

SEWER SYSTEM

STANDARD DETAIL DRAWINGS INDEX

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- S-300: STANDARD SERVICE CONNECTION AND LATERAL
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City of Newport
169 SW Coast Hwy
Newport, Oregon 97365
(541) 574-3366 Fax: (541) 265-3301

STANDARD DETAIL DRAWING INDEX

DETAIL NO.

S-010

10/27/2022

CAST IRON (H-20 RATED) MANHOLE COVER AND FRAME SET IN NON-SHRINK GROUT, SEE STANDARD DETAIL S-250

10 GA. COPPER TRACER WIRE WITH GREEN 30 MIL THICK HDPE INSULATION

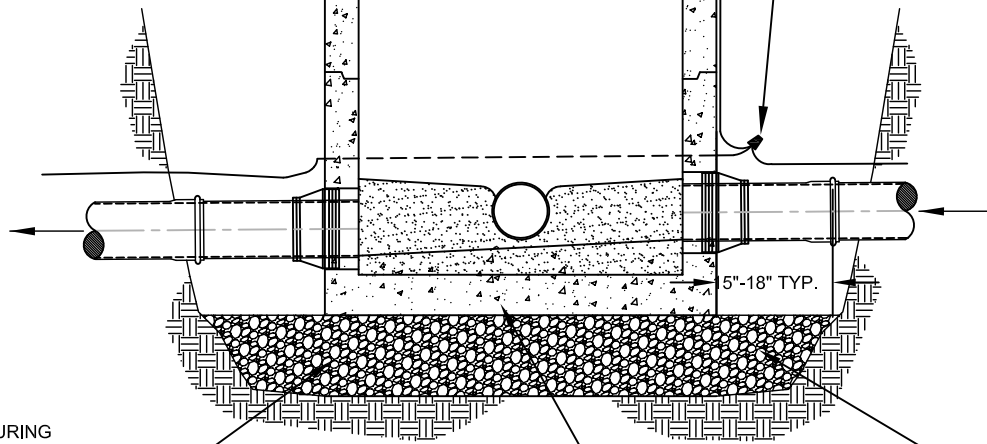
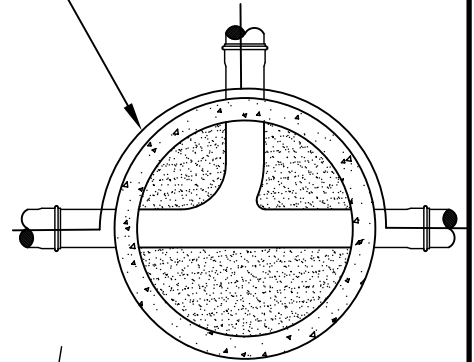
FINISH GRADE

PRECAST REINFORCED GRADE RINGS, 2" MIN., 12" MAX. EACH SET IN NON-SHRINK GROUT.

ALL TRACER WIRE SHALL CONNECT AT ONE SPLICE. DIRECT BURY WIRE FROM INDIVIDUAL PIPES TO ONE SPLICE (3M DBR/K OR EQUAL) LOCATION OUTSIDE MANHOLE THEN UP SIDE OF MANHOLE TO PLACE UNDER CASTING.

PRECAST ECCENTRIC CONE 36" TALL

KEYED JOINTS WITH PRE-FORMED SEAL (RAM-NEK) OR RUBBER RING GASKET BY MFGR. (TYP. ALL JOINTS) SEAL WATERTIGHT



DEWATER DURING INSTALLATION AS NEEDED

SEE MANHOLE BASE STANDARD DRAWING S-210

12" MIN. COMPACTED BASE ROCK

NOTES:

1. ALL PRECAST MANHOLE SECTIONS SHALL MEET ASTM C-478.
2. FLAT-TOP MANHOLE REQUIRED WHEN DEPTH FROM FINISH GRADE TO INVERT IS LESS THAN 6 FEET.
3. INTERIOR DROPS EXCEEDING 24" REQUIRE INSIDE DROP. SEE DRAWING S-220.
4. LARGER INLET PIPES THAN 24" WILL REQUIRE A SPECIAL DESIGN AND APPROVAL FROM CITY ENGINEER
5. BACKFILL AND DENSITY REQUIREMENTS SHALL CONFORM TO THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION, SECTION 00405.
6. MANHOLES SHALL BE TESTED PER OREGON STANDARD SPECIFICATIONS, CURRENT EDITION, SECTION 00470.71.b.



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STANDARD SANITARY MANHOLE
PIPES LESS THAN 24" DIAM.

DETAIL NO.

S-200

5/20/2020

CAST IRON (H-20 RATED) MANHOLE COVER AND FRAME SET FRAME IN NON-SHRINK GROUT, SEE STANDARD DETAIL S-250

10 GA. COPPER TRACER WIRE WITH GREEN 30 MIL THICK HDPE INSULATION

FINISH GRADE

PRECAST REINFORCED GRADE RINGS, 2" MIN., 12" MAX. EACH SET IN NON-SHRINK GROUT.

ALL TRACER WIRE SHALL CONNECT AT ONE SPLICE. DIRECT BURY WIRE FROM INDIVIDUAL PIPES TO ONE SPLICE (3M DBR/K OR EQUAL) LOCATION OUTSIDE MANHOLE THEN UP SIDE OF MANHOLE TO PLACE UNDER CASTING.

PRECAST ECCENTRIC CONE 36" TALL

KEYED JOINTS WITH PRE-FORMED SEAL (RAM-NEK) OR RUBBER RING GASKET BY MFG. (TYP. ALL JOINTS) SEAL WATERTIGHT

CONNECT PIPE TO STRUCTURE WITH BOOT

CUT PIPE ALONG SPRING LINE

CHANNEL TO SPRING LINE

CHANNEL FROM INFLOW PIPE TO SPRING LINE

12" TYP.

