

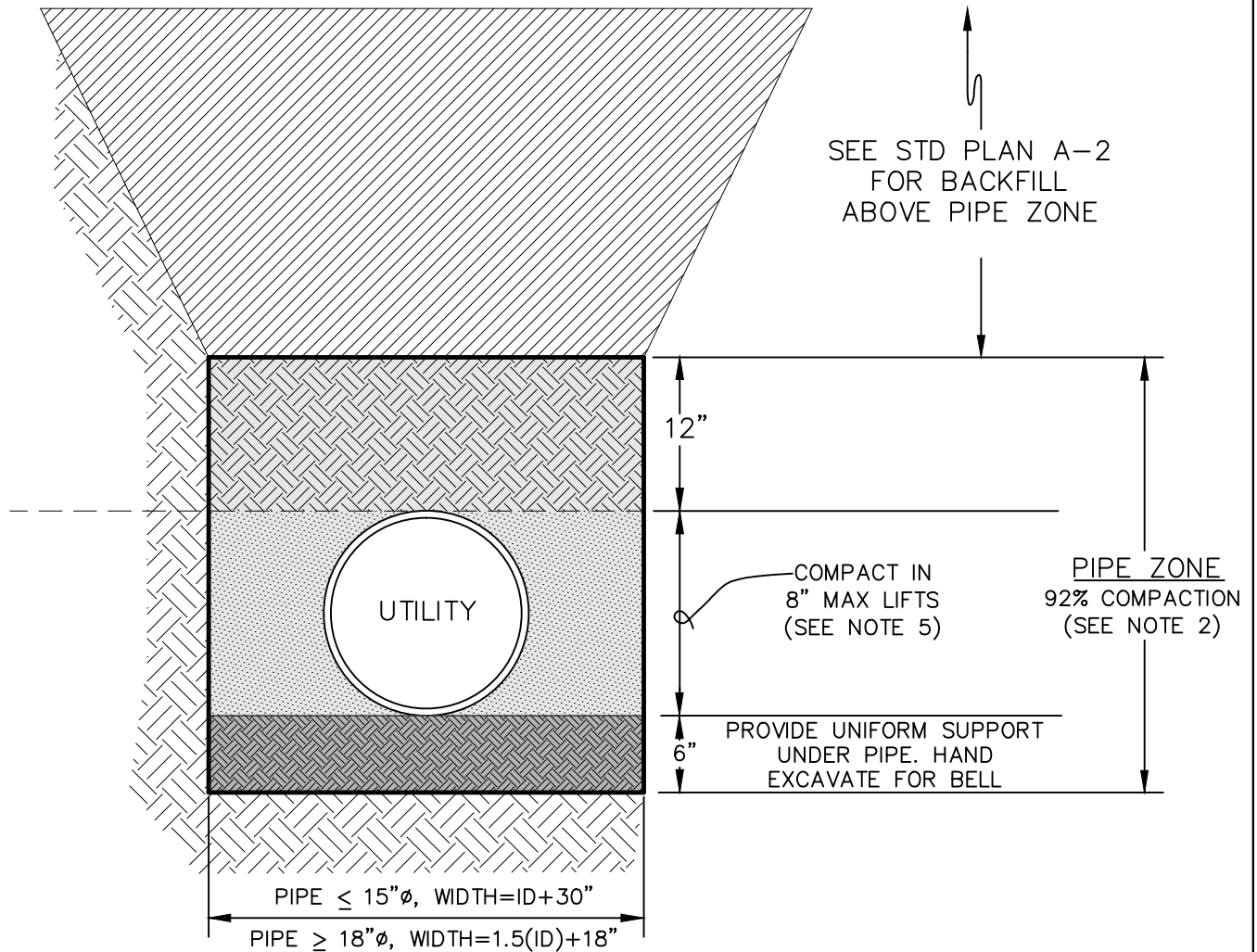
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CITY OF SPOKANE STANDARD PLANS – SECTION A

X-### = Revised Standard Plan
 ***X-### = New Standard Plan



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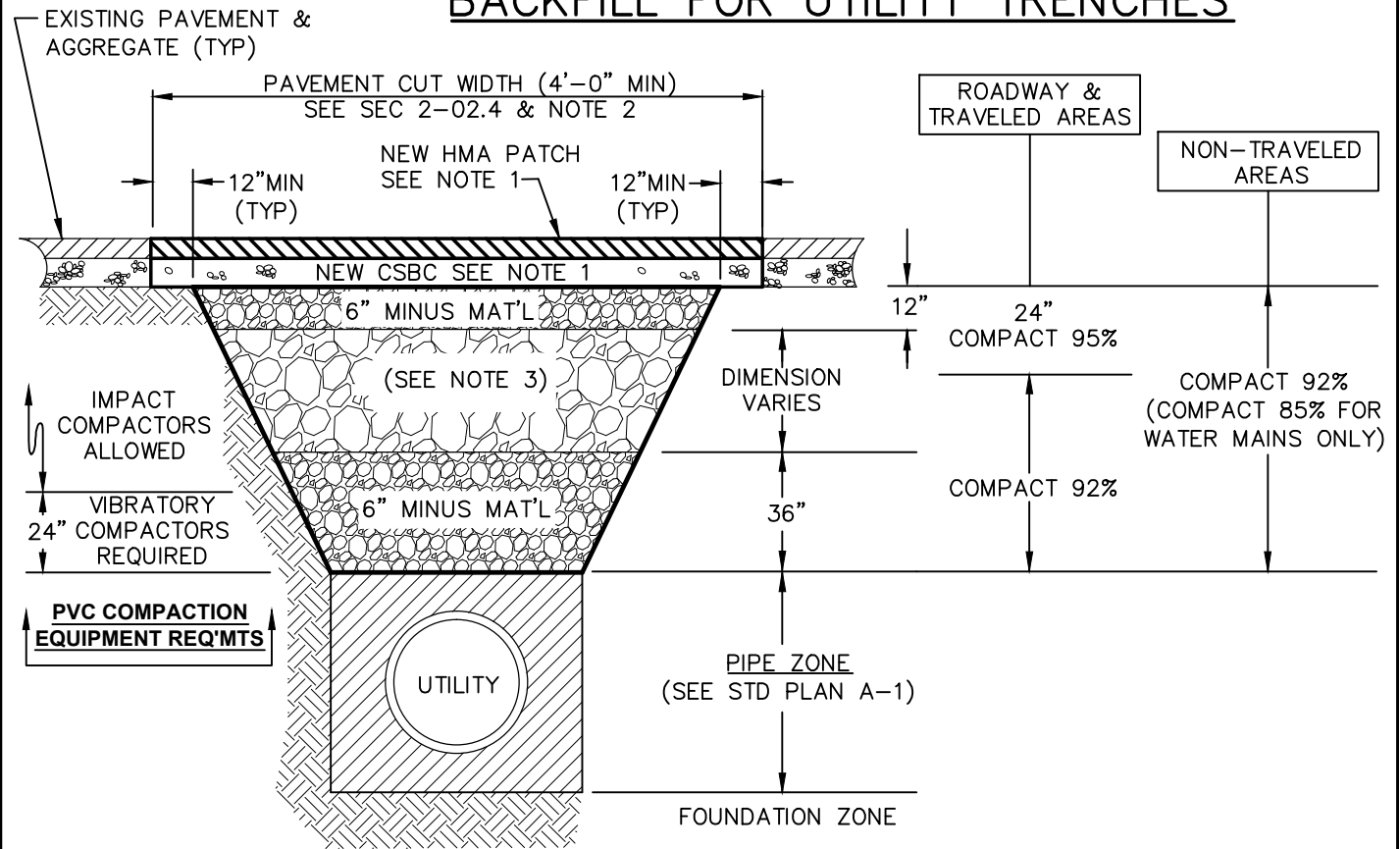


NOTES:

1. ALL MATERIAL IN PIPE ZONE INCLUDING 6" BENEATH THE PIPE SHALL CONFORM TO SEC 9-03.12(3) FOR SAND OR NATIVE MATERIAL EXCEPT AS FOLLOWS:
 - a) IF ROCK OR GROUND WATER IS PRESENT, PIPE ZONE MATERIAL SHALL BE CSTC PER SEC 9-03.9(3).
 - b) FOR RIGID SEWERS, PIPE ZONE MATERIAL ABOVE THE SPRING LINE MAY EITHER BE PER SEC 9-03.12(3), SAND OR NATIVE, OR 9-03.14(1), GRAVEL BORROW, EXCEPT THAT MAX MATERIAL SIZE SHALL BE 1-IN PER 1-FT OF PIPE DIAMETER UP TO A 2" MAX.
2. COMPACTION METHODS IN PIPE ZONE SHALL BE PER SECTION 7-09.3(9).
3. REFER TO 7-08.3(1)C FOR ADDITIONAL REQUIREMENTS.
4. WHERE TRENCH EXCAVATION IS PAID SEPARATELY, PAYMENT LIMITS SHALL BE PER SEC 2-09.4.
5. BEDDING TO BE INSTALLED PER SECTION 7-09.3(9). A LIFT LAYER UP TO A MAXIMUM OF 18 INCHES MAY BE APPROVED BY THE ENGINEER.



<p>APPROVED BY</p>  <p>ENGINEERING OPERATIONS MANAGER KYLE TWOHIG</p>  <p>CITY ENGINEER DANIEL ALBERT BULLER, P.E.</p>	<p>ADOPTED: 02/1986 REVISED: 02/2017 SUPERSEDES: 09/2010 CHECKED BY: JAG SCALE: NTS DWG/REV. BY: SRM/MLD</p>	<p style="text-align: center;">UTILITY TRENCH BACKFILL PIPE ZONE</p> <p style="text-align: center;">ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p> <p style="text-align: right;">STANDARD PLAN No. A-1</p>
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BACKFILL FOR UTILITY TRENCHES

