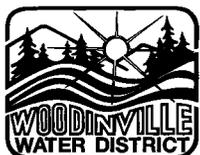


SECTION

NOTES:

1. NOTIFY THE DISTRICT AT LEAST 7 DAYS IN ADVANCE AND MAKE THE NECESSARY ARRANGEMENTS WITH THE WATER DISTRICT INSPECTOR FOR CONNECTION TO THE EXISTING MANHOLE.
2. CONTRACTOR SHALL SUBMIT A BYPASS PLAN FOR EXISTING FLOWS WHILE WORKING IN THE EXISTING MANHOLE UNLESS DEEMED UNNECESSARY BY THE DISTRICT.
3. ROTATE CONE AND INSTALL NEW LADDER PER STANDARD DETAIL 18 IF EXISTING LADDER IS WITHIN 6" OF THE EDGE OF ANY CHANNEL.
4. CORE EXISTING MH AND USE KOR-N-SEAL CONNECTION, UNLESS KNOCKOUTS EXIST ON THE BASE SECTION. IN THIS CASE, CORE STILL REQUIRED AND GPK SAND COLLAR SHALL BE USED INSTEAD OF THE KOR-N-SEAL BOOT.
5. CONNECTIONS INTO AN EXISTING FIBERGLASS BASE, CONTRACTOR SHALL REPLACE THE BASE SECTION OR HAVE THE CHANNEL RE-GLASS BY A CERTIFIED SERVICE TECHNICIAN TO ACCOMMODATE THE NEW CONNECTION.



**Woodinville
Water District**

**CONNECTION TO
EXISTING MH**



**SEWER STD.
PLAN NO. 1**

**REVISION DATE
04/25**

INSTALL CONCRETE OR ASPH COLLAR PER STD. PLAN 21 IF MH OUT OF PAVING.

4" MIN. 16" MAX. POLYURETHANE JOINT SEALER/ADHESIVE REQUIRED TO SEAL ADJUSTMENT RINGS.

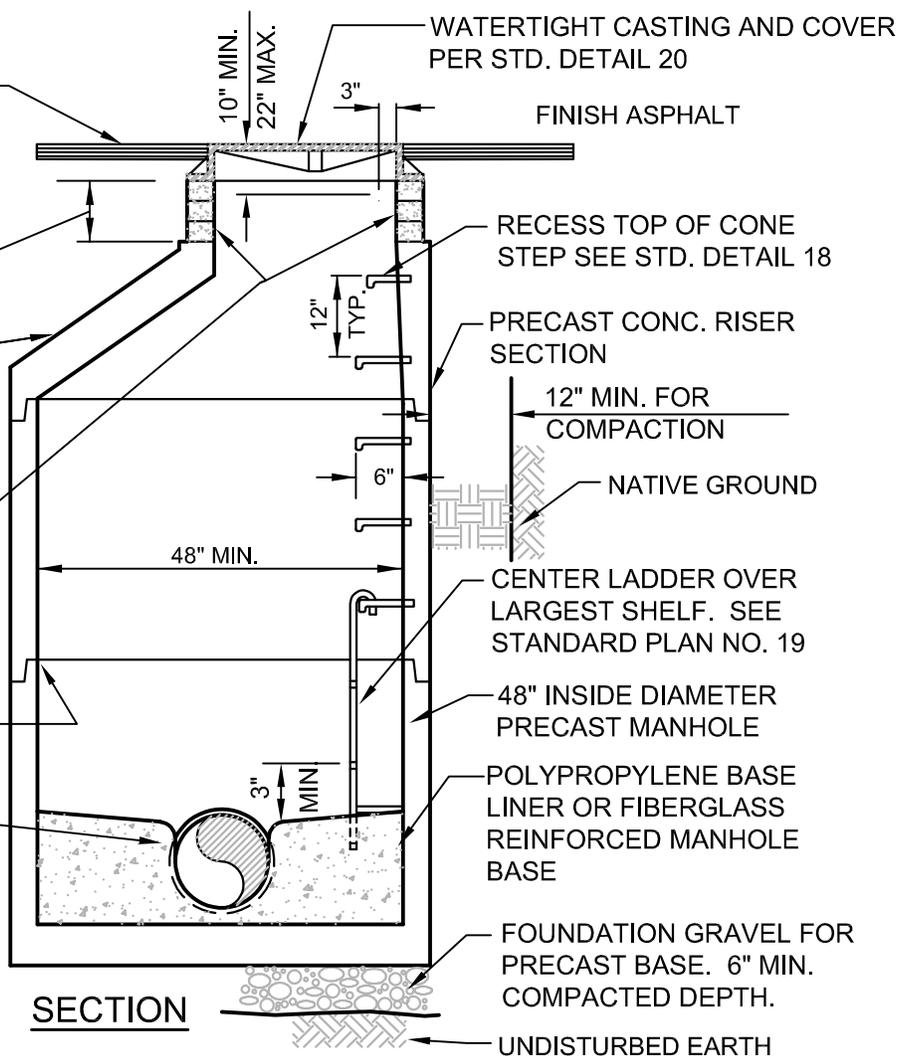
24"x48" ECCENTRIC CONE SECTION

INFRA-RISER COMPOSITE ADJUSTMENT RISERS REQUIRED. DO NOT GROUT ADJUSTMENT RISERS.

GROUT INSIDE SEAM AT ALL RISER JOINTS W/ APPROVED NON-SHRINK GROUT

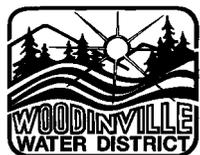
CONNECTION WITH KOR-N-SEAL BOOT OR BELL

CLEAN GROUT AND DEBRIS OFF RING AND COVER, STEPS, BENCHES, AND CHANNEL



NOTES:

1. MANHOLES SHALL BE WATERTIGHT IN AREAS OF HIGH GROUND WATER. RISER SEAMS, PICK HOLES AND ADJUSTMENT RINGS (MH NECK) SHALL BE SEALED FROM THE OUTSIDE WITH EXTERNAL JOINT WRAP, AFTER GROUTING AND PRIOR TO BACKFILL.
2. MANHOLE COVER TO CONFORM TO FINISH SLOPE ELEVATION. SLOPE ASPHALT PAD AWAY FROM COVER TO PREVENT PONDING.
3. EXCAVATE BEYOND MH LOCATION TO PROVIDE CLEARANCE FOR COMPACTION EQUIPMENT.
4. PIPE PENETRATIONS IN MH'S SHALL BE CORED. MIN. FALL FROM INLET TO OUTLET - 0.1'. PROVIDE ADDITIONAL FALL FOR STEEPER RUNS. MATCH CROWN ELEV. OF SIDE SEWERS TO HIGHEST MAINLINE PENETRATION.
5. MAXIMUM PIPE SIZE LIMITED BY INLET AND OUTLET LOCATIONS INTO MANHOLE. SEE CONSTRUCTION PLANS FOR SIZE AND LOCATION.
6. 15" MAX. INLET SIZE ON 48" DIA. MANHOLES.
7. WHERE IDENTIFIED ON THE PLANS OR DIRECTED BY THE DISTRICT, MH WALLS SHALL BE COATED WITH EPOXYTEC CPP (SPRAYABLE) OR APPROVED EQUAL AS DETERMINED BY THE DISTRICT.
8. 2' HIGH (MAX.) CONE REQUIRED ON MH'S LESS THAN 8' FROM RIM TO INVERT.
9. MANHOLE BASES SHALL BE EITHER FIBERGLASS REINFORCED OR POLYPROPYLENE BASE LINER OR APPROVED EQUAL AS DETERMINED BY THE DISTRICT.



Woodinville
Water District

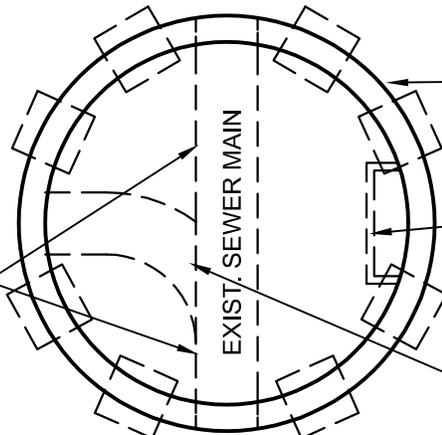
STANDARD MANHOLE
DETAILS



SEWER STD.
PLAN NO. (2)

REVISION DATE
04/25

CARRY CHANNELS UP VERTICALLY TO $\frac{3}{4}$ PIPE THEN ROUND TO FULL PIPE DIA. HEIGHT. BENCHES TO SLOPE $\frac{1}{2}$ " PER FOOT.



PRECAST CONC. "U" SHAPED BASE SECTION

STEP/ LADDER LOCATION PER STANDARD PLAN NO. 19

SET INVERT .1' TO .2' HIGHER THAN EXISTING I.E.

PLAN

4" MIN. 16" MAX. POLYURETHANE JOINT SEALER/ADHESIVE REQUIRED TO SEAL ADJUSTMENT RISERS.

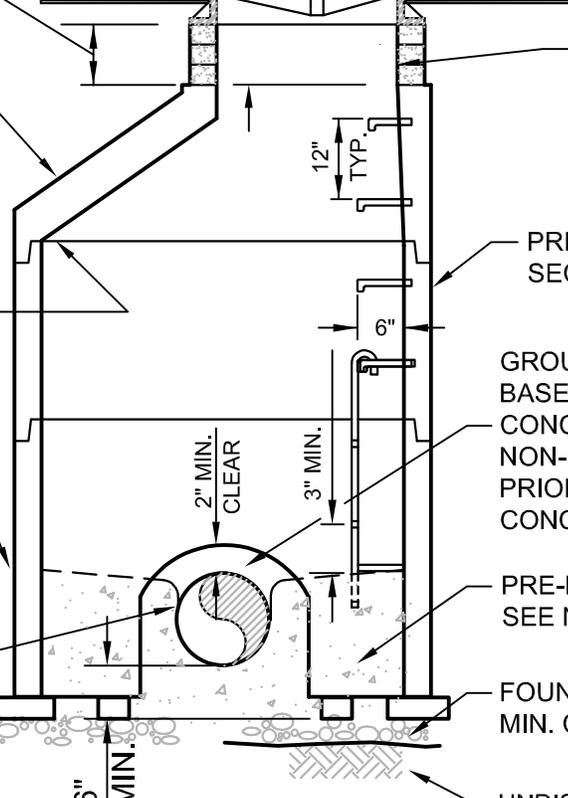


FINISH ASPHALT

24"x48" ECCENTRIC CONE SECTION

INFRA-RISER COMPOSITE ADJUSTMENT RISERS REQUIRED. DO NOT GROUT ADJUSTMENT RISERS.

GROUT INSIDE SEAM AT ALL RISER JOINTS W/ APPROVED NON-SHRINK GROUT



PRECAST CONC. RISER SECTION

GROUT AREA BETWEEN BASE AND PIPE WITH CONC. BRICK AND NON-SHRINK GROUT PRIOR TO PLACEMENT OF CONC. BASE SLAB

48" INSIDE DIAMETER "U" SHAPE BASE SECTION

COAT PVC PIPE W/ PVC GLUE AND APPLY DRY SILICA SAND WHERE CONC. OR GROUT WILL CONTACT THE PIPE

PRE-MIX CONCRETE SEE NOTE 2.

4"x8"x8" SOLID CONCRETE BLOCKING

FOUNDATION GRAVEL 6" MIN. COMPACTED DEPTH

UNDISTURBED EARTH

SECTION

NOTES:

1. ALL APPLICABLE DETAILS & NOTES FROM STANDARD PLAN 2 (STANDARD MH DETAIL) APPLY TO SADDLE MH.
2. 3000 PSI PRE-MIX CONCRETE W/ AIR-ENTRAINMENT SHALL BE PLACED FROM 6" (MIN.) UNDER SEWER MAIN TO FINISH BENCH HEIGHT. CHANNELING SHALL BE COMPLETED AT TIME OF PLACEMENT. THIN OVERLAY OF GROUT IN CHANNELS NOT ALLOWED.
3. TOP OF PIPE NOT TO BE CUT OUT UNTIL AUTHORIZED BY THE DISTRICT.



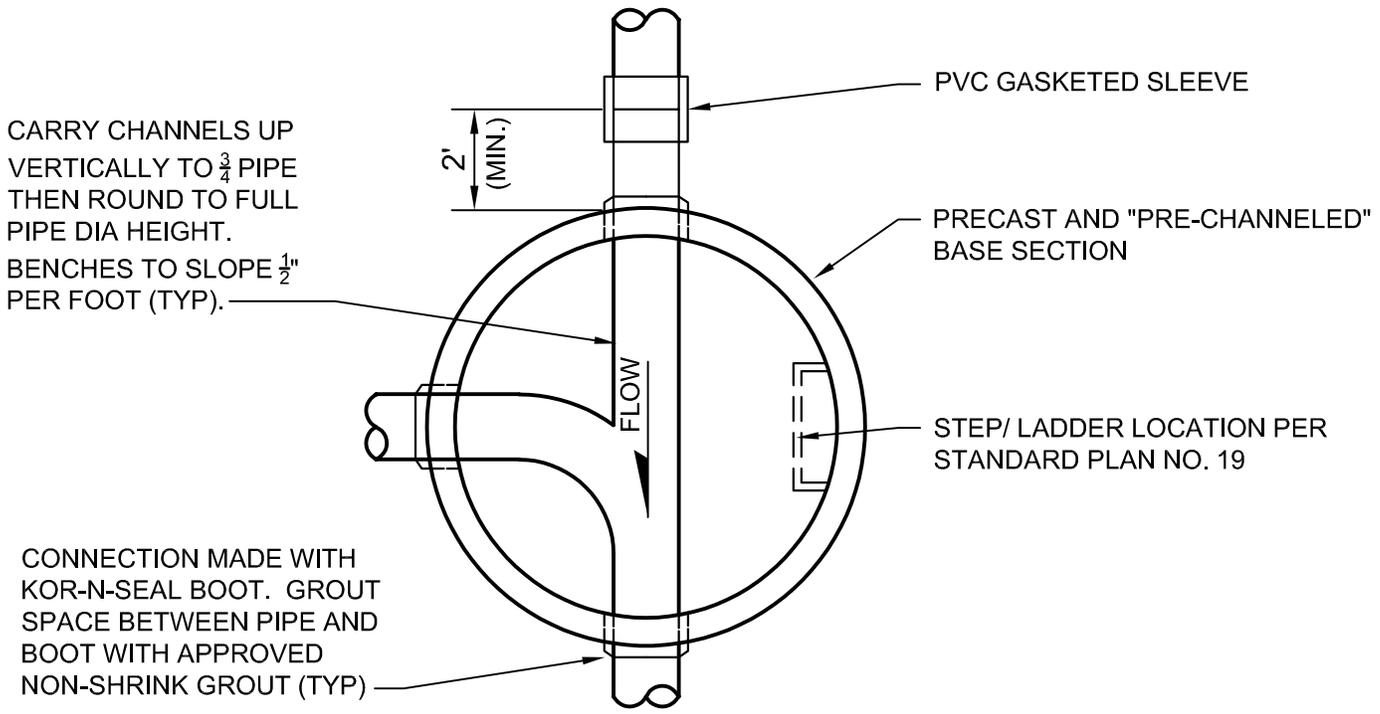
Woodinville
Water District

SADDLE MANHOLE
DETAILS

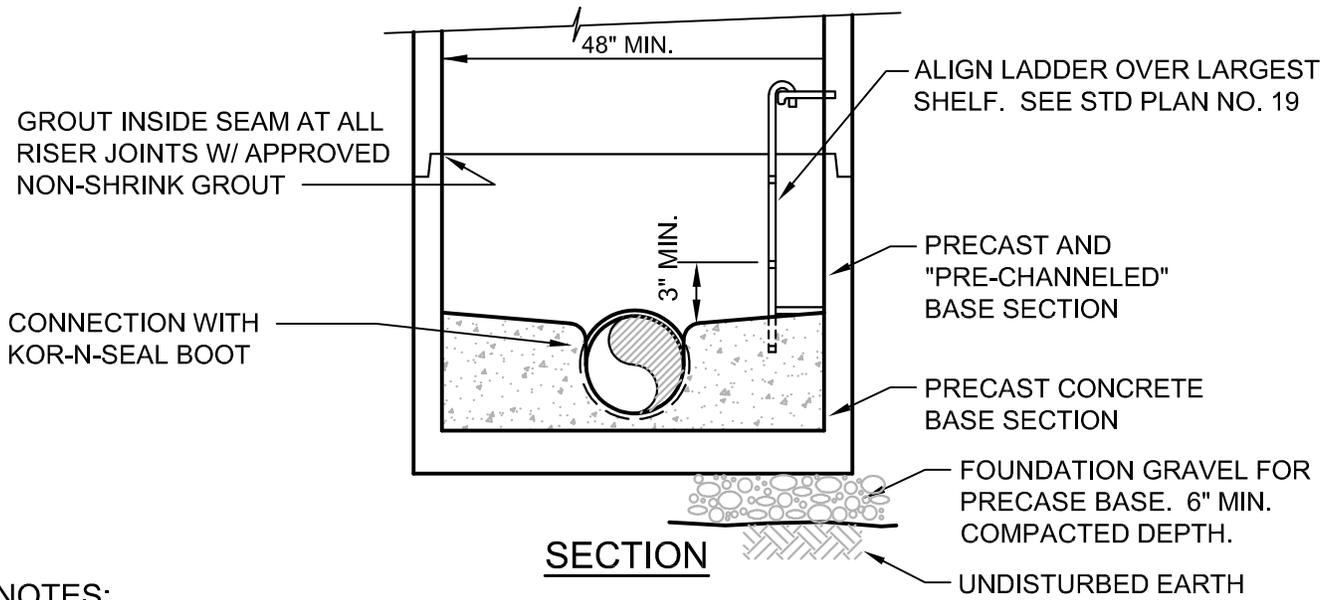


SEWER STD.
PLAN NO. 3

REVISION DATE
04/25



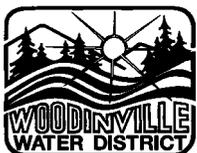
PLAN



SECTION

NOTES:

1. ALTERNATIVE SADDLE MH NOT ALLOWED PER EXISTING SEWER MAINS UNDER 2% SLOPE.
2. ALL APPLICABLE DETAILS & NOTES FROM STANDARD PLAN NO. 2 (STANDARD PRECAST MH) APPLY TO SADDLE MH.
3. PRE-CAST BASE SECTION SHALL BE CORED AND CONNECTIONS MADE WITH KOR-N-SEAL BOOTS. THE BASE SHALL BE PROFESSIONALLY PRE-CHANNELED. SEE SPECIFICATIONS.
4. CONTRACTOR RESPONSIBLE TO MAINTAIN EXISTING SEWER FLOWS. BYPASS PLAN REQUIRED. FLOW SHALL BE BYPASSED UNTIL ALL GROUTING NECESSARY TO COMPLETE CHANNEL AND BOOT VOIDS HAS SUFFICIENTLY SET UP.



