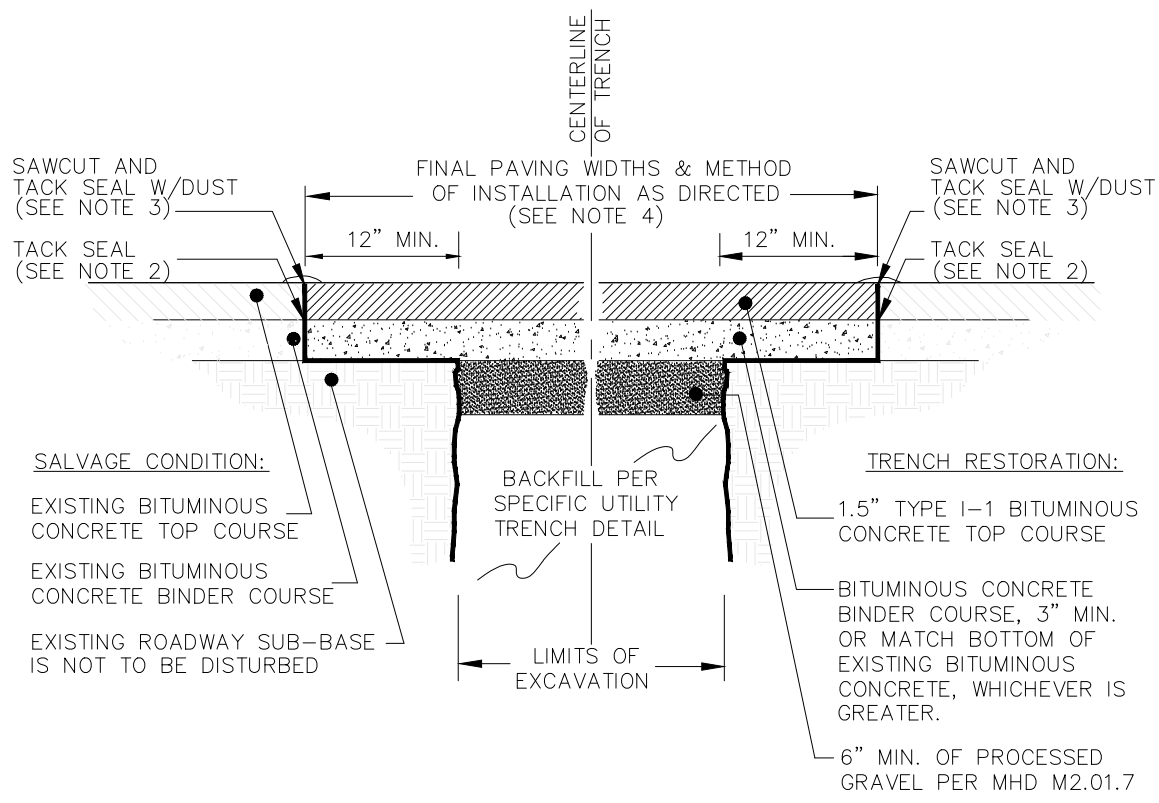
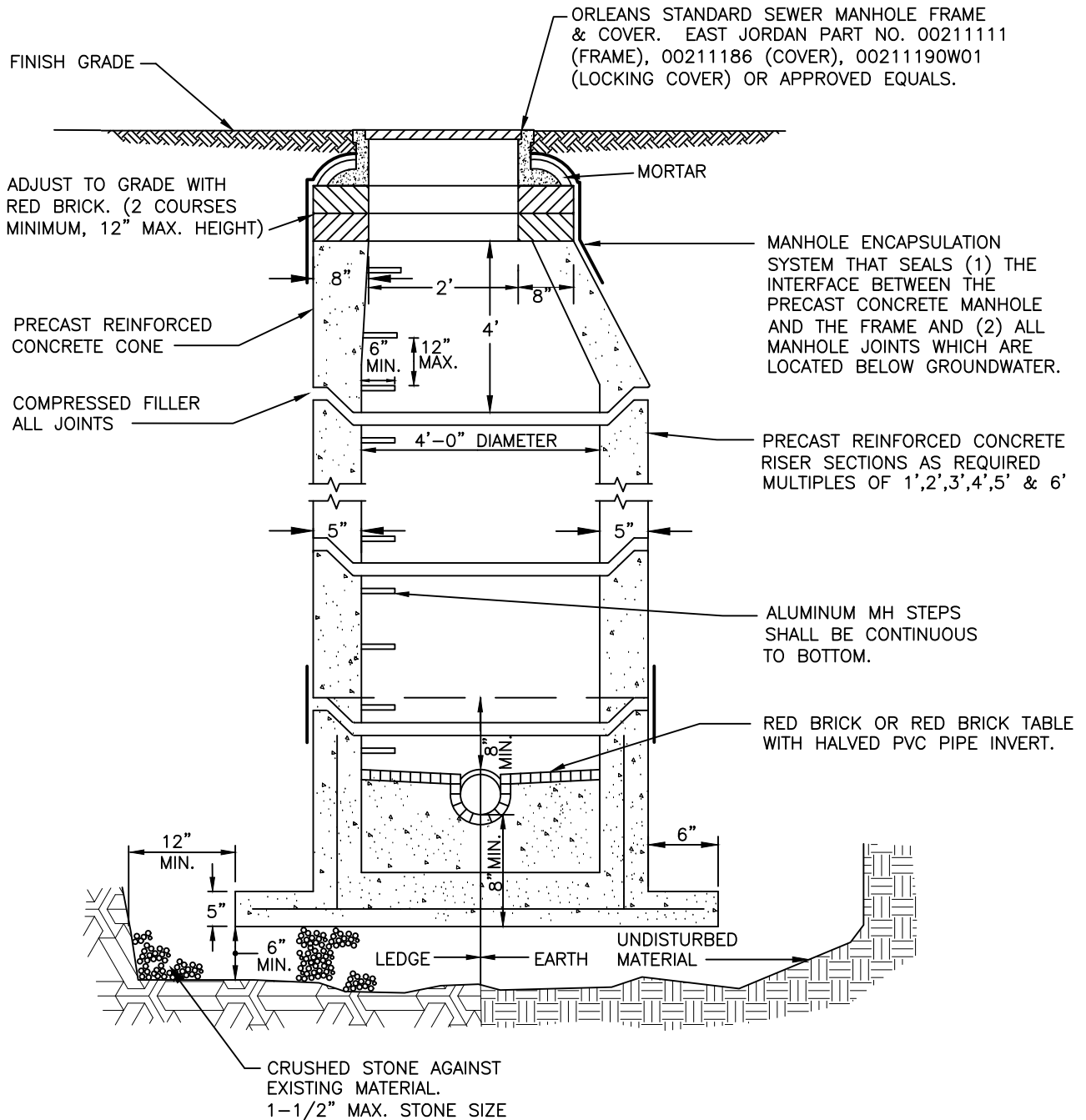


PATH/FILENAME: C-1_ORLtrchpch.dwg
 LAST UPDATE: Thursday, October 15, 2020 8:33:29 PM PLOT DATE: Monday, October 26, 2020 2:09:18 PM



1. ALL INSTALLATION AND MATERIAL SPECIFICATIONS PER MASS. HIGHWAY DEPARTMENT STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES, 1988 AS AMENDED.
2. ALL EXPOSED BITUMINOUS CONCRETE IS TO BE TACKED PER MHD PRIOR TO NEW BITUMINOUS CONCRETE INSTALLATION.
3. ALL EXPOSED JOINTS ARE TO BE SEALED WITH TACK AND STONE DUST.
4. ANY TOP COURSE APPLIED AT A WIDTH OF 6' WIDE OR GREATER IS TO BE PLACED BY MACHINE/BOX SPREADER WHEN & AS DIRECTED BY THE TOWN OF ORLEANS.

