

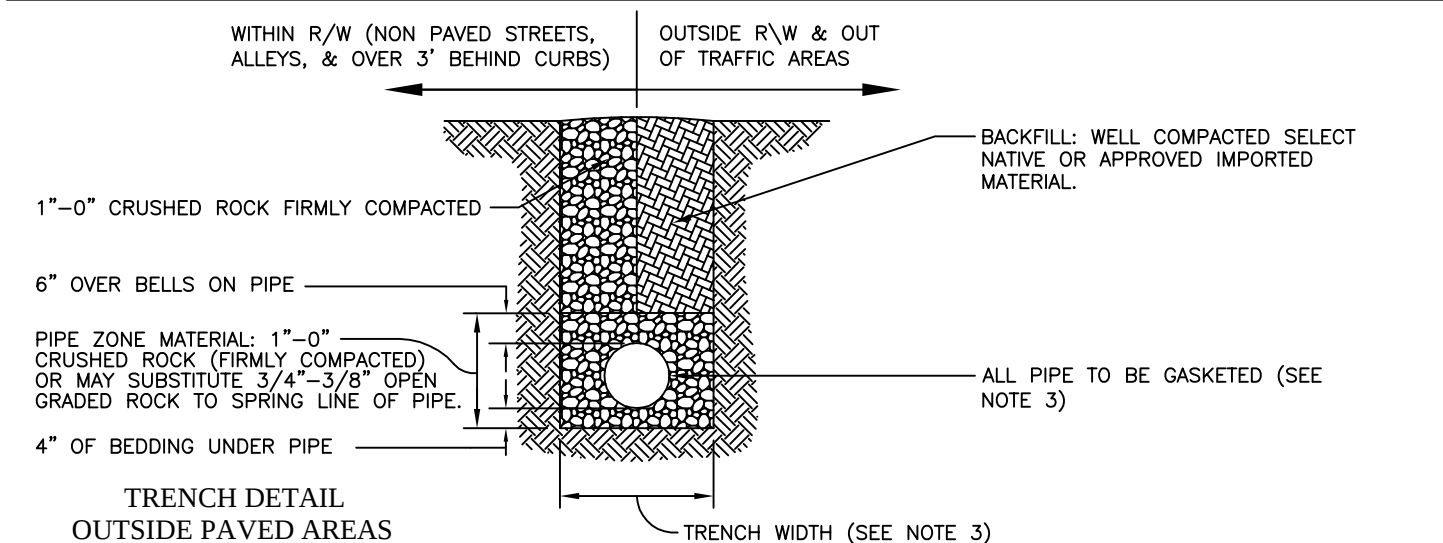
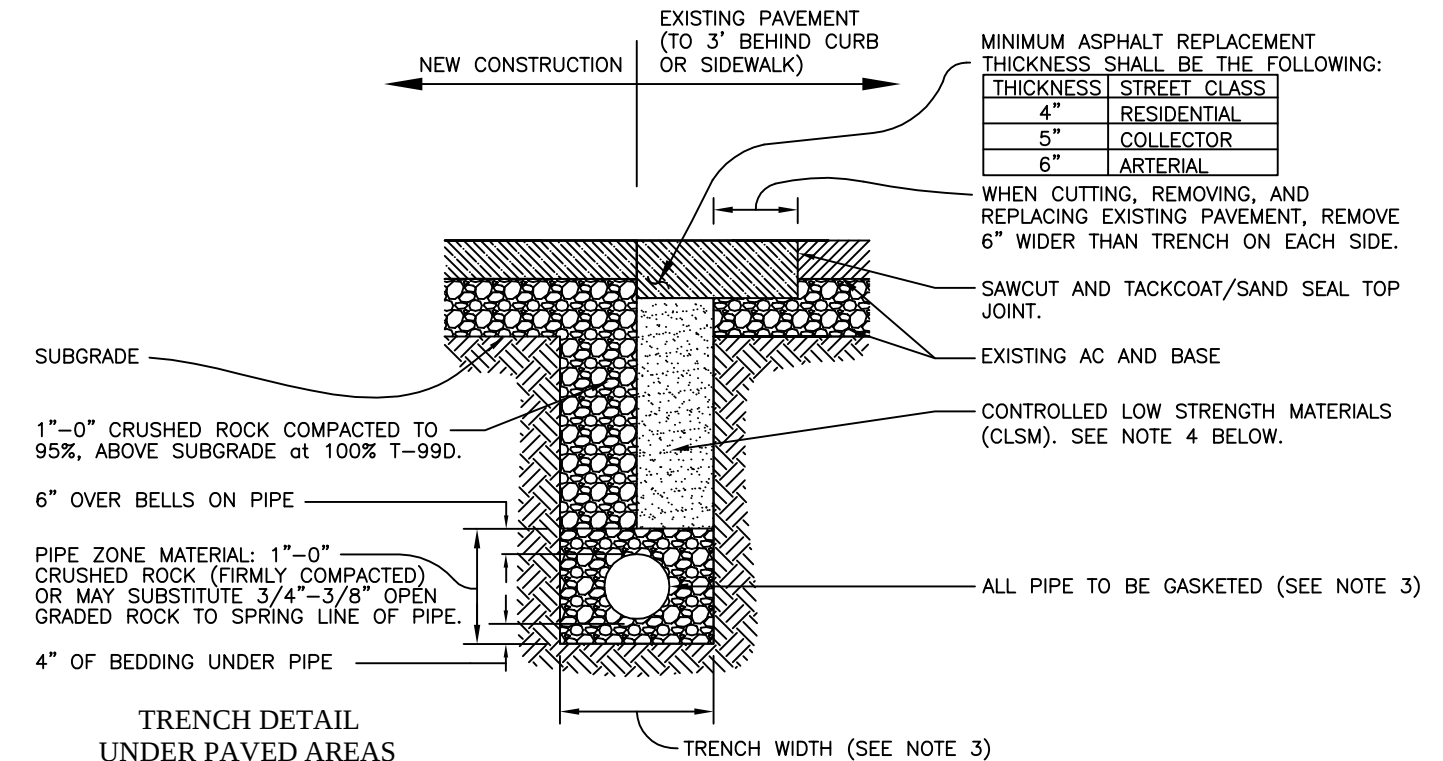
PUBLIC WORKS/ENGINEERING STANDARD DRAWINGS

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NOTE: The attached drawings may be changed according to the individual project. The City of Ashland Engineering Department must be contacted to determine if any adjustments or alternative standards will need to be used.

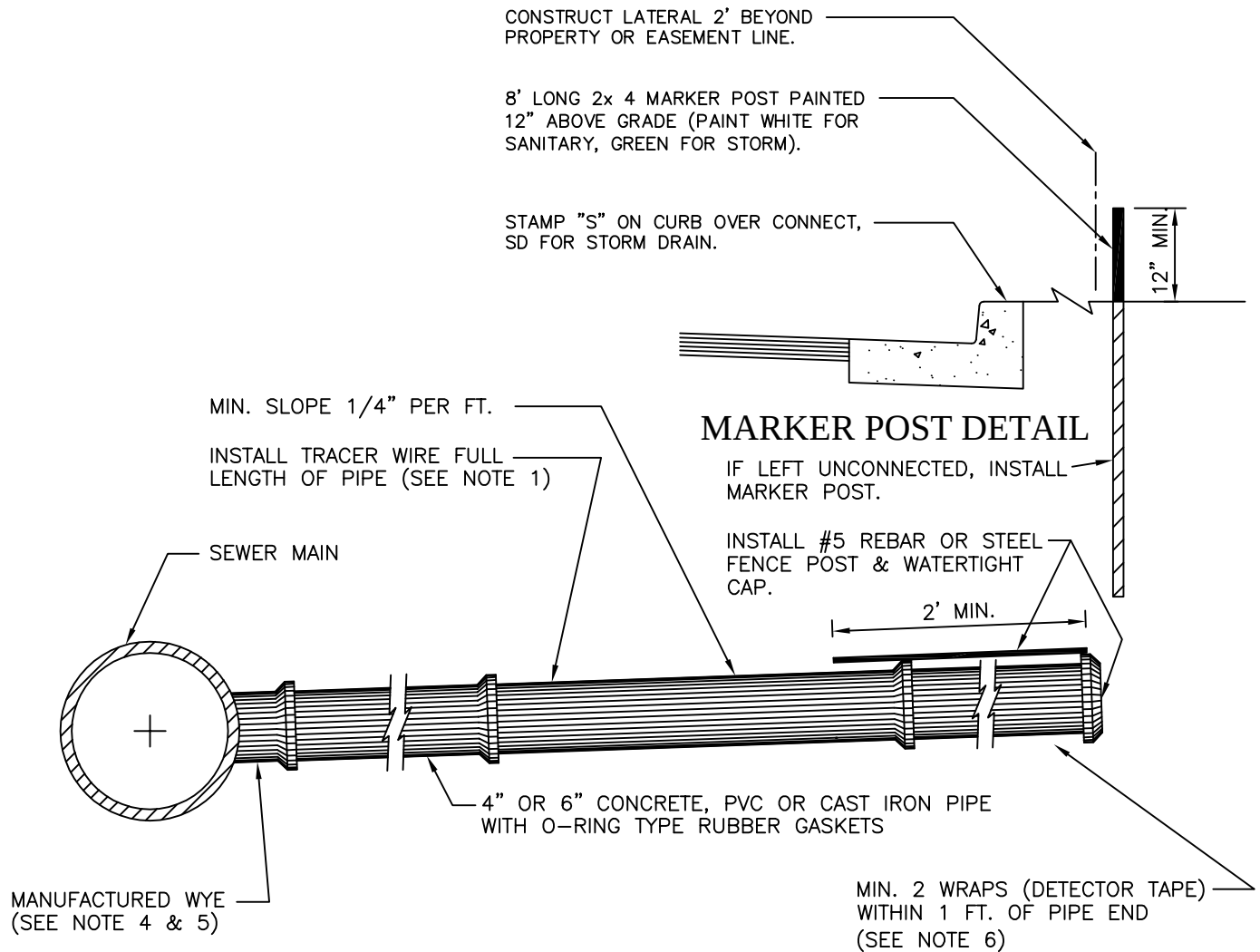


GENERAL NOTES:

