

NOTES:

1. ASPHALT SHALL BE LEVEL 2, 1/2" DENSE HMA WITH THE FOLLOWING THICKNESS:
 3" MIN. ON RESIDENTIAL LOCAL STREETS.
 4" MIN. ON RESIDENTIAL COLLECTOR AND MIXED USE STREETS.
 4" MIN. IN COMMERCIAL AND INDUSTRIAL AREAS.
2. SEE STANDARD DETAIL ST-2 FOR STANDARD WIDTH DIMENSIONS.
3. SOIL TESTING TO DETERMINE STRUCTURAL SECTION MAY BE REQUIRED BY THE CITY ENGINEER.
4. UNSUITABLE SUBGRADE MATERIAL SHALL BE REMOVED AND REPLACED WITH COMPACTED 2.5"-0" CRUSHED ROCK AT ENGINEER'S DIRECTION.



City of Astoria
Public Works Department
 1095 Duane Street

Street Cross Section Detail

Date Adopt. 11/01/12

Date Rev. 11/20/15

DWG. NO.

Dwg. Name: ST-1 Street Cross Section.dwg

ST-1

SEE CITY OF ASTORIA TSP ADOPTED
APRIL 21, 2014 - VOLUME 1, SECTION 6
"STANDARDS"



City of Astoria
Public Works Department
1095 Duane Street

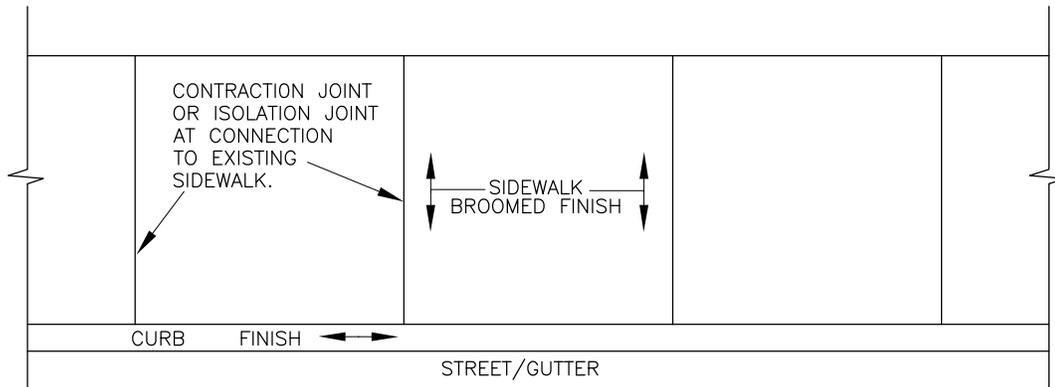
Typical Street Widths

Date Adopt. 11/01/12 | **Date Rev.** 07/24/14

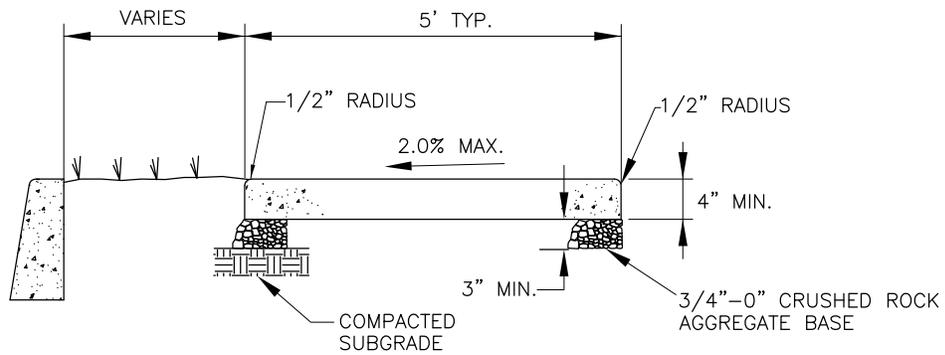
Dwg. Name: ST-2 Typical Street Widths.dwg

DWG. NO.

ST-2



PLAN



PROFILE

NOTES:

1. PORTLAND CEMENT CONCRETE SHALL ATTAIN A 28-DAY COMPRESSIVE STRENGTH OF 3300 P.S.I.
2. CONTRACTION JOINTS SHALL BE PLACED SO AS TO MAKE SQUARE BLOCKS FOR WALKS UP TO 8' WIDE AND ALSO AT ALL CHANGES IN DIRECTION AND POINTS OF CURVATURE. JOINT SHALL BE 1/8" TO 1/4" WIDE WITH A MINIMUM DEPTH OF 1/3 OF THE CONCRETE THICKNESS.
3. ISOLATION JOINTS SHALL BE PLACED AT CONNECTIONS TO EXISTING SIDEWALK, EDGES OF DRIVEWAYS AND ALL STRUCTURES WITHIN SIDEWALK. JOINTS SHALL CONSIST OF A PREFORMED FILLER MATERIAL WITH MINIMUM 1/2" THICKNESS.



City of Astoria
Public Works Department
 1095 Duane Street

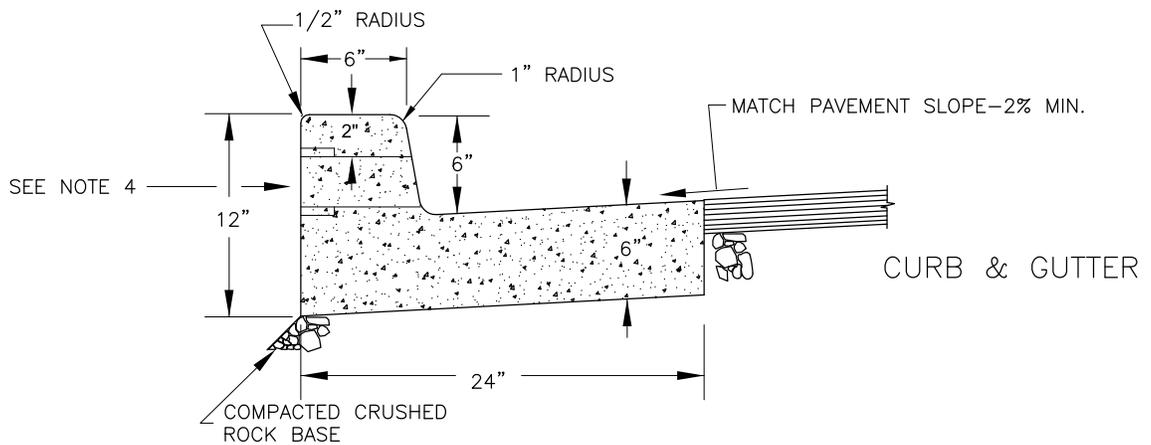
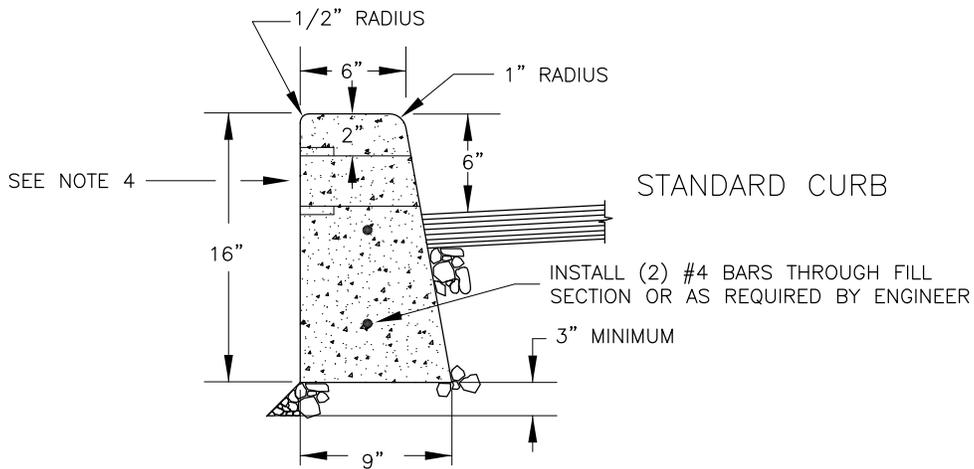
Sidewalk Detail

Date Adopt. 11/01/12 Date Rev. 11/10/15

Dwg. Name: ST-3 Sidewalk.dwg

DWG. NO.

ST-3



NOTES:

1. PORTLAND CEMENT CONCRETE SHALL ATTAIN A 28-DAY COMPRESSIVE STRENGTH OF 3300 P.S.I..
2. CONTRACTION JOINTS SHALL BE PLACED AT 15 FOOT MINIMUM INTERVALS WITH 1 1/2" DEPTH. MATCH SIDEWALK JOINTS.
3. PLACE CONTRACTION JOINT IN CURB OVER CENTER OF PIPE EXTEND PIPE TO BACK OF SIDEWALK IF SIDEWALK IS ADJACENT TO CURB.
4. DRAINAGE BLOCKOUT 3" I.D. PLASTIC PIPE W/BELL. LOCATED AS DIRECTED IN THE FIELD. GENERALLY NOT LESS THAT 2 PER LOT.



City of Astoria
Public Works Department
 1095 Duane Street

Curb Detail

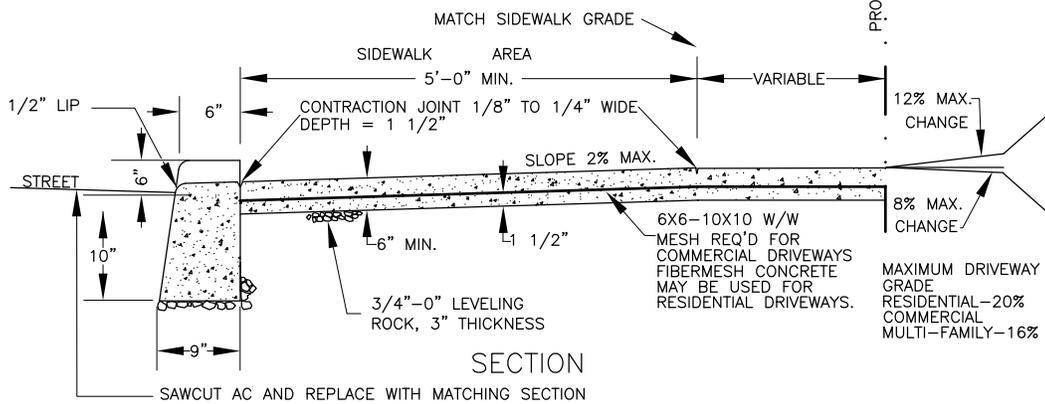
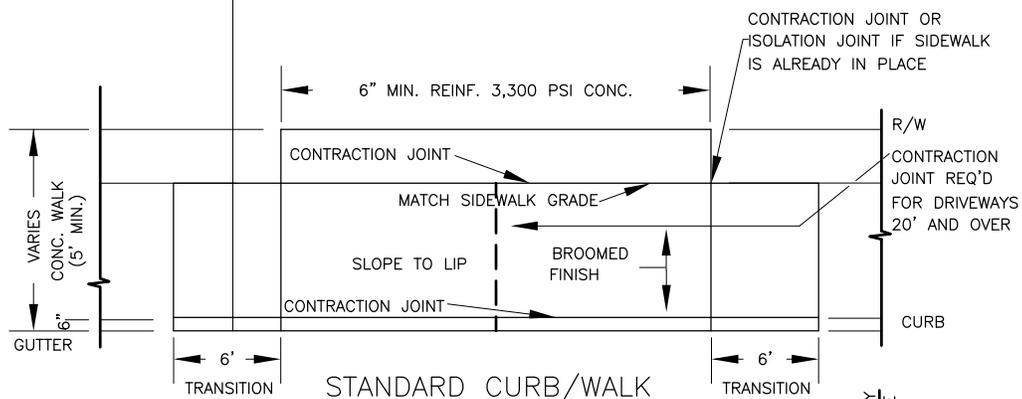
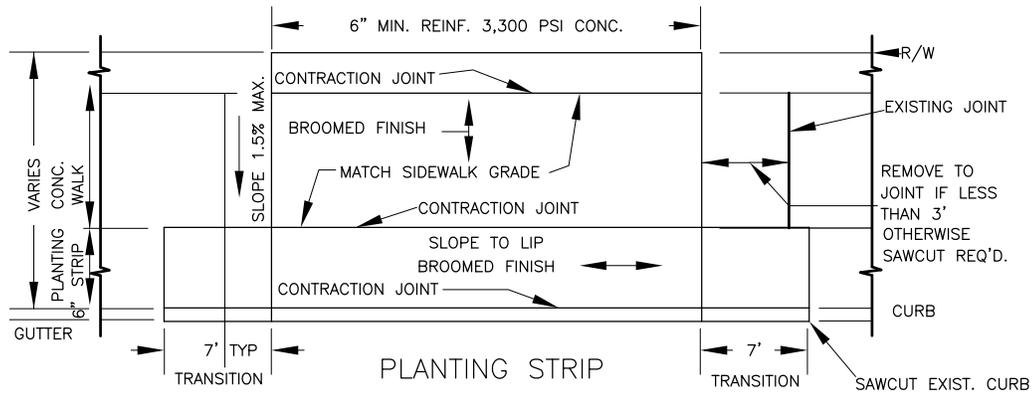
Date Adopt. 11/01/12

Date Rev. ----

DWG. NO.

ST-4

Dwg. Name: ST-4 Curb.dwg



City of Astoria
Public Works Department
 1095 Duane Street

Driveway Apron Detail

Date Adopt. 11/01/12

Date Rev. 11/10/15

DWG. NO.

Dwg. Name: ST-5 Driveway Apron.dwg

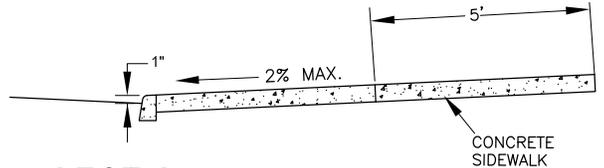
ST-5

CURB AND
SIDEWALK

PUBLIC ROAD

RIGHT-OF-WAY

15' MIN. RADIUS



SECTION A-A

CONCRETE
SIDEWALK

TRUNCATED DOMES
SEE ODOT STD. DETAIL
RD759

1" EXPOSURE

P.C.C. CONC. APRON
STRUCTURAL SECTION TO
MATCH DETAIL ST-5

A.C. OR P.C.C.
DRIVEWAY

VARIES

A

A

CONTRACTION JOINT

0" LIP

0" LIP

MAINTAIN BACK OF SIDEWALK GRADE

TAPER CURB

TRUNCATED DOME
SEE ODOT STD.
DETAIL RD759

6" CURB

15' MIN. RADIUS

INSTALL SIDEWALK (DETAIL ST-3)

PLANTING STRIP
SIDEWALK

LANDSCAPED PLANTING STRIP

NOTES:

THIS TYPE OF APPROACH TO BE USED FOR HIGH VOLUME
TRAFFIC GENERATORS WITH APPROVAL OR AS REQUIRED BY
THE CITY ENGINEER.



