

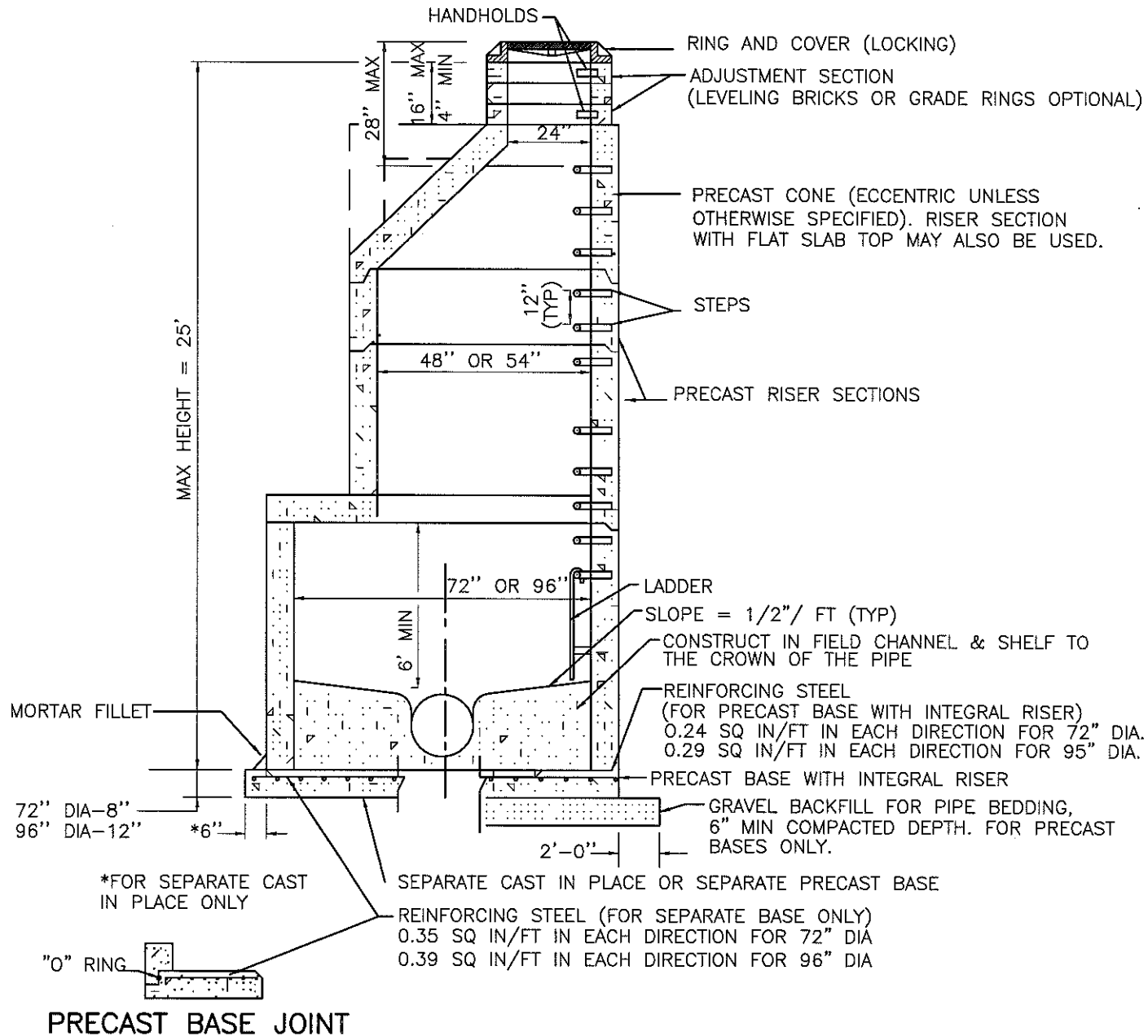
SNOHOMISH COUNTY PUBLIC WORKS

5-130B

MANHOLE TYPE 1 - 48" & 54"

APPROVED BY:

Stuart Norman 10-1-04
COUNTY ROAD ENGINEER DATE



SNOHOMISH COUNTY PUBLIC WORKS

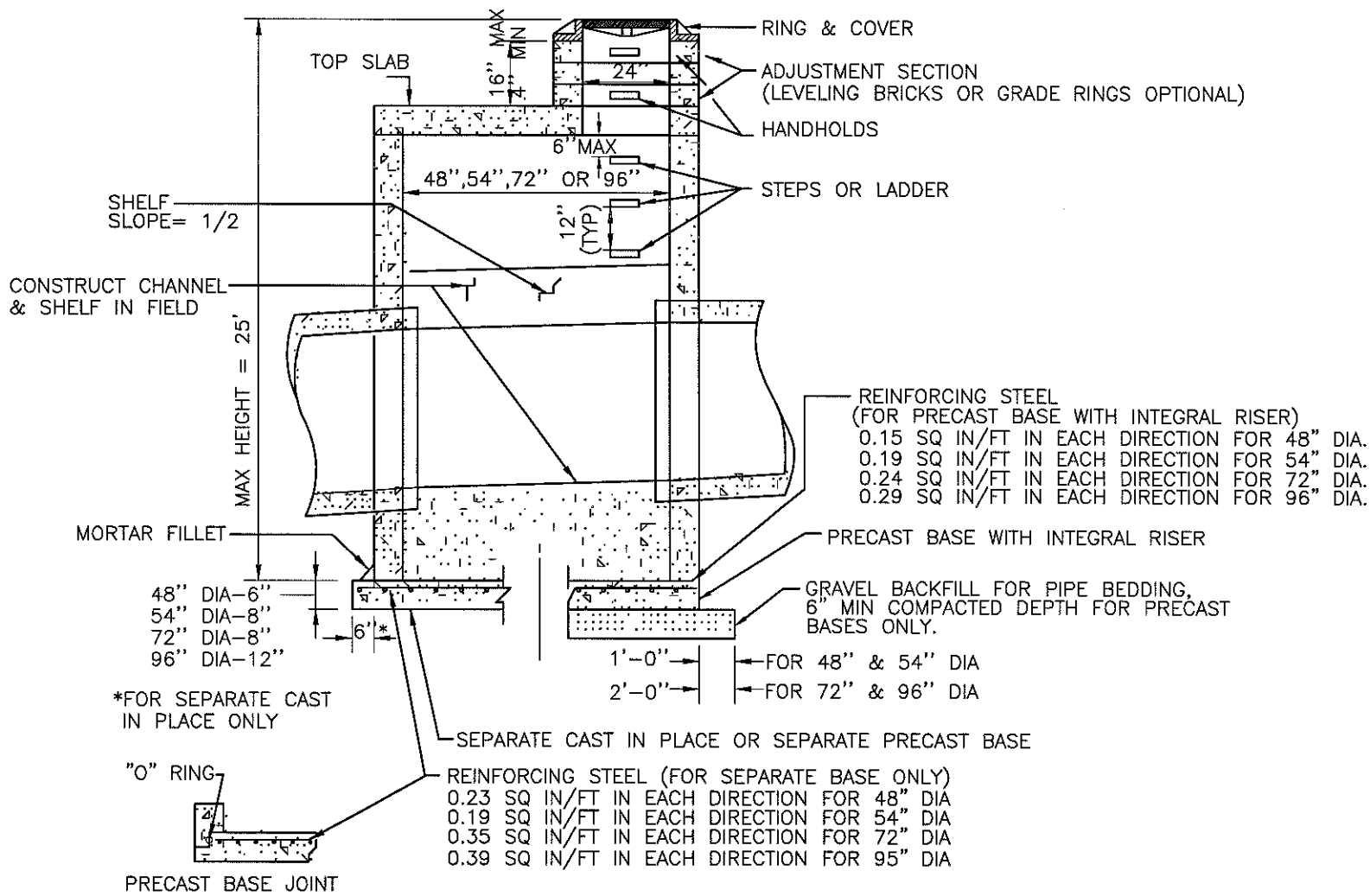
APPROVED BY:

Steve E. Horner 10-1-04
COUNTY ROAD ENGINEER DATE



5-140B

MANHOLE TYPE 2 - 72" & 96"



SNOHOMISH COUNTY PUBLIC WORKS

5-150B

MANHOLE TYPE 3 - 48", 54", 72" & 96"

APPROVED BY:

Steve E. Thurman 10-1-04

COUNTY ROAD ENGINEER

DATE

NOTES:

1. MANHOLES TO BE CONSTRUCTED IN ACCORDANCE WITH ASTM C 478 (AASHTO M 199) UNLESS OTHERWISE SHOWN IN PLANS OR NOTED IN THE WSDOT/APWA SPECIFICATIONS.

