GENERAL STANDARD DETAILS

STANDARD DETAIL DRAWINGS INDEX

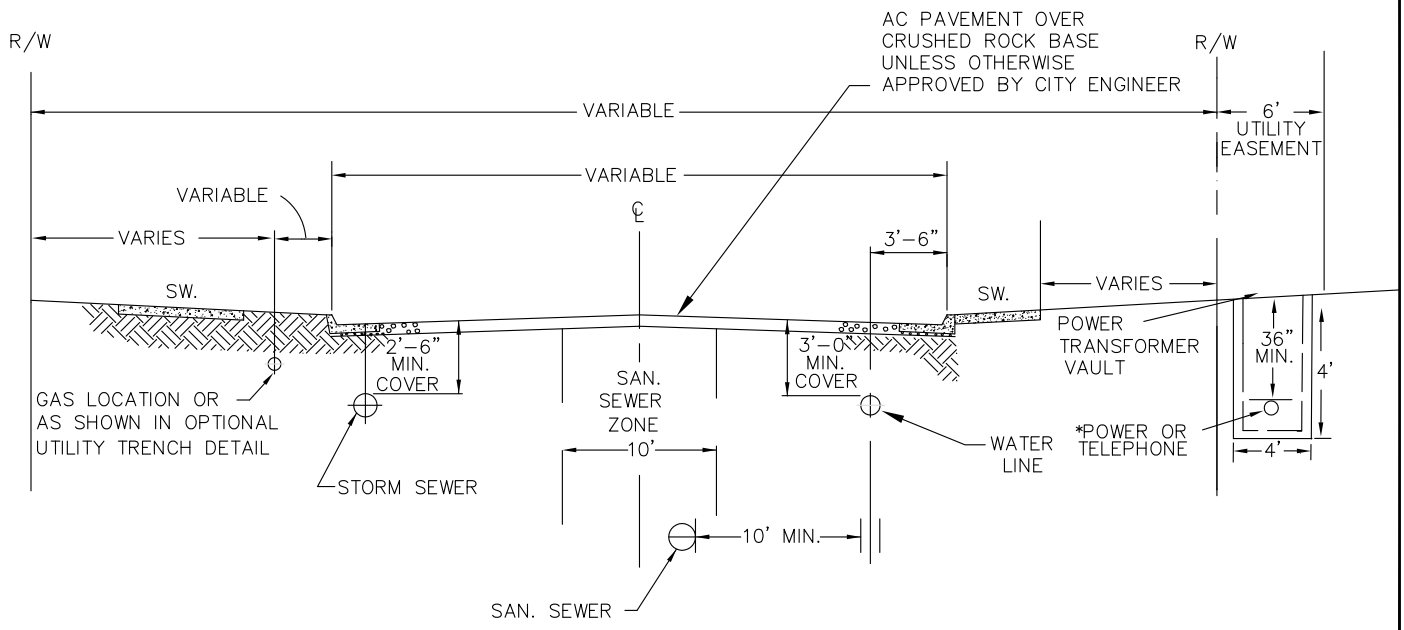
City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
Coos Bay, Oregon 97420
541-269-8918

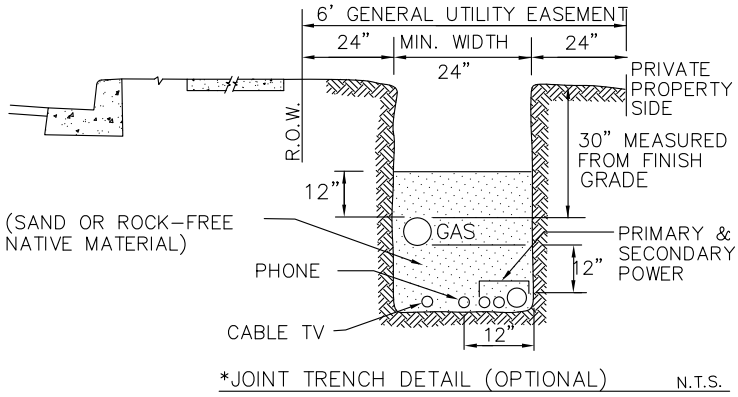
DRAWN BY: KN	
REVISIONS	
REVISED BY:	DATE:

STANDARD DETAIL DRAWING INDEX

DRAWING NO. G-1

DATE JULY 2016





*JOINT TRENCH DETAIL (OPTIONAL) N.T.S.

NOTES:

1. WATER MAIN TO BE LOCATED 3'-6" INSIDE FROM FACE OF CURB OR AS OTHERWISE DIRECTED.

2. 10' HORIZONTAL SEPARATION BETWEEN WATER AND SEWER WHERE POSSIBLE. COMPLY WITH SEPARATION REQUIREMENTS OF OAR 333-061-050.

3. WATER DISTRIBUTION MAINS SHALL HAVE 36" MINIMUM COVER OR AS OTHERWISE DIRECTED.

4. SEWER MAINS SHALL HAVE 5.25' (63") MINIMUM COVER UNLESS OTHERWISE APPROVED TO AVOID CONFLICTS WITH WATER AND OTHER UTILITIES.

5. WATER MAINS SHALL BE LOCATED ON NORTH OR EAST SIDE OF STREET WHEN PRACTICAL.

6. SEWER, STREETS AND DRAINAGE SUBJECT TO CITY STANDARDS.

7. WATER SYSTEMS ARE SUBJECT TO COOS BAY/NORTH BEND WATER BOARD STANDARDS

8 MANHOLE LIDS SHALL NOT BE LOCATED DIRECTLY IN NORMAL WHEEL PATH.

9 ALL LAYOUTS AND LOCATIONS ARE SUBJECT TO CITY APPROVAL.

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500 Central Avenue
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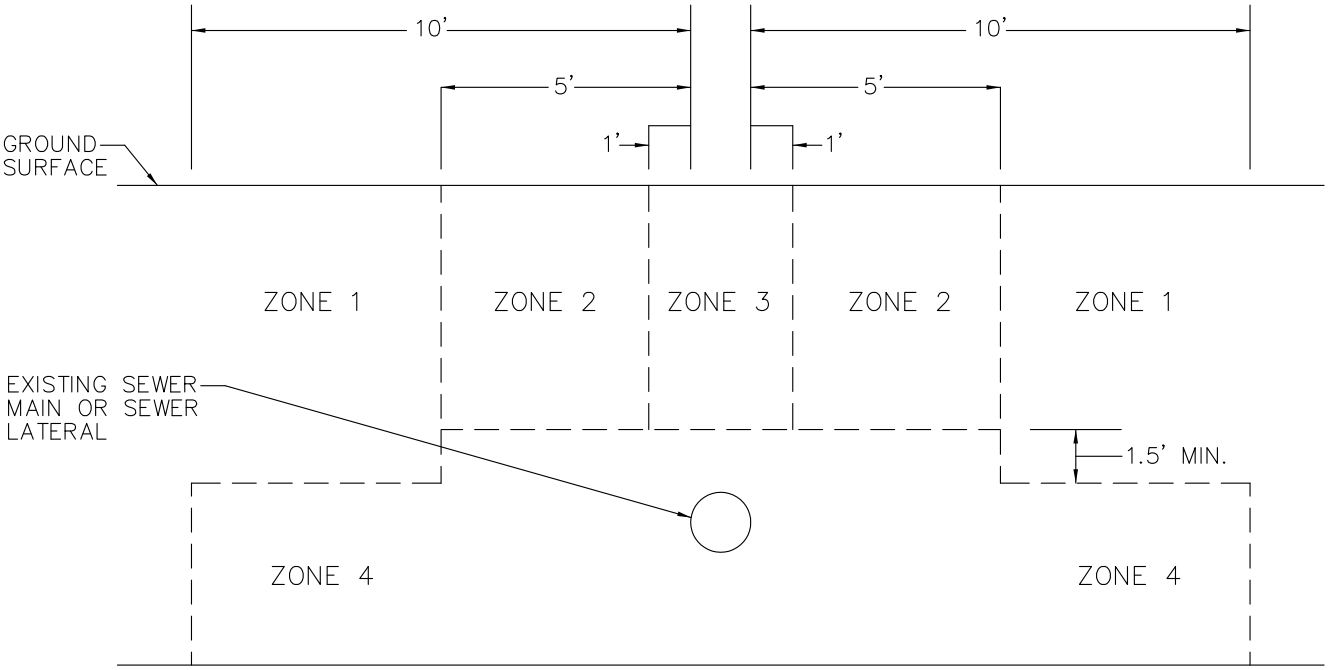
STANDARD UTILITY LOCATIONS

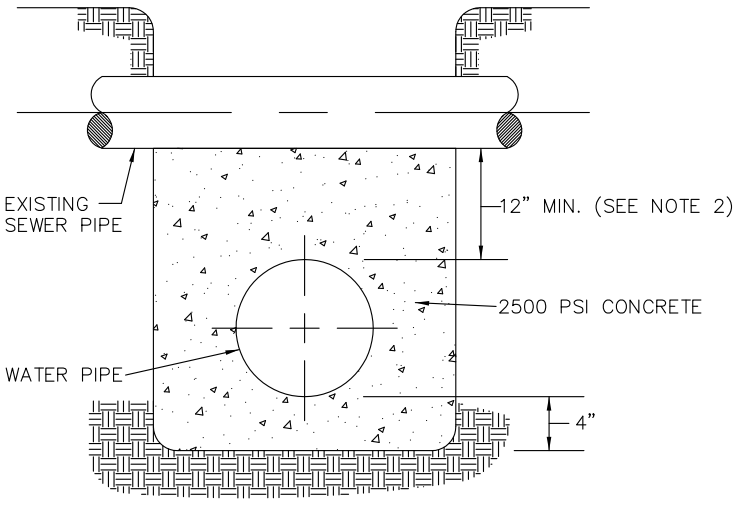
DRAWING NO.
G-2

DATE
JULY 2016



WATER & SEWER LINE IN PARALLEL CONDITIONS

ZONE	VERTICAL SEPERATION	HORIZONTAL SEPERATION	RESTRICTIONS
1	WATER LINE HIGHER THAN SEWER	5'	ONLY CROSSING RESTRICTIONS APPLY
1	WATER LINE LEVEL OR LOWER THAN SEWER	10'	ONLY CROSSING RESTRICTIONS APPLY
2	WATER LINE 1.5' HIGHER THAN SEWER	GREATER THAN 1' BUT LESS THAN 5'	CASE-BY-CASE DETERMINATION
3	WATER LINE 1.5' HIGHER THAN SEWER	LESS THAN 1'	PARALLEL WATER LINE PROHIBITED
4	WATER LINE LIES LESS THAN 1.5' ABOVE SEWER	LESS THAN 5'	PARALLEL WATER LINE PROHIBITED
4	WATER LINE LEVEL OR LOWER THAN SEWER	LESS THAN 10'	PARALLEL WATER LINE PROHIBITED



CONCRETE ENCASEMENT UNDER EXISTING PIPES

NOTES:

1. WATER & SEWER LINE CROSSINGS SHALL COMPLY WITH DESIGN STANDARDS, B. SEWER OR O.A.R. 333-61-050 FOR SEPERATION AND PIPE MATERIAL REQUIREMENTS
2. SEPERATION LESS THAN 12" FOR WATER & SEWER LINE CROSSINGS MUST BE APPROVED BY THE CITY ENGINEER.
3. CONCRETE ENCASEMENT TO BE USED IN CASES WHERE A WATER MAIN CROSSES UNDER AN EXISTING SEWER MAIN, WITH CITY APPROVAL. MINIMUM ENCASEMENT LENGTH SHALL BE 3 FEET EACH SIDE.
4. UNDERGROUND UTILITIES SHALL NOT BE LOCATED CLOSER THAN 10' HORIZONTALLY FROM ANY WATER AND SEWER MAIN. UNDER SPECIAL PERMISSION FROM THE CITY ENGINEER, SEPERATION MAY BE REDUCED TO 5'
5. SERVICE CONNECTIONS FOR WATER AND SEWER SHALL BE LOCATED NO CLOSER THAN 10' HORIZONTALLY.

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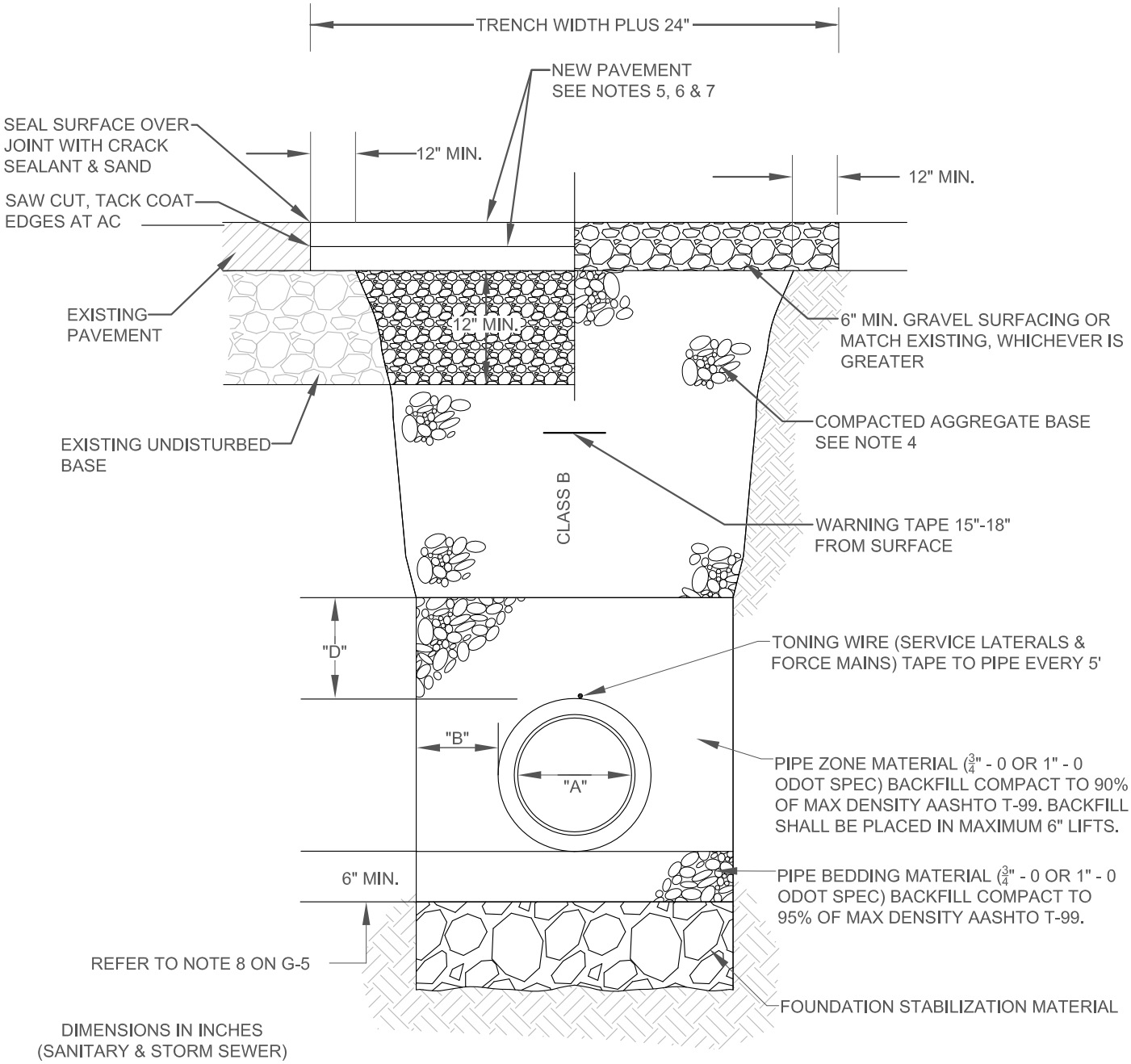
WATER LINE & SEWER LINE SEPARATION

DRAWING NO. G-3

DATE JULY 2016



DIMENSIONS IN INCHES
(SANITARY & STORM SEWER)

"A"	"B"	"D"
4	10	12
6	10	12
8	10	12
10	10	12
12	12	12
15	12	12
18	16	12
21	16	12
24	18	12
30	18	12
36	24	14

NOTES:

1. FOR ALL DETAILED NOTES REFER TO DETAIL G-5

City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
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STANDARD UTILITY TRENCH DETAIL - FOR AREA IN ROW

DRAWING NO.
G-4

DATE
JULY 2016

NOTES:

1. TRENCH EXCAVATION SHALL BE CONDUCTED IN A SAFE MANNER WITH ALL NECESSARY BRACING AND SHORING PROVIDED TO BE IN COMPLIANCE WITH OSHA.

2. ALL EXISTING AC OR PCC PAVEMENT SHALL BE SAWCUT IMMEDIATELY PRIOR TO REPAVING.

3. FOUNDATION STABILIZATION SHALL BE PROVIDED WHEN MATERIAL AT BOTTOM OF TRENCH IS UNSUITABLE, IN THE OPINION OF THE CITY, TO PROVIDE A STABLE TRENCH BASE.

4. PLACE COMPACTED AGGREGATE BASE TO A MINIMUM THICKNESS OF 12 INCHES OR THE THICKNESS OF REMOVED AGGREGATE BASE, WHICH EVER IS GREATER. COMPACTED AS DIRECTED.

5. IF EXISTING TRENCH CONSISTED OF CONCRETE PAVEMENT THEN CONCRETE PAVEMENT SHALL BE REPLACED WITH CONCRETE TO A MINIMUM THICKNESS OF 6 INCHES OR TO THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER. (UNLESS DIRECTED BY THE CITY TO USE AC).

6. IF EXISTING TRENCH CONSISTED OF AC PLACE AC MIX TO A MINIMUM THICKNESS OF 4 INCHES (2-2 INCH LIFTS) OR THE THICKNESS OF REMOVED PAVEMENT, WHICHEVER IS GREATER. COMPACT AS DIRECTED. AC PAVEMENT SHALL BE PLACED IN AT LEAST 2 - 2 INCH LIFTS.

7. IN SITUATIONS WHERE EXISTING PCC PAVEMENT IS OVERLAYED WITH AC PAVEMENT. PLACE PCC PAVEMENT IN ACCORDANCE WITH NOTE AND WITH AC PAVEMENT PLACED IN ACCORDANCE WITH NOTE 6.

8. BACKFILL IN PIPE ZONE SHALL BE PLACED IN MAXIMUM 6 INCH LIFTS AND COMPACTED AS SPECIFIED.

9. TONING WIRE REQUIRED AT SERVICE LATERALS, FORCEMAINS, AND GRAVITY LINE. WIRE SHALL BE 18 GA. MINIMUM SOLID COPPER WIRE WITH GREEN 30 MIL THICK HDPE INSULATION RATED FOR DIRECT BURY. USE APPROVED WATERPROOF SPLICE AT ALL CONNECTIONS.

10. SANITARY AND STORM SEWER LINES MUST HAVE WARNING TAPE AND IT SHALL BE 6-INCHES WIDE, 4 MIL THICK, APWA GREEN, READING "CAUTION SEWER LINE BURIED BELOW". WARNING TAPE SHALL BE 15-18 INCHES FROM THE SURFACE.

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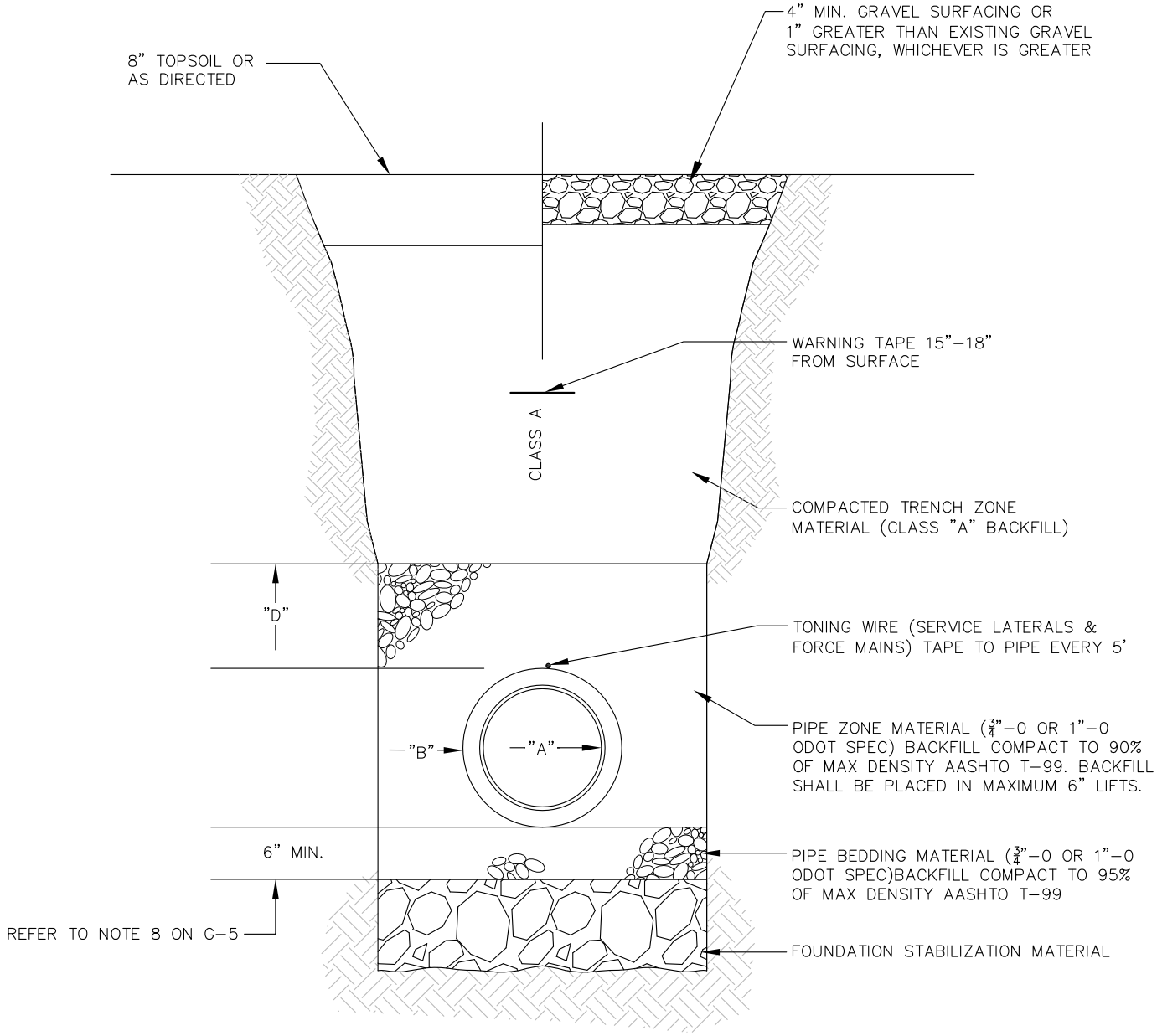
STANDARD UTILITY TRENCH DETAIL - NOTES

DRAWING NO. G-5

DATE JULY 2016



DIMENSIONS IN INCHES
(SANITARY & STORM SEWER)

"A"	"B"	"D"
4	10	12
6	10	12
8	10	12
10	10	12
12	12	12
15	12	12
18	16	12
21	16	12
24	18	12
30	18	12
36	24	14

NOTES:

1. FOR ALL DETAILED NOTES REFER TO DETAIL S-5

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STANDARD UTILITY TRENCH DETAIL - FOR AREA OUTSIDE ROW

DRAWING NO.
G-6

DATE
JULY 2016

SEWER SYSTEM STANDARD DETAILS

STANDARD DETAIL DRAWINGS INDEX

City of Coos Bay
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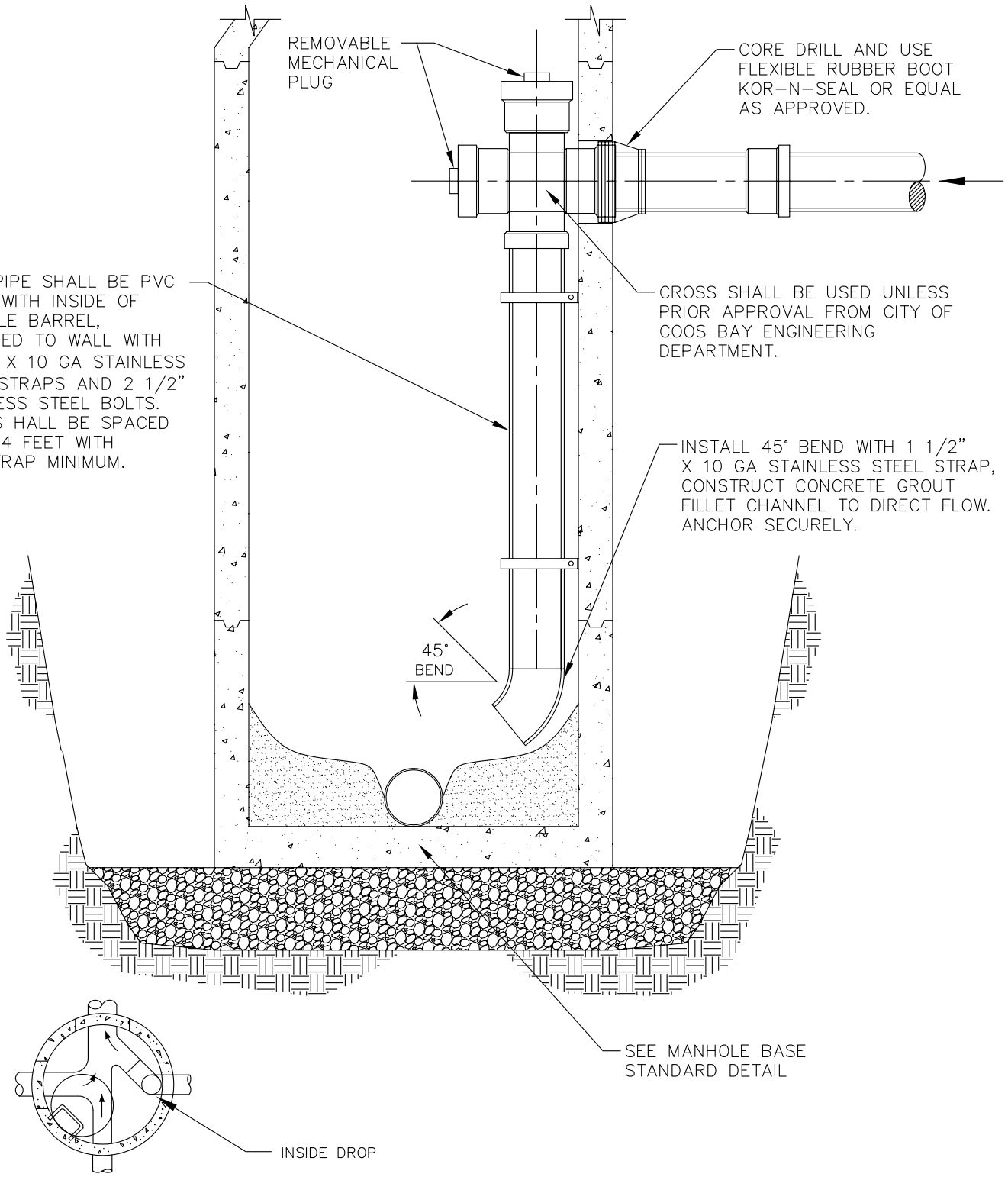
STANDARD DETAIL DRAWING INDEX

DRAWING NO. S-1

DATE JULY 2016



NOTES:

1. DROP MANHOLES SHALL ONLY BE USED WITH PRIOR APPROVAL FROM CITY OF COOS BAY ENGINEERING DEPARTMENT.
2. PIPE AND FITTING FOR DROP ASSEMBLY SHALL BE: DUCTILE IRON, AWWAC-900 OR PVC ASTM 3034 SDR 35.

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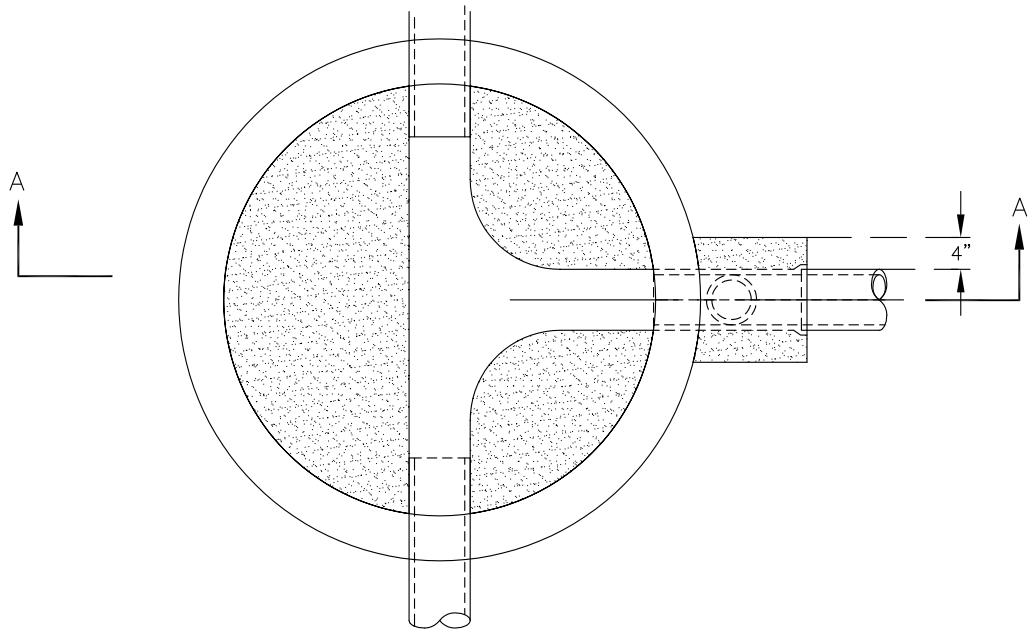
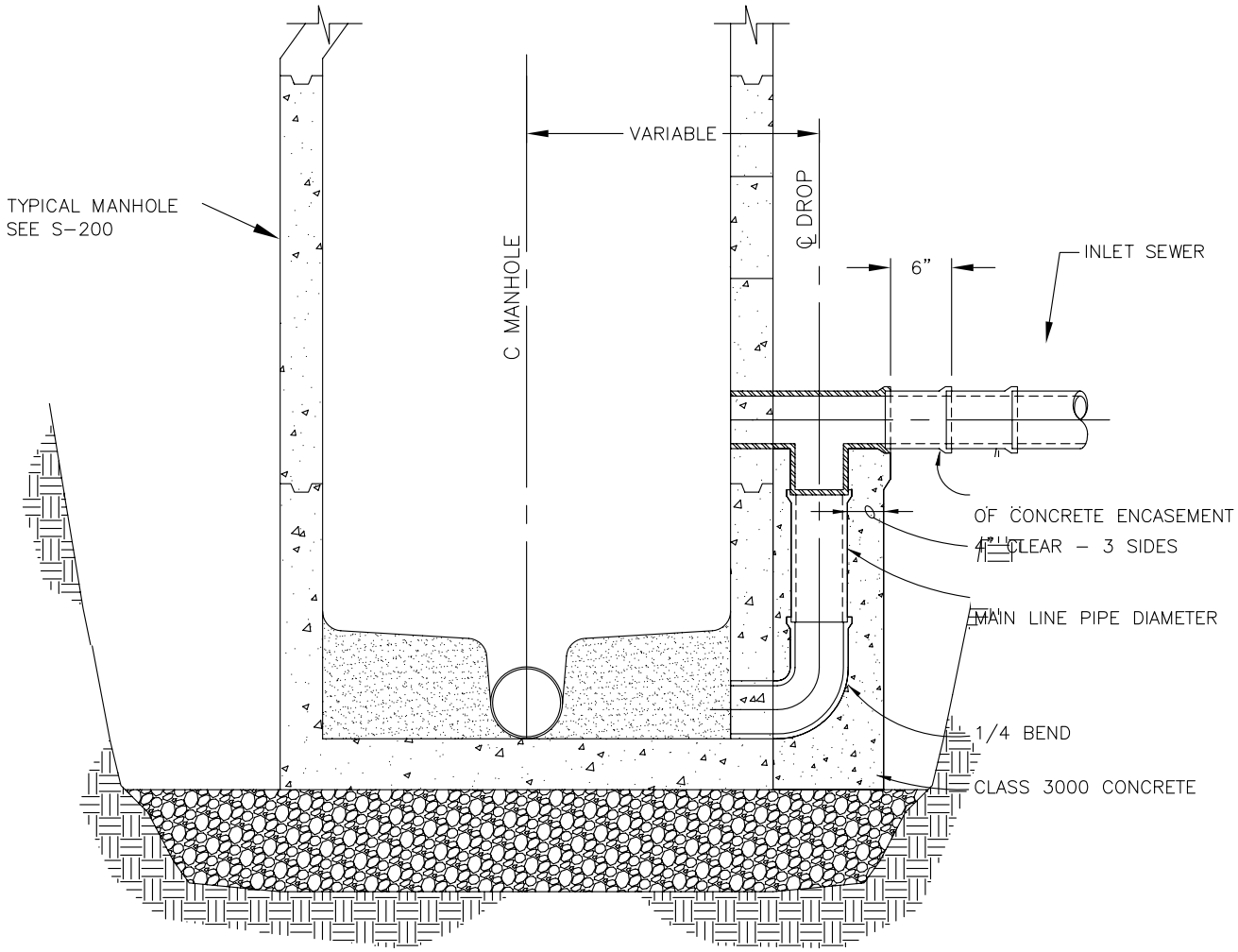
STANDARD INSIDE DROP MANHOLE

DRAWING NO. S-2

DATE JULY 2016



PLAN



SECTION A-A

City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
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REVISIONS		
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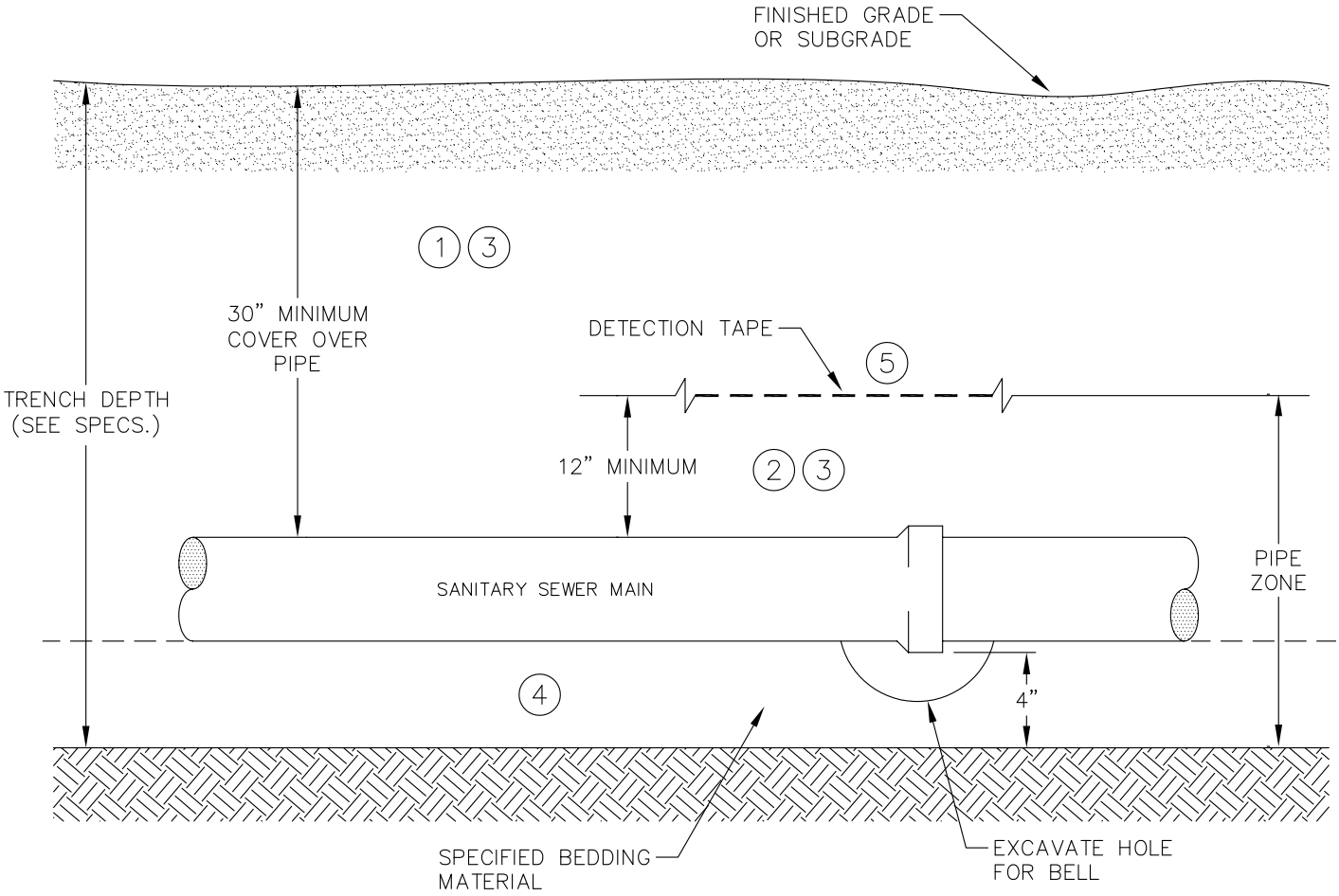
STANDARD OUTSIDE DROP MANHOLE

DRAWING NO.
S-3

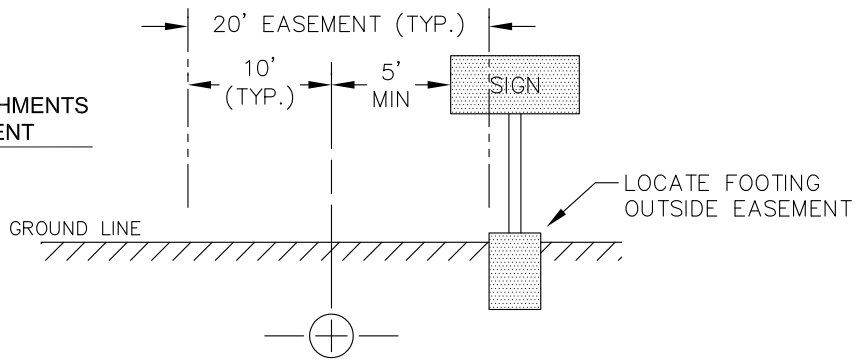
DATE
JULY 2016



NOTES:

1. CLASS "A" BACKFILL COMPACTED TO 95% OF AASHTO T-99.
2. SPECIFIED PIPE ZONE MATERIAL ABOVE, AROUND, AND BELOW PIPE SHALL BE COMPACTED TO 95% OF AASHTO T-99.
3. THE ENGINEER MAY REQUIRE THIS ZONE TO BE WATER SETTLED TO PROVE THE INTEGRITY OF THE BACKFILL.
4. PIPE BEDDING SHALL MEET THE REQUIREMENTS OF DIVISION I. PIPE BEDDING SHALL BE MECHANICALLY COMPACTED TO 95% OF MAXIMUM AS DETERMINED BY AASHTO T-99.
5. DETECTION TAPE TO BE LOCATED AT TOP OF PIPE ZONE. 12" ABOVE THE PIPE.

ALLOWABLE ENCROACHMENTS
IN UTILITY EASEMENT



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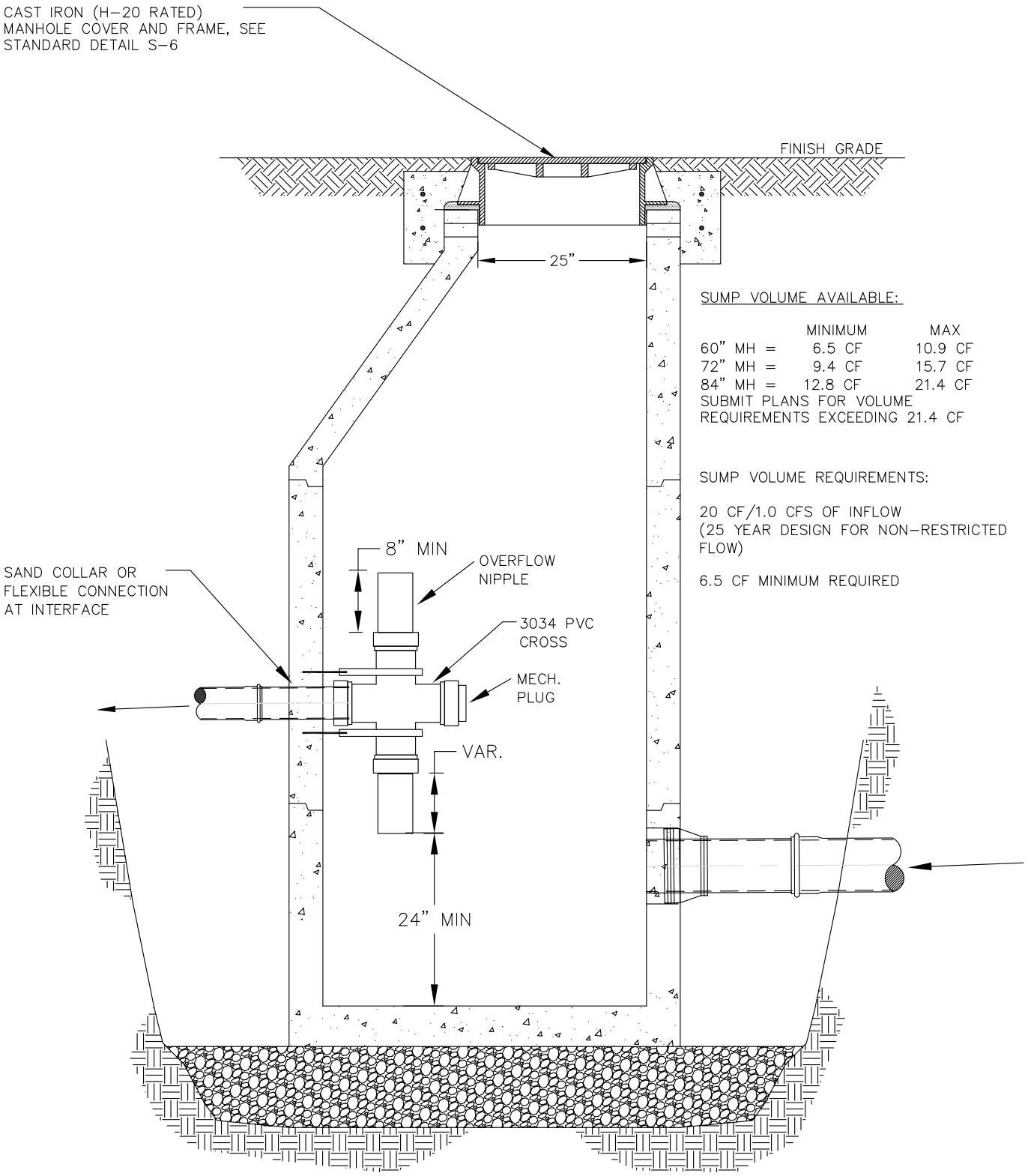
PROFILE OF TYPICAL SANITARY SEWER MAIN INSTALLATION

DRAWING NO.
S-4

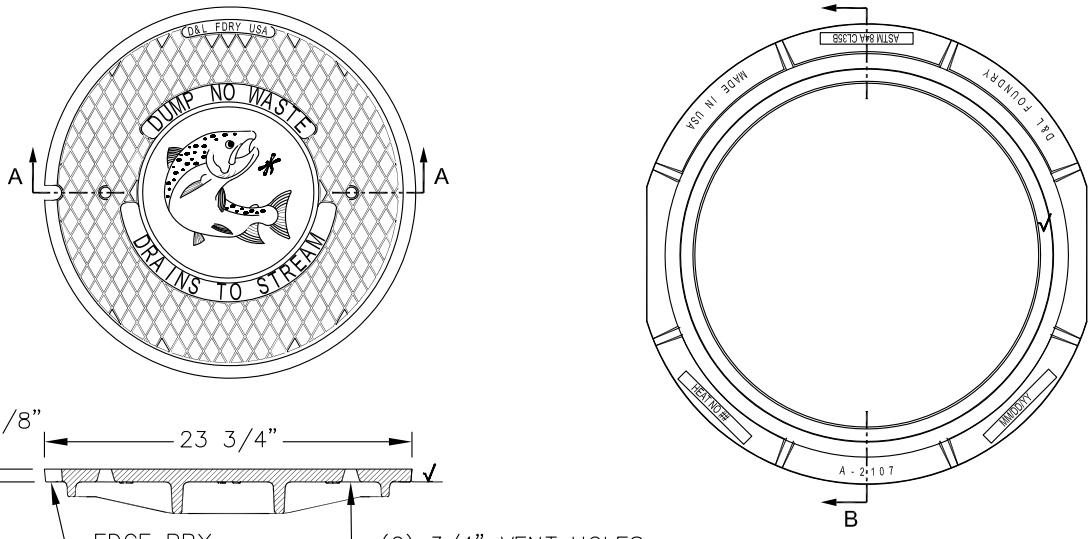
DATE
JULY 2016



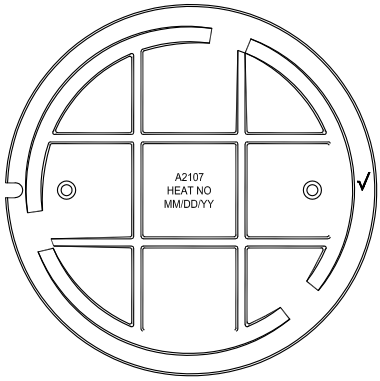
FOR STANDARD MANHOLE DETAILS,
SEE S-11

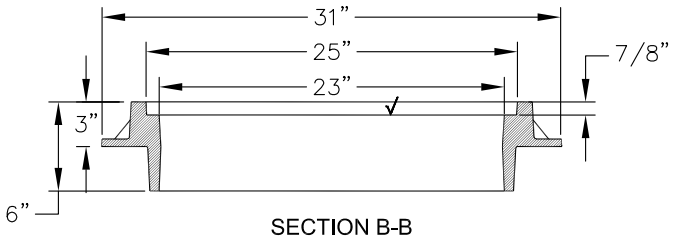
FOR FLAT TOP MANHOLE DETAILS,
SEE S-12

City of Coos Bay ENGINEERING DEPARTMENT 500 Central Avenue Coos Bay, Oregon 97420 541-269-8918	DRAWN BY: JS REVISIONS REVISED BY: / DATE:	STORM SEWER MANHOLE DETAIL	DRAWING NO. S-5 DATE JULY 2016