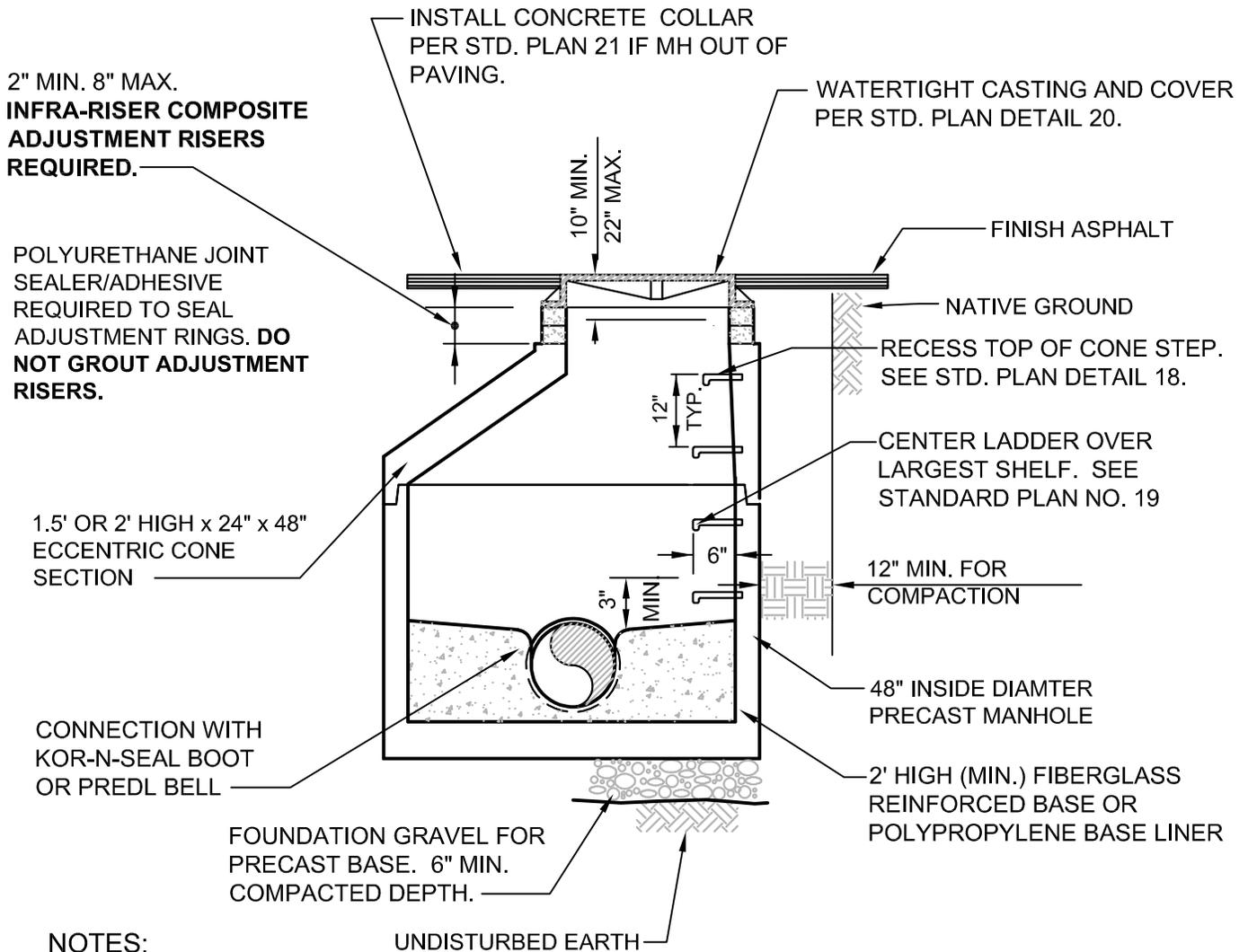
Woodinville
Water District

ALTERNATIVE SADDLE
MANHOLE DETAIL

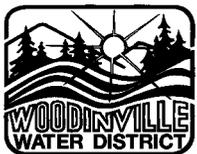


SEWER STD.
PLAN NO. 4

REVISION DATE
04/25



1. **MINIMUM HEIGHT FOR SHALLOW MH 5'. DEVELOPER MUST HAVE SPECIFIC APPROVAL FROM THE DISTRICT FOR MH'S UNDER 5' (I.E. TO RIM).**
2. 1.5' OR 2' HIGH CONE SECTION TO BE USED. FLAT TOPS ARE ALLOWED ONLY WITH SPECIAL PERMISSION FROM THE DISTRICT. MAXIMUM THROAT ADJUSTMENT 8". THE APPROPRIATE HEIGHT BASE SECTION SHALL BE PROVIDED. DEVELOPER SHALL PROVIDE A SHOP DRAWING WITH DIMENSIONS OF MH SECTIONS AND CORED LOCATIONS.
3. EXTEND ENDS OF PIPE 1" INTO MANHOLE.
4. EXCAVATE BEYOND MH LOCATION TO PROVIDE CLEARANCE FOR COMPACTION.
5. PIPE PENETRATIONS IN MH'S SHALL BE CORED. MIN. FALL FROM INLET TO OUTLET- 0.1'. PROVIDE ADDITIONAL FALL FOR STEEPER RUNS. MATCH CROWN ELEV. OF SIDE SEWERS TO HIGHEST MAINLINE PENETRATION.
6. WHERE IDENTIFIED ON THE PLANS OR DIRECTED BY THE DISTRICT, MH WALLS SHALL BE COATED WITH EPOXYTEC CPP (SPRAYABLE) OR APPROVED EQUAL AS DETERMINED BY THE DISTRICT.
7. ALL APPLICABLE DETAILS AND NOTES FROM STANDARD PLAN 2 (STANDARD PRECAST MH) APPLY TO SHALLOW MANHOLE.



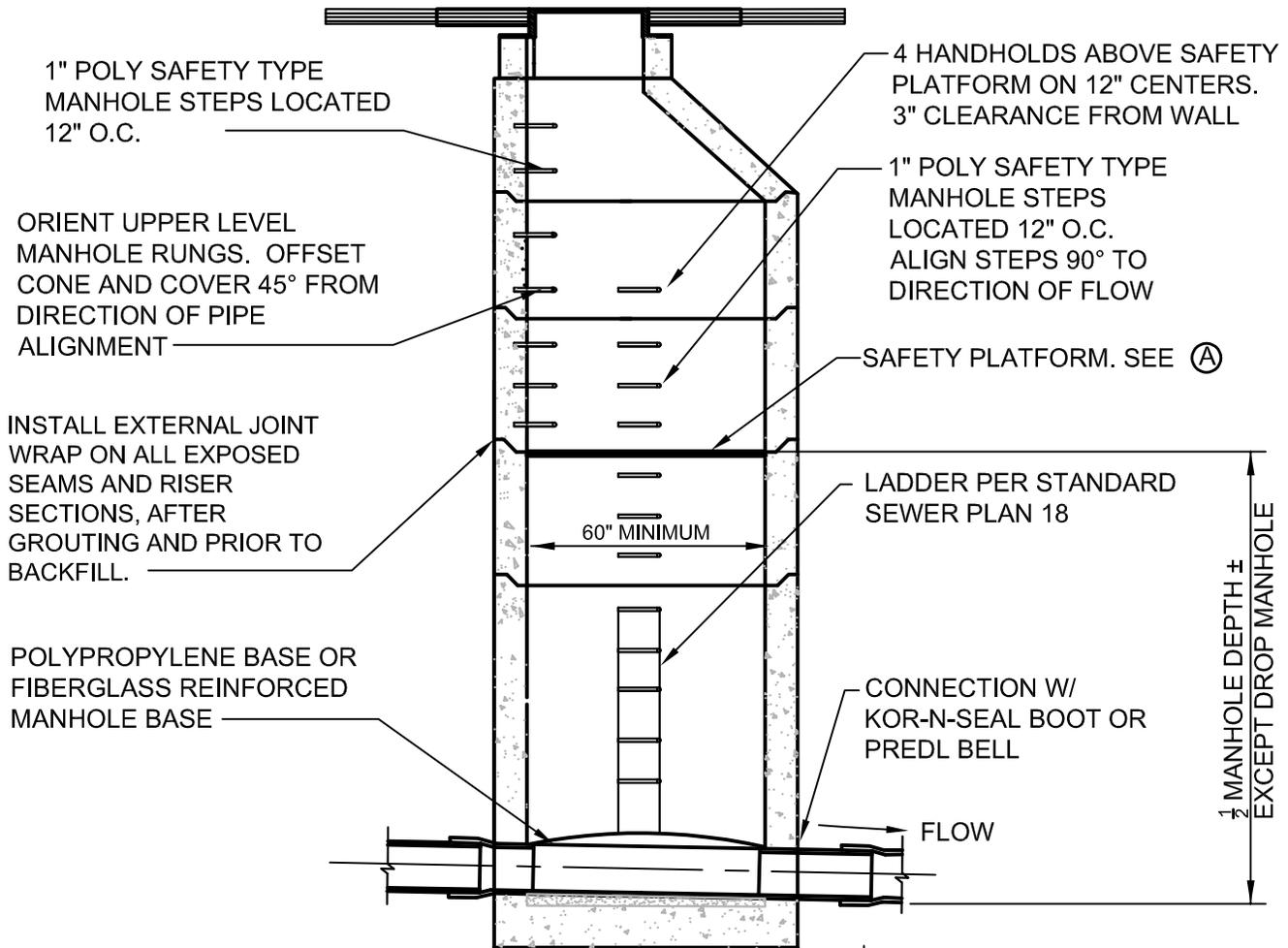
Woodinville
Water District

SHALLOW MANHOLE



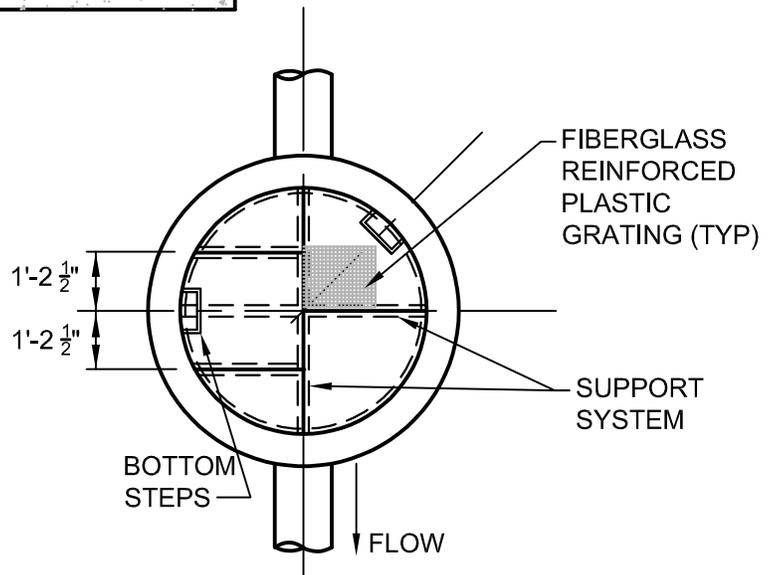
SEWER STD.
PLAN NO. **5**

REVISION DATE
04/25

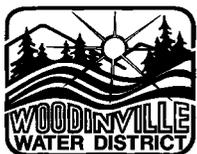


NOTES:

- ① ALL APPLICABLE DETAILS FROM SEWER STANDARD PLAN 2 APPLY TO DEEP MH INSTALLATIONS
- ② MAXIMUM LENGTH OF SAFETY PLATFORM PANELS SHALL BE 36".
- ③ CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR GRATING, PANEL LAYOUT AND SUPPORT SYSTEM APPROVAL PRIOR TO FABRICATION.
- ④ COMPLY WITH ALL STATE, FEDERAL AND LOCAL REGULATIONS REGARDING SAFETY AND INSTALLATION.
- ⑤ INSIDE OF STRUCTURE SHALL BE COATED WITH EPOXYTEC CPP (SPRAYABLE)



(A) SUGGESTED GRATING PANEL LAYOUT FOR SAFETY PLATFORM



Woodinville
Water District

DEEP MANHOLE DETAIL
DEPTHS GREATER THAN 20'



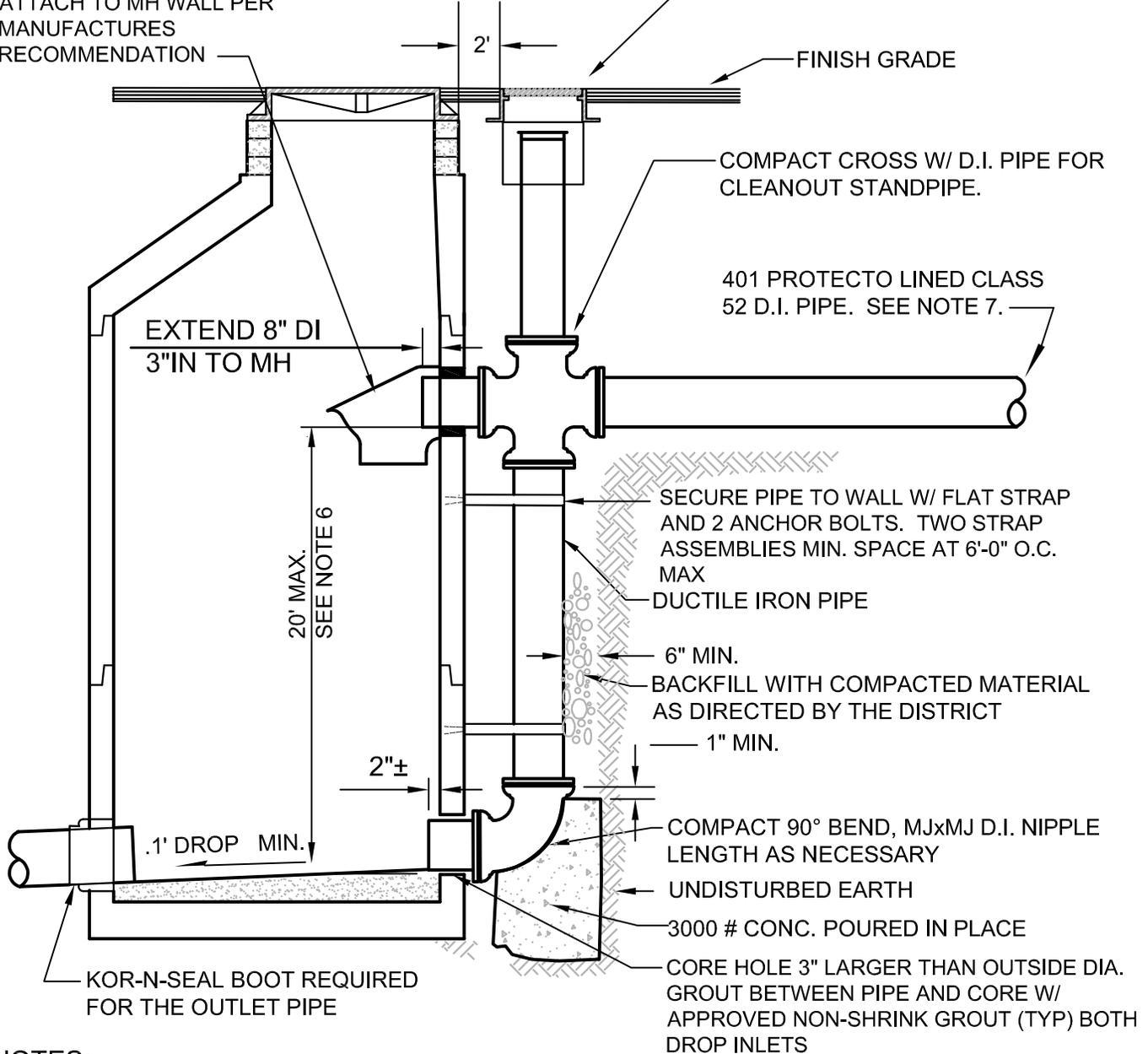
SEWER STD.
PLAN NO.

(5A)

REVISION DATE
04/25

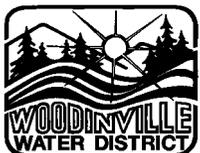
RELINER INSIDE DROP BOWL
MODEL B-8.
ATTACH TO MH WALL PER
MANUFACTURERS
RECOMMENDATION

CLEANOUT TO SURFACE. CLEANOUT
PER WWD SEWER STD PLAN 14.



NOTES:

1. ALL APPLICABLE DETAILS FROM STANDARD PLAN NO. 2 APPLY TO DROP MANHOLE
2. WHEN POSSIBLE, LOCATE STEPS AND LADDER APPROX. 1' FROM DROP INLETS.
3. ALL MJ JOINTS SHALL BE MEG-A-LUG OR EQUAL.
4. CORED HOLE FOR DROP SHALL BE A MINIMUM OF 6" (EDGE TO EDGE) FROM A RISER SEAM.
5. DETAIL FOR 8" DIAMETER ONLY. OTHER SIZES BY DISTRICT APPROVAL ONLY.
6. MANHOLES DEEPER THAN 20' SHALL BE CONSTRUCTED PER THE REQUIREMENTS FOR DEEP MANHOLE STANDARD PLAN 5A. SUBMITTAL SKETCH OF PLATFORM AND DROP LOCATION REQUIRED.
7. 401 PROTECTO LINED CLASS 52 DUCTILE IRON PIPE SHALL BE INSTALLED FROM THE DROP LOCATION TO THE NEXT UPSTREAM MANHOLE.