DEWATER DURING INSTALLATION AS NEEDED

SEE MANHOLE BASE STANDARD DRAWING S-210 & S-210B FOR CAST-IN-PLACE BASE

12" MIN. COMPACTED BASE ROCK

NOTES:

1. ALL PRECAST MANHOLE SECTIONS SHALL MEET ASTM C-478.
2. FLAT-TOP MANHOLE REQUIRED WHEN DEPTH FROM FINISH GRADE TO INVERT IS LESS THAN 6 FEET.
3. INTERIOR DROPS EXCEEDING 24" REQUIRE INSIDE DROP. SEE DRAWING S-220.
4. LARGER INLET PIPES THAN 24" WILL REQUIRE A SPECIAL DESIGN AND APPROVAL FROM CITY ENGINEER
5. BACKFILL AND DENSITY REQUIREMENTS SHALL CONFORM TO THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION, SECTION 00405.
6. MANHOLES SHALL BE TESTED PER OREGON STANDARD SPECIFICATIONS, CURRENT EDITION, SECTION 00470.71.b.



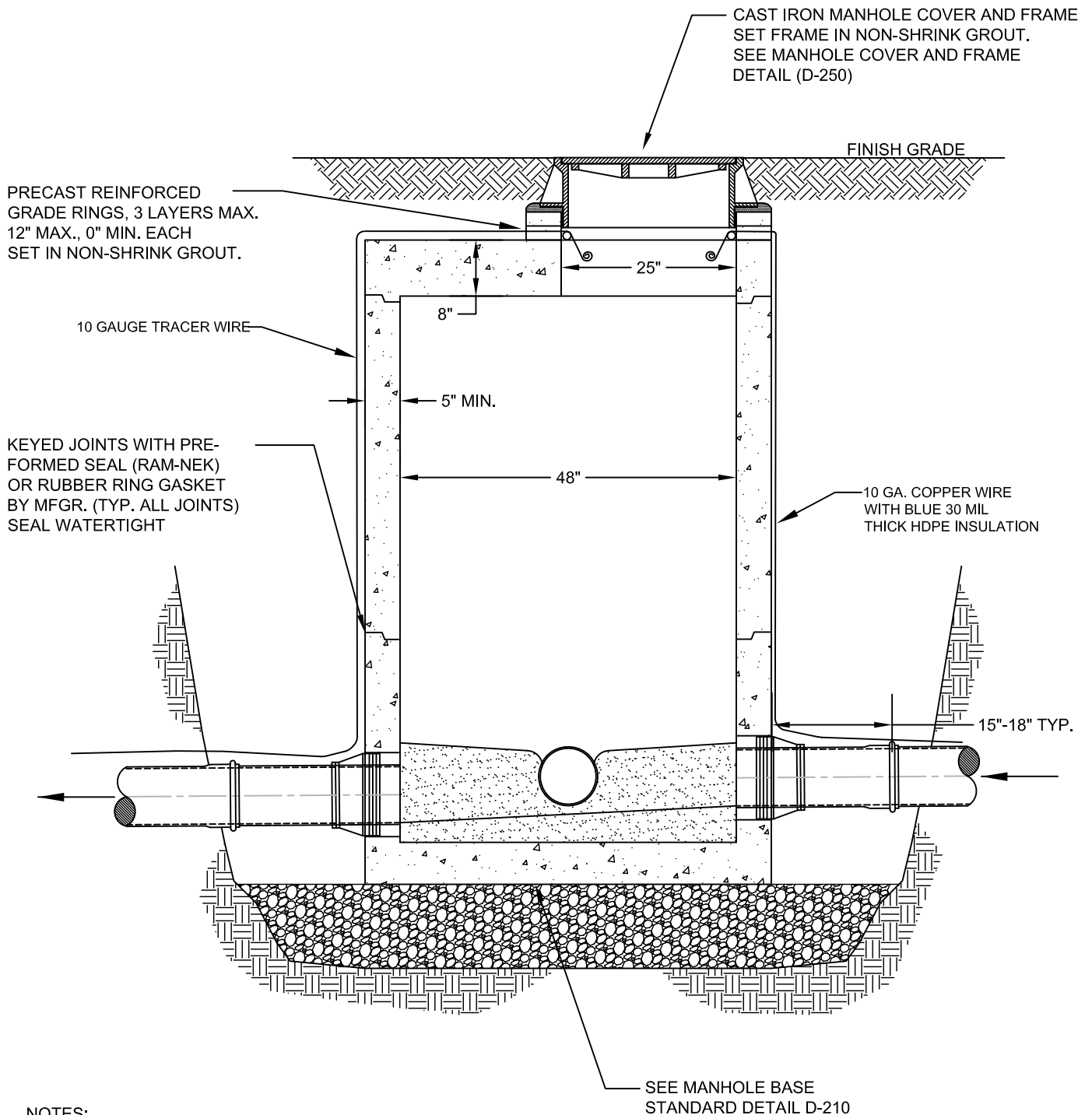
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DOGHOUSE
MANHOLE

DETAIL NO.

S-204

2/6/2023



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
PIPES LESS THAN 24" DIAM.**

DETAIL NO.