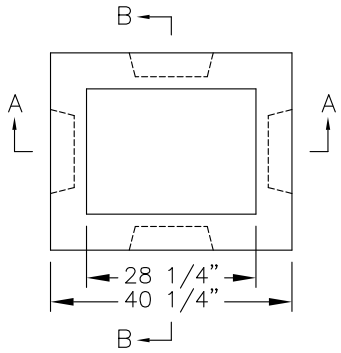
SECTION A-A





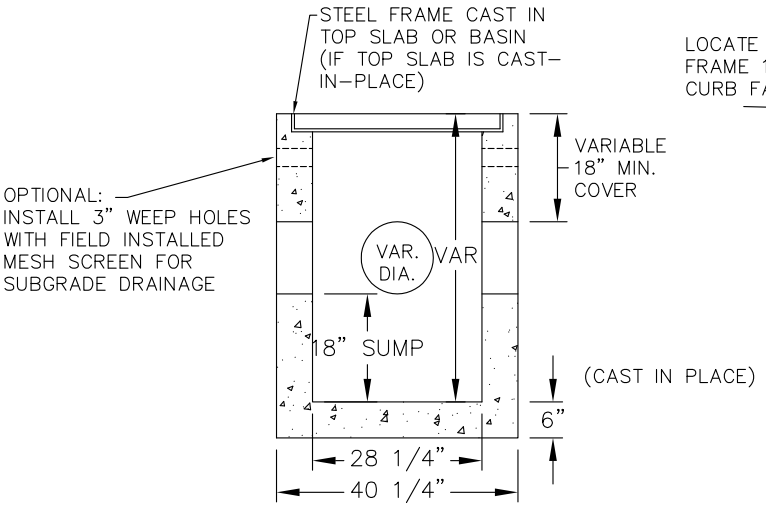
SECTION B-B
VIEW IS ROTATED

City of Coos Bay ENGINEERING DEPARTMENT 500 Central Avenue Coos Bay, Oregon 97420 541-269-8918	DRAWN BY: JS		STORM SEWER MANHOLE COVER AND FRAME DETAILS	DRAWING NO. S-6
	REVISIONS			
	REVISED BY:	DATE:		DATE JULY 2016

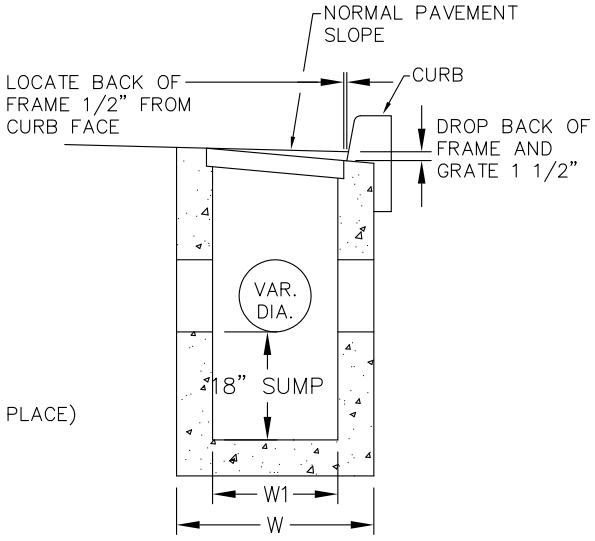


TOP VIEW

INLET TYPE	W	W1
G–1	2' 8–7/8"	1' 8–7/8"
G–2, G–2M	3' 3–3/8"	2' 3–3/8"



SECTION A–A

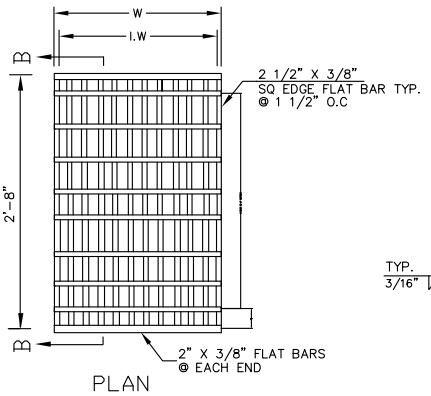


SECTION B–B

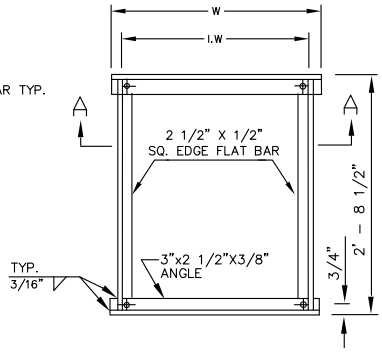
NOTES:
1. CONCRETE STRENGTH SHALL BE 3300 PSI.
2. PRECAST BASE WALLS SHALL BE A MINIMUM 4" THICK. CAST–IN–PLACE BASE WALLS SHALL BE 6" THICK.

TYPE	W	I.W
STANDARD	1'–9"	1'–8 1/4"

TYPE	DIA. PIPE	W	I.W
STANDARD	10"–12"	1'–10 3/4"	1'–9 3/8"



PLAN



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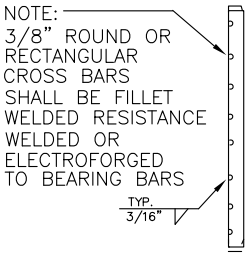
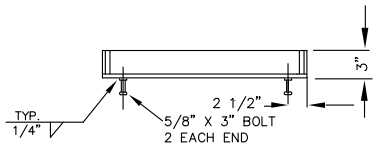


SECTION B-B



SECTION A-A'

NOTE:
USE VERTICAL BEADS IN CORNERS, FILLET WELD JOINT ON BOTTOM OF FRAME. GRATE MUST REST FLAT ON FRAME SURFACE.

City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
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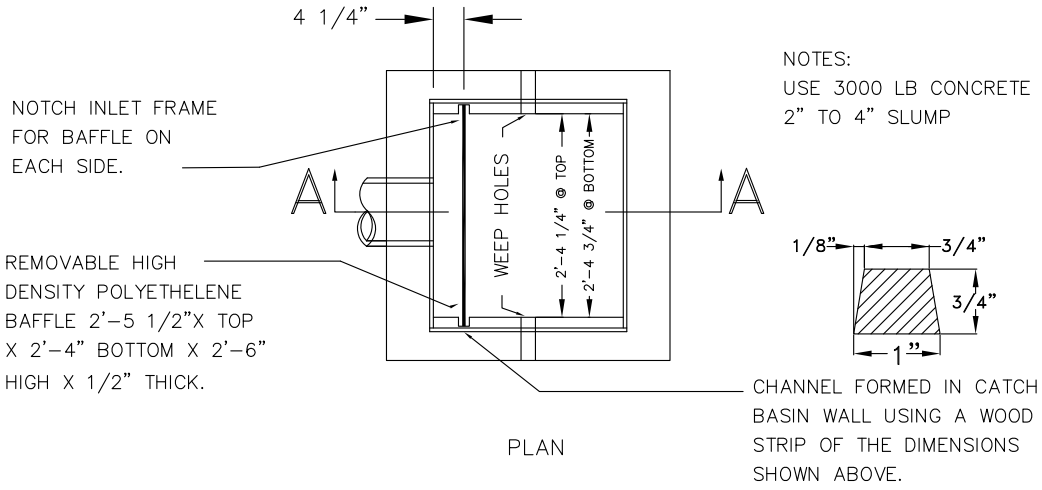
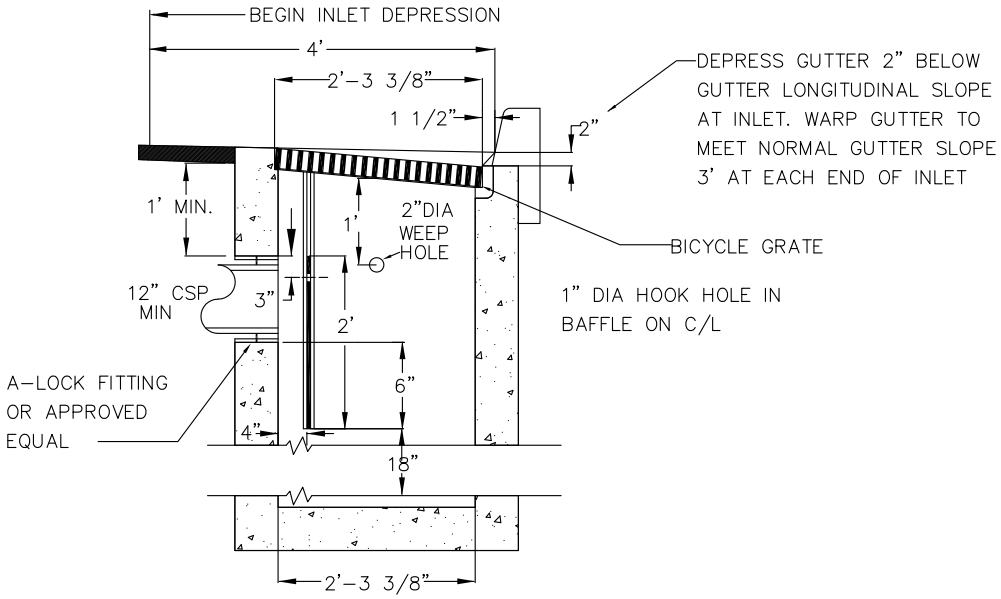
STANDARD INLETS, FRAMES AND GRATES

DRAWING NO.
S-7

DATE
JULY 2016

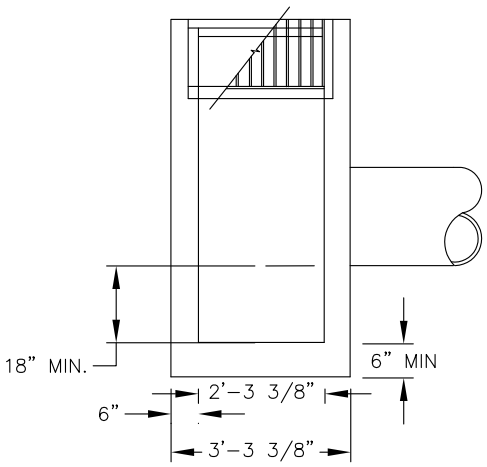


PLAN

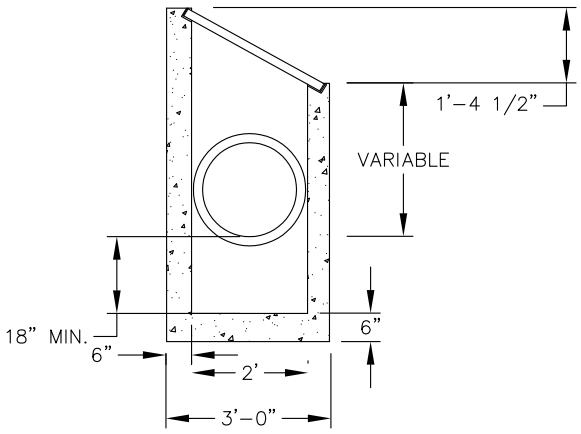


SECTION A-A

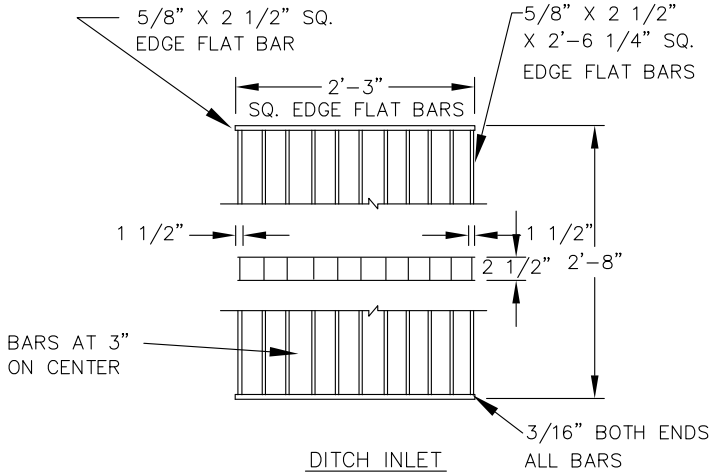
City of Coos Bay ENGINEERING DEPARTMENT 500 Central Avenue Coos Bay, Oregon 97420 541-269-8918	DRAWN BY: JS REVISIONS REVISED BY: / DATE:	TRAPPED/POLLUTION CONTROL CATCH BASIN	DRAWING NO. S-8 DATE JULY 2016



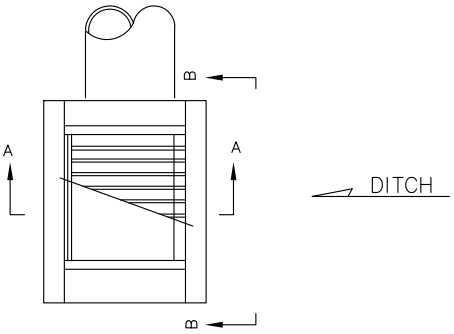
SECTION B-B



SECTION A-A



DITCH INLET



PLAN

NOTES:

1. CONCRETE STRENGTH SHALL BE 3300 PSI.
2. CATCH BASIN, FRAME, AND GRATES SHALL MEET H20 LOADING.
3. INSIDE FRAME DIMENSIONS: 2'-3 3/8", 2'-8 1/2".
4. 3/8" CROSS BARS SHALL BE FLUSH WITH THE GRATE SURFACE AND MAY BE FILLET WELDED, RESISTANCE WELDED OR ELECTROFORGED TO BEARING BARS.
5. DITCH INLET CATCH BASINS SHALL MEET THE REQUIREMENTS OF ODOT DITCH INLET TYPE "D"

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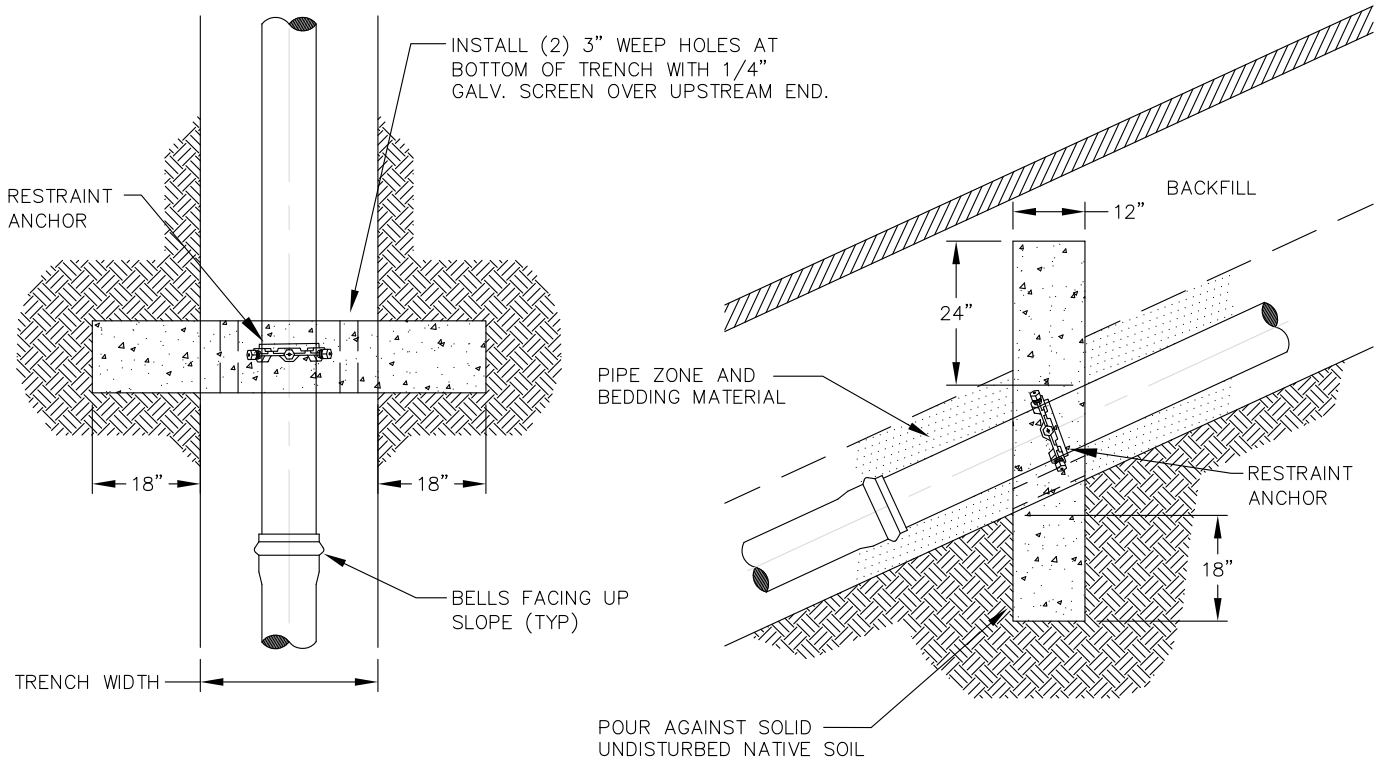
TYPICAL DITCH INLET AND GRATE

DRAWING NO.
S-9

DATE
JULY 2016



NOTES:

1. CUT-OFF WALLS REQ'D AT ALL PIPELINES WHERE SLOPE EXCEEDS 20%.

2. RESTRAINED JOINT PIPE REQUIRED AT SLOPES BETWEEN 15% AND 20%.

3. WALLS SHALL BE FORMED WITHIN TRENCH. REMOVE FORMS PRIOR TO BACKFILLING.

4. CONCRETE SHALL HAVE 3000 PSI COMPRESSIVE STRENGTH MIN. (CLASS 3000).

5. SPACING OF WALLS SHALL BE:

SLOPE	SPACING
20-34%	35 FEET
35-50%	25 FEET
51-+%	15 FEET

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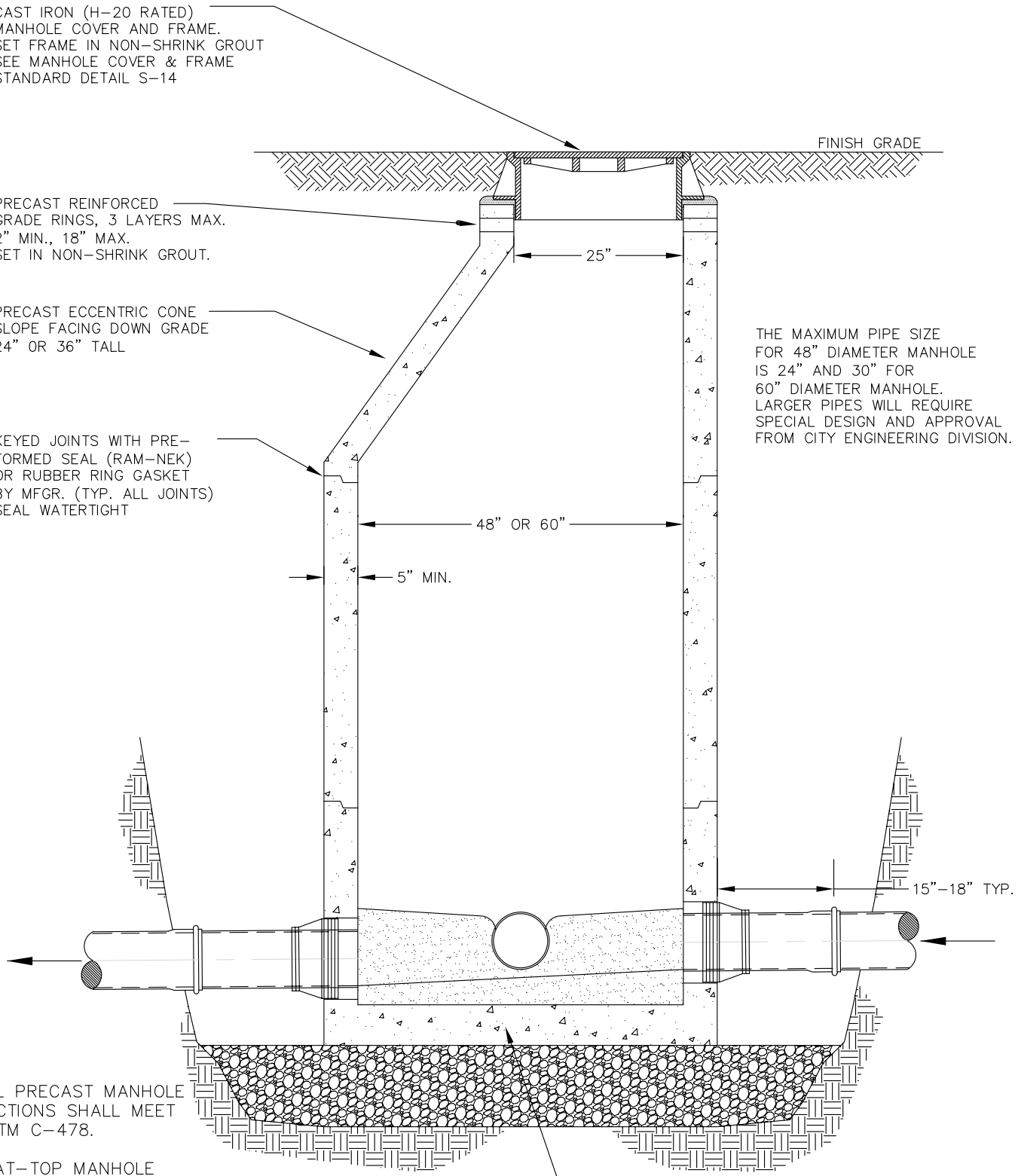
PIPE ANCHOR / TRENCHC OUT-OFF WALL DETAIL

DRAWING NO.
S-10

DATE
JULY 2016



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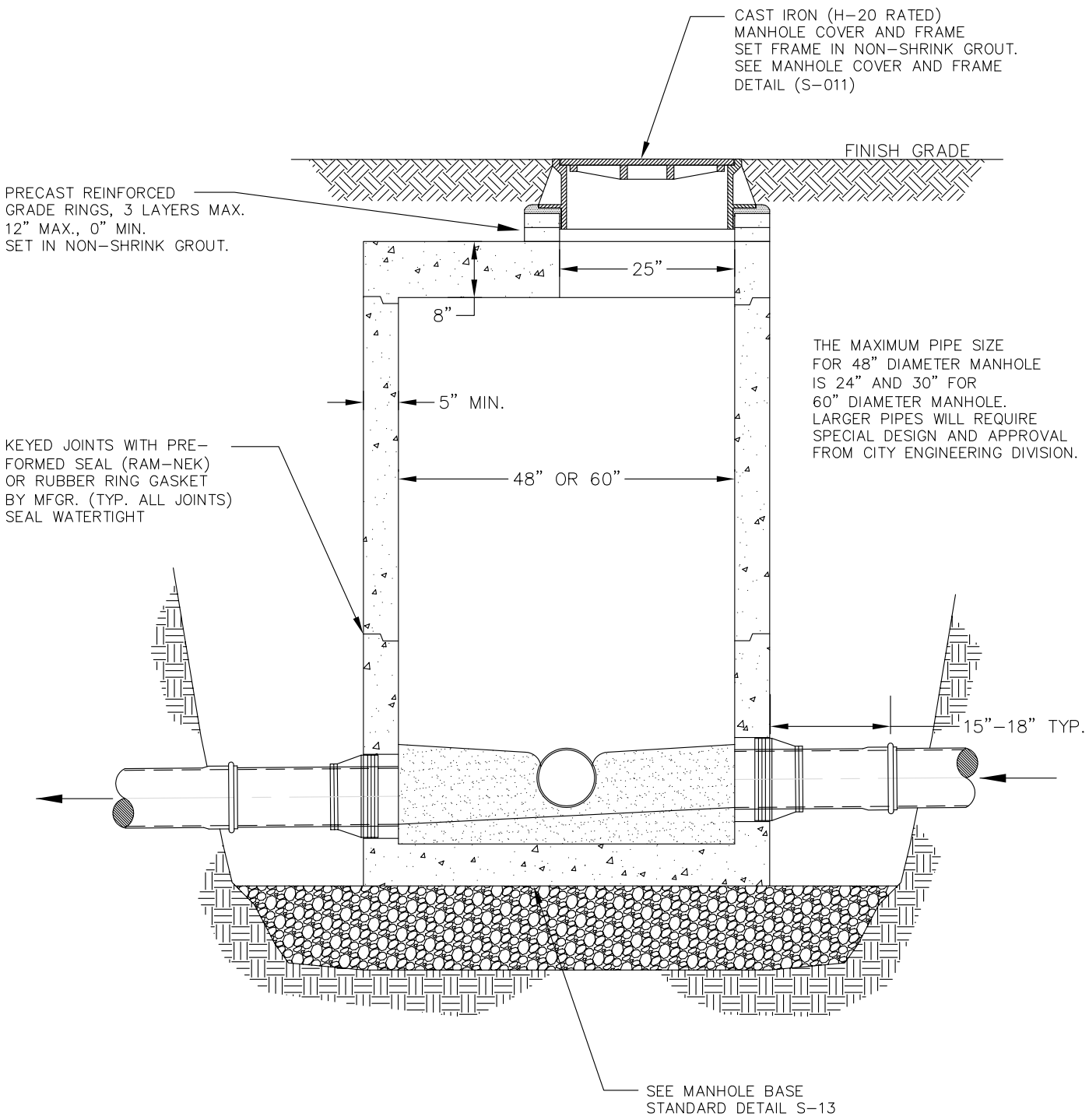
REVISIONS	
REVISED BY:	DATE:

STANDARD MANHOLE DETAIL (SANITARY & STORM)

DRAWING NO.
S-11

DATE
JULY 2016



NOTES:

1. ALL PRECAST MANHOLE SECTIONS SHALL MEET ASTM C-478.

2. STANDARD MANHOLE REQUIRED WHEN DEPTH FROM FINISH GRADE TO INVERT IS 6 FEET OR MORE.

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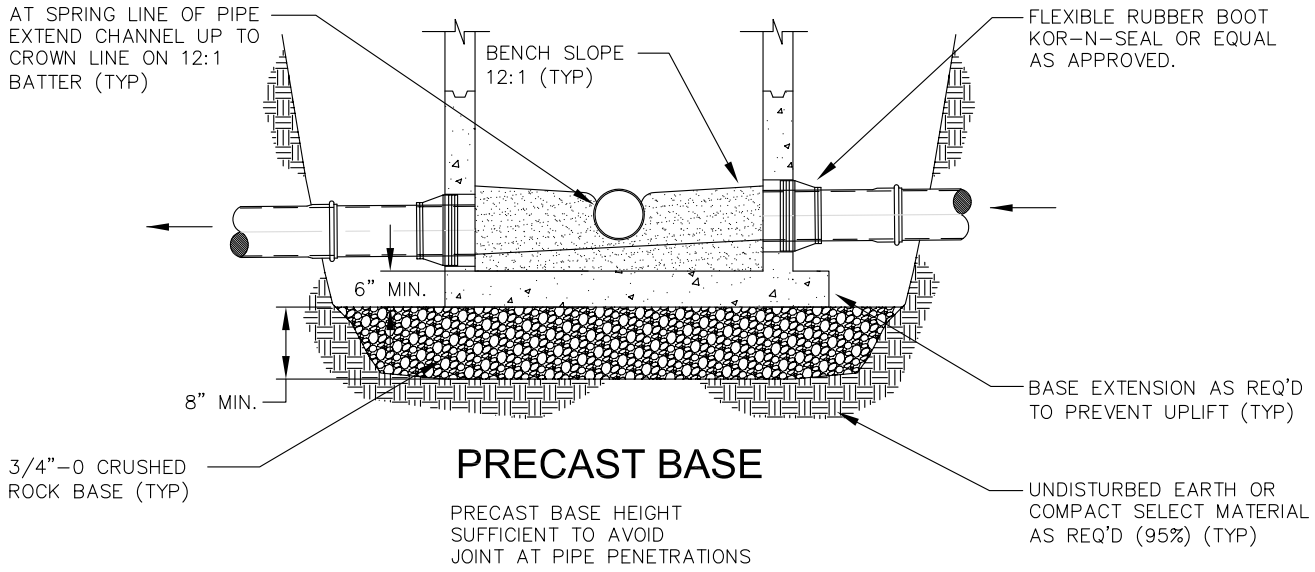
FLAT-TOP MANHOLE DETAIL (SANITARY & STORM)

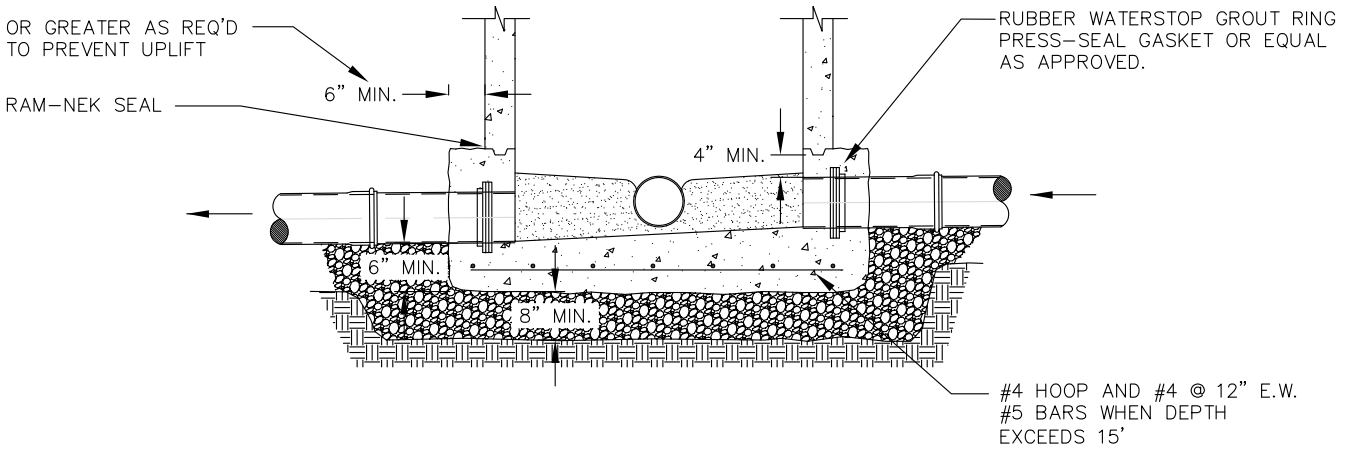
DRAWING NO.
S-12

DATE
JULY 2016

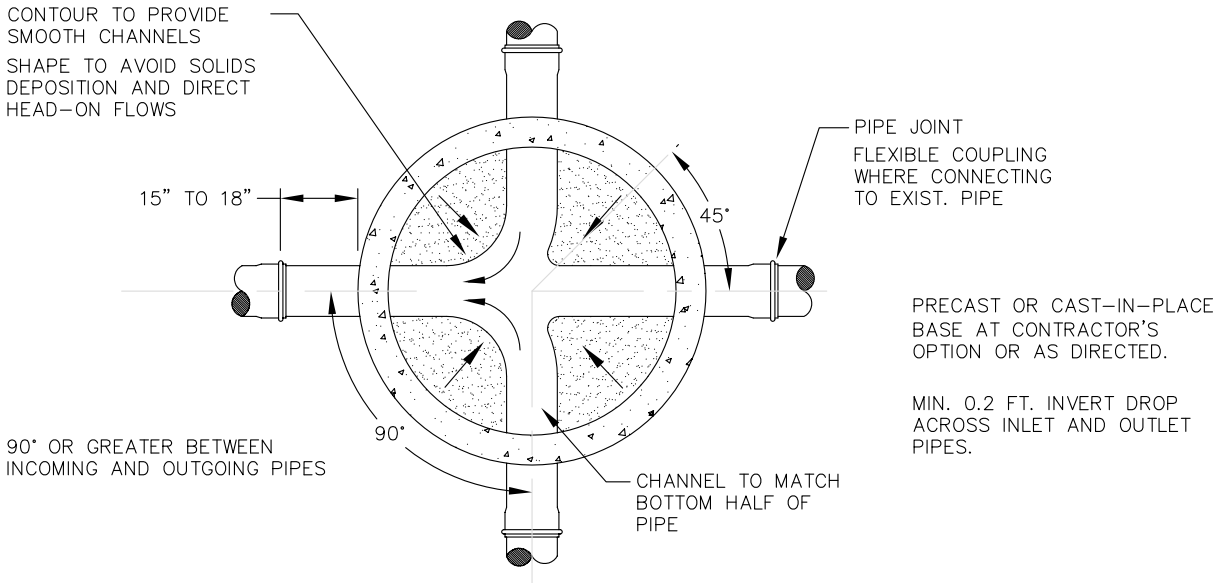


PRECAST BASE

PRECAST BASE HEIGHT SUFFICIENT TO AVOID JOINT AT PIPE PENETRATIONS



CAST-IN-PLACE BASE



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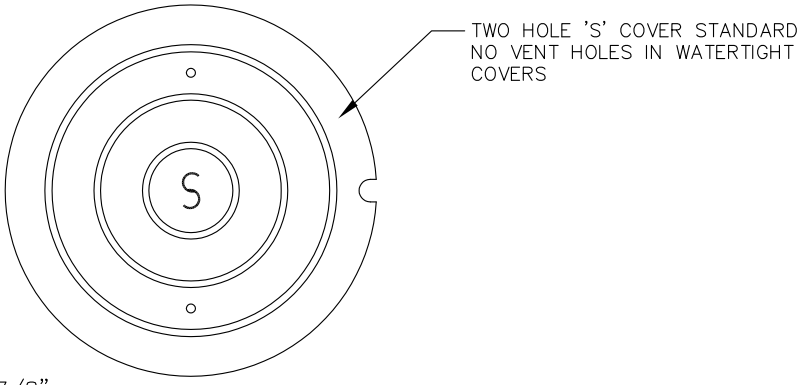
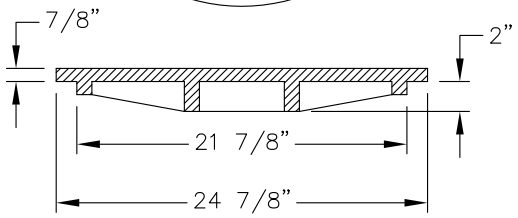
MANHOLE BASE STANDARD DETAILS

DRAWING NO.
S-13

DATE
JULY 2016

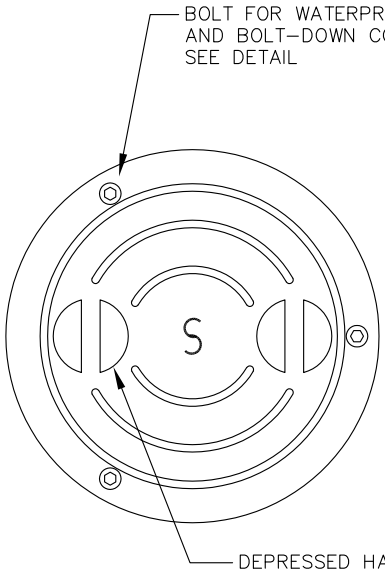




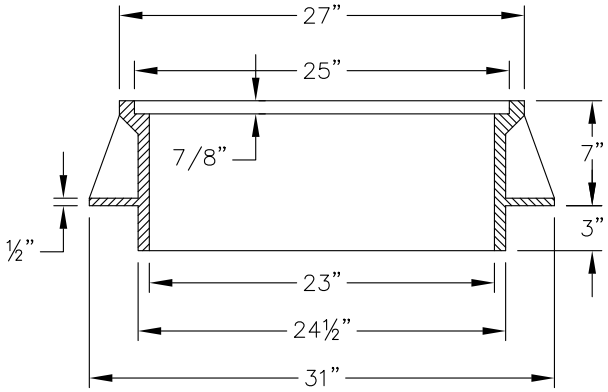
COVER (150 LBS)

(OLYMPIC FOUNDRY MH26S, OR APPROVED EQUAL)

WATERPROOF/BOLT-DOWN COVER REQUIRED IN ALL EASEMENT AND OFF STREET AREAS.

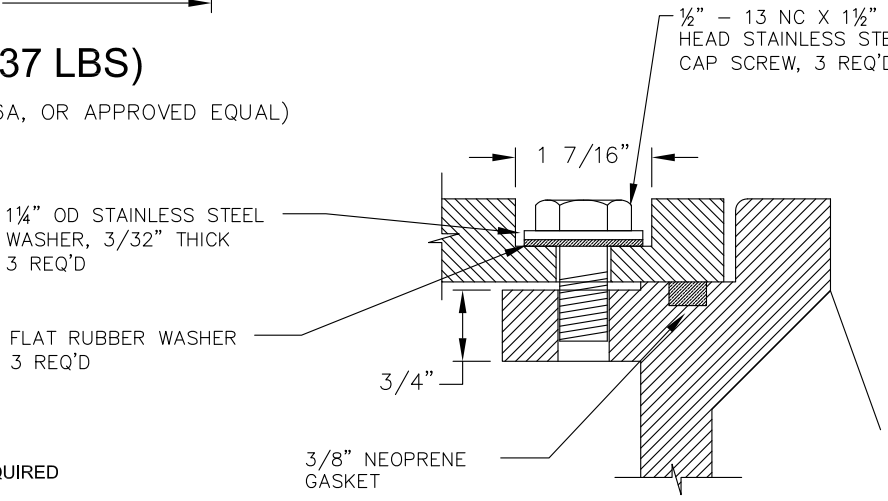


(OLYMPIC FOUNDRY MH26WT, OR APPROVED EQUAL)



FRAME (237 LBS)

(OLYMPIC FOUNDRY MH26A, OR APPROVED EQUAL)



BOLT DOWN DETAIL

NOTES:

1. TAMPER PROOF FRAME AND COVER REQUIRED OUTSIDE OF RIGHT OF WAY OR IN UNDEVELOPED AREAS.
2. MANHOLE FRAMES AND COVER SHALL HAVE H-20 RATING

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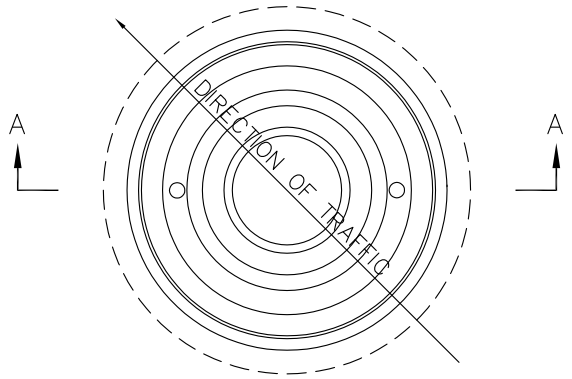
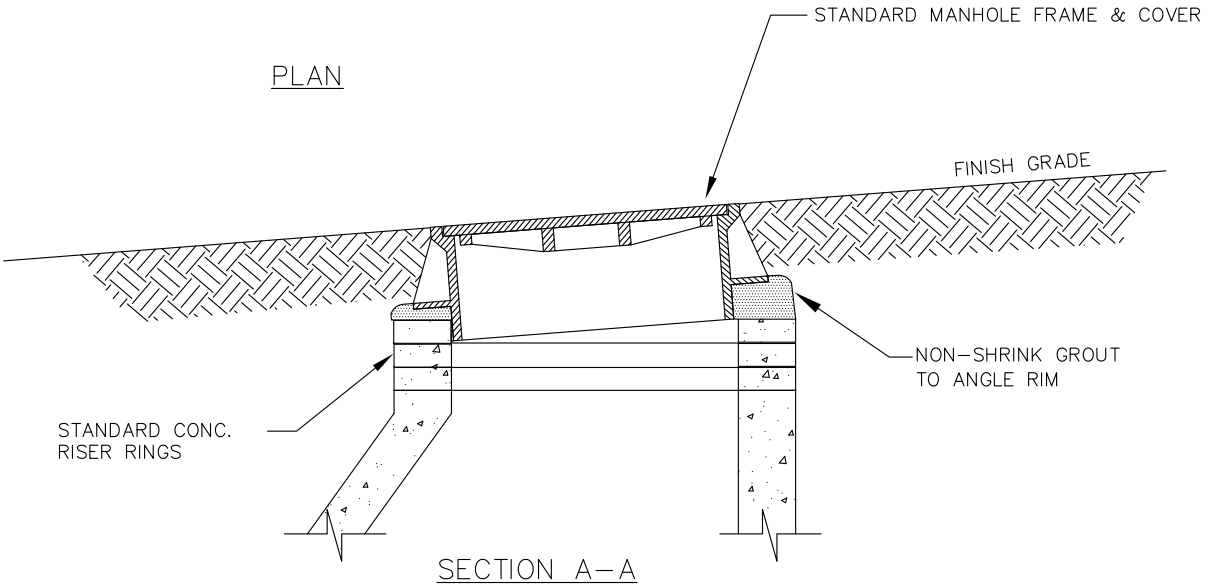
MANHOLE COVER & FRAME DETAILS

DRAWING NO. S-14

DATE JULY 2016

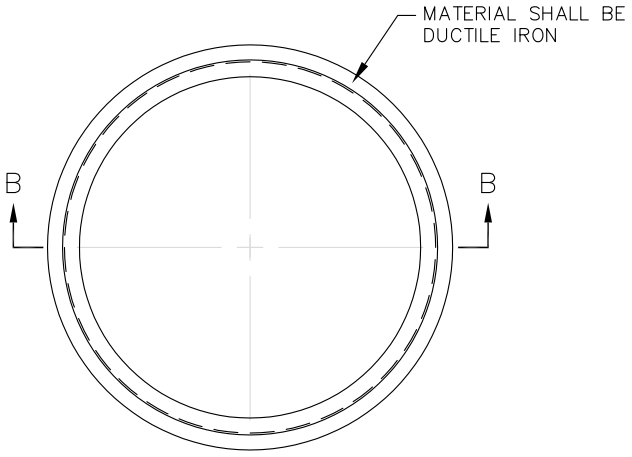


PLAN



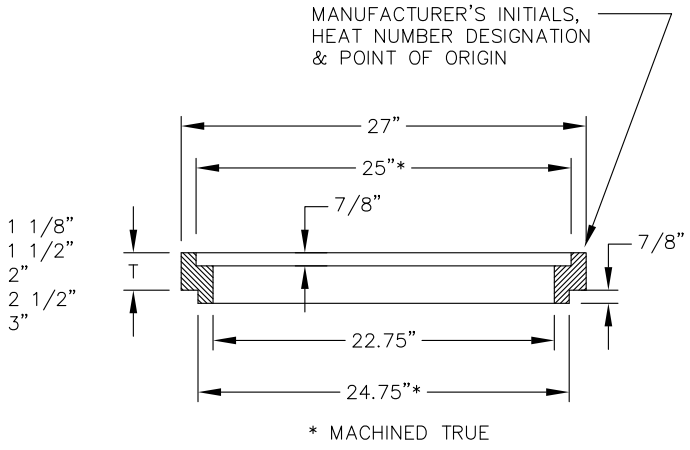
SECTION A–A

TYPICAL MANHOLE GRADE ADJUSTMENT IN STREET



MANHOLE ADJUSTMENT RINGS

FOR RESURFACING



SECTION B–B

City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
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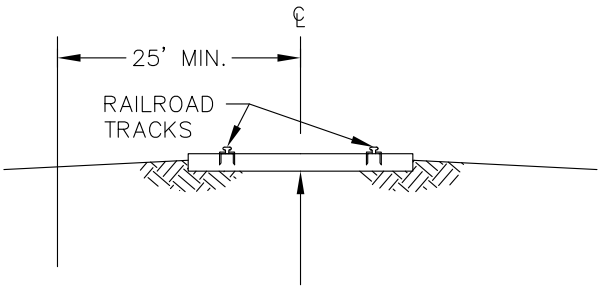
541-269-8918

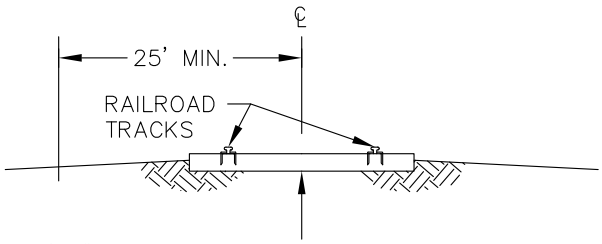
DRAWN BY: JS	
REVISIONS	
REVISED BY:	DATE:

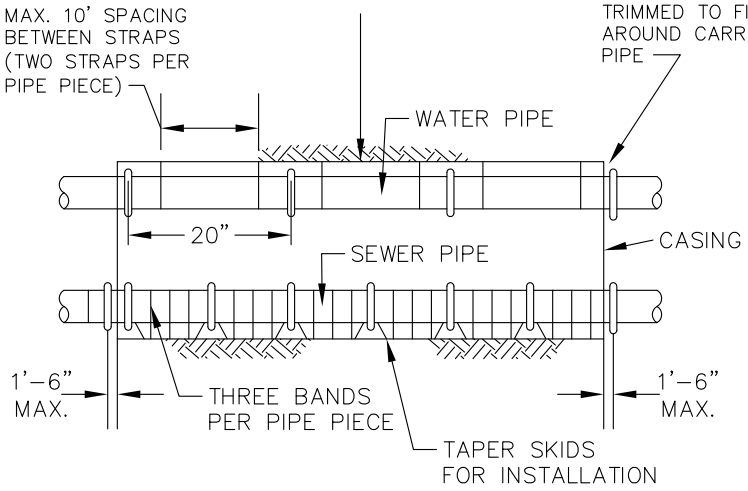
MANHOLE FRAME GRADE ADJUSTMENT

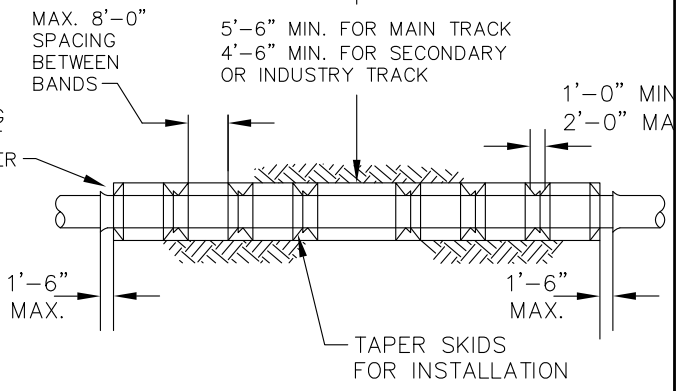
DRAWING NO. S-15

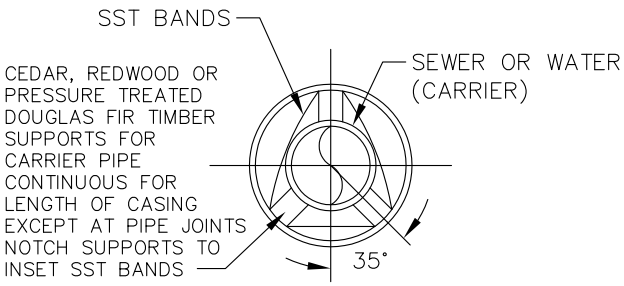
DATE JULY 2016



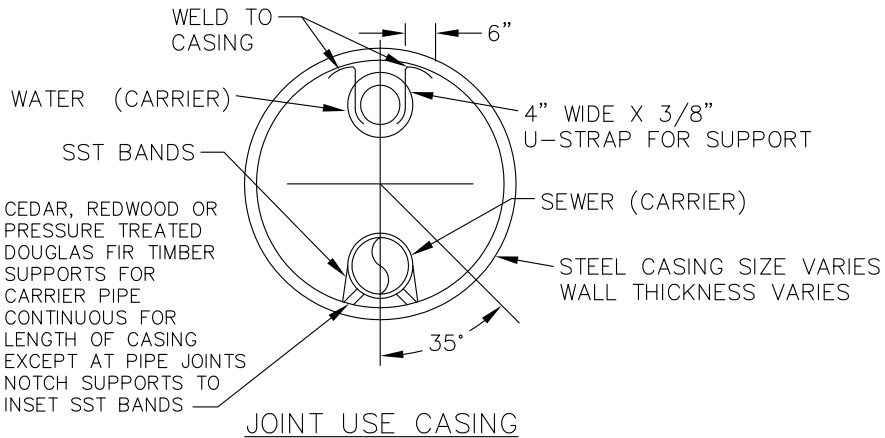








SINGLE USE CASING



JOINT USE CASING

RAILROAD CROSSING DETAIL

CASING PIPE UNDER RAILROADS MIN. STEEL YIELD STRENGTH 35,000 P.S.I.	
PIPE DIAMETER (INCHES)	MINIMUM WALL THICKNESS (INCH)
UNDER 14	0.188
14-16	0.219
18	0.250
20	0.281
22	0.312
24	0.344
26	0.375
28-30	0.406
32	0.438
34-36	0.469
38-42	0.500
* PER AMERICAN RAILWAY ENGINEERING ASSOCIATION, E-72 LOADING	

NOTES:

1. MINIMUM CASING WALL THICKNESS VARIES WITH CASING SIZE. SEE TABLE
2. CASING SHALL CONFORM TO SEWER SLOPE WHEN APPLICABLE
3. CROSSING DETAIL MAY BE USED FOR HIGHWAYS, STREETS, AND ROADS WITH MIN. WALL THICKNESS OF 0.25 INCH.