City of Astoria
Public Works Department
1095 Duane Street

Curb Return Driveway Detail

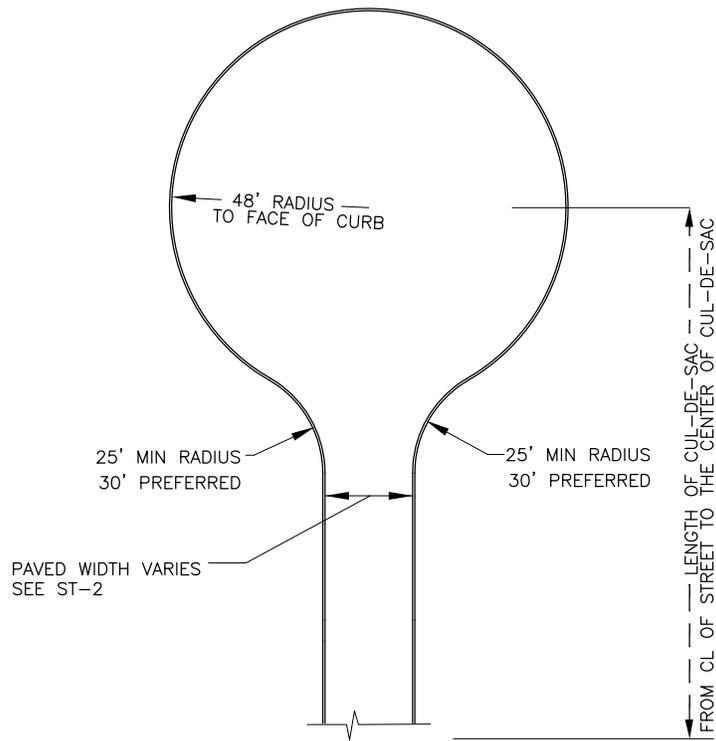
Date Adopt. 11/01/12

Date Rev. 11/10/15

DWG. NO.

Dwg. Name: ST-6 Curb Return.dwg

ST-6



NOTES:

1. LENGTH OF CUL-DE SAC NOT TO EXCEED 400 FEET
2. NO PARKING SIGNS REQUIRED AROUND BULB OF CUL-DE-SAC
3. THE DIMENSION OF THE CUL-DE-SAC BULB MAY BE REDUCED IF ADDITIONAL FIRE SUPPRESSION IS PROVIDED. FIRE SUPPRESSION MUST BE APPROVED BY THE FIRE MARSHAL.



City of Astoria
Public Works Department
 1095 Duane Street

Cul-de-Sac Detail

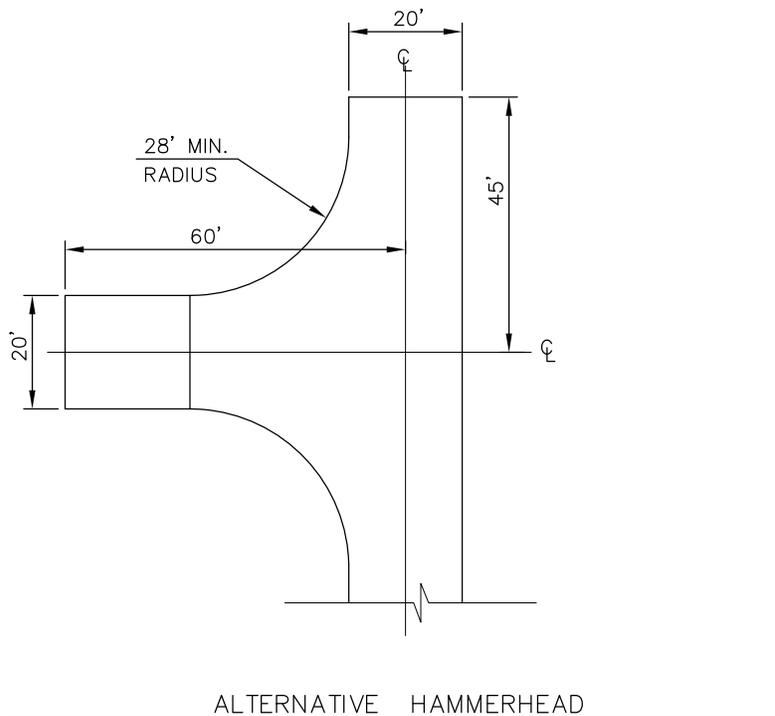
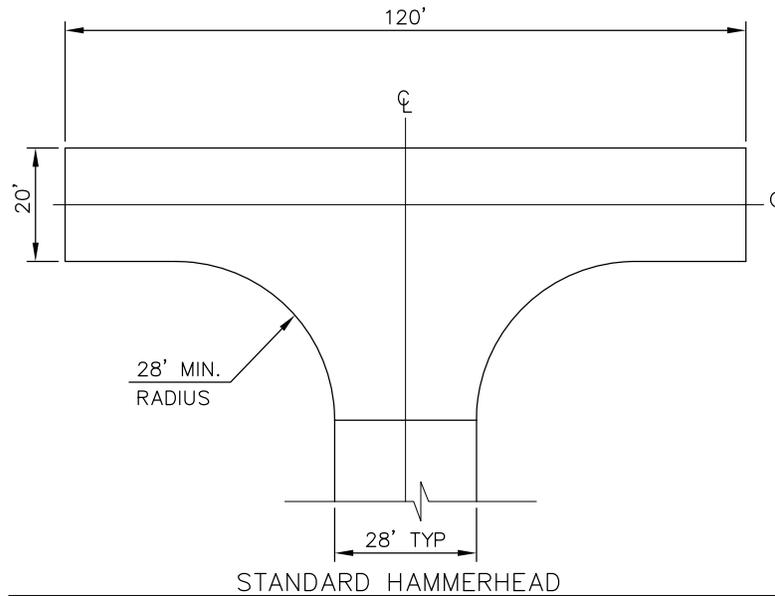
Date Adopt. 11/01/12

Date Rev. ----

DWG. NO.

Dwg. Name: ST-7 Cul-de-Sac.dwg

ST-7



NOTES:

1. HAMMERHEAD WIDTH RANGES BETWEEN 90' TO 120', DEPENDENT UPON ROADWAY LENGTH. SIDEWALKS AND UTILITIES MAY BE LOCATED WITHIN PUBLIC EASEMENTS.
2. ALTERNATIVE DESIGNS BY APPROVAL OF CITY ENGINEER AND FIRE MARSHAL.
3. TURNAROUND FACILITIES CANNOT BE LOCATED ON DRIVEWAYS.
4. ALL STREET ENDS SHALL BE SIGNED PER THE MUTCD.
5. NO PARKING SIGNS REQUIRED IN TURNAROUND AREAS.



City of Astoria
Public Works Department
 1095 Duane Street

Hammerhead Detail

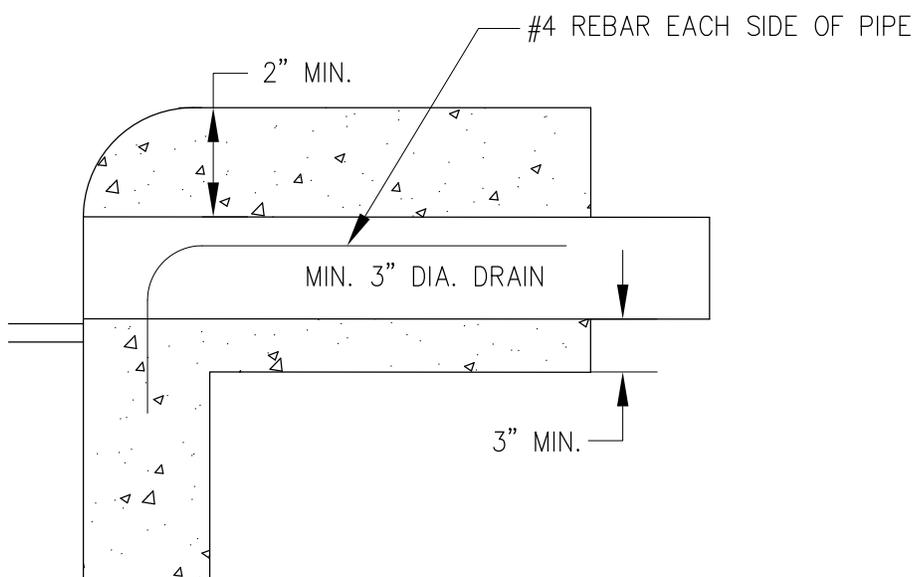
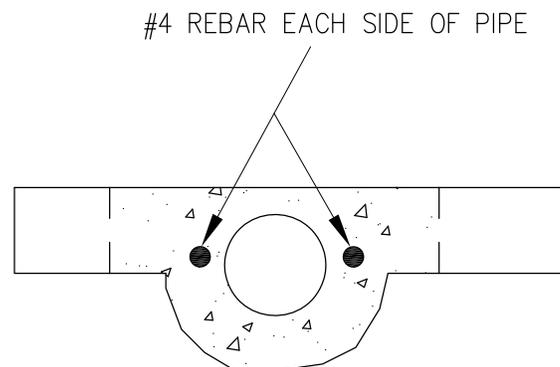
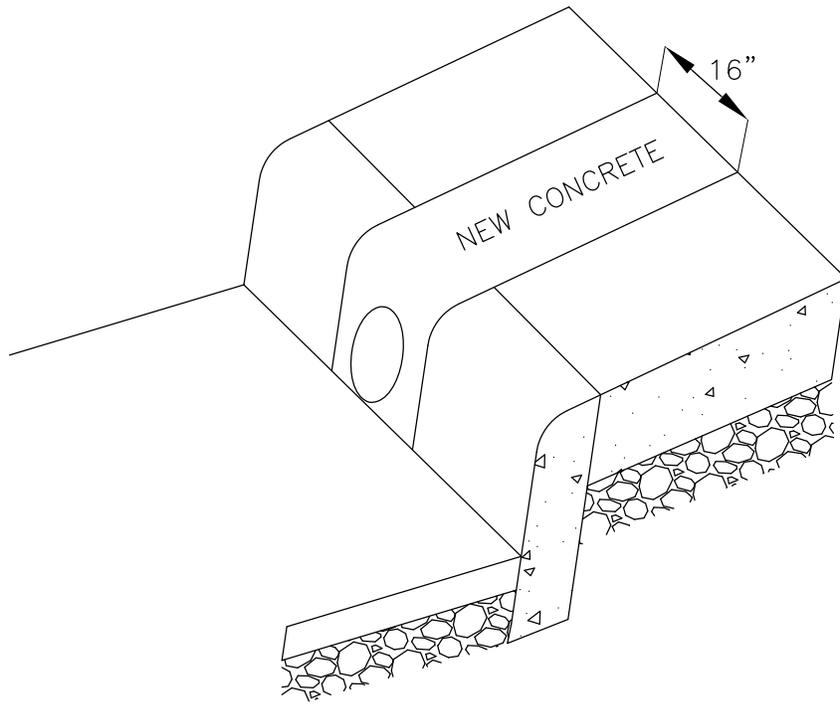
Date Adopt. 11/01/12

Date Rev. ----

DWG. NO.

Dwg. Name: ST-8 Hammerhead.dwg

ST-8



- NOTE:
1. DRAINS WILL BE SIZED ACCORDING TO FLOW FROM ROOF DRAINS, WHERE REQUIRED MULTIPLE RAIN DRAINS SHALL BE INSTALLED.
 2. SIDEWALKS SHALL BE SAWCUT.



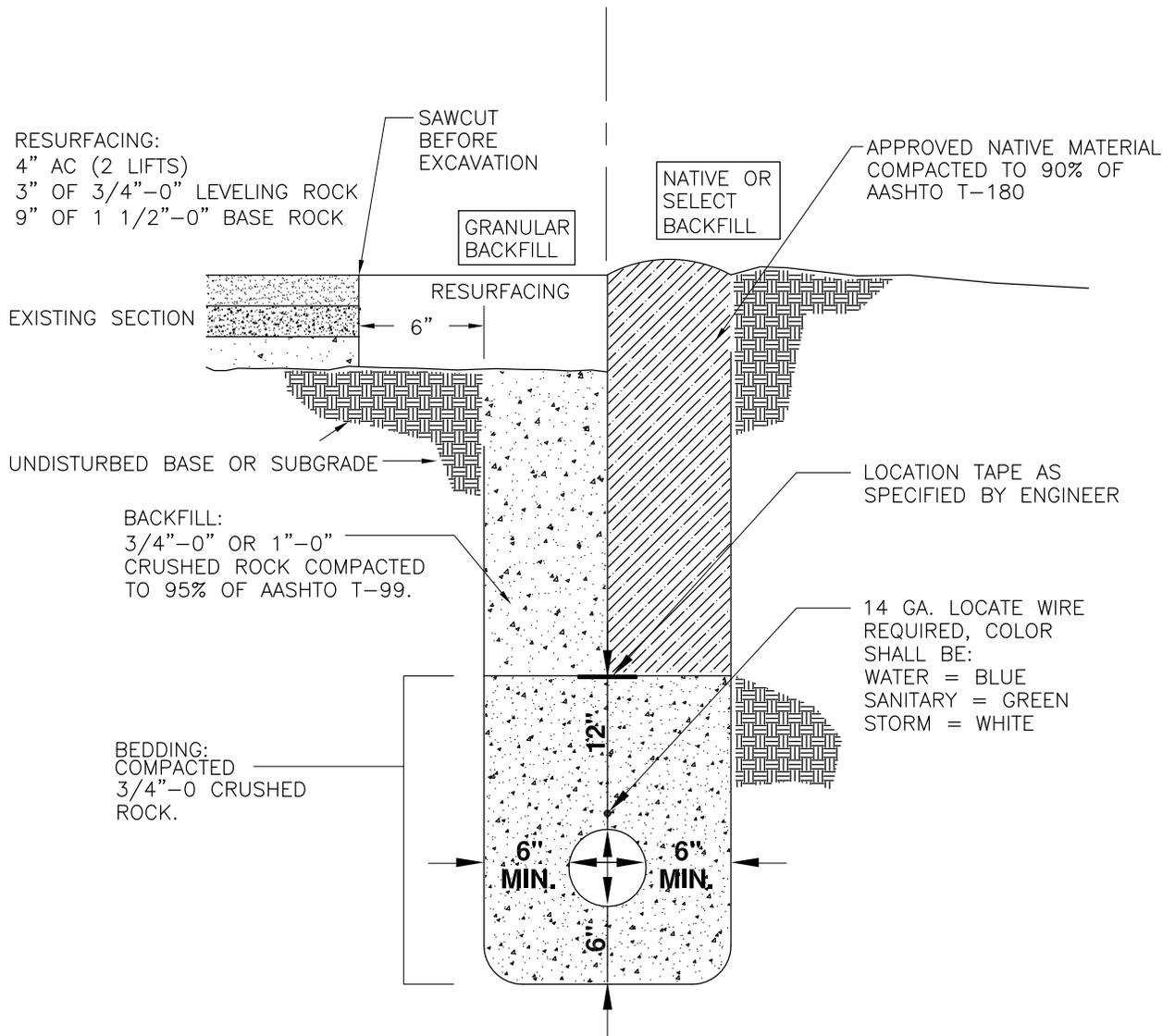
City of Astoria
Public Works Department
 1095 Duane Street

Curb Rain Drain Detail

Date Adopt. 11/01/12	Date Rev. 11/13/15	DWG. NO.
Dwg. Name: ST-9 Curb Rain Drain.dwg		ST-9

IN PAVED AREAS

LANDSCAPED OR UNIMPROVED AREAS



NOTE:

1. CONTRACTOR SHALL TACK EDGES OF TRENCH AND PLACE AND COMPACT ASPHALT IN ACCORDANCE WITH ODOT STANDARD SPECIFICATIONS.
2. REPLACE CONCRETE ROADWAY AS ENCOUNTERED, EQUIVALENT SECTION. CONCRETE TO BE CLASS 3300, 1 1/2" MAX AGGREGATE.
3. IN ROADWAY SHOULDERS AND GRAVEL DRIVEWAYS IN RIGHT-OF-WAY USE GRANULAR BACKFILL AND SURFACE WITH 6" OF 3/4"-0" CRUSHED ROCK.



