

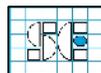
DETAIL A

NOTES

- 1) CONSTRUCT IN ACCORDANCE WITH PENNDOT PUBLICATION 408 CURRENT EDITION SECTION 714; AND ASTM C-478M CURRENT EDITION. STANDARD SPECIFICATION FOR PRECAST REINFORCED CONCRETE MANHOLE SECTIONS AS MODIFIED HEREIN.
- 2) MINIMUM CONCRETE COMPRESSIVE STRENGTH:
CAST IN PLACE 4000 PSI
PRECAST 4000 PSI
- 3) PROVIDE STEEL REINFORCEMENT IN ACCORDANCE WITH ASTM A-185.
- 4) MANHOLE COATINGS: EXTERIOR COATING; COOPER BLACK NO. 760 TOP SERVICE BLACK AS MANUFACTURED BY COOPERS CREEK CHEMICAL CORP. OR APPROVED EQUAL. AT LEAST THREE (3) COATS SHALL BE APPLIED GIVING A TOTAL DRY FILM THICKNESS OF A MINIMUM 32.0 MILS.
INTERIOR COATING: SHERWIN WILLIAMS MACRO POXY-646 WHITE (FAST CURE EPOXY).
AT LEAST TWO (2) COATS SHALL BE APPLIED GIVING A TOTAL DRY THICKNESS OF A MINIMUM 10-14 MILS.
- 5) FLOW CHANNEL TO BE PRECAST INTO MANHOLE BASE.
- 6) MANHOLE CONNECTION GASKETS: ECONOSEAL AS MANUFACTURED BY PRESS SEAL GASKET CORP. (SPEC. ASTM C-923) OR APPROVED EQUAL.
- 7) MANHOLES SHALL BE CONSTRUCTED WITH STEPS. REFER TO WHITPAIN TOWNSHIP DETAIL #15 FOR SPEC. OF STEPS.
- 8) WATERSAVING DISH TO BE INSTALLED BENEATH MH COVER.

MANHOLE SIZE	PIPE SIZE
4'Ø	≤ 20"
5'Ø	21-30"
6'Ø	33-42"

No.	REVISIONS	DATE
2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
DATE OF ISSUE		
1-9-04		

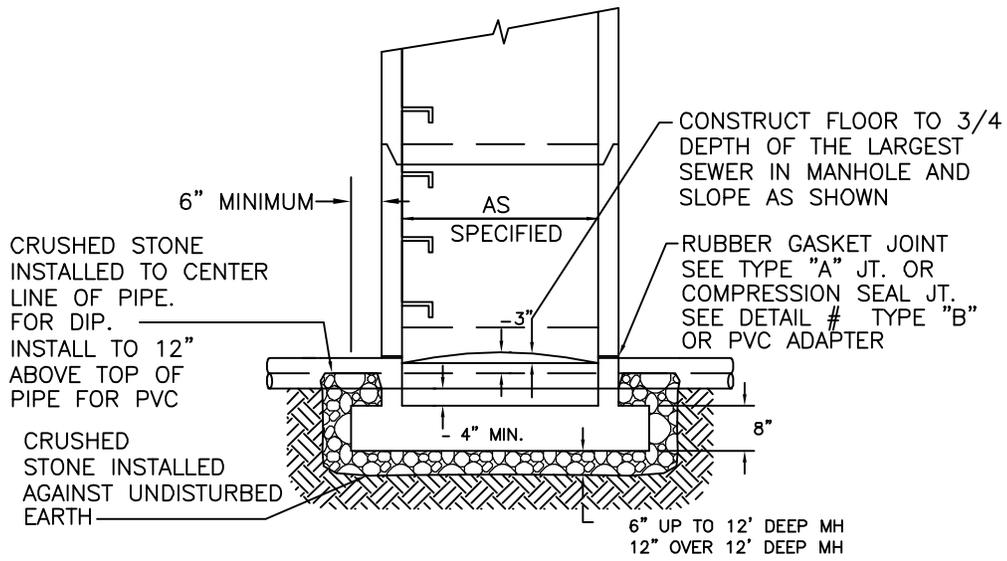


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DETAIL #1
PRECAST SANITARY MANHOLE
WHITPAIN TOWNSHIP

NOT TO SCALE

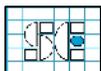
WP-1.DWG



NOTES:

- 1) CONSTRUCT IN ACCORDANCE WITH PENNDOT PUBLICATION 408 CURRENT EDITION SECTION 714. AND ASTM C-478M CURRENT EDITION AND PENNDOT RC STANDARDS CURRENT EDITION.
- 2) MINIMUM STRENGTH OF CONCRETE
 CAST-IN-PLACE 4000 PSI(MIN.)
 PRECAST 4000 PSI(MIN.)
- 3) PROVIDE STEEL REINFORCEMENT MEETING THE REQUIREMENTS OF PENNDOT PUBLICATION 408 CURRENT EDITION SEC. 709. REINFORCE PER PENNDOT 408 CURRENT EDITION AND RC STANDARD RC-39M CURRENT EDITION.

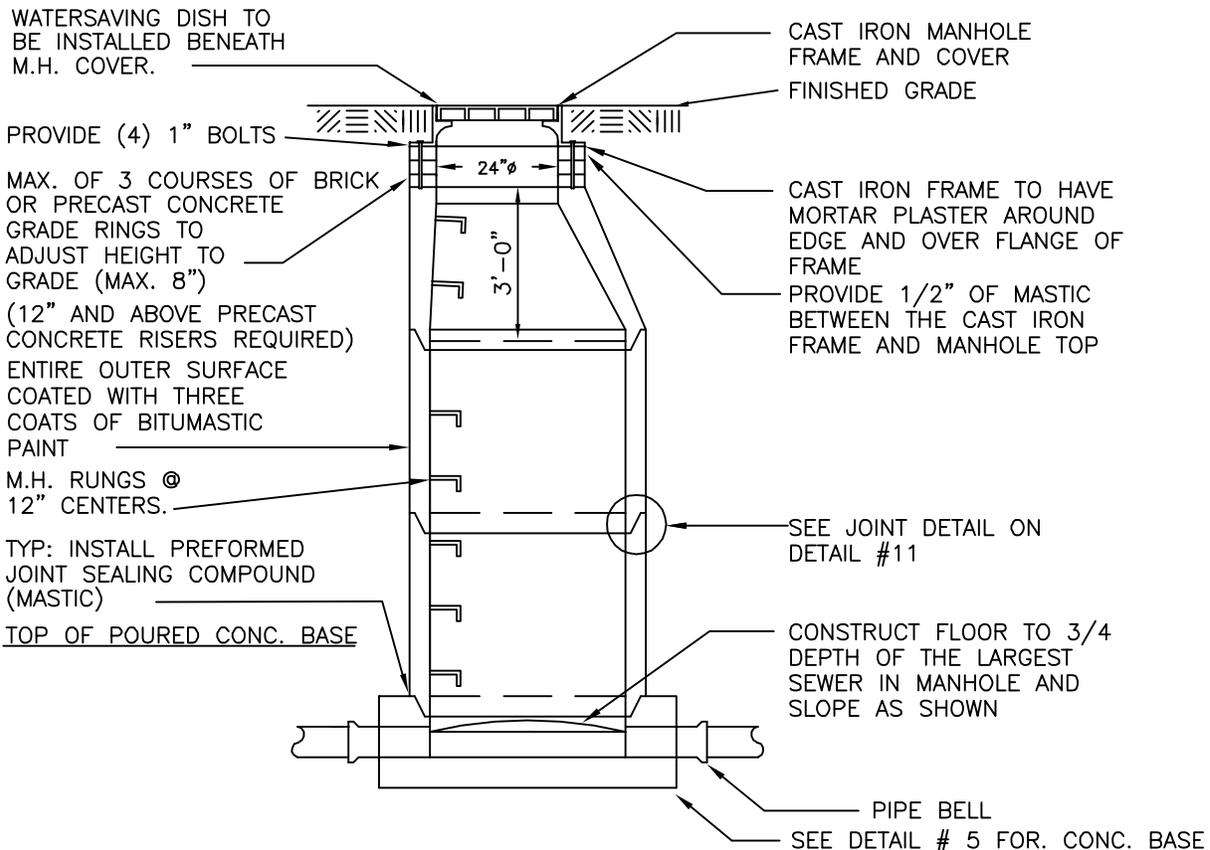
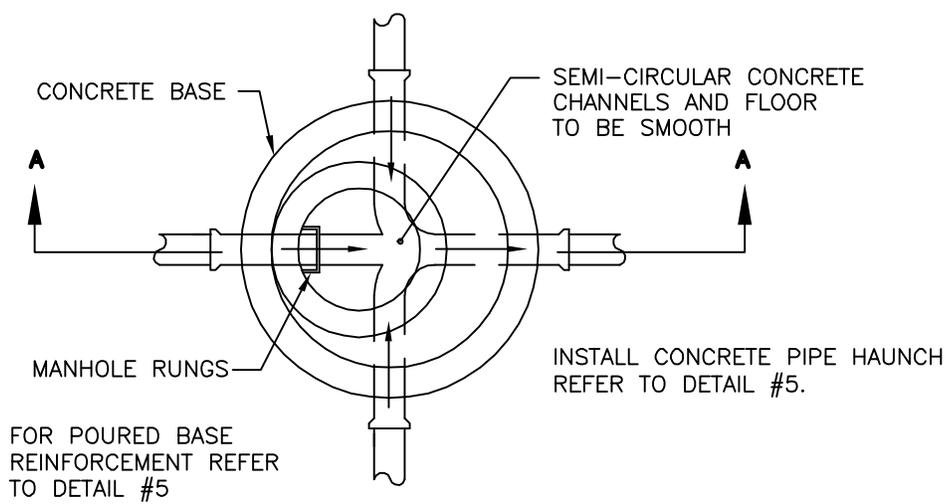
2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04