	Orleans S.U.R.R. Details TYPICAL TRENCH REPAIR & PAVEMENT SECTION DETAIL	C-1
SHEET REFERENCE: C-1_ORLtrchpch.dwg	SCALE: Not to Scale	DATE: October 2020
		DRAWING



NOTES:

1. CRUSHED STONE SHALL CONFORM TO MASSDOT SPECIFICATION M2.01.1
2. ORLEANS STANDARD SEWER MANHOLE FRAME & COVER. EAST JORDAN PART NO. 00211111 (FRAME), 00211186 (COVER) AND 00211190W01 (LOCKING COVER) OR APPROVED EQUAL.
3. BOLTED AND GASKETED FRAMES AND COVERS TO BE INSTALLED FOR MANHOLES LOCATED AT ANY LOW SPOTS, ALL OFF-ROAD LOCATIONS AND WITHIN THE FEMA 100 YEAR FLOOD ZONE.
4. FRAME AND COVER IN OFF-ROAD LOCATIONS SHALL BE SET AT 6" ABOVE FINISHED GRADE.

Orleans S.U.R.R. Details
TYPICAL PRECAST CONCRETE
SEWER MANHOLE

S-1

SHEET REFERENCE: S-1_ORLsmh.dwg

SCALE: Not to Scale

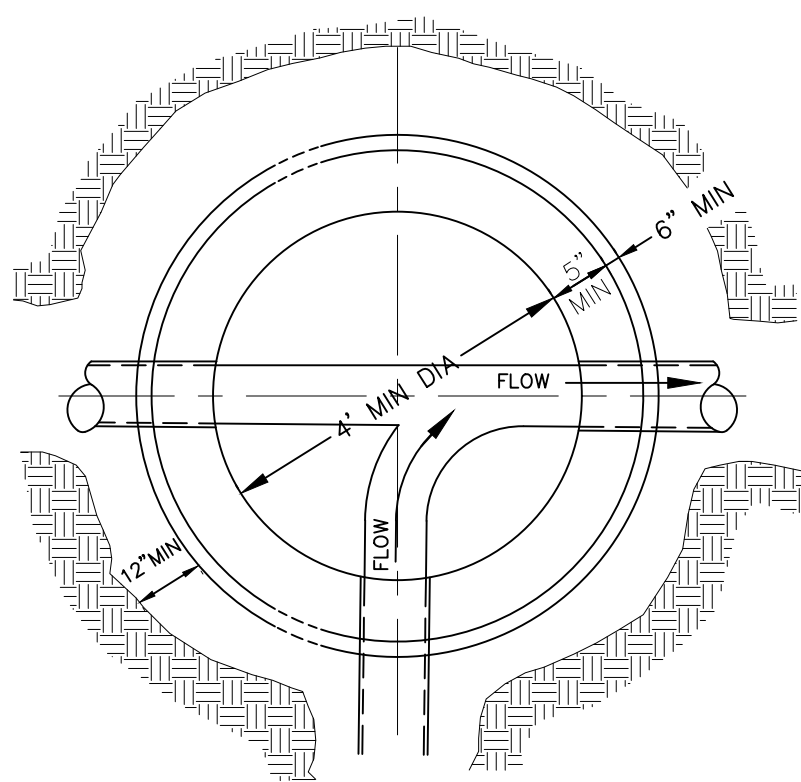
DATE: October 2020

DRAWING

PLOT DATE: Friday, October 30, 2020 10:29:03 AM

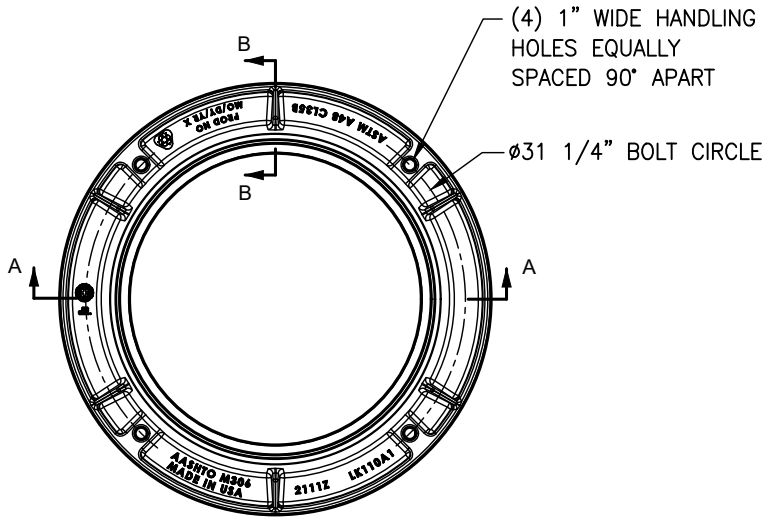
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LAST UPDATE: Monday, October 26, 2020 3:00:51 PM

PATH/FILENAME: S-2_ORLINV.DWG
LAST UPDATE: Monday, October 26, 2020 11:00:18 AM
PLOT DATE: Monday, October 26, 2020 2:09:31 PM

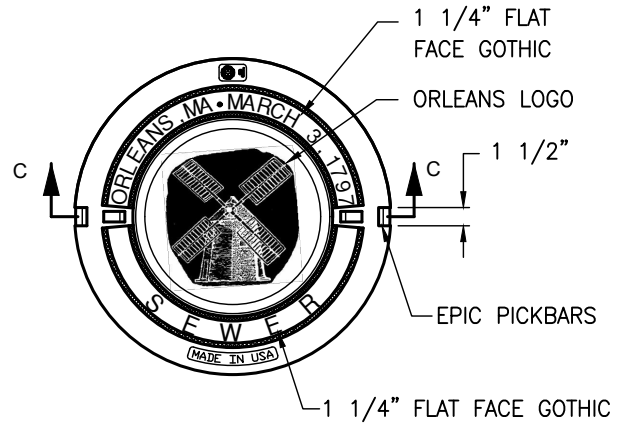


PLAN

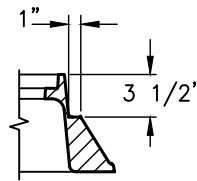
	Orleans S.U.R.R. Details INVERT TABLE PLAN	S-2
SHEET REFERENCE: S-2_ORLinv.dwg	SCALE: Not to Scale	DATE: October 2020
		DRAWING