- COLD MIX AC MAY BE USED AS TEMPORARY PATCH ONLY.
- ALL STEEL TRAFFIC PLATES IN TRAVELED AREAS MUST BE "RAMPED" WITH COLD MIX AC TO ALLOW SMOOTHER TRANSITION.
 - MINIMUM 12" LAP OF STEEL PLATES ONTO EXISTING PAVEMENT.
 - MINIMUM 3/4" STEEL PLATE THICKNESS.
- ALL GASKETED JOINTS SHALL BE PRESSURE TESTABLE. (CONCRETE PIPE - ASTM C443; PVC & HDPE PIPE - ASTM D3212)
 - SMALL PIPES (24" DIA. OR LESS) - MINIMUM TRENCH WIDTH SHALL BE I.D. PLUS 18".
 - LARGE PIPES (30" DIA. OR GREATER) - MINIMUM TRENCH WIDTH SHALL BE O.D. PLUS 24", AT THE BELL END THE TRENCH WIDTH SHALL INCREASE TO ACHIEVE THE 24".
- CONTROLLED LOW-STRENGTH MATERIAL (CLSM) IS HIGHLY FLOWABLE LEAN CONCRETE MIX; A MIXTURE OF FLY ASH, CEMENT, FINE AGGREGATES, WATER AND ADMIXTURES, IF NECESSARY. CLSM SHALL ATTAIN A 28-DAY COMPRESSIVE STRENGTH OF 150 TO 250 psi AND SHALL COMPLY WITH 2002 OREGON APWA/ODOT SECTION 00442.

STANDARD PIPE TRENCH

ISSUED: LB	DATE: 9/27/05	PUBLIC WORKS ENGINEERING	DRAWING NO.
CRZ	7/28/05		
REVISED:	DATE:	Ashland - Medford - Rogue Valley Sewer Services	CD302



GENERAL NOTES:

1. PLACE 18-GAUGE MIN. INSULATED COPPER TRACER WIRE FULL LENGTH OF PIPE IN TRENCH FOR LOCATING LATERAL. WRAP WIRE AROUND 2 x 4.
2. SEWER MAINS OR LATERALS PASSING OVER PROPOSED OR EXISTING WATER MAINS, OR CROSSING UNDER OR WITHIN 18" VERTICAL DISTANCE OF WATER MAIN, SHALL BE DUCTILE IRON OR PVC C-900 PIPE FOR A DISTANCE OF 9 FT. ON EITHER SIDE MEASURED PERPENDICULAR TO THE WATER MAIN CENTER LINE.
3. SEWER MAINS AND WATER PIPES SHALL BE SO DESIGNED TO PROVIDE FOR CROSSINGS OF AT LEAST A 45° ANGLE, AND THE SEWER MAIN SHALL PASS UNDER THE WATER LINE WHENEVER POSSIBLE.
4. WYE SHALL BE FACTORY ITEM OF SAME MATERIAL ON NEW INSTALLATIONS. FOR CONNECTIONS TO EXISTING SEWER MAINS CONTRACTOR TO TAP SEWER MAIN AND CONNECT LATERAL USING AN INSERTA TEE, SADDLE, OR OTHER MANUFACTURED FITTING OF SAME MATERIAL APPROVED BY ENGINEER.
5. ALL MATERIALS AND WORK SHALL CONFORM TO 2002 ODOT/OREGON A.P.W.A. STD. SPECIFICATIONS AS AMENDED BY THE APPROVING AGENCY.
6. WRAP STORM DRAIN OR SANITARY SEWER DETECTOR TAPE AROUND THE RESPECTIVE LATERALS TO HELP PREVENT ACCIDENTAL CROSS CONNECTION.
7. TAP SPACING SHALL BE A MINIMUM OF 10" CLEAR BETWEEN ADJACENT TAP OR END OF PIPE SECTION.

STORM DRAIN AND SEWER CONNECT DETAIL

ISSUED: <i>LB</i> <i>CRZ</i>	DATE: <i>9/27/05</i> <i>7/28/05</i>	DRAWING NO. CD310
REVISED:	DATE:	

PUBLIC WORKS ENGINEERING

Ashland – Medford – Rogue Valley Sewer Services

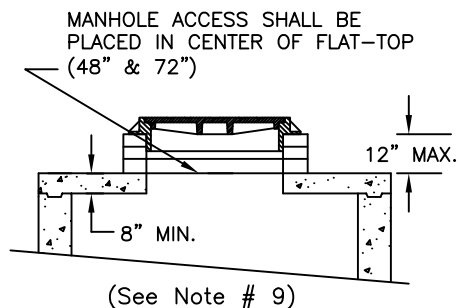


SLOPE %	APPROXIMATE SPACING
0-19	NONE
20-34	35 FT.
35-50	25 FT.
51 or MORE	15 FT. or SPECIAL DESIGN

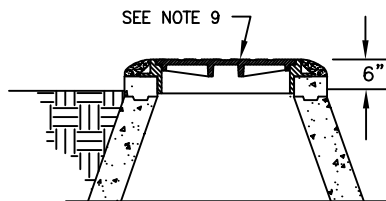
1. FOR 4" PIPE, ANCHOR AS REQUIRED ABOVE, BUT NO REINFORCEMENT REQUIRED.
2. ANCHOR BLOCK SHALL ALWAYS BE IN BARREL SECTION OF PIPE, AND SHALL INCORPORATE PART OF THE BELL.
3. "WINGS" OF ANCHOR TO BE POURED INTO EXISTING UNDISTURBED GROUND.
4. CONCRETE TO BE COMMERCIAL GRADE CONCRETE (CGC) PER 2002 ODOT/OREGON APWA SECTION 00440.00

ANCHOR BLOCK DETAIL

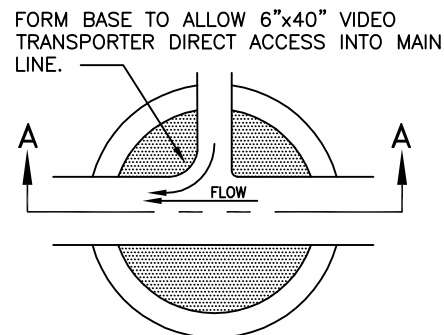
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<i>CRZ</i>	<i>7/28/05</i>		
REVISED:	DATE:		