City of Astoria
Public Works Department
 1095 Duane Street

Utility Trench Detail

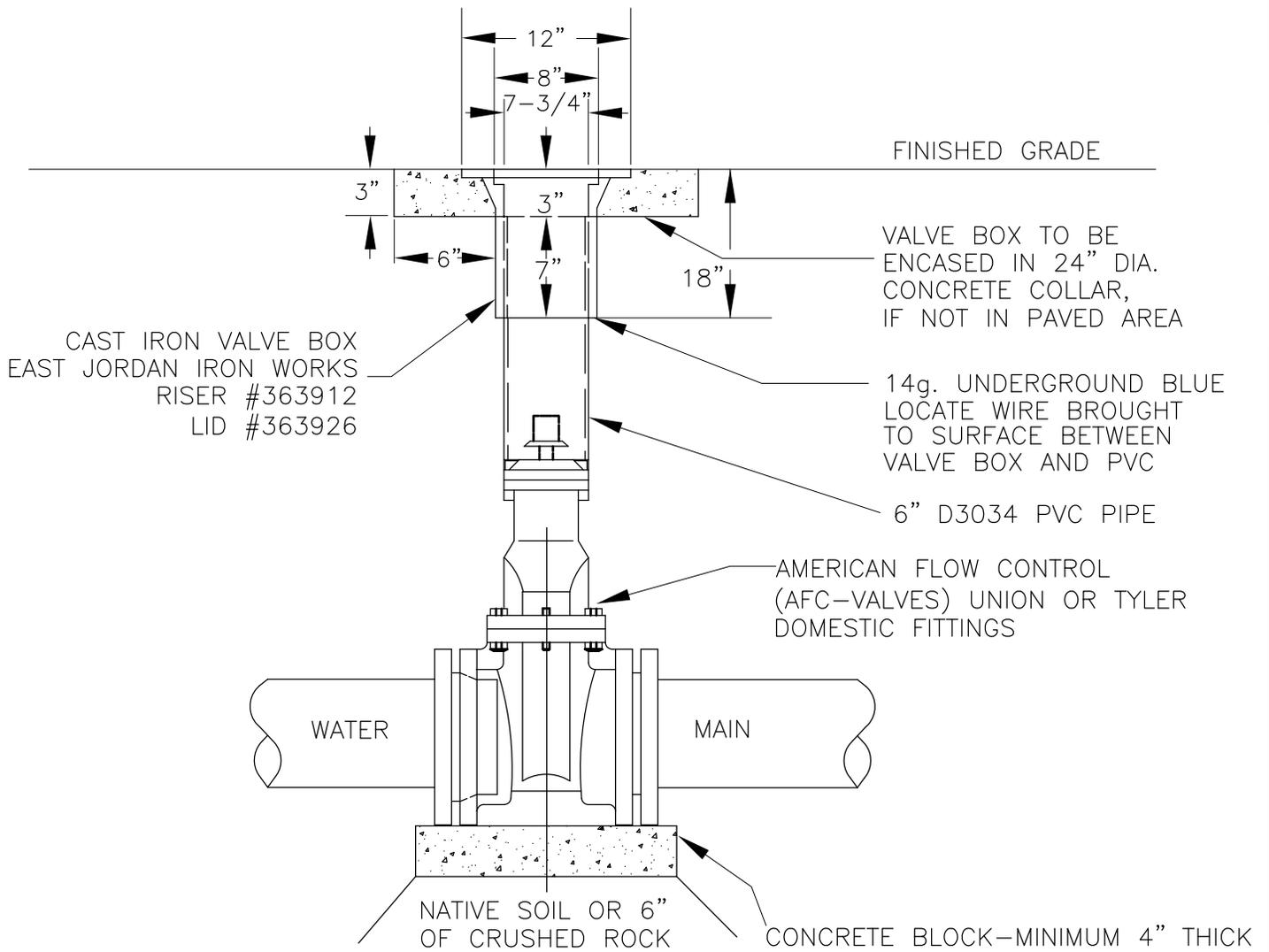
Date Adopt. 11/01/12

Date Rev. 11/20/15

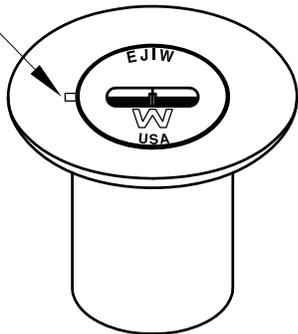
DWG. NO.

Dwg. Name: UT-1 Utility Trench.dwg

UT-1



NOTCH 1/16" DEEP AND 3/8" LONG INDICATING DIRECTION OF MAIN



VALVE BOX

NOTES:

1. VALVE BOXES SHALL BE PLUMB & CENTERED DIRECTLY OVER THE VALVE NUT IN A VERTICAL POSITION.
2. VALVE BOX TOP SHALL BE ADJUSTED TO MEET FINISHED GRADE.



City of Astoria
Public Works Department
1095 Duane Street

Water Valve Detail

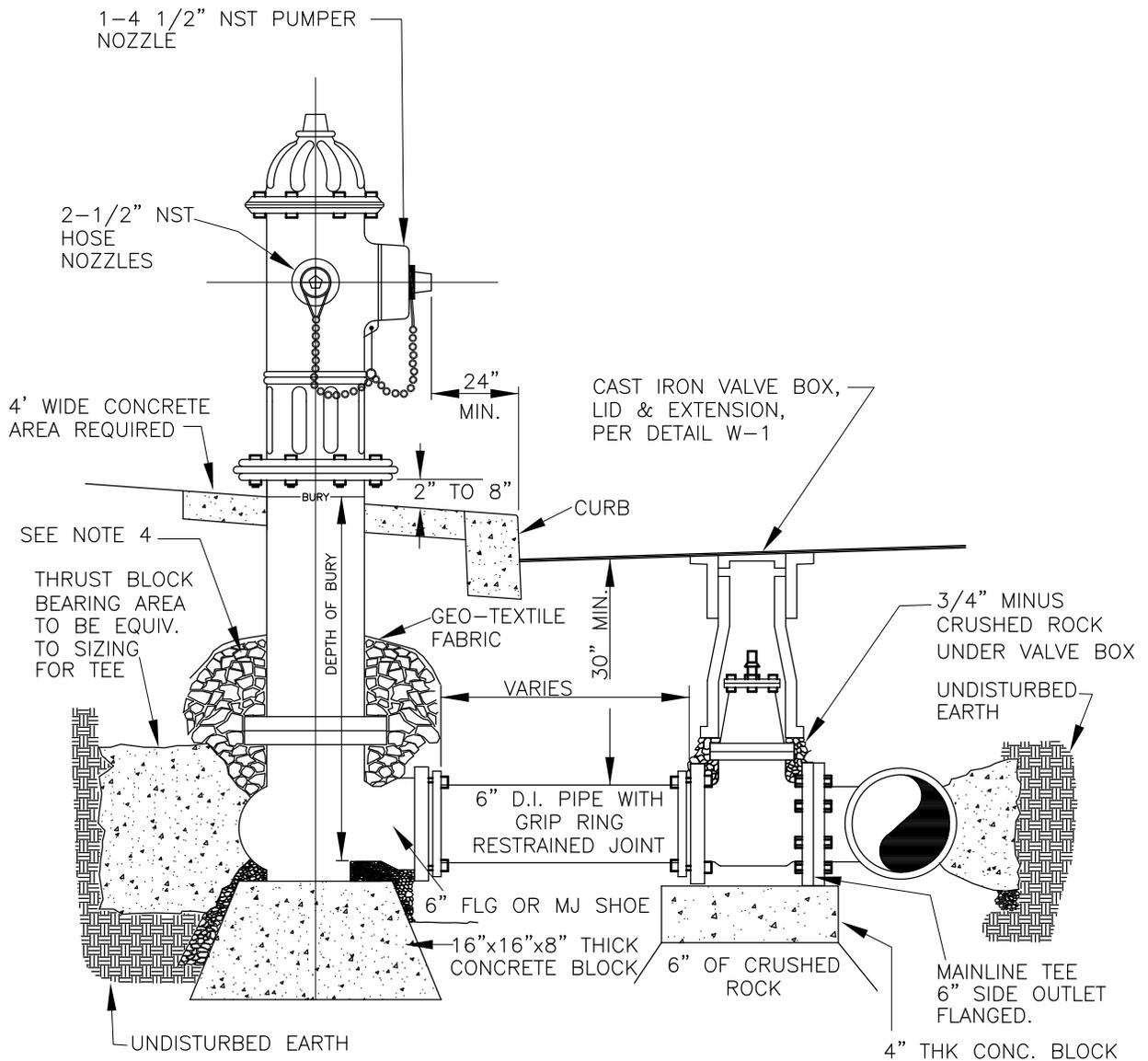
Date Adopt. 10/31/12

Date Rev. 11/13/15

DWG. NO.

Dwg. Name: W-1 Water Valve.dwg

W-1



NOTES:

1. HYDRANTS TO BE MUELLER SUPER CENTURION A423-PN, INLET 6" - 5 1/4" MVO, 1-1/2" PENTAGON OPERATING NUT OPEN LEFT.
2. HYDRANTS ARE YELLOW AND PRIVATE HYDRANTS ARE RED.
3. RESTRAIN JOINTS BY USING FLANGED HYDRANT SHOE, SPOOL, AND GATE VALVE -OR- WITH GRIP RING GASKET JOINT RESTRAINTS.
4. ALL FITTINGS IN CONTACT WITH CONCRETE SHALL BE WRAPPED IN PLASTIC. HYDRANT DRAIN HOLES TO REMAIN OPEN TO DRAIN ROCK AND OPERATIONAL.
5. 1 1/2" - 3/4" CLEAN DRAIN ROCK SHALL BE PLACED A MINIMUM OF 6" ABOVE DRAIN OUTLET 1 YD. MINIMUM AREA.
6. WHERE PLANTER STRIP EXISTS HYDRANT SHALL BE PLACED SO FRONT PORT IS A MINIMUM OF 24" BEHIND FACE OF CURB.
7. BURY OF HYDRANT SHALL BE MEASURED FROM FINISHED GRADE TO BOTTOM OF CONNECTION PIPE.
8. THRUST BLOCK AT FIRE HYDRANT TEE SHALL HAVE A 3.7 SQ. FT BEARING AREA.
9. HYDRANT VALVE SHALL BE AMERICAN FLOW CONTROL RESILIENT SEAT GATE VALVE ONLY.
10. PIPING BETWEEN HYDRANT AND VALVE TO BE SAME PRESSURE CLASS AND MATERIAL AS WATER MAIN OR GREATER.
11. HYDRANT MAY NOT BE LOCATED WITHIN 3' OF ANY OBSTRUCTION.



City of Astoria
Public Works Department
 1095 Duane Street

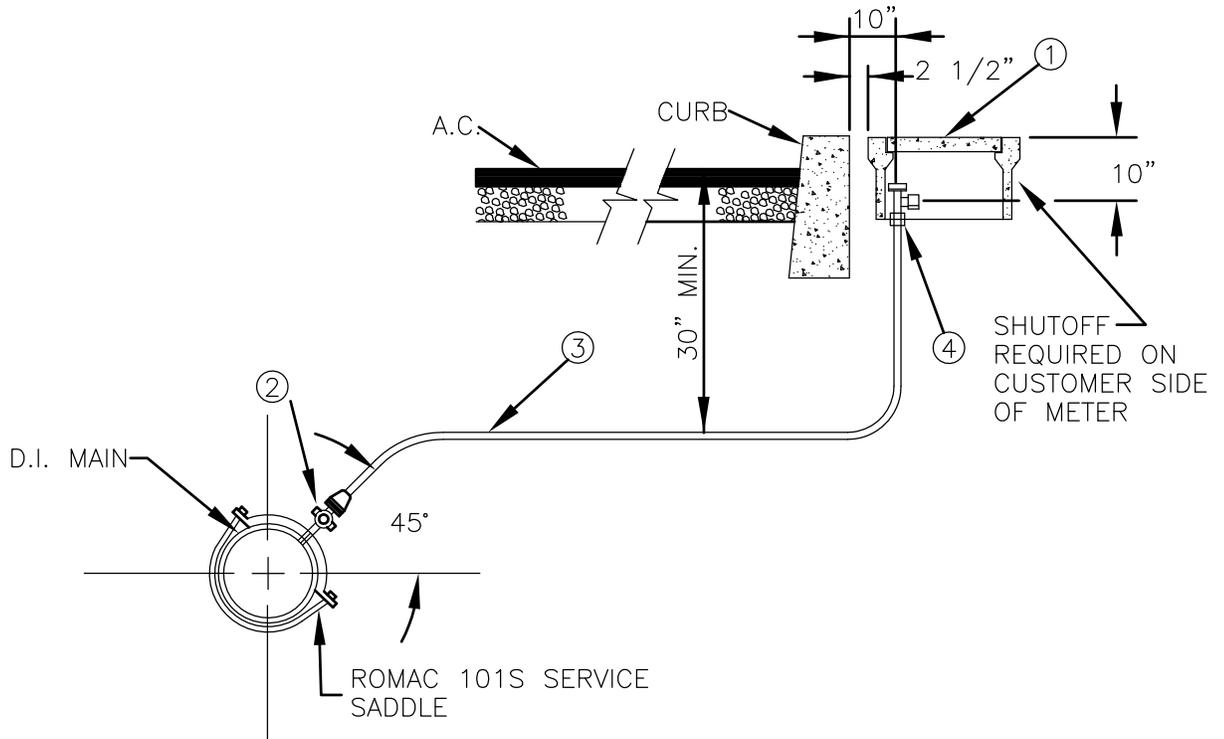
Fire Hydrant Detail

Date Adopt. 10/31/12 Date Rev. 11/13/15

Dwg. Name: W-2 Fire Hydrant.dwg

DWG. NO.

W-2



MATERIALS:

1. ARMOR CAST POLYMER CONCRETE METER BOX AND LID.
 - A. 3/4" SERVICE – 12"X20"X12" BODY NO. A6000485 20K AND CAST IRON READ COVER NO. A6000484TRC1 20K.
 - B. 1" SERVICE – 13"X24"X12" BODY NO. A6001946PCX12 20K AND CAST IRON READ COVER NO. A6001969RC1 20K.
 - C. FOR IRRIGATION APPLICATIONS OR UPON ENGINEER'S APPROVAL USE A CARSON 3/4" METER BOX: 1419-12 (GREEN) BODY WITH A 1419-3 (GREEN) NO BOLT FLUSH COVER.
2. MUELLER CORP. STOP NO. H-15028N
3. 3/4" & 1" CTS SDR 9 (200 PSI) PE TUBING OR SOFT TEMPER, TYPE 'K' COPPER TUBING COMPLYING WITH ASTM B-88 UPON ENGINEERS APPROVAL.
4. MUELLER ANGLE METER STOP NO. H-14258N (3/4" AND 1")

NOTES:

1. SUBSTITUTES FOR ANY MATERIALS SHOWN SHALL BE APPROVED BY THE CITY ENGINEER.
2. ALL PIPE AND STRUCTURE ZONES SHALL BE BACKFILLED USING 3/4" MINUS CRUSHED AGG. AND COMPACTED TO 95% MAX. DENS. AS DETERMINED BY AASHTO T-180.
3. METER BOX SHALL BE CENTER OVER THE COMPLETED METER ASSEMBLY.
4. WATER METERS THAT ALSO PROVIDE FIRE SUPPRESSION MUST BE TAGGED WITH "SUPPLIES FIRE SUPPRESSION." TAG SHALL BE MIN. 2.5" X 5", WEATHERPROOF, HEAVY DUTY RED PLASTIC. PRE-DRILL AND SECURED TO THE METER WITH PLASTIC CABLE TIES.