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DETAIL #2
PRECAST MANHOLE BASE
WHITPAIN TOWNSHIP

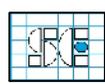
NOT TO SCALE



SECTION A-A

- NOTE:
1. STEEL TEMPLATE TO BE SUPPLIED BY MANHOLE MFR. IN ORDER TO FORM PROPER RECESS IN CONCRETE.
 2. RISER TO BE MULTIPLE LENGTHS OF 1'-0", IN ORDER TO SUIT VARIATIONS IN ELEVATION.

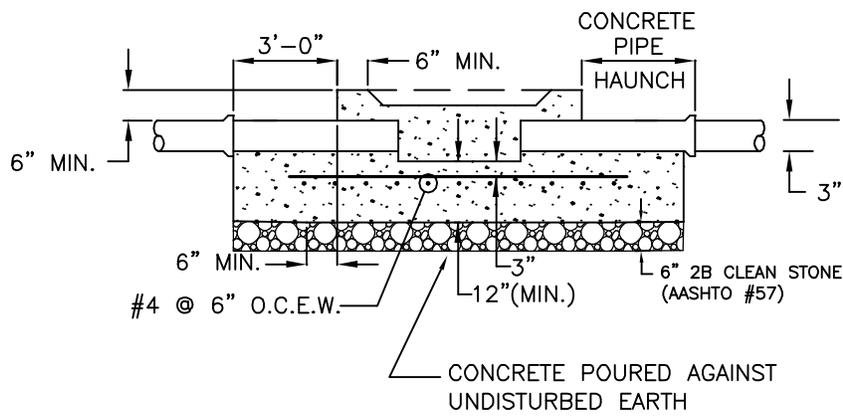
2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04



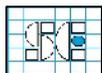
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**DETAIL #3
 PRECAST MANHOLE
 WITH POURED CONCRETE BASE
 WHITPAIN TOWNSHIP**

NOT TO SCALE



2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04



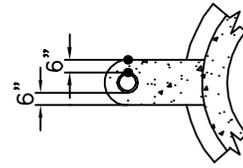
S C Engineers, Inc.
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DETAIL #4
REINFORCEMENT FOR
POURED CONCRETE BASE
WHITPAIN TOWNSHIP