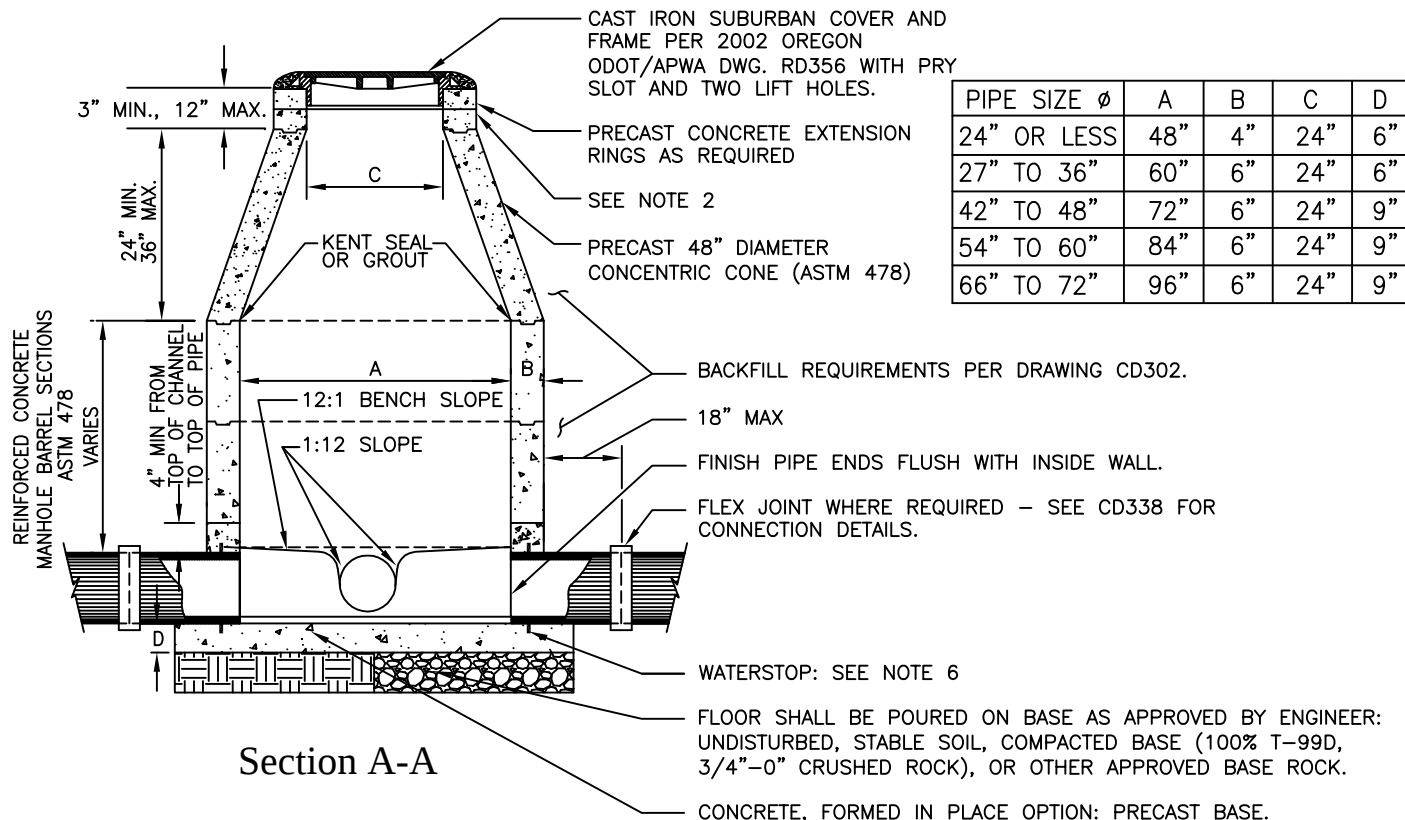
48" & 72" Reinforced
Manhole Flat-Top



Outside Of Traveled Way
Manhole Adjustment



Plan View of Base



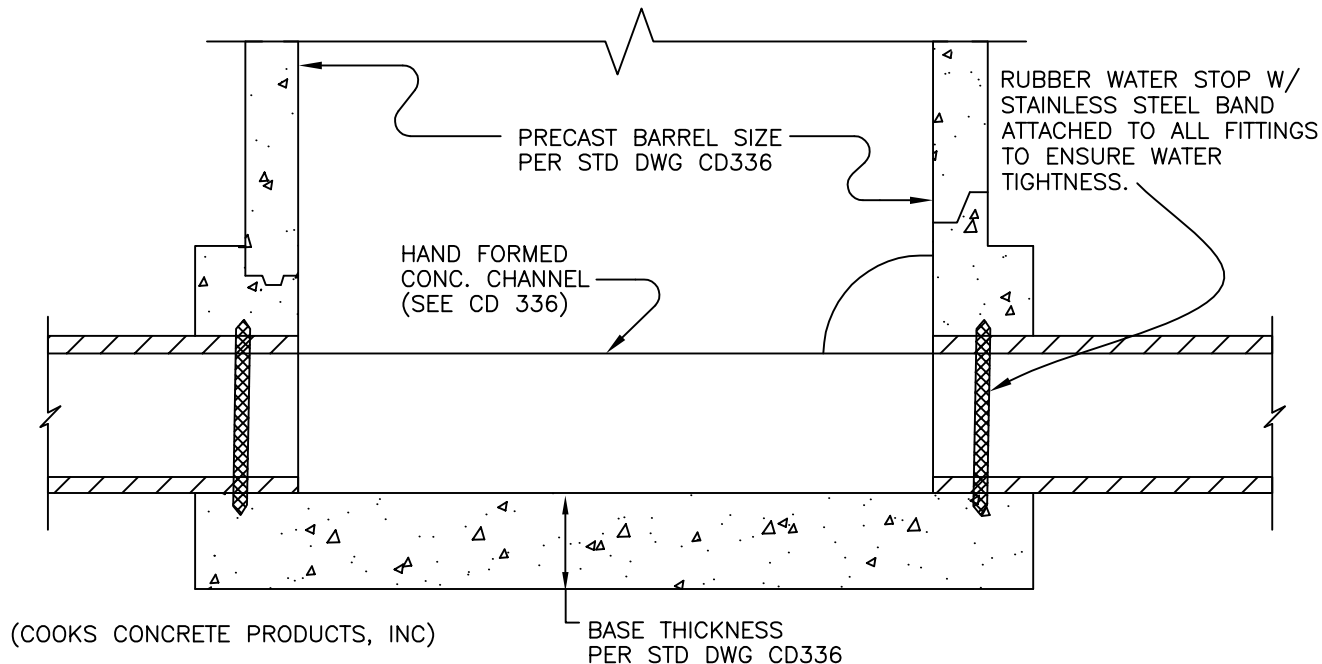
Section A-A

GENERAL NOTES:

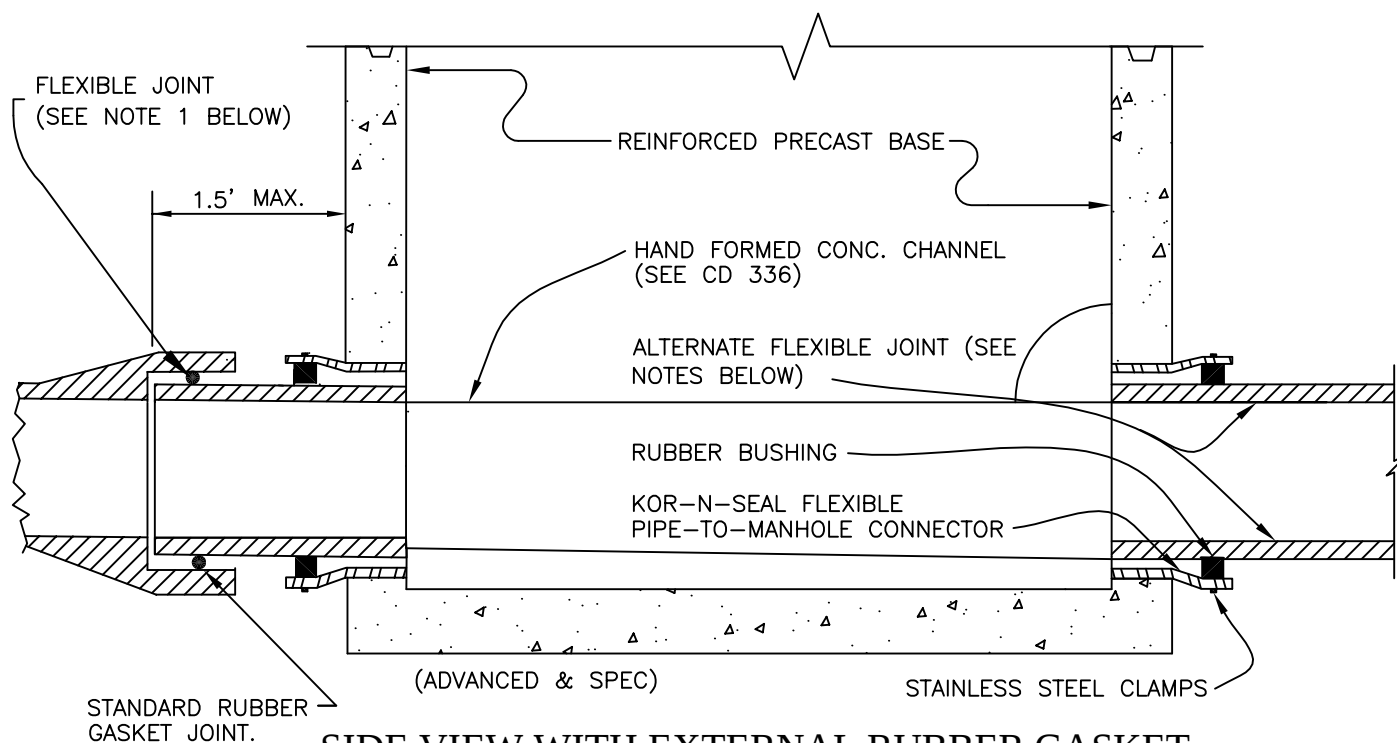
1. CONCRETE TO BE COMMERCIAL GRADE CONCRETE (CGC) PER 2002 ODOT/OREGON APWA SECTION 00440.00
2. FRAME AND RISER RINGS SHALL BE SEALED WITH PREFORMED PLASTIC OR RUBBER TO FORM A WATERTIGHT SEAL. GROUT MAY BE USED FOR STORM SYSTEMS.
3. FORM STRAIGHT "U" CHANNEL WITH 1:12 SLOPE MORTAR SIDE. FULL CHANNEL PIPE WITH TOP HALF REMOVED IS ACCEPTABLE.
4. MAKE ALIGNMENT CHANGES WITH UNIFORM "U" CHANNEL, WITH SMOOTH CURVED PATH.
5. MAKE CHANGES IN CHANNEL SIZE WITH A SMOOTH, TAPERING TRANSITION.
6. PIPE CONNECTION SHALL CONFORM WITH 2002 ODOT/OREGON APWA STANDARD SPEC'S FOR PUBLIC WORKS CONSTRUCTION SECTION 00470.40(b)
7. ALL 48" DIA. MANHOLES WITH A DEPTH OF 42" OR GREATER, FROM THE RIM TO THE TOP OF PIPE, SHALL USE A CONCENTRIC CONE (ASTM 478), LESS THAN 42" USE FLAT-TOP.
8. STANDARD MANHOLE COVER MARKED "S" FOR SEWER AND "D" FOR DRAINAGE.
9. RING AND COVER TO PROJECT 6" ABOVE ADJACENT GROUND FOR MANHOLES OUTSIDE OF THE TRAVELED WAY. SEE DRAWING CD360 FOR MANHOLES IN THE TRAVELED WAY.
10. MAX. DROP ACROSS MANHOLE: 2'. DROPS EXCEEDING 2' SHALL BE A DROP MANHOLE, PER DWG. CD352.
11. MANHOLE SHALL CONFORM WITH 2002 ODOT/OREGON APWA STANDARD SPEC'S FOR PUBLIC WORKS CONSTRUCTION, AS AMENDED BY THE GOVERNING AGENCY.
12. NEW MANHOLES SHALL BE TESTED FOR LEAKAGE PER 2002 ODOT/OREGON APWA SECTION 306.3.03.