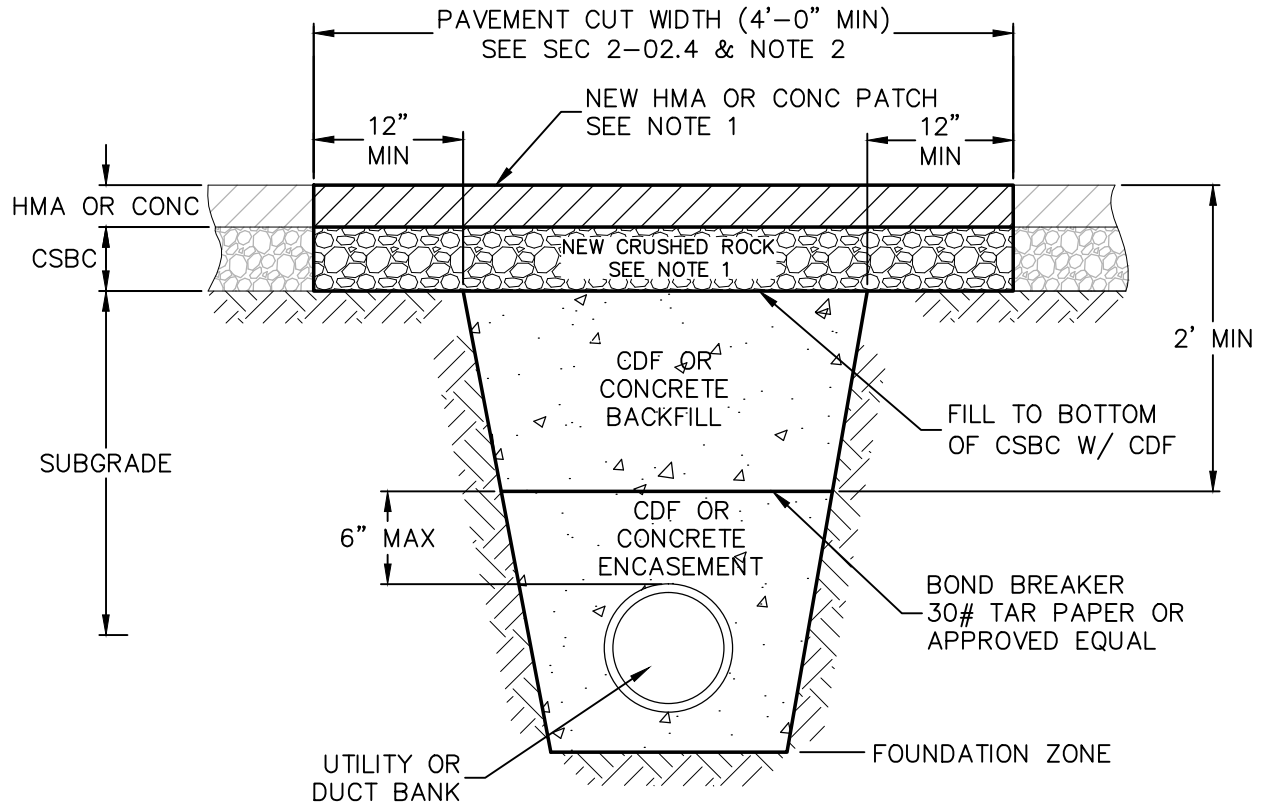


NOTES:

1. REPLACE HOT MIX ASPHALT (HMA) PAVEMENT & CRUSHED BASE PER STD PLANS W-108 & W-109.
2. SEE CITY OF SPOKANE (COS) PAVEMENT CUT POLICY IN THE COS DESIGN STDS, APPENDIX 'F' FOR ADD'NL REQ'MTS.
3. WATER LINES REQUIRE 6" MINUS MAT'L FOR THE ENTIRE BACKFILL. 12" MINUS MAT'L MAY BE USED FOR OTHER UTILITIES.
4. COMPACTION ABOVE THE PIPE ZONE SHALL BE MEASURED PER SEC 2-03.3(14)D. FOR ROADWAY & TRAVELED AREAS COMPACT TOP 2-FT IN 4" MAX LIFTS. COMPACT BELOW TOP 2-FT TO TOP OF PIPE ZONE IN 8" MAX LIFTS. FOR NON-TRAVELED AREAS COMPACT IN 8" MAX. LIFTS. ENGINEER MAY WAIVER THE 92% COMPACTION TO A LESSER VALUE FOR GRASS SWALES OR OTHER PLANTING AREAS.
5. FOR DEVIATION FROM LIFT THICKNESS, SEE SEC 7-08.3(3) FOR SEWER/STORM & SEC 7-09.3(11) FOR WATER UTILITIES.
6. TRENCH EXCAVATION MATERIALS SHALL BE USED FOR BACKFILL IF MATERIALS MEET GRADUATION REQ'MTS ABOVE. IMPORTED BACKFILL SHALL MEET THE REQ'MTS OF SEC 9-03.14(1), GRAVEL BORROW.
7. CONTROLLED DENSITY FILL (CDF) PER SEC 2-09.3(1)E, MAY BE USED IN LIEU OF NATIVE BACKFILL WHERE IT IS NOT PRACTICAL TO COMPACT BACKFILL TO THE REQ'D DENSITY. SUCH USE SHALL BE PRE-APPROVED BY THE ENGINEER. SEE STD PLAN A-3 FOR CDF BACKFILL REQ'MTS.




<p>APPROVED BY</p>  <p>DIRECTOR, ENGINEERING SERVICES P. MIKE TAYLOR, P.E.</p>  <p>PRINCIPAL ENGINEER, DESIGN GARY S. NELSON, P.E.</p>	<p>ADOPTED: 2/1990 REVISED: 09/2010 SUPERSEDES: 01/2008 CHECKED BY: JAG SCALE: NTS DWG/REV. BY: SRM/MBM</p>	<p align="center">UTILITY TRENCH BACKFILL ABOVE PIPE ZONE</p> <p align="center">ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p> <p align="right">STANDARD PLAN No. A-2</p>
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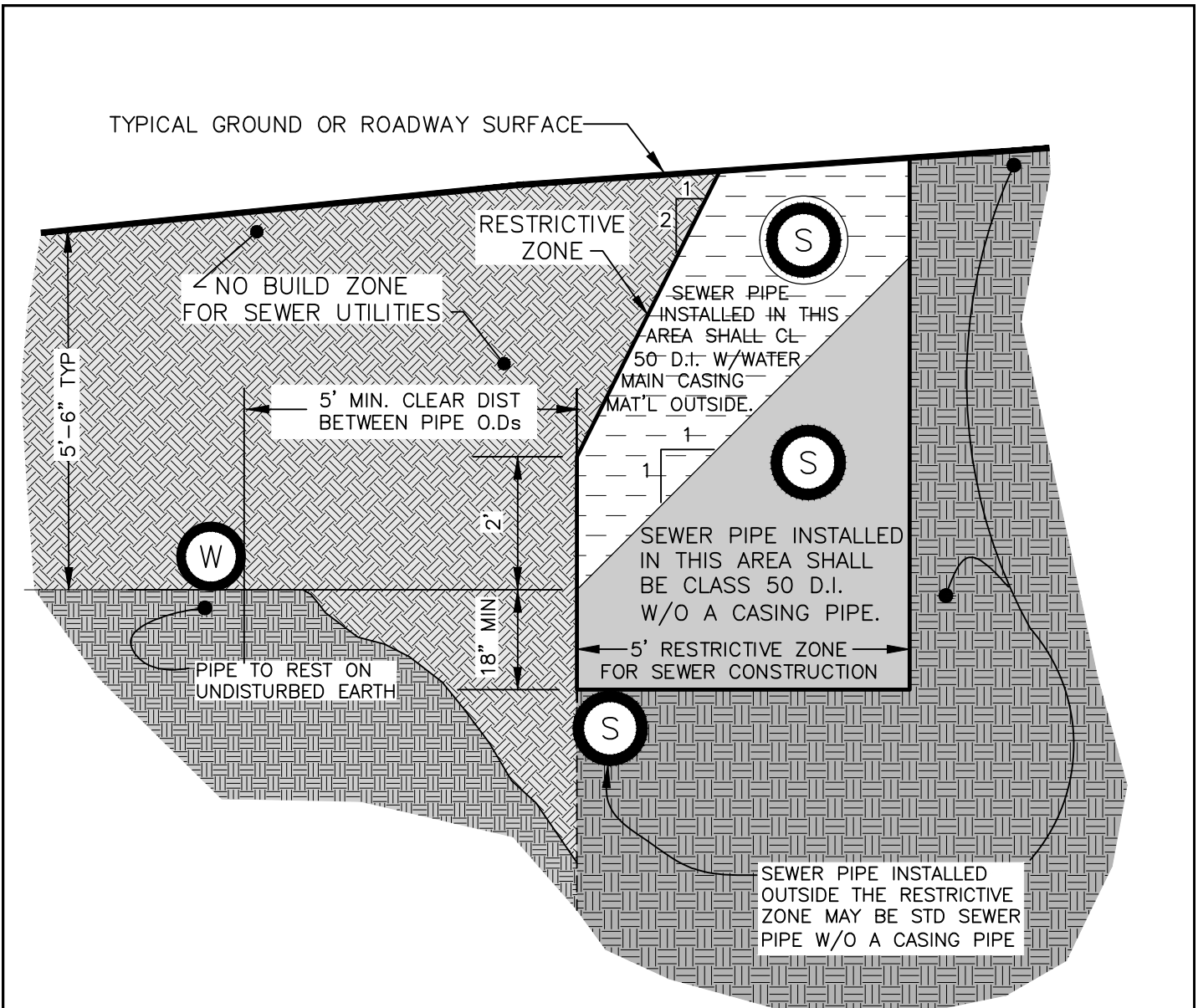
CDF BACKFILL FOR UTILITY TRENCHES



NOTES:


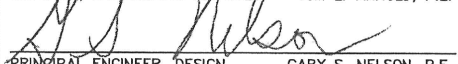

1. REPLACE HOT MIX ASPHALT (HMA) OR CONCRETE PAVEMENT PER CITY STANDARD PLANS W-102, W-108, & W-109.
2. SEE CITY OF SPOKANE (COS) PAVEMENT CUT POLICY IN THE COS DESIGN STANDARDS, APPENDIX 'F' FOR ADDITIONAL REQUIREMENTS.
3. BEDDING MATERIAL PER SEC 7-08.3(1)C MAY BE USED AS AN ALTERNATIVE TO CDF & CAPPED W/ CDF TO SERVE AS A LOCATION MARKER FOR THE UTILITY.
4. 30# TAR PAPER SHALL BE PLACED THE FULL LENGTH AND WIDTH OF A UTILITY TRENCH WHEN THE UTILITY IS ENCASED IN CDF OR CONCRETE AND THE REMAINDER OF THE TRENCH IS BACKFILLED WITH CDF OR CONCRETE.

<p style="text-align: center;">APPROVED BY</p> <div style="display: flex; justify-content: space-between;"> <div style="text-align: center;">  ENGINEERING OPERATIONS MANAGER KYLE TWOHIG </div> <div style="text-align: center;">  CITY ENGINEER DANIEL ALBERT BULLER, P.E. </div> </div>	<p>ADOPTED: 04/2004 REVISED: 01/2017 SUPERSEDES: 04/2012 CHECKED BY: JAG SCALE: NTS DWG/REV. BY: TSS/MLD</p>	<p>UTILITY TRENCH BACKFILL REQUIREMENTS USING CDF OR CONCRETE</p> <div style="display: flex; justify-content: space-between; align-items: center;"> <div style="text-align: center;">  ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON </div> <div style="text-align: right;"> STANDARD PLAN No. A-3 </div> </div>
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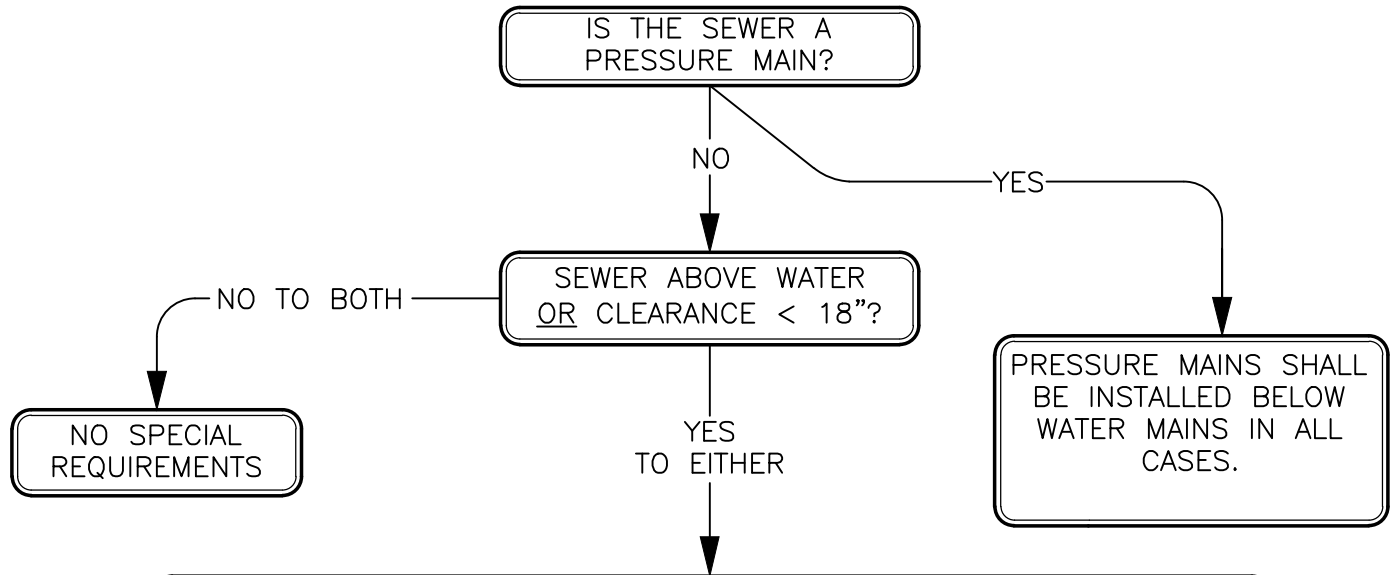