2. HANDHOLDS IN ADJUSTMENT SECTION SHALL HAVE 3" MINIMUM CLEARANCE. STEPS IN MANHOLE SHALL HAVE 6" MINIMUM CLEARANCE. SEE STANDARD DRAWING 5-170, MANHOLE DETAILS.

3. 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.

4. PRECAST BASES SHALL BE FURNISHED WITH CUTOUTS OR KNOCKOUTS. KNOCKOUTS SHALL HAVE A WALL THICKNESS OF 2" MINIMUM.

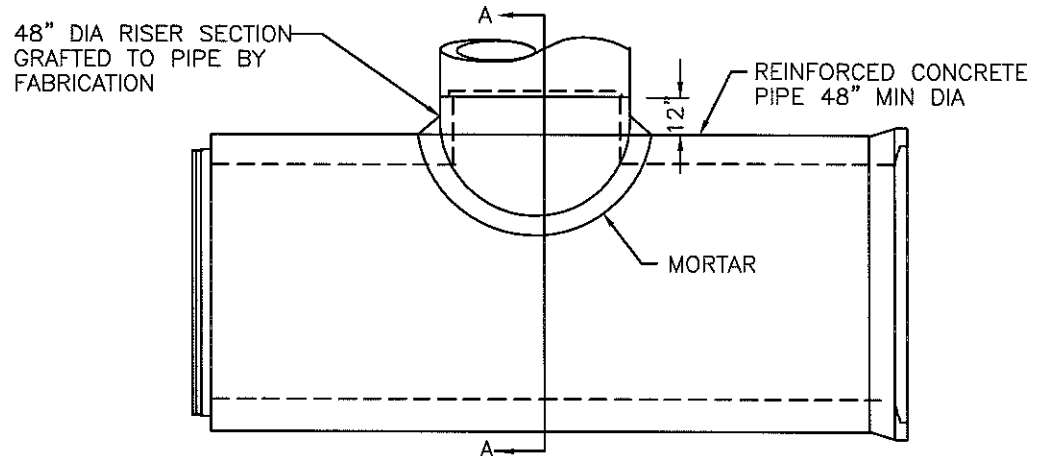
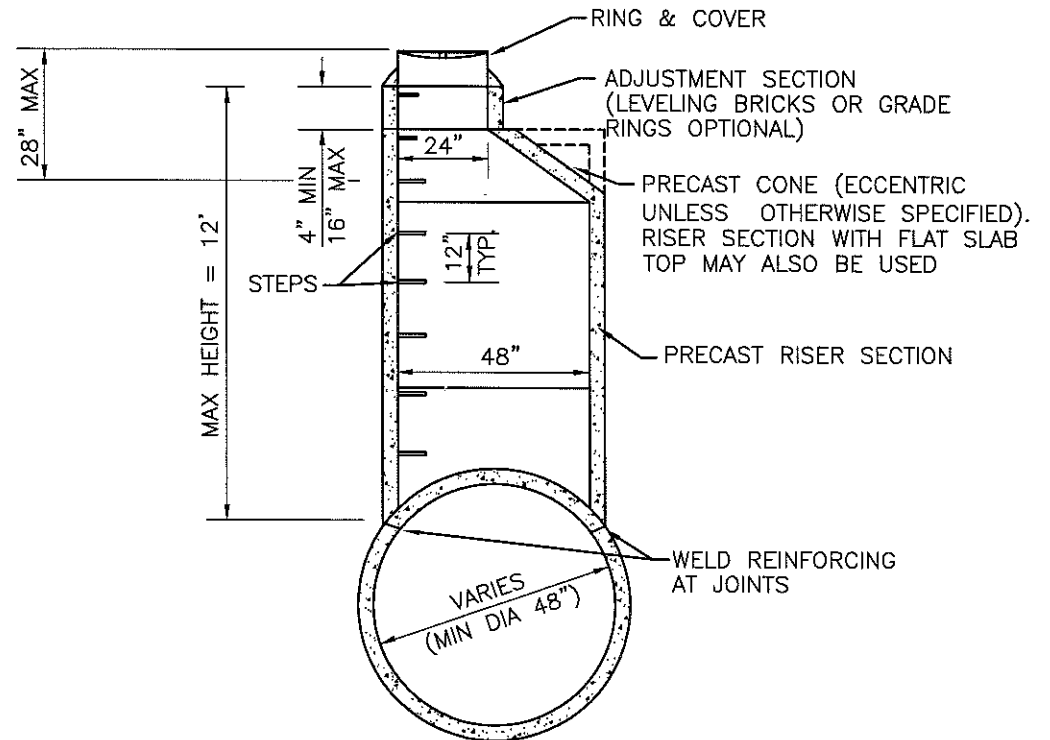
5. KNOCKOUT OR CUTOUT HOLE SIZE IS EQUAL TO PIPE OUTER DIAMETER PLUS MANHOLE WALL THICKNESS. MAXIMUM HOLE SIZE IS 36" FOR 48" MANHOLE, 42" FOR 54" MANHOLE. MINIMUM DISTANCE BETWEEN HOLES IS 8".