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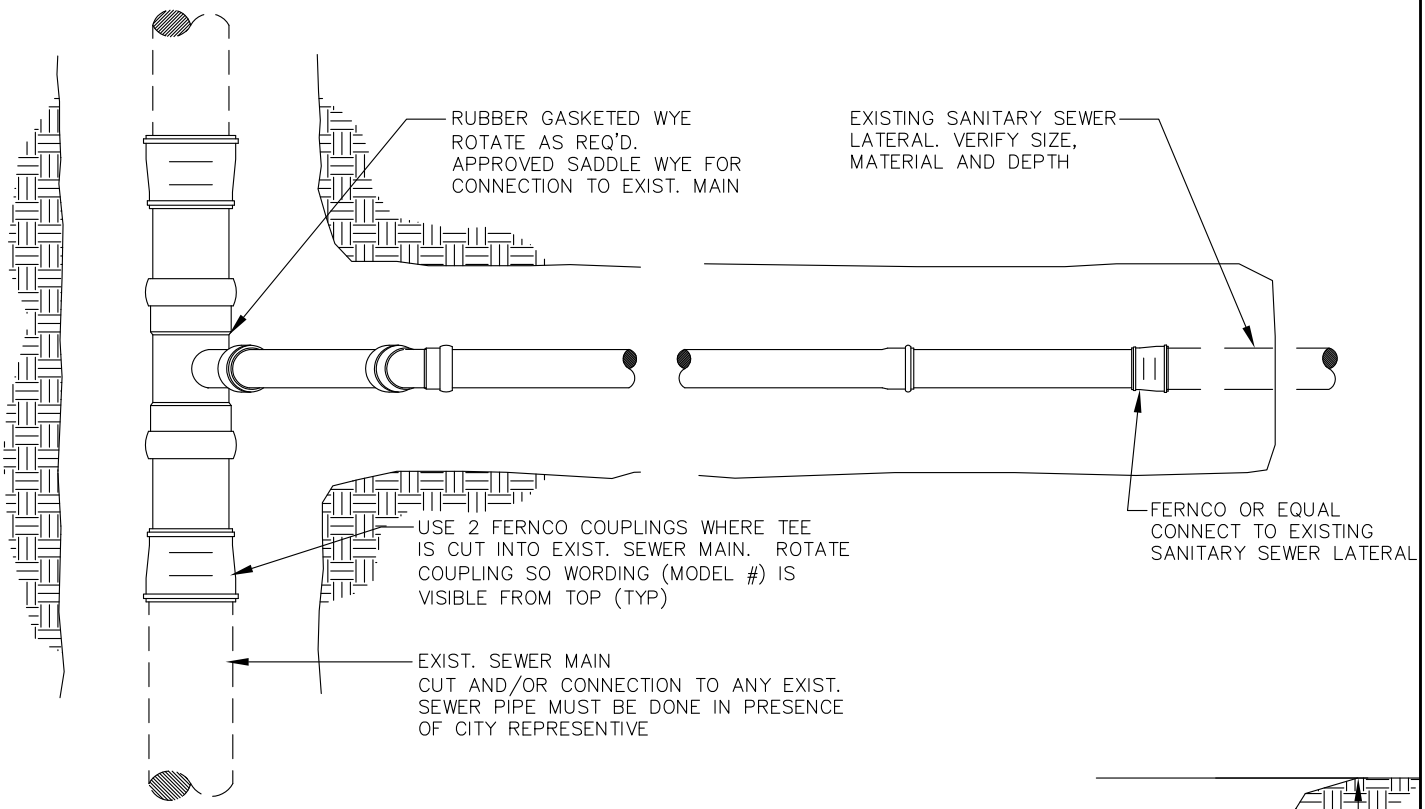
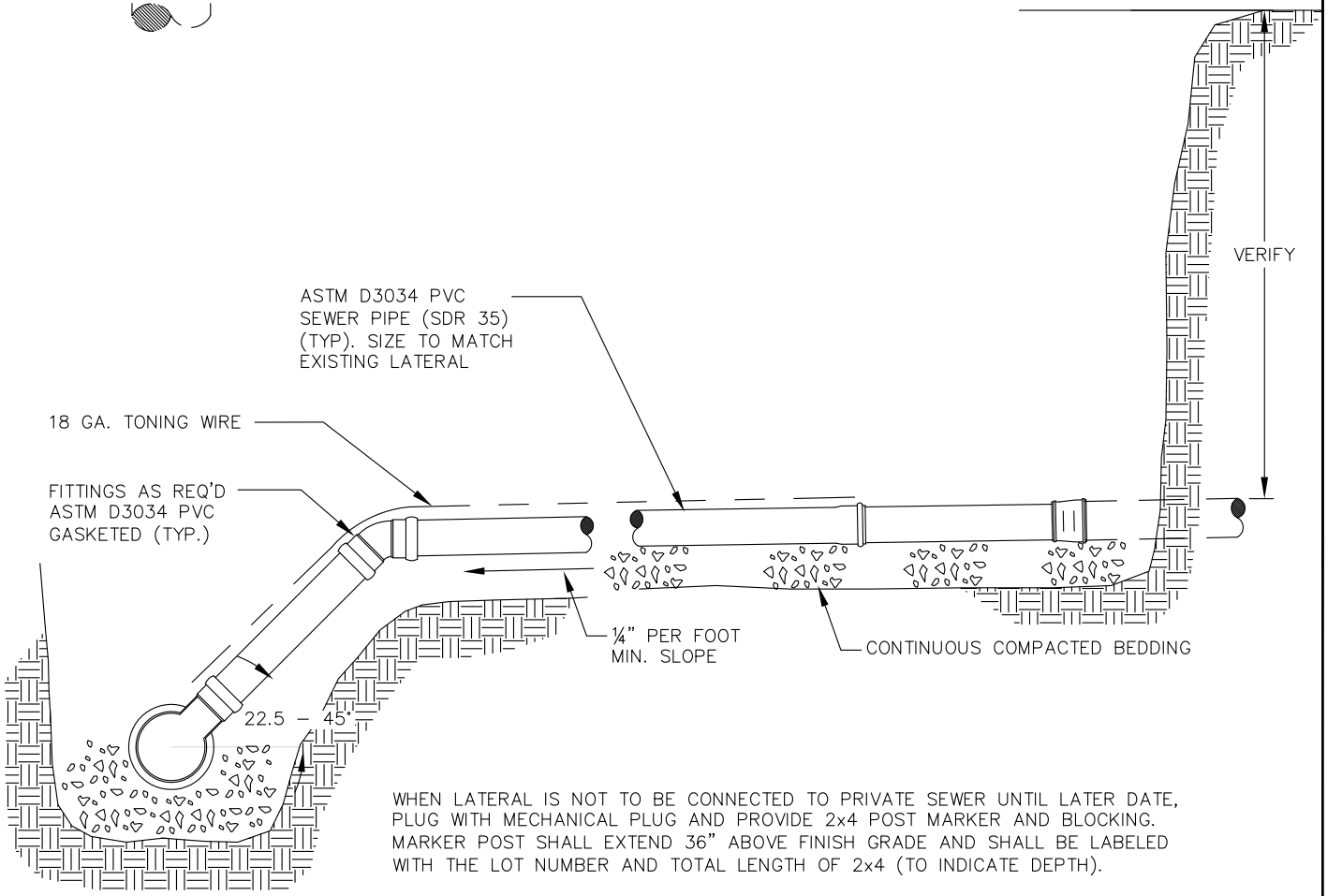
SINGLE & JOINT USE CASING FOR WATER & SEWER LINES

DRAWING NO. S-16

DATE JULY 2016





WHEN LATERAL IS NOT TO BE CONNECTED TO PRIVATE SEWER UNTIL LATER DATE, PLUG WITH MECHANICAL PLUG AND PROVIDE 2x4 POST MARKER AND BLOCKING. MARKER POST SHALL EXTEND 36" ABOVE FINISH GRADE AND SHALL BE LABELED WITH THE LOT NUMBER AND TOTAL LENGTH OF 2x4 (TO INDICATE DEPTH).

WHEN NEW LATERAL IS CONNECTED TO MAIN AND EXISTING STUB–OUT EXISTS, EXPOSE AND CONNECT IN PRESENCE OF CITY REPRESENTATIVE. USE FERNCO COUPLING ROTATED SO WORDING IS VISIBLE FROM TOP.

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STANDARD SERVICE CONNECTION

DRAWING NO.
S-17

DATE
JULY 2016

STREET AND TRANSPORTATION SYSTEMS STANDARD DETAILS

STANDARD DETAIL DRAWINGS INDEX

City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
Coos Bay, Oregon 97420
541-269-8918

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REVISED BY:	DATE:

STANDARD DETAIL DRAWING INDEX

DRAWING NO. T-1

DATE JULY 2016

City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
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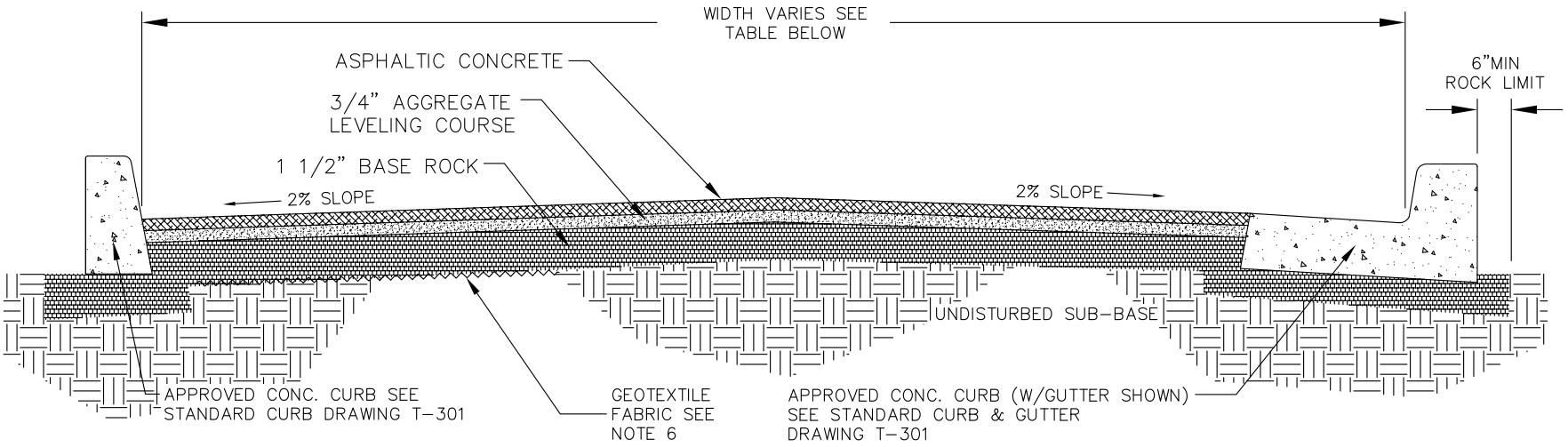
541-269-8918

DRAWN BY: KN

REVISIONS

REVISED BY: | DATE:

STANDARD PAVED STREET



STREET TYPE	MIN. WIDTH CURB-TO-CURB*
ARTERIAL/COLLECTOR	
5-LANE	70'
3-LANE	50'
2-LANE	36'
LOCAL	
RESIDENTIAL	28'
COMMERCIAL/INDUSTRAIL	40'
DEAD END	36'

* WIDTHS MAY BE MODIFIED BY THE CITY ENGINEERING DEPARTMENT TO SUIT SITE CONDITIONS

NOTES:

1) REFERENCE CITY OF COOS BAY LAND DEVELOPMENT ORDINANCE
2) STREETS SHALL BE PAVED CENTERED IN THE PUBLIC RIGHT OF WAY
3) DEVELOPER SHALL OBTAIN WRITTEN APPROVAL TO PAVE OVER PUBLIC UTILITIES FROM: COOS BAY/NORTH BEND WATER BOARD, PACIFIC POWER & LIGHT, VERZION TELEPHONE, COMCAST CABLE, NORTH WEST NATURAL, AND THE CITY OF COOS BAY.
4) THE DEVELOPER SHALL OBTAIN A RIGHT OF WAY USE PERMIT AND SUBMIT A COMPLETE SET OF ENGINEERED DRAWINGS SHOWING THE PLAN AND PROFILE VIEWS OF EXISTING CONDITIONS AND PROPOSED WORK. WHEN PROJECT IS COMPLETE, THE DEVELOPER SHALL FURNISH THE CITY WITH A COMPLETE SET OF REPRODUCIBLE DRAWINGS AND CD SHOWING THE "AS CONSTRUCTED" CONDITIONS OF THE COMPLETED PROJECT.
5) SEE DESIGN STANDARDS MANUAL FOR COMPACTION OF MATERIALS AND TESTING.
6) GEOTEXTILE FABRIC AS REQ'D
7) REFERENCE THE CITY OF COOS BAY TRANSPORTATION SYSTEM PLAN

MINIMUM THICKNESS*

STREET TYPE	ASPHALTIC CONCRETE	AGGREGATE LEVELING COURSE	BASE ROCK
ARTERIAL/ COLLECTOR	2-2" LIFTS	2"	10"
LOCAL	2"	2"	10"
ALLEY	2"	2"	10"

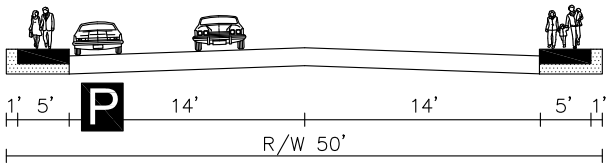
* THICKNESS MAY BE MODIFIED BY THE CITY ENGINEERING DEPARTMENT OR MODIFIED TO MATCH EXISTING CONDITIONS

DRAWING NO. T-2

DATE JULY 2016

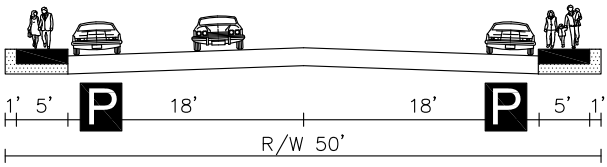
LOCAL STREET

28' Standard Residential



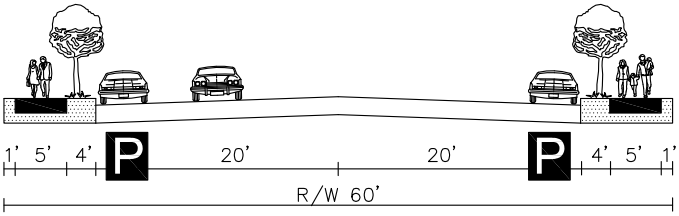
50' Right-of-Way
<1,000 vpd

36' Standard Residential



50' Right-of-Way
<1,000 vpd

40' Standard Residential



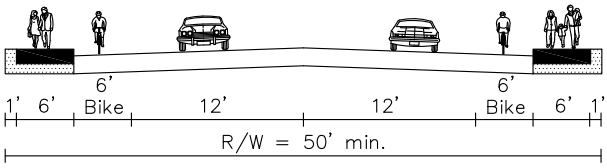
60' Right-of-Way

Legend

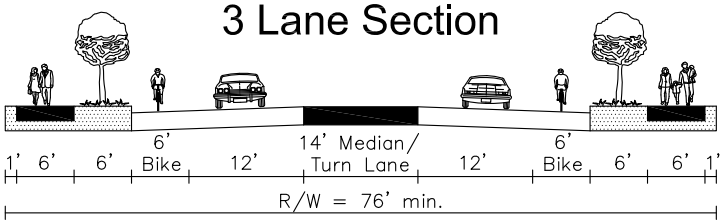
P On-Street Parking Lane

ARTERIAL/COLLECTOR STREET

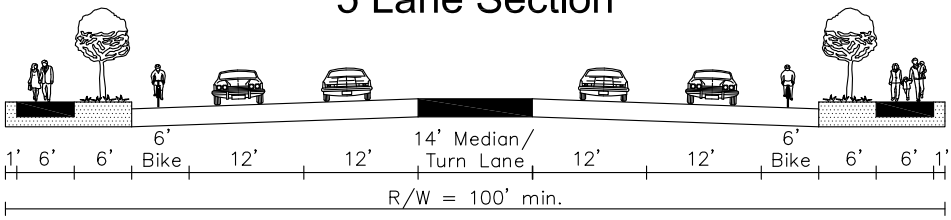
2 Lane Section



3 Lane Section



5 Lane Section



NOTES:

1. APPROVED SIDEWALKS SEE STANDARD SIDEWALK DETAIL T-8
2. APPROVED CONCRETE CURB & GUTTER SEE STANDARD CURB & GUTTER DETAIL T-13
3. REFER TO CITY OF COOS BAY TRANSPORTATION SYSTEM PLAN

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500 Central Avenue
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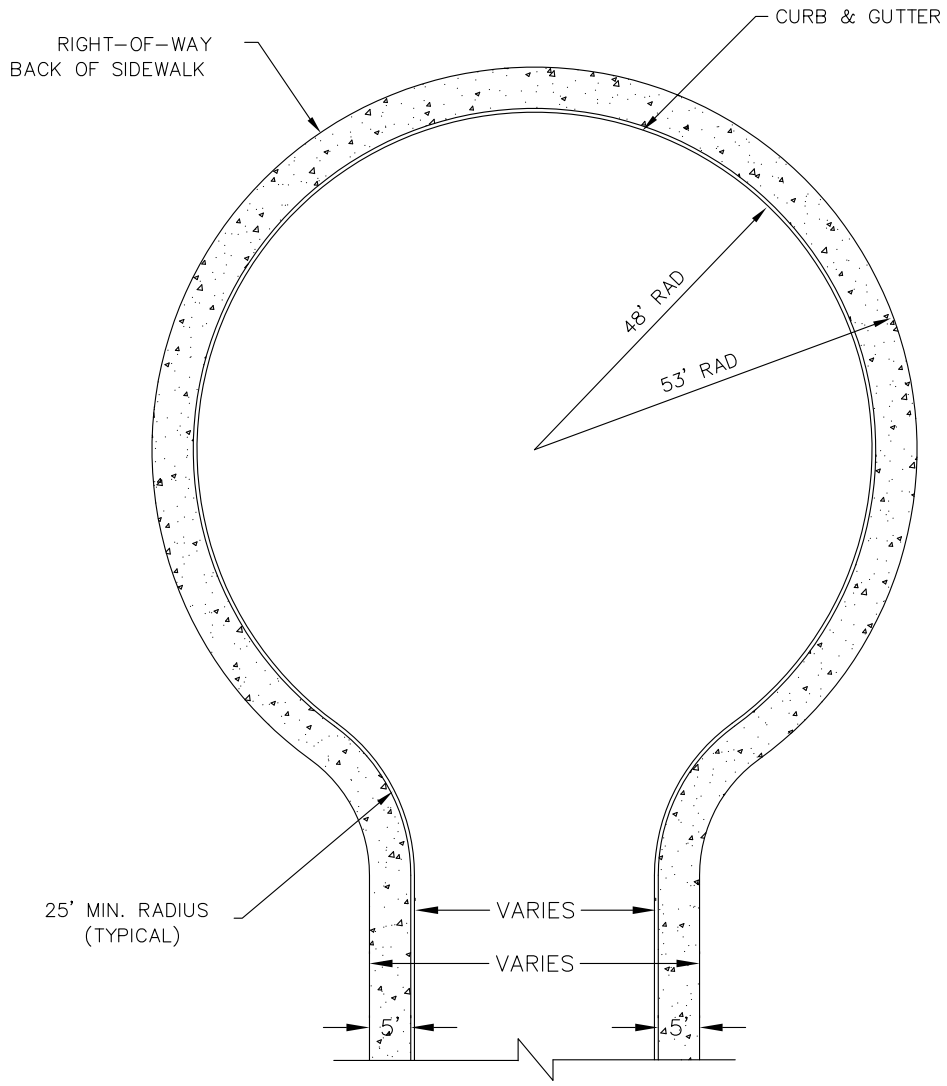
LOCAL AND ARTERIAL/COLLECTOR STREET CROSS SECTIONS

DRAWING NO. T-3

DATE JULY 2016



NOTES:

1. CUL-DE-SAC GEOMETRY SHOWN DOES NOT ALLOW FOR ON-STREET PARKING. IF ON-STREET PARKING IS DESIRED, THE RADIUS TO THE FACE OF CURB MUST BE INCREASED TO ACCOUNT FOR A SINGLE PARKING LANE WIDTH. (MINIMUM 8 FEET)