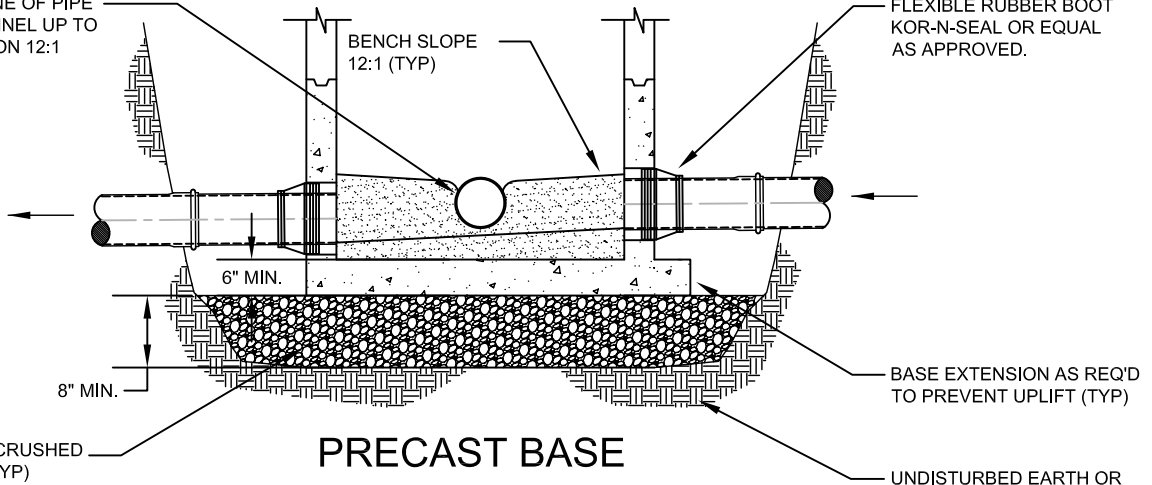
S-205

9/6/2019

AT SPRING LINE OF PIPE
EXTEND CHANNEL UP TO
CROWN LINE ON 12:1
BATTER (TYP)

BENCH SLOPE
12:1 (TYP)

FLEXIBLE RUBBER BOOT
KOR-N-SEAL OR EQUAL
AS APPROVED.



PRECAST BASE

BASE EXTENSION AS REQ'D
TO PREVENT UPLIFT (TYP)

1"-0 OR 3/4"-0 CRUSHED
ROCK BASE (TYP)

UNDISTURBED EARTH OR
COMPACT SELECT MATERIAL
AS REQ'D

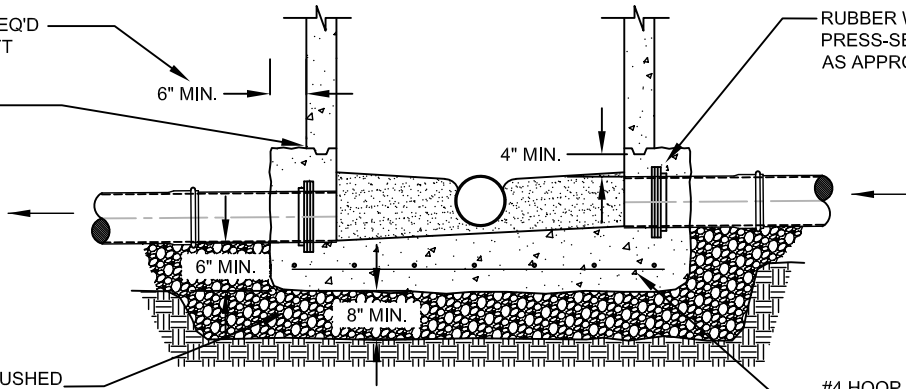
OR GREATER AS REQ'D
TO PREVENT UPLIFT

RAM-NEK SEAL

6" MIN.

RUBBER WATERSTOP GROUT RING
PRESS-SEAL GASKET OR EQUAL
AS APPROVED.

4" MIN.



1"-0 OR 3/4"-0 CRUSHED
ROCK BASE (TYP)

#4 HOOP AND #4 @ 12" E.W.
#5 BARS WHEN DEPTH
EXCEEDS 15'

CAST-IN-PLACE BASE

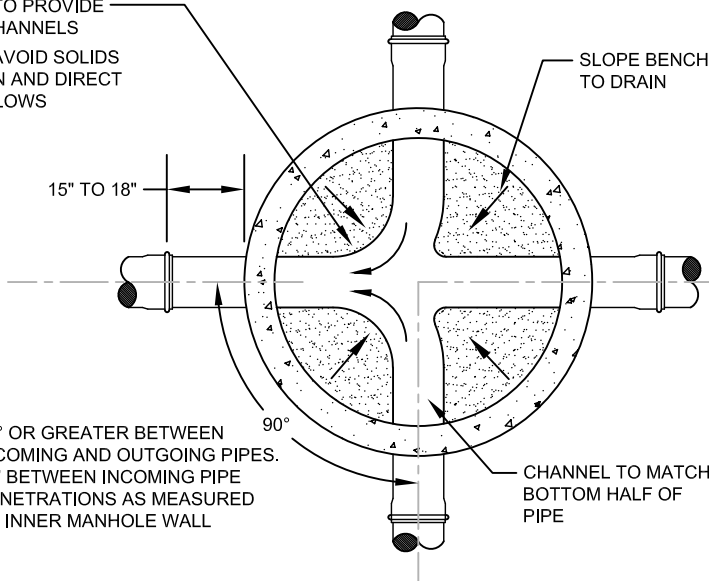
CONTOUR TO PROVIDE
SMOOTH CHANNELS
SHAPE TO AVOID SOLIDS
DEPOSITION AND DIRECT
HEAD-ON FLOWS

SLOPE BENCH
TO DRAIN

15" TO 18"