City of Astoria
Public Works Department
 1095 Duane Street

3/4" & 1" Water Service Detail

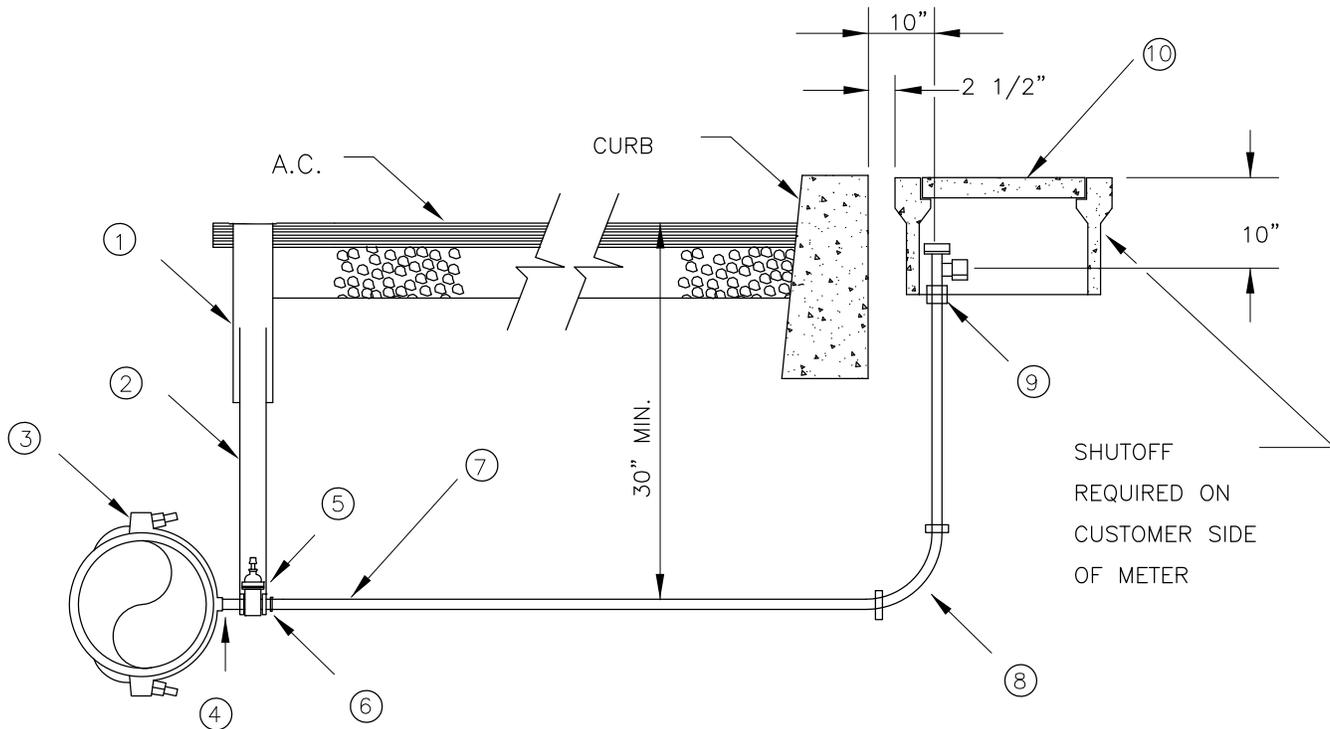
Date Adopt. 11/01/12

Date Rev. 11/16/15

DWG. NO.

W-3

Dwg. Name: W-3 1 Inch Water Service.dwg



NOTES:

1. EJIW - 18" VALVE BOX TOP WITH COVER
2. 6" PVC D3034 SEWER PIPE
3. PIPE SIZE-ROMAC 202S STYLE SERVICE SADDLE DOUBLE STRAP STAINLESS STEEL-TAP 2" I.P. THREAD.
4. 2" BRASS CLOSE NIPPLE
5. 2" C.I. GATE VALVE WITH 2" OPERATING NUT, BOTH ENDS FEMALE I.P. THREADS-AMERICAN FLOW CONTROL
6. 2" MUELLER COMPRESSION #110 COUPLING, MALE I.P. THREADS #15428N.
7. 2" HDPE TUBING CTS SIZE SDR 9 (200 PSI).
8. IF NEEDED 2" QUARTER BEND UNION, COMPRESSION CONNECTOR CTS O.D. TUBING BOTH ENDS-#H15526N
9. 2" GROUND KEY ANGLE METER STOP MUELLER 110 COMPRESSION, FOR CTS O.D. TUBING, METER FLANGE 180 TURN CHECK-LOCK WING-#H14277N.
10. ARMORCAST 17" X 30" X 12" POLYMER CONCRETE METER BOX (A6001640PCX12) AND COVER W/ CAST IRON READ LID (A6001947TRC1)
11. WATER METERS THAT ALSO PROVIDE FIRE SUPPRESSION MUST BE TAGGED WITH "SUPPLIES FIRE SUPPRESSION." TAG SHALL BE MIN. 2.5" X 5", WEATHERPROOF, HEAVY DUTY RED PLASTIC. PRE-DRILL AND SECURED TO THE METER WITH PLASTIC CABLE TIES.



City of Astoria
Public Works Department
 1095 Duane Street

2 Inch Water Service Detail

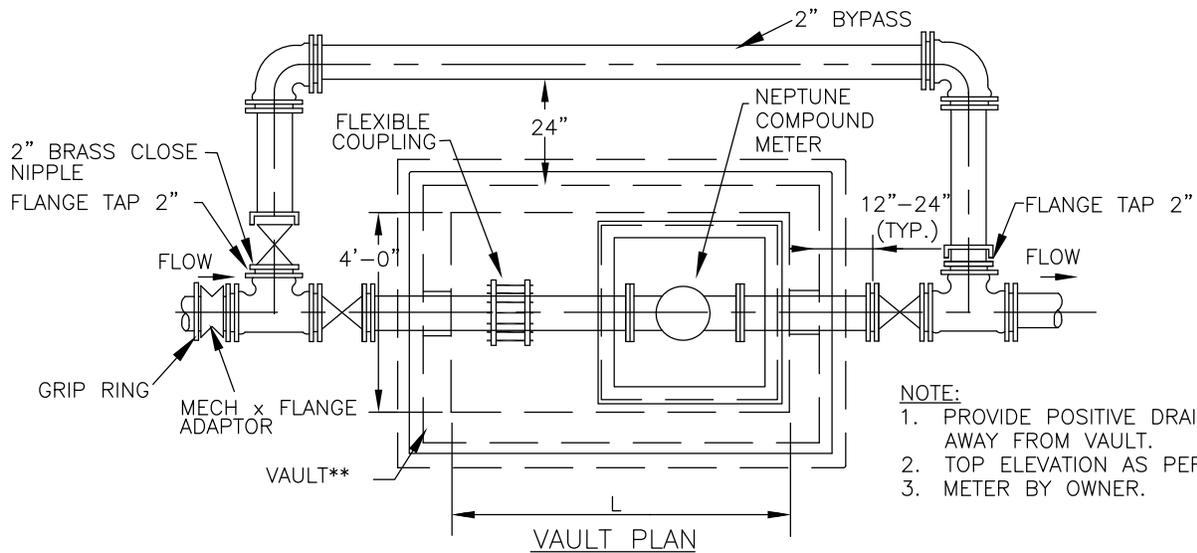
Date Adopt. 11/01/12

Date Rev. 11/16/15

DWG. NO.

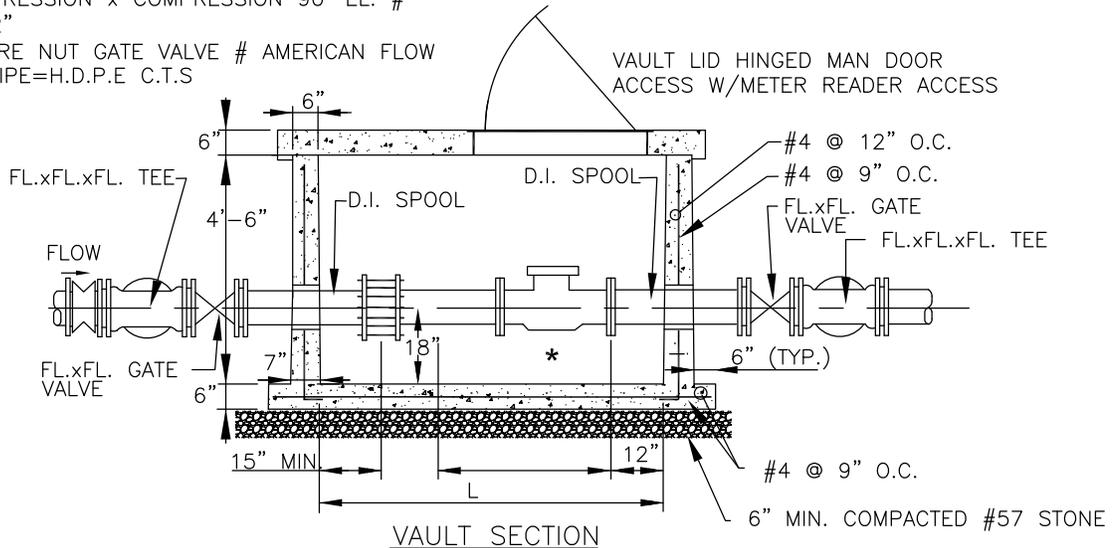
Dwg. Name: W-4 2 Inch Water Service.dwg

W-4



- NOTE:**
1. PROVIDE POSITIVE DRAINAGE AWAY FROM VAULT.
 2. TOP ELEVATION AS PER PLAN.
 3. METER BY OWNER.

2" BYPASS (SIZE OF BYPASS TO BE DETERMINED BY ENGINEER).
 2-2" COMPRESSION x I.P. MALE #H15428N-2"
 2-2" COMPRESSION x COMPRESSION 90° EL. # H15526N-2"
 1-2" SQUARE NUT GATE VALVE # AMERICAN FLOW
 CONTROL PIPE=H.D.P.E C.T.S



VAULT** MINIMUM 1 FT. CLEARANCE ON FLANGED ENDS AND SIDES OF 3" & 4" METERS .
 MINIMUM 2 FT. CLEARANCE ON FLANGED ENDS AND SIDES OF 6" AND LARGER METERS.
 VAULT TO HAVE ATTACHED LADDER IF OVER 3' DEEP WITH 3' REMOVABLE SECTION THAT WILL EXTEND ABOVE VAULT LID.
 METER TO BE SET 18" FROM TOP OF LID.
 METER READER ACCESS DOOR TO BE CENTERED EVER METER REGISTER.
 FLOOR TO HAVE DRAIN OR SUMP PUMP MAINTAINED BY CUSTOMER.
 VAULT TO BE SET AT FINISHED GRADE.
 *METER MIN.1' ABOVE BOTTOM OF VAULT
 CONCRETE PAD AROUND GATE VALVE BOXES, SEE W-1



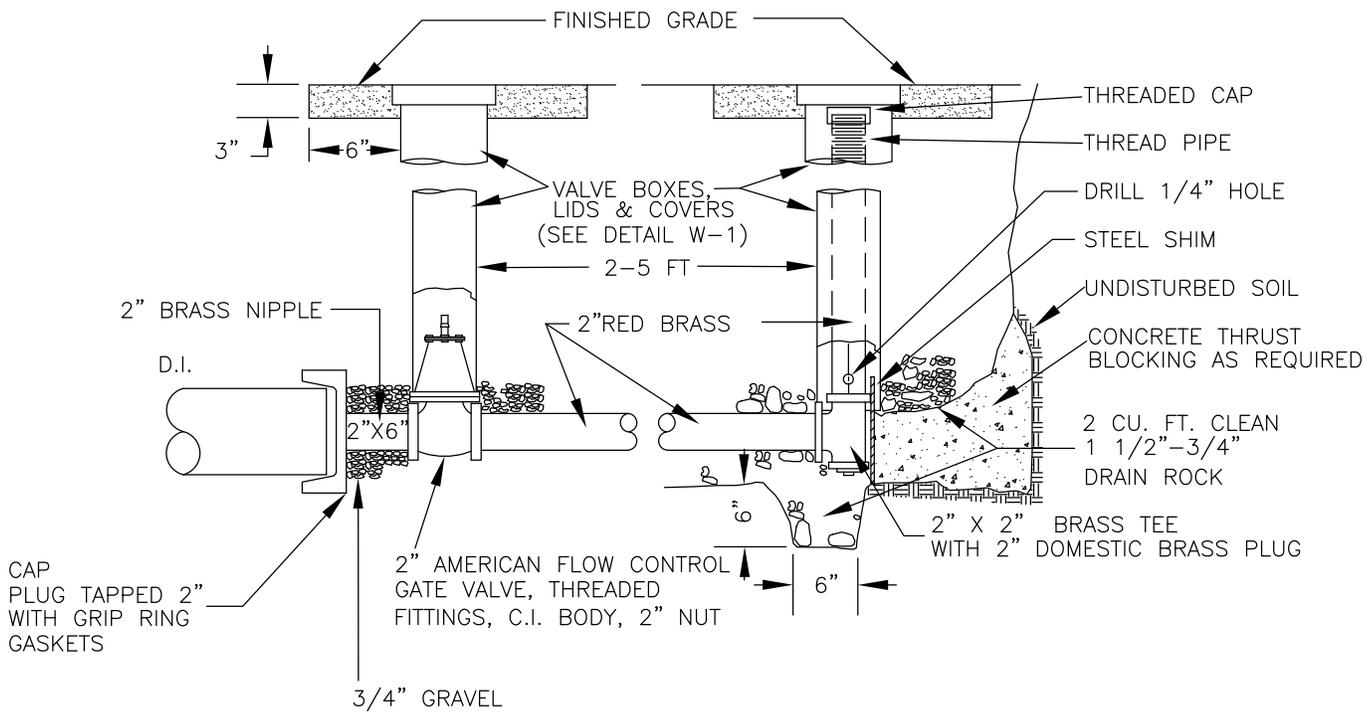
City of Astoria
Public Works Department
 1095 Duane Street

3 to 10 Inch Water Service Detail

Date Adopt. 11/01/12 Date Rev. 10/23/14

Dwg. Name: W-5 3 to 10 Inch Water Service.dwg

DWG. NO.
W-5



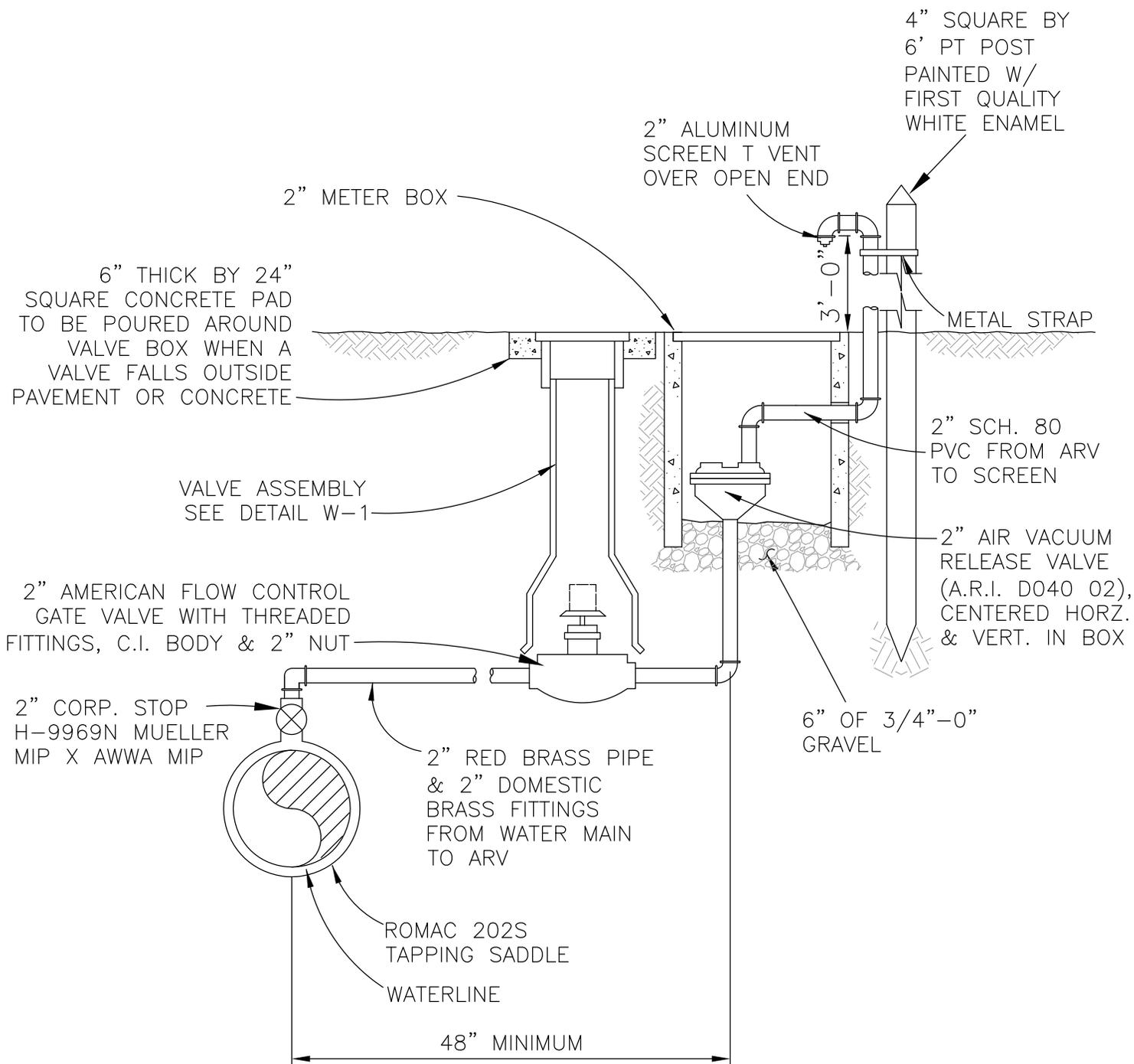
- NOTES:
1. VALVE BOX SHALL BE PER STANDARD DETAIL W-1.
 2. BLOW-OFF UNIT SHALL BE GRAVEL BACK FILLED AND COMPACTED AS SHOWN.