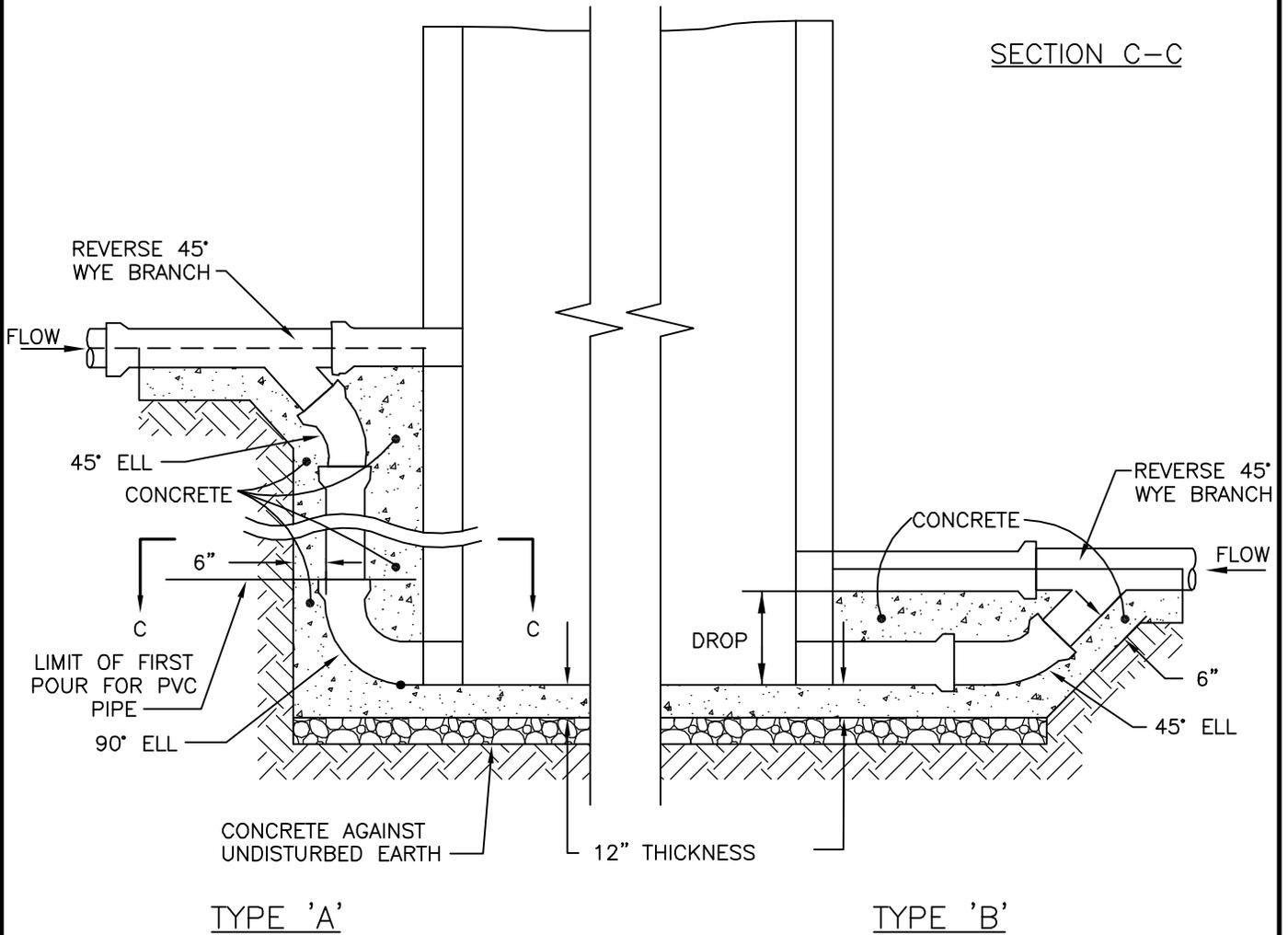
NOT TO SCALE

NOTES:

- 1) IN LIEU OF BELLS, PROVIDE MECH. JOINTS FOR DROP ASSEMBLY WHERE D.I. PIPE IS SPECIFIED.
- 2) FOR POURED BASE REINFORCEMENT REFER TO DETAIL #5.



SECTION C-C



TYPE 'A'

TYPE 'B'

OPTION: ATLANTIC CONCRETE PRE-CAST DROP ASSEMBLIES MAY BE USED.