NOTES APPLY TO GRAVITY & PRESSURE SEWER MAINS INSTALLED W/IN THE RESTRICTIVE ZONE

1. SEWER MAINS 24" DIA & LARGER MAY REQUIRE MORE STRINGENT CONSTRUCTION STANDARDS.
2. SEWER MATERIALS & JOINTS SHALL MEET WATER MAIN STANDARDS.
3. SEWER MAINS SHALL BE INSTALLED & TESTED IN ACCORDANCE W/ SEC. 7-17.
4. THE RESTRICTIVE ZONE IS SYMMETRICAL ABOUT THE WATER LINE.

<p>APPROVED BY:</p>  <p>DIRECTOR, ENGINEERING SERVICES TOM L. ARNOLD, P.E.</p>  <p>PRINCIPAL ENGINEER, DESIGN GARY S. NELSON, P.E.</p>	<p>ADOPTED: 3/1992 REVISED: 05/2007 SUPERSEDES: 12/1998 CHECKED BY: JAG SCALE: NTS DWG/REV. BY: REP/RLB</p>	<p>SEWER UTILITY LOCATION & CONSTRUCTION REQUIREMENTS</p>  <p>ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p>	<p>STANDARD PLAN No. A-4</p>
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WATER/SEWER CROSSINGS



CASE WATER OR WASTEWATER PIPE W/PIPE MEETING THE REQUIREMENTS FOR SANITARY SEWERS FOR A MIN. 10' MEASURED PERPENDICULAR ON EITHER SIDE OF CROSSING.

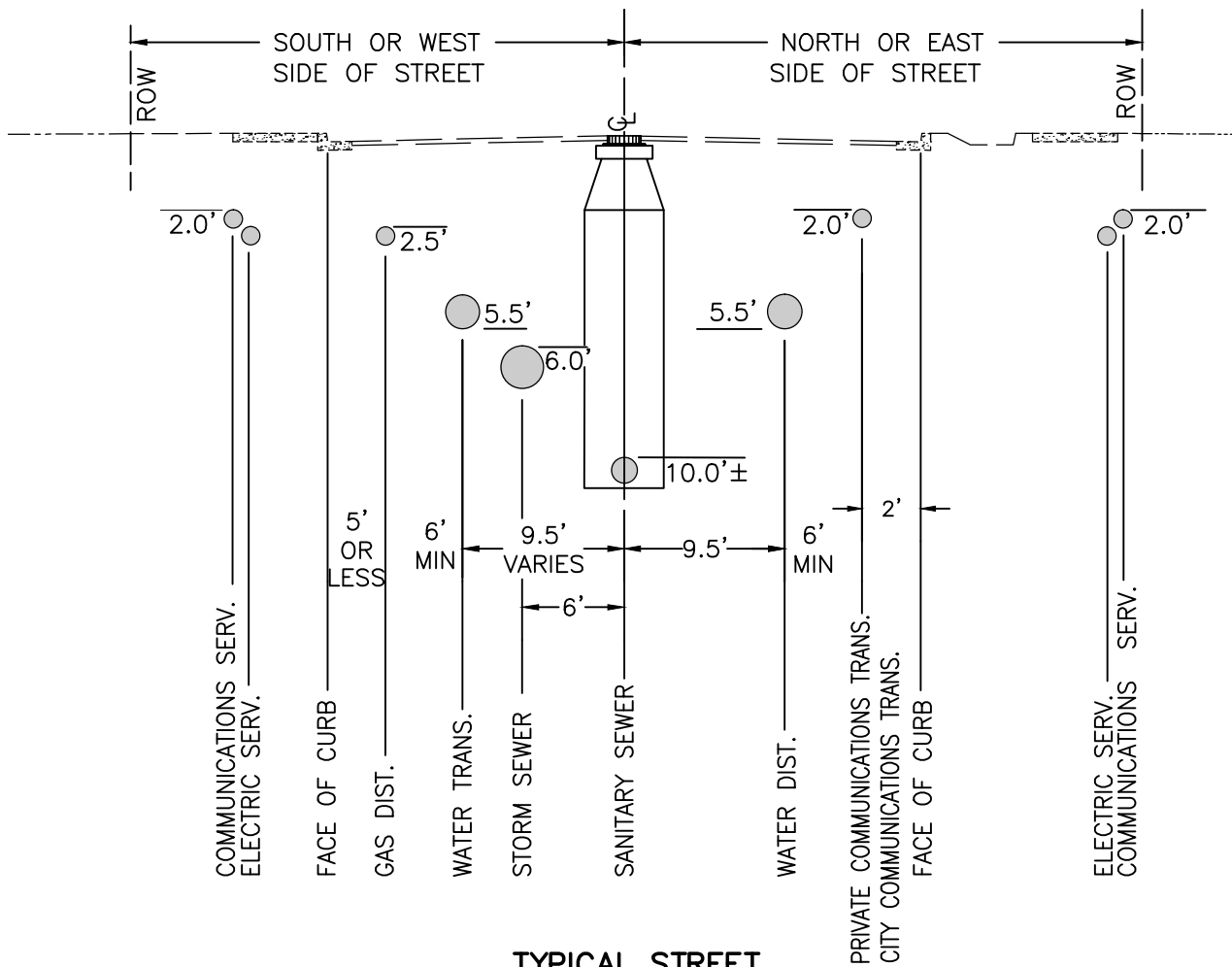
EXCEPTIONS:
WHEN INSTALLING A WATER MAIN:

- THE CASING LENGTH FOR CROSSING SIDE SEWERS MAY BE REDUCED TO A MIN. 5' MEASURED PERPENDICULAR ON EITHER SIDE OF CROSSING PROVIDED THAT THE CASING IS PLUGGED AT BOTH ENDS WITH AN 18" LENGTH OF NON-SHRINK GROUT;
- STORM SEWER PIPE TO/FROM CATCH BASINS/INLETS NEED NOT BE CASED IF THE EXISTING PIPE IS DI FOR ENTIRE LENGTH OR, IF THE EXISTING STORM SEWER PIPE IS NOT DI, THEN AN 18' SEGMENT OF THE EXISTING STORM SEWER PIPE IS REPLACED WITH A SINGLE PIECE OF DI PIPE, CENTERED ON THE WATER MAIN.

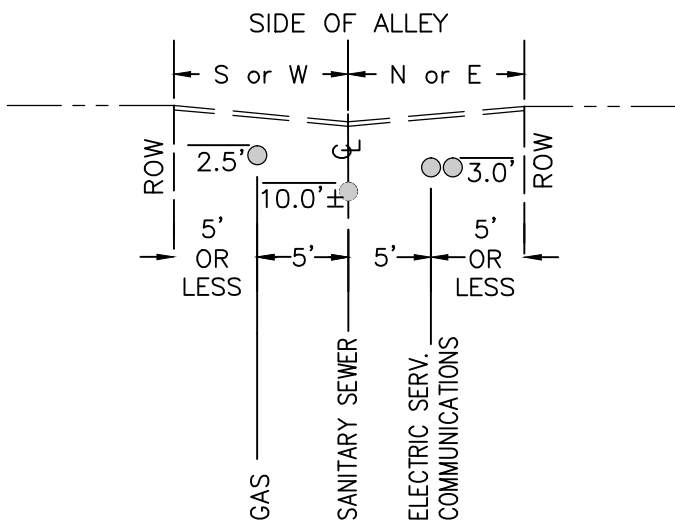
NOTES:

1. CROSSING WATER/SEWER LINES OR THEIR CASINGS SHALL HAVE A 6" MIN VERTICAL SEPARATION.
2. FLOW CHART APPLIES TO BOTH EXISTING & NEW SERVICES & MAINS.
3. DISTANCES GIVEN ABOVE ARE MEASURED FROM OUTSIDE OF PIPES OR OTHER CASINGS.
4. DESIGNER/INSTALLER SHALL MAKE ALL REASONABLE ATTEMPTS TO MEET THE FOLLOWING:
 - SEWER BENEATH WATER BY AT LEAST 18"
 - CROSSINGS AS CLOSE TO 90° AS POSSIBLE

<p>APPROVED BY</p> <p>_____ DIRECTOR, ENGINEERING SERVICES P. MIKE TAYLOR, P.E.</p> <p>_____ PRINCIPAL ENGINEER, DESIGN GARY S. NELSON, P.E.</p>	<p>ADOPTED: <u>3/92</u> REVISED: <u>01/2009</u> SUPERSEDES: <u>01/2008</u> CHECKED BY: <u>JAG</u> SCALE: <u>NTS</u> DWG/REV. BY: MDH/TSS</p>	<p>WATER AND SEWER CROSSINGS</p> <p>ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p>	<p>STANDARD PLAN No. A-5</p>
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TYPICAL STREET



TYPICAL ALLEY

NOTES:

1. LOCATIONS ARE STANDARD FOR UNDERGROUND INSTALLATIONS & VARIATION SHALL REQUIRE PRE-APPROVAL BY THE CITY ENGINEER.
2. ALL LOCATIONS & DEPTHS OF EXISTING UTILITIES SHALL BE VERIFIED BY RESPECTIVE OWNERS PRIOR TO NEW INSTALLATIONS.

CALL BEFORE YOU DIG 456-8000

APPROVED BY

 ENGINEERING OPERATIONS MANAGER KYLE TWOHIG

 CITY ENGINEER DANIEL ALBERT BULLER, P.E.