90° OR GREATER BETWEEN
INCOMING AND OUTGOING PIPES.
12" BETWEEN INCOMING PIPE
PENETRATIONS AS MEASURED
AT INNER MANHOLE WALL

CHANNEL TO MATCH
BOTTOM HALF OF
PIPE



NOTES:

1. SEE STANDARD MANHOLE DRAWING S-200 FOR TRACER WIRE REQUIREMENT.
2. PRECAST OR CAST-IN-PLACE BASE AT CONTRACTOR'S OPTION OR AS DIRECTED.
3. A MIX DESIGN SHALL BE SUBMITTED TO CITY PRIOR TO SCHEDULING POUR.
4. STRUCTURAL CONCRETE SHALL CONFORM WITH THE OREGON STANDARD SPECIFICATIONS FOR CONSTRUCTION, CURRENT EDITION, SECTION 00759.
5. MIN. 0.2 FT. INVERT DROP ACROSS MANHOLE.
6. MANHOLE BASE SHALL BE CLEAN OF DIRT AND DEBRIS PRIOR TO CHANNELING BASE.
7. PIPE PENETRATIONS SHALL NOT CROSS THROUGH BARREL SECTION JOINTS.



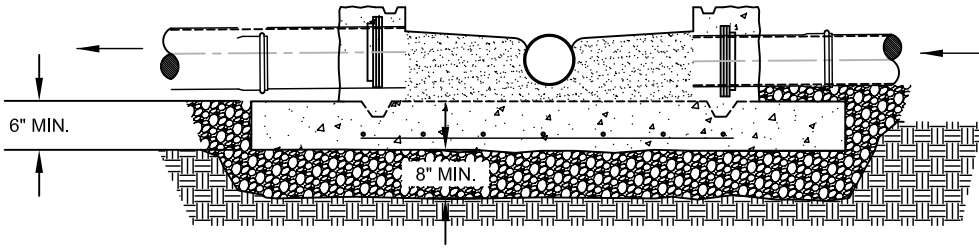
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MANHOLE BASE STANDARD DETAILS

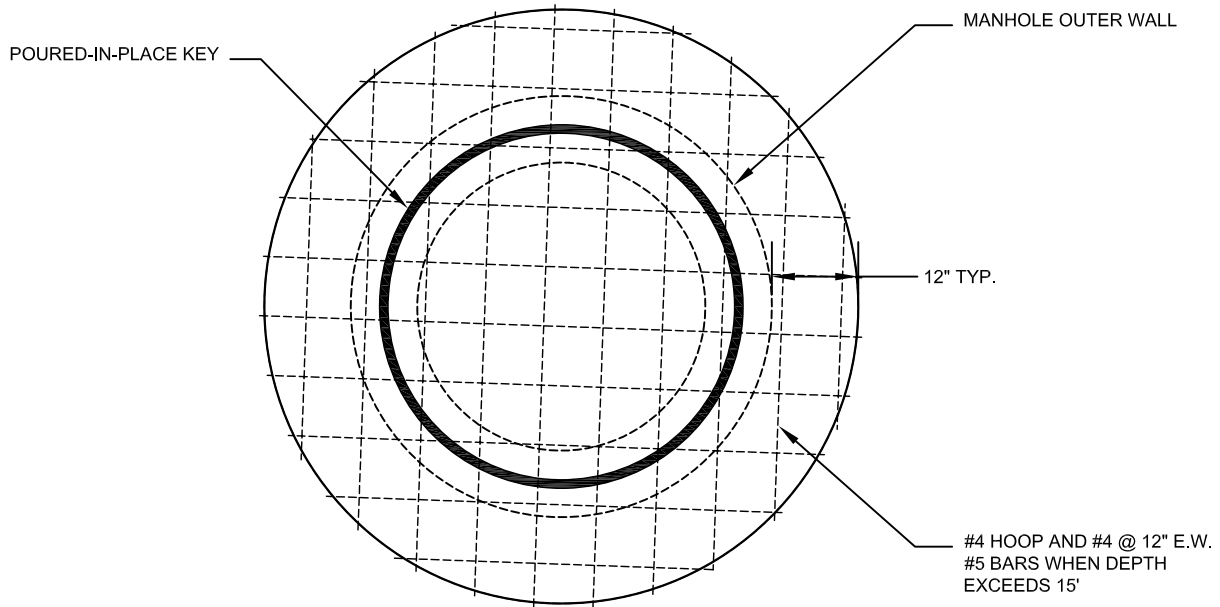
DETAIL NO.