6. MANHOLE RINGS AND COVERS SHALL BE IN ACCORDANCE WITH THE WSDOT/APWA SPECIFICATIONS AND MEET THE STRENGTH REQUIREMENTS OF FEDERAL SPECIFICATION RR-F-621D. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT WITH ANY COVER POSITION.

7. ALL BASE REINFORCING STEEL SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND BE PLACED IN THE UPPER HALF OF THE BASE WITH A 1" MINIMUM CLEARANCE.

8. FOR DETAILS SHOWING GRADE RING, LADDER, STEPS, HANDHOLDS AND TOP SLABS, SEE STANDARD DRAWING 5-170, MANHOLE DETAILS.

SEE TEXT SECTION 5-06.
WSDOT/APWA PLAN B-23d



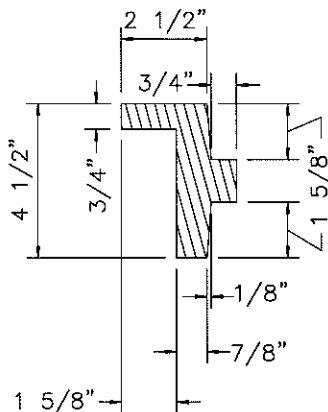
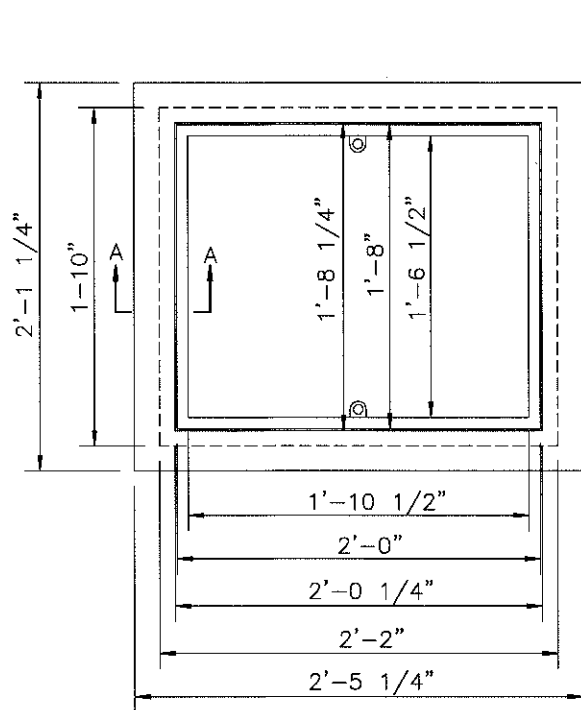
SNOHOMISH COUNTY PUBLIC WORKS

5-160

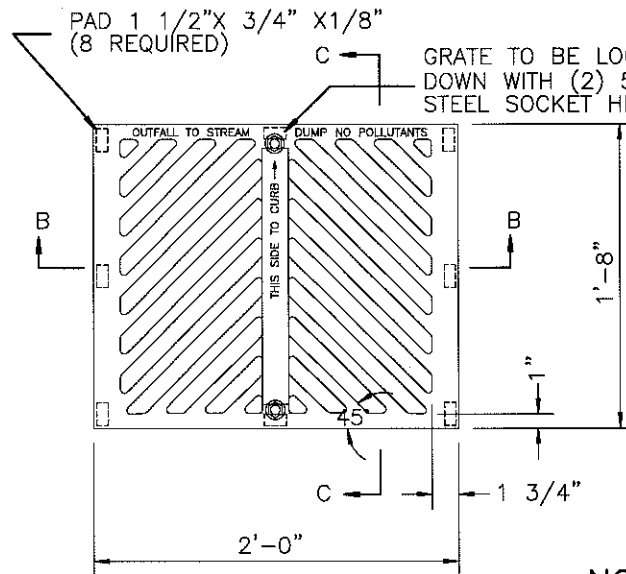
MANHOLE TYPE 4

APPROVED BY:

Stuart E. Hansen 10-1-04
COUNTY ROAD ENGINEER DATE

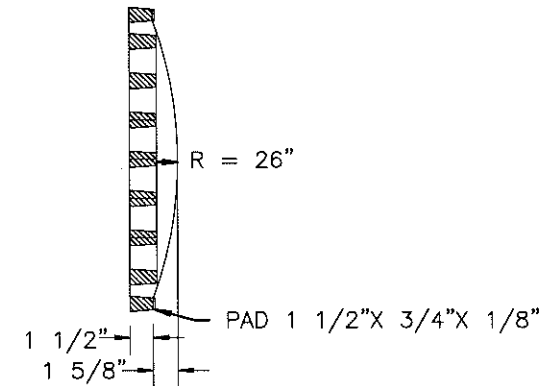


SECTION A-A



SECTION B-B
(LOOKING TOWARD CURB)

GRATE TO BE LOCKED DOWN WITH (2) 5/8" STAINLESS STEEL SOCKET HEAD CAP SCREWS.



SECTION C-C

NOTES:

1. FOR INSTALLATION ON ARTERIALS. FOR NON-ARTERIALS AN ALTERNATE METAL FRAME AND GRATE (18" X 24") MAY BE USED. (REFER TO KING CO. STANDARD DRAWINGS 41 AND 42.)
2. WELDING NOT PERMITTED.
3. FOUNDRY NAME SHALL BE EMBOSSED ON GRATE.
4. "OUTFALL TO STREAM DUMP NO POLLUTANTS" SHALL BE EMBOSSED ON GRATE IN LOCATION SHOWN. 1/2" MINIMUM SIZE LETTERS.
5. "THIS SIDE TO CURB" SHALL BE EMBOSSED ON GRATE IN LOCATION SHOWN. 1/2" MINIMUM SIZE LETTERS.
6. GRATE MATERIAL SHALL BE DUCTILE IRON.