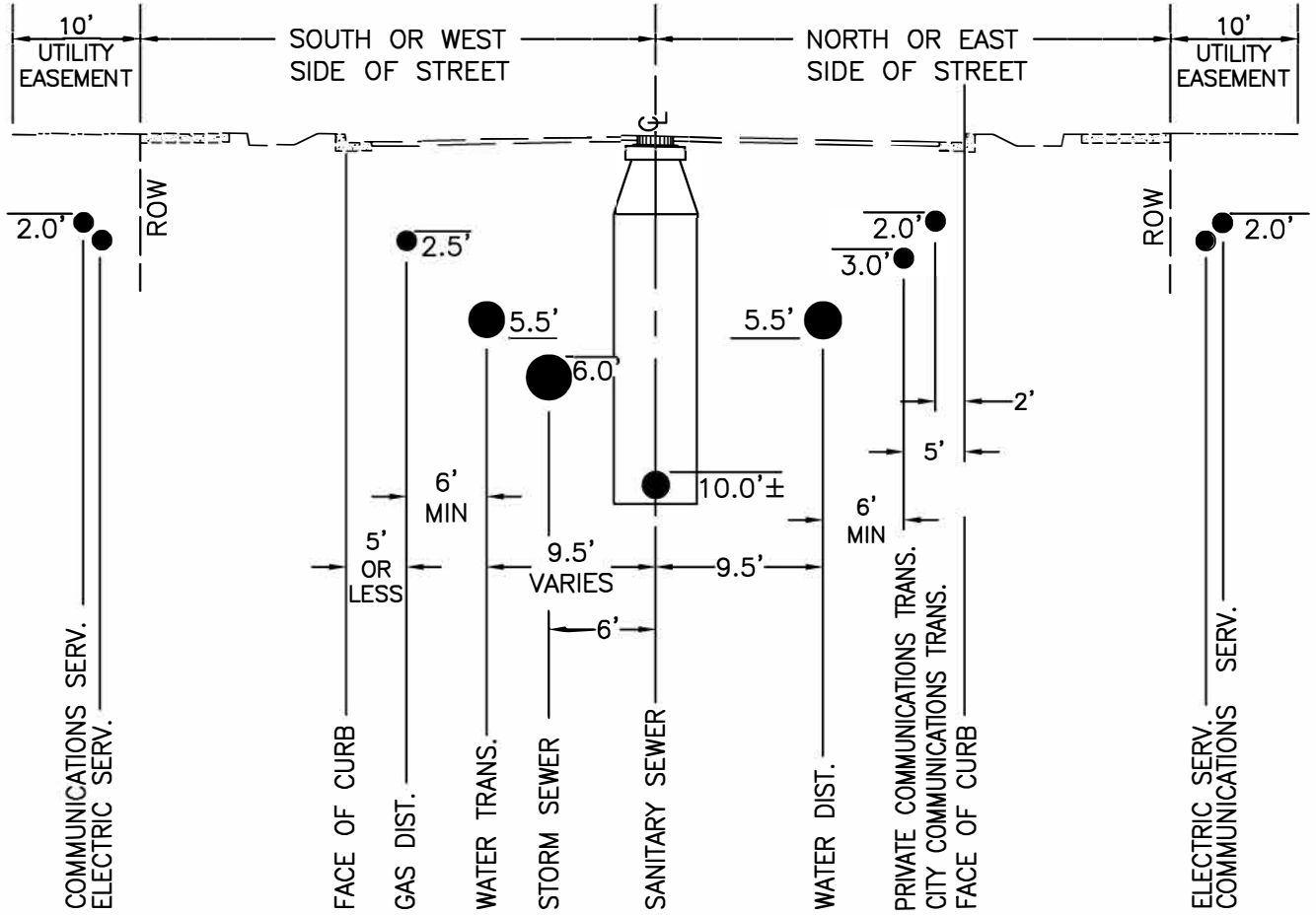
ADOPTED: 02/1986
 REVISED: 11/2018
 SUPERSEDES: W-109A, 12/98
 CHECKED BY: JAG
 NTS
 DWG/REV. BY: JHM

UNDERGROUND UTILITY LOCATION FOR EXISTING STREETS

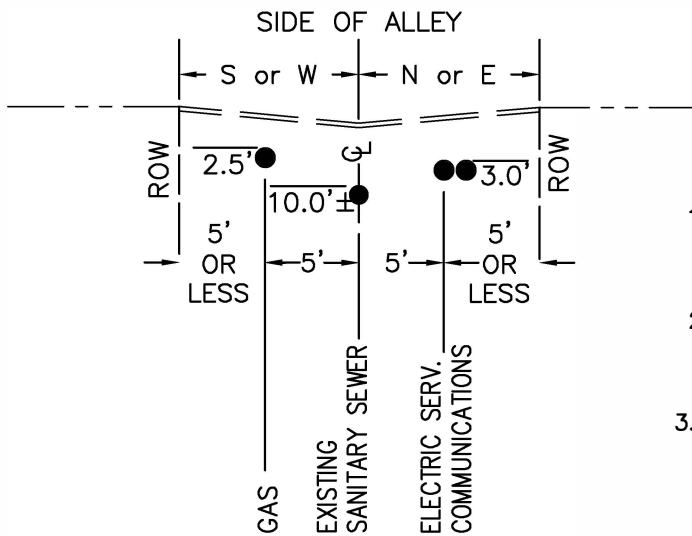
ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. **A-6**





TYPICAL STREET



TYPICAL ALLEY

NOTES:

1. LOCATIONS ARE STANDARD FOR UNDERGROUND INSTALLATIONS & VARIATION SHALL REQUIRE PRE-APPROVAL BY THE CITY ENGINEER.
2. ALL LOCATIONS & DEPTHS OF EXISTING UTILITIES SHALL BE VERIFIED BY RESPECTIVE OWNERS PRIOR TO NEW INSTALLATIONS.
3. PUBLIC SEWERS IN ALLEYS ARE GENERALLY NOT ALLOWED, AND PROHIBITED IN RIGHT-OF-WAY WIDTHS OR EASEMENTS THAT ARE LESS THAN TWO TIMES THE SEWER INVERT BURIAL DEPTH.

CALL BEFORE YOU DIG 456-8000

APPROVED BY

 DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

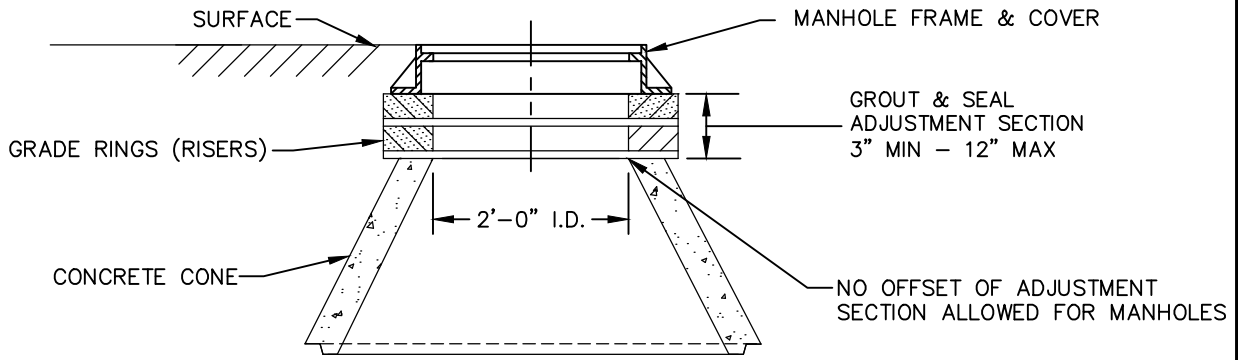
ADOPTED: _____
 REVISED: 04/2024
 SUPERSEDES: 11/2018
 CHECKED BY: JAG
 SCALE: NTS
 DWG/REV. BY: MLD