S-210

5/20/2020



SIDE VIEW



TOP VIEW OF BASE

NOTE:
SEE DETAIL S-210 FOR CONCRETE AND
CONSTRUCTION SPECIFICATIONS



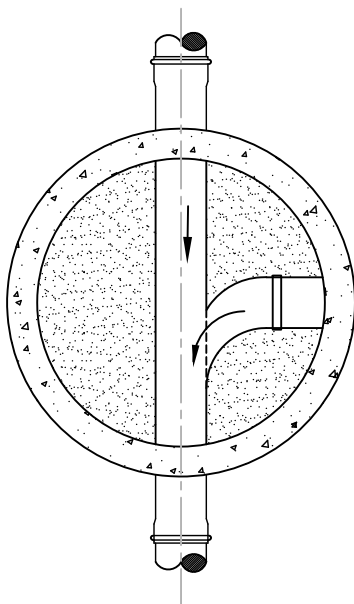
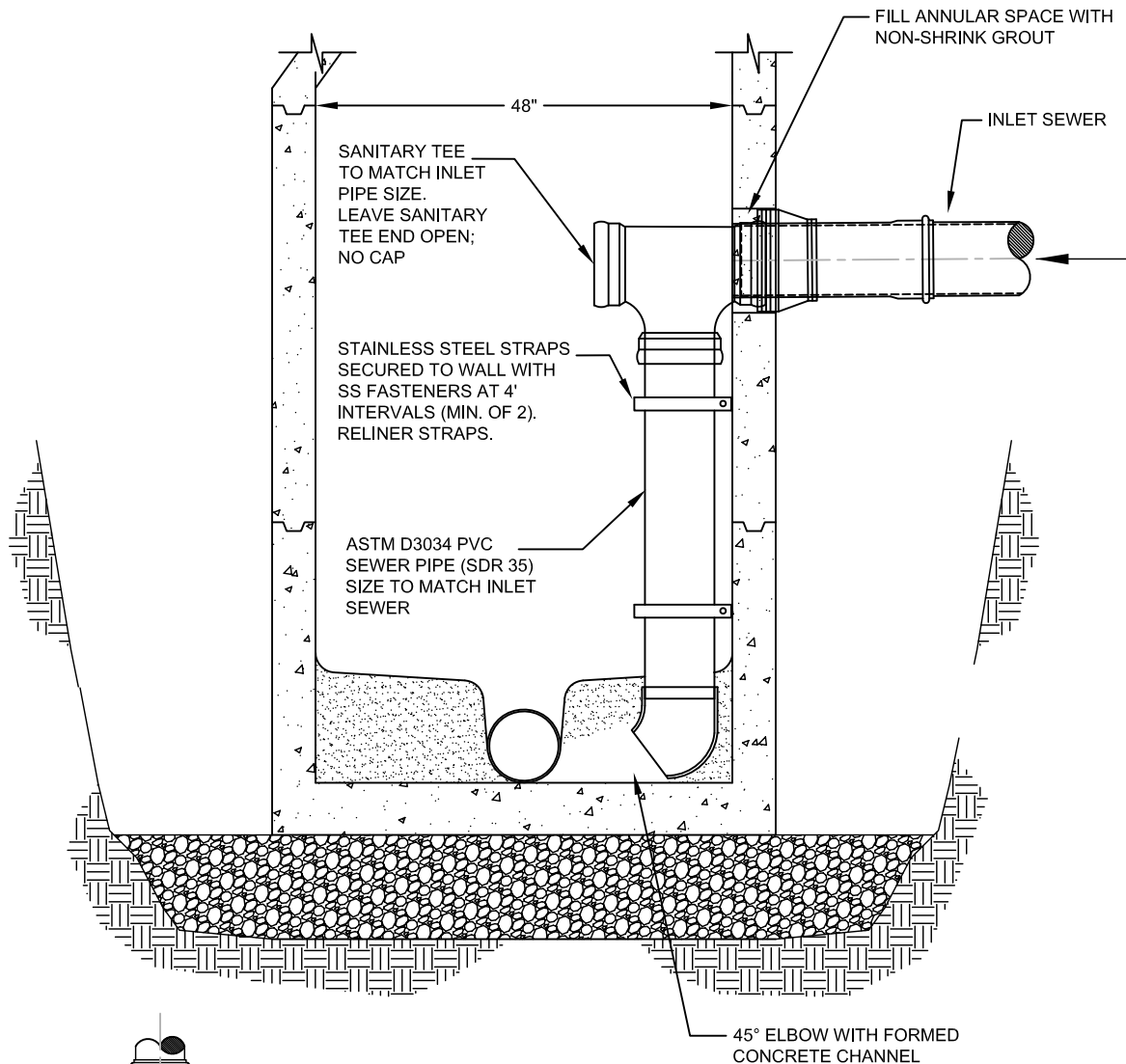
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CAST-IN-PLACE
MANHOLE BASE

DETAIL NO.

S-210B

8/24/2022



NOTES:

1. DROP MANHOLES SHALL ONLY BE USED WITH PRIOR APPROVAL FROM CITY ENGINEER.
2. EXTEND INLET SEWER PIPE INTO MANHOLE FAR ENOUGH TO ALLOW SECURE ATTACHMENT OF SANITARY TEE (DEPTH VARIES).
3. ONLY ONE DROP ASSEMBLY ALLOWED PER MANHOLE.
4. SEE STANDARD MANHOLE DRAWING S-200 FOR TRACER WIRE LAYOUT.



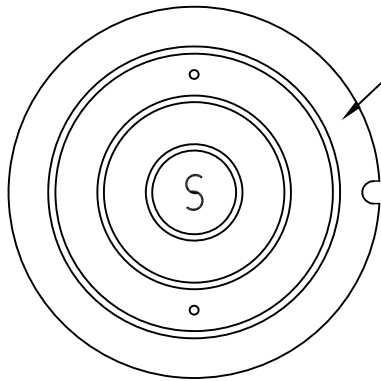
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**STANDARD INSIDE DROP
 MANHOLE**

DETAIL NO.