City of Astoria
Public Works Department
 1095 Duane Street

Blow Off Detail

Date Adopt.	11/01/12	Date Rev.	----	DWG. NO.
Dwg. Name:	W-6 Blow Off.dwg			W-6



City of Astoria
Public Works Department
 1095 Duane Street

Air/Vacuum Release Valve Detail

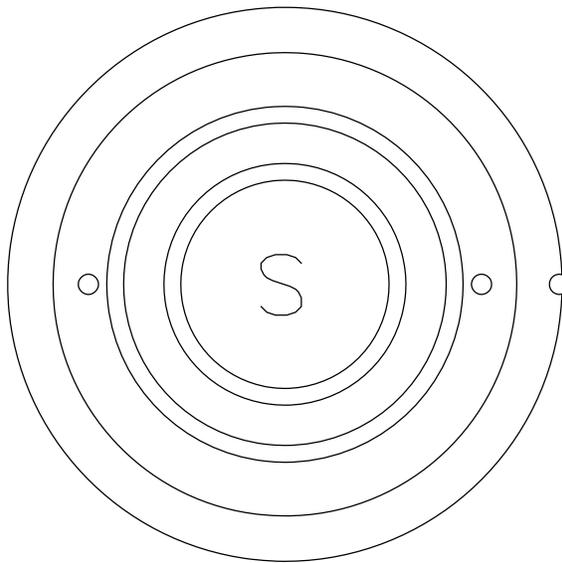
Date Adopt. 09/23/15

Date Rev. ----

DWG. NO.

W-7

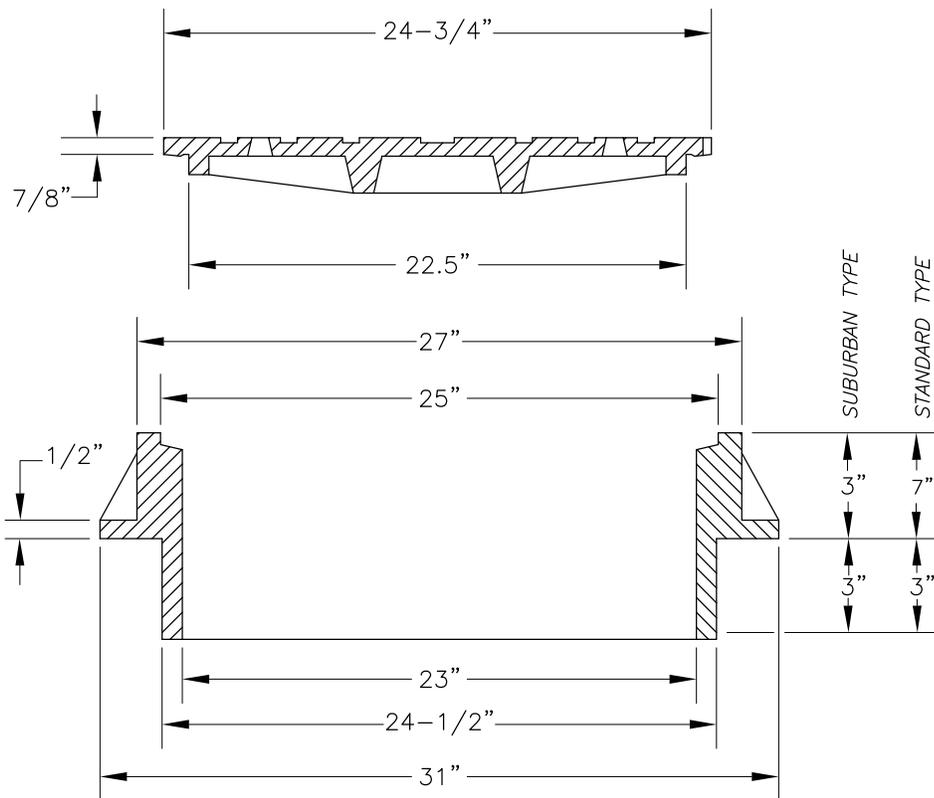
Dwg. Name: W-7 Air Release.dwg



SANITARY



STORM



NOTES:

1. USE SUBURBAN TYPE ONLY IN NON-TRAFFIC AREAS.
2. COVER & FRAME SHALL BE GRAY CAST IRON ASTM A-48 CLASS 30.
3. COVER & FRAME TO BE MACHINED TO A TRUE BEARING ALL AROUND.
4. NOTCH LID FOR LIFTING HOOK.



City of Astoria
Public Works Department
 1095 Duane Street

Manhole Frame & Cover Detail

Date Adopt. 11/01/12

Date Rev. 12/09/15

DWG. NO.

Dwg. Name: S-1 Manhole Frame & Cover.dwg

S-1

MANHOLE TO CONFORM WITH
ASTM C-478

48" FOR PIPE 24" OR LESS
AS SPEC'D FOR PIPE 27" OR LARGER

KEYLOCK JOINT FOR 48",
MORTAR JOINT FOR 60" AND
LARGER

STANDARD
MANHOLE
STEPS

4 5/8" 12" TYPICAL

RUBBER PIPE BOOT
(AS SHOWN IN
DETAIL S-3)

PIPE
O.D.

BEST SEAL MASTIC JOINT SEALER
OR GROUT

INLET

12"

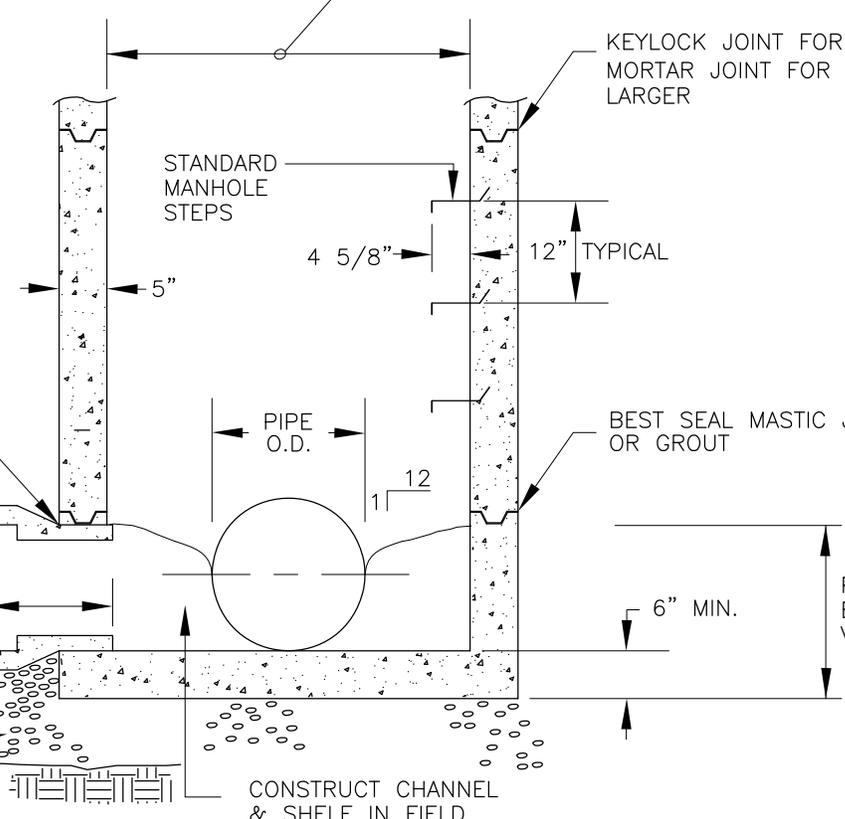
12

6" MIN.

PRECAST MH
BASE HEIGHT
VARIABLE

12" of 3/4"-0"
CRUSHED ROCK

CONSTRUCT CHANNEL
& SHELF IN FIELD



City of Astoria
Public Works Department
1095 Duane Street

Precast Manhole Base Detail

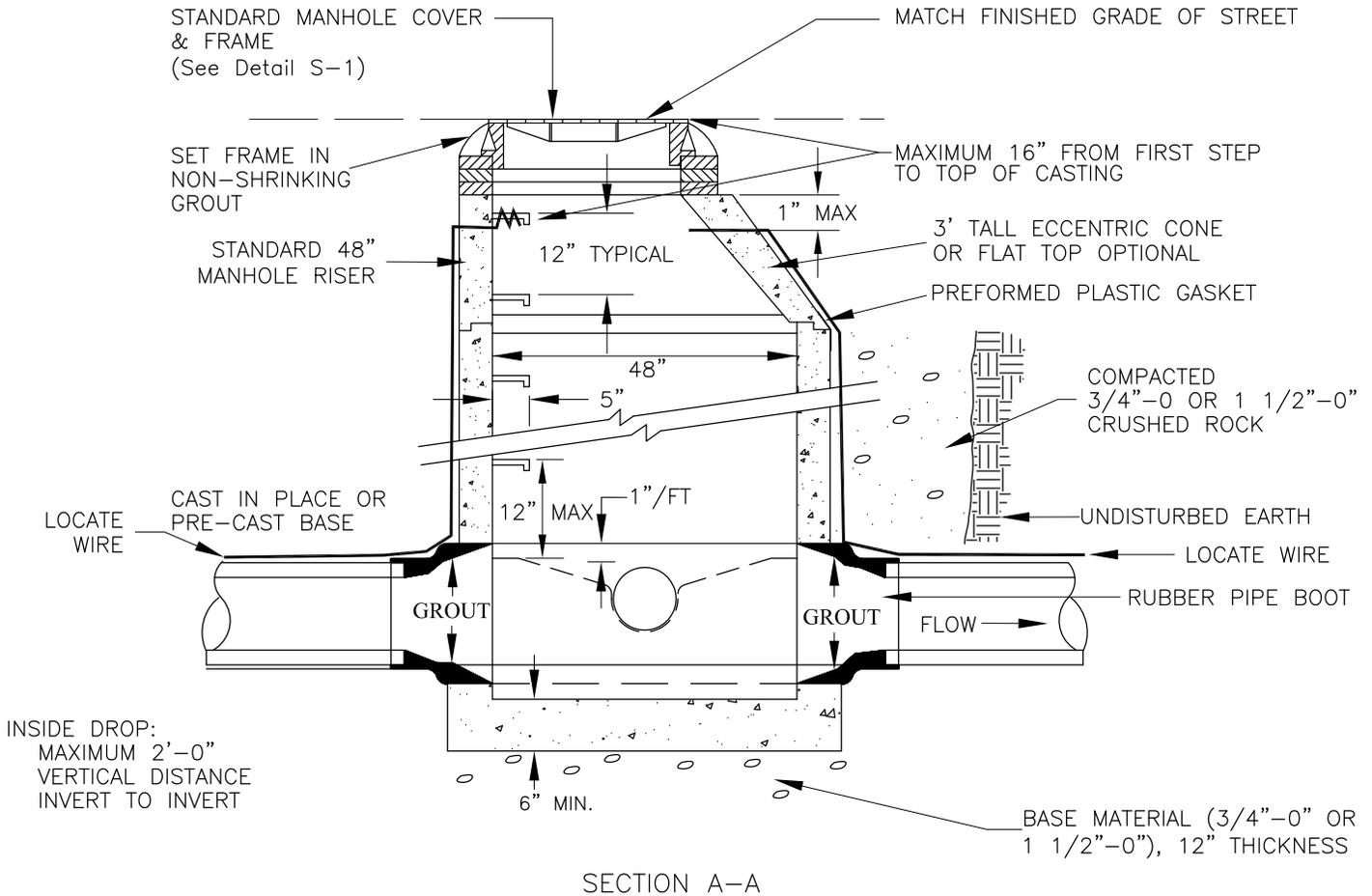
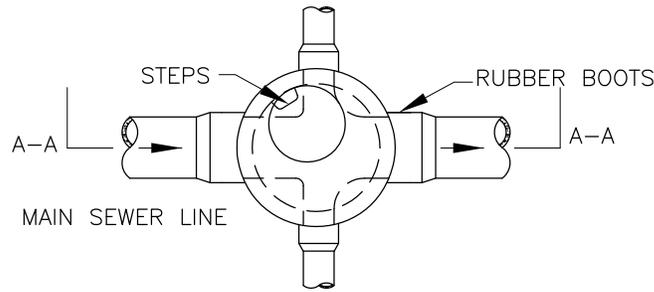
Date Adopt. 11/01/12

Date Rev. 11/16/15

DWG. NO.

Dwg. Name: S-2 Precast Manhole Base.dwg

S-2



NOTES:

1. THIS TYPE OF MANHOLE SHALL BE USED ONLY FOR PIPE SIZE OF 24" OR LESS.
2. GROUT INSIDE AND OUTSIDE AT PENETRATION IF NO BOOT, GROUT INSIDE IF THERE IS A BOOT, GROUT INSIDE WHERE SECTIONS COME TOGETHER AND PICK HOLES.
3. LOCATE WIRE SHALL BE 14 GAGE GREEN, DRILL NO MORE THAN 1" BELOW FRAME, LEAVE ENOUGH WIRE TO GET TO TOP, GROUT HOLES.
4. CONSTRUCT CHANNEL AND SHELF IN FIELD.
5. FLAT TOP MANHOLE SLABS SHALL HAVE A 25" OPENING, OFFSET TO ONE SIDE.