UNDERGROUND UTILITY LOCATION FOR NEW DEVELOPMENTS

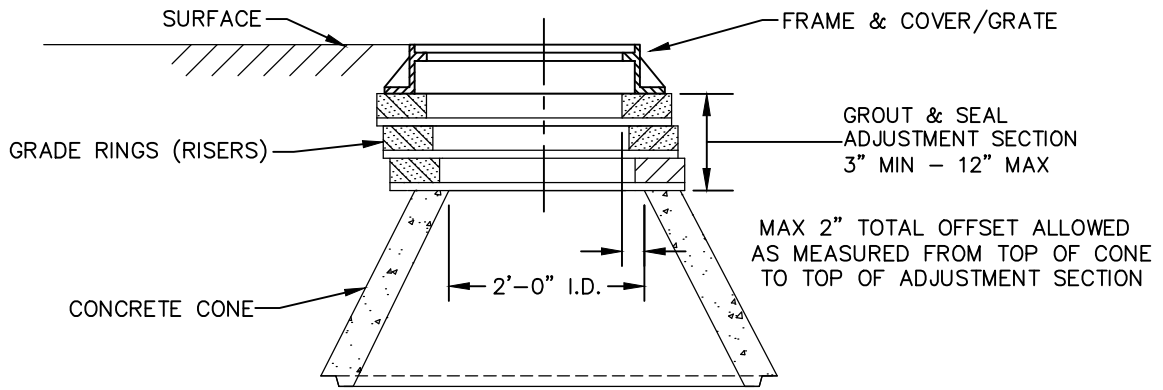


ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON

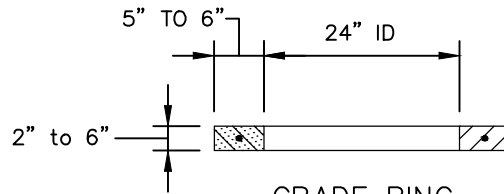
STANDARD PLAN No.
A-7



MANHOLE



CATCH BASIN, INLET, DRYWELL

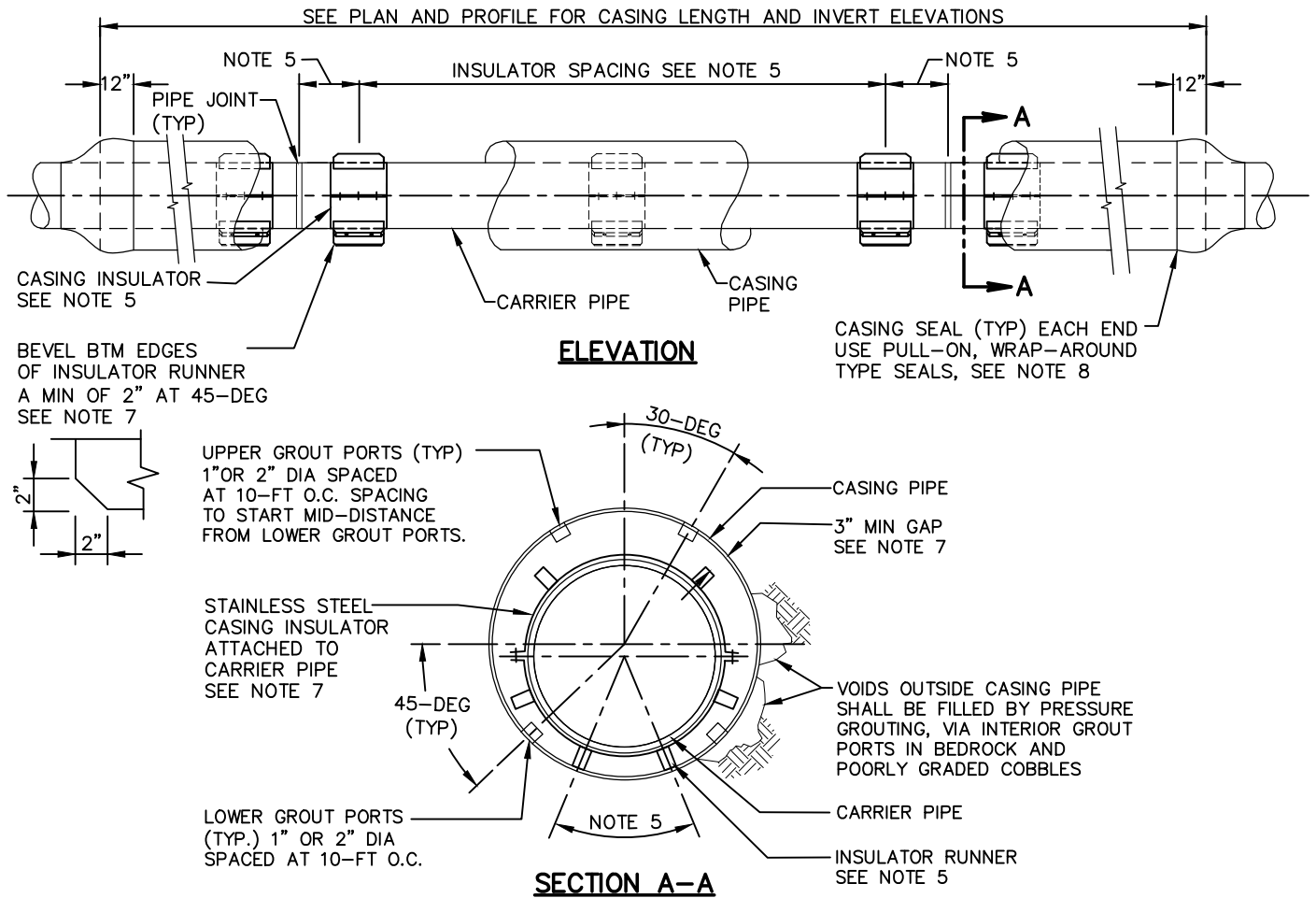


GRADE RING

NOTES:

1. ADJUSTMENT SECTION SHALL BE CONSTRUCTED WITH PRE-FABRICATED REINFORCED CONCRETE GRADE RINGS (RISERS) CONFORMING TO ASTM C478 AND SHALL BE GROUTED IN PLACE.
2. GRADE RINGS SHALL BE A CONTINUOUS LOOP OF REINFORCED CONCRETE AND SHALL BE FLAT. GRADE RINGS SHALL BE A UNIFORM DIMENSION THROUGHOUT ITS CROSS SECTION.
3. GRADE RINGS REINFORCEMENT SHALL BE A MINIMUM OF ONE FULL HOOP OF STEEL REINFORCING OF MINIMUM YIELD STRESS $F_y = 40$ KSI.
4. IN ADDITION TO THE GRADE RINGS, IF NECESSARY FOR PROPER FINAL ADJUSTMENT HEIGHT OF LESS THAN 2", WEDGES OF PRE-FABRICATED CERAMIC OR CONCRETE BRICK AS APPROVED BY THE ENGINEER MAY BE USED AND SHALL BE GROUTED IN PLACE.
5. ADJUSTMENT SECTION SHALL BE SEALED PER SECTION 7-05.

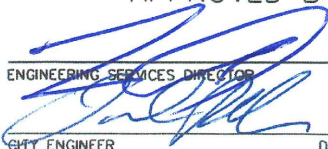
<p>APPROVED BY</p> <p>ENGINEERING OPERATIONS MANAGER KYLE TWOHIG</p> <p>CITY ENGINEER DANIEL ALBERT BULLER, P.E.</p>	<p>ADOPTED: <u>1/2017</u></p> <p>REVISED: _____</p> <p>SUPERSEDES: _____</p> <p>CHECKED BY: <u>WRP</u></p> <p>SCALE: <u>NTS</u></p> <p>REVISED BY: <u>EWS</u></p>	<p>ADJUSTMENT SECTION</p> <p>GRADE RINGS (RISERS)</p>
<p>ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p>		<p>STANDARD PLAN No. A-8</p>



STEEL CASING DETAIL

NOTES:

1. CASING SHALL BE SMOOTH STEEL PIPE MANUFACTURED TO ASTM A-53, TYPE 'E', GRADE 'B' FOR NPS UP TO 26-INCH DIA & ASTM A-252, GRADE '2' FOR NPS GREATER THAN 26-INCH DIA, THAT CONFORMS TO AWWA C-200 QUALITY CONTROL PROCEDURES & HAVE A MIN YIELD OF 35 KSI.
2. CARRIER PIPE SHALL BE INSTALLED PER MANUFACTURER'S REQ'MTS & CITY OF SPOKANE CONTRACT PROVISIONS.
3. ALL STEEL CASING JOINT WELDS SHALL MEET AWWA C206 WELDS AND OBSTRUCTIONS ON INTERIOR OF CASING BOTTOM THIRD (RADIALLY) SHALL BE GROUND SMOOTH.
4. CARRIER PIPE SHALL BE PRESSURE TESTED PER CITY OF SPOKANE CONTRACT PROVISIONS PRIOR TO SEALING ENDS OF CASING PIPE.
5. PER-FABRICATED CASING INSULATORS SHALL BE POSITIONED & SPACED PER MANUFACTURER'S REQ'MTS & CASING/CARRIER PIPE APPLICATION. INSULATOR SPACING SHALL NOT EXCEED 8-FT O.C. NOR BE LOCATED MORE THAN 1'-6" FROM CARRIER PIPE JOINTS. CASING INSULATORS SHALL BE PRE-APPROVED BY THE ENGINEER PRIOR TO PLAN APPROVAL OR INSTALLATION. THE CONTRACTOR SHALL COORDINATE W/ THE INSULATOR MANUFACTURER SO THAT THE INSULATOR RUNNER POSITIONS AROUND THE OUTER CIRCUMFERENCE OF THE CARRIER PIPE DO NOT INTERFERE W/THE GROUT PORT POSITIONS AROUND THE INT'R CIRCUMFERENCE OF THE CASING PIPE AND NOT OCCUPY THE 5:00 THROUGH 7:00 POSITION RADIALLY CARRIER PIPE >18" DIAMETER SHALL HAVE A MINIMUM OF 6 RUNNERS
6. USE OF ROLLER TYPE CASING INSULATOR/SPACERS SHALL BE USED IF REQUESTED BY THE ENGINEER ON CASING LENGTHS >600 LF.
7. INSULATOR RUNNER HEIGHT SHALL EXTEND BEYOND THE O.D. OF THE CARRIER PIPE'S BELL OR JOINT A MIN OF 1". RUNNER LENGTH SHALL EXCEED RUNNER HEIGHT BY A 2:1 MIN RATIO. RUNNER WIDTH SHALL BE EQUAL TO OR GREATER THAN RUNNER HEIGHT. MIN CLEARANCE SHALL BE 3" BETWEEN RUNNERS NEAR TOP OF CARRIER PIPE & INSIDE DIA OF CASING PIPE. CASING INSULATORS SHALL HAVE STAINLESS STEEL (SS) ATTACHMENT BANDS CONNECTED TO THE CARRIER PIPE VIA (SS) BOLTS/NUTS. CORKSCREW OF CARRIER PIPE/SPACERS SHALL BE CORRECTED SO THAT DESIGNED NUMBER OF SPACERS SUPPORT PIPE RADIALLY.
8. CASING PIPE SHALL BE SEALED AT BOTH ENDS W/ A STD 'PULL-ON' OR 'WRAP-AROUND' SYNTHETIC RUBBER CASING SEAL. SECURE CASING SEAL W/ STAINLESS STEEL BANDS. CASING SEALS SHALL BE PRE-APPROVED BY THE ENGINEER PRIOR TO PLAN APPROVAL OR INSTALLATION.
9. ALSO SEE UNION PACIFIC, BNSF OR WSDOT FOR ADDITIONAL REQUIREMENTS FOR RAILROAD AND HIGHWAY UNDERCROSSINGS.

APPROVED BY

 ENGINEERING SERVICES DIRECTOR
 CITY ENGINEER

KYLE TWHOIG
 DAN BULLER, P.E.

ADOPTED: _____
 REVISED: 07/2020
 SUPERSEDES: 05/2007
 CHECKED BY: JAG
 SCALE: NTS
 DWG/REV. BY: TSS/MDH

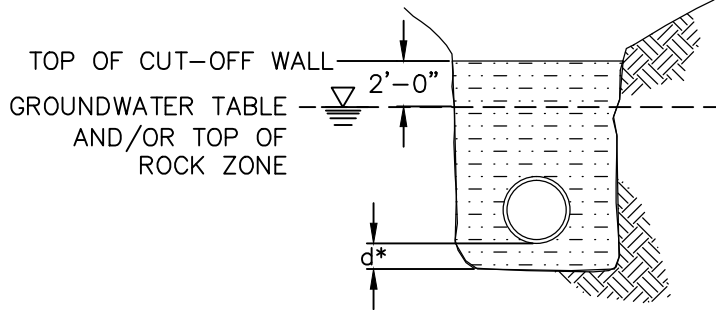
**CASING/CARRIER PIPE
 DETAILS**

ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON

STANDARD
 PLAN No.
A-9

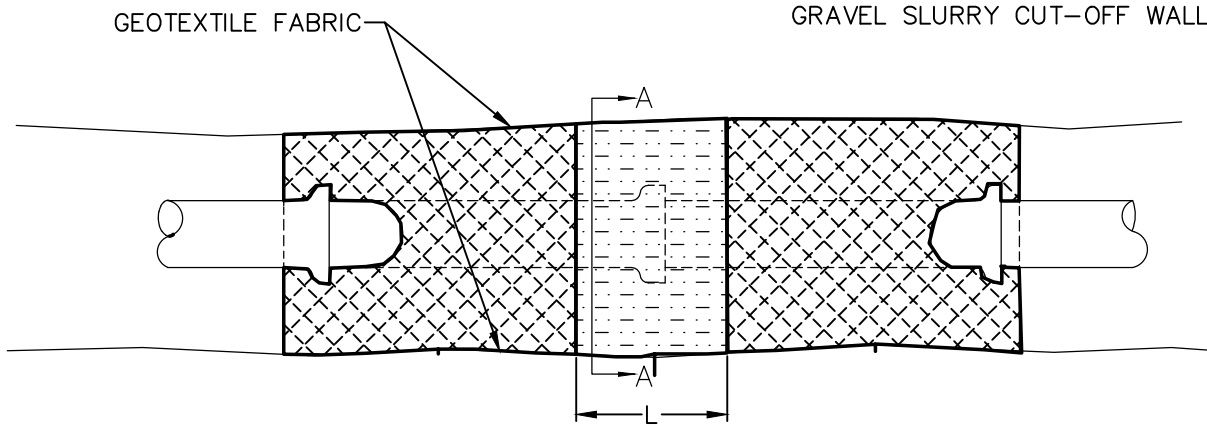
NOTES:

1. CUT-OFF WALLS PLACED WITHIN THE CITY R-O-W SHALL BE CONSTRUCTED USING MACHINE EXCAVATABLE CDF AS DESCRIBED IN SECTION 2-09.3(1)E. PIPE SHALL BE WRAPPED WITH 6 MIL PLASTIC.
2. CUT-OFF WALLS NOT PLACED WITHIN THE CITY R-O-W MAY BE CONSTRUCTED USING CLAY OR A BENTONITE PEA GRAVEL SLURRY.
3. CUT-OFF WALL SHALL BE WRAPPED WITH WOVEN GEOTEXTILE FABRIC FOR SEPARATION, SEE SEC 9-33. OVERLAP ALL FABRIC JOINTS 1'-6" MIN.
4. CUT-OFF WALL SHALL BE FULL WIDTH OF TRENCH.
5. L = 3' FOR CDF CUT-OFF WALL
L = 6' FOR CLAY OR BENTONITE PEA GRAVEL SLURRY CUT-OFF WALL

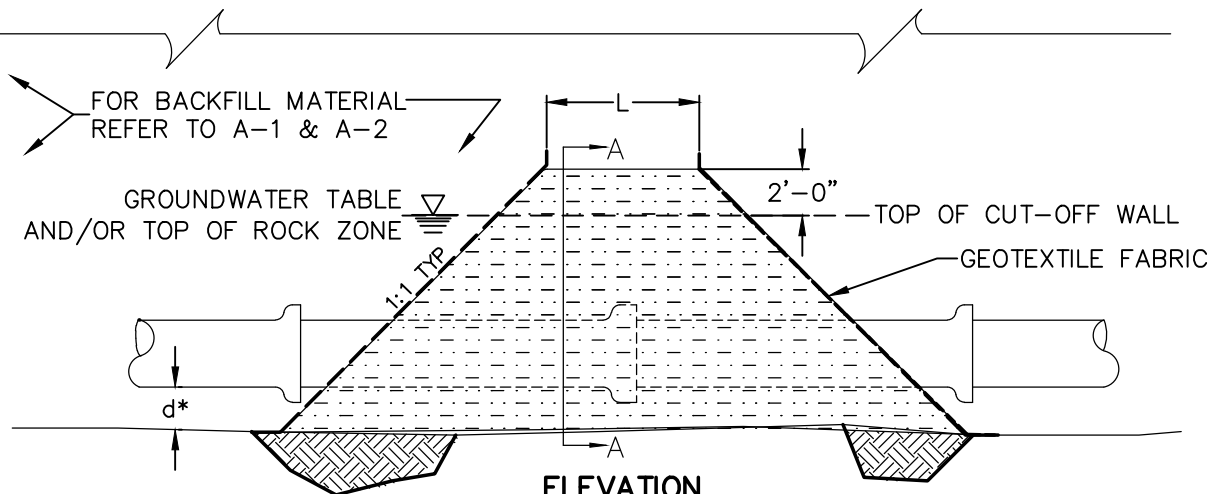


SECTION A-A

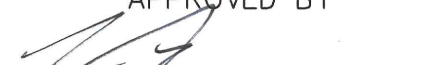


*d = 6" ON ROCK FOUNDATION
4" ON OTHER MATERIALS

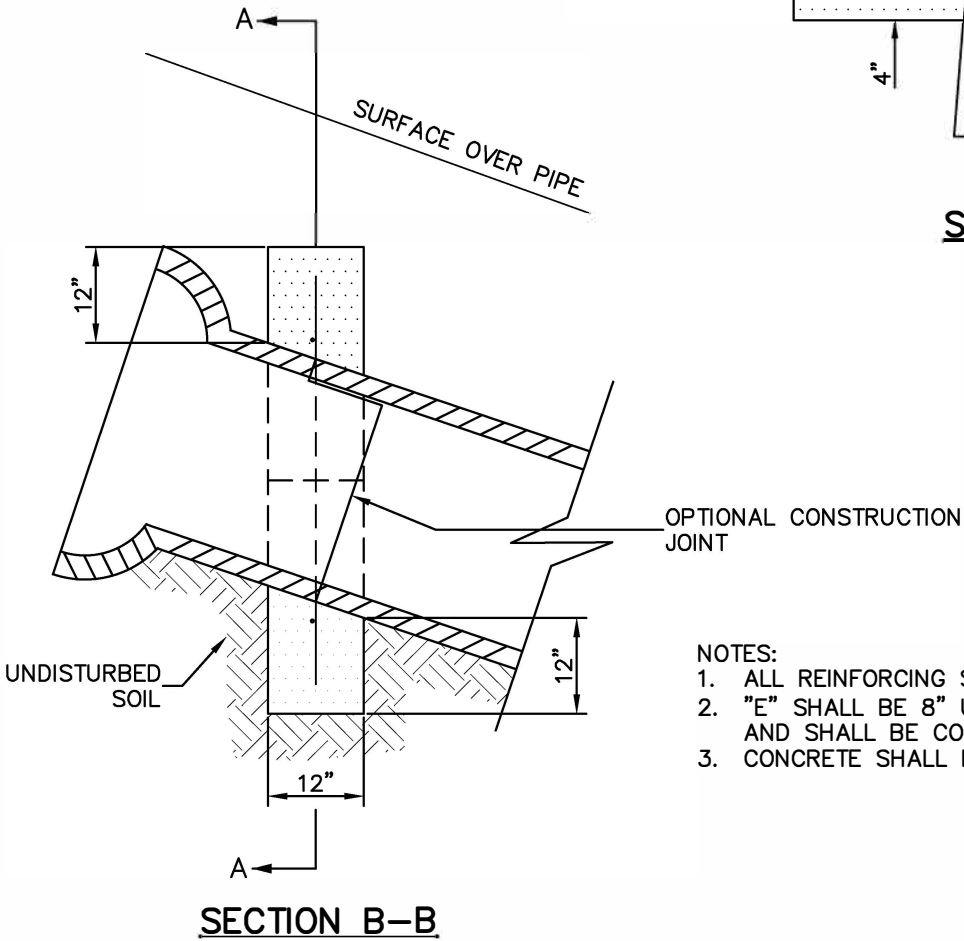
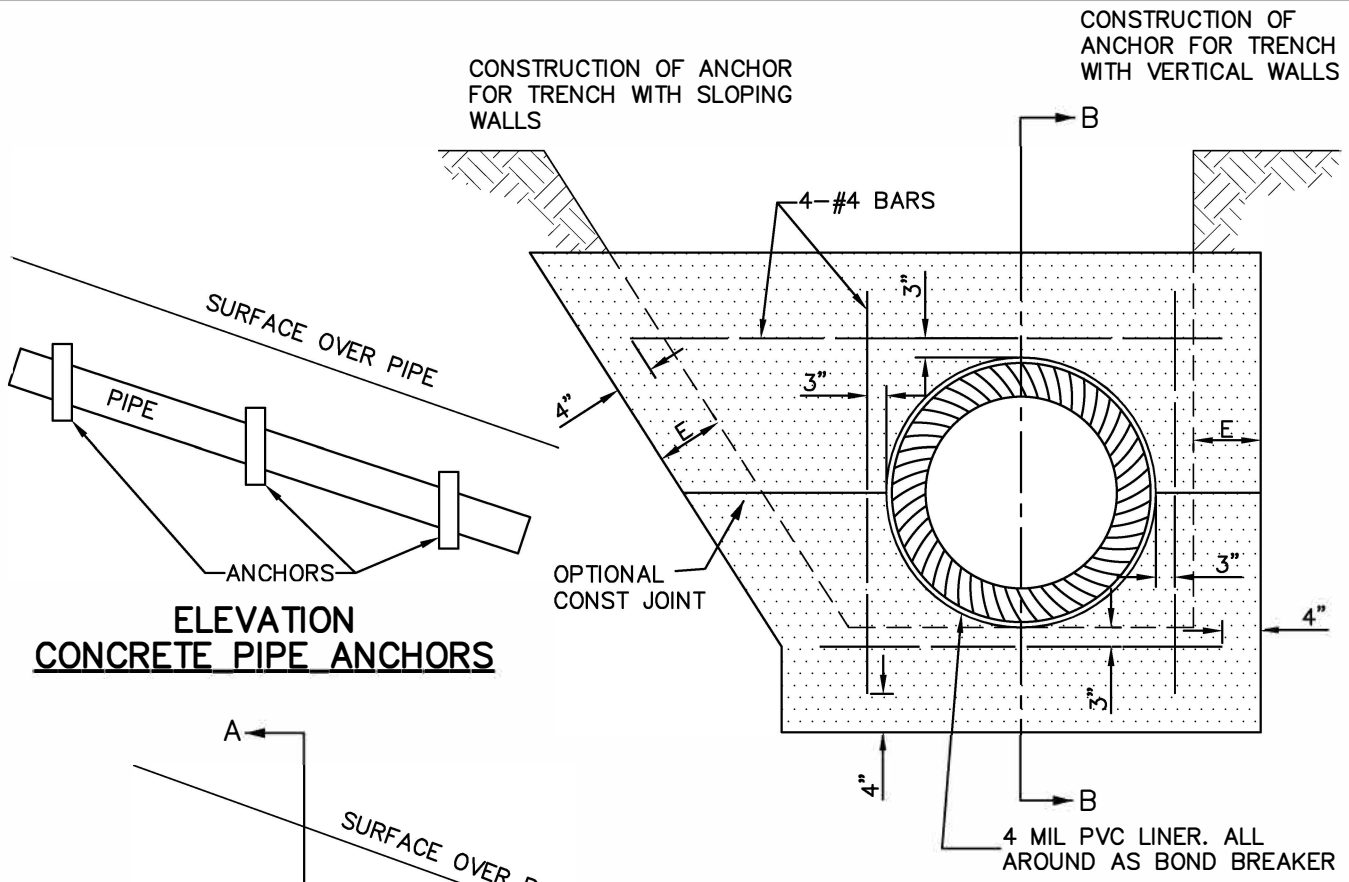


PLAN



ELEVATION

<p>APPROVED BY</p>  <p>ENGINEERING OPERATIONS MANAGER KYLE TWOHIG</p>  <p>CITY ENGINEER DANIEL ALBERT BULLER, P.E.</p>	<p>ADOPTED: 12/1993 REVISED: 01/2017 SUPERSEDES: 12/1993 CHECKED BY: JAG SCALE: NTS DWG/REV. BY: MLD</p>	<p style="text-align: center;">CUT-OFF WALL</p>  <p>ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p>	<p>STANDARD PLAN No. A-10</p>
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- NOTES:**
1. ALL REINFORCING STEEL SHALL BE NO. 4 BARS.
 2. "E" SHALL BE 8" UNLESS OTHERWISE SPECIFIED, AND SHALL BE CONSTRUCTED IN UNDISTURBED SOIL.
 3. CONCRETE SHALL BE 6-SACK COMMERCIAL.