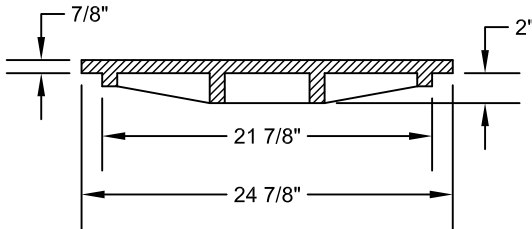
S-220

5/20/2020



TWO HOLE 'S' COVER STANDARD
NO VENT HOLES IN WATERTIGHT
COVERS

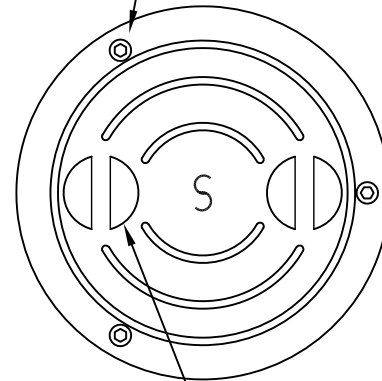
WATERPROOF/BOLT-DOWN COVER
ALLOWED ONLY IN AREAS OF
POTENTIAL SURCHARGE OR SURFACE
FLOODING ; WITH PRIOR APPROVAL
OF CITY ENGINEER



COVER (150 LBS)

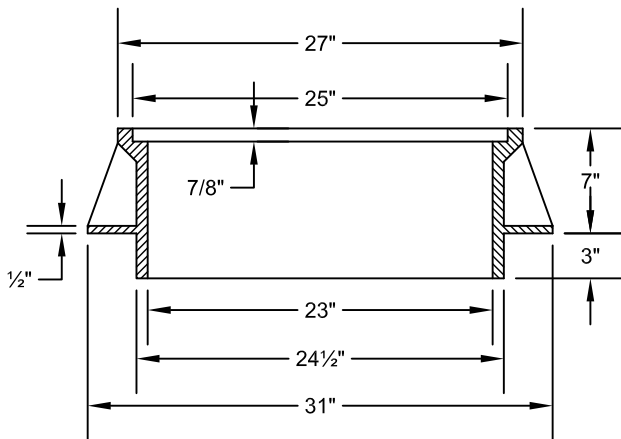
(OLYMPIC FOUNDRY MH26S, OR APPROVED EQUAL)

BOLT FOR WATERPROOF
AND BOLT-DOWN COVER
SEE DETAIL



DEPRESSED HANDLE

(OLYMPIC FOUNDRY MH26WT, OR APPROVED EQUAL)



FRAME (237 LBS)

(OLYMPIC FOUNDRY MH26A, OR APPROVED EQUAL)

NOTE:

1. MANHOLE FRAMES AND COVER SHALL HAVE H-20 RATING



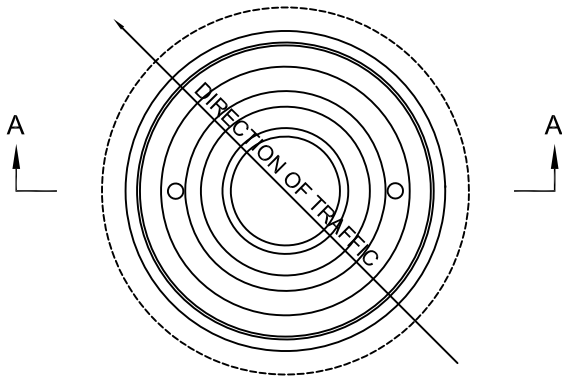
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**MANHOLE COVER AND
FRAME DETAILS**

DETAIL NO.

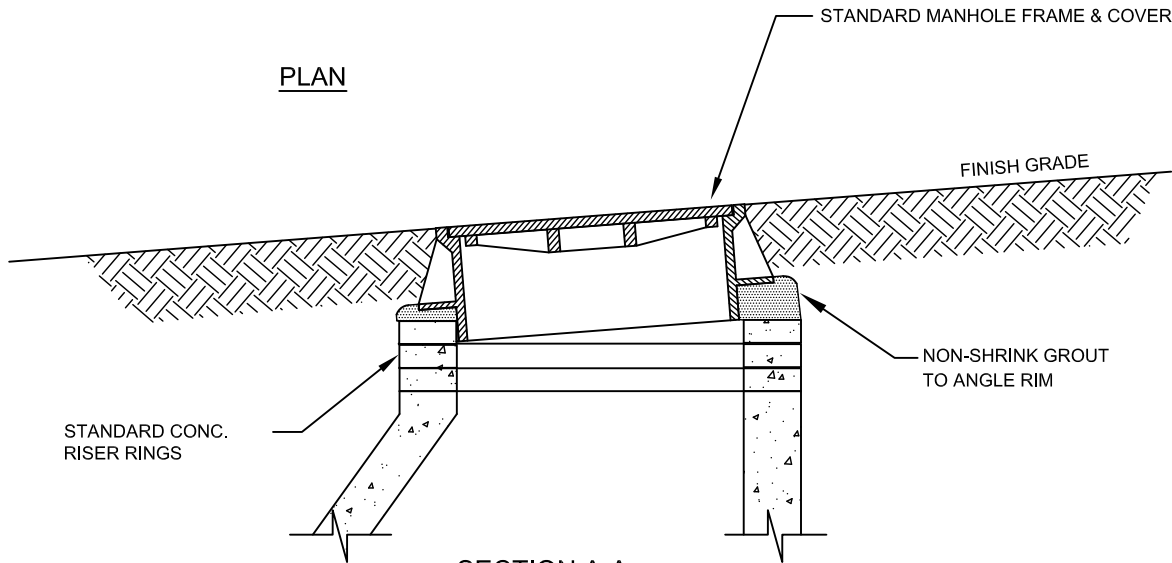
S-250

6/27/2024

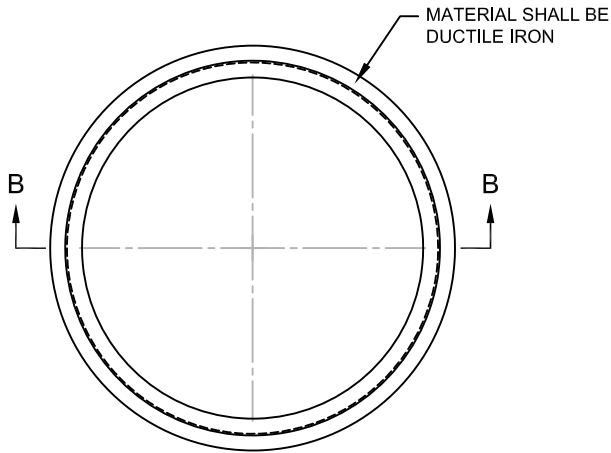


NOTE:
SEE STANDARD MANHOLE
DRAWING S-200 FOR
TRACER WIRE LAYOUT.