STANDARD MANHOLE DETAIL

ISSUED: LB CRZ	DATE: 9/27/05 7/28/05	PUBLIC WORKS ENGINEERING Ashland - Medford - Rogue Valley Sewer Services	DRAWING NO. CD336
REVISED:	DATE:		



SIDE VIEW WITH INTERNAL RUBBER GASKET



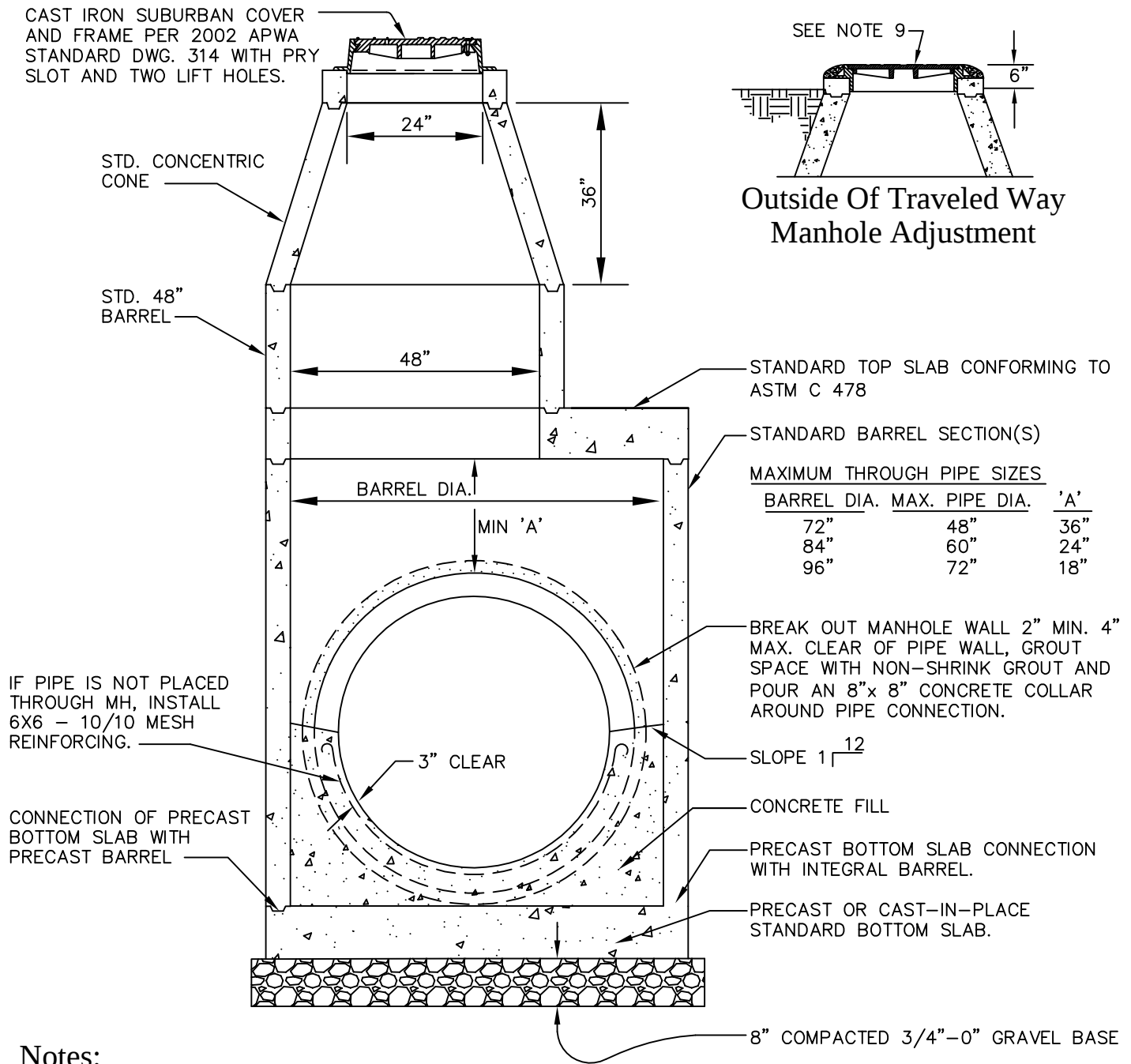
SIDE VIEW WITH EXTERNAL RUBBER GASKET

GENERAL NOTES:

1. FLEXIBLE JOINT WITHIN 18" OF MANHOLE SHALL BE REQUIRED WITH CONCRETE PIPE 18" AND LESS IN DIAMETER.

MANHOLE CONNECTION DETAIL

ISSUED: LB CRZ	DATE: 9/27/05 7/28/05	PUBLIC WORKS ENGINEERING Ashland - Medford - Rogue Valley Sewer Services	DRAWING NO. CD344
REVISED:	DATE:		

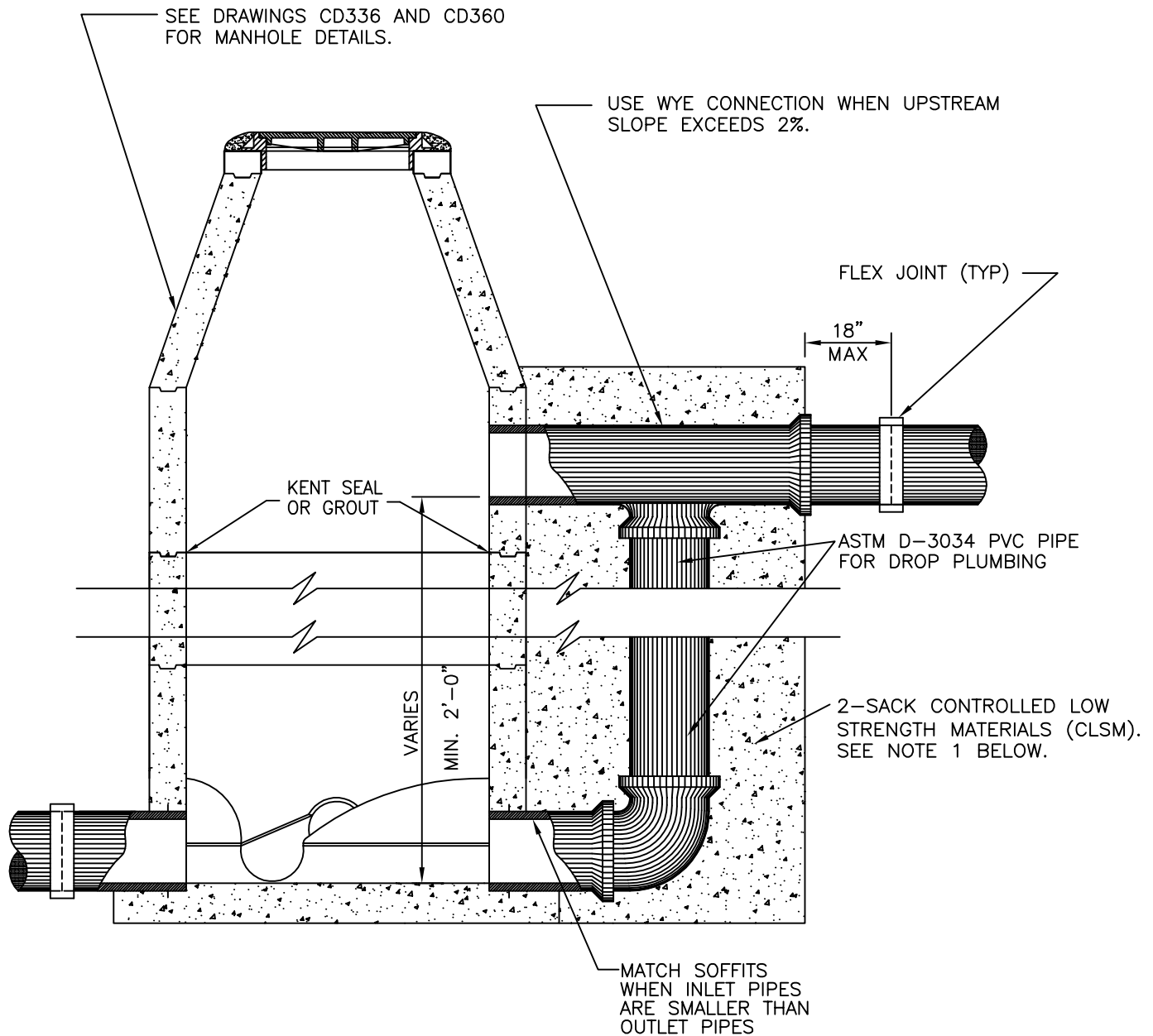


Notes:

1. ALL CONCRETE SHALL BE CLASS 3300 - 3/4" 0.54 W/C RATIO.
2. FRAME AND RISER RINGS SHALL BE SEALED WITH PREFORMED PLASTIC OR RUBBER TO FORM A WATERTIGHT SEAL. GROUT MAY BE USED FOR STORM SYSTEMS.
3. FORM STRAIGHT "U" CHANNEL WITH 1:12 SLOPE MORTAR SIDE. FULL CHANNEL PIPE WITH TOP HALF REMOVED IS ACCEPTABLE.
4. MAKE ALIGNMENT CHANGES WITH UNIFORM "U" CHANNEL, WITH SMOOTH CURVED PATH.
5. MAKE CHANGES IN CHANNEL SIZE WITH A SMOOTH, TAPERING TRANSITION.
6. PIPE CONNECTION SHALL CONFORM WITH APWA OREGON CHAPTER, 2002 STANDARD SPEC'S FOR PUBLIC WORKS CONSTRUCTION SECTION 00470.40(b)
7. STANDARD MANHOLE COVER MARKED "S" FOR SEWER AND "D" FOR DRAINAGE.
8. RING AND COVER TO PROJECT 6" ABOVE ADJACENT GROUND FOR MANHOLES OUTSIDE OF THE TRAVELED WAY. SEE STD. DWG. CD360 FOR MANHOLES IN THE TRAVELED WAY.
9. MAX. DROP ACROSS MANHOLE: 2'. DROPS EXCEEDING 2' SHALL BE A DROP MANHOLE, SEE DWG. CD352.
10. MANHOLE SHALL CONFORM WITH APWA OREGON CHAPTER 2002 STANDARD SPEC'S FOR PUBLIC WORKS CONSTRUCTION, AS AMENDED BY THE CITY OF MEDFORD.
11. NEW SANITARY M.H.'s SHALL BE TESTED FOR LEAKAGE PER APWA 2002 SECTION 306.3.03.

ALTERNATE LARGE DIAMETER MANHOLE

ISSUED: LB	DATE: 9/27/05	PUBLIC WORKS ENGINEERING	DRAWING NO.
CRZ	7/28/05		
REVISED:	DATE:	Ashland - Medford - Rogue Valley Sewer Services	CD346

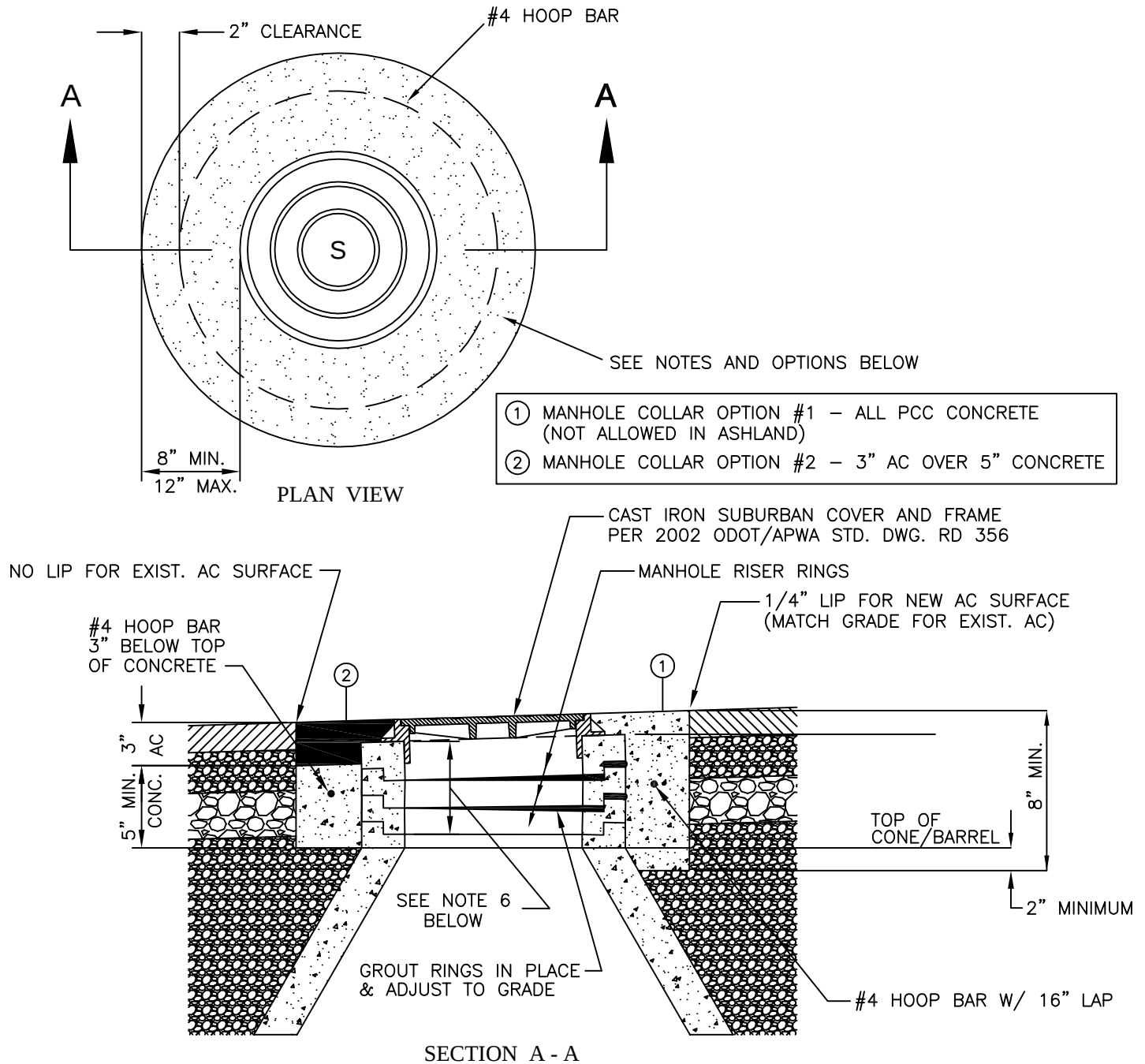


GENERAL NOTES:

1. 2-SACK CONTROLLED LOW-STRENGTH MATERIAL IS HIGHLY FLOWABLE LEAN CONCRETE MIX; A MIXTURE OF FLY ASH, CEMENT, FINE AGGREGATES, WATER AND ADMIXTURES, IF NECESSARY. 2-SACK CLSM SHALL ATTAIN A 28-DAY COMPRESSIVE STRENGTH OF 250 TO 350 psi AND SHALL COMPLY WITH 2002 OREGON APWA/ODOT SECTION 00442.

TYPICAL OUTSIDE DROP MANHOLE

ISSUED: <i>LB</i> <i>CRZ</i>	DATE: <i>9/27/05</i> <i>7/28/05</i>	PUBLIC WORKS ENGINEERING <i>Ashland - Medford - Rogue Valley Sewer Services</i>	DRAWING NO. CD352
REVISED:	DATE:		

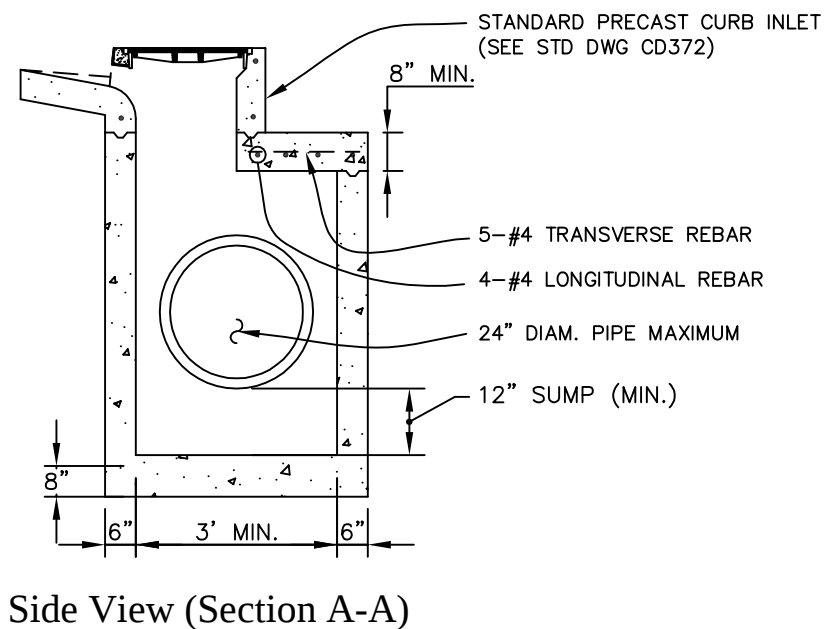
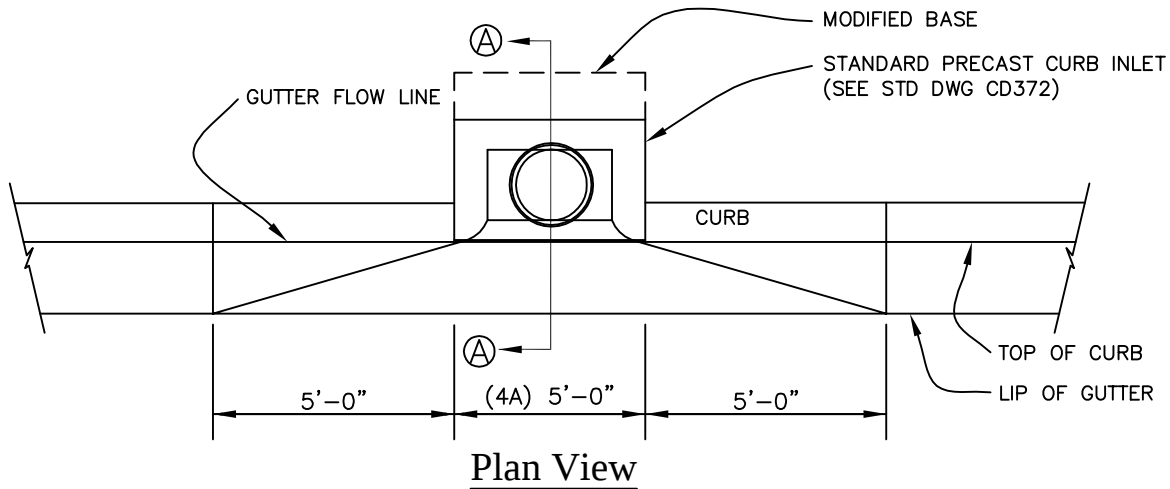