**TYPE B DROP
MAX. DROP**

- 8" SEWER 3'-6"
- 10" SEWER 3'-9"
- 12" SEWER 4'-6"
- 15" SEWER 4'-6"

2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04



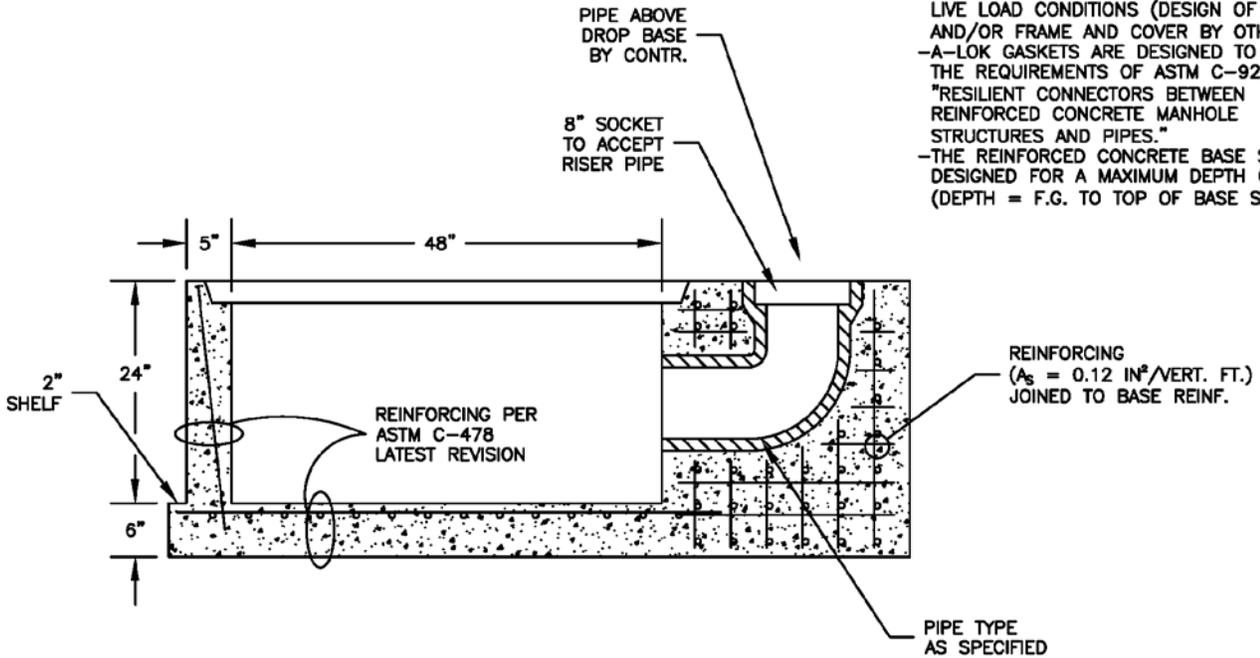
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**DETAIL #5
DROP MANHOLE
WHITPAIN TOWNSHIP**

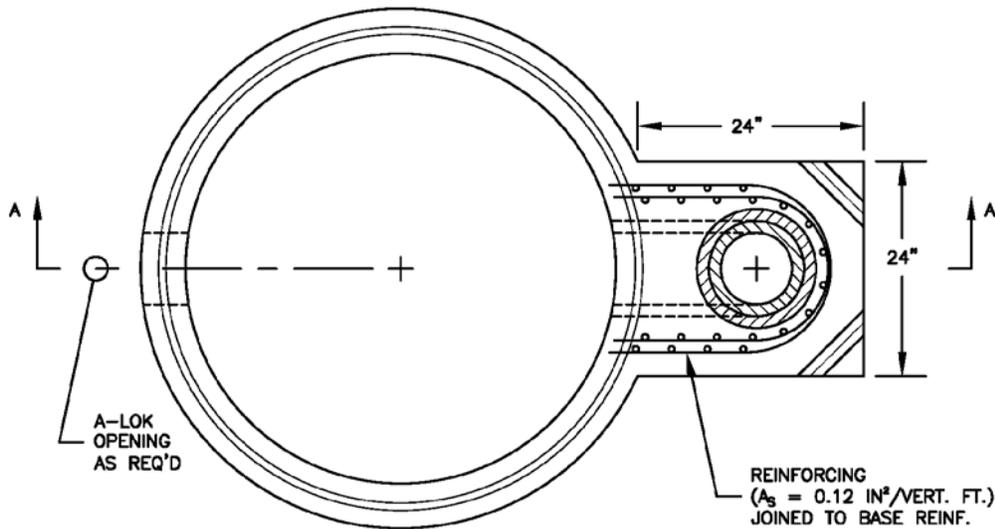
NOT TO SCALE

SPECIFICATIONS:

- THE CONCRETE IS DESIGNED TO OBTAIN A STRENGTH OF 4,000 PSI IN 28 DAYS.
- THE REINFORCING STEEL HAS A YIELD STRENGTH OF 60,000 PSI.
- THE MANHOLE IS DESIGNED TO MEET THE REQUIREMENTS OF ASTM C-478, "PRECAST REINFORCED CONCRETE MANHOLE SECTIONS."
- THE REINFORCED CONCRETE STRUCTURE IS DESIGNED TO WITHSTAND AASHTO HS-20 LIVE LOAD CONDITIONS (DESIGN OF HATCH AND/OR FRAME AND COVER BY OTHERS).
- A-LOK GASKETS ARE DESIGNED TO MEET THE REQUIREMENTS OF ASTM C-923, "RESILIENT CONNECTORS BETWEEN REINFORCED CONCRETE MANHOLE STRUCTURES AND PIPES."
- THE REINFORCED CONCRETE BASE SLAB IS DESIGNED FOR A MAXIMUM DEPTH OF 20 FT (DEPTH = F.G. TO TOP OF BASE SLAB).



SECTION A-A
NOT TO SCALE



PLAN VIEW
NOT TO SCALE

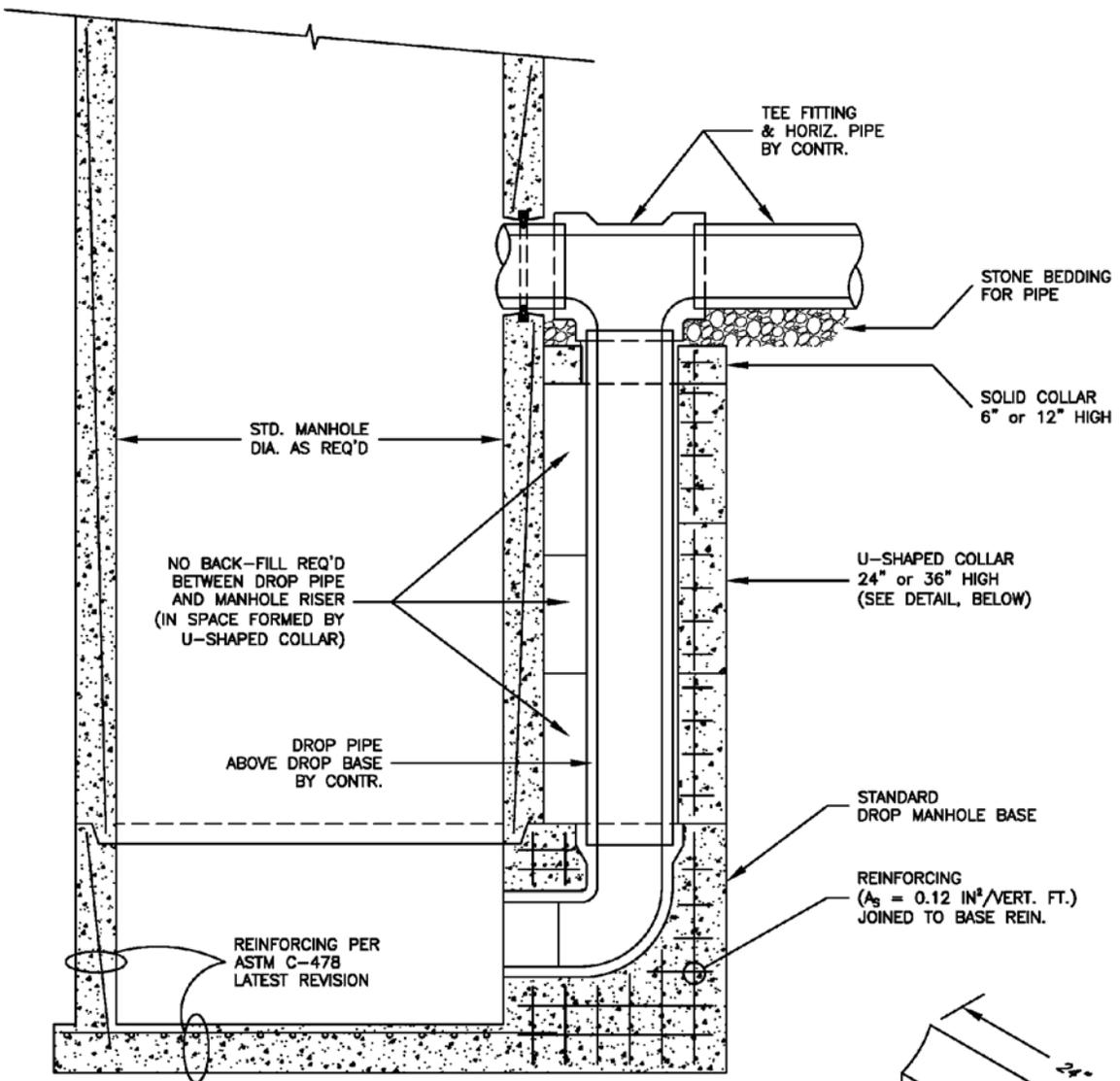
ATLANTIC CONCRETE PRODUCTS

1	GENERAL REVISIONS	4-24-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04

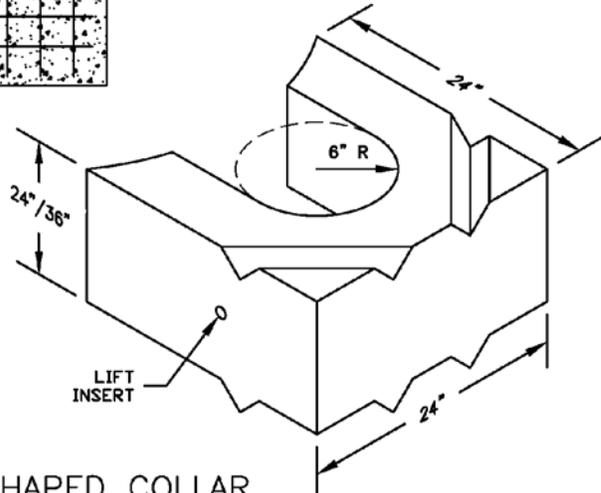
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DETAIL #6
PRECAST DROP MANHOLE BASE
WHITPAIN TOWNSHIP

