SLABS SHALL BE A MINIMUM OF 6" THICK. REINFORCEMENT SHALL BE PLACED ABOVE MIDPOINT OF BASE SLAB THICKNESS AND SHALL CONSIST OF A MINIMUM OF 0.12 in²/LF IN BOTH DIRECTIONS.

The selection and use of this Standard Drawing, while designed in accordance with generally accepted engineering principles and practices, is the sole responsibility of the user.



Bureau of Environmental Services
CITY OF PORTLAND, OREGON

Walter F. [Signature]
Chief Engineer

Standard Drawing Title

Manhole Cast-In-Place Base & Precast Base Slab

Note:
All material and workmanship shall be in accordance with the City of Portland Standard Construction Specifications.

Effective Date: 01-01-09

Calc. Book No.: 001

Baseline Report Date: 03-24-09

Standard Drawing No.

P-151