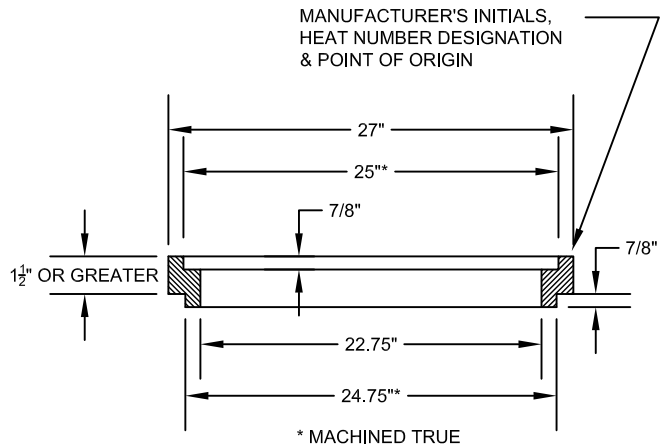
PLAN



SECTION A-A
TYPICAL MANHOLE GRADE ADJUSTMENT IN STREET



MANHOLE ADJUSTMENT RINGS
FOR RESURFACING



SECTION B-B



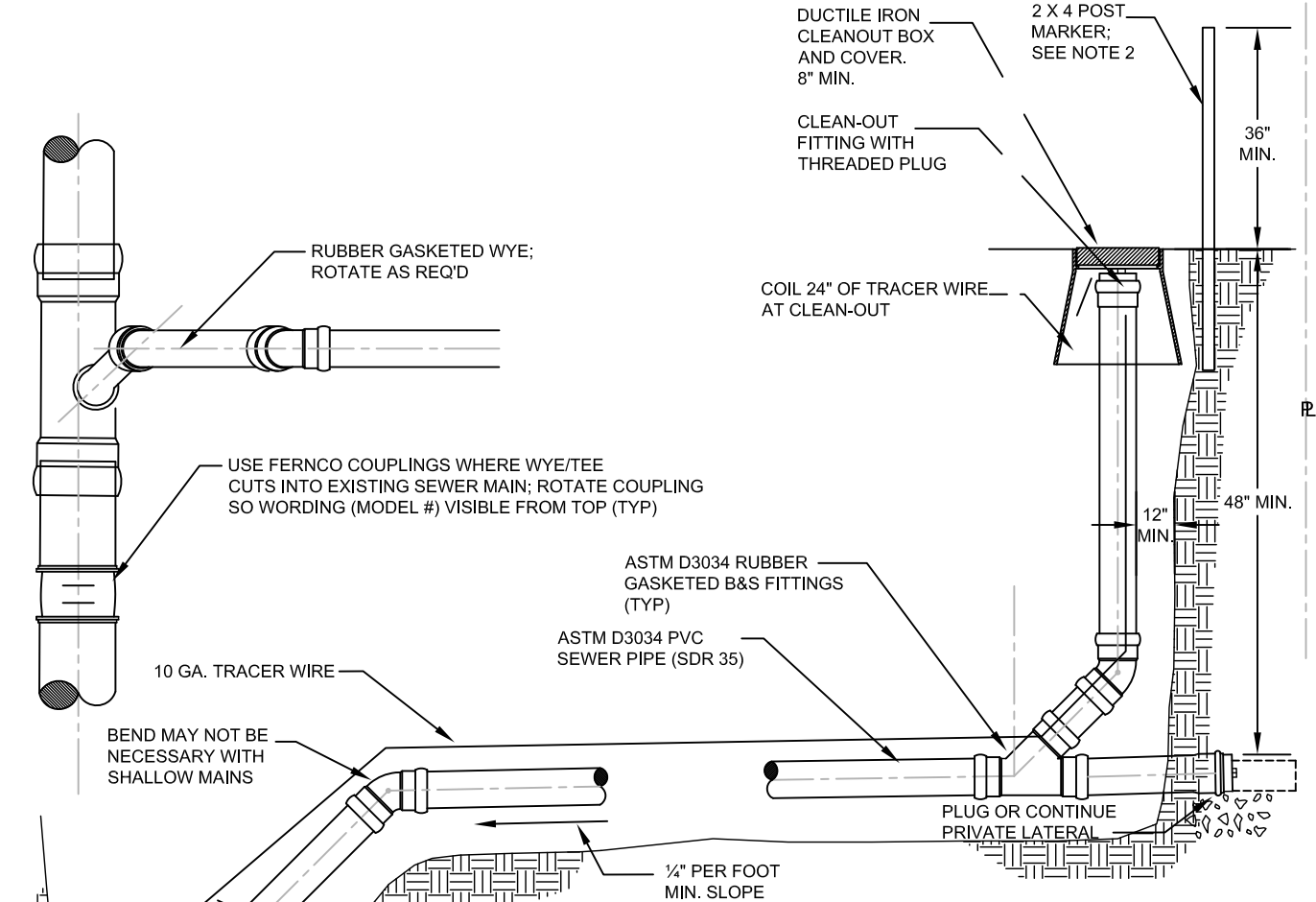
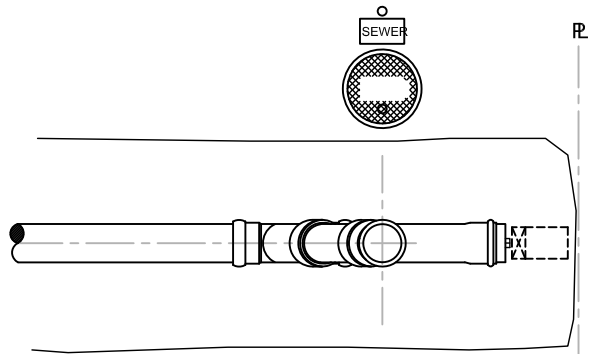
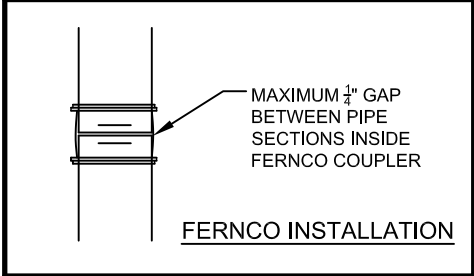
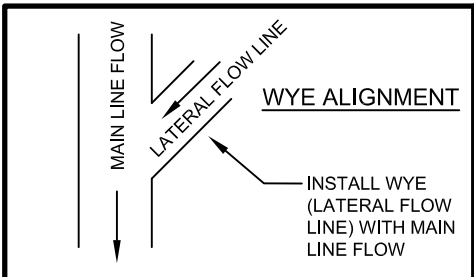
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**MANHOLE FRAME
GRADE ADJUSTMENT**

