

## SANITARY SEWER MANHOLE

STANDARD PLAN:  
**SS - 020**

CITY ENGINEER APPROVAL:

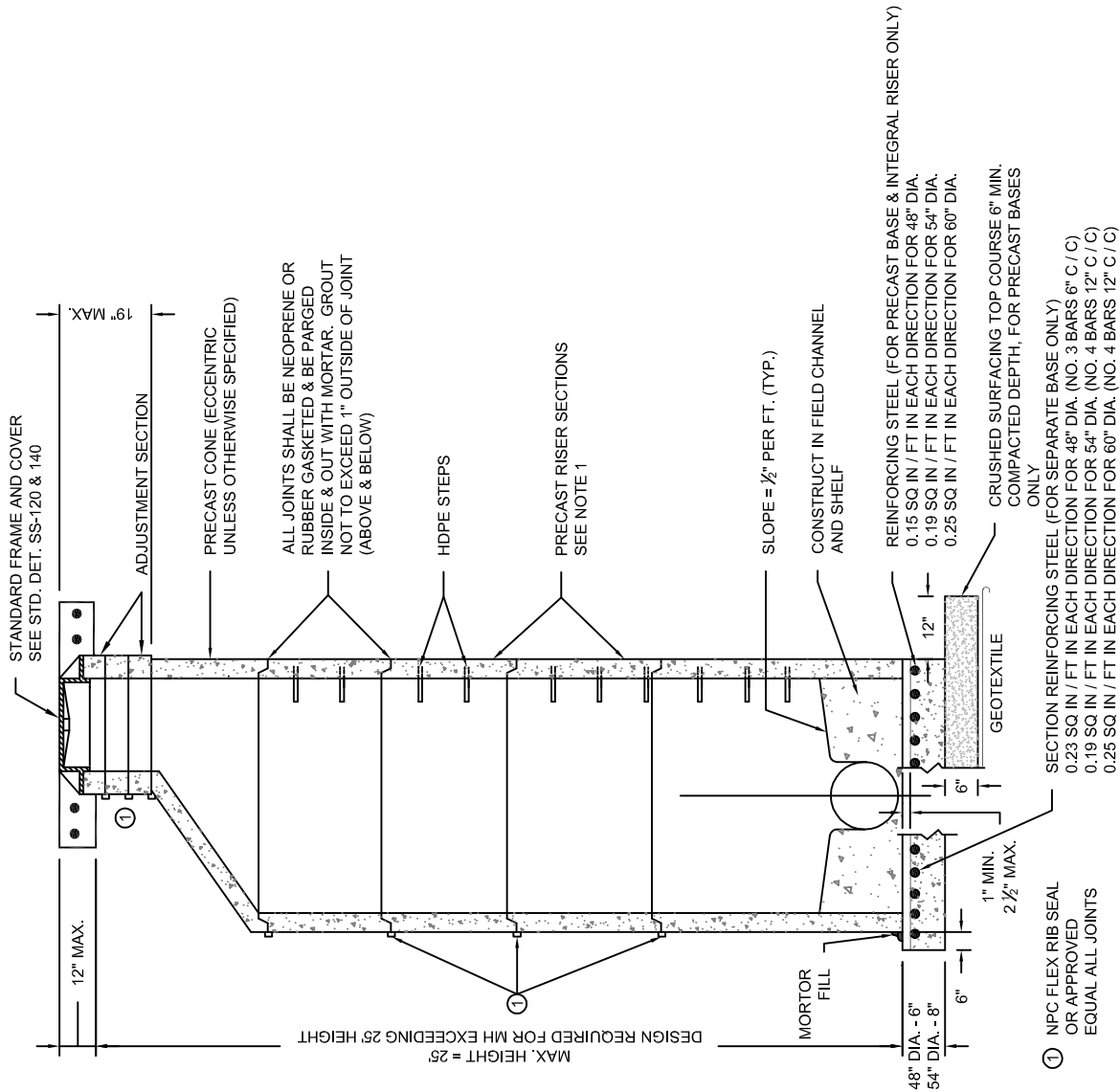
DATE: **FEB. 2007**

Longview: **C.B.**

Kelso: **S.Z.**

### NOTES:

1. PRECAST MANHOLES SHALL MEET THE REQUIREMENTS OF ASTM C478. JOINTS SHALL BE NEOPRENE OR RUBBER GASKETED CONFORMING TO ASTM C443. LIFT HOLES SHALL BE GROUDED FROM THE OUTSIDE AND INSIDE OF THE MANHOLE.
2. MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH AASHTO M-199 UNLESS OTHERWISE SHOWN ON PLANS OR NOTED IN THE STANDARD SPECIFICATIONS.
3. STEPS IN MANHOLE SHALL HAVE 6" MINIMUM CLEARANCE. SEE STANDARD PLAN SS - 160 "MISCELLANEOUS MANHOLE DETAILS".
4. ALL REINFORCED CAST IN PLACE CONCRETE SHALL BE CLASS 4000. NON-REINFORCED CONCRETE IN CHANNEL AND SHELF SHALL BE CLASS 3000. ALL PRECAST CONCRETE SHALL BE CLASS 4000.
5. KOR-N-SEAL ASSEMBLIES OR APPROVED EQUAL REQUIRED FOR ALL CONNECTIONS.
6. MAXIMUM HOLE SIZE IS 36" FOR 48" MANHOLE. 42" FOR 54" MANHOLE. MINIMUM DISTANCE BETWEEN HOLES IF 8".
7. ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI & BE PLACED IN THE UPPER HALF OF THE BASE WITH 1" MINIMUM CLEARANCE.
8. FOR DETAILS SHOWING GRADE RINGS, LADDER, STEPS, HANDHOLDS & TOP SLABS, SEE STANDARD PLAN SS - 160 "MISCELLANEOUS MANHOLE DETAILS".
9. GROUT KOR-N-SEAL BOOTS FLUSH TO MANHOLE.
10. RAINGUARD REQUIRED, SEE STANDARD DETAIL SS-150.
11. ALL JOINTS TO BE GROUDED INSIDE MANHOLE.
12. ALL PIPES TO BE TRIMMED TO A MAXIMUM 1" PENETRATION INTO MANHOLE.
13. FOUNDATION MATERIAL TO BE PLACED AS REQUIRED AND AS DIRECTED BY THE ENGINEER.
14. MANHOLE CASTINGS TO BE WSDOT INSPECTED AND APPROVED.
15. NO STEPS ALLOWED IN CONE SECTION OR ADJUSTMENT SECTION.
16. NO STEPS ALLOWED IN MANHOLES LESS THAN 5' IN DEPTH.



SEPARATE PRECAST BASE  
CAST IN PLACE BASE WITH INTEGRAL RISER