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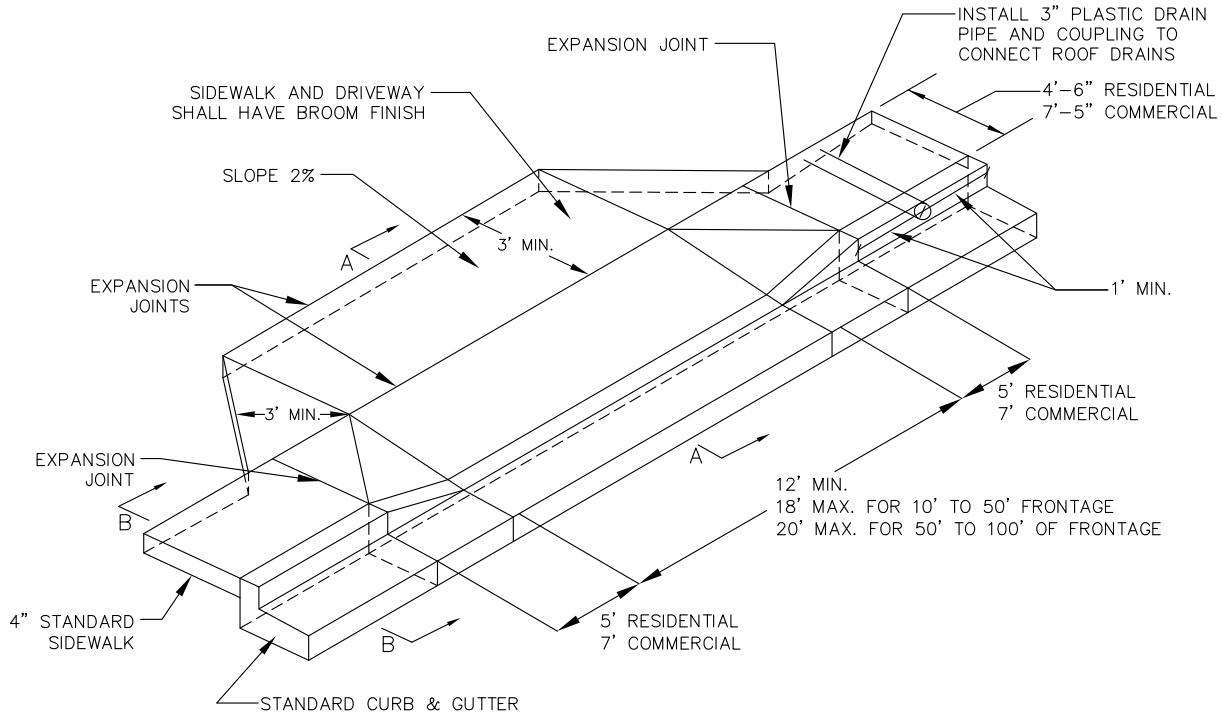
TYPICAL CUL-DE-SAC DETAIL

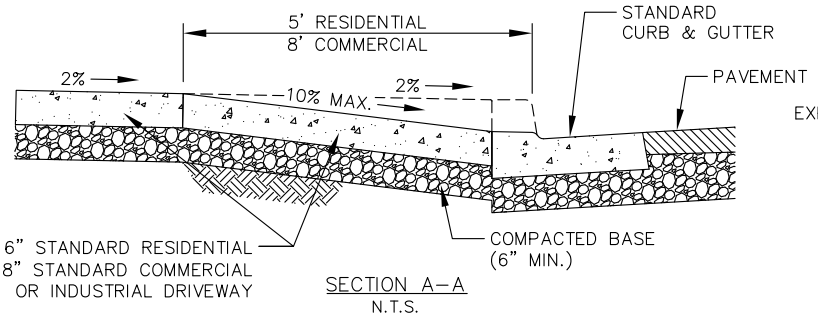
DRAWING NO.
T-4

DATE
JULY 2016



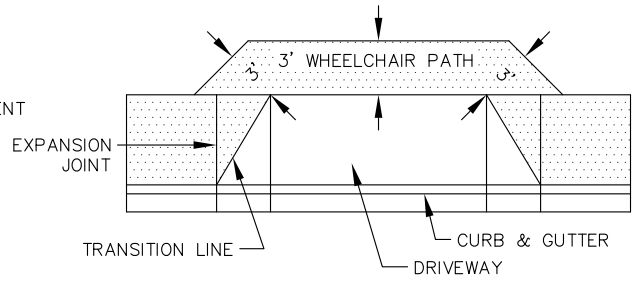
TYPICAL DRIVEWAY / DROP CURB FOR STANDARD SIDEWALK – OPTION "A"

NOT TO SCALE



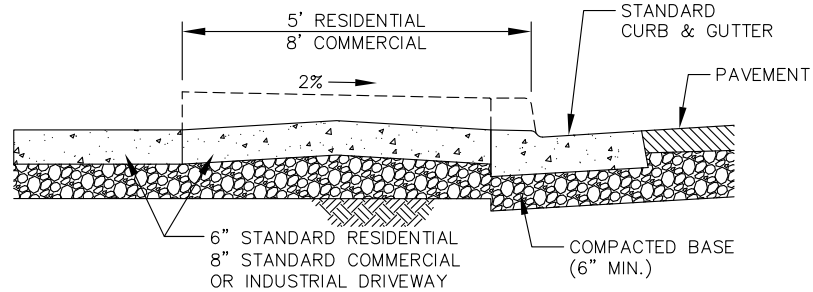
SECTION A–A

N.T.S.



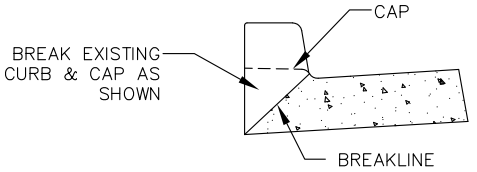
PLAN VIEW

N.T.S.



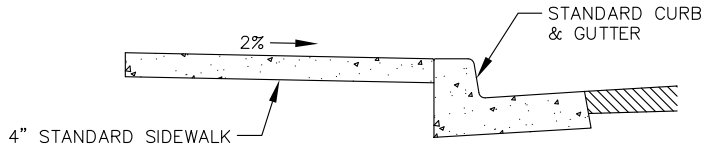
TYPICAL DROP DRIVEWAY SECTION

N.T.S.



CURB BREAK (EXIST'G CURB & GUTTER)

N.T.S.



SECTION B–B

N.T.S.

NOTES:

1. MINIMUM 3,300 PSI CONCRETE REQUIRED FOR ALL DRIVEWAY APRONS AND DRIVEWAY EXTENSIONS.
2. COMPACT BACKFILL UNDER SIDEWALK & DRIVEWAY TO 95% RELATIVE COMPACTION PER AASHTO T-99 METHOD.
3. CONCRETE APRON REQUIRED FOR ALL DRIVEWAYS (5' WIDE FOR RESIDENTIAL, 8' WIDE FOR COMMERCIAL) WHERE NO SIDEWALK IS CONSTRUCTED.
4. PLANNING COMMISSION APPROVAL REQUIRED FOR DEVIATION FROM DRIVEWAY WIDTH STANDARDS.
5. PERMITS AND INSPECTIONS REQUIRED FOR NEW AND EXISTING STRUCTURES. INSPECTION WILL BE MADE AFTER FORMS HAVE BEEN SET.
6. FOR STANDARD SIDEWALK SEE DETAIL T-8.
7. FOR STANDARD CURB & GUTTER SEE DETAIL T-13.

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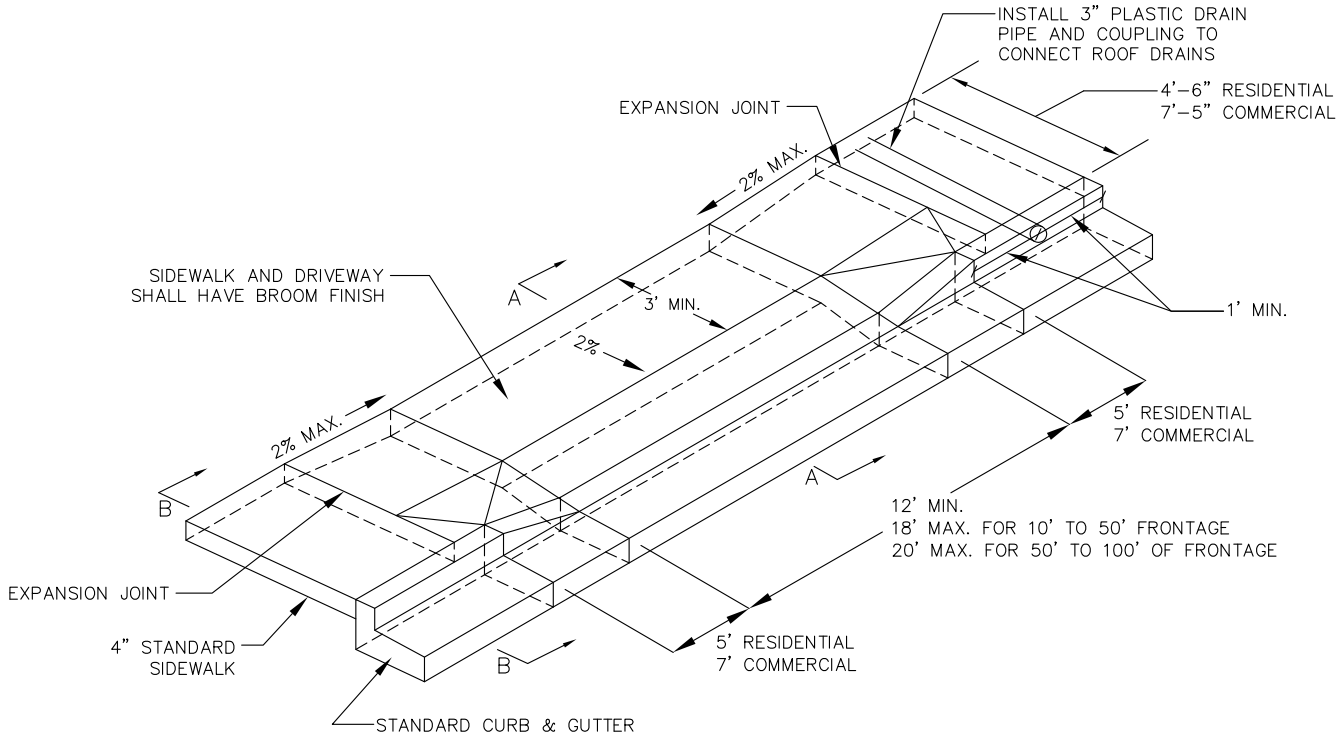
CONCRETE DRIVEWAY OPTION "A"

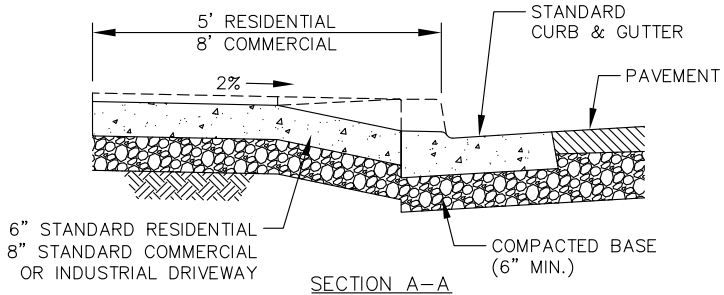
DRAWING NO. T-5

DATE JULY 2016



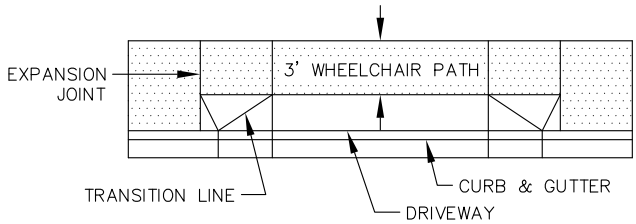
TYPICAL DRIVEWAY / DROP CURB FOR STANDARD SIDEWALK – OPTION "B"

NOT TO SCALE



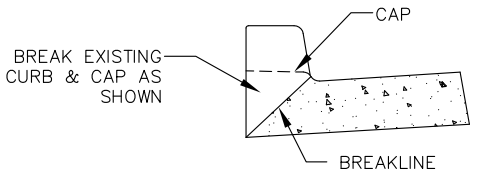
SECTION A–A

N.T.S.



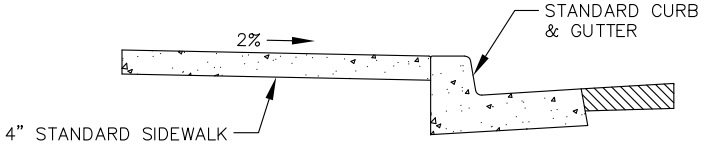
PLAN VIEW

N.T.S.



CURB BREAK (EXIST'G CURB & GUTTER)

N.T.S.



SECTION B–B

N.T.S.

NOTES:

1. MINIMUM 3,300 PSI CONCRETE REQUIRED FOR ALL DRIVEWAY APRONS AND DRIVEWAY EXTENSIONS.
2. COMPACT BACKFILL UNDER SIDEWALK & DRIVEWAY TO 95% RELATIVE COMPACTION PER AASHTO T-99 METHOD.
3. CONCRETE APRON REQUIRED FOR ALL DRIVEWAYS (5' WIDE FOR RESIDENTIAL, 8' WIDE FOR COMMERCIAL) WHERE NO SIDEWALK IS CONSTRUCTED.
4. PLANNING COMMISSION APPROVAL REQUIRED FOR DEVIATION FROM DRIVEWAY WIDTH STANDARDS.
5. PERMITS AND INSPECTIONS REQUIRED FOR NEW AND EXISTING STRUCTURES. INSPECTION WILL BE MADE AFTER FORMS HAVE BEEN SET.
6. FOR STANDARD SIDEWALK SEE DETAIL T-8.
7. FOR STANDARD CURB & GUTTER SEE DETAIL T-13.

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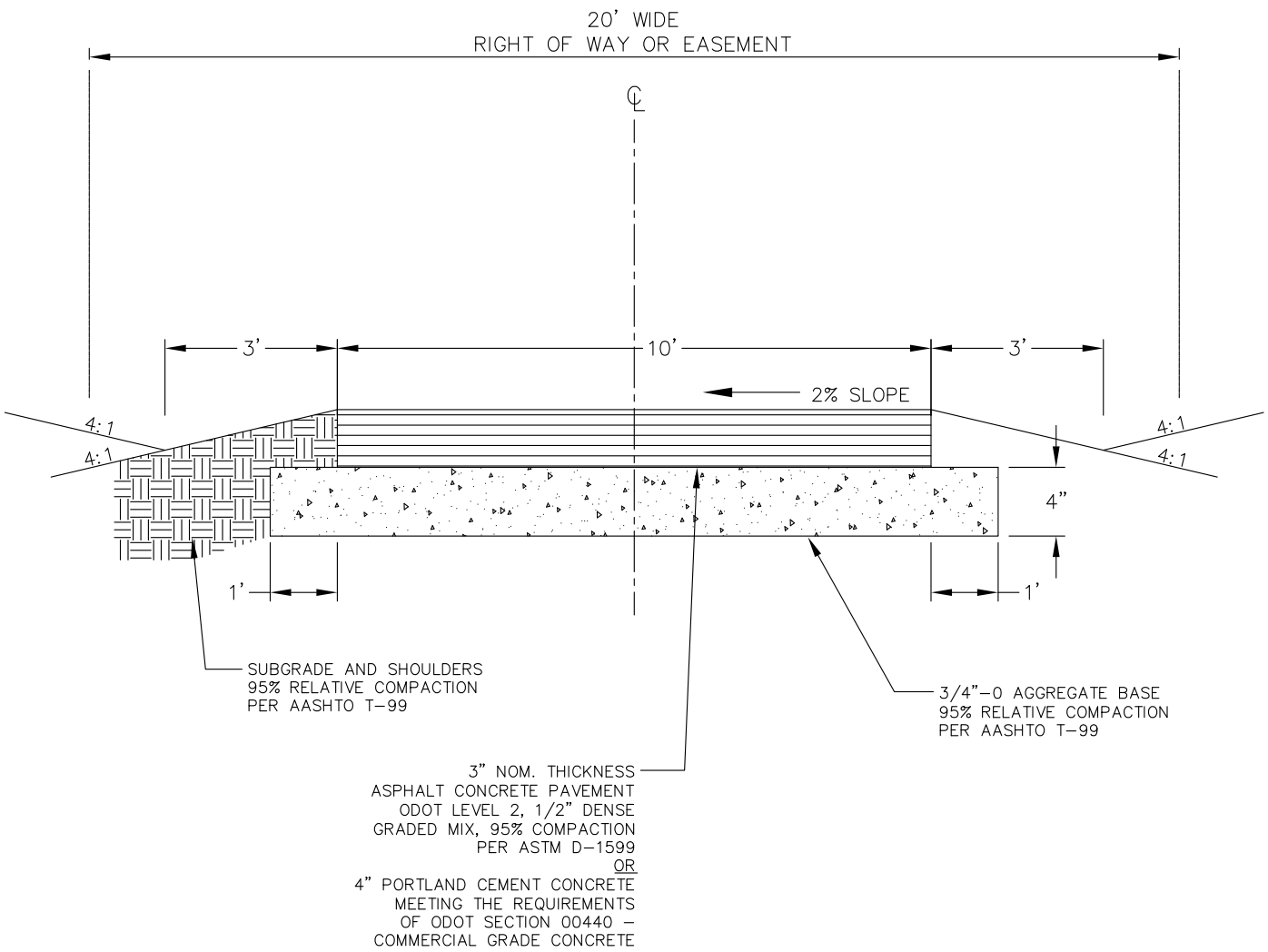
CONCRETE DRIVEWAY OPTION "B"

DRAWING NO. T-6

DATE JULY 2016



NOTE:
PLACE 6" OF SELECT BACKFILL
ON ALL SLOPES TO CATCH POINT
PRIOR TO PAVING

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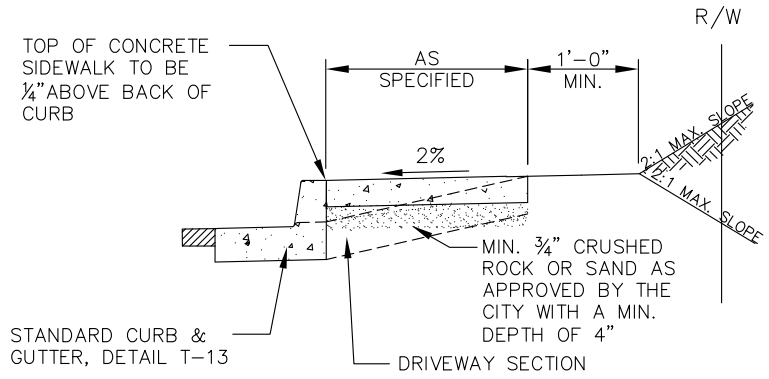
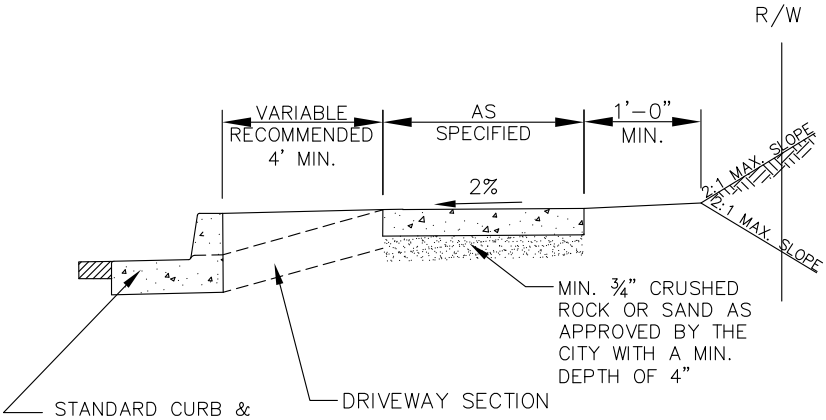
TYPICAL MULTI-USE PATH SECTION

DRAWING NO.
T-7

DATE
JULY 2016



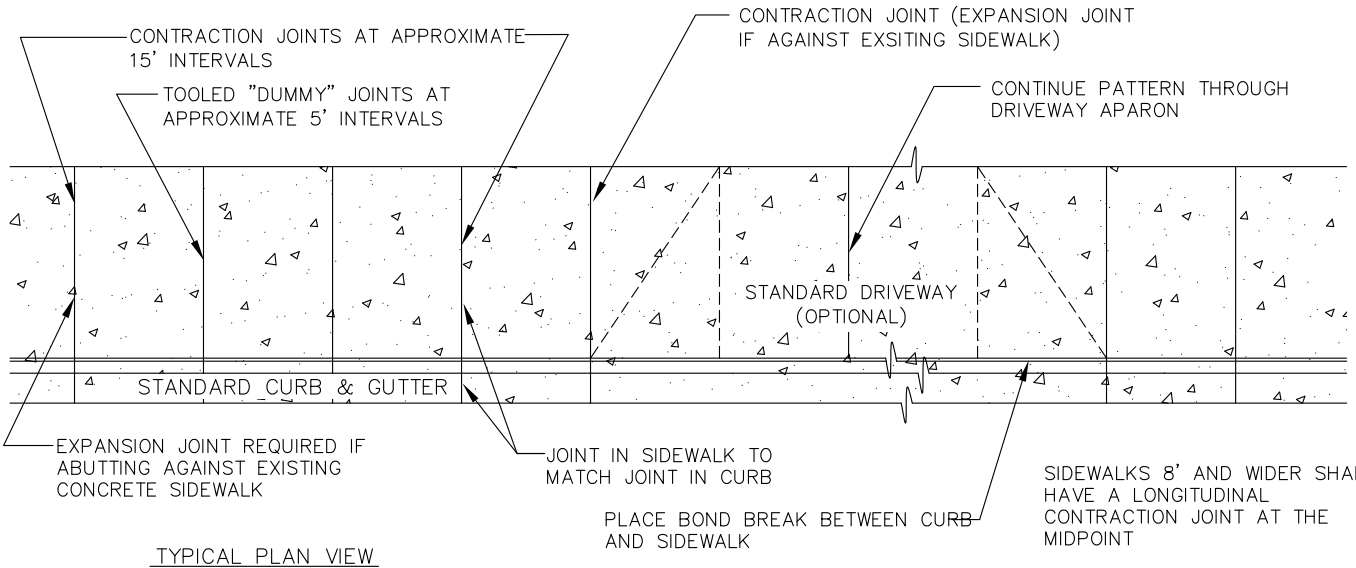
TYPICAL CURB TYPE CROSS SECTION



TYPICAL SETBACK TYPE CROSS SECTION

NOTES:

1. CONCRETE PER CITY OF COOS BAY STANDARD SPECIFICATIONS.
2. STANDARD SIDEWALK CROSS SLOPE SHALL BE 2%. WHEN THE LOT IS BELOW THE TOP OF THE CURB AND SLOPE DOWN FROM CURB , A MINUS 2% SLOPE MAY BE REQUIRED.
3. CONCRETE DEPTH FOR SIDEWALKS SHALL SHALL BE A NOMINAL 4" MIN. DRIVEWAY SECTIONS INCLUDING SIDEWALKS THROUGH DRIVEWAYS SHALL BE NOMINAL 6" MIN FOR RESIDENTIAL AND 8" FOR COMMERCIAL AND INDUSTRIAL APPROACHES.
4. CONTRACTION JOINTS SHALL BE INSTALLED AT APPROXIMATE INTERVALS OF 15' BY CUTTING AT LEAST ⅓ OF THE DEPTH OF THE CONCRETE. "DUMMY" JOINTS SHALL BE INSTALLED AT APPROXIMATE INTERVALS OF 5'. EXPANSION JOINTS WITH PREMOLDED FILLER SHALL BE INSTALLED BETWEEN DRIVEWAYS & SIDEWALKS AT THE DIRECTION OF THE ENGINEER, SEE DRIVEWAY STANDARD
5. INSTALL A BOND BREAKER OR ISOLATION JOINT BETWEEN BACK OF CURB & SIDEWALK, & AROUND ANY OBSTRUCTION WITHIN SIDEWALK AREA
6. DRAIN BLOCKOUTS IN THE CURB SHALL BE EXTENDED TO THE BACK OF THE SIDEWALK WITH A 3" DIA. PLASTIC PIPE AT A 2% SLOPE. A CONTRACTION JOINT SHALL BE PLACED OVER THE PIPE
7. SEE STANDARD WHEELCHAIR/BICYCLE RAMP DETAILS FOR SIDEWALK PATTERNS AT INTERSECTION CURB RETURNS
8. SEE, ALSO, STANDARD DETAILS FOR DRIVEWAYS, T-5, T-6
9. A MIN. SEPARATION OF 4' BETWEEN CURB & SIDEWALK IS RECOMMENDED FOR LANDSCAPE MAINTENANCE
10. SIDEWALKS 8' AND WIDER SHALL HAVE A LONGITUDINAL CONTRACTION JOINT AT THE MIDPOINT



