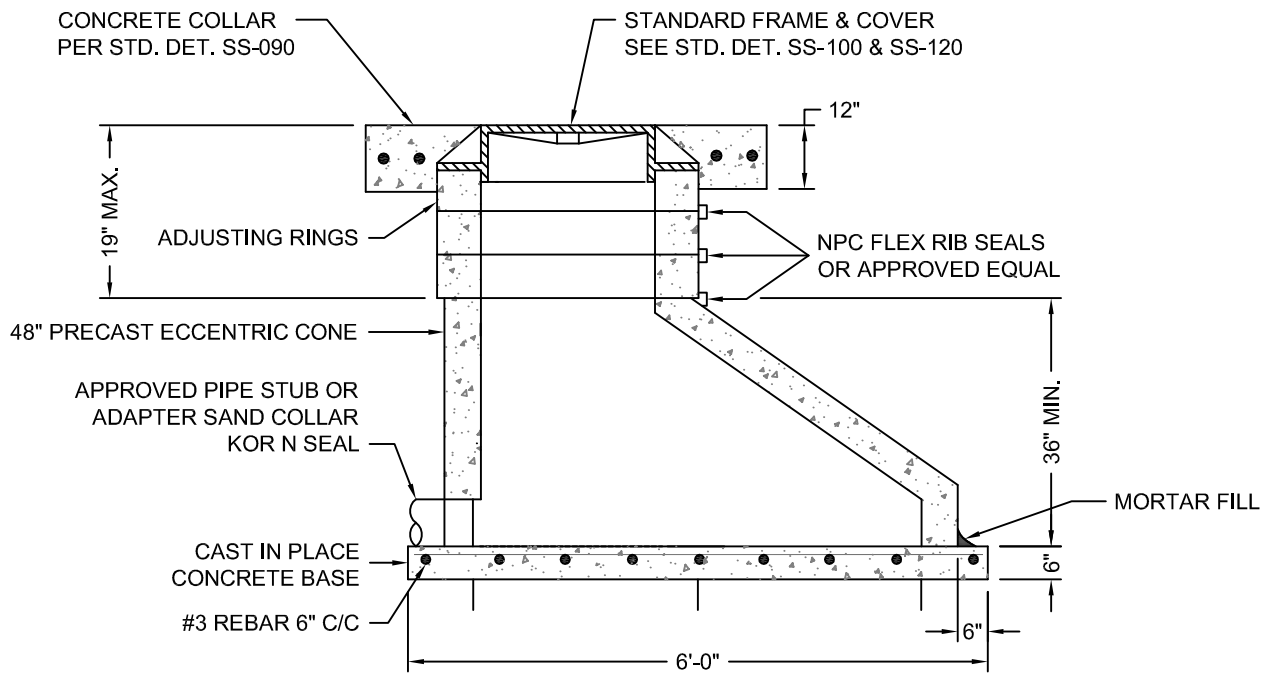
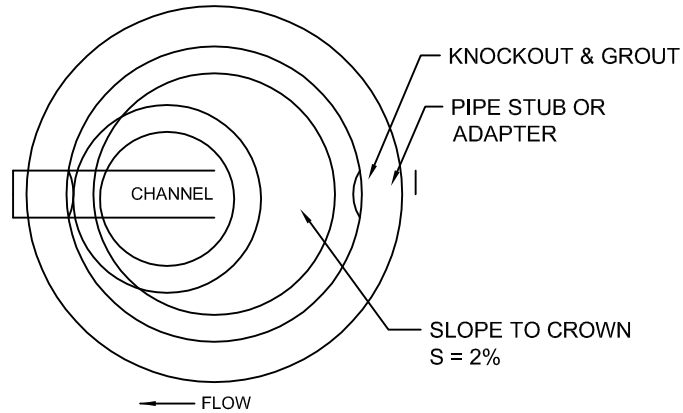


MANHOLE DIMENSION TABLE						
DIA.	WALL THICKNESS	BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS	BASE REINFORCING STEEL in <sup>2</sup> /ft. IN EACH DIRECTION	
					SEPARATE BASE	INTEGRAL BASE
48"	4"	6"	36"	8"	0.23	0.15
54"	4.5"	8"	42"	8"	0.19	.019
60"	5"	8"	48"	8"	0.25	.025
72"	6"	8"	60"	12"	0.35	0.24
84"	8"	12"	72"	12"	0.39	.029
96"	8"	12"	84"	12"	0.39	0.29



**NOTES:**

1. FOR USE IN DEAD-END SEWER LINES ONLY, NO FLAT TOP MANHOLES WILL BE ALLOWED WITHOUT CITY ENGINEER APPROVAL.
2. WATER TIGHT MANHOLE INSERT REQUIRED, SEE STANDARD DETAIL SS-130
3. CAST IN PLACE CONCRETE BASE TO BE POURED ON NATIVE GROUND UNLESS OTHERWISE DIRECTED BY THE ENGINEER DUE TO POOR SOIL CONDITIONS.
4. GROUTING SHALL BE SUFFICIENT TO PREVENT LEAKS BETWEEN THE PRE-CAST COMPONENTS OF THE COMPLETED STRUCTURE & SHALL BE PERFORMED INSIDE, BETWEEN & OUTSIDE OF ALL RISERS, JOINTS & PIPE PENETRATIONS.



**48" SHALLOW CONE MANHOLE**

STANDARD PLAN:  
**SS - 010**

DATE: **FEB. 2008**

CITY ENGINEER APPROVAL:  
Longview: **C.B.**

Kelso: **S.Z.**