Woodinville
Water District

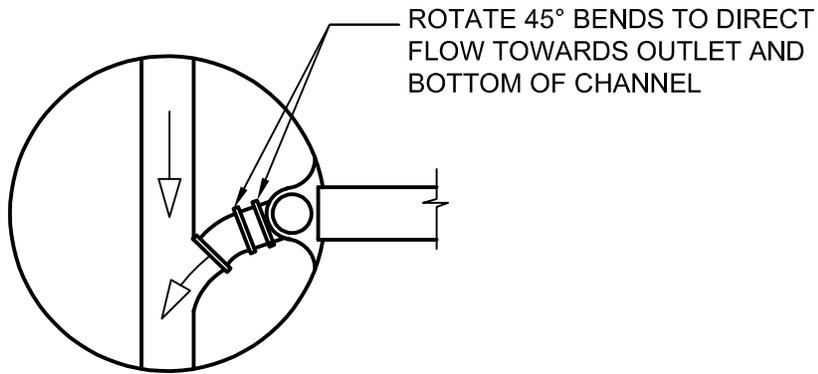
8" OUTSIDE DROP MANHOLE
INSTALLATION



SEWER STD.
PLAN NO. 6

REVISION DATE
04/25

RE-CHANNEL BOTTOM TO ALLOW ROOM TO INSTALL VERT BENDS AND SWEEP FLOW LINE INTO MAIN CHANNEL JUST BELOW SPRING-LINE OF EXIST CHANNEL. GROUT LOWER 45 BEND TO PREVENT MOVEMENT.



PLAN

CORE DRILL MANHOLE. INSTALL KOR-N-SEAL BOOT FOR CONNECTION. GROUT SPACE BETWEEN PIPE AND BOOT INSIDE THE STRUCTURE.

RELINER INSIDE DROP BOWL MODEL B-8

FERNCO FLEXIBLE PIPE COUPLER

6" SDR 35 SEWER PIPE

TOP OF BENCH

SEE PLAN DETAIL ABOVE

401 PROTECTO LINED CLASS 52 D.I. PIPE. SEE NOTE 5.

COMPACTED BACKFILL

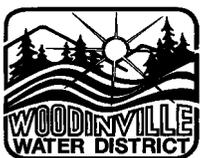
S.S. CLAMPING BRACKETS, 3 EA. (MAX. SPACING 6' O.C.)

(2) 6"x 45° BENDS ROTATE AS SHOWN ABOVE

PROFILE

NOTES:

1. INSIDE DROP ALLOWED ONLY WITH SPECIFIC APPROVAL FROM THE DISTRICT.
2. 8" MAX. SIZE INLET. DEPENDING ON FLOWS THE DROP PIPE DROP AND BENDS MAY HAVE TO BE UPSIZED TO 8".
3. RELINER INSIDE DROP BOWL AND CLAMPING BRACKETS AS MANUFACTURED BY RELINER/DURAN INC. (860)434-0277.
4. MIN. SIZE MH FOR INSIDE DROP IS 60".
5. 401 PROTECTO LINED CLASS 52 DUCTILE IRON PIPE TO BE INSTALLED FROM DROP LOCATION TO THE NEXT UPSTREAM MANHOLE.



Woodinville
Water District

INSIDE DROP
DETAIL



SEWER STD.
PLAN NO. 7

REVISION DATE
04/25

SURFACE RESTORATION IN ACCORDANCE WITH LOCAL JURISDICTIONAL REQUIREMENTS. MINIMUM REQUIREMENTS SHOWN IN TRENCH PAVEMENT & SURFACE RESTORATION DETAIL NO. 10.

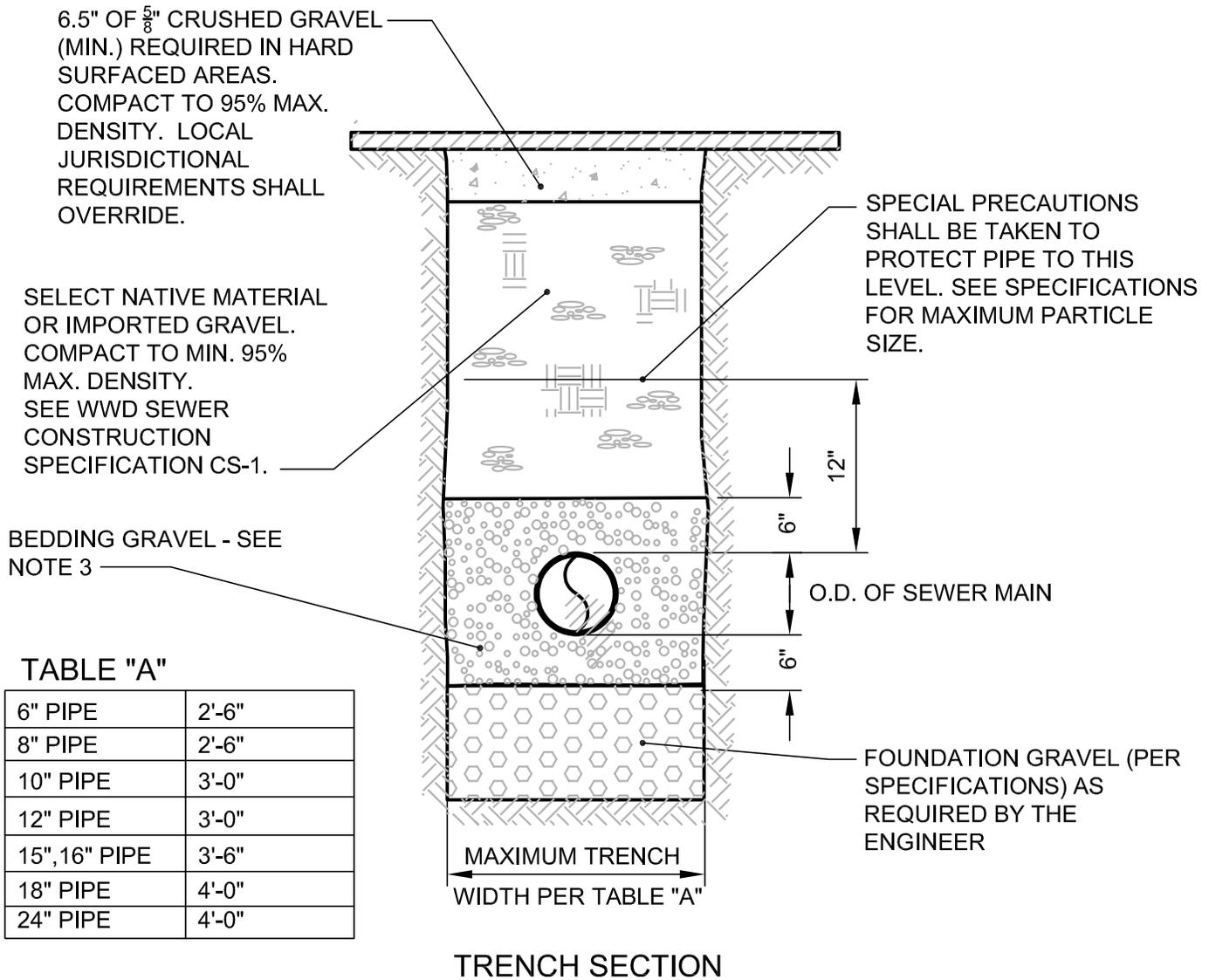
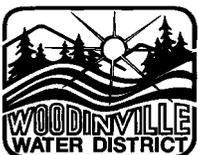


TABLE "A"

6" PIPE	2'-6"
8" PIPE	2'-6"
10" PIPE	3'-0"
12" PIPE	3'-0"
15", 16" PIPE	3'-6"
18" PIPE	4'-0"
24" PIPE	4'-0"

NOTES:

1. LOCAL JURISDICTION REQUIREMENTS OVERRIDE ALL APPLICABLE SECTION OF THIS DETAIL. WHEN WORKING IN A STREET RIGHT OF WAY REFER TO ALL LOCAL JURISDICTIONAL REQUIREMENT FOR TRENCH EXCAVATION AND BACKFILL.
2. FILL AREAS SHALL BE FILLED AND COMPACTED PRIOR TO INSTALLATION OF WATER MAINS. 95% COMPACTION PER ASTM D-1557 REQUIRED IN FILL AREAS. REPORTS REQUIRED PRIOR TO TRENCHING.
3. BEDDING SHALL BE PEA GRAVEL OR $\frac{5}{8}$ " MINUS CRUSHED SURFACING. TRENCH DAMS (PER THE STANDARD PLANS) SHALL BE INSTALLED IN WET AREAS AS DIRECTED BY THE ENGINEER.
4. PUMPING SOILS SHALL BE REMOVED FROM THE TRENCH BACKFILL IMMEDIATELY.
5. USE OF NATIVE SOILS FOR BACKFILL REQUIRES PROCTOR SAMPLES BE TAKEN PRIOR TO EXCAVATION AND RECOMPACTED OR REPLACED UNTIL PASSING TEST RESULTS ARE OBTAINED.



Woodinville
Water District

TYPICAL
LONGITUDINAL
TRENCH SECTION



SEWER STD.
PLAN NO. 8

REVISION DATE
04/25

SURFACE RESTORATION IN ACCORDANCE WITH LOCAL JURISDICTIONAL REQUIREMENTS. MINIMUM REQUIREMENTS SHOWN IN TRENCH PAVEMENT & SURFACE RESTORATION DETAIL NO. 10.

6.5" OF $\frac{5}{8}$ " CRUSHED GRAVEL (MIN.) REQUIRED IN HARD SURFACED AREAS. COMPACT TO 95% MAX. DENSITY. LOCAL JURISDICTION REQUIREMENTS SHALL OVERRIDE.

SELECT NATIVE MATERIAL OR IMPORTED GRAVEL. COMPACT TO MIN. 95% MAX. DENSITY. SEE WWD SEWER CONSTRUCTION SPECIFICATION CS-1.

BEDDING GRAVEL - SEE NOTE 3

SPECIAL PRECAUTIONS SHALL BE TAKEN TO PROTECT PIPE TO THIS LEVEL. SEE SPECIFICATIONS FOR MAXIMUM PARTICLE SIZE.

O.D. OF SEWER MAIN

FOUNDATION GRAVEL (PER SPECIFICATIONS) AS REQUIRED BY THE ENGINEER

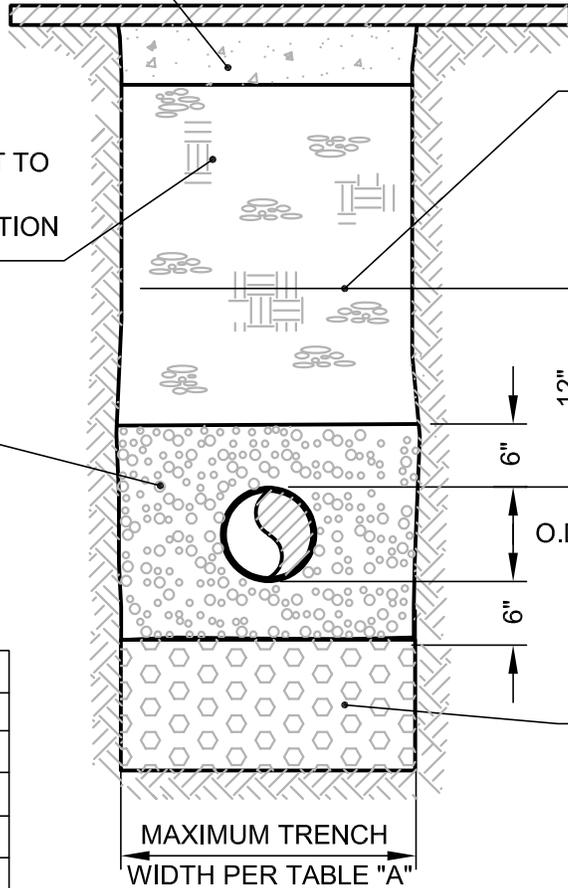
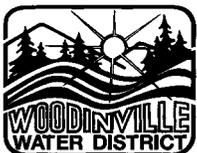


TABLE "A"

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10" PIPE	3'-0"
12" PIPE	3'-0"
15", 16" PIPE	3'-6"
18" PIPE	4'-0"
24" PIPE	4'-0"

NOTES:

1. LOCAL JURISDICTIONAL REQUIREMENTS OVERRIDE ALL APPLICABLE SECTIONS OF THIS DETAIL. WHEN WORKING IN A STREET RIGHT OF WAY REFER TO ALL LOCAL JURISDICTIONAL REQUIREMENTS FOR TRENCH EXCAVATION AND BACKFILL.
2. FILL AREAS SHALL BE FILLED AND COMPACTED PRIOR TO INSTALLATION OF WATER MAINS. 95% COMPACTION PER ASTM D-1557 REQUIRED IN FILL AREAS. REPORTS REQUIRED PRIOR TO TRENCHING.
3. BEDDING SHALL BE PEA GRAVEL OR $\frac{5}{8}$ " MINUS CRUSHED SURFACING. TRENCH DAMS (PER THE STANDARD PLANS) SHALL BE INSTALLED IN WET AREAS AS DIRECTED BY THE ENGINEER.
4. PUMPING SOILS SHALL BE REMOVED FROM THE TRENCH BACKFILL IMMEDIATELY.



Woodinville
Water District

TYPICAL
TRANSVERSE
TRENCH SECTION



SEWER STD.
PLAN NO. (8A)

REVISION DATE
04/25

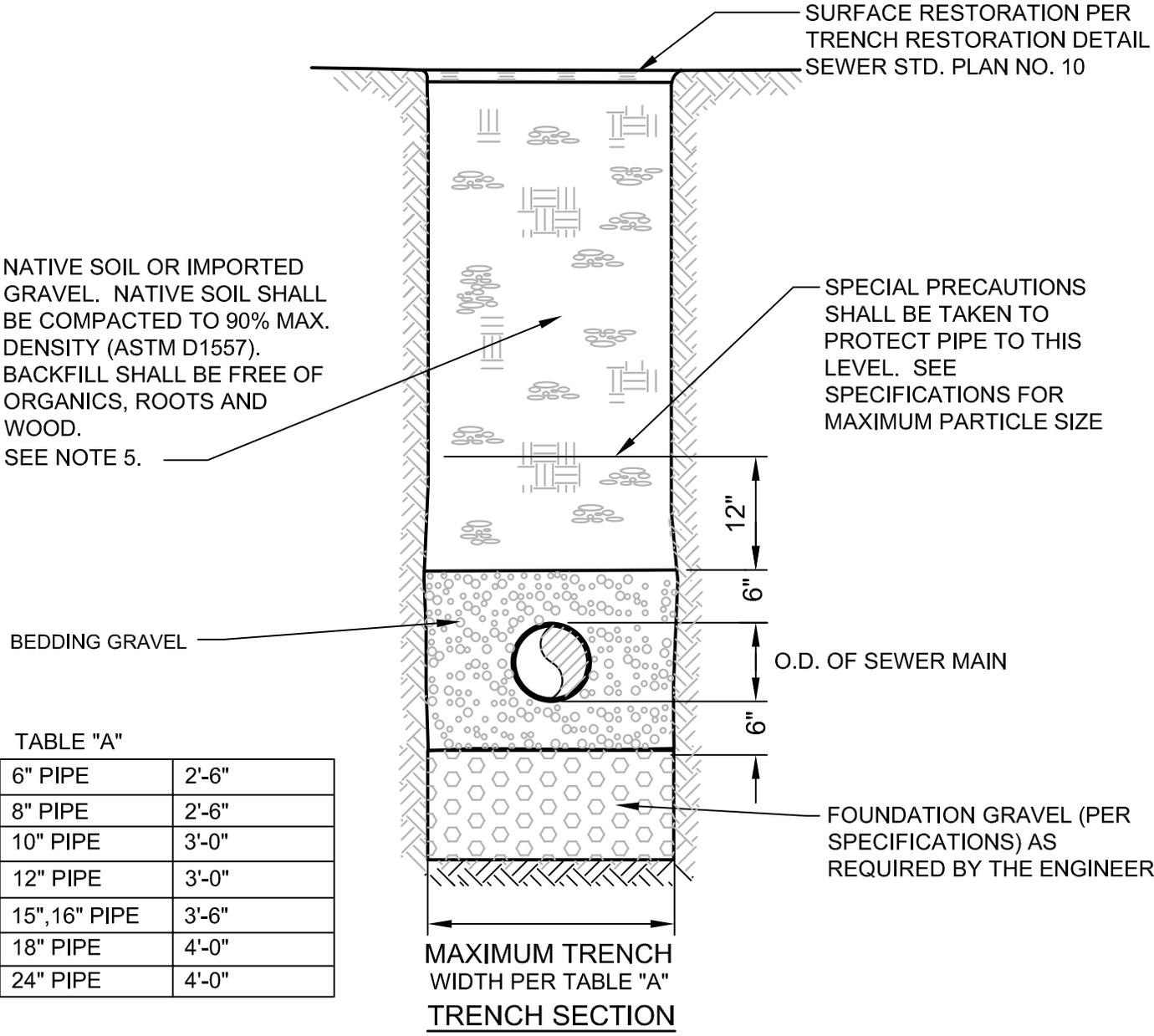
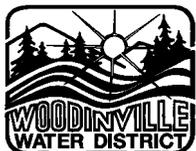


TABLE "A"

6" PIPE	2'-6"
8" PIPE	2'-6"
10" PIPE	3'-0"
12" PIPE	3'-0"
15", 16" PIPE	3'-6"
18" PIPE	4'-0"
24" PIPE	4'-0"

NOTES:

1. FILL AREAS SHALL BE FILLED AND COMPACTED PRIOR TO INSTALLATION OF SEWER MAINS. 90% COMPACTION PER ASTM D-1557 REQUIRED IN FILL AREAS. REPORTS REQUIRED PRIOR TO TRENCHING.
2. BEDDING SHALL BE PEA GRAVEL OR $\frac{5}{8}$ " MINUS CRUSHED SURFACING.
3. TRENCH DAMS SHALL BE INSTALLED PER STD. PLAN NO. 11 IN WET AREAS AS DIRECTED BY THE ENGINEER.
4. PUMPING SOILS SHALL BE REMOVED FROM THE TRENCH BACKFILL IMMEDIATELY.
5. REFER TO STD. PLAN NO. 8 (TYP. TRENCH SECTION) IN RIGHTS OF WAY OR OTHER PAVED AREAS. IF EASEMENT FALLS WITHIN A FUTURE OR PROPOSED PAVED AREA.
6. EASEMENT AREAS THAT WILL BE FUTURE RIGHT OF WAYS OR PAVED AREAS COMPACT BACKFILL TO 95% OF MAX. DENSITY.