SECTION A-A



City of Astoria
Public Works Department
 1095 Duane Street

Standard Manhole Detail

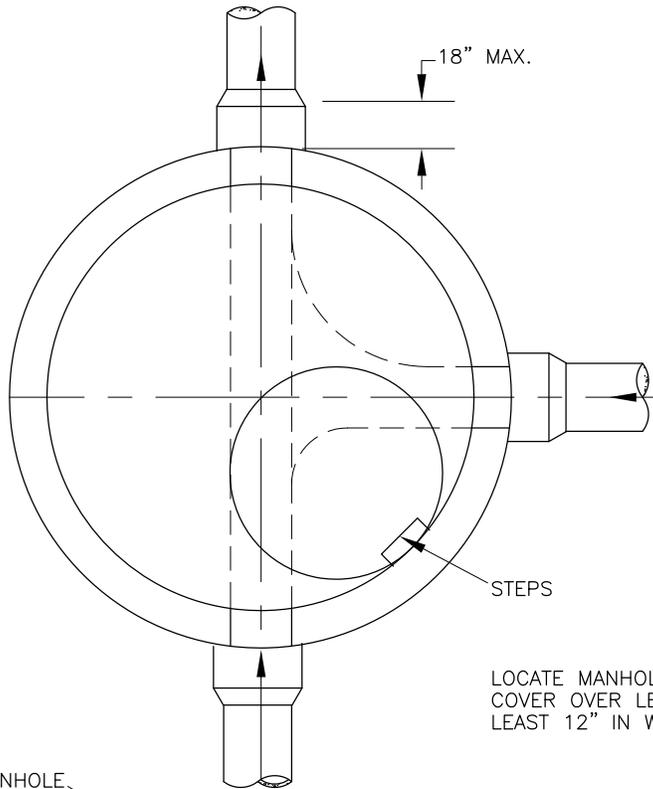
Date Adopt. 11/01/12

Date Rev. 11/20/15

DWG. NO.

Dwg. Name: S-3 Standard Manhole.dwg

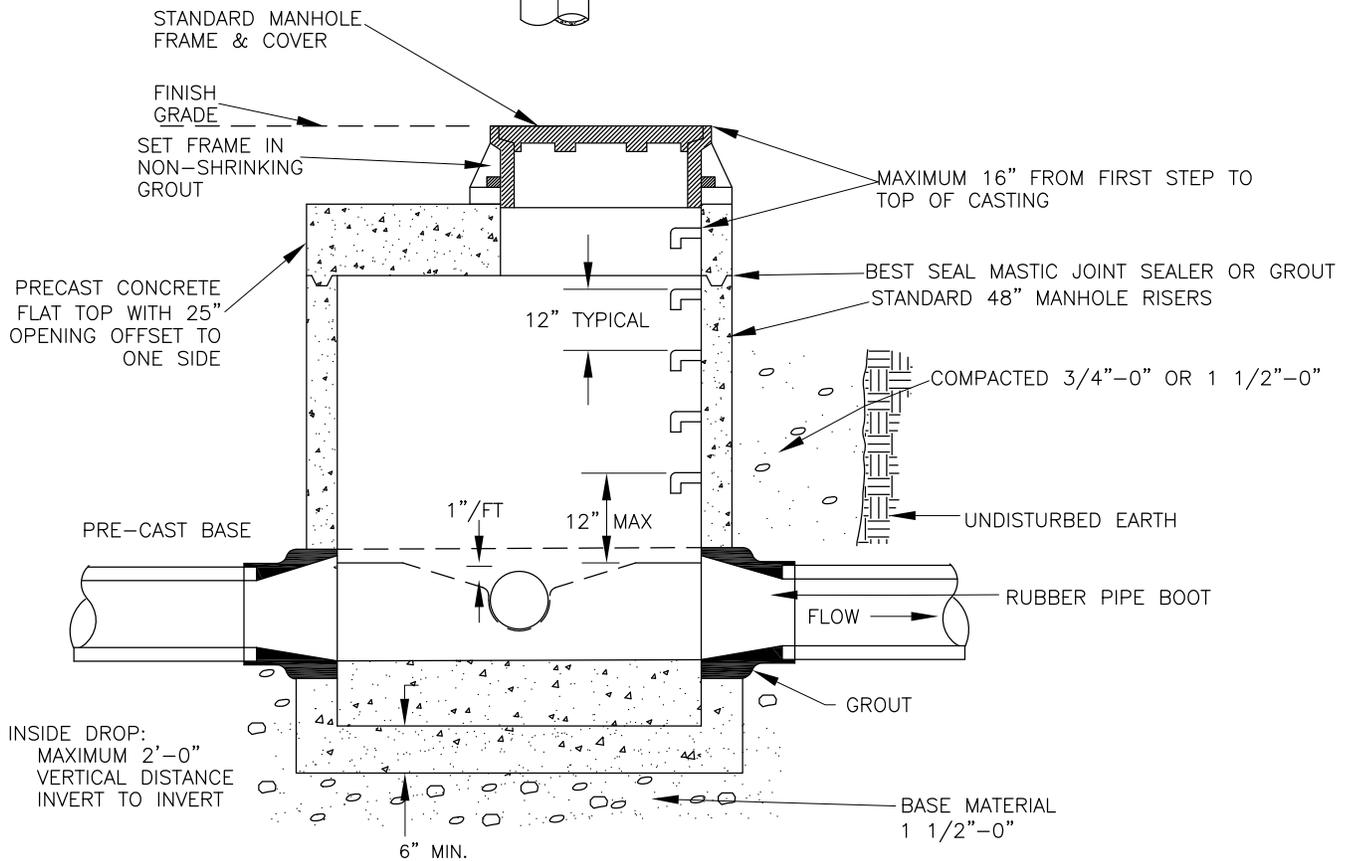
S-3



MAKE SURFACE OF GROUT FILLET SMOOTH & FORM GROOVED INVERT TO DIRECTION OF FLOW

NOTE: INLETS/OUTLETS AS REQUIRED.

LOCATE MANHOLE FRAME & COVER OVER LEDGE OF AT LEAST 12" IN WIDTH.



INSIDE DROP: MAXIMUM 2'-0" VERTICAL DISTANCE INVERT TO INVERT

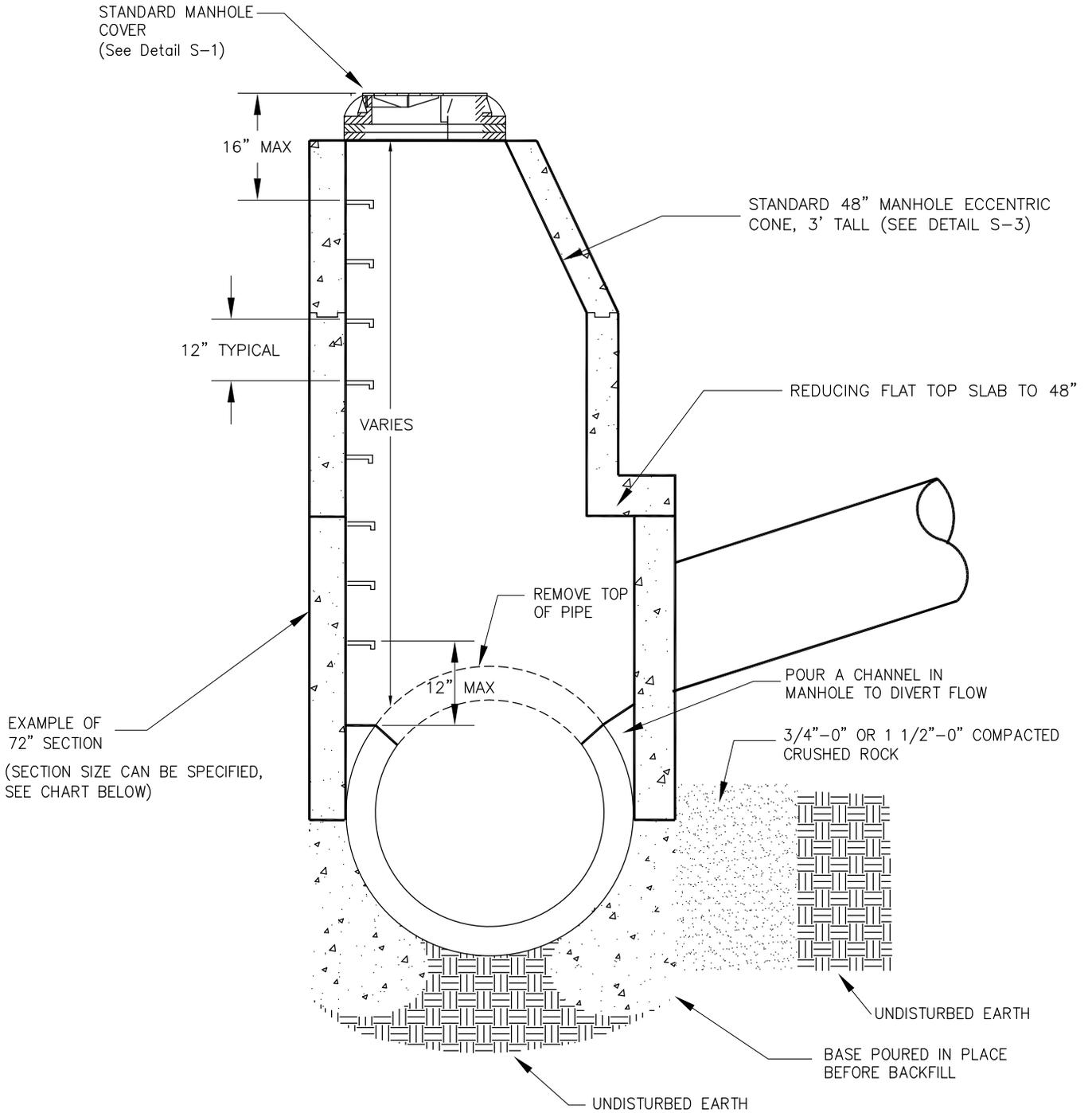


City of Astoria
Public Works Department
 1095 Duane Street

Flat Top Manhole Detail

Date Adopt. 11/01/12	Date Rev. 11/15/12
Dwg. Name: S-4 Flat Top Manhole.dwg	

DWG. NO.
S-4



Manhole Sizing	Manhole Sizing
36" Hole in a 48" Manhole	60" Hole in a 72" Manhole
42" Hole in a 54" Manhole	72" Hole in a 84" Manhole
48" Hole in a 60" Manhole	84" Hole in a 96" Manhole

Largest diameter hole that a 90° will fit	
2-28" holes in 48" Manhole	2-36" holes in 60" Manhole
2-32" holes in 54" Manhole	2-42" holes in 72" Manhole



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 1095 Duane Street

Manhole Over Existing Sewer Detail

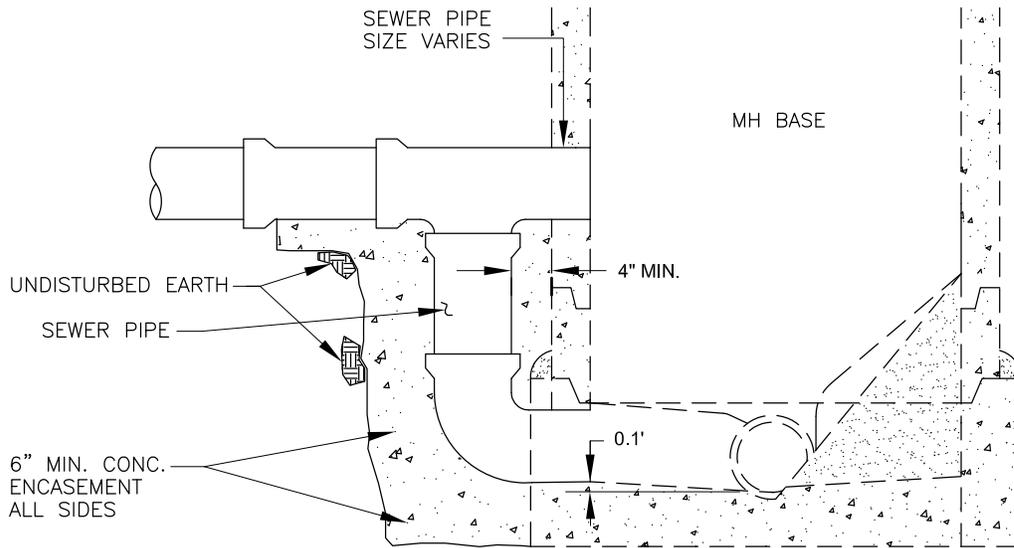
Date Adopt. 11/01/12

Date Rev. 11/15/12

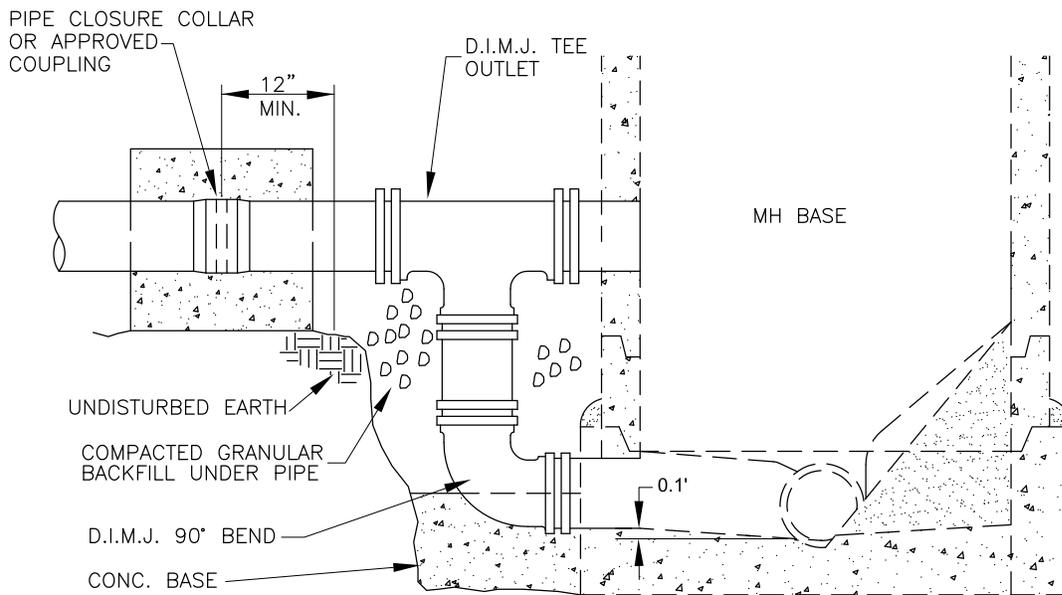
DWG. NO.