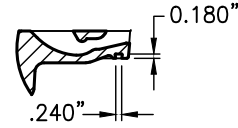
TOP PLAN



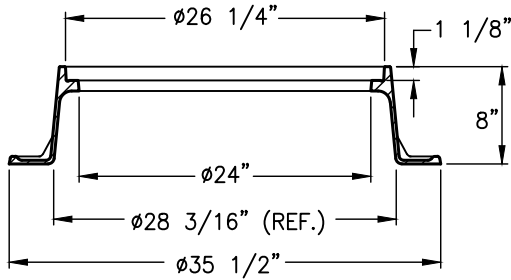
PLAN-SEWER COVER



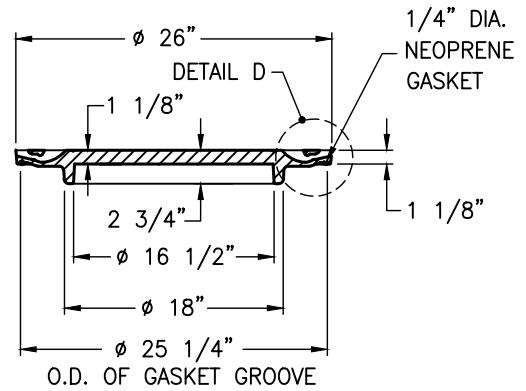
SECTION B-B



DETAIL D



SECTION A-A



SECTION C-C

NOTES:

1. ORLEANS STANDARD MANHOLE FRAME AND COVER. EAST JORDAN NO. 00211111 (FRAME) AND NO. 00211186 (COVER) OR APPROVED EQUALS.

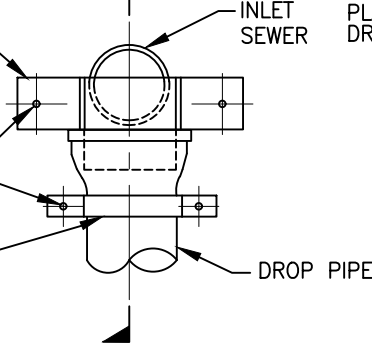
Orleans S.U.R.R. Details
**ORLEANS STANDARD MANHOLE
 FRAME AND COVER**

S-3

REMOVABLE 1/8" 316 SS
SPLASH PLATE TO SEAT IN
DROP PIPE BELL

EXPANSION SLEEVE
ANCHORS W/ 1/2" DIA.
316 S.S. THREADED BOLTS
WITH WASHERS (TYP.)

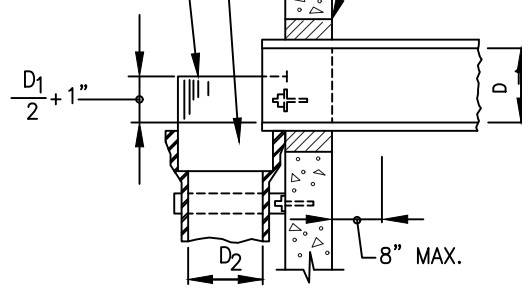
1/4" X 2" 316 SS
STRAP ANCHOR



ELEVATION

SPLASH PLATE TO BE
SEMI-CIRCULAR
BELOW TOP OF BELL

REMOVABLE 1/8"
316 SS SPLASH
PLATE TO SEAT IN
DROP PIPE BELL



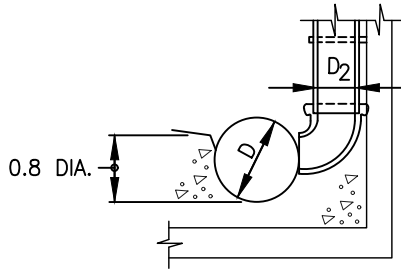
SECTION

FOR NEW MANHOLES,
WATERTIGHT RESILIENT
CONNECTION SHALL BE
CAST INTO MANHOLE.
FOR EXIST. MANHOLES,
CORE HOLE AND INSTALL
WATERTIGHT RESILIENT
CONNECTION (TYP.)