GENERAL NOTES:

1. PCC OPTIONS:
 - A. CONCRETE TO BE COMMERCIAL GRADE CONCRETE (CGC) PER 2002 ODOT/OREGON APWA SECTION 00440.00
 - B. EARLY STRENGTH PC - 2500 PSI @ 24 HR - PLATE FOR 24 HR MIN.
2. #4 HOOP SHALL MEET ASTM A615 GRADE 60
3. AC TO BE 1/2" DENSE HMAC
4. APPLY TACK COAT TO EDGES OF EXISTING PAVEMENT BEFORE INSTALLING AC PATCH.
5. FOR AN AC PATCH, FINISH JOINT WITH ASPHALT SEAL AND SAND.
6. ADJUST LIMITATIONS 12" MAX. FOR NEW MANHOLES, 18" MAX. FOR EXISTING MANHOLE. DIMENSIONS MEASURED FROM TOP OF CONE OR TOP OF FLAT TOP.

MANHOLE ADJUSTMENT DETAIL

ISSUED: LB CRZ	DATE: 9/27/05 7/28/05	PUBLIC WORKS ENGINEERING Ashland - Medford - Rogue Valley Sewer Services	DRAWING NO. CD360
REVISED:	DATE:		

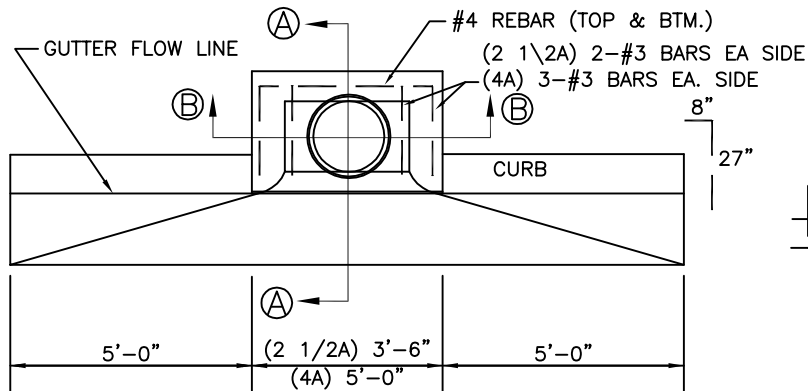


GENERAL NOTES:

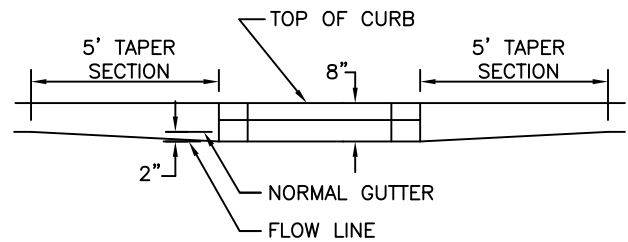
1. SURFACE CROSS-SLOPE FOR NEW CONSTRUCTION SHALL BE 1/4" RISE PER FOOT FROM TOP OF CURB TO BACK OF SIDEWALK.
2. EXISTING CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST CONTRACTION JOINT OR COLD JOINT WHEN JOINT IS WITHIN 4 FEET OF THE TRANSITION POINT.
3. ALL CONCRETE SHALL BE SAWCUT AND A SMOOTH, UNIFORM JOINT PROVIDED.
4. CURING COMPOUND SHALL BE APPLIED IMMEDIATELY AFTER SURFACE IS FINISHED: WHITE PIGMENT RECOMMENDED, CLEAR PIGMENT ACCEPTABLE.
5. FLOOR SHALL BE POURED ON: UNDISTURBED, STABLE SOIL; COMPACTED BASE (100% T-99D, 3/4"-0 CRUSHED ROCK); OR OTHER APPROVED BASE.
6. SET SECTION JOINTS IN 1:2 MORTAR AND MORTAR JOINT SEALANT ST-8, 1" WIDE.
7. SEALANT SHALL MEET FED. SPECS. SS-5-00201 (CSA-FSS).
8. ALL CONCRETE SHALL BE FORMED AND VIBRATED TO REMOVE VOIDS.
9. CONCRETE TO BE COMMERCIAL GRADE CONCRETE (CGC) PER 2002 ODOT/OREGON APWA SECTION 00440.00
10. PIPE(S) SHALL BE FLUSH WITH INSIDE WALL.
11. SURFACE HAVE A FINISHED TEXTURE THAT WILL NOT BE SLICK WHEN WET (MEDIUM BROOM FINISH), OR MATCH ADJACENT SIDEWALK.
12. ALL METAL PARTS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
13. COVER SHALL BE INLAND FOUNDRY CO. INC. 706 MANHOLE RING AND COVER (OR EQUAL), SUITABLE FOR HEAVY TRAFFIC LOADING.

MODIFIED CONCRETE CURB INLET BASE

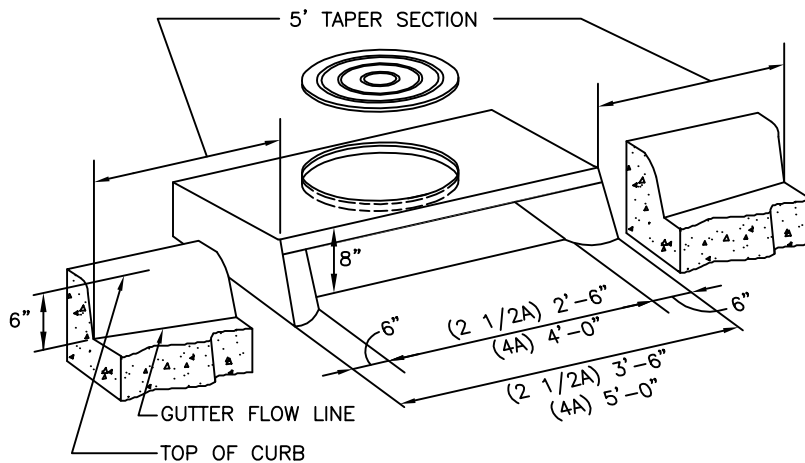
ISSUED: LB	DATE: 9/27/05	PUBLIC WORKS ENGINEERING Ashland - Medford - Rogue Valley Sewer Services	DRAWING NO. CD370
CRZ	7/28/05		
REVISED:	DATE:		