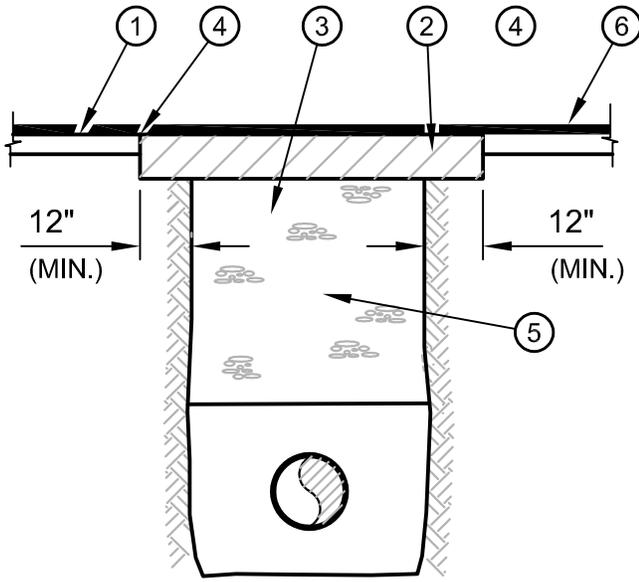
Woodinville
Water District

TYPICAL TRENCH SECTION
IN EASEMENT AREAS

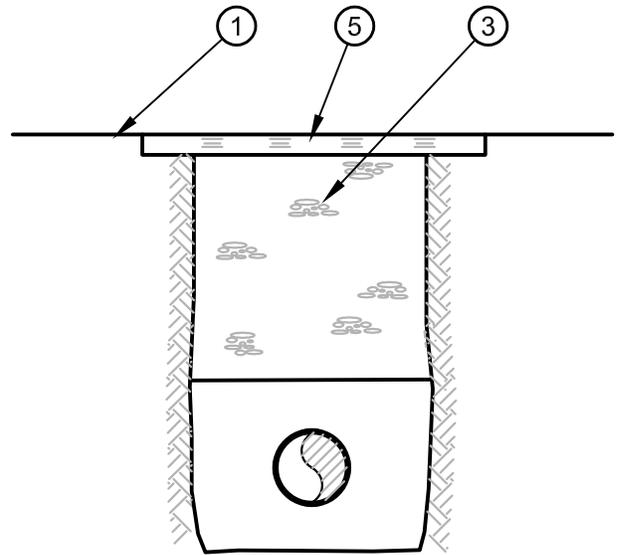


SEWER STD.
PLAN NO. 9

REVISION DATE
04/25



ASPHALT/CONCRETE
PAVING RESTORATION

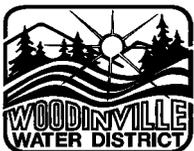


SHOULDER AND
EASEMENT RESTORATION

- ① EXISTING SURFACE
- ② PERMANENT PATCH - MATCH EXISTING DEPTH (3" MIN.) DEPTH CLASS $\frac{1}{2}$ " PG 64-22 HOT MIX ASPHALT. JURISDICTIONAL REQUIREMENTS OVERRIDE. TEMPORARY PATCH - 2" MIN. DEPTH $\frac{1}{2}$ " PG 64-11 HOT MIX ASPHALT ON 3" MIN. CRUSHED SURFACING.
- ③ TRENCH BACKFILL OR CONTROL DENSITY FILL PER PER LOCAL JURISDICTIONAL REQUIREMENTS.
- ④ NEAT LINE ACP CUT. TACK EDGES WITH EMULSIFIED ASPHALT. SEAM SEAL (UNLESS ROAD TO BE OVERLAYED PRIOR TO WINTER) WITH A NARROW APPLICATION OF AR4000.
- ⑤ RESTORE EXISTING SURFACE. TOP SOIL, CSTC (2" MIN.) OR AS NOTED ON THE PLANS.
- ⑥ 2" ASPHALT $\frac{1}{2}$ " PG 64-22 HOT MIX ASPHALT OVERLAY FULL WIDTH OVERLAY, INCLUDING PAVED SHOULDERS, WHEN SPECIFIED ON THE PLANS OR REQUIRED BY THE JURISDICTIONAL AUTHORITY.

NOTES:

1. THESE STANDARDS ARE THE MINIMUM ALLOWABLE. LOCAL JURISDICTIONAL REQUIREMENTS SHALL OVERRIDE WHERE APPLICABLE.
2. SEE TYPICAL TRENCH SECTION DETAILS (STANDARD PLAN NO 8 & 8A.)
3. DAILY TEMPORARY TRENCH PATCH REQUIRED IF PERMANENT PATCHING NOT IN PLACE. CONTRACTOR SHALL BE AWARE "T" IS REQUIRED SO PERMANENT PATCH RESIDES ON 12" OF UNDISTURBED MATERIAL. PERMANENT PATCH SHALL BE INSTALLED W/ IN 30 DAYS OF EXCAVATION. "T" CUT SHALL NOT BE PERFORMED UNTIL TRENCH IS BACKFILLED.



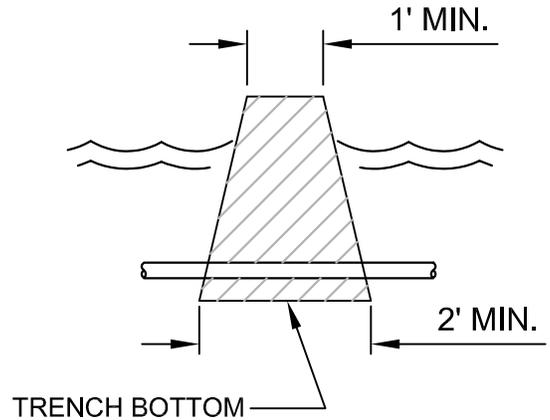
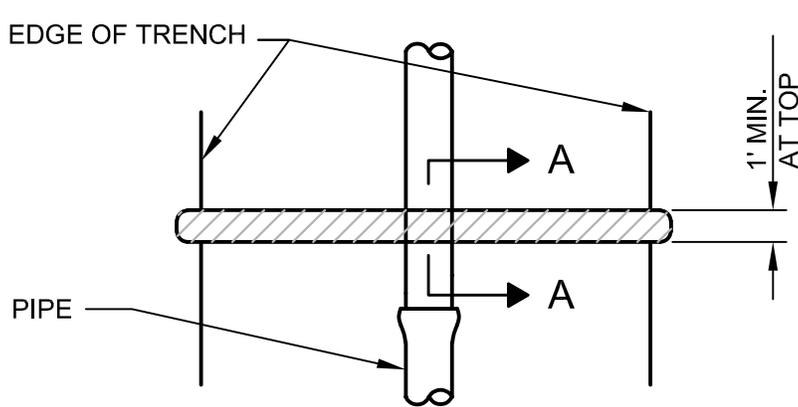
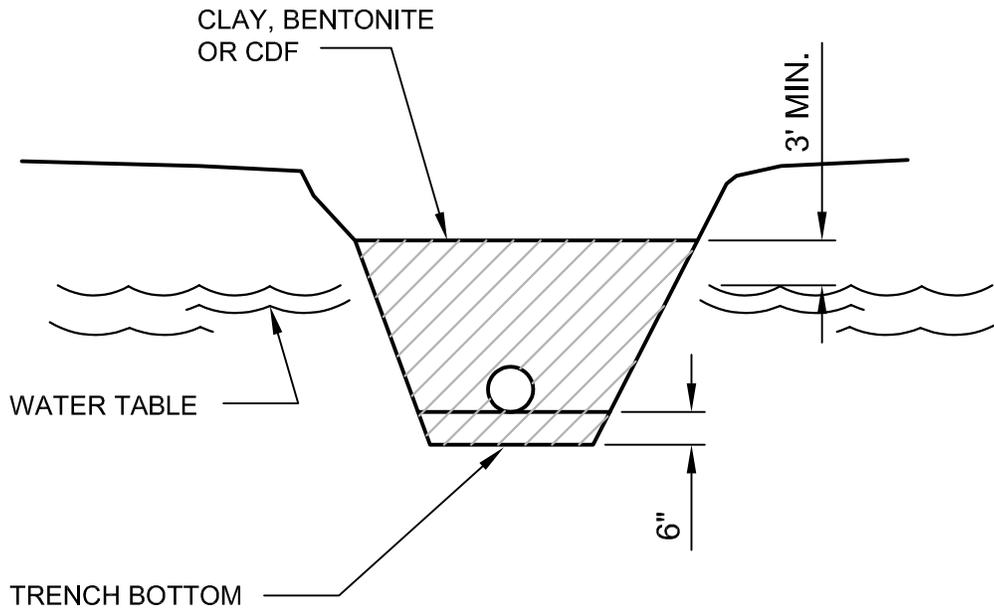
Woodinville
Water District

TRENCH
RESTORATION



SEWER STD.
PLAN NO. ⑩

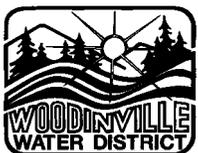
REVISION DATE
04/25



SECTION A-A

NOTES:

1. INSTALL IN HIGH GROUND WATER AREAS, ADJACENT TO WETLANDS AND STREAM CROSSINGS OR AS DIRECTED.
2. ELEVATION AT TOP OF TRENCH DAM TO VARY BASED ON WATER TABLE AS DIRECTED BY THE ENGINEER.



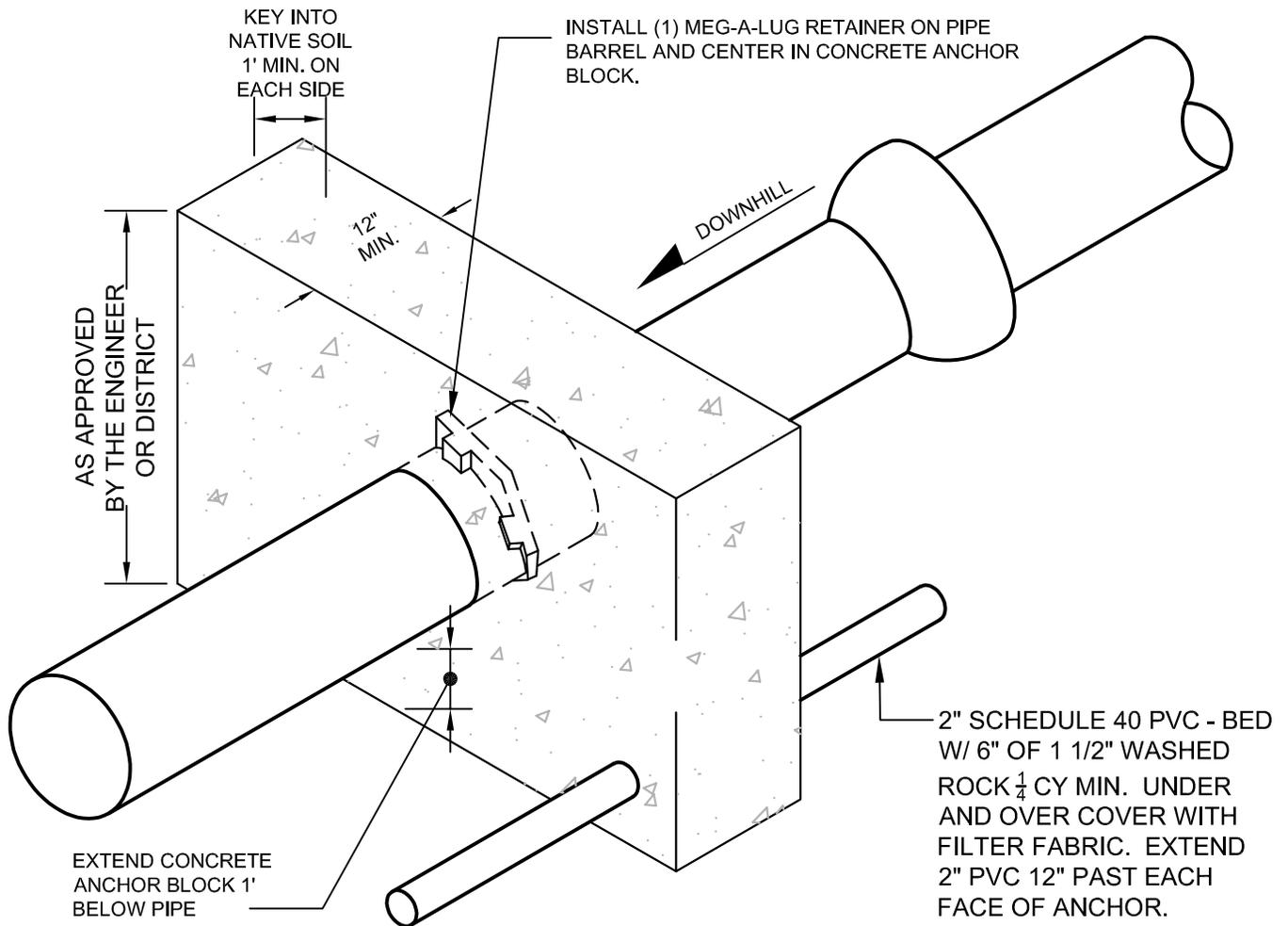
Woodinville
Water District

TRENCH
DAMS



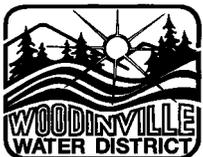
SEWER STD.
PLAN NO. (11)

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NOTES:

1. HILLHOLDER PIPE ANCHORS REQUIRED ON SLOPES MORE THAN 20%.
2. SPACING AS APPROVED BY THE DISTRICT'S ENGINEER.
3. DUCTILE IRON PIPE REQUIRED ON SLOPES OVER 20%.
4. LOCATE PIPE ANCHOR / SLOPE RETAINER ON DOWN HILL SIDE OF PIPE BELL WHEN PRACTICAL.



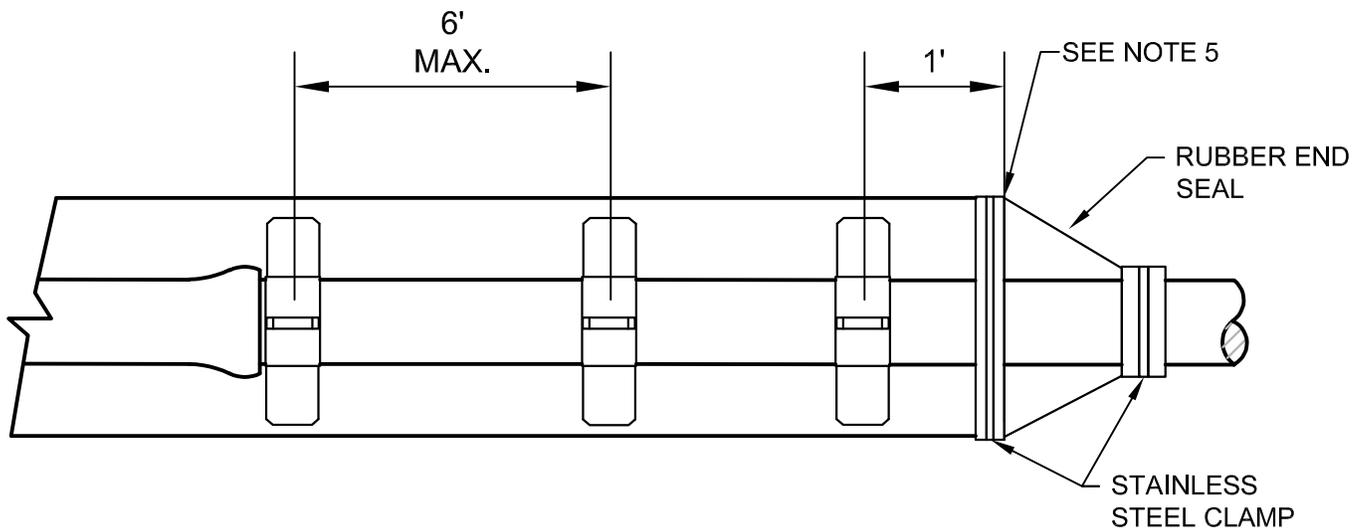
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CONCRETE ANCHOR
FOR SEWER MAINS
IN STEEP SLOPES



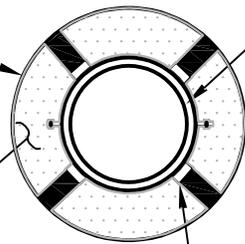
SEWER STD.
PLAN NO. (12)

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MIN. .375 INCH STEEL CASING CONTINUOUSLY WELDED AT JOINTS. DIAMETER ON DRAWINGS.

FILL ALL VOIDS WITH SAND. SEE NOTE 2.