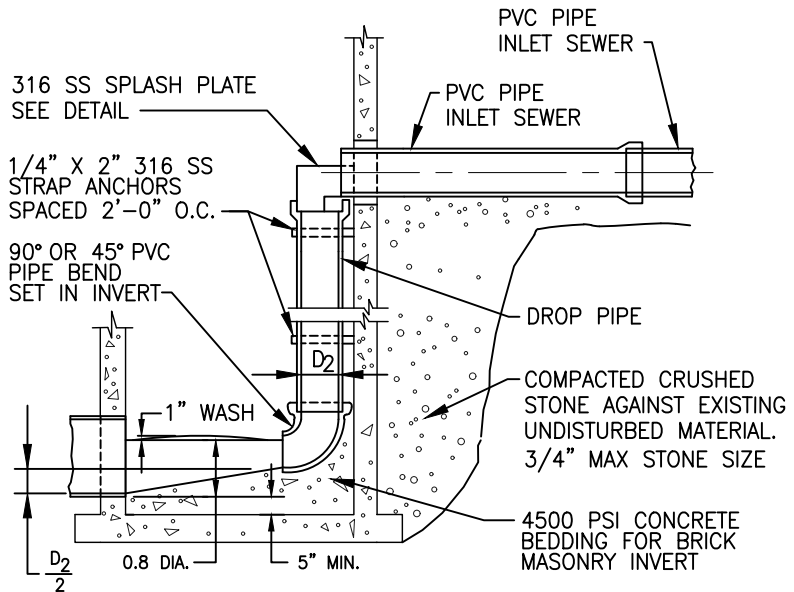
316 SS SPLASH PLATE DETAIL

PIPE SIZE TABLE

PIPE SIZES (IN)	
INLET SEWER D ₁	DROP PIPE D ₂
12	10
10	8
8	8
6	6



**INVERT DETAIL
AT SIDE DROPS**



**INVERT DETAIL
AT MAIN RUN DROPS**

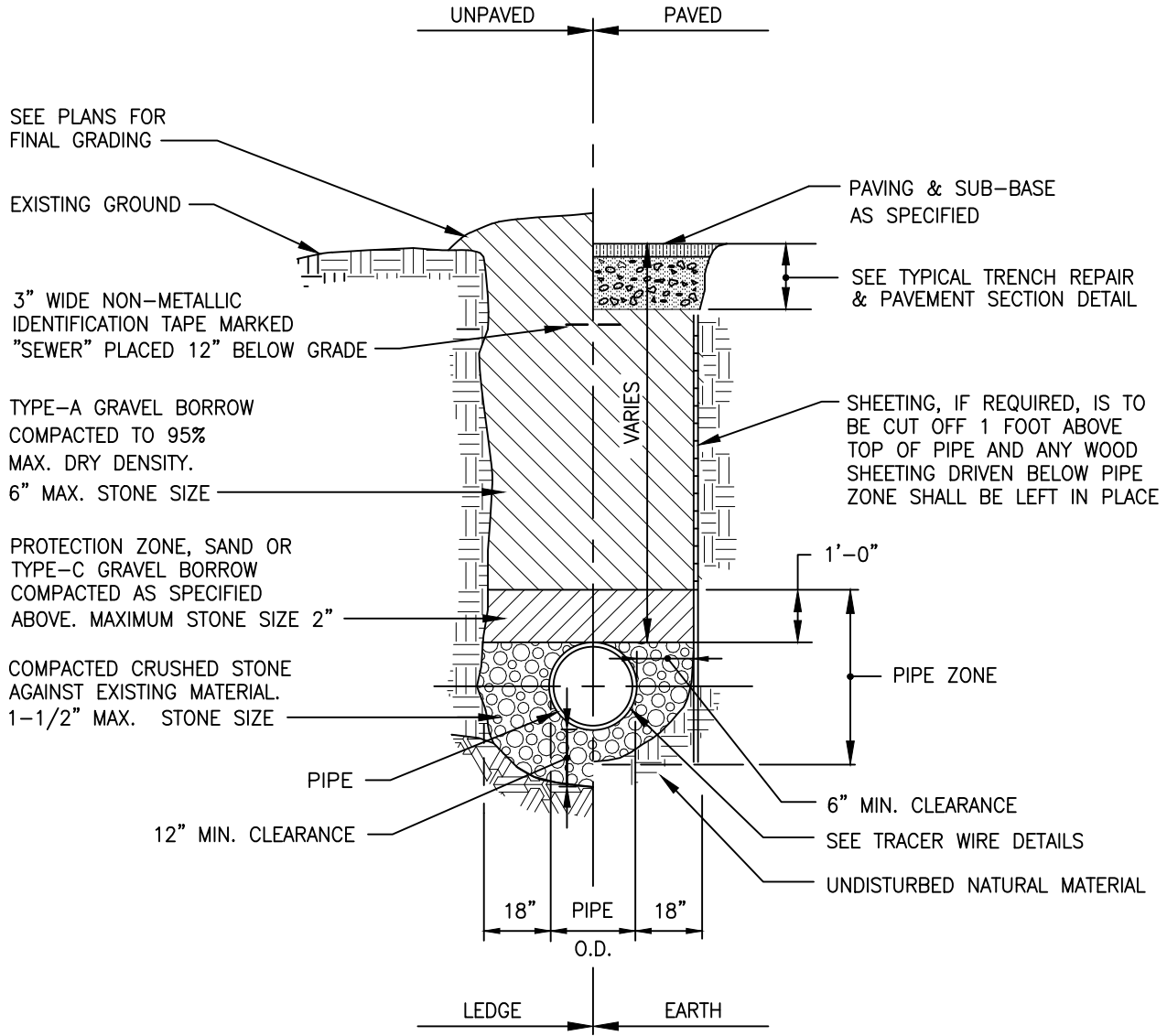
NOTES:

1. CRUSHED STONE SHALL CONFORM TO MASSDOT SPECIFICATION M2.01.1

Orleans S.U.R.R. Details
**INSIDE DROP INLETS FOR PVC PIPE
SEWERS 12 INCH DIA. AND SMALLER**

S-5

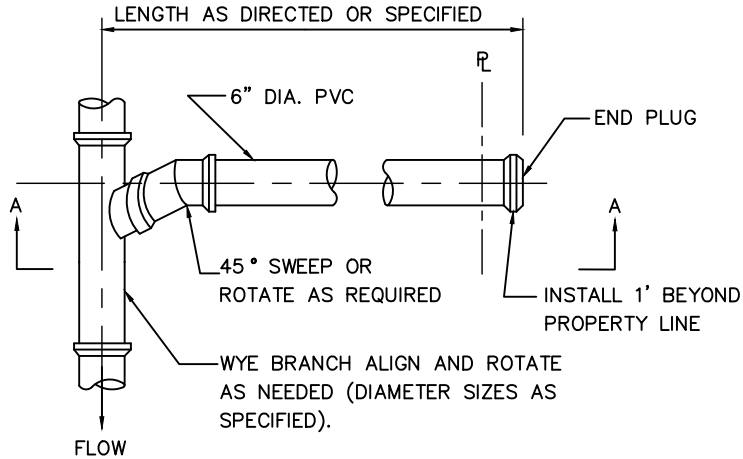
PATH/FILENAME: S-6_ORLSBED.DWG
 LAST UPDATE: Thursday, October 15, 2020 10:30:15 PM PLOT DATE: Monday, October 26, 2020 2:09:52 PM



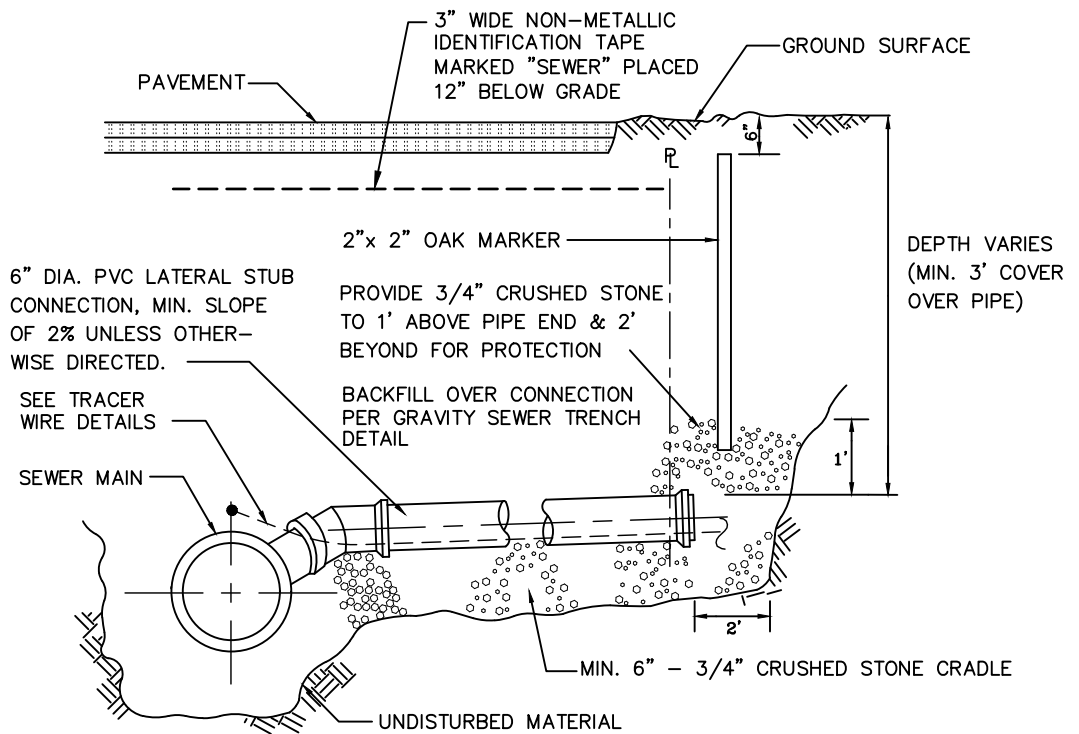
NOTES:

1. GRAVEL BORROW SHALL CONFORM TO MASS HIGHWAY SPECIFICATION M1.03.0
2. CRUSHED STONE SHALL CONFORM TO MASSDOT SPECIFICATION M2.01.1

Orleans S.U.R.R. Details		
GRAVITY SEWER / FORCE MAIN		
TRENCH DETAIL		S-6
SHEET REFERENCE: S-6_ORLSbed.dwg	SCALE: Not to Scale	DATE: October 2020
		DRAWING