Dwg. Name: S-5 Manhole Over Existing Sewer.dwg

S-5



CONCRETE OR P.V.C. PIPE DROP



DUCTILE IRON PIPE DROP



City of Astoria
Public Works Department
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Outside Drop Connection Detail

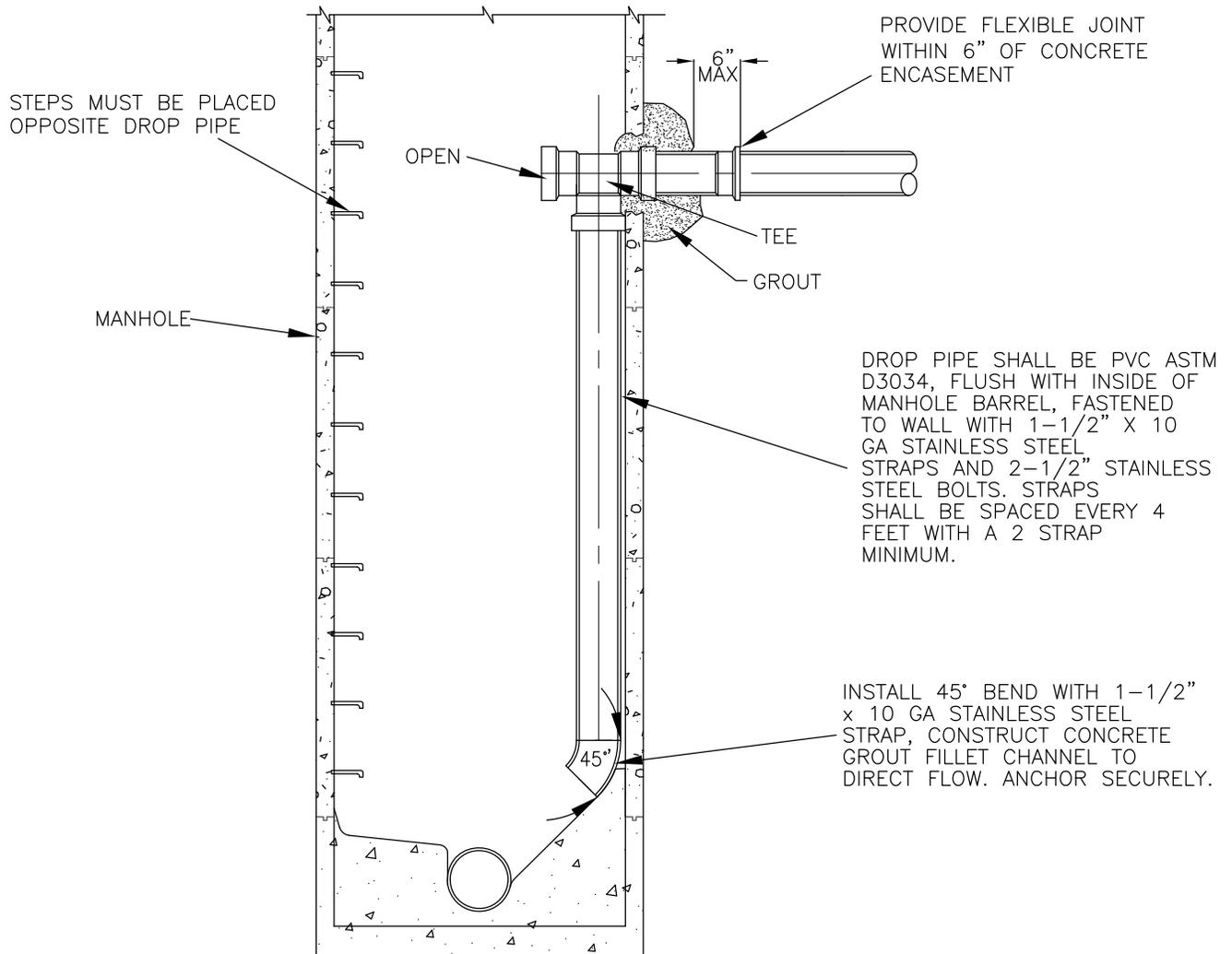
Date Adopt. 11/01/12

Date Rev. ----

DWG. NO.

Dwg. Name: S-6 Outside Drop Manhole.dwg

S-6



NOTE

1. ONLY ONE INSIDE DROP CONNECTION ALLOWED PER MANHOLE.
2. MINIMUM MANHOLE DIAMETER WITH DROP CONNECTION SHALL BE 48 INCHES.
3. MAXIMUM DROP PIPE DIAMETER SHALL BE 8 INCHES.



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Inside Drop Connection Detail

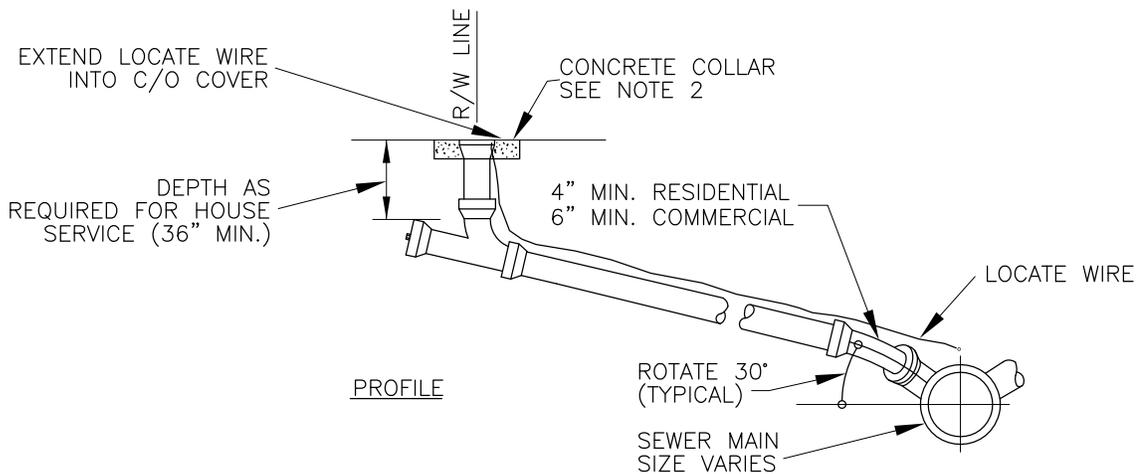
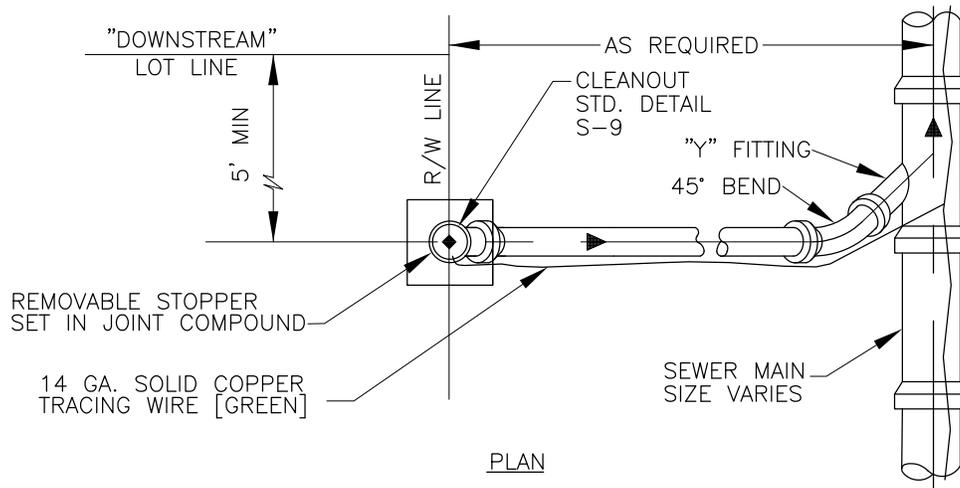
Date Adopt. 11/01/12

Date Rev. 10/06/14

DWG. NO.

Dwg. Name: S-7 Inside Drop Manhole.dwg

S-7



NOTES

1. SERVICE CONNECTION DETAILS ARE BASED ON GASKETED PVC PIPE AND FITTINGS. SEWER LATERAL PIPE SHALL BE PVC ASTM D3034.
2. SEWER CLEAN-OUTS NOT IN PAVEMENT SHALL HAVE CONCRETE COLLAR 18"x18"x4" AROUND THE COVER AND MUST BE INSTALLED AND ADJUSTED TO FINISHED GRADE AT THE RIGHT-OF-WAY/PROPERTY LINE.
3. CONNECTION TO EXISTING SANITARY SEWER PIPE SHALL BE MADE AS FOLLOWS:
 - *6" SS MAIN - PVC WYE AND FERNCO COUPLERS WITH SHEAR RINGS OR APPROVED EQUIVALENT
 - *8" AND LARGER SS MAIN - INSERT-A-TEE OR APPROVED EQUIVALENT
4. ALL PVC TO CLAY SERVICE CONNECTIONS UNDER LOAD BEARING SURFACES SHALL USE FERNCO TYPE CONNECTORS WITH STAINLESS STEEL SHEAR RINGS OR APPROVED EQUAL.
5. 90° FITTINGS ARE PROHIBITED. MINIMUM 6" PIPE LENGTH BETWEEN 45° FITTINGS.



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Typical Sewer Connection Detail

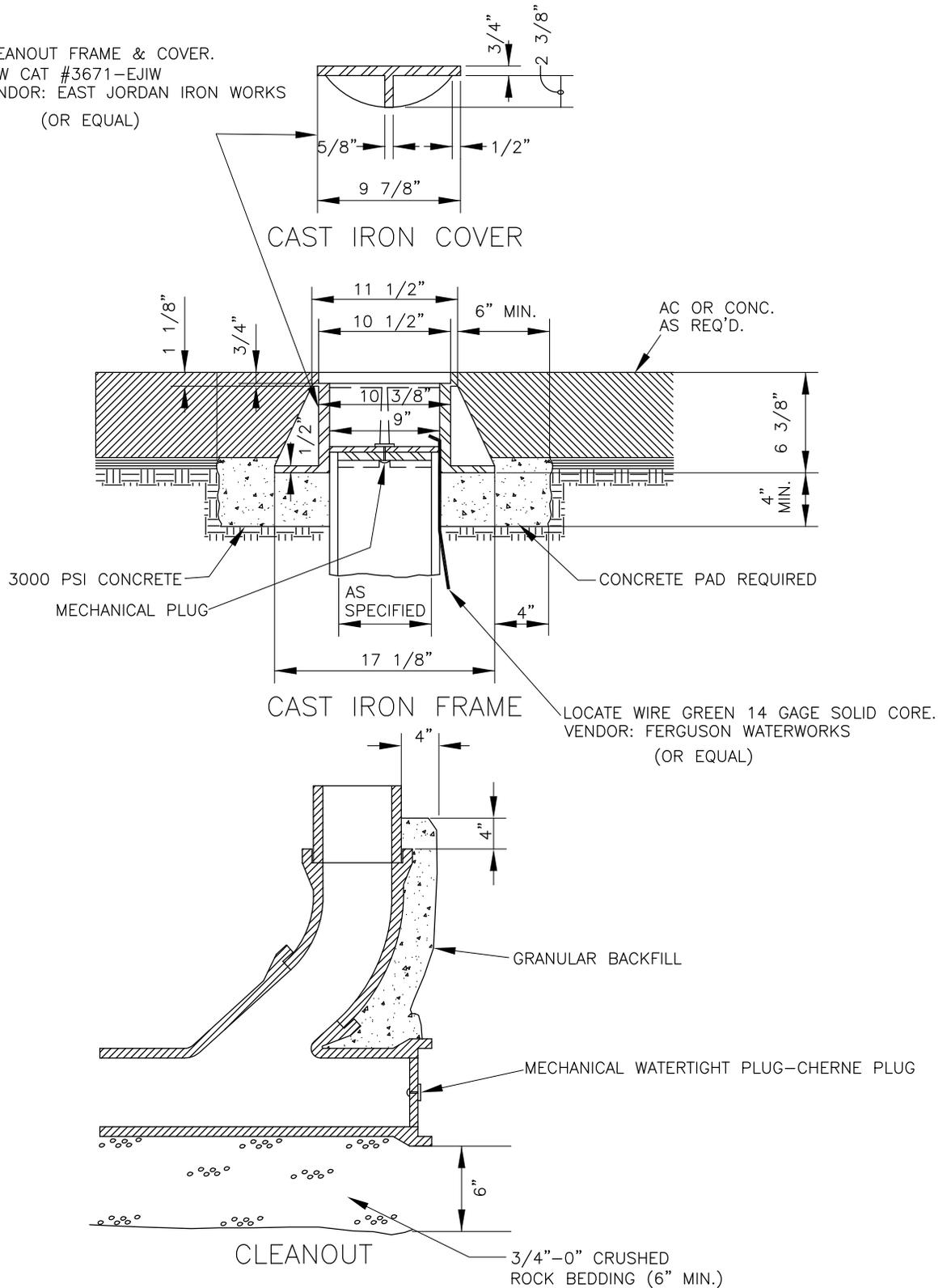
Date Adopt. 11/01/12 Date Rev. 01/09/17

Dwg. Name: S-8 Typical Sewer Connection.dwg

DWG. NO.

S-8

CLEANOUT FRAME & COVER.
 NEW CAT #3671-EJIW
 VENDOR: EAST JORDAN IRON WORKS
 (OR EQUAL)



NOTES:
 ALL CLEANOUT MATERIAL TO
 BE SAME AS CARRIER PIPE



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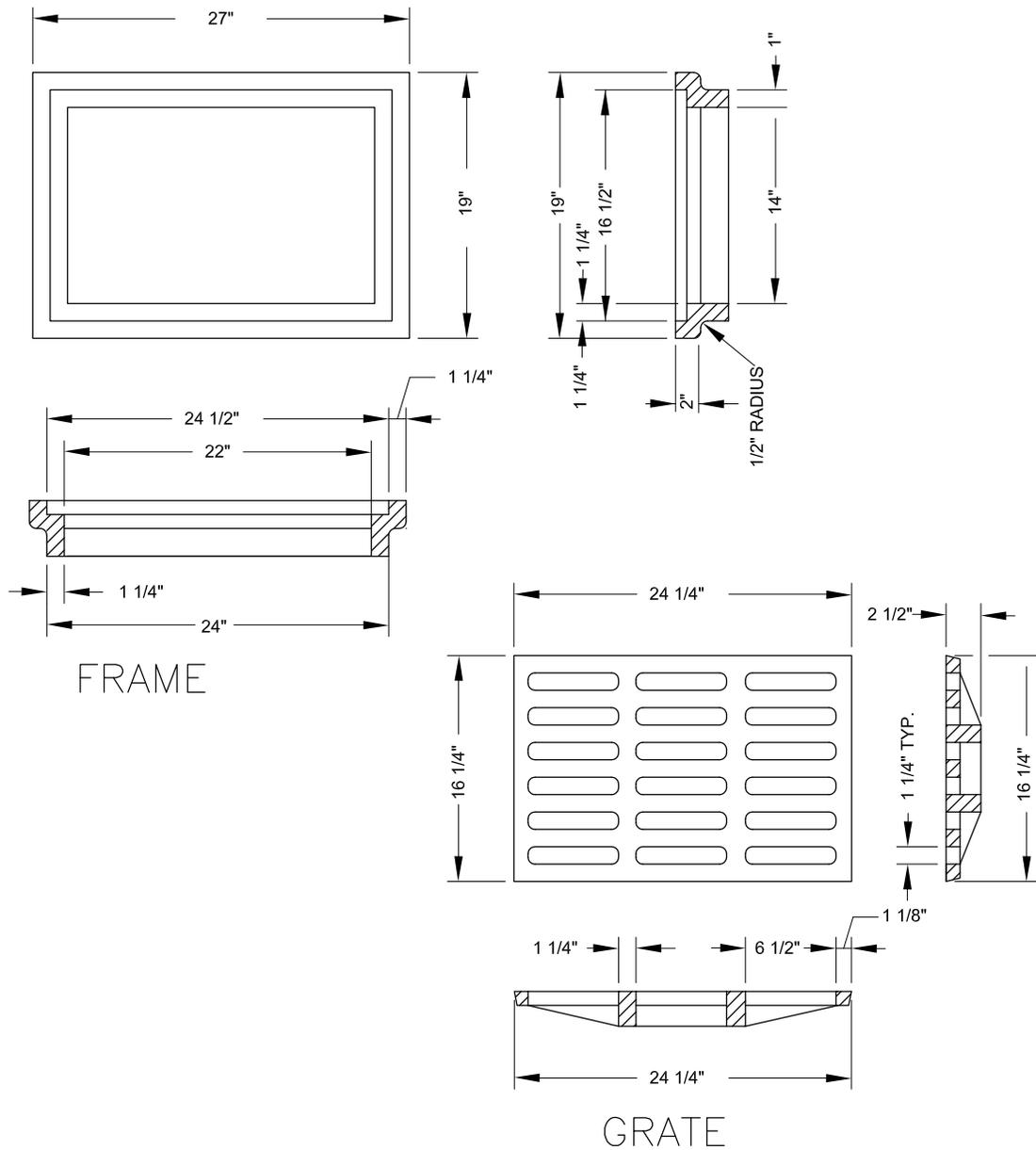
Clean Out Detail

Date Adopt. 11/01/12 Date Rev. 11/16/16

Dwg. Name: S-9 Clean Out.dwg

DWG. NO.