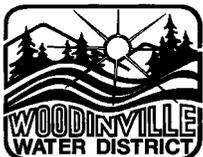
DUCTILE IRON SEWER MAIN

CENTERED AND RESTRAINT TYPE CASING SPACER

MIN. CASING DIAMETER	
PIPE DIA.	CASING DIA.
6"	12"
8"	15"
10"	18"
12"	20"
15"	24"
>15"	AS SPECIFIED

NOTES:

1. PVC PIPE NOT ALLOWED IN CASING. RESTRAINED JOINT DUCTILE IRON CL 52 REQUIRED.
2. THE INTERSTITIAL SPACE BETWEEN THE PIPE AND CASING SHALL BE COMPLETELY FILLED WITH DRY SAND AFTER AIR TESTING AND VIDEO RECORDING HAVE PASSED. METHOD OF FILLING SAND SHALL BE APPROVED BY THE DISTRICT.
3. NO PONDING ALLOWANCES ALLOWED IN SEWER MAINLINE THROUGH A CASING.
4. CASING LOCATIONS SHALL BE AS SHOWN ON THE PLANS OR IDENTIFIED IN THE FIELD. MAINLINE OR SIDE SEWERS UNDER RETAINING WALLS OR OTHER HEAVY STRUCTURES SHALL HAVE A CASING DESIGNED BY THE ENGINEER.
5. MAXIMUM SPACING BETWEEN CASING SPACERS IS 6' O.C. END CASING SPACER MAX. 1' FROM END OF CASING PIPE.
6. CASING SPACER SHALL BE CENTERED RESTRAINT TYPE.
7. CASING SPACERS SHALL BE MANUFACTURED BY ADVANCED PRODUCTS & SYSTEMS MODEL SSI, CASCADE WATERWORKS MFG. MODEL CCS, OR DISTRICT APPROVED EQUAL.
8. ONE CASING SPACER SHALL BE SET ON THE SPIGOT END OF EACH SEGMENT OF THE CARRIER PIPE. WHEN JOINT IS COMPLETE THE SPACER SHALL BE IN CONTACT WITH THE BELL OF THE JOINT.



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CASING DETAILS
AND REQUIREMENTS

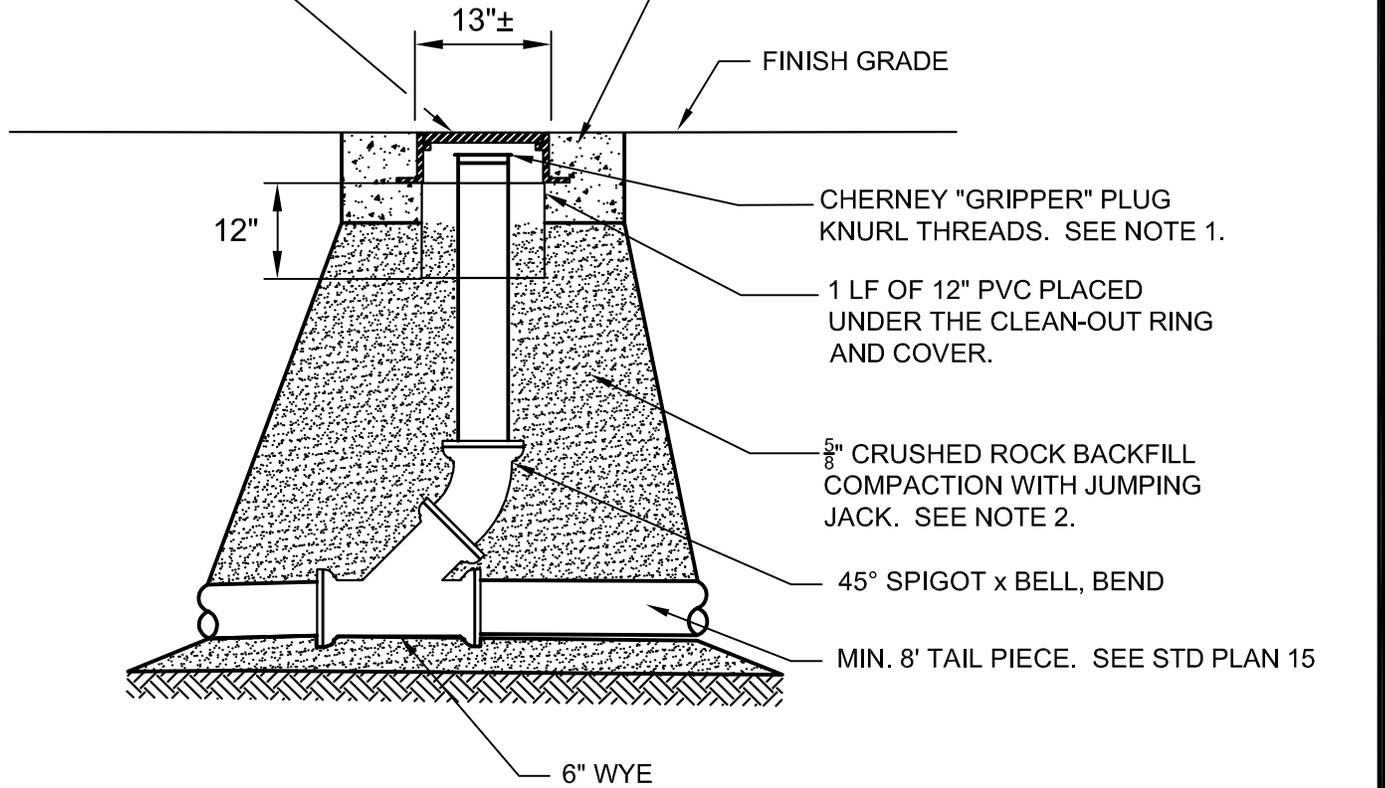


SEWER STD.
PLAN NO. 13

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LOCKING CLEAN-OUT RING & COVER WITH (2) STAINLESS STEEL CAP SCREWS. SEE NOTE 3.

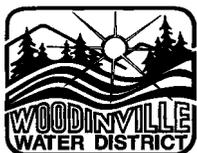
6" THICK x 24" DIAMETER CONCRETE COLLAR. LOWER COLLAR 2" FROM FINISHED ASPHALT GRADE IN PAVED AREAS. TOP OF COLLAR TO BE FLUSH WITH FINISH GRADE IN NON-PAVED AREAS.



ELEVATION

NOTES:

1. CLEANOUT PIPING TO BE THE SAME SIZE AND MATERIAL AS THE SIDE SEWER (OR MAINLINE IF APPLICABLE).
2. TRENCH BACKFILL SHALL BE COMPACTED AND TESTED TO 95% OF MAX. DENSITY (ASTM D1557). JUMPING JACK OR PNEUMATIC TAMPER COMPACTION AROUND CLEANOUT PIPING.
3. LOCKING RING AND COVER TO BE EAST JORDAN IRON WORKS CO. PRODUCT NO 00366102 CATALOG NO. 3660CPT, 3661ZPT OR APPROVED EQUAL.



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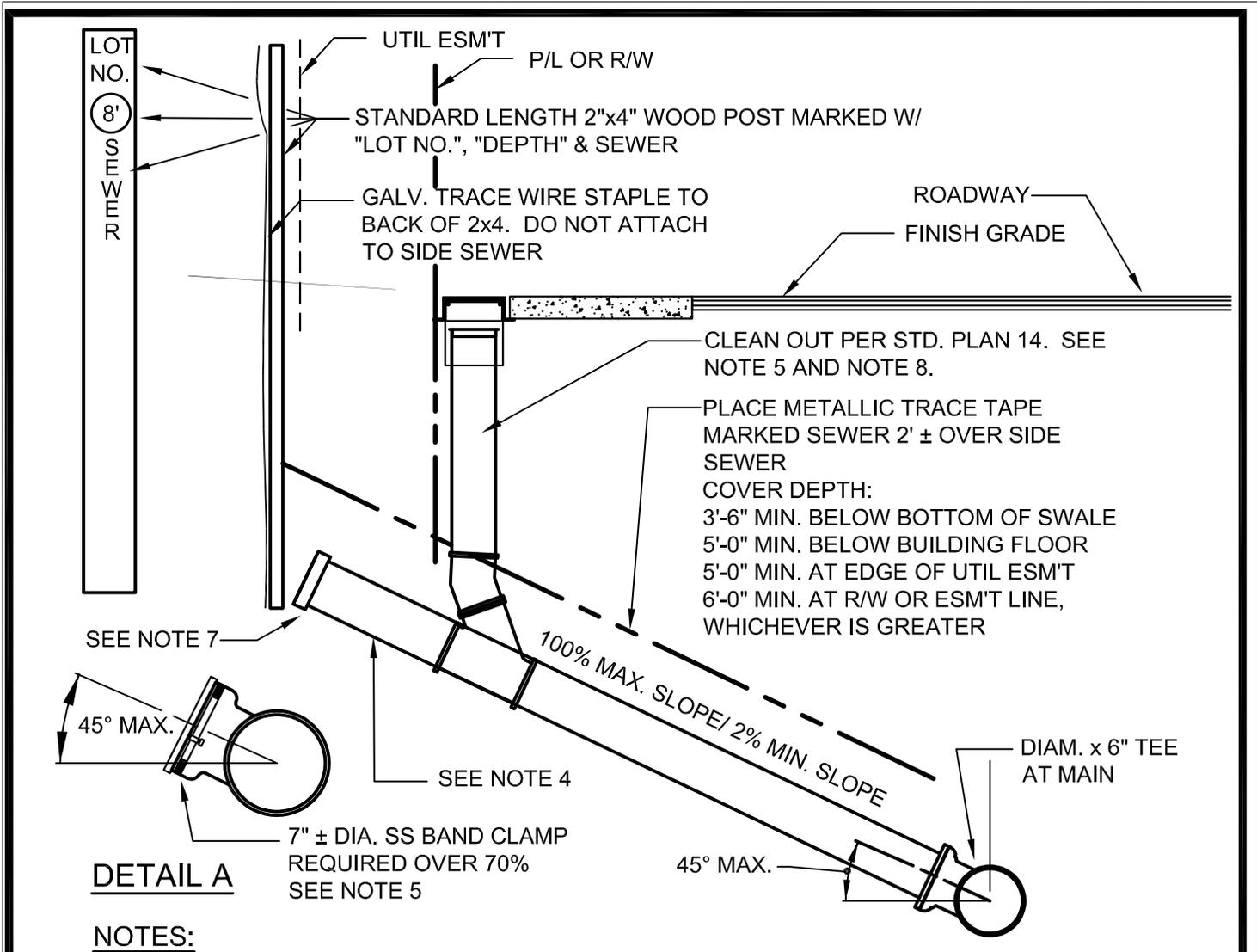
SEWER CLEANOUT
DETAIL



SEWER STD.
PLAN NO. (14)

REVISION DATE

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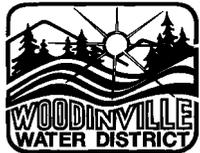


DETAIL A

7" ± DIA. SS BAND CLAMP
REQUIRED OVER 70%
SEE NOTE 5

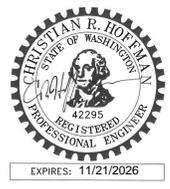
NOTES:

1. NO BENDS (VERTICAL OR HORIZONTAL ALLOWED IN R/W OR EASEMENT WITHOUT SPECIAL PERMISSION FROM THE DISTRICT.
2. SIDE SEWERS SHALL BE BEDDED WITH A MIN. OF 6" OF PEA GRAVEL OR 5/8" MINUS CRUSHED ROCK UNDER AND OVER THE PIPE.
3. SIDE SEWERS SHALL BE 6" DIA. AND THE SAME MATERIAL AS THE MAINLINE. DUCTILE IRON SIDE SEWERS MAY TRANSITION TO PVC AT THE R/W OR ESM'T LINE WITH APPROVED COUPLING OR TRANSITION GASKET.
4. INSTALL A MIN. 8' TAIL PIECE (6" PVC) TO PREVENT FUTURE UNDERMINING OF CLEANOUT AND SIDEWALK. USE A ROMAC 501 COUPLING OR TRANSITION GASKET WITH FOLLOWER TO TRANSITION FROM DUCTILE IRON AFTER CLEANOUT WYE.
5. CLEANOUT PER STD PLAN 14 SHALL BE INSTALLED AT THE R/W OR ESM'T LINE AND BEHIND THE SIDEWALK. IF BACK OF SIDEWALK IS AT R/W A 5'x5' EASEMENT SHALL BE REQUIRED.
6. STAINLESS STEEL BAND CLAMPS REINFORCEMENT REQUIRED ON PVC SIDE SEWER TEES WHERE SLOPE IS GREATER THAN 70% (.7' RISE PER FOOT) SEE DETAIL A.
7. GASKETED PVC CAP SHALL BE USED AT THE END OF THE STUB. CHERNE TYPE PLUGS ARE NOT ALLOWED TO BE BURIED.
8. CLEANOUT STANDPIPE PIPE SIZE SHALL MATCH THE SIZE AND MATERIAL OF THE SIDE SEWER.



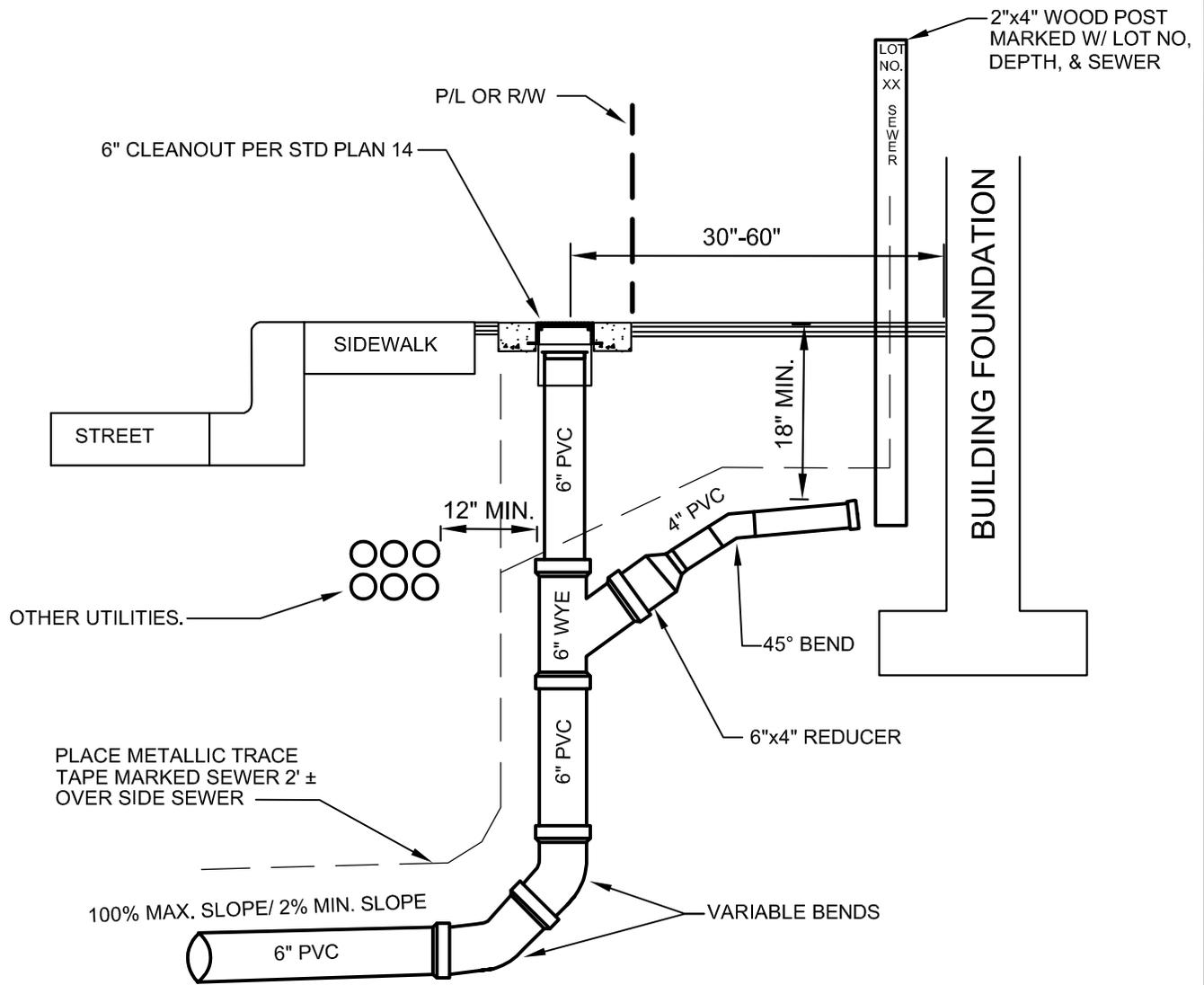
Woodinville
Water District

STANDARD SIDE SEWER
INSTALLATION



SEWER STD.
PLAN NO. 15

REVISION DATE
04/25

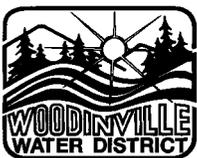


NOTES:

ALL APPLICABLE DETAILS AND NOTES FROM STANDARD PLAN 15 APPLY TO ALTERNATE SIDE SEWER INSTALLATIONS.
 ALTERNATE SIDE SEWER INSTALLATION ALLOWED WITH PRIOR APPROVAL FROM THE DISTRICT AND ONLY WHEN STANDARD SIDE SEWER INSTALLATION PER STANDARD PLAN 15 AND 24 ARE NOT POSSIBLE BY:

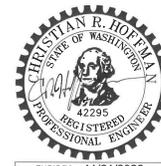
- A. CUTTING THE SIDE SEWER STUB BACK TO ALLOW THE PIPE TO BE INSTALLED WITHIN THE DISTRICT REQUIRED SLOPES (100% MAX./ 2% MIN.) TO THE BUILDING CONNECTION.
- B. ROUTING THE SIDE SEWER PIPE TO EXTEND ALONG SIDE THE BUILDING TO DECREASE SLOPE.

IF THE ALTERNATE SIDE SEWER INSTALLATION IS ALLOWED, A PLAN AND PROFILE OF THE SIDE SEWER INSTALLATIONS WILL BE REQUIRED. PLAN AND PROFILE SHALL SHOW ALL UNDERGROUND UTILITIES WITH THE REQUIRED SEPARATIONS. SEE WWD GP-11 REQUIRED DRAWINGS-COMPOSITE UTILITY PLAN.