PLAN



SECTION

NOTES:

1. WHERE REQUIRED, A MANHOLE TO BE CONSTRUCTED ON A LATERAL CONNECTION. THIS MANHOLE SHALL CONFORM TO THE SAME STANDARDS AS THE MAIN SEWER MANHOLES. (SEE SEWER MANHOLE DETAILS.)
2. CRUSHED STONE SHALL CONFORM TO MASSDOT SPECIFICATION M2.01.1

Orleans S.U.R.R. Details
TYPICAL LATERAL
STUB CONNECTION

S-7

SHEET REFERENCE: S-7_ORLsstub.dwg

SCALE: Not to Scale

DATE: October 2020

DRAWING

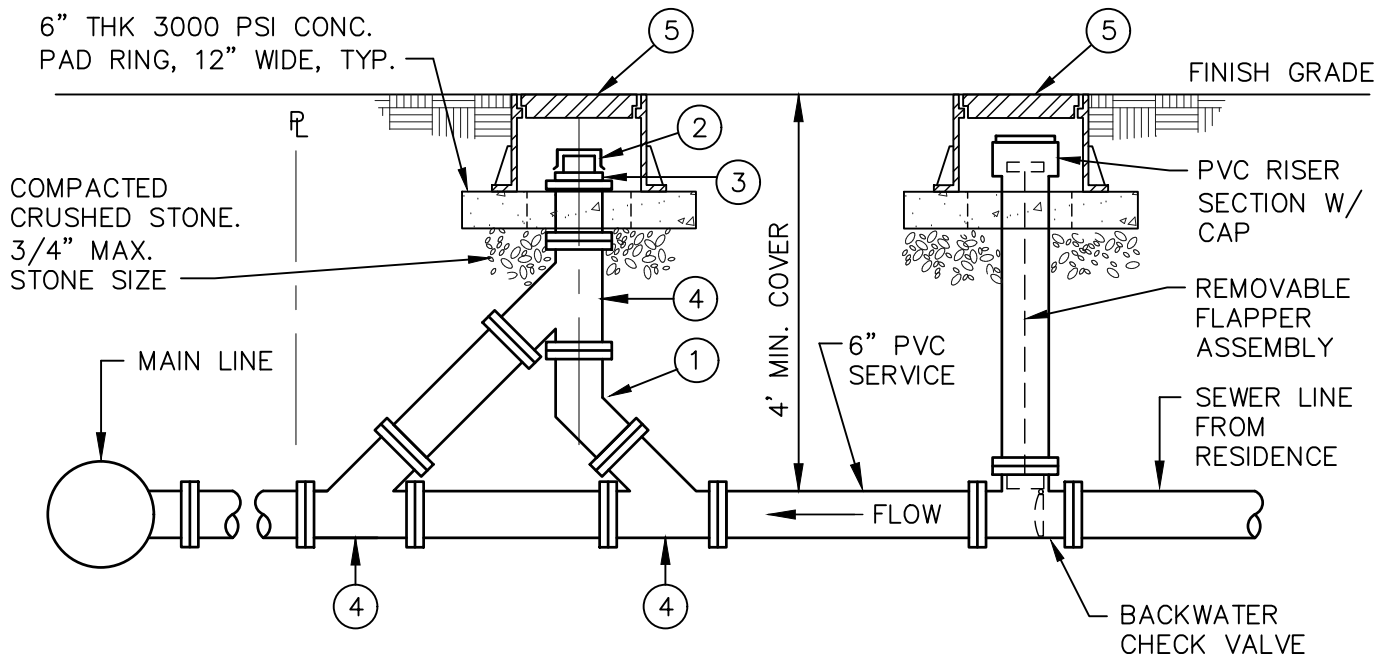
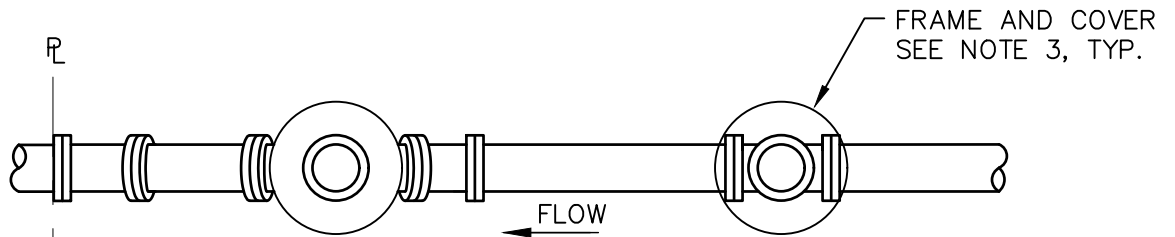
PATH/FILENAME: S-7_ORLsstub.dwg
LAST UPDATE: Thursday, October 15, 2020 11:33:38 PM PLOT DATE: Monday, October 26, 2020 2:09:58 PM

NOTES:

1. SERVICE CLEAN-OUT/TV INSPECTION PORT TO BE INSTALLED AT ALL LOCATIONS.
2. FINAL LOCATION OF SERVICE CLEAN-OUT/TV INSPECTION PORTS TO BE DETERMINED IN THE FIELD BY ENGINEER.
3. FRAME AND COVER TO BE H20 CAST IRON AND INSTALLED FLUSH IN TRAFFIC AREAS AND SIDEWALKS. FRAME AND COVER TO BE PVC AND INSTALLED 6" BELOW GRADE IN NON-TRAFFIC AREAS.
4. CRUSHED STONE SHALL CONFORM TO MASSDOT SPECIFICATION M2.01.1

CLEANOUT MATERIALS

- ① 6"-45° PVC ELBOW
- ② HOSE CONNECTION - 4" QUICK DISCONNECT WITH CAP
- ③ PVC ADAPTERS AS REQUIRED
- ④ 6" PVC LATERAL
- ⑤ FRAME AND COVER
SEE NOTE 3