TYPICAL PLAN VIEW

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STANDARD SIDEWALK DETAILS

DRAWING NO.
T-8

DATE
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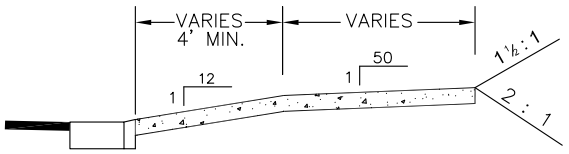
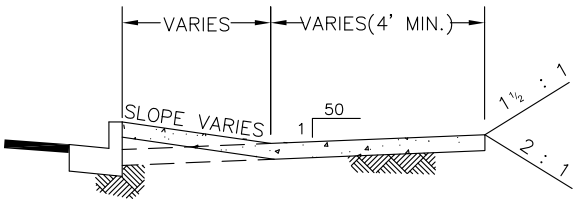
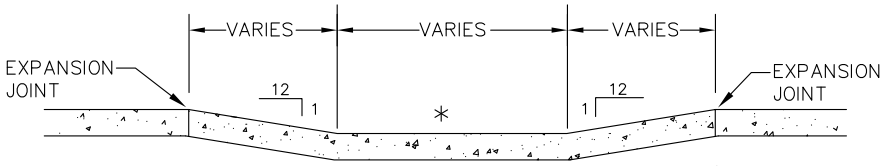


SECTION A–A



SECTION B–B

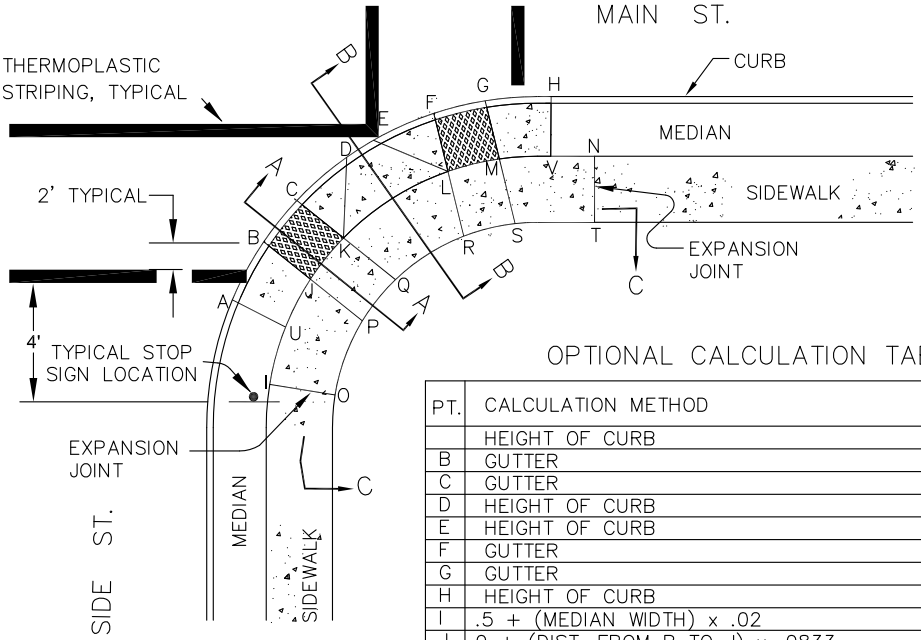


SECTION C–C

* SLOPE SIDEWALK TO PROVIDE POSITIVE DRAINAGE.

NOTE:

1. WHEELCHAIR RAMP GRADES SHALL MEET ADA STANDARDS. THE TABLE PROVIDED BELOW IS TO ASSIST THE DESIGNER AND CONTRACTOR WHO ELECT TO CALCULATE ELEVATIONS TO MEET THOSE STANDARDS.
2. PROVIDE STOP LINE ONLY ON SIDE STREET APPROACHES TO MAIN STREETS WITH CENTERLINE STRIPING. CROSSWALK LINES WHERE REQUIRED MUST BE AS PER STRIPING PLAN APPROVED BY THE CITY
5. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI IN 28 DAYS



PLAN

OPTIONAL CALCULATION TABLE FOR POINT ELEVATIONS

PT.	CALCULATION METHOD	* + FROM GUTTER @ RIGHT ANGLE
	HEIGHT OF CURB	.5
B	GUTTER	0
C	GUTTER	0
D	HEIGHT OF CURB	.5
E	HEIGHT OF CURB	.5
F	GUTTER	0
G	GUTTER	0
H	HEIGHT OF CURB	.5
I	.5 + (MEDIAN WIDTH) x .02	*
J	0 + (DIST. FROM B TO J) x .0833	*
K	0 + (DIST. FROM C TO K) x .0833	*
L	0 + (DIST. FROM F TO L) x .0833	*
M	0 + (DIST. FROM G TO M) x .0833	*
N	.5 + (MEDIAN WIDTH) x .02	*
O	.5 + (MEDIAN WIDTH) + (DIST. FROM I TO O) x .02	*
P	0 + (DIST. FROM B TO J) x .0833 + (DIST. FROM J TO P) x .02	*
Q	0 + (DIST. FROM C TO K) x .0833 + (DIST. FROM K TO Q) x .02	*
R	0 + (DIST. FROM F TO L) x .0833 + (DIST. FROM L TO R) x .02	*
S	0 + (DIST. FROM G TO M) x .0833 + (DIST. FROM M TO S) x .02	*
T	.5 + (MEDIAN WIDTH) + (DIST. FROM N TO T) x .02	*
U	J + (DIST. FROM J TO U) x .0833	*
V	M + (DIST. FROM M TO V) x .0833	*

* DESIGNER MAY CALCULATE ELEVATIONS AT LOCATIONS SHOWN.

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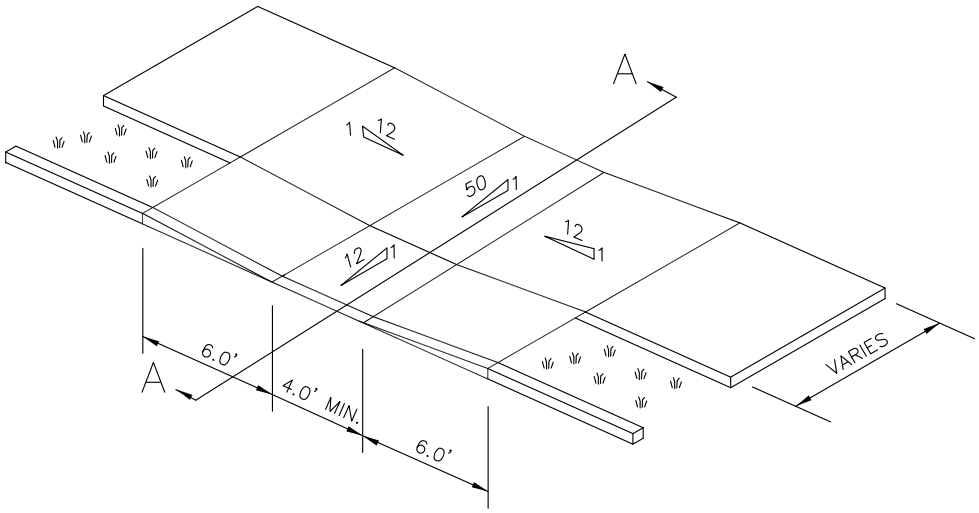
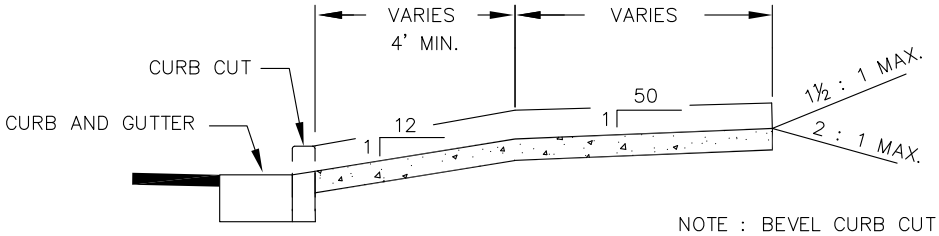
SIDEWALK & RAMP DETAIL WITH PLANTER STRIP

DRAWING NO. T-9

DATE JULY 2016

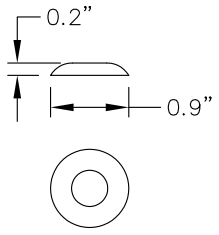


SIDEWALK RAMP DETAIL

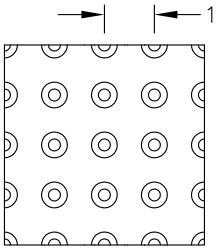


NOTE : BEVEL CURB CUT FROM GUTTER TO THE BACK OF CURB AT 8.33%

SECTION A–A



TRUNCATED DOME DETAIL



RAMP TEXTURE DETAIL

TEXTURE NOTES:
1. PLACE DOME TEXTURE IN THE LOWER 2' ADJACENT TO TRAFFIC THROAT OF RAMP ONLY.
2. COLOR OF DOMES TO BE SAFETY YELLOW.

RAMP TEXTURE DETAIL

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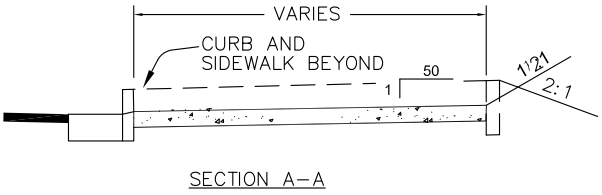
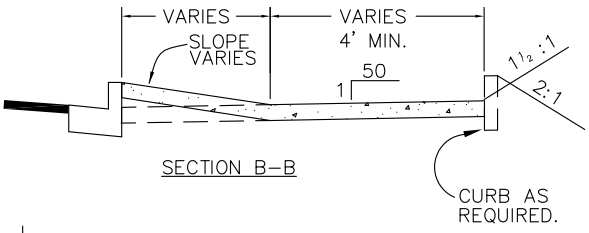
RAMP & TEXTURE DETAIL WITH PLANTER STRIP

DRAWING NO.
T-10

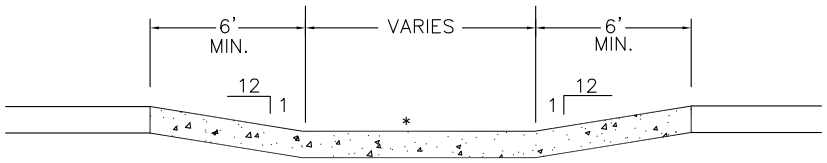
DATE
JULY 2016



SECTION A–A



SECTION B–B

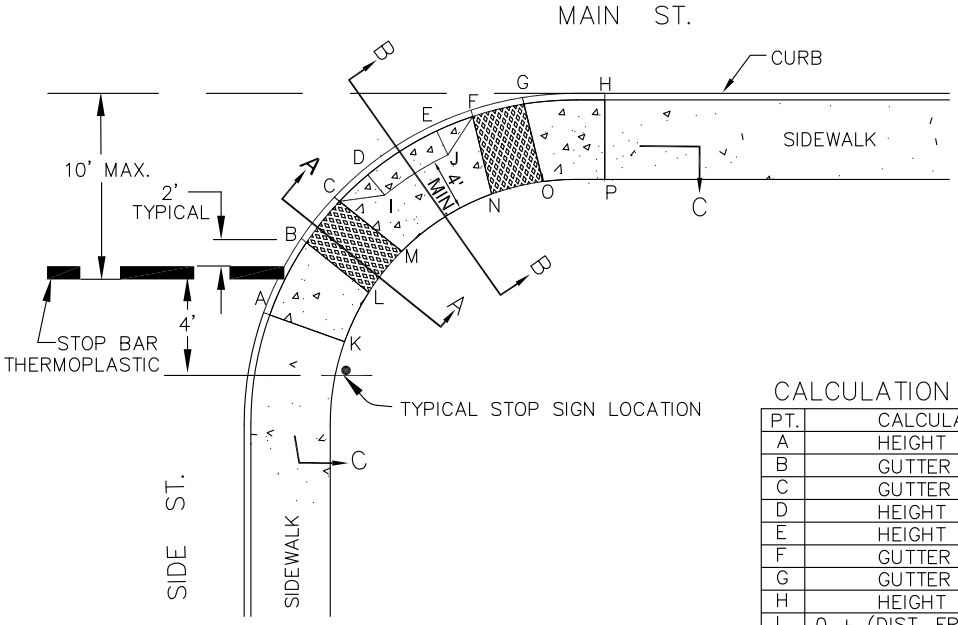


SECTION C–C

* SLOPE SIDEWALK TO PROVIDE POSITIVE DRAINAGE.

NOTE:

1. WHEELCHAIR RAMP GRADES SHALL MEET ADA STANDARDS. THE TABLE PROVIDED BELOW IS TO ASSIST THE DESIGNER AND CONTRACTOR WHO ELECT TO CALCULATE ELEVATIONS TO MEET THOSE STANDARDS.
2. PROVIDE STOP LINE ONLY ON SIDE STREET APPROACHES TO MAIN STREETS WITH CENTERLINE STRIPING. CROSSWALK LINES WHERE REQUIRED MUST BE AS PER STRIPING PLAN APPROVED BY THE CITY
5. CONCRETE SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3300 PSI IN 28 DAYS



PLAN

OPTIONAL
CALCULATION TABLE FOR POINT ELEVATIONS

PT.	CALCULATION METHOD	* + FROM GUTTER
A	HEIGHT OF CURB	.5
B	GUTTER	0
C	GUTTER	0
D	HEIGHT OF CURB	.5
E	HEIGHT OF CURB	.5
F	GUTTER	0
G	GUTTER	0
H	HEIGHT OF CURB	.5
I	0 + (DIST. FROM D TO I) x .02	*
J	0 + (DIST. FROM E TO J) x .02	*
K	.5 + (DIST. FROM A TO K) x .02	*
L	0 + (DIST. FROM B TO L) x .02	*
M	0 + (DIST. FROM C TO M) x .02	*
N	0 + (DIST. FROM F TO N) x .02	*
O	0 + (DIST. FROM G TO O) x .02	*
P	.5 + (DIST. FROM H TO P) x .02	*

* DESIGNER MAY CALCULATE ELEVATIONS AT LOCATIONS SHOWN.

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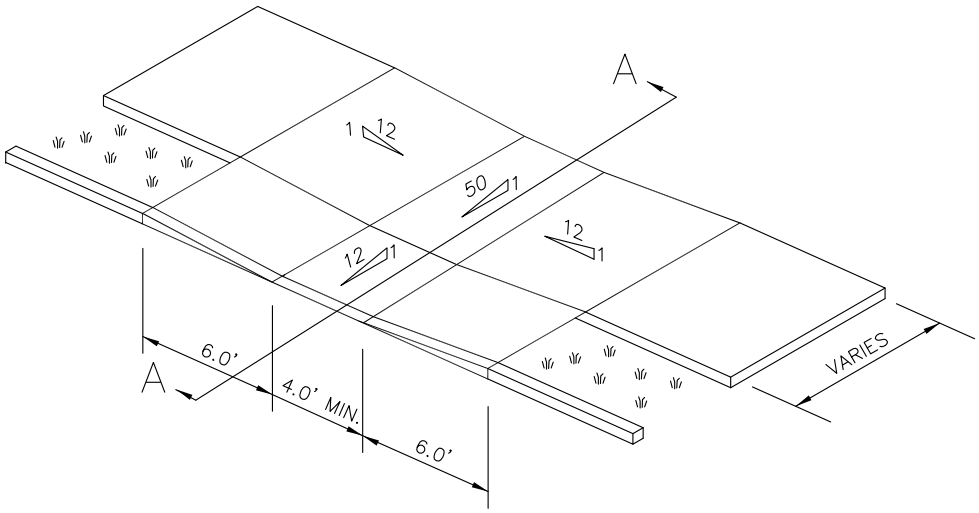
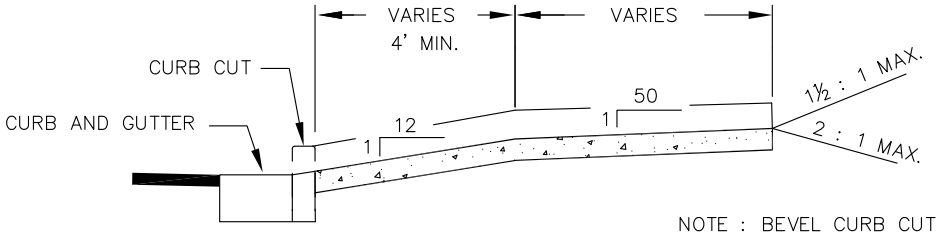
SIDEWALK & RAMP DETAIL WITHOUT PLANTER STRIP

DRAWING NO.
T-11

DATE
JULY 2016

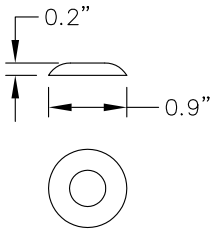


SIDEWALK RAMP DETAIL

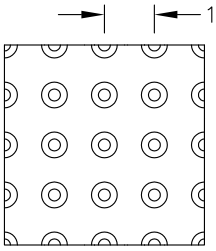


NOTE : BEVEL CURB CUT FROM GUTTER TO THE BACK OF CURB AT 8.33%

SECTION A–A



TRUNCATED DOME DETAIL



RAMP TEXTURE DETAIL

TEXTURE NOTES:
1. PLACE DOME TEXTURE IN THE LOWER 2' ADJACENT TO TRAFFIC THROAT OF RAMP ONLY.
2. COLOR OF DOMES TO BE SAFETY YELLOW.

RAMP TEXTURE DETAIL

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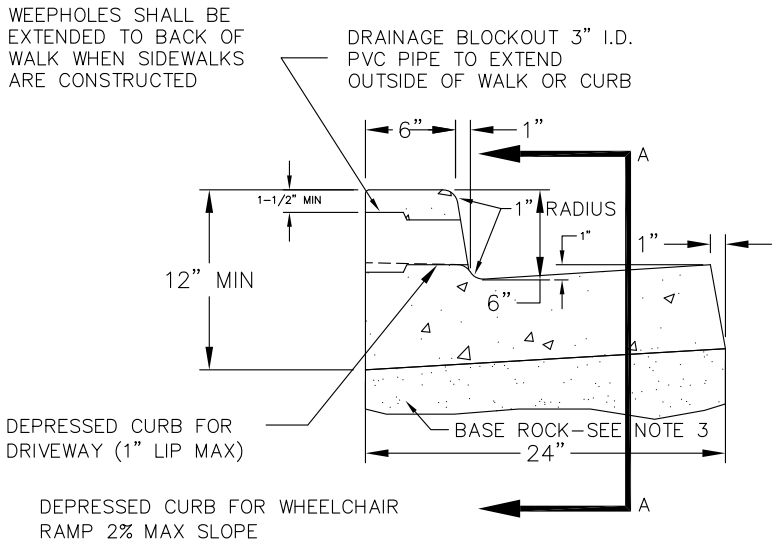
RAMP & TEXTURE DETAIL WITHOUT PLANTER STRIP

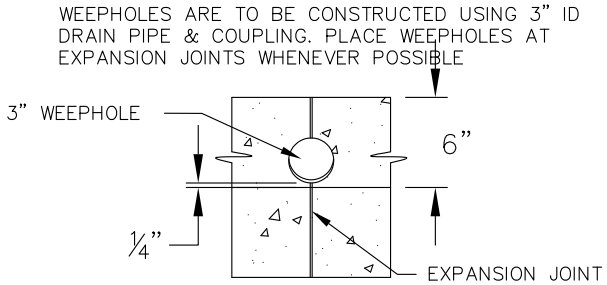
DRAWING NO. T-12

DATE JULY 2016



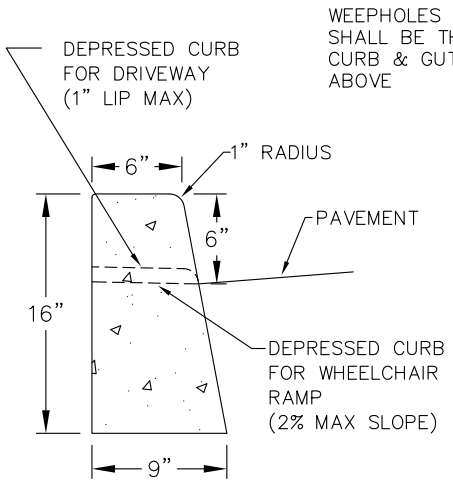
TYPICAL INTEGRAL CURB & GUTTER

NOT TO SCALE



SECTION AA: WEEPHOLES

NOT TO SCALE



TYPICAL STRAIGHT CURB (TYPE C)

NOT TO SCALE

NOTES:

1. CONCRETE PER CITY OF COOS BAY STANDARD SPECIFICATIONS.

2. CONTRACTION JOINTS
   A) TO BE PROVIDED
      -AT EACH POINT OF TANGENCY
      -AT EACH COLD JOINT
      -AT EACH SIDE OF INLET STRUCTURES
      -AT BOTH SIDES OF AN APPROACH
   B) SPACING TO BE NOT MORE THAN 10 FEET
   C) THE DEPTH OF THE JOINT SHALL BE AT LEAST 1/3 OF THE THICKNESS OF CONCRETE
   D) EXPANSION JOINTS IN CURB & GUTTER SHALL BE PLACED AT MAX 50' INTERVALS IN 10' MULTIPLES

3. BASE ROCK - 1-1/2"-0", 95% COMPACTION ROCK SHALL BE TO SUBGRADE OF THE STREET SECTION OR 4" IN DEPTH, WHICHEVER IS GREATER

4. DRAINAGE BLOCK - 3" DIA. PLASTIC PIPE
   A) DRAINAGE ACCESS THROUGH EXISTING CURBS SHALL BE DONE BY:
      -CORE DRILLING, OR
      -VERTICAL SAWCUT OF CURB 18" EACH SIDE OF DRAIN AND RE-POURED TO FULL DEPTH OF CURB

5. STAMP TOP OF CURB WITH "W" AT WATER SERVICE CROSSING AND "S" AT SANITARY LATERAL CROSSING AS SPECIFIED

6. SEE STANDARD CURB CUT DETAIL FOR DRIVEWAY

7. TYPICAL STRAIGHT CURB (TYPE C) ALLOWED FOR REPLACEMENT OF EXISTING TYPE C CURBS AND NOT RECOMENDED FOR NEW CONSTRUCTION