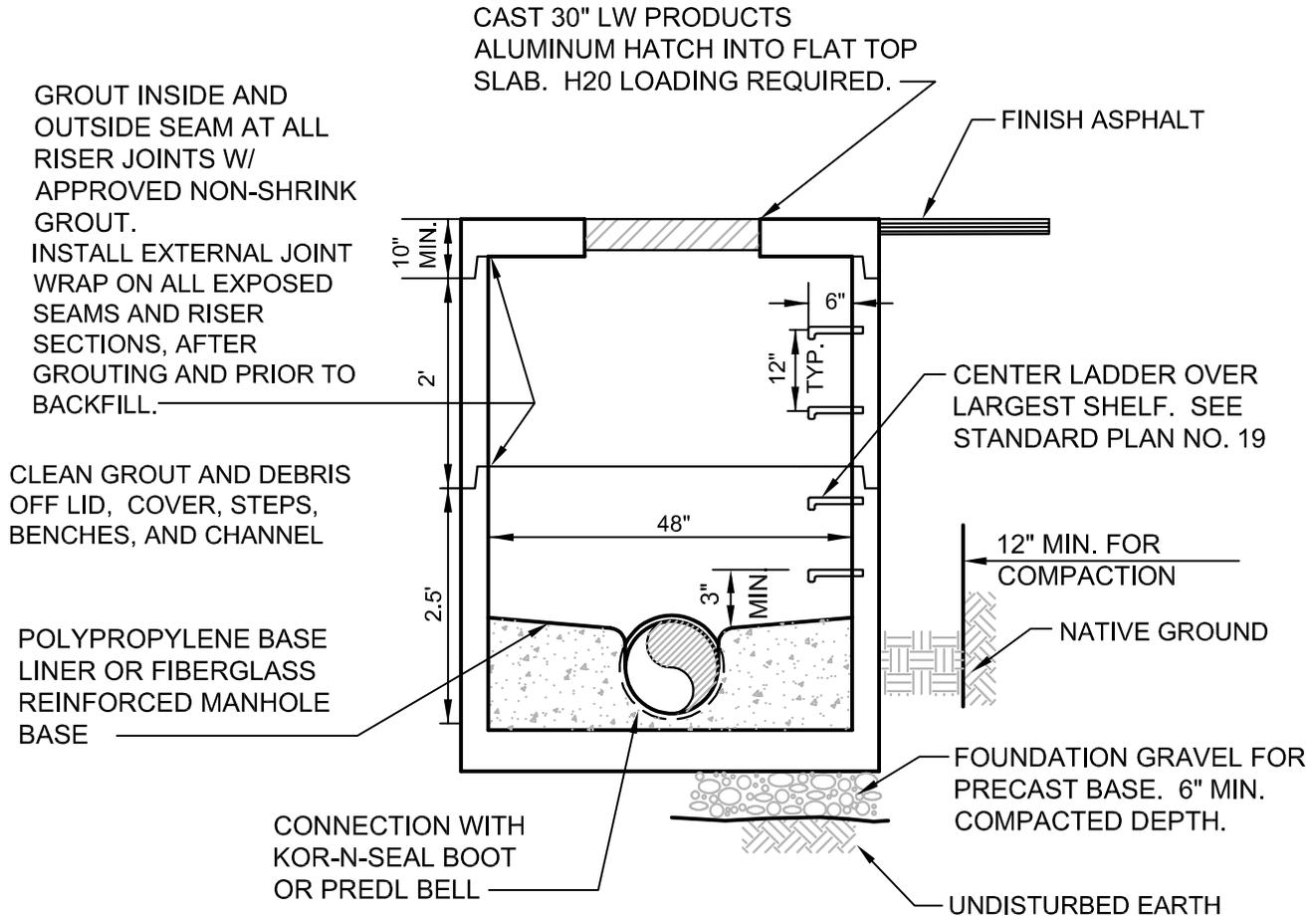
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ALTERNATE SIDE SEWER
INSTALLATION



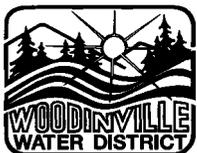
SEWER STD.
PLAN NO. **15A**

REVISION DATE
04/25



NOTES:

1. **SHALLOW FLAT TOP MANHOLE TO BE USED BY SPECIAL PERMISSION ONLY.**
2. ALL APPLICABLE DETAILS AND NOTES FROM STANDARD PLAN 2 (STANDARD PRECAST MH) APPLY TO SHALLOW FLAT TOP MH.
3. MANHOLES SHALL BE WATERTIGHT IN AREAS OF HIGH GROUND WATER. RISER SEAMS, AND PICK HOLES SHALL BE SEALED FROM THE OUTSIDE WITH EXTERNAL JOINT WRAP.
4. MANHOLE COVER TO CONFORM TO FINISH SLOPE ELEVATION. SLOPE ASPHALT PAD AWAY FROM COVER TO PREVENT PONDING.
5. EXCAVATE BEYOND MH LOCATION TO PROVIDE CLEARANCE FOR COMPACTION EQUIPMENT.
6. MIN. FALL FROM INLET TO OUTLET - 0.1". PROVIDE ADDITIONAL FALL FOR STEEPER RUNS. MATCH CROWN ELEV. OF SIDE SEWERS TO HIGHEST MAINLINE PENETRATION.
7. MAXIMUM PIPE SIZE LIMITED BY INLET AND OUTLET LOCATIONS INTO MANHOLE. SEE CONSTRUCTION PLANS FOR SIZE AND LOCATION.
8. 15" MAX. INLET SIZE ON 48" DIA. MANHOLES.
9. WHERE IDENTIFIED ON THE PLANS OR DIRECTED BY THE DISTRICT, MH WALLS SHALL BE COATED WITH EPOXYTEC CPP (SPRAYABLE).
10. MANHOLE BASES SHALL BE EITHER FIBERGLASS REINFORCED OR POLYPROPYLENE BASE LINER OR APPROVED EQUAL AS DETERMINED BY THE DISTRICT.



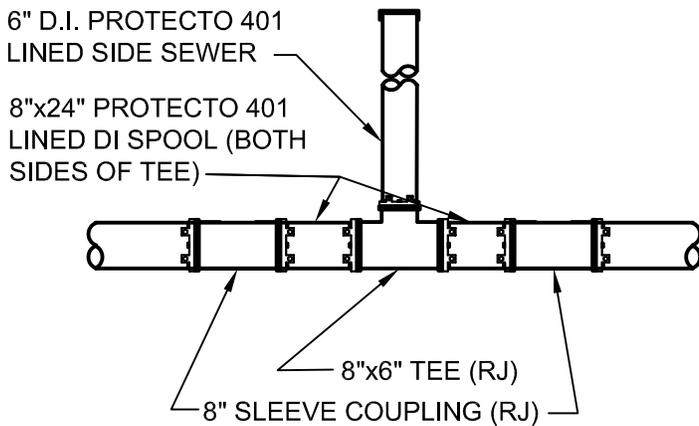
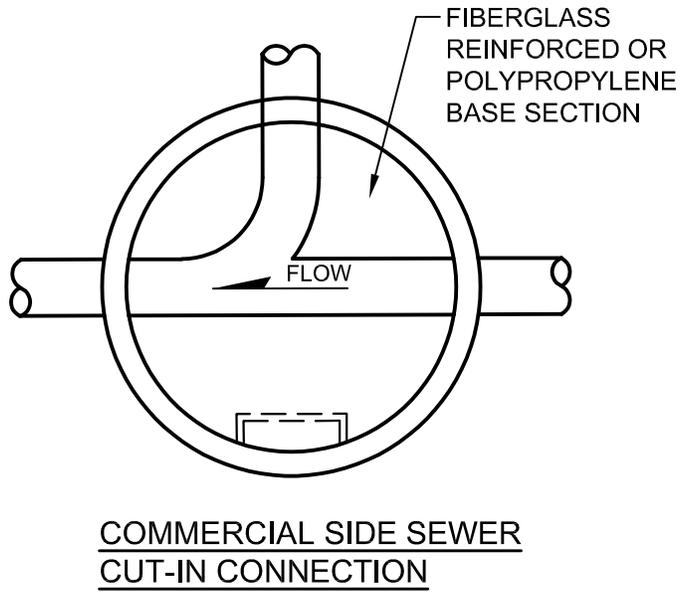
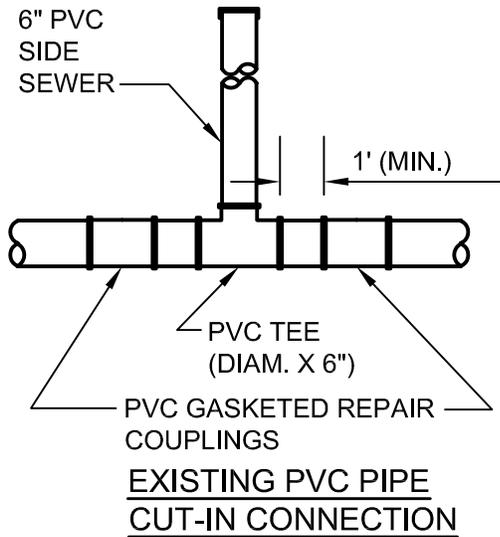
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SHALLOW FLAT TOP MH
DETAILS

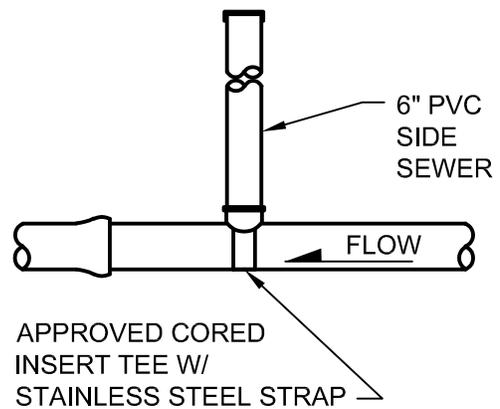


SEWER STD.
PLAN NO. 16

REVISION DATE
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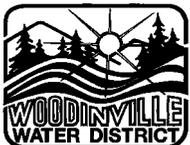
EXISTING DUCTILE IRON PIPE CUT-IN CONNECTION



EXISTING CONCRETE PIPE EXISTING PVC PIPE TAP CONNECTION

NOTES:

1. AFTER THE BYPASS PLAN (IF APPLICABLE) HAS BEEN APPROVED BY THE DISTRICT, SEVEN (7) DAYS WRITTEN NOTICE IS REQUIRED PRIOR TO CONNECTION TO THE EXISTING SEWER SYSTEM.
2. EXISTING SEWER FLOWS SHALL NOT BE INTERRUPTED. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL EQUIPMENT AND COSTS NECESSARY TO BYPASS EXISTING FLOWS.
3. ALL APPLICABLE DETAILS FROM SEWER STANDARD PLAN 15 (STANDARD SIDE SEWER INSTALLATION) APPLY TO CUT-IN SIDE SEWER.
4. COMMERCIAL SIDE SEWERS SHALL CONNECT TO A NEW FIBERGLASS REINFORCED OR POLYPROPYLENE BASE LINER OR APPROVED EQUAL MANHOLE BASE. ALL APPLICABLE DETAILS FROM SEWER STANDARD PLAN 4 (ALTERNATIVE SADDLE MH DETAIL) APPLY TO COMMERCIAL CUT-INS.



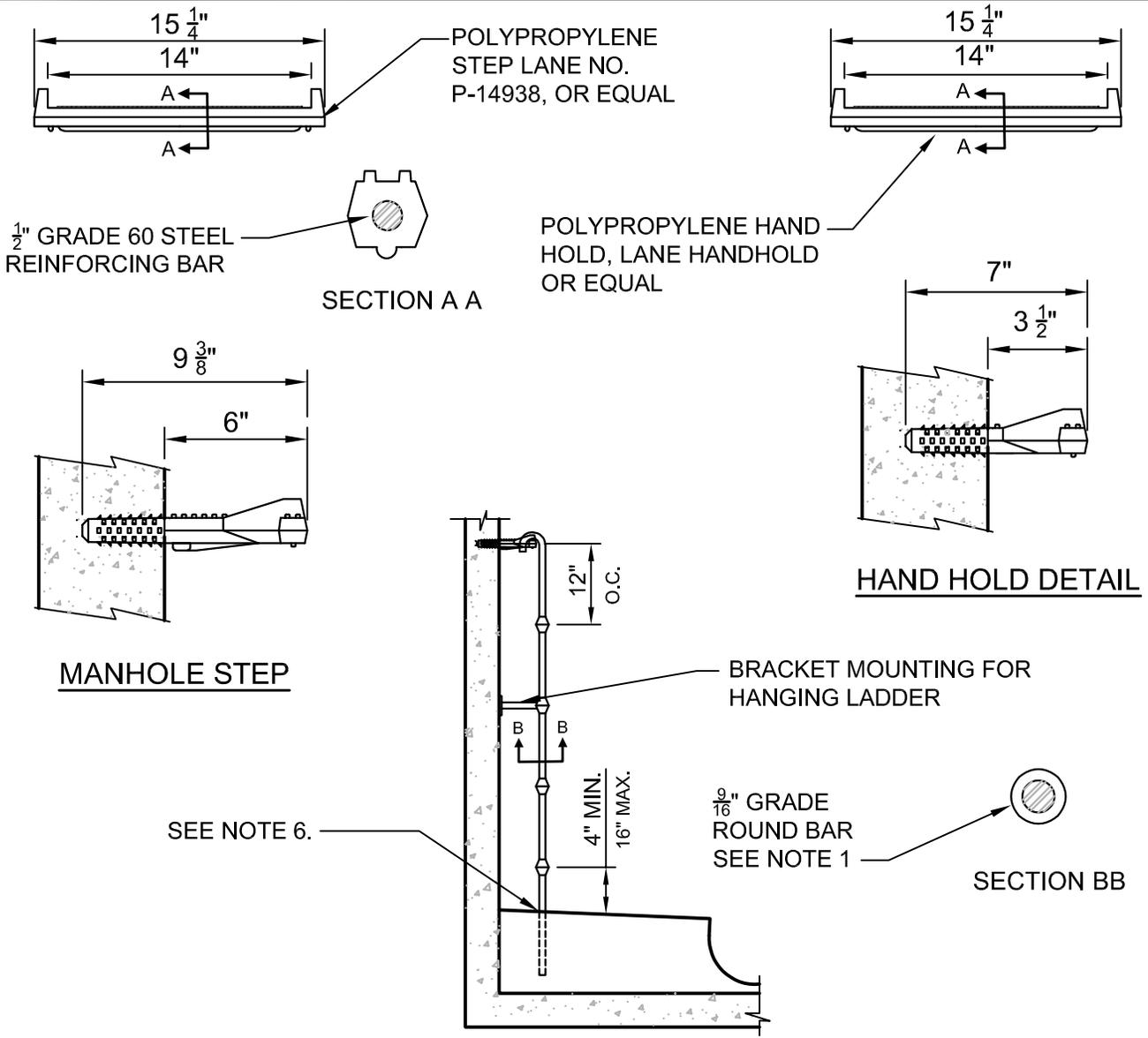
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SIDE SEWER INSTALLATION
ON EXISTING MAIN



SEWER STD.
PLAN NO. 17

REVISION DATE
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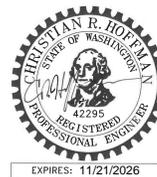
NOTES:

1. POLYPROPYLENE TO CONFORM WITH ASTM-4101. STEPS SHALL MEET THE REQUIREMENTS OF ASTM C-478 AND AASHTO M-199. STEPS SHALL HAVE 1/2" GRADE 60 DEFORMED REINFORCING BAR THAT MEETS ASTM A-615. LADDERS TO MEET ASTM C-497 LOAD REQUIREMENTS. HANGING LADDERS SHALL USE 9/16" COLD DRAWN BAR PER C-1018.
2. HANDHOLD OR RECESSED STEP TO BE USED AT TOP OF CONE. LADDER RUNGS AND HANDHOLD STEP SIDES SHALL BE IN A STRAIGHT VERTICAL LINE. SEE STANDARD PLAN 2.
3. POSITION LADDER PER STANDARD PLAN 19.
4. MAXIMUM HEIGHT FOR HANGING LADDER IS 4'.
5. MAXIMUM ALLOWABLE DISTANCE FROM TOP OF CASTING TO TOP OF CONE STEP IS 22". ADD HANDHOLD @ 12" O.C. IF GREATER THAN 22".
6. PROVIDE MOUNTING BRACKET AT BASE IF THE LADDER IS NOT EMBEDDED IN THE BENCH.