S-9



NOTES:

1. ALL CASTINGS SHALL CONFORM TO THE REQUIREMENTS OF ASTM A48, CLASS 30B.
2. ROUNDS, FILLETS, TAPERS AND OTHER MINOR MODIFICATIONS TO THE DEMINSIONS SHOWN MAY BE MADE TO CONFORM TO COMMON SHOP PRACTICES.
3. GRIND SMOOTH FINISH BEARING SURFACES.
4. AVAILABLE THROUGH OLYMPIC FOUNDRY INC., PART NO. SM41.



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Catch Basin Frame & Grate Detail

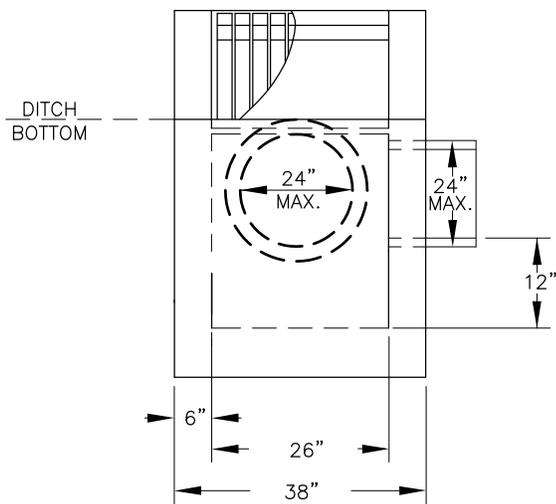
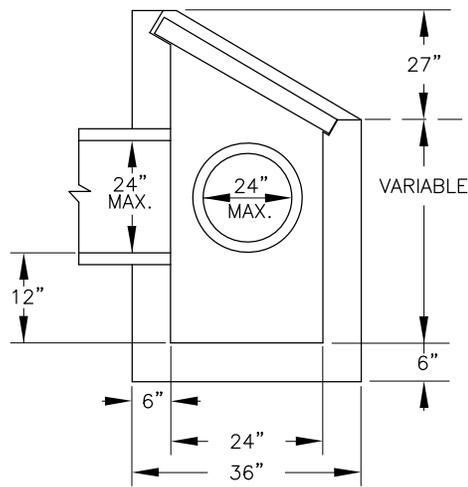
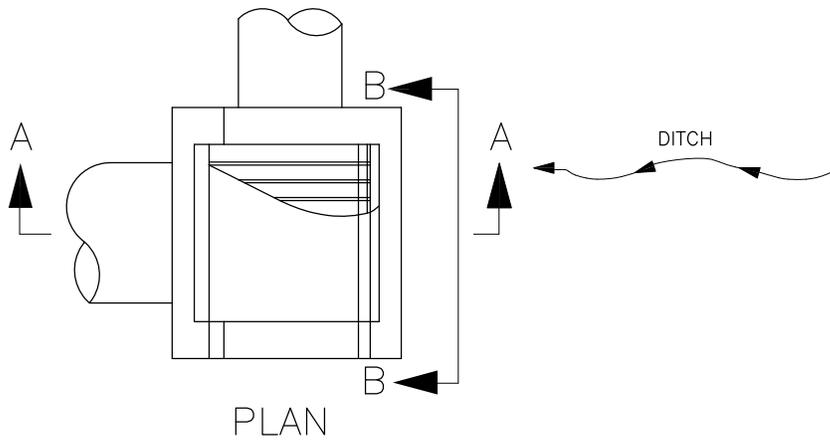
Date Adopt. 11/01/12

Date Rev. 11/16/15

DWG. NO.

Dwg. Name: SD-1 CB Frame & Grate.dwg

SD-1



- NOTES:
 1. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3300 P.S.I. IN 28 DAYS.



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Field Inlet Detail

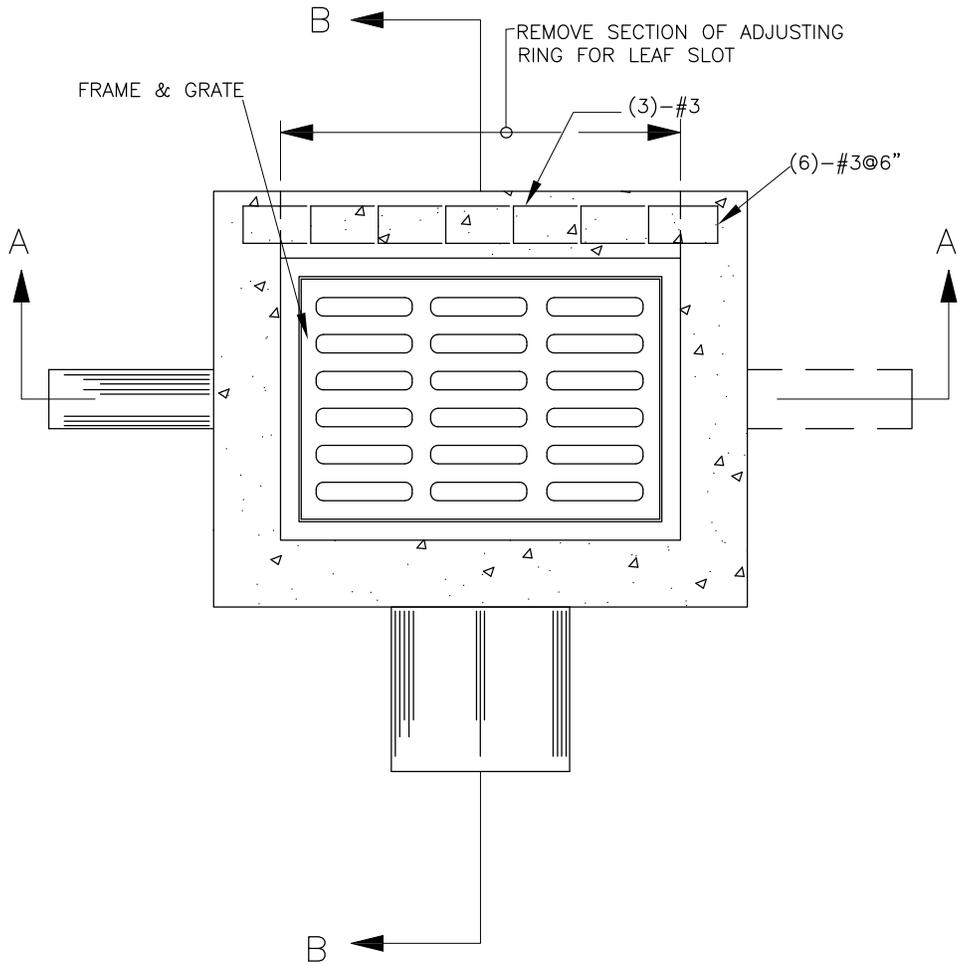
Date Adopt. 11/01/12

Date Rev. ----

DWG. NO.

SD-2

Dwg. Name: SD-2 Field Inlet.dwg



PLAN



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Public Works Department
 1095 Duane Street

Catch Basin Detail

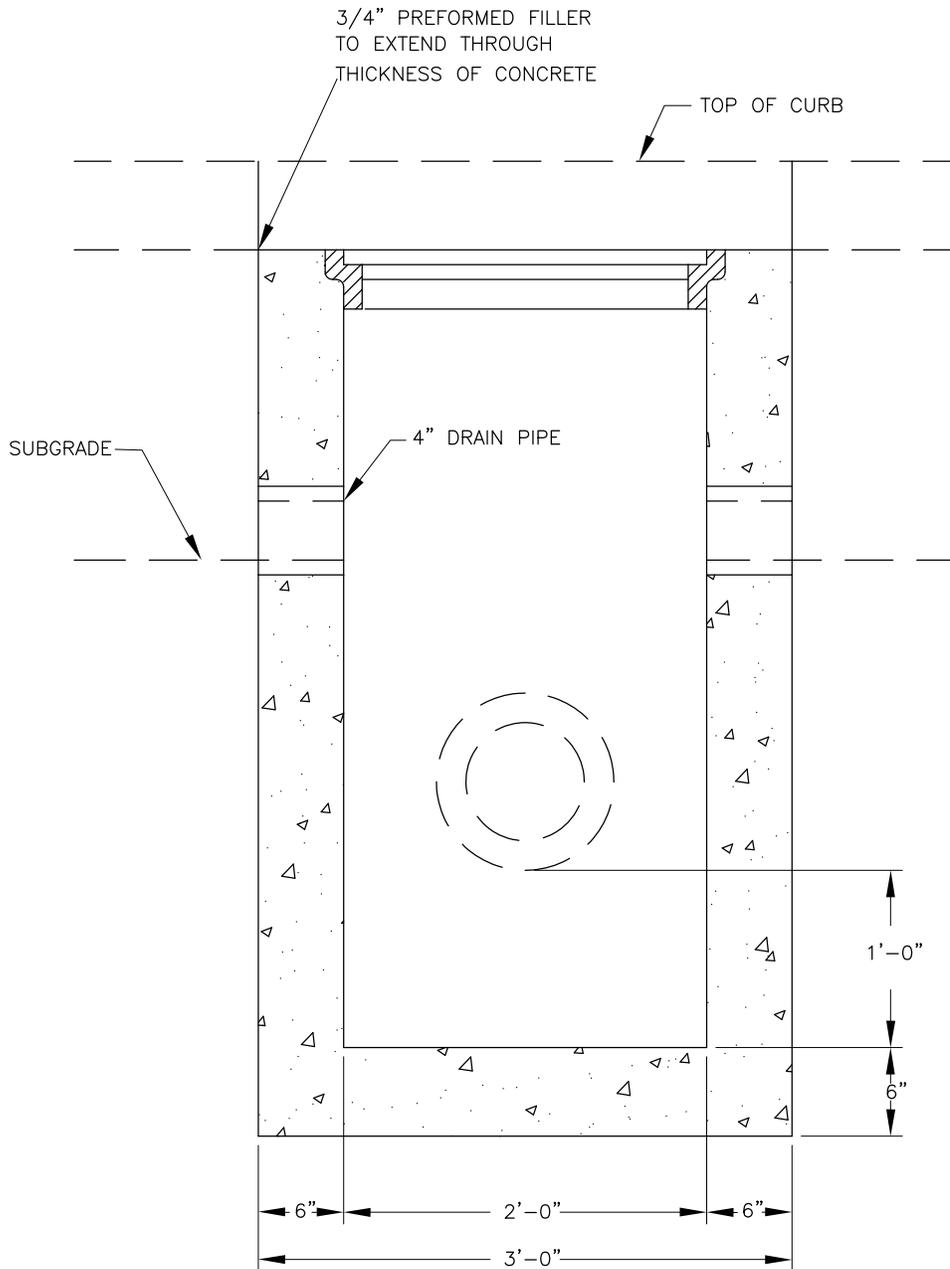
Date Adopt. 11/01/12

Date Rev. ----

DWG. NO.

Dwg. Name: SD-3 Catch Basin.dwg

SD-3



SECTION A

NOTES:

1. SUMP REQUIRED IN CATCH BASINS WITH OUTLET PIPE ONLY. FOR CATCH BASINS WITH INLET AND OUTLET PIPES FORM CHANNELS TO DIRECT FLOW.
2. CATCH BASIN BASE SHALL BE CITY OF SALEM TYPE 1, SHORT 36".



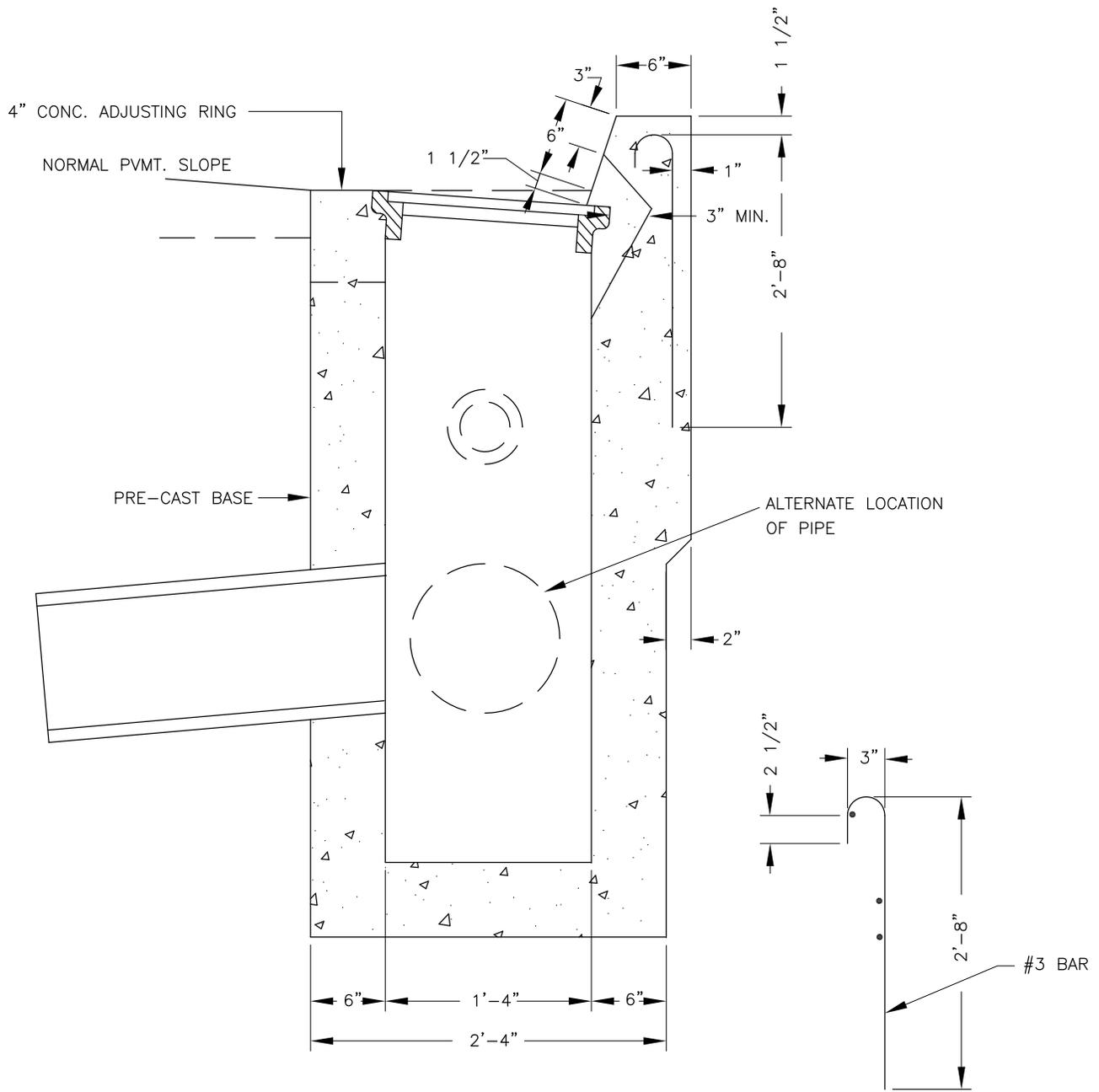
City of Astoria
Public Works Department
 1095 Duane Street

Catch Basin Detail

Date Adopt. 11/01/12 | **Date Rev.** 11/16/12

Dwg. Name: SD-4 Catch Basin.dwg

DWG. NO.
SD-4



SECTION B



City of Astoria
Public Works Department
 1095 Duane Street

Catch Basin Detail

Date Adopt. 11/01/12

Date Rev. ----

DWG. NO.

Dwg. Name: SD-5 Catch Basin.dwg

SD-5