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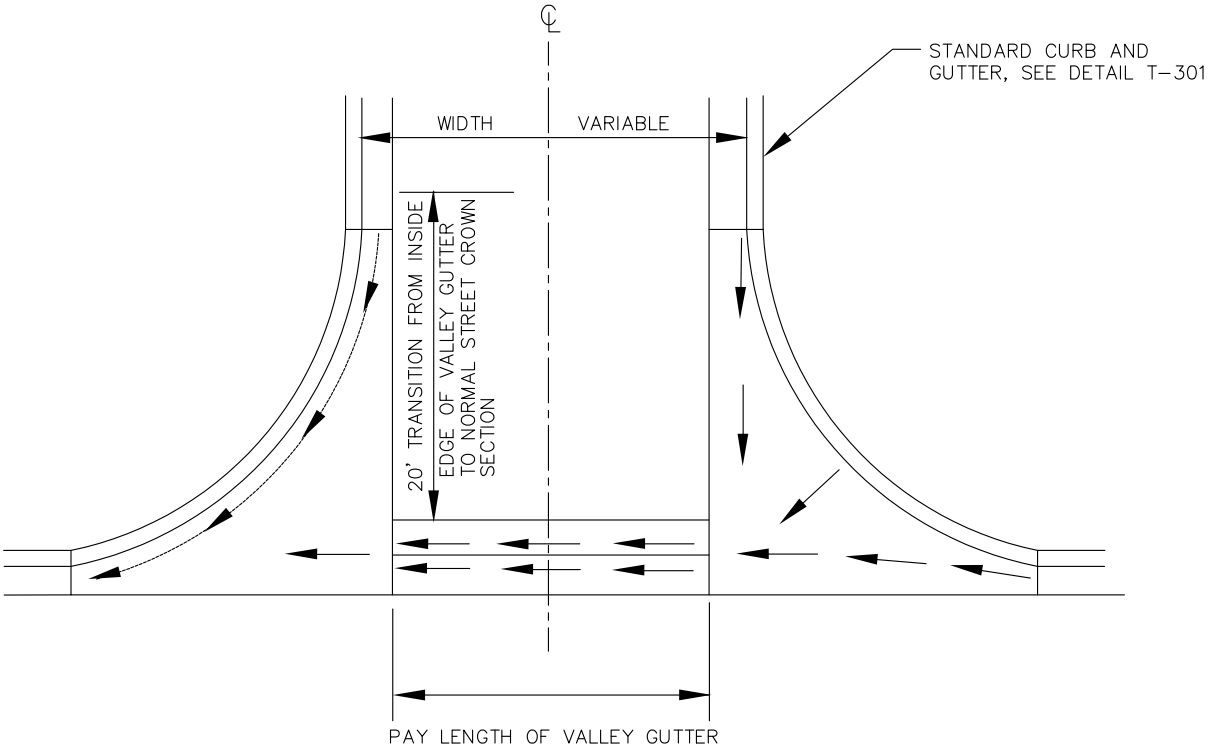
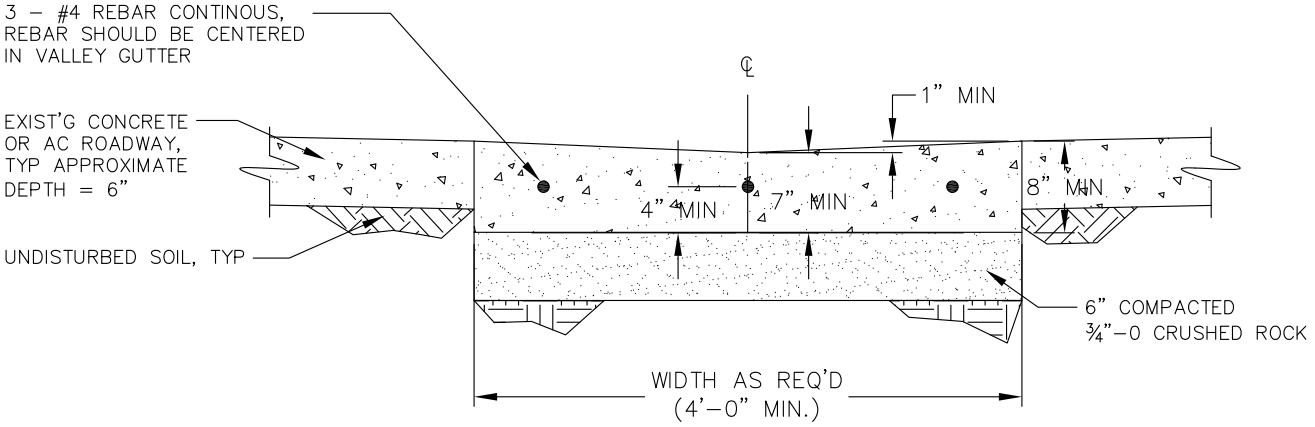
CURB AND GUTTER DETAILS

DRAWING NO. T-13

DATE JULY 2016





NOTE:

1. VALLEY GUTTERS ARE NOT TO BE USED EXCEPT FOR IN ALLEYS OR OTHER SPECIAL CONDITIONS AS APPROVED BY CITY ENGINEER.

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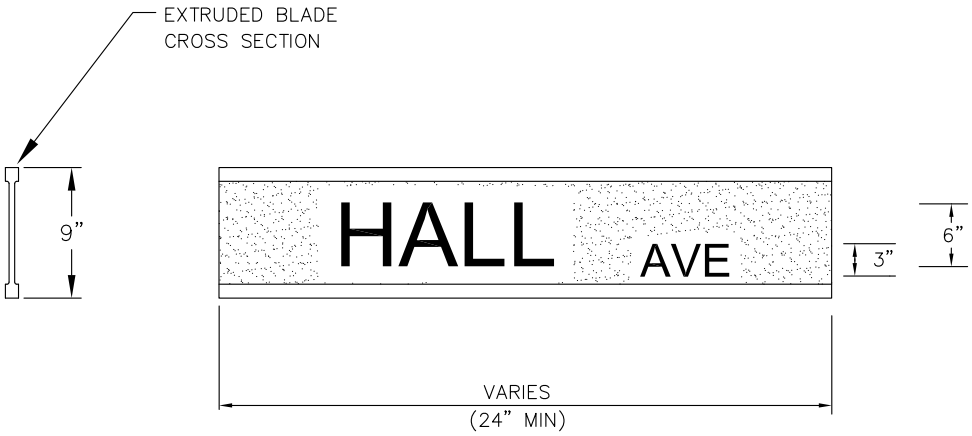
VALLEY GUTTER DETAIL

DRAWING NO.
T-14

DATE
JULY 2016



NOTES:

1. MATERIALS

STREET NAME SIGN SHALL BE 9" HEIGHT, EXTRUDED ALUMINUM. THE MINIMUM LENGTH SHALL BE 24" AND MAXIMUM LENGHT SHALL BE 36"
BOTH SIDES OF STREET NAME SIGNS SHALL BE GREEN 3M SCOTCHLITE BRAND HIGH INTENSITY REFLECTIVE SHEETING WITH WHITE BORDER.

2. LETTERING

ALL LETTERS, NUMBERS, AND BORDERS USED TO FABRICATE A STREET NAME SIGN SHALL BE HIGH INTENSITY SILIVER USING 3M SCOTCHLITE BRAND. THERE ARE TWO SIZES OF LETTERS THAT MAKE UP A STREET NAME SIGN. FOR PREFIXES, SUFFIXES, AND BLOCK NUMBERS. A 3" SERIES 'C' IS USED. THE ACTUAL NAME OF THE STREET IS A 6" SERIES 'B'. ALL STREET NAME SIGNS SHALL HAVE BLOCK NUMBERS, AS ASSIGNED BY THE CITY, WHEN INSTALLED BY CONTRACTOR.

3. MISCELLANEOUS

STREET NAMES SHALL BE APPROVED BY THE PUBLIC WORKS DIRECTOR PRIOR TO THE SIGNS BEING FABRICATED AND INSTALLED.

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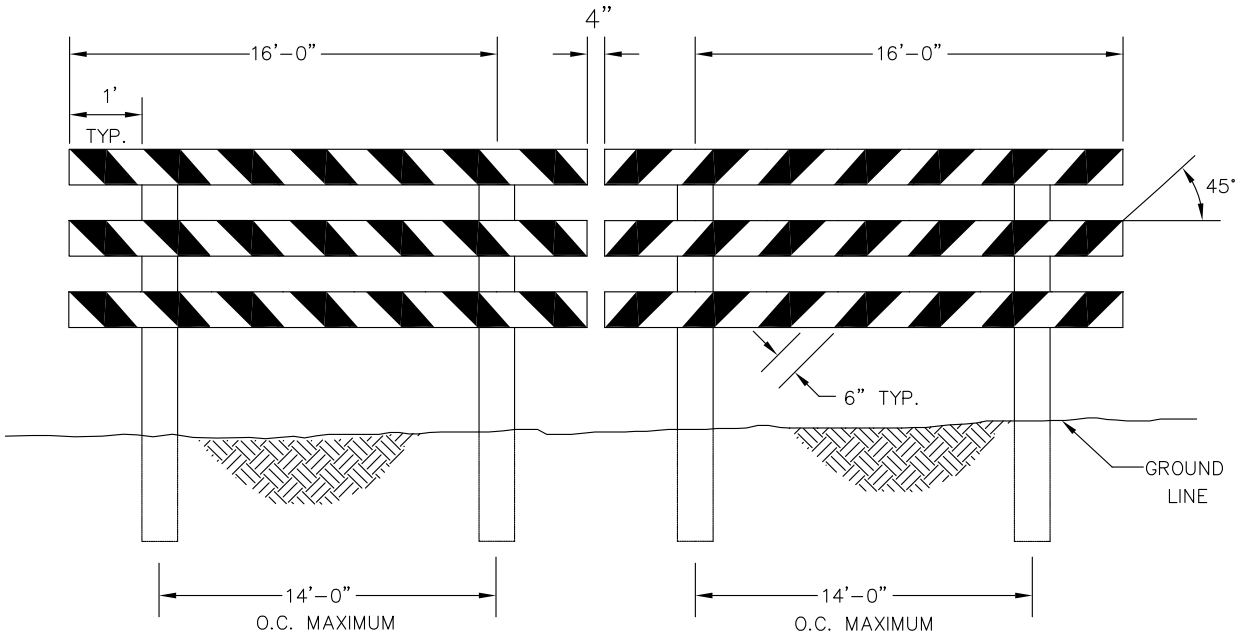
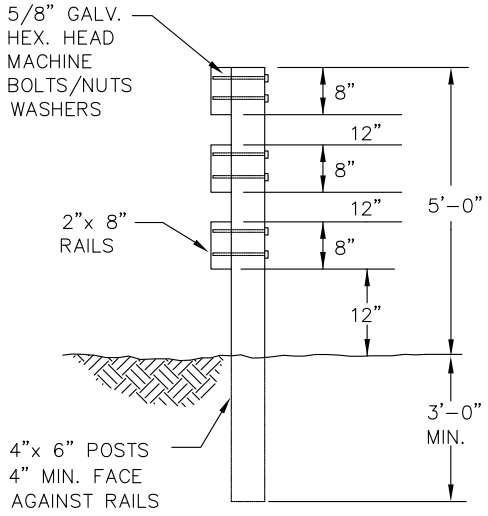
STREET SIGN AND LETTERING DETAILS

DRAWING NO.
T-15

DATE
JULY 2016



ELEVATION



END VIEW

N.T.S.

NOTES:

1. RAILS TO BE RETROREFLECTIVE WHITE AND ORANGE STRIPES. POSTS TO BE PRESSURE TREATED.
2. SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND THE OREGON SUPPLEMENT.

   3F–1 BARRICADES
   6C–8 BARRICADE DESIGN
   6C–9 BARRICADE APPLICATION
3. ALL MATERIAL AND WORKMANSHIP SHALL BE IN ACCORDANCE WITH THE CURRENT STATE OF OREGON STANDARD SPECIFICATIONS FOR HIGHWAY CONSTRUCTION.
4. FOR WIDER APPLICATIONS, MULTIPLE SECTIONS AS SHOWN SHALL BE USED.

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REVISIONS	
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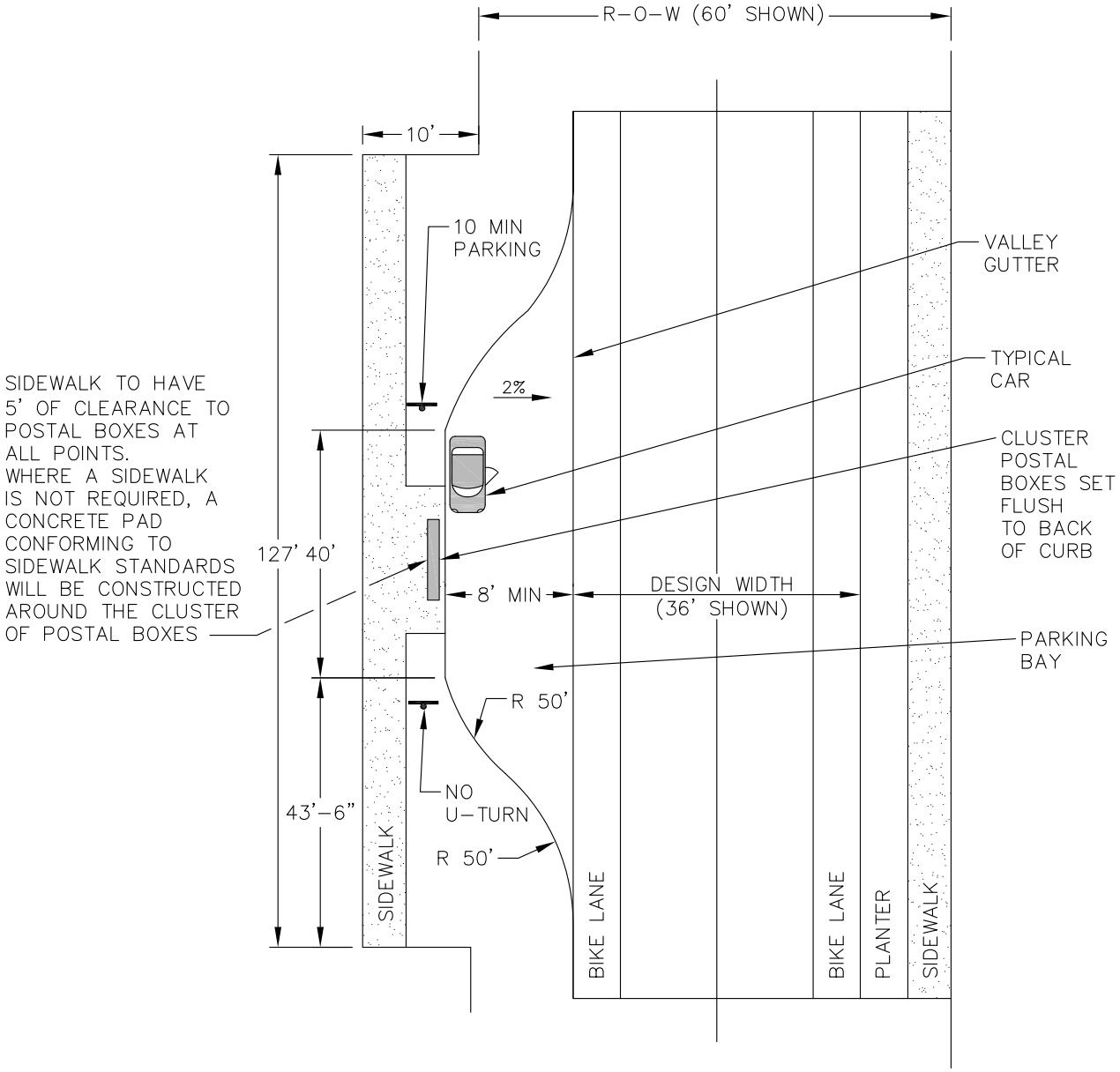
STANDARD PERMANENT BARRICADE DETAIL

DRAWING NO.
T-16

DATE
JULY 2016



NOTES:

1. PARKING BAY IS REQUIRED ON DESIGNATED COLLECTOR STREETS (AS SHOWN). IT IS ALSO RECOMMENDED FOR LARGE INSTALLATIONS ON LOCAL STREETS.

City of Coos Bay
ENGINEERING DEPARTMENT
500 Central Avenue
Coos Bay, Oregon 97420
541-269-8918

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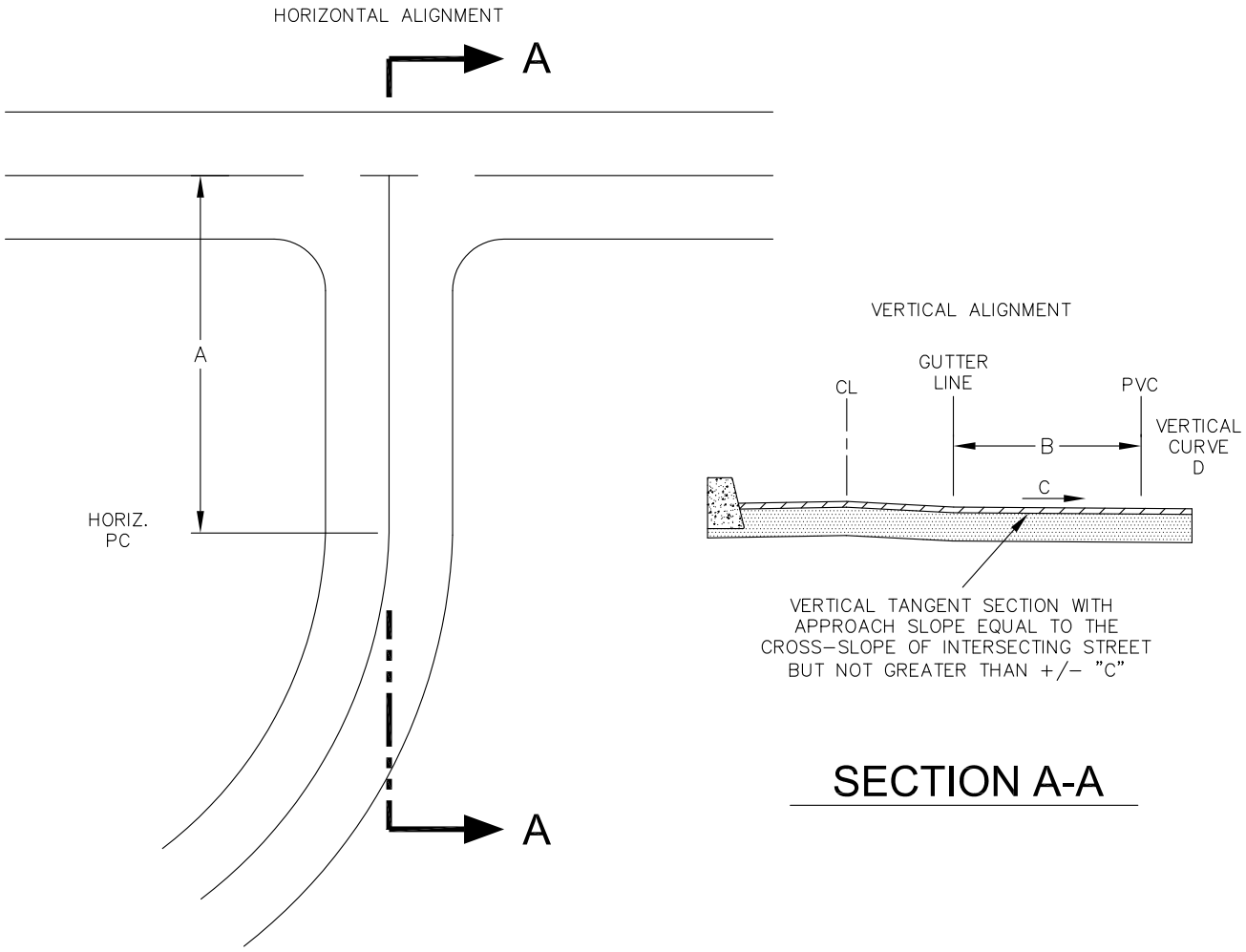
REVISIONS		
REVISED BY:	DATE:	

CLUSTER POSTAL DELIVERY BOX PARKING BAY

DRAWING NO.
T-17

DATE
JULY 2016



SECTION A-A

THRU STREET	STEM STREET	A MIN.	B MIN.	C MAX. SLOPE	D MINIMUM V.C.
LOCAL	LOCAL	0'	0'	6%	50'
COLLECTOR	LOCAL	50'	50'	4%	50'
COLLECTOR	COLLECTOR	100'	100'	3%	100'
ARTERIAL	LOCAL	50'	50'	4%	100'
ARTERIAL	COLLECTOR	100'	100'	2%	125'
ARTERIAL	ARTERIAL	200'	200'	2%	150'

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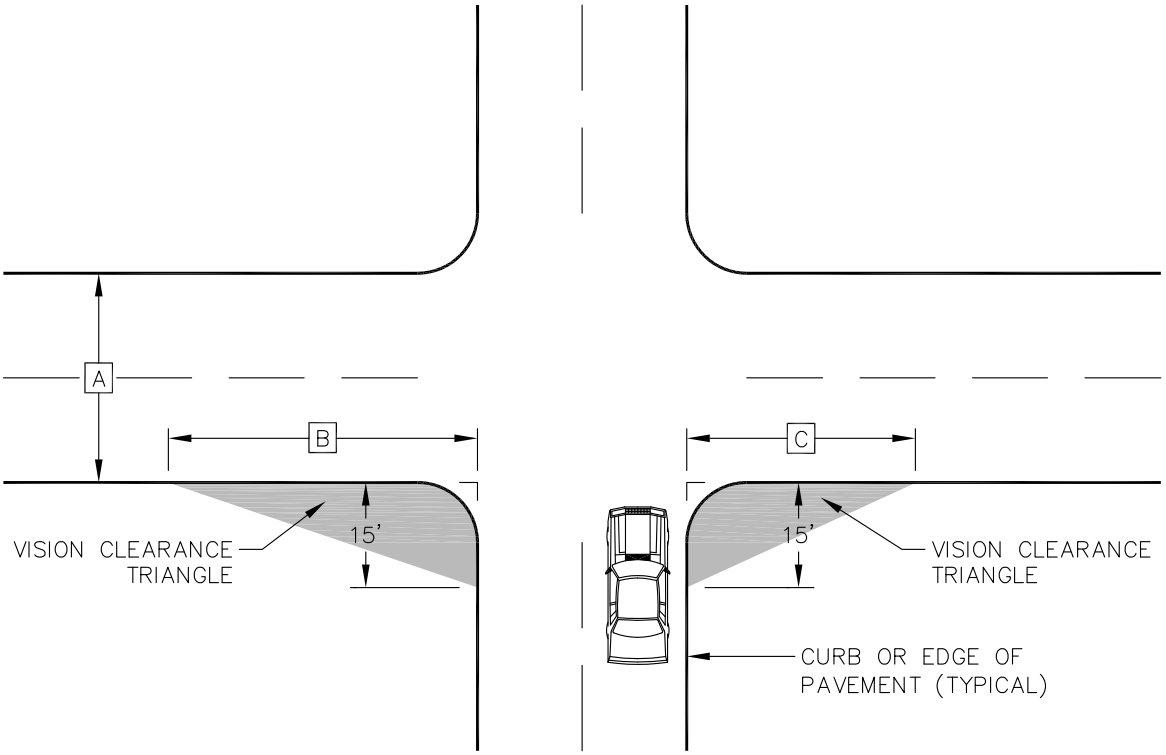
"T" INTERSECTION ALIGNMENT STANDARD

DRAWING NO.
T-18

DATE
JULY 2016



MPH	STREET WIDTH	VISION CLEARANCE TRIANGLE DISTANCE (FEET)	
	A	B	C
25	30	140	95
	36	125	90
	40	115	85
	48	165	85
	56	145	80
30	30	170	115
	36	155	110
	40	145	105
	48	200	105
	56	180	100
35	30	205	135
	36	185	130
	40	175	125
	48	240	125
	56	215	120
40	30	235	160
	36	215	150
	40	205	145
	48	275	145
	56	250	135

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REVISIONS

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SIGHT VISIBILITY STANDARD

DRAWING NO.
T-19

DATE
JULY 2016