Orleans S.U.R.R. Details

**GRAVITY SERVICE CLEAN-OUT / TV
INSPECTION PORT & BACKWATER VALVE**

S-8

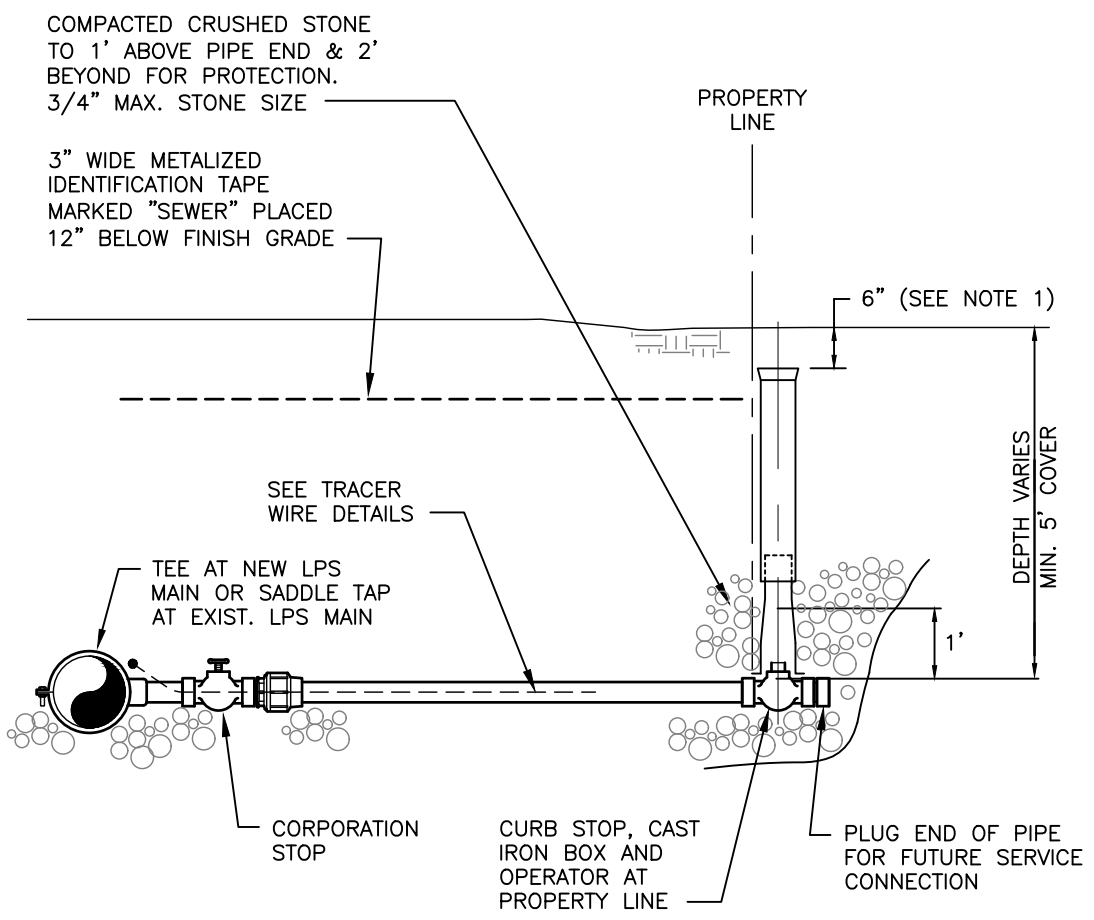
SHEET REFERENCE: S-8_ORLTVinsp.dwg

SCALE: Not to Scale

DATE: October 2020

DRAWING

PATH/FILENAME: S-10_ORLLPSTUBCONN.DWG
 LAST UPDATE: Friday, October 30, 2020 10:31:55 AM
 PLOT DATE: Friday, October 30, 2020 10:32:56 AM



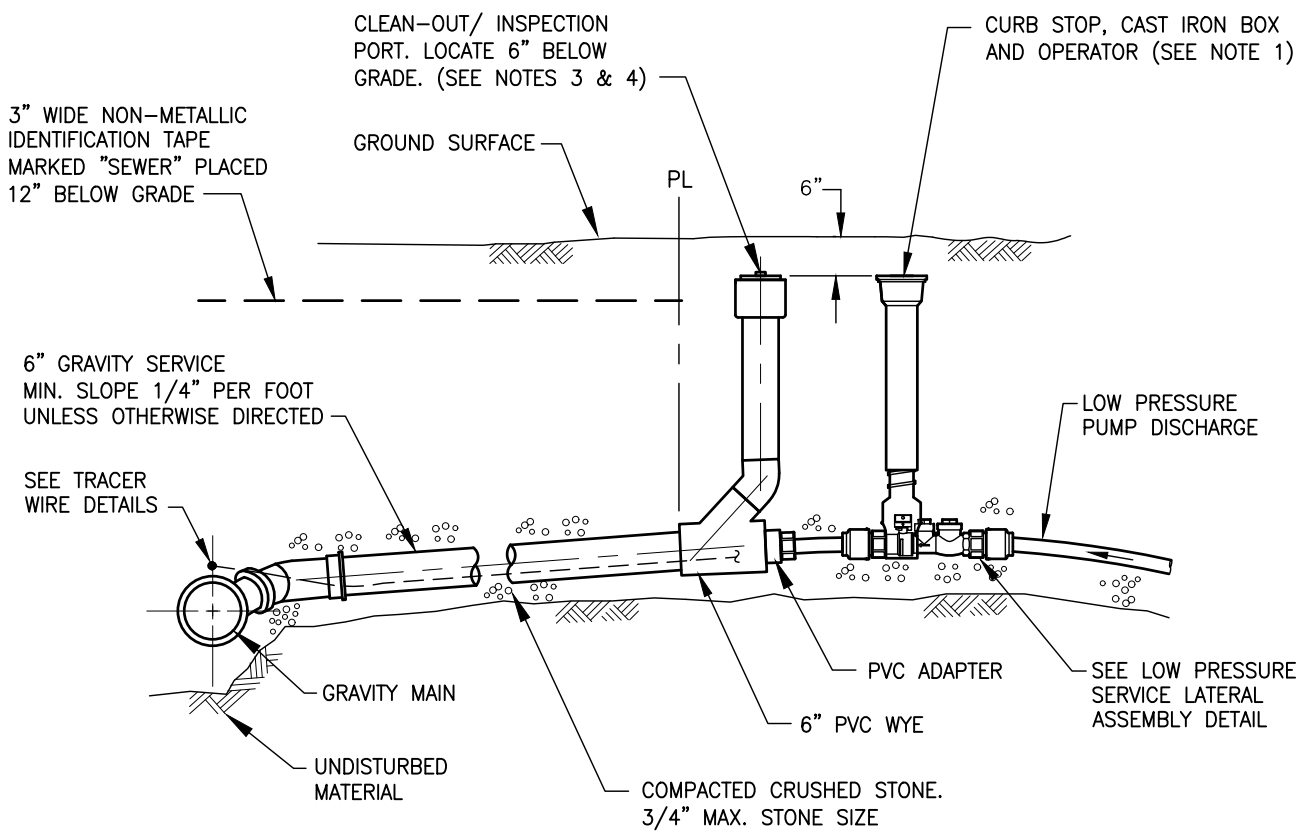
NOTES:

1. SET CAST IRON COVER AT FINISHED GRADE IN ALL TRAFFIC AND SIDEWALK AREAS.
2. CRUSHED STONE SHALL CONFORM TO MASSDOT SPECIFICATION M2.01.1

	Orleans S.U.R.R. Details TYPICAL LATERAL STUB CONNECTION ON LOW PRESSURE SEWER MAIN	S-10
SHEET REFERENCE: S-10_ORLLPStubConn.dwg	SCALE: Not to Scale	DATE: October 2020
		DRAWING

PATH/FILENAME: S-11_ORLLPSTOGRV.DWG

LAST UPDATE: Friday, October 30, 2020 10:34:19 AM PLOT DATE: Friday, October 30, 2020 10:34:34 AM