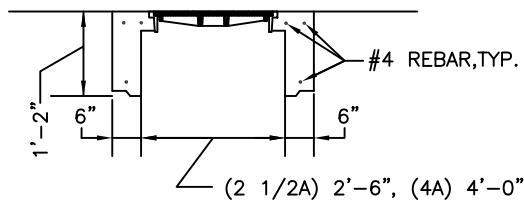
Plan View



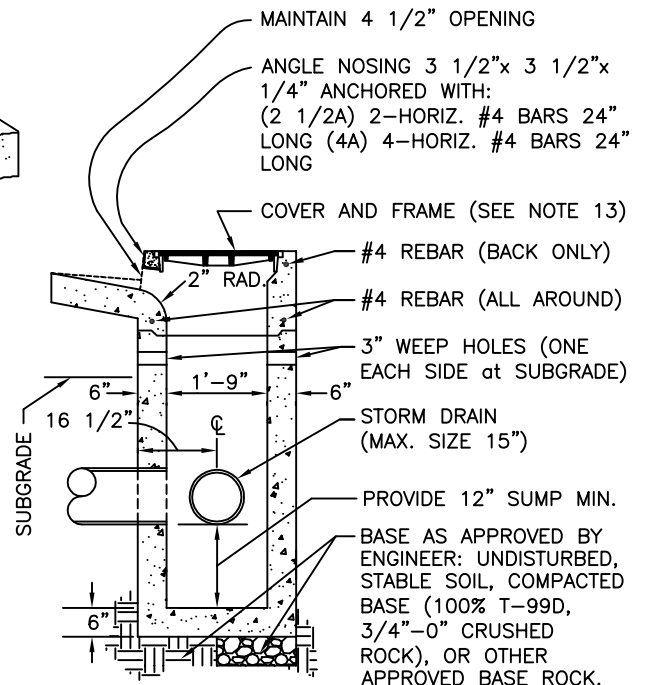
Elevation



Perspective View



Section B-B



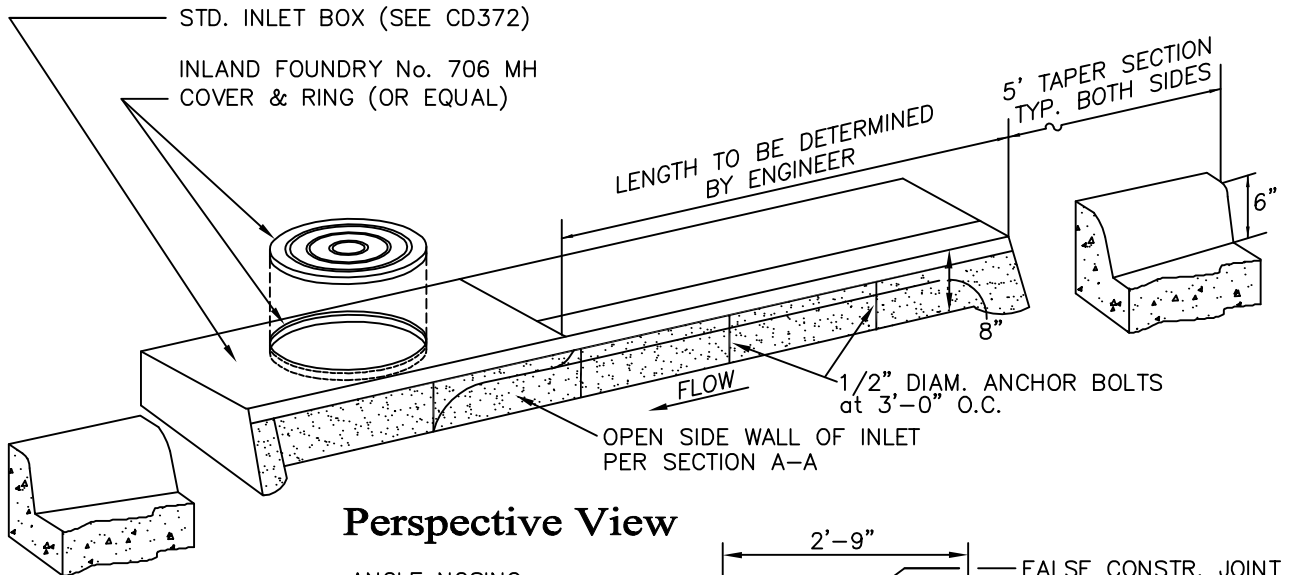
Section A-A

GENERAL NOTES:

1. SURFACE CROSS-SLOPE FOR NEW CONSTRUCTION SHALL BE 1/4" RISE PER FOOT FROM TOP OF CURB TO BACK OF SIDEWALK.
2. EXISTING CURB AND GUTTER SHALL BE REMOVED TO THE NEAREST CONTRACTION JOINT OR COLD JOINT WHEN JOINT IS WITHIN 4 FEET OF THE TRANSITION POINT.
3. ALL CONCRETE SHALL BE SAWCUT AND A SMOOTH, UNIFORM JOINT PROVIDED.
4. CURING COMPOUND SHALL BE APPLIED IMMEDIATELY AFTER SURFACE IS FINISHED: WHITE PIGMENT RECOMMENDED, CLEAR PIGMENT ACCEPTABLE.
5. FLOOR SHALL BE POURED ON: UNDISTURBED, STABLE SOIL; COMPACTED BASE (100% T-99D, 3/4"-0 CRUSHED ROCK); OR OTHER APPROVED BASE.
6. SET SECTION JOINTS IN 1:2 MORTAR AND MORTAR JOINT SEALANT ST-8, 1" WIDE.
7. SEALANT SHALL MEET FED. SPECS. SS-5-00201 (CSA-FSS).
8. ALL CONCRETE SHALL BE FORMED AND VIBRATED TO REMOVE VOIDS.
9. CONCRETE TO BE COMMERCIAL GRADE CONCRETE (CGC) PER 2002 ODOT/OREGON APWA SECTION 00440.00
10. PIPE(S) SHALL BE FLUSH WITH INSIDE WALL.
11. SURFACE HAVE A FINISHED TEXTURE THAT WILL NOT BE SLICK WHEN WET (MEDIUM BROOM FINISH) OR MATCH ADJACENT SIDEWALK.
12. ALL METAL PARTS SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
13. COVER SHALL BE INLAND FOUNDRY CO. INC. 706 MANHOLE RING AND COVER (OR EQUAL), SUITABLE FOR HEAVY TRAFFIC LOADING.
14. PRECAST CONCRETE BASE MAY BE USED WITH APPROVAL OF THE CITY ENGINEER.

CONCRETE CURB INLET

ISSUED: LB CRZ	DATE: 9/27/05 7/28/05	PUBLIC WORKS ENGINEERING Ashland - Medford - Rogue Valley Sewer Services	DRAWING NO. CD372
REVISED:	DATE:		

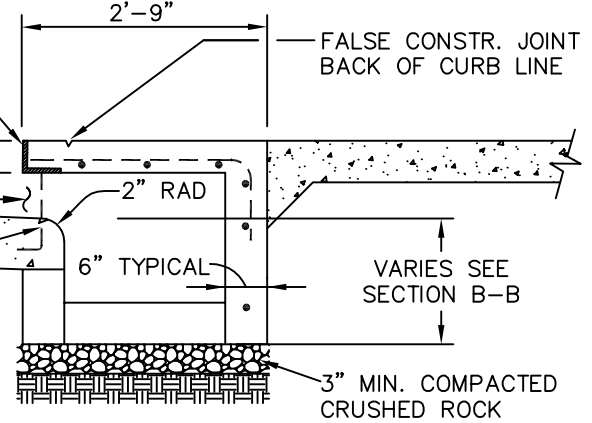


Perspective View

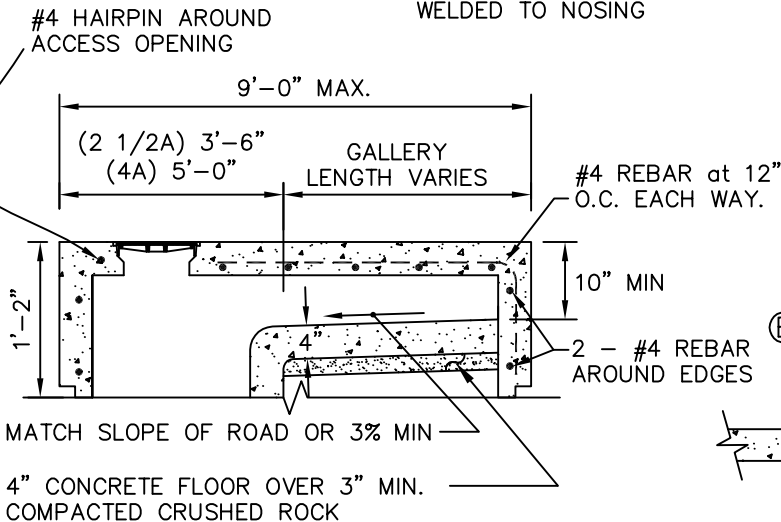
ANGLE NOSING
3½" X 3½" X ¼"

MAINTAIN 4½" OPENING

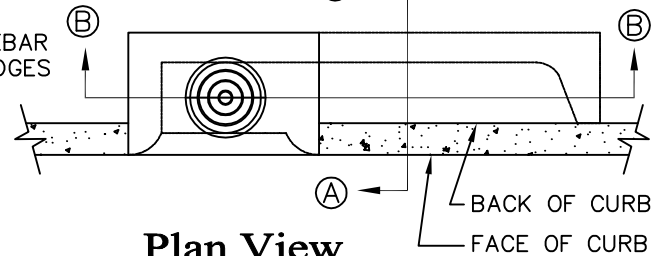
ANCHOR BOLT
½" x 7" at 3'-0" O.C.
WELDED TO NOSING