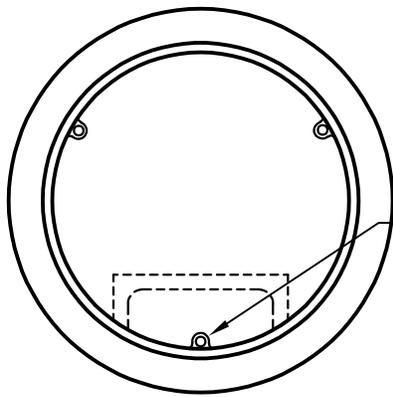
Woodinville
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STEP AND LADDER
DETAILS



SEWER STD.
PLAN NO. 18

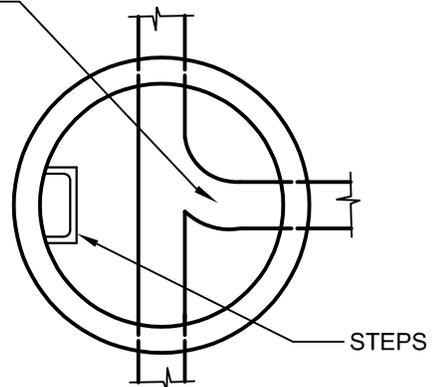
REVISION DATE
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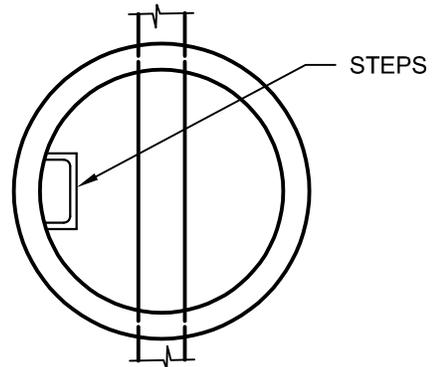
MUST HAVE SMOOTH TRANSITION TO MAINLINE

POSITION FRAME SO BOLT IS ALIGNED WITH CENTER OF STEPS

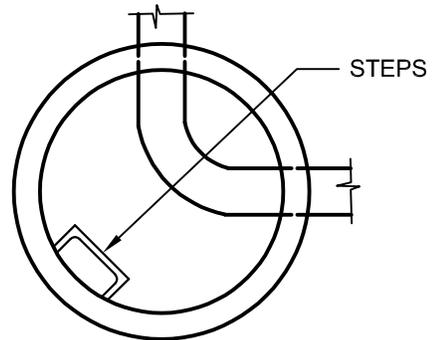
LOCKING LID POSITIONING DETAIL



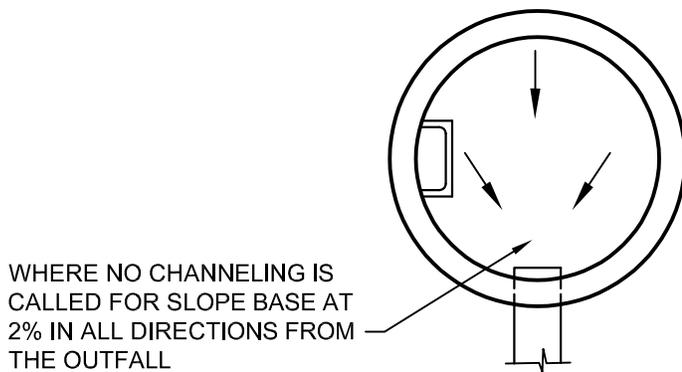
STEPS



STEPS



STEPS

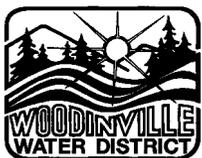


WHERE NO CHANNELING IS CALLED FOR SLOPE BASE AT 2% IN ALL DIRECTIONS FROM THE OUTFALL

CHANNELING DETAIL

FULL DEPTH CHANNELS SHALL BE MADE TO CONFORM TO THE SEWER GRADE AND SHALL BE BROUGHT TOGETHER WITH WELL-ROUNDED JUNCTIONS. CHANNEL SIDES SHALL BE CARRIED UP VERTICALLY $\frac{3}{4}$ OF THE LARGEST PIPE'S DIAMETER AND ROUNDED TO THE BENCHES. THE BENCHES SHALL BE SMOOTHLY FINISHED WITH $\frac{1}{2}$ " PER FOOT MINIMUM SLOPE TOWARD CHANNEL (TYP).

1. MANHOLE CHANNELING OF EXISTING CONCRETE STRUCTURES SHALL BE PERFORMED BY DISTRICT APPROVED SUB-CONTRACTORS. SHOULD THE CONTRACTOR REQUEST DOING THE WORK THEMSELVES OR AN UNKNOWN SUB-CONTRACTOR, THE DISTRICT SHALL REQUIRE SAMPLE CHANNEL WORK ON ONE MANHOLE BEFORE GIVING APPROVAL TO PROCEED WITH THE REMAINDER OF THE WORK.
2. CHANNELS, BENCHES AND ENTIRE BASE SECTION SHALL BE FIBERGLASS LINED OR POLYPROPYLENE LINED OR APPROVED EQUAL.
3. EXISTING FIBERGLASS LINED MANHOLE BASES SHALL BE EITHER REPLACED OR RE-GLASS BY A CERTIFIED SERVICE TECHNICIAN.
4. SIDE SEWER CHANNEL I.E. TO BE .1' HIGHER (MIN) THAN MAIN CHANNEL AT POINT OF ENTRY.



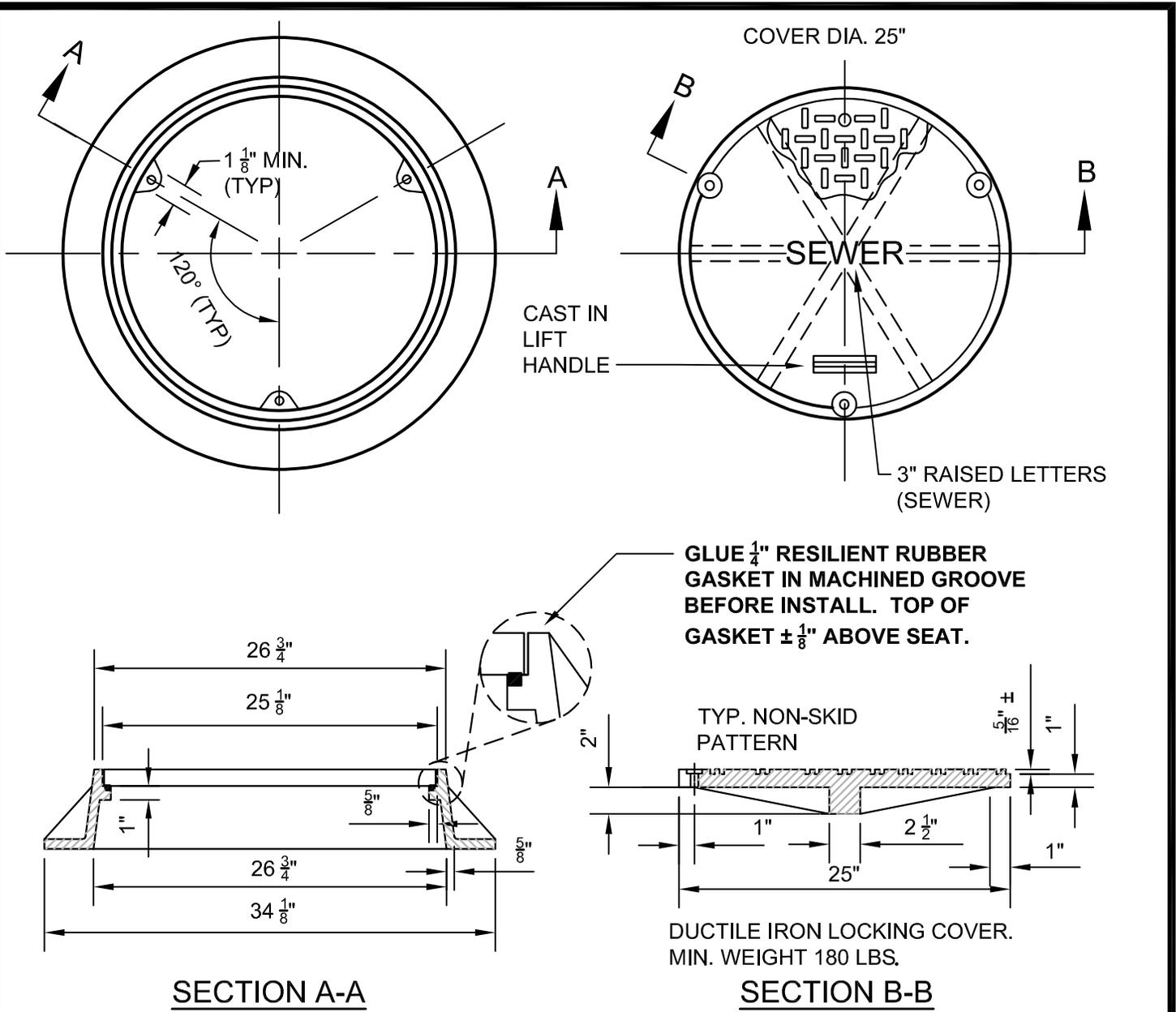
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CHANNEL & LADDER
LOCATION DETAILS



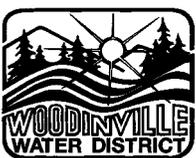
SEWER STD.
PLAN NO. 19

REVISION DATE
04/25



NOTES

1. MANHOLE COVER SHALL BE DUCTILE IRON (ASTM A 48 CLASS 30). MH CASTING CAN BE DUCTILE IRON OR CAST IRON AS MANUFACTURED BY EAST JORDAN IRON WORKS PRODUCT NO. 00370548W01 CATALOG NO. 3705APT DI 3715ZPT OR APPROVED EQUAL.
2. DRILL AND TAP (3) 5/8" HOLES THRU FRAME @ 120°. COVERS & CASTINGS THAT CANNOT BE BOLTED DOWN IN ANY ROTATION OF THE BOLTS WILL BE REJECTED.
3. MH COVERS NOT ALLOWED IN SIDEWALK, CURB & GUTTER, LOW AREAS THAT COLLECT RUNOFF AND WHENEVER POSSIBLE POSITION FRAME OUT OF WHEEL TRACKS.
4. MH LOCATIONS OUT OF PAVED AREAS REQUIRE A CONCRETE COLLAR. SEE STD. PLAN NO 21.
5. PROVIDE (3) 5/8" S.S. LOCKING BOLTS WITH RUBBER WASHERS PER COVER. ENSURE MH COVERS ARE BOLTED DOWN AFTER FINAL INSPECTION.



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WATERTIGHT MANHOLE
CASTING AND FRAME



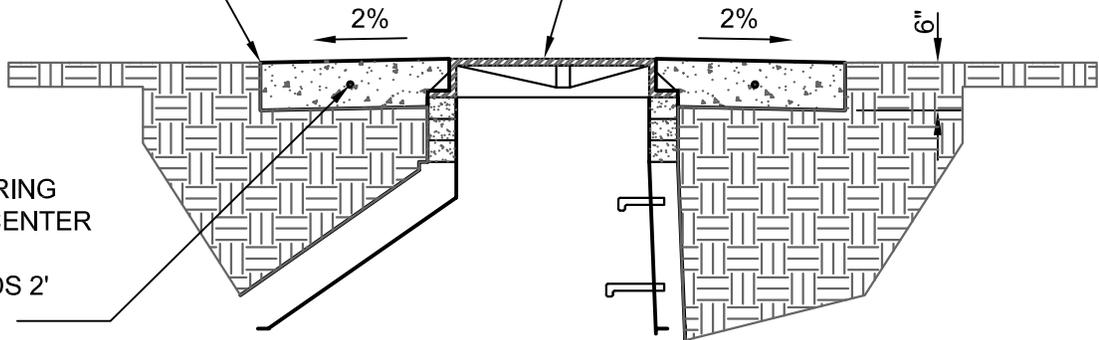
SEWER STD.
PLAN NO. (20)

REVISION DATE
04/25

6' DIAMETER X 6" THICK
CONCRETE COLLAR FLUSH
WITH CASTING

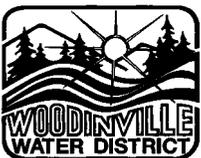
WATERTIGHT CASTING AND
COVER PER STD. PLAN
DETAIL 20

(1) #4 REBAR RING
POSITION IN CENTER
OF COLLAR.
OVERLAP ENDS 2'
MIN.



NOTES:

1. ALL APPLICABLE DETAILS FROM SEWER STANDARD PLANS 1 & 2 APPLY TO THIS DETAIL.
2. NECK OF MH TO BE SEALED WITH EXTERNAL JOINT WRAP. DO NOT GROUT ADJUSTMENT RISERS.
3. SLOPE CONCRETE COLLAR @ 2% AWAY FROM THE TOP OF THE MH LID.
4. APPLY A SMOOTH PROFESSIONAL BROOM FINISH TO CONCRETE SURFACE.
5. CLEAN CONCRETE SLURRY FROM THE MH LID.



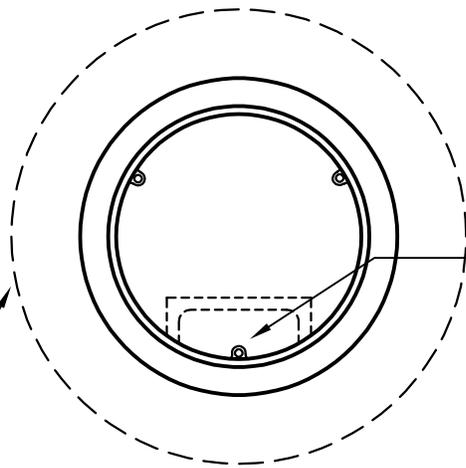
Woodinville
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MANHOLE COLLAR
DETAIL



SEWER STD.
PLAN NO. (21)

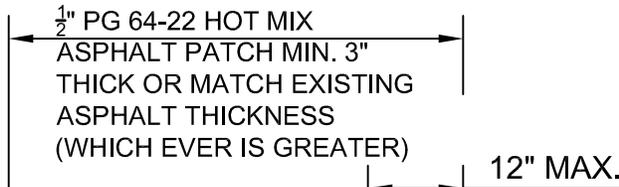
REVISION DATE
04/25



POSITION FRAME SO BOLT IS
ALIGNED WITH CENTER OF
STEPS

LOCKING LID POSITIONING DETAIL

SEAM SEAL JOINT W/ A NARROW APPLICATION OF AR4000. APPLY SAND TO THE FINISH APPLICATION TO PREVENT TRACKING.



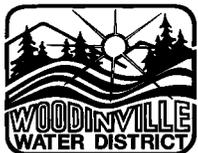
WATERTIGHT
CASTING AND
COVER PER
STD DETAIL 20

INFRA-RISER COMPOSITE
ADJUSTMENT RISERS REQUIRED.
**DO NOT GROUT ADJUSTMENT
RISERS.** SEE NOTE 3.

EXTERNAL JOINT WRAP
REQUIRED. SEE NOTE 4.

NOTES:

1. MH CASTING AND FRAME SHALL BE ADJUSTED THROUGH THE ASPHALT. CAST AND DUCTILE IRON ADJUSTMENT RINGS ARE NOT ALLOWED.
2. EXISTING FLOWS SHALL BE PROTECTED WITH PLYWOOD CHANNEL BOARDS. ALL CLEANUP SHALL BE COMPLETED, INCLUDING LADDERS PRIOR TO REMOVAL OF THE PLYWOOD.
3. INFRA-RISER COMPOSITE ADJUSTMENT RISERS SHALL BE USED TO ADJUST CASTING FLUSH WITH FINAL ASPHALT GRADE. ROTATE ADJUSTMENT RISERS TO CONFORM TO THE SLOPE OF THE ROAD. SEAL IN BETWEEN ADJUSTMENT RISERS WITH A POLYURETHANE JOINT SEALER/ADHESIVE.
4. ALL ADJUSTMENT RISERS SHALL BE SEALED WITH AN EXTERNAL JOINT WRAP, AFTER ADJUSTMENT AND PRIOR TO BACKFILL/PAVING.
5. REMOVE ALL ASPHALT FROM MH LIDS AFTER ADJUSTMENT. DO NOT USE HEAT (TORCH) TO REMOVE THE ASPHALT.



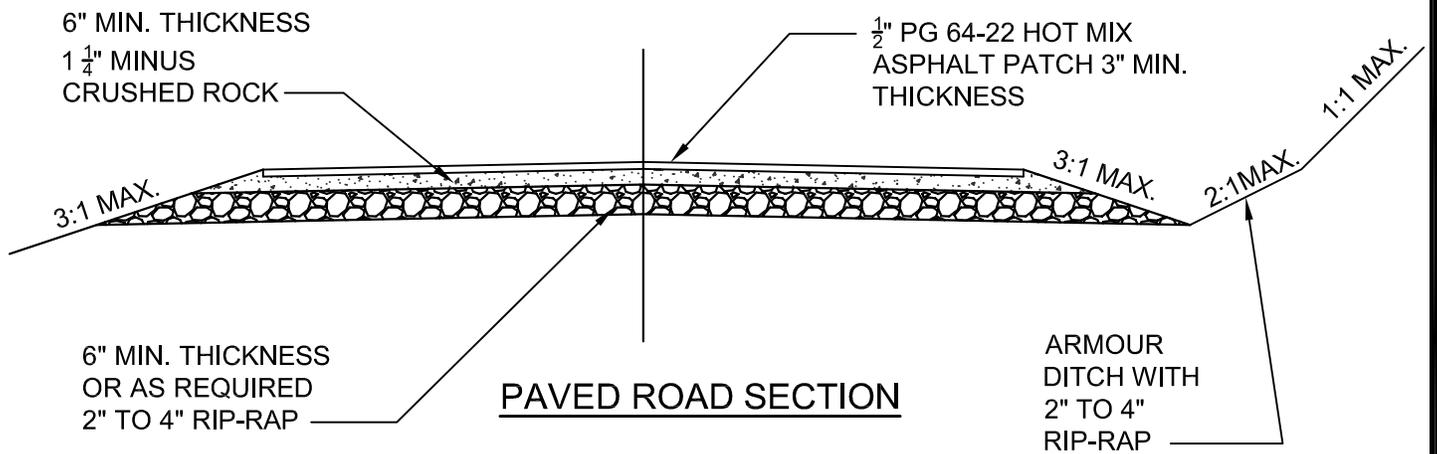
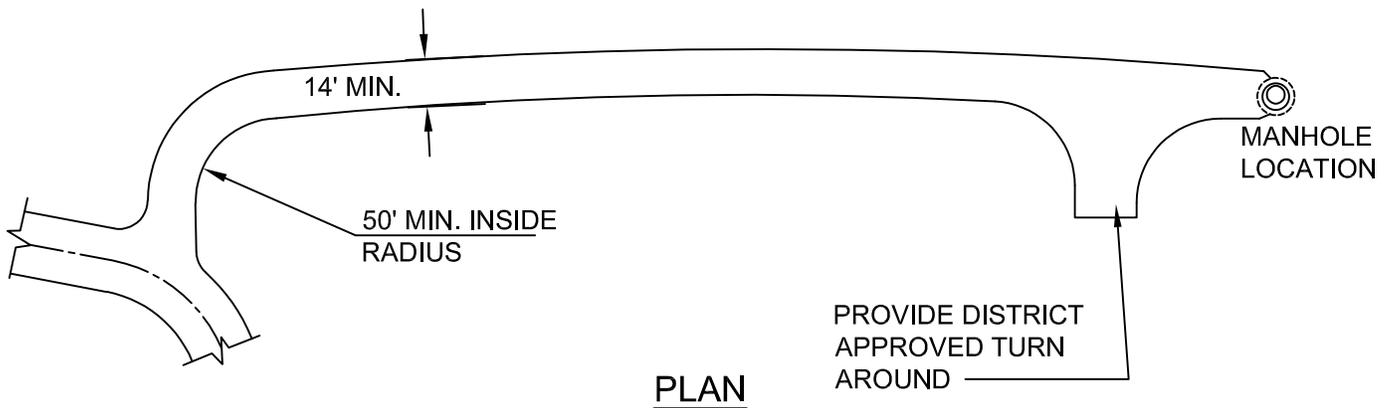
Woodinville
Water District

MANHOLE CASTING
ADJUSTMENT IN
ASPHALT OVERLAY



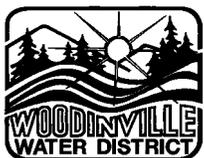
SEWER STD.
PLAN NO. (22)

REVISION DATE
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NOTES:

1. 12% MAXIMUM GRADE FOR VACTOR ACCESS ROAD
2. PROVIDE DRAINAGE PER LOCAL JURISDICTIONAL REQUIREMENTS AND THIS DRAWING.
3. SEE SEWER CONSTRUCTION SPECIFICATION CS-6.