NOT TO SCALE



CROSS-SECTION
OF
DROP MANHOLE
NOT TO SCALE



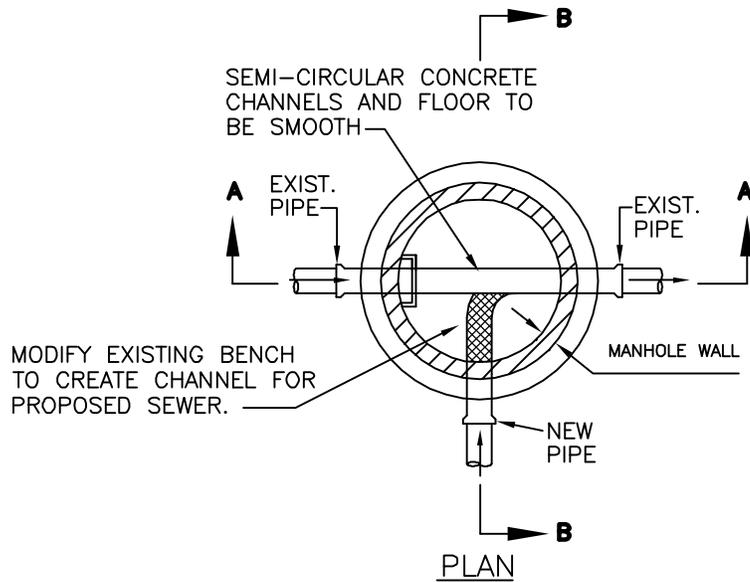
U-SHAPED COLLAR
NOT TO SCALE

ATLANTIC CONCRETE PRODUCTS

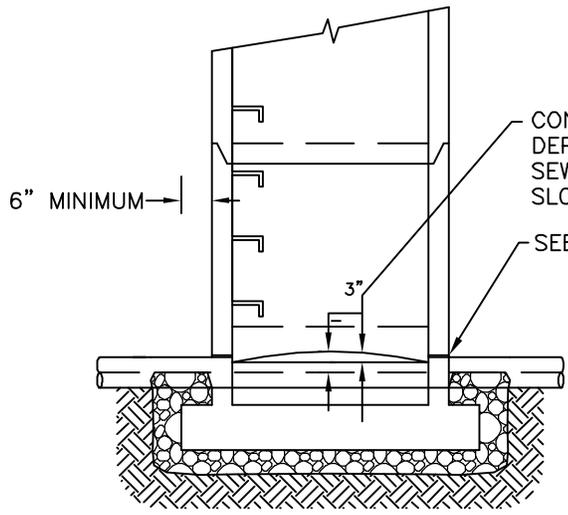
1	GENERAL REVISIONS	4-24-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04


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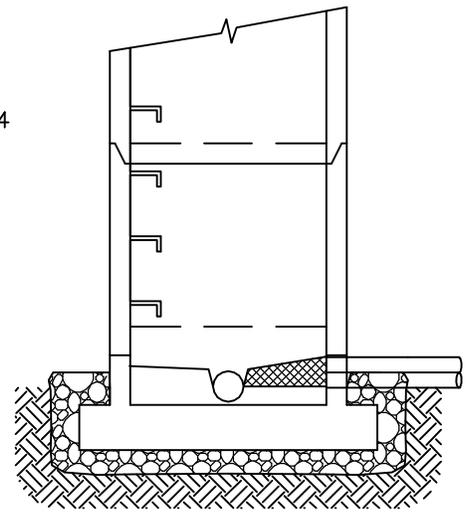
DETAIL #7
PRECAST DROP MANHOLE COLLAR
WHITPAIN TOWNSHIP
 NOT TO SCALE



PLAN



SECTION A-A

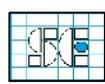


SECTION B-B

NOTES:

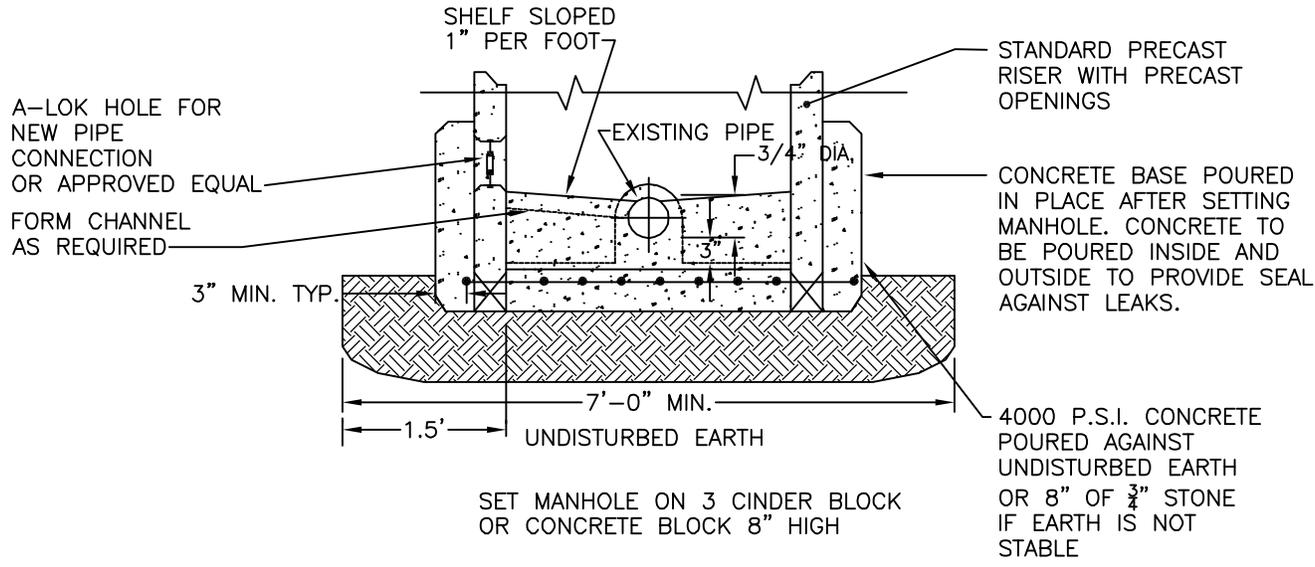