Section A-A



Section B-B



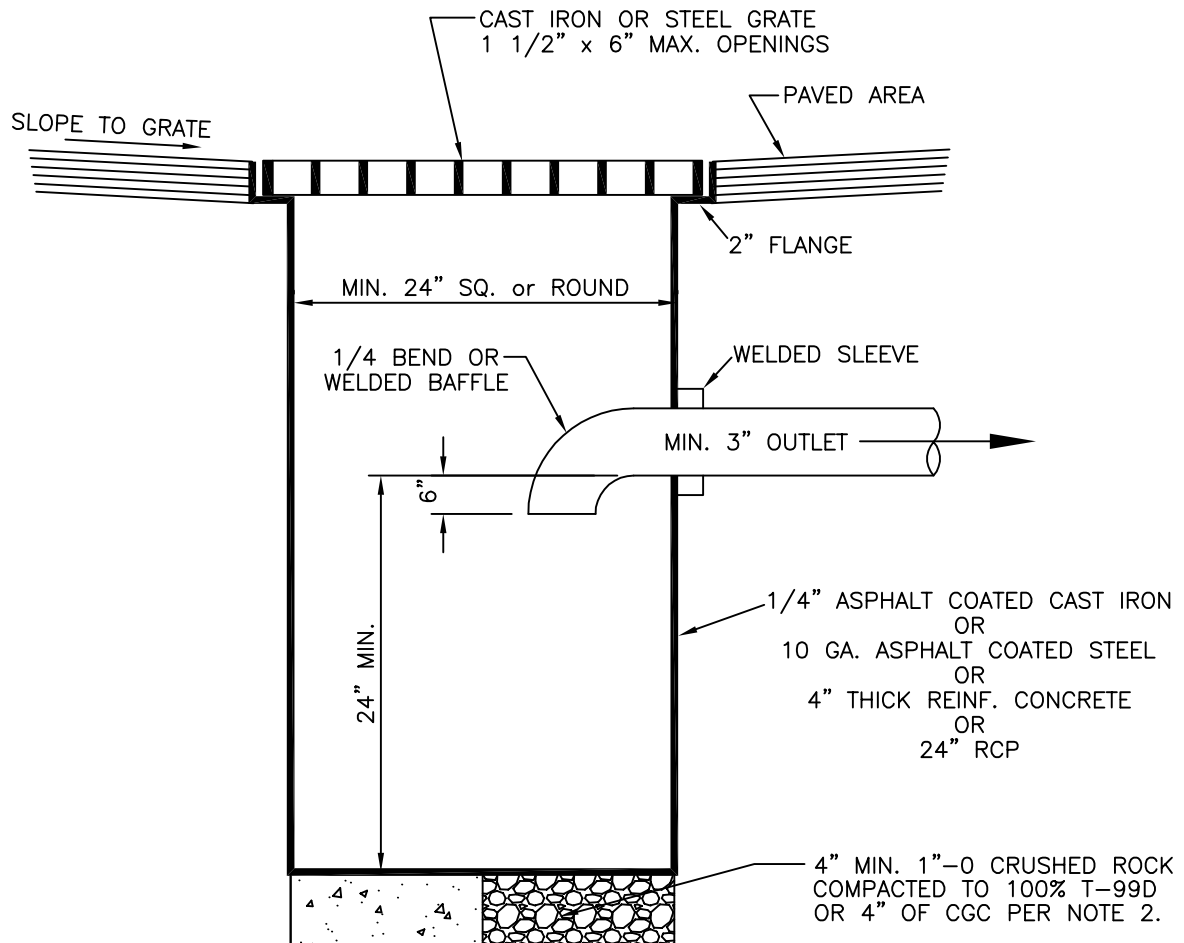
Plan View

GENERAL NOTES:

1. SURFACE CROSS-SLOPE FOR NEW CONSTRUCTION SHALL BE 1/4" RISE PER FOOT FROM TOP OF CURB TO BACK OF SIDEWALK.
2. ALL CONCRETE SHALL BE FORMED AND VIBRATED TO REMOVE VOIDS.
3. CONCRETE TO BE COMMERCIAL GRADE CONCRETE (CGC) PER 2002 ODOT/OREGON APWA SECTION 00440.00
4. SURFACE TO HAVE A FINISHED TEXTURE THAT WILL NOT BE SLICK WHEN WET (MEDIUM BROOM FINISH), OR MATCH EXISTING ADJACENT SIDEWALK.
5. ALL METAL PARTS (EXCEPT REBAR) SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION.
6. PLACE GALLERY ON UP SLOPE SIDE OF CURB INLET.

INLET GALLERY

ISSUED: LB	DATE: 9/27/05	PUBLIC WORKS ENGINEERING	DRAWING NO.
CRZ	7/28/05		
REVISED:	DATE:	Ashland - Medford - Rogue Valley Sewer Services	CD373

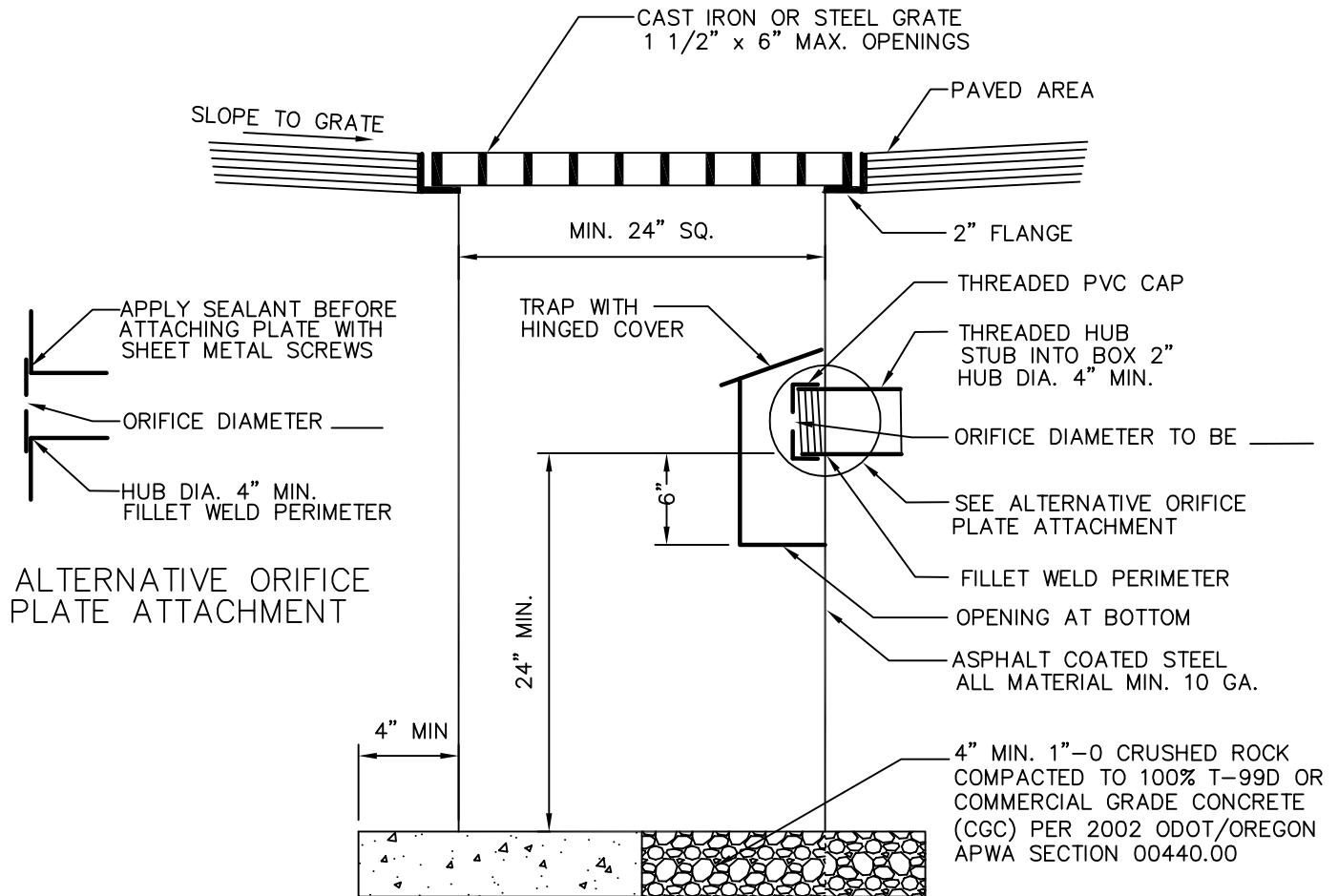


GENERAL NOTES:

1. OREGON PLUMBING SPECIALTY CODE REQUIRES A CLEAN OUT TO BE INSTALLED WITHIN 5 FEET OF THE BEND OR BAFFLE IF THEY ARE NOT REMOVABLE.
2. CONCRETE TO BE COMMERCIAL GRADE CONCRETE (CGC) PER 2002 ODOT/OREGON APWA SECTION 00440.00

AREA CATCH BASIN DETAIL

ISSUED: <i>LB</i> DATE: <i>9/27/05</i> <i>CRZ</i> <i>7/28/05</i> REVISED: DATE:	PUBLIC WORKS ENGINEERING <i>Ashland – Medford – Rogue Valley Sewer Services</i>	DRAWING NO. CD374
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GENERAL NOTES:

1. ENGINEER MAY SPECIFY ORIFICE DIAMETER ON THIS DETAIL.
2. ALTERNATIVE MATERIALS AND DESIGNS WILL BE CONSIDERED, CITY ENGINEER APPROVAL IS REQUIRED.
3. UPC REQUIRES A CLEAN OUT TO BE INSTALLED WITHIN 5 FEET OF THE ORIFICE PLATE IF THE PLATE IS NOT REMOVEABLE.

AREA CATCH BASIN WITH ORIFICE PLATE DETAIL

ISSUED: LB CRZ	DATE: 9/27/05 7/28/05	PUBLIC WORKS ENGINEERING	DRAWING NO.
REVISED:	DATE:	Ashland - Medford - Rogue Valley Sewer Services	CD376