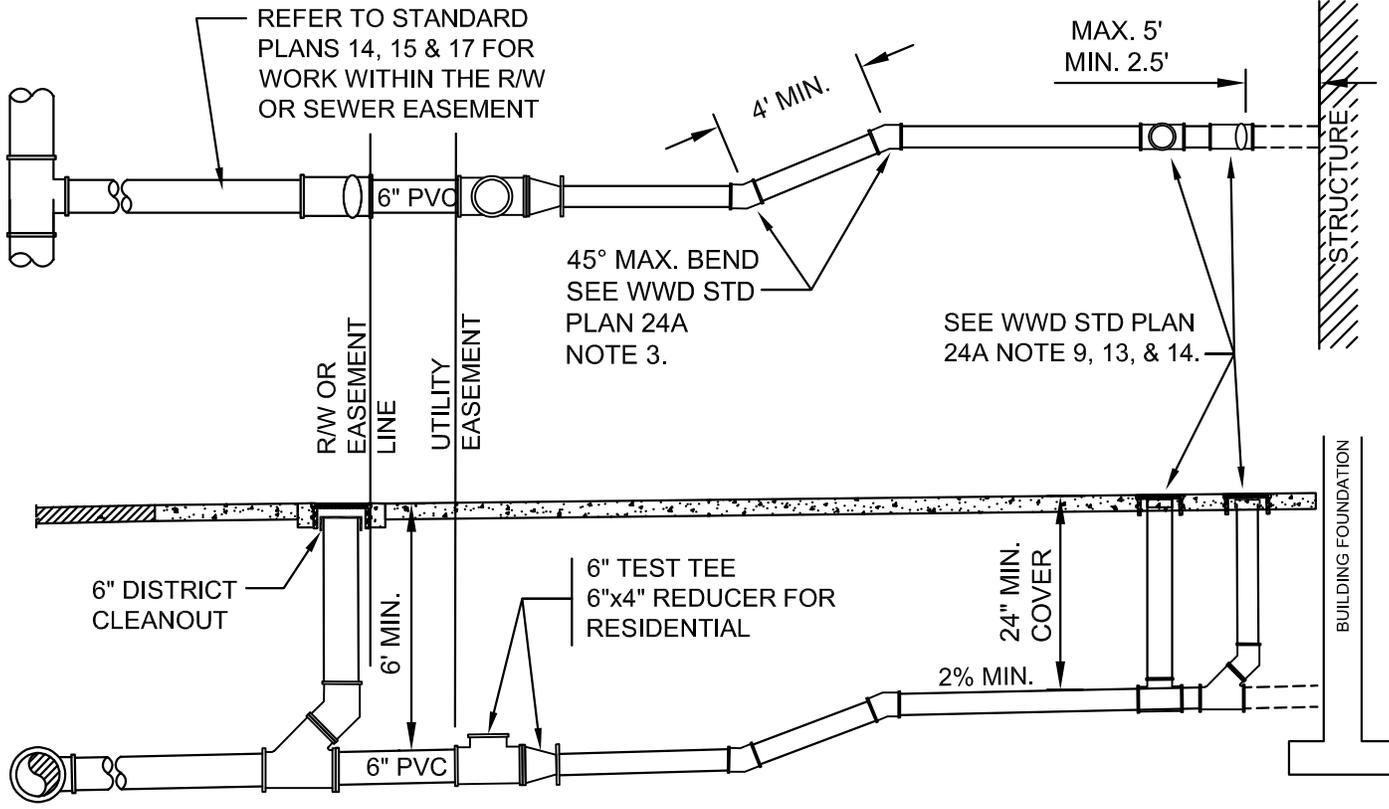
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OPERATIONS & MAINTENANCE
VACTOR ACCESS
ROAD



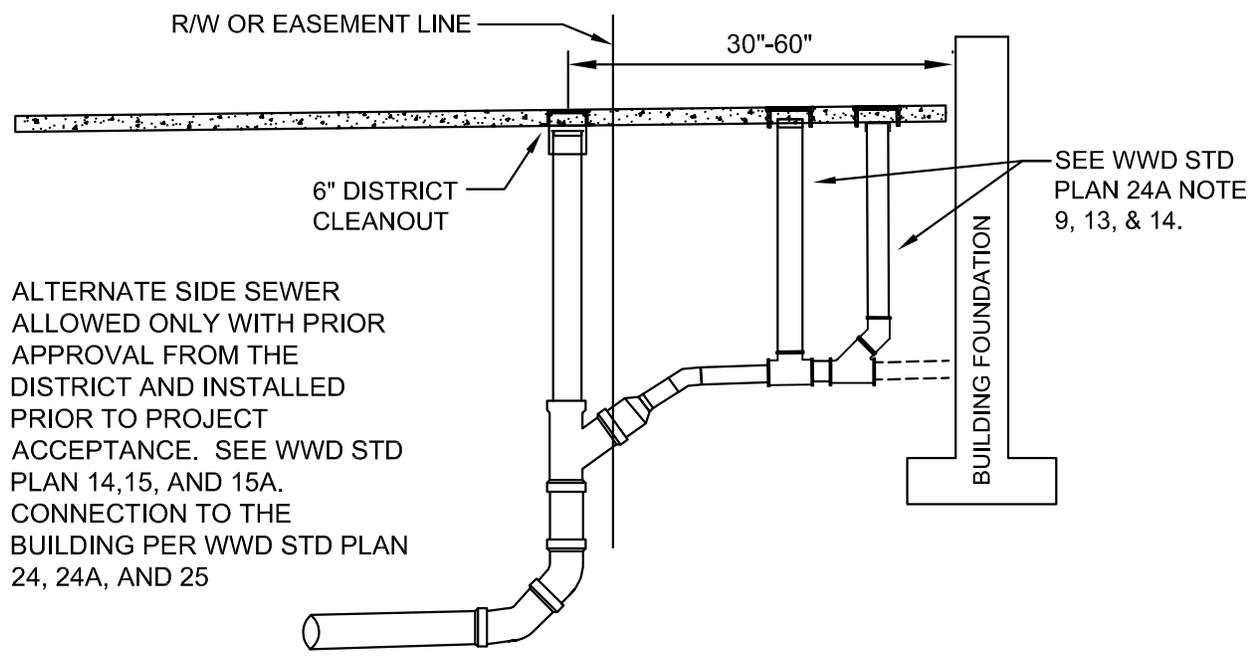
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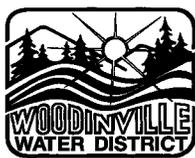


STANDARD INSTALLATION-PLAN AND PROFILE

ALTERNATE INSTALLATION-PROFILE



ALTERNATE SIDE SEWER ALLOWED ONLY WITH PRIOR APPROVAL FROM THE DISTRICT AND INSTALLED PRIOR TO PROJECT ACCEPTANCE. SEE WWD STD PLAN 14, 15, AND 15A. CONNECTION TO THE BUILDING PER WWD STD PLAN 24, 24A, AND 25



Woodinville Water District

PRIVATE SIDE SEWER CONNECTION DETAILS



SEWER STD. PLAN NO. 24

REVISION DATE 04/25

INSTALLATION REQUIREMENTS

1. ONSITE PRECON REQUIRED PRIOR TO SCHEDULING FIRST INSPECTION.
2. WORK SHALL BE PERFORMED BY REGISTERED LICENSED CONTRACTOR.
3. SIDE SEWER PERMIT REQUIRED PRIOR TO INSTALLATION.
4. WORK SHALL NOT BE BURIED PRIOR TO INSPECTION AND TESTING.
5. INSPECTION SCHEDULING REQUIREMENTS ARE AS FOLLOWS:
 - 24 HOURS MIN. NOTICE REQUIRED FOR INSPECTION.
 - INSPECTIONS SCHEDULED BY CONTACTING THE FRONT DESK 425-487-4100.
 - INSPECTIONS ARE ALLOWED MONDAY-THURSDAY FROM 8AM TO 2PM. NO INSPECTIONS ALLOWED ON FRIDAYS OR HOLIDAYS.
6. 2% MIN. SLOPE, 100% MAX. SLOPE ON SIDE SEWER. SIDE SEWER MAXIMUM LENGTH 150'.
7. MAX. BEND ANGLE 45°. 4' MIN. DISTANCE REQUIRED BETWEEN 45° BENDS.
8. SIDE SEWER SHALL BE PVC PIPE (SDR 35) AND FITTINGS. USE FERNCO FLEXIBLE COUPLING TO CHANGE FROM DIFFERENT MATERIALS AT BUILDING WASTELINE CONNECTION.
9. CLEANOUT REQUIRED FOR EACH PIPE LENGTH GREATER THAN 100' AND/OR IF THE LINE HAS 110° OR GREATER TOTAL BENDS . CLEANOUT PIPE AND FITTINGS SHALL BE DOWNSIZED TO 4" ON RESIDENTIAL INSTALLS. NOTE: CASTINGS FOR 4" CLEANOUT AND 4" BACKWATER VALVES MAYBE DOWNSIZED TO A MIN. 8" CLEAR OPENINGS.
10. PIPE SHALL BE BEDDED WITH $\frac{5}{8}$ " CRUSHED ROCK OR PEA GRAVEL WITH A MIN. 6" DEPTH UNDER AND OVER PIPE.
11. CONTRACTOR SHALL PROVIDE SHORING AS DIRECTED AND/OR AS REQUIRED BY LABOR AND INDUSTRIES. INSTALLATIONS WITH TRENCHES THAT ARE INADEQUATELY SHORED WILL NOT BE INSPECTED.
12. CONTRACTOR REQUIRED TO DO AN AS-BUILT DRAWING SHOWING THE SIDE SEWER IN RELATION TO THE BUILDING AND PROPERTY LINES. SEE STANDARD PLAN NO. 25 AS-BUILT REQUIREMENTS DRAWING.
13. CONTRACTOR SHALL DETERMINE AND COORDINATE INSPECTION REQUIREMENTS FOR CONNECTION TO BUILDING WASTE LINE WITH THE CITY OF BOTHELL, KIRKLAND, WOODINVILLE, OR KING COUNTY.
14. RECTORSEAL CLEAN CHECK BACKWATER VALVE MAY BE REQUIRED PER THE UNIFORM PLUMBING CODE. JURISDICTIONAL REQUIREMENTS MAY OVERRIDE BACKWATER TYPE AND LOCATION. THE BACKWATER VALVE SHALL BE ACCESSIBLE AND REMOVABLE FROM THE SURFACE. CLEANOUT CASTING IN PAVED AREAS AND CASTING AND CONCRETE COLLAR IN OTHER AREAS, SHALL BE INSTALLED PER SEWER STD PLAN 14.
15. ALL PRIVATE SIDE SEWER PIPE AND FITTINGS ARE TO BE TESTED . TESTING REQUIREMENTS ARE AS FOLLOWS:
 - WATER TESTS NEED TO INCLUDE ALL FITTINGS AND PIPE INSTALLED. THIS INCLUDES ALL STANDPIPES SET AT OR ABOVE FINISH GRADE.
 - PRIVATE SIDE SEWER SHALL BE "ON TEST" BEFORE THE TIME OF INSPECTION AND REMAIN "ON TEST" UNTIL DIRECTED OTHERWISE BY THE DISTRICT INSPECTOR.
 - AIR TESTING ONLY ALLOWED WITH PERMISSION FROM THE DISTRICT. IF AIR TESTING IS ALLOWED, ALL FITTINGS AND PIPE ARE TO BE SUFFICIENTLY BACKFILLED TO WITHSTAND TEST PRESSURES.
16. IF GREASE INTERCEPTORS (GI) AND/OR OIL WATER SEPARATORS ARE REQUIRED ON COMMERCIAL APPLICATIONS, SIZE, TYPE, LOCATION, AND TESTING PROCEDURES PER UNIVERSAL PLUMBING CODE AND JURISDICTIONAL REQUIREMENTS. WOODINVILLE WATER DISTRICT AS-BUILT REQUIREMENTS STILL APPLY TO GREASE INTERCEPTOR AND OIL/WATER SEPARATOR. DISTRICT REQUIREMENTS FOR TESTING APPLY FROM DOWNSTREAM OUTLET OF THE GI TO THE MANHOLE OR SAMPLING STRUCTURE. DOWNSTREAM MANHOLE AND/OR SAMPLING STRUCTURE SET PRIOR TO PROJECT ACCEPTANCE. SEE CS-3 AND CS-7 FOR MORE INFORMATION.



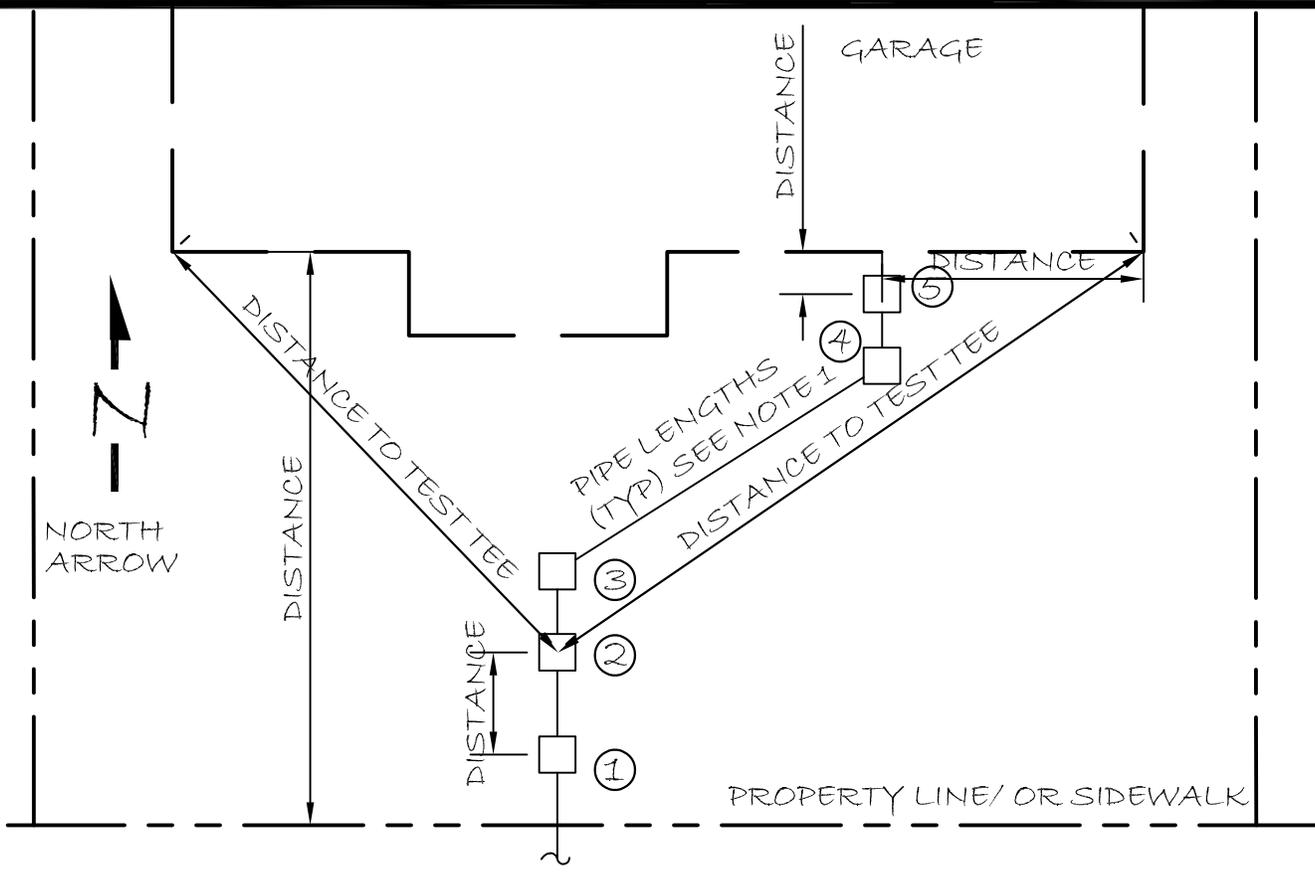
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PRIVATE SIDE SEWER INSTALLATION REQUIREMENTS



SEWER STD.
PLAN NO. (24A)

REVISION DATE
04/25

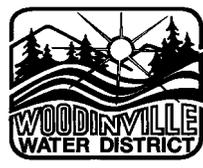


- ① 6" DISTRICT CLEANOUT
- ② 6"x4" REDUCER
4" TEST TEE, 6' DEEP
- ③ 4"x45° BEND
- ④ 4"x45° BEND
- ⑤ 4" WYE (VERT) 3' DEEP, 4" CLEANOUT 18" DEEP

EXAMPLE

NOTES:

1. PROVIDE ALL PIPE LENGTHS - MEASURE CENTER TO CENTER ON FITTINGS.
2. LIST FITTINGS OR FITTING CLUSTERS STARTING AT THE DISTRICT CLEANOUT. PROVIDE DEPTHS AT THE TEST TEE AND PRIVATE CLEANOUT. EXAMPLE ABOVE.
3. AS-BUILT DRAWINGS THAT ARE NOT LEGIBLE SHALL BE REDRAWN PRIOR TO ACCEPTANCE OF THE PRIVATE SIDE SEWER INSTALLATION.



Woodinville
Water District

PRIVATE SIDE SEWER
ASBUILT REQUIREMENTS



SEWER STD.
PLAN NO. 25

REVISION DATE
04/25