WSDOT/APWA PLAN B-2a

SEE SECTION 5-07



SNOHOMISH COUNTY PUBLIC WORKS

5-180

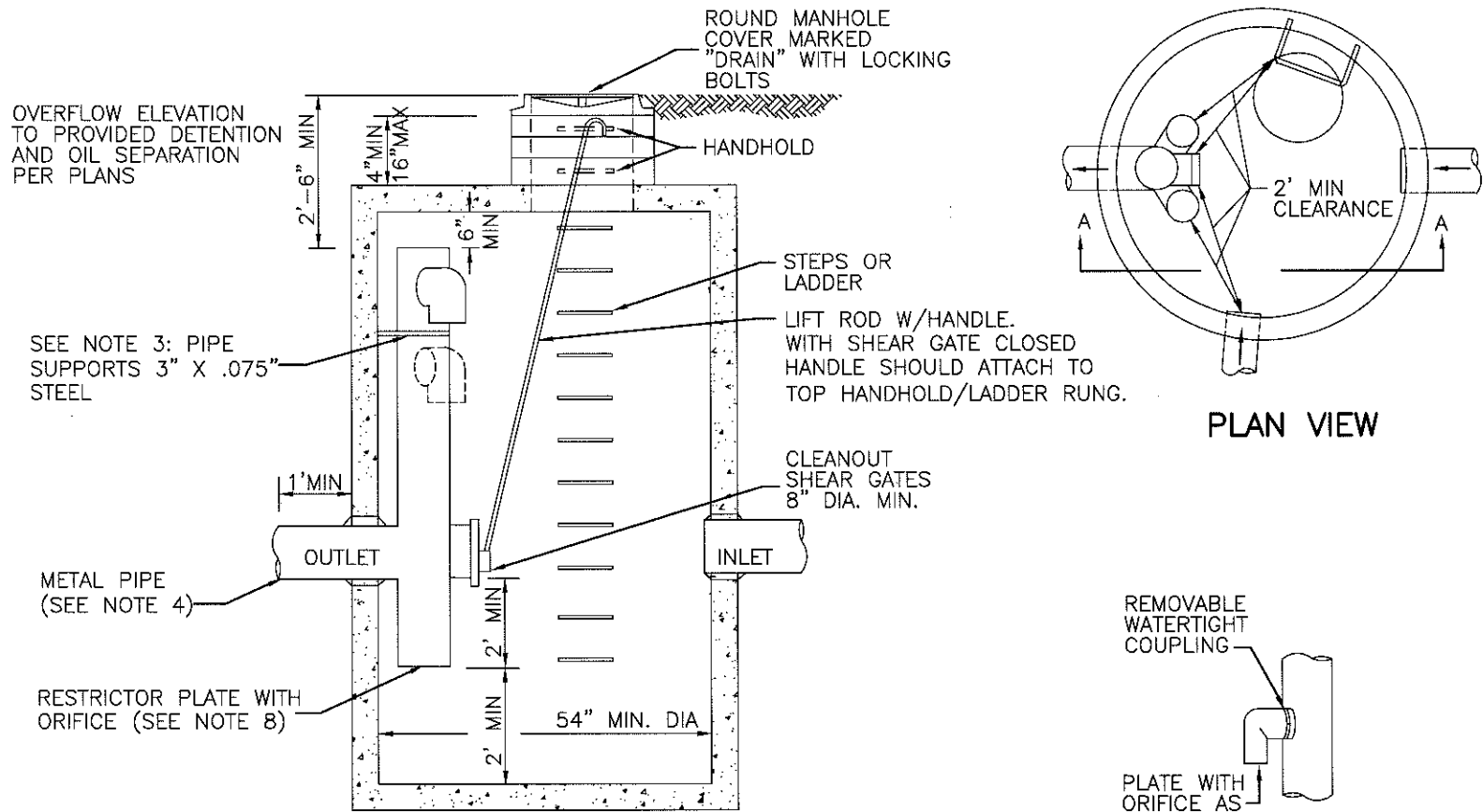
METAL FRAME & GRATE (20" X 24")

APPROVED BY:

Steve E. Hornum 10-1-04

COUNTY ROAD ENGINEER

DATE



SECTION A-A

ELBOW DETAIL

S:\TES\LANDUSE\EDDS\EDDS DRAWINGS\Ch5\5240.dwg



SNOHOMISH COUNTY PUBLIC WORKS

5-240B

FLOW RESTRICTOR/ OIL POLLUTION CONTROL
-T RESTRICTOR

APPROVED BY:

Steve E. Harwood 10-1-04

COUNTY ROAD ENGINEER

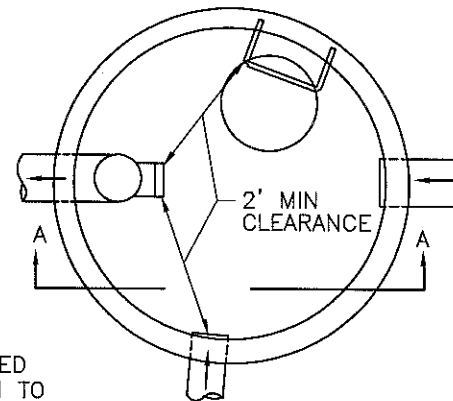
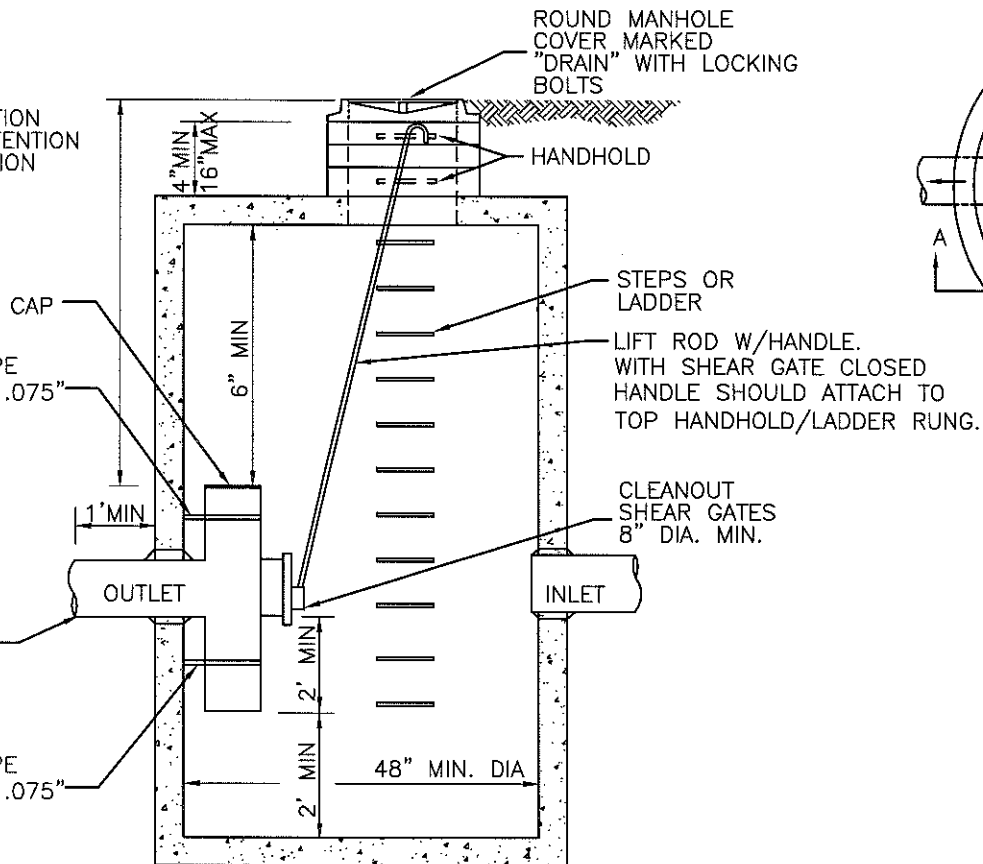
DATE

OVERFLOW ELEVATION TO PROVIDED DETENTION AND OIL SEPARATION PER PLANS

SEE NOTE 3: PIPE SUPPORTS 3" X .075" STEEL

METAL PIPE (SEE NOTE 4)

SEE NOTE 3: PIPE SUPPORTS 3" X .075" STEEL



PLAN VIEW

TYPE 2 CATCHBASIN
SECTION A-A

S:\TES\LANDUSE\EDDS Deviations\EDDS\EDDS DRAWINGS\Ch5\5240C.dwg



SNOHOMISH COUNTY PUBLIC WORKS

5-240C

OIL POLLUTION CONTROL CATCHBASIN

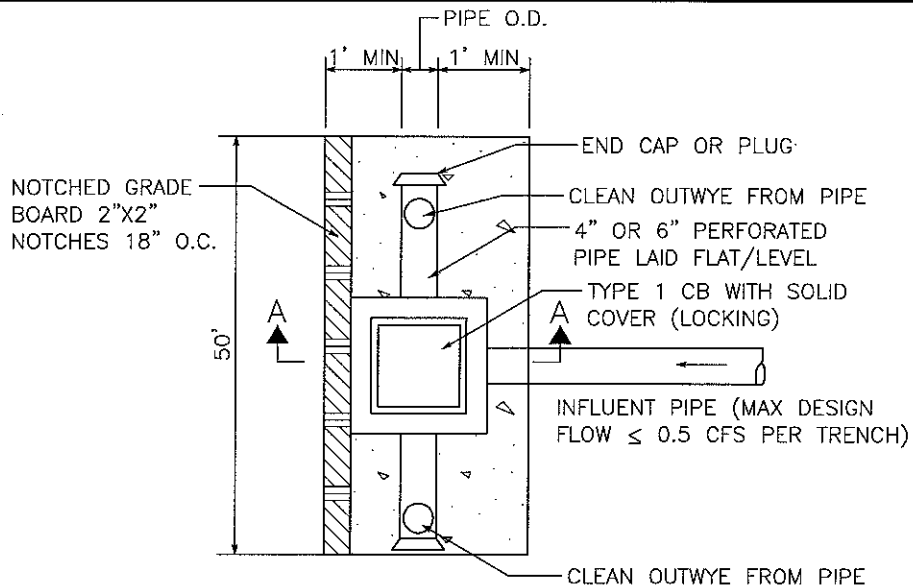
APPROVED BY:

Stewart E. Thompson

COUNTY ROAD ENGINEER

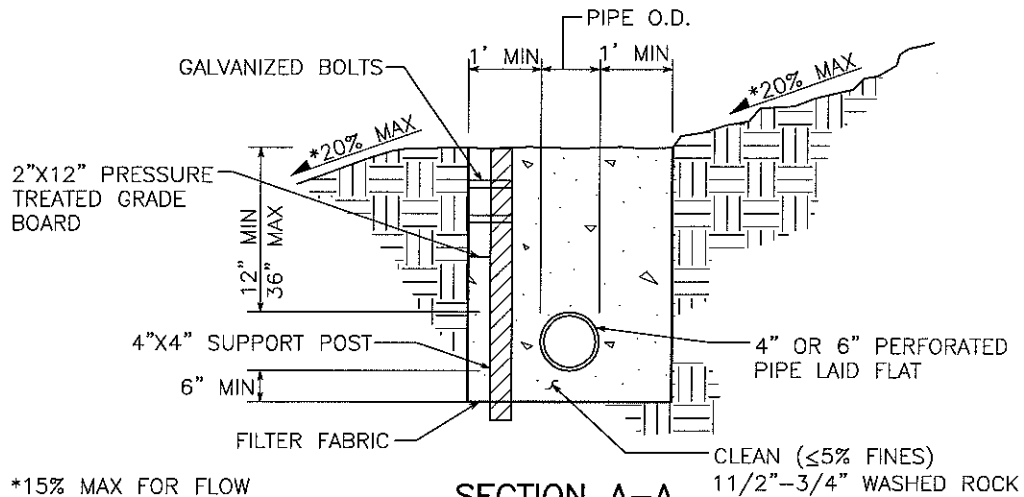
10-1-04

DATE



PLAN

NTS

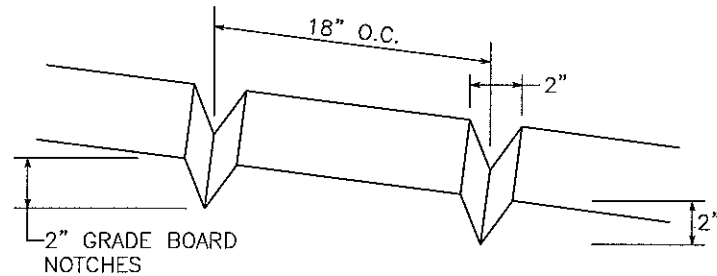
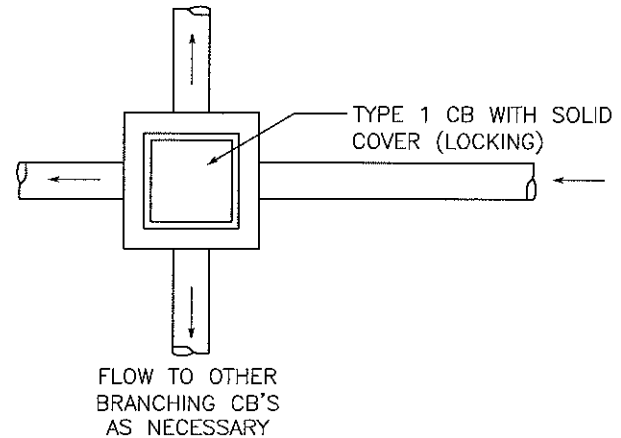


SECTION A-A

NTS

*15% MAX FOR FLOW CONTROL/WATER QUALITY TREATMENT IN RURAL AREAS.

FLOW TO SECOND DISPERSAL TRENCH IF NECESSARY



NOTES:

1. THIS TRENCH SHALL BE CONSTRUCTED SO AS TO PREVENT POINT DISCHARGE AND/OR EROSION.
2. TRENCHES MAY BE PLACED NO CLOSER THAN 50 FEET TO ONE ANOTHER. (100 FEET ALONG FLOWLINE)
3. TRENCH AND GRADE BOARD MUST BE LEVEL. ALIGN TO FOLLOW CONTOURS OF SITE.
4. SUPPORT POST SPACING AS REQUIRED BY SOIL CONDITIONS TO ENSURE GRADE BOARD REMAINS LEVEL.



5-270

SNOHOMISH COUNTY PUBLIC WORKS

BUBBLE-UP SPREADER

APPROVED BY:

Steven E. Norman 10-1-04
COUNTY ROAD ENGINEER DATE