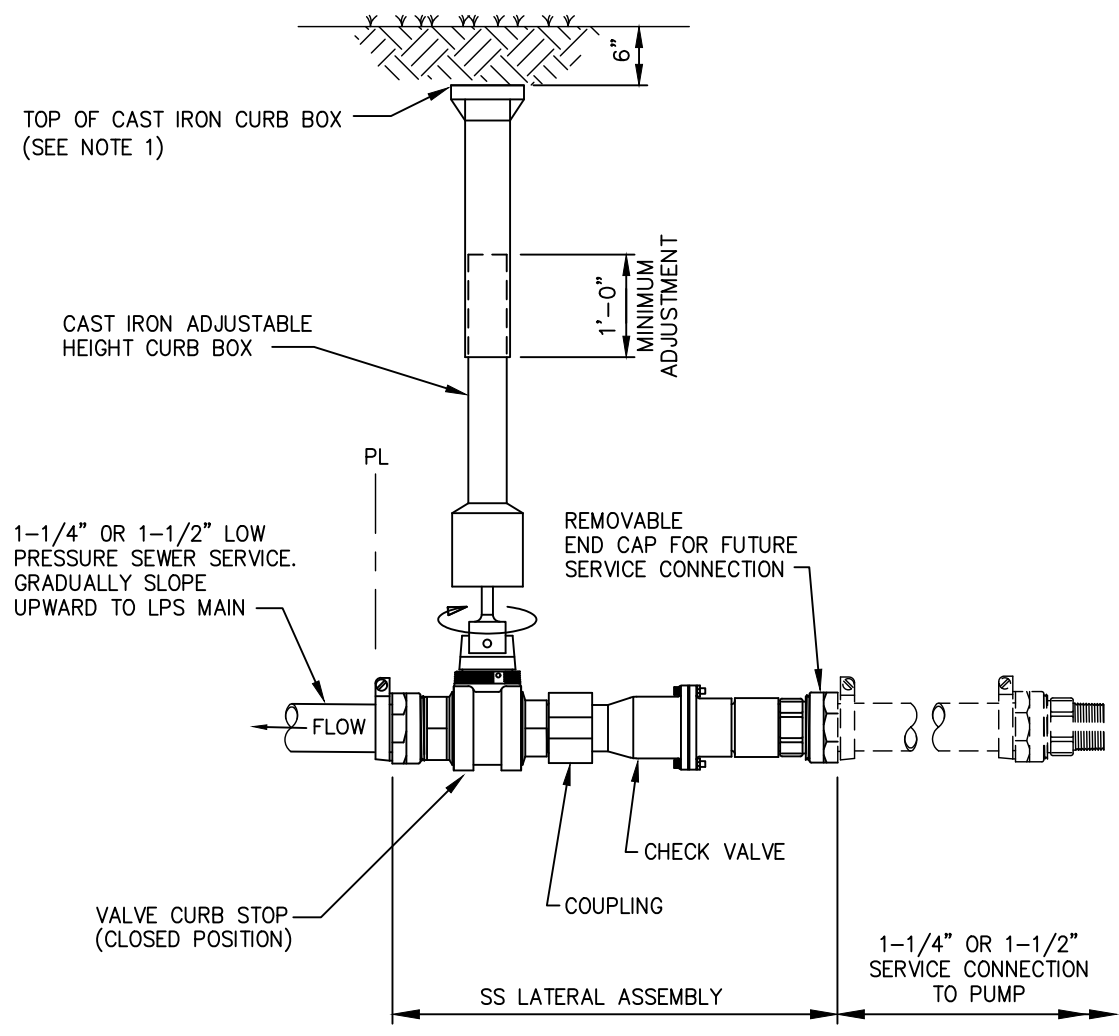


NOTES:

1. SET CAST IRON COVER AT FINISHED GRADE IN ALL TRAFFIC AND SIDEWALK AREAS.
2. CRUSHED STONE SHALL CONFORM TO MASSDOT SPECIFICATION M2.01.1
3. FRAME AND COVER TO BE H20 CAST IRON AND INSTALLED FLUSH IN TRAFFIC AREAS AND SIDEWALKS. FRAME AND COVER TO BE PVC AND INSTALLED 6" BELOW GRADE IN NON-TRAFFIC AREAS.
4. INSTALL IRON COVER, AS NEEDED, AS SHOWN ON DRAWING S-8.

<p>Orleans S.U.R.R. Details</p> <p>LOW PRESSURE SERVICE CONNECTION TO GRAVITY STUB</p>		<p>S-11</p>
<p>SHEET REFERENCE: S-11_ORLLPStoGrav.dwg</p>	<p>SCALE: Not to Scale</p>	<p>DATE: October 2020</p>
		<p>DRAWING</p>

PATH/FILENAME: S-12_ORLLPSERVLAT.DWG
 LAST UPDATE: Monday, October 26, 2020 1:59:04 PM
 PLOT DATE: Monday, October 26, 2020 2:10:28 PM