DETAIL NO.

S-260

5/20/2020



- NOTE:**
1. CONTRACTORS MAY USE A WYE OR TEE ON NEW PIPE WORK UNLESS OTHERWISE SPECIFIED IN DRAWINGS
 2. WHEN LATERAL WILL BE CONNECTED TO PRIVATE SEWER AT LATER DATE, PLUG AS SHOWN; PROVIDE 2X4 POST MARKER AND BLOCKING. MARKER POST SHALL EXTEND 36" ABOVE FINISH GRADE AND SHALL BE LABELED WITH LOT NUMBER AND TOTAL LENGTH OF 2X4
 3. CONNECTION TO SEWER LATERAL REQUIRES PLUMBING PERMIT THROUGH BUILDING DEPARTMENT.



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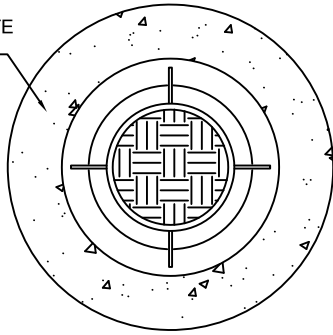
STANDARD SERVICE CONNECTION AND LATERAL

DETAIL NO.

S-300

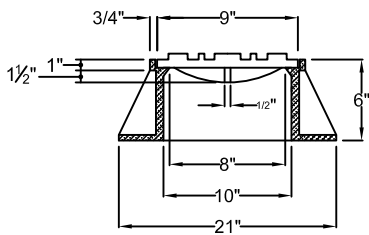
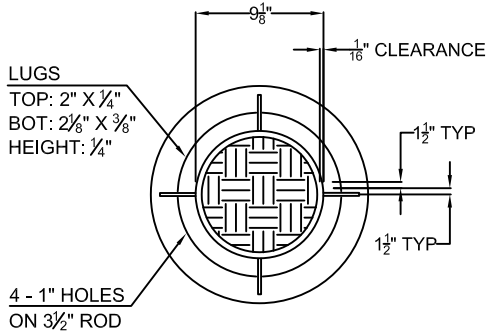
8/08/2022

6" CONCRETE COLLAR



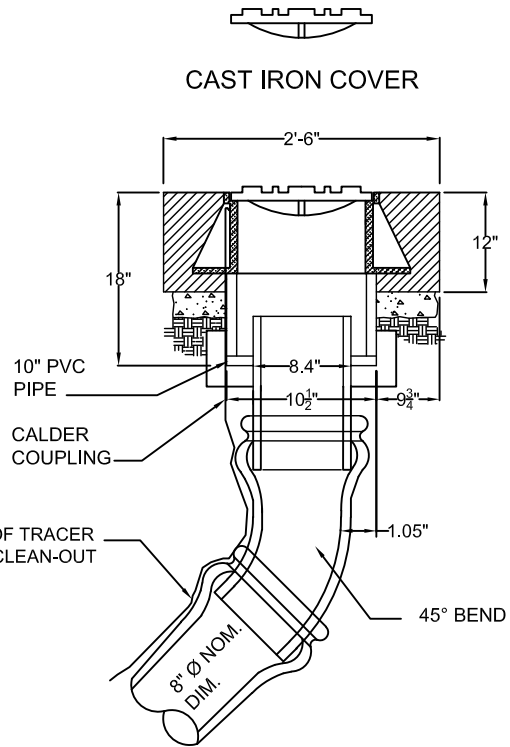
NOTE:

1. CONCRETE COLLAR INSTALLED IN GRAVEL ROADS.
- 2.



CAST IRON RING & COVER

CAST IRON COVER



PIPE ZONE MATL.

TRACER WIRE

MECHANICAL PLUG OR SOLVENT WELDED SPIGOT CAP ON ONE FOOT STUB OF PIPE

BEDDING

WYE OR 45° ELL CLEANOUT



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**END OF MAIN LINE
 CLEAN OUT DETAIL**

DETAIL NO.

S-306

5/20/2020