APPROVED BY

 DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

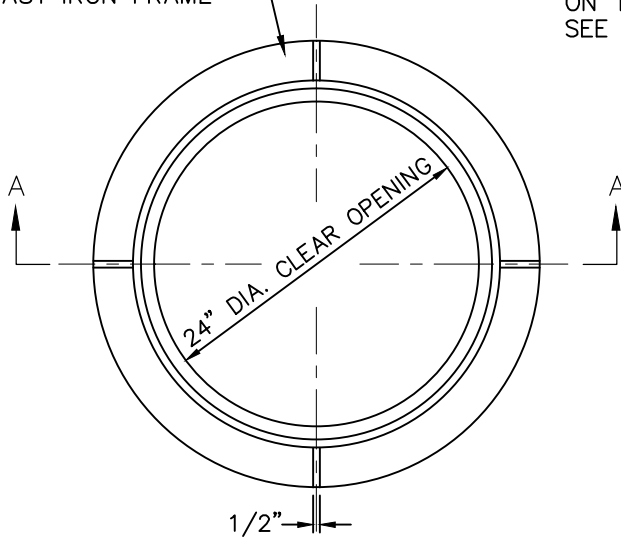
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 SUPERSEDES: 06/1992
 CHECKED BY: AA
 SCALE: NTS
 REVISED BY: MLD

PIPE ANCHOR

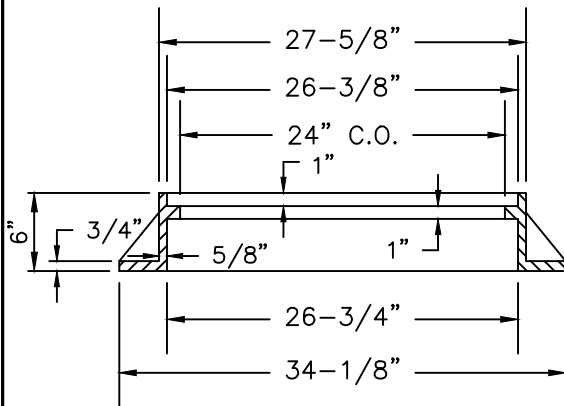
ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON

STANDARD PLAN No. **A-11**

ASTM A-48, CL. 30B
CAST IRON FRAME

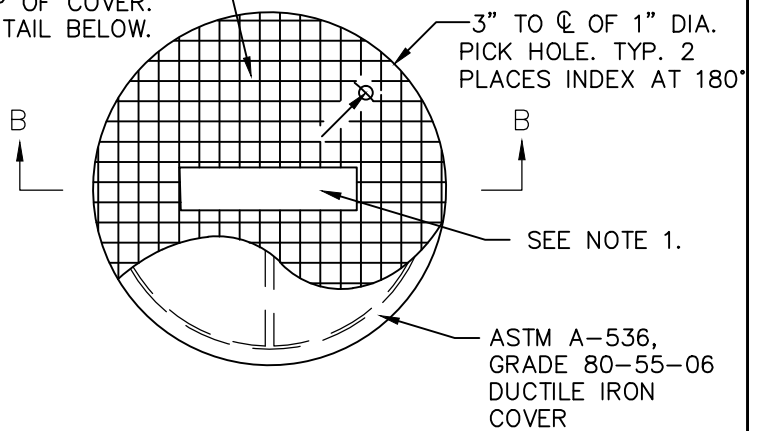


CAST IRON FRAME
MIN. WEIGHT 168 LBS.

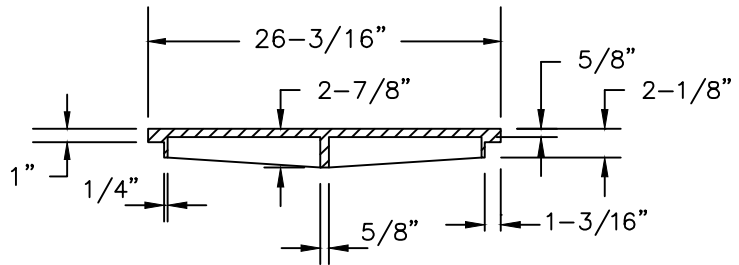


SECTION A-A

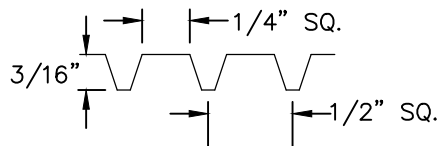
NON-SKID PATTERN
TO BE CAST INTEGRAL
ON TOP OF COVER.
SEE DETAIL BELOW.



DUCTILE IRON COVER
MIN. WEIGHT 118 LBS.



SECTION B-B



COVER SKID DESIGN DETAIL

NOTES:

1. THE APPROPRIATE WORD "SEWER", "STORM", OR "WATER" SHALL BE EMBOSSED ON EACH MANHOLE COVER WITH 3/16" RAISED LETTERS.
2. MATING SURFACES SHALL BE FINISHED TO ASSURE NON-ROCKING FIT W/ ANY COVER POSITION.

APPROVED BY

Tom L. Arnold
DIRECTOR, ENGINEERING SERVICES TOM L. ARNOLD, P.E.

Gary S. Nelson
PRINCIPAL ENGINEER, DESIGN GARY S. NELSON, P.E.

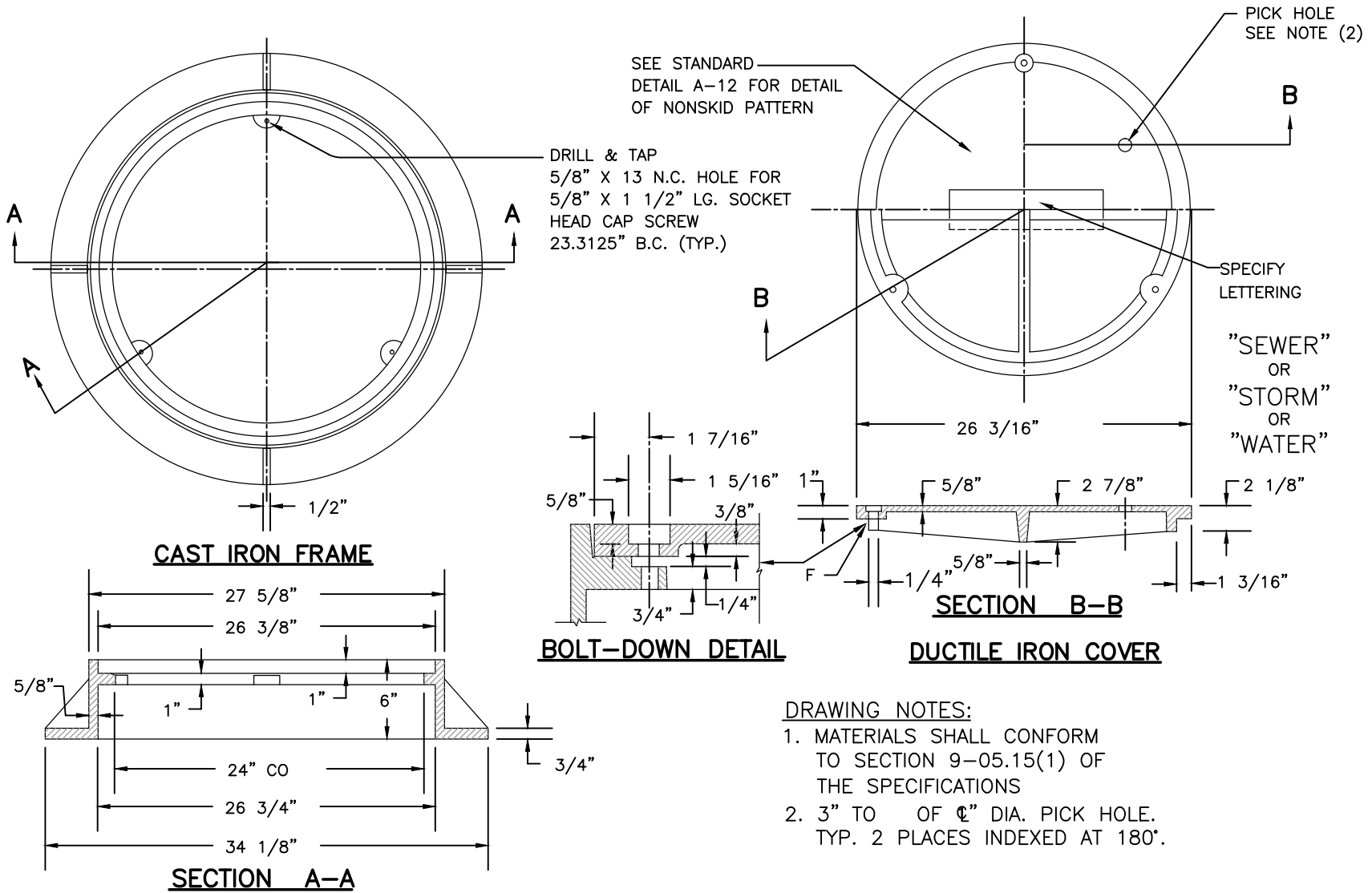
ADOPTED: 2/1990
REVISED: 05/2007
SUPERSEDES: 6/1995
CHECKED BY: JAG
SCALE: NTS
DWG/REV. BY: RLB

MANHOLE FRAME AND COVER



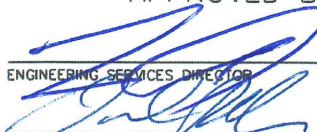
ENGINEERING SERVICES
CITY OF SPOKANE, WASHINGTON

STANDARD
PLAN No.
A-12



DRAWING NOTES:

1. MATERIALS SHALL CONFORM TO SECTION 9-05.15(1) OF THE SPECIFICATIONS
2. 3" TO 4" OF \varnothing " DIA. PICK HOLE. TYP. 2 PLACES INDEXED AT 180°.

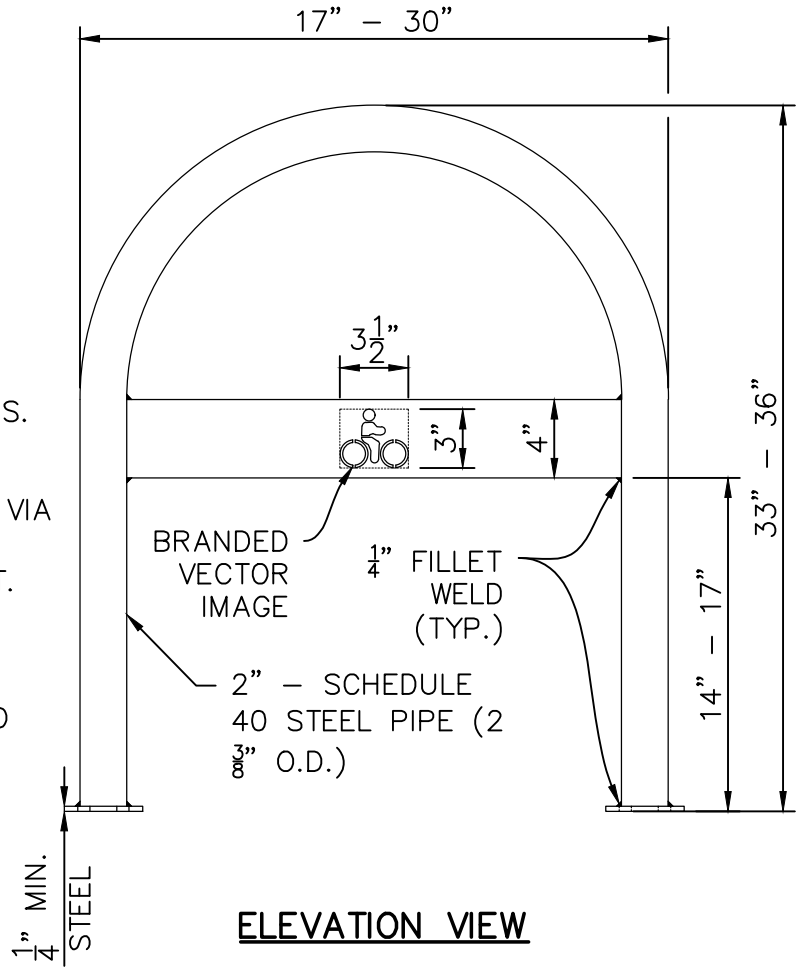
<p>APPROVED BY</p>  <p>ENGINEERING SERVICES DIRECTOR KYLE TWOHIG</p> <p>CITY ENGINEER DAN BULLER, P.E.</p>	<p>ADOPTED: _____</p> <p>REVISED: 10/2019</p> <p>SUPERSEDES: 06/1995</p> <p>CHECKED BY: DAB</p> <p>SCALE: NTS</p> <p>DWG/REV. BY: MLD</p>	<p>MANHOLE FRAME AND COVER 3-POINT BOLT DOWN</p> <p>ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON</p>	<p>STANDARD PLAN No. A-13</p>
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NOTES:

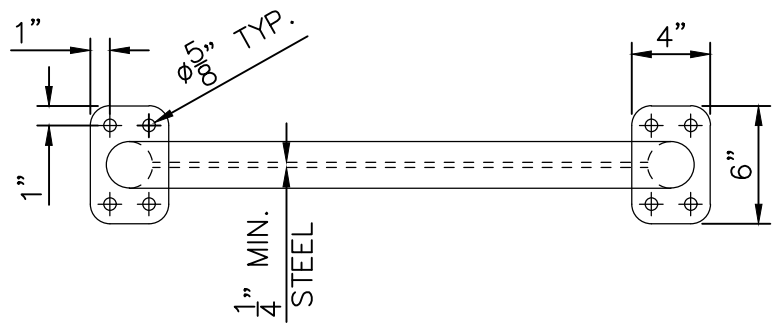
1. BIKE RACK SHALL BE POWDER COATED BLACK.
2. RACK DIMENSIONS MAY VARY BY MANUFACTURER.
3. DESIGNED FOR USE BY 2 BICYCLES.

MOUNTING:

1. BASE PLATE SHALL BE MOUNTED VIA 8 - $\frac{1}{2}$ " DIA. WEDGE ANCHOR WITH TAMPER RESISTANT SECURITY NUT.
2. RACK SHALL BE SET FIRM AND ALIGNED WITH A $\frac{1}{4}$ " \pm TOLERANCE FROM PLUMB.
3. STEEL SHIMS SHALL BE INSTALLED PRIOR TO ANCHORING IN PLACE WHEN NEEDED.



ELEVATION VIEW



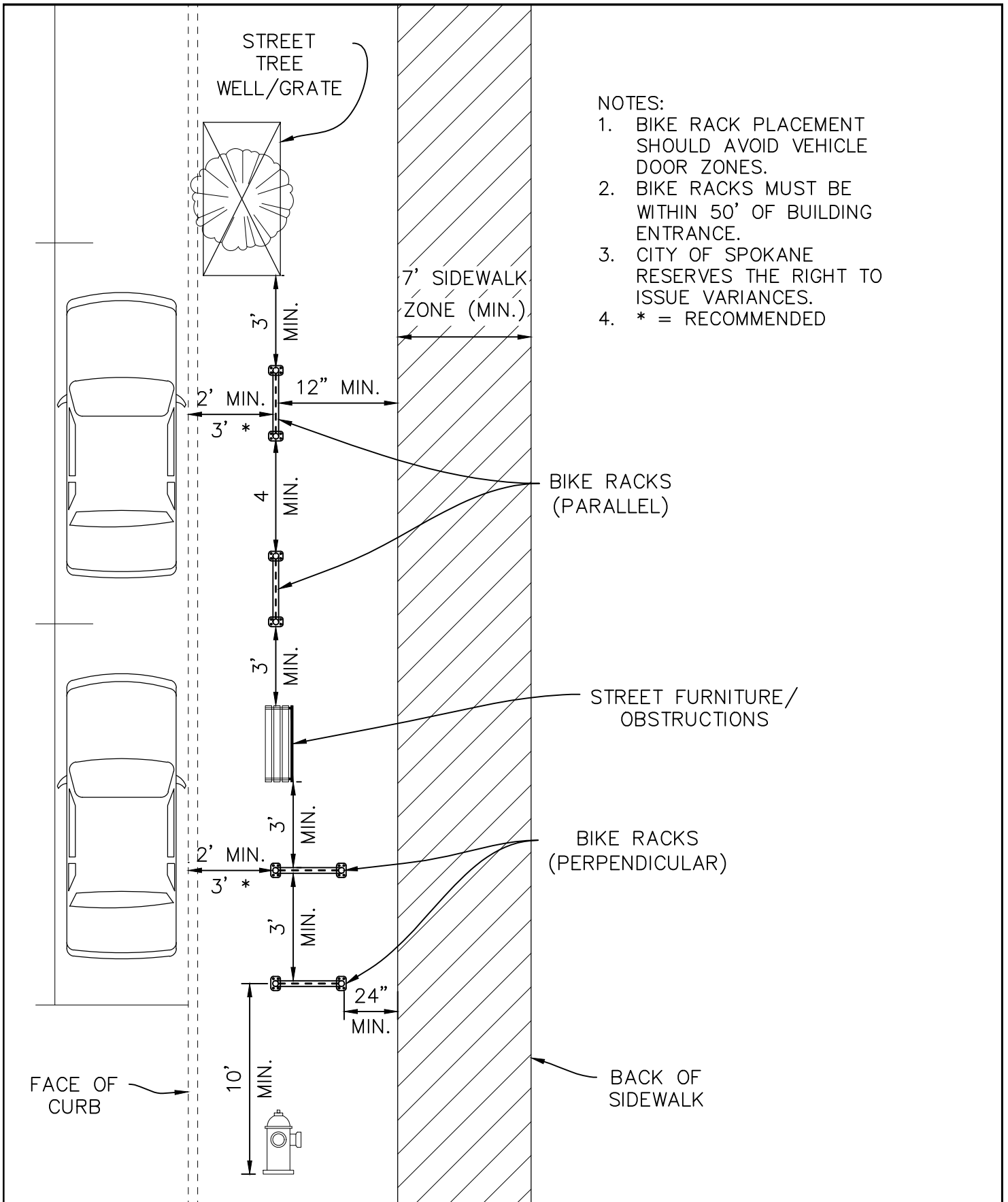
PLAN VIEW

APPROVED BY

 DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

ADOPTED: 4/2023
 REVISED: _____
 SUPERSEDES: _____
 CHECKED BY: DAB
 SCALE: NTS
 DWG/REV. BY: JAB

BIKE RACK	 ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON	STANDARD PLAN No.
		A-14




- NOTES:
1. BIKE RACK PLACEMENT SHOULD AVOID VEHICLE DOOR ZONES.
 2. BIKE RACKS MUST BE WITHIN 50' OF BUILDING ENTRANCE.
 3. CITY OF SPOKANE RESERVES THE RIGHT TO ISSUE VARIANCES.
 4. * = RECOMMENDED

APPROVED BY

 DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

ADOPTED: 04/2023
 REVISED: _____
 SUPERSEDES: _____
 CHECKED BY: DAB
 SCALE: NTS
 DWG/REV. BY: JAB

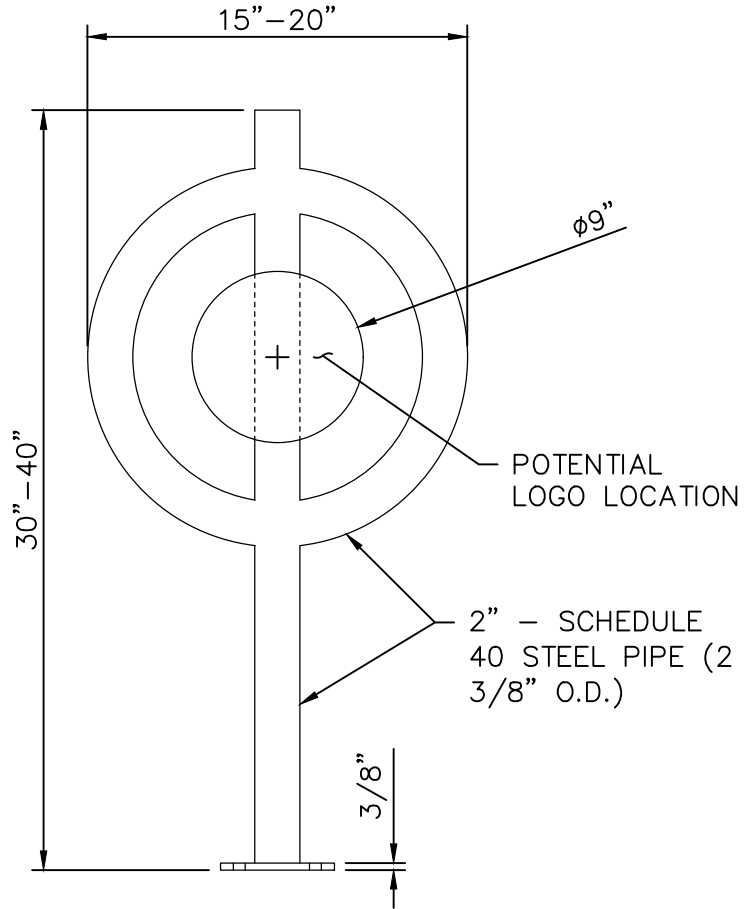
BIKE RACK SPACING	
 ENGINEERING SERVICES CITY OF SPOKANE, WASHINGTON	STANDARD PLAN No. A-15

NOTES:

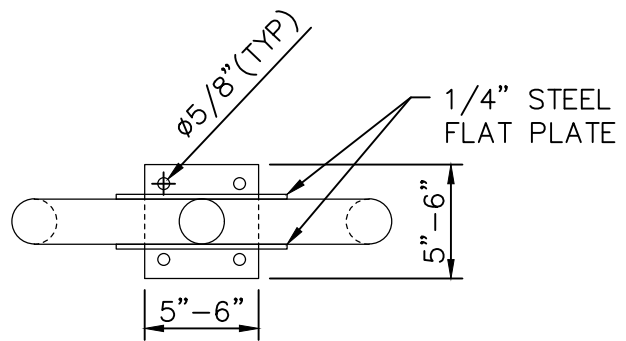
1. BIKE HITCH SHALL BE GALVANIZED OR STAINLESS STEEL.
2. RACK DIMENSIONS MAY VARY BY MANUFACTURER.

MOUNTING:

1. BASE PLATE SHALL BE MOUNTED VIA 8-1/2" DIA. WEDGE ANCHOR WITH TAMPER RESISTANT SECURITY NUT.
2. RACK SHALL BE SET FIRM AND ALIGNED WITH A 1/4" ± TOLERANCE FROM PLUMB.
3. STEEL SHIMS SHALL BE INSTALLED PRIOR TO ANCHORING IN PLACE WHEN NEEDED.



ELEVATION VIEW



PLAN VIEW

APPROVED BY

 DIRECTOR OF ENGINEERING SERVICES DAN BULLER, P.E.

ADOPTED: 04/2023
 REVISED: _____
 SUPERSEDES: _____
 CHECKED BY: DAB
 SCALE: NTS
 REVISED BY: JAB

BIKE HITCH

ENGINEERING SERVICES
 CITY OF SPOKANE, WASHINGTON

STANDARD
 PLAN No.
A-16