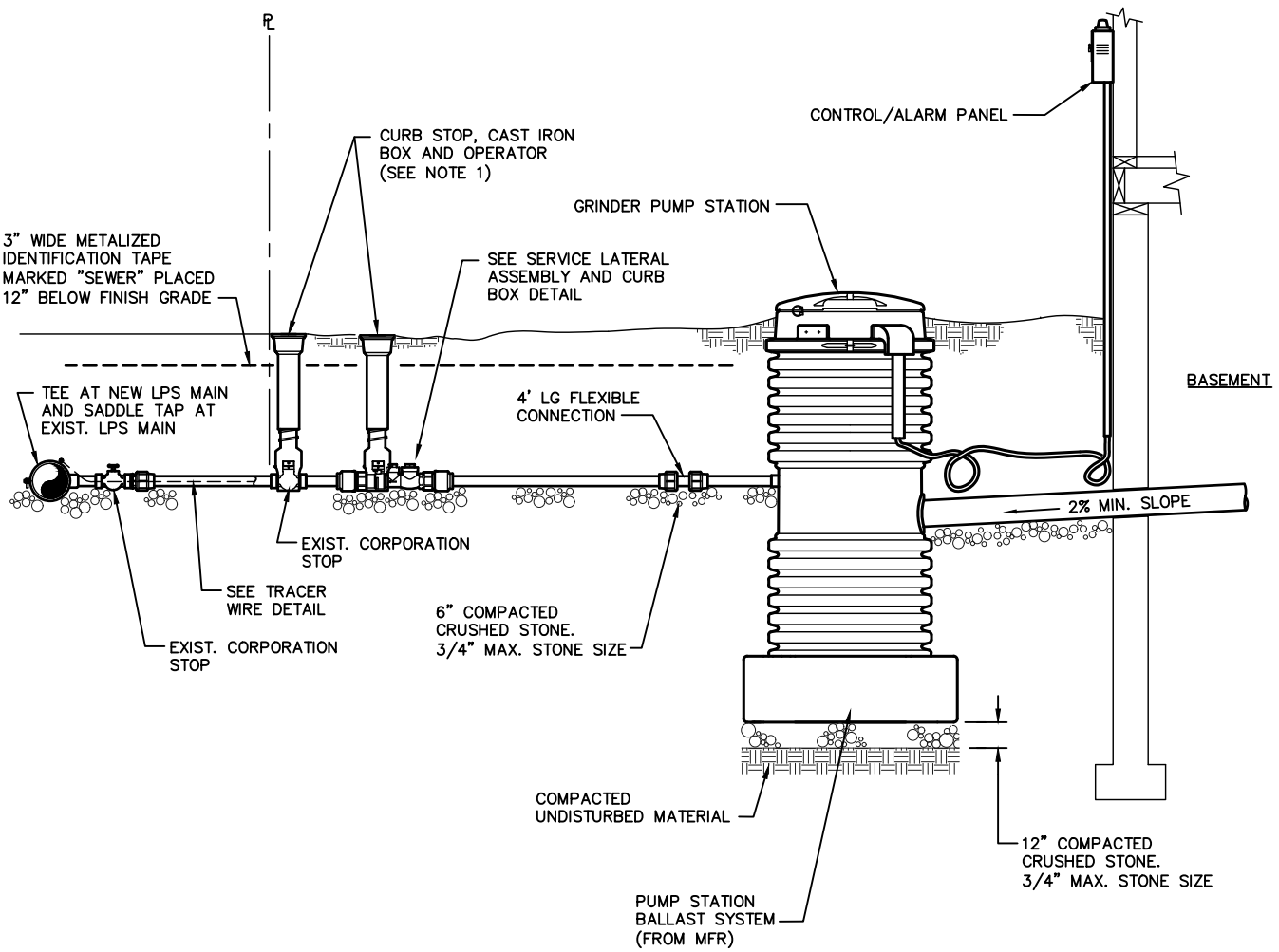


NOTES:

1. SET CAST IRON COVER AT FINISHED GRADE IN TRAFFIC AND SIDEWALK AREAS.
2. SS LATERAL ASSEMBLY SHALL BE E-ONE CORPORATION MODEL NO. NC0193G01, NC0193G02, NC0193G03 OR APPROVED EQUAL.

	<p>Orleans S.U.R.R. Details LOW PRESSURE SERVICE LATERAL ASSEMBLY</p>	<p>S-12</p>
<p>SHEET REFERENCE: S-12_ORLLPServLat.dwg</p>	<p>SCALE: Not to Scale</p>	<p>DATE: October 2020</p>
		<p>DRAWING</p>

PATH/FILENAME: S-13_ORLGPUMP.DWG
 LAST UPDATE: Monday, October 26, 2020 1:54:10 PM
 PLOT DATE: Monday, October 26, 2020 2:10:35 PM

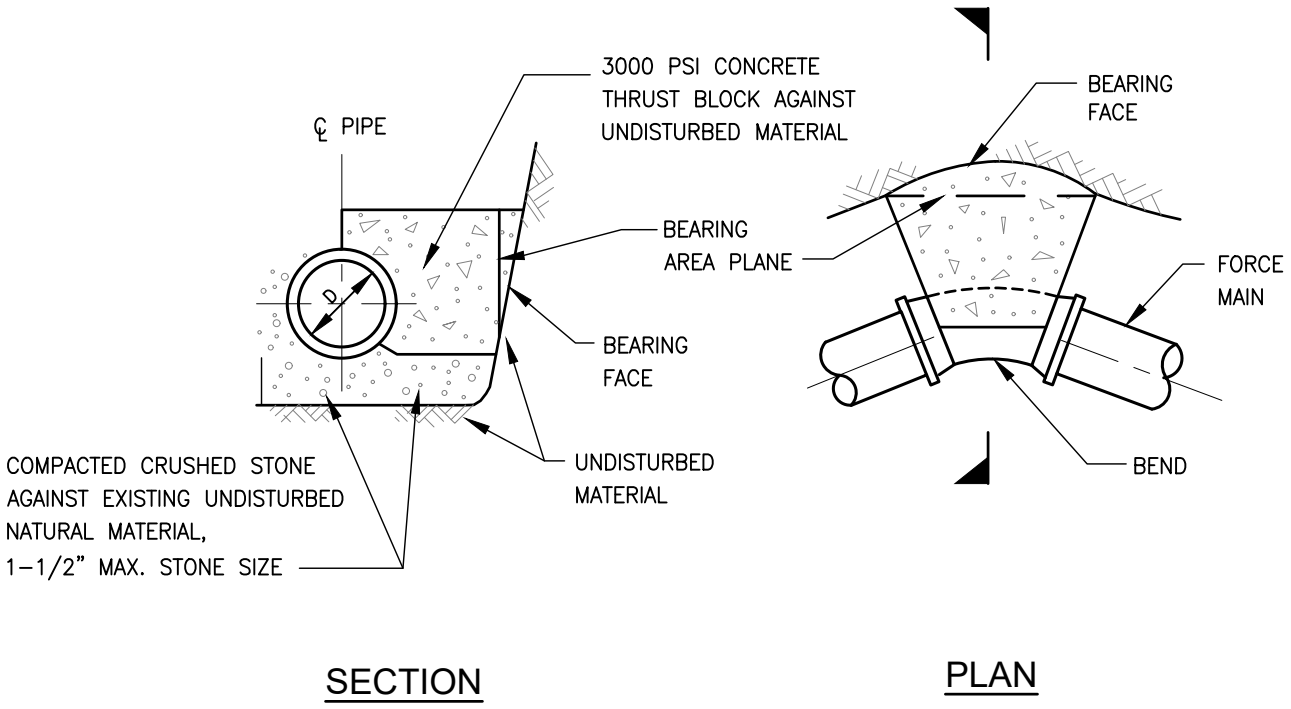


NOTES:

1. SET CAST IRON COVER AT FINISHED GRADE IN TRAFFIC AND SIDEWALK AREAS.
2. CRUSHED STONE SHALL CONFORM TO MASSDOT SPECIFICATION M2.01.1

	<p>Orleans S.U.R.R. Details GRINDER PUMP STATION CONFIGURATION</p>	<p>S-13</p>
<p>SHEET REFERENCE: S-13_ORLGPump.dwg</p>	<p>SCALE: Not to Scale</p>	<p>DATE: October 2020</p>
		<p>DRAWING</p>

PATH/FILENAME: S-14_ORLfmThrstBlk.dwg
 LAST UPDATE: Monday, October 26, 2020 10:57:17 AM
 PLOT DATE: Monday, October 26, 2020 2:10:41 PM



NOTES:

1. WHERE SO INDICATED ON PLANS, THE FORCE MAIN BENDS SHALL BE BACKED UP WITH A CONCRETE THRUST BLOCK BETWEEN THE PIPE AND UNDISTURBED MATERIAL.
2. REQUIRED BEARING AREA TO BE CALCULATED ON VERTICAL PLANE 90 DEG. TO RADIAL PLANE PASSING THROUGH MIDPOINT OF BEND.
3. MINIMUM BEARING AREA: 2.0 SQ.FT.
4. BEARING AREAS TO BE DETERMINED BY THE DESIGN ENGINEER.
5. CRUSHED STONE SHALL CONFORM TO MASSDOT SPECIFICATION M2.01.1

Orleans S.U.R.R. Details		
SEWER FORCE MAIN THRUST BLOCK		S-14
SHEET REFERENCE: S-14_ORLfmThrstBlk.dwg	SCALE: Not to Scale	DATE: October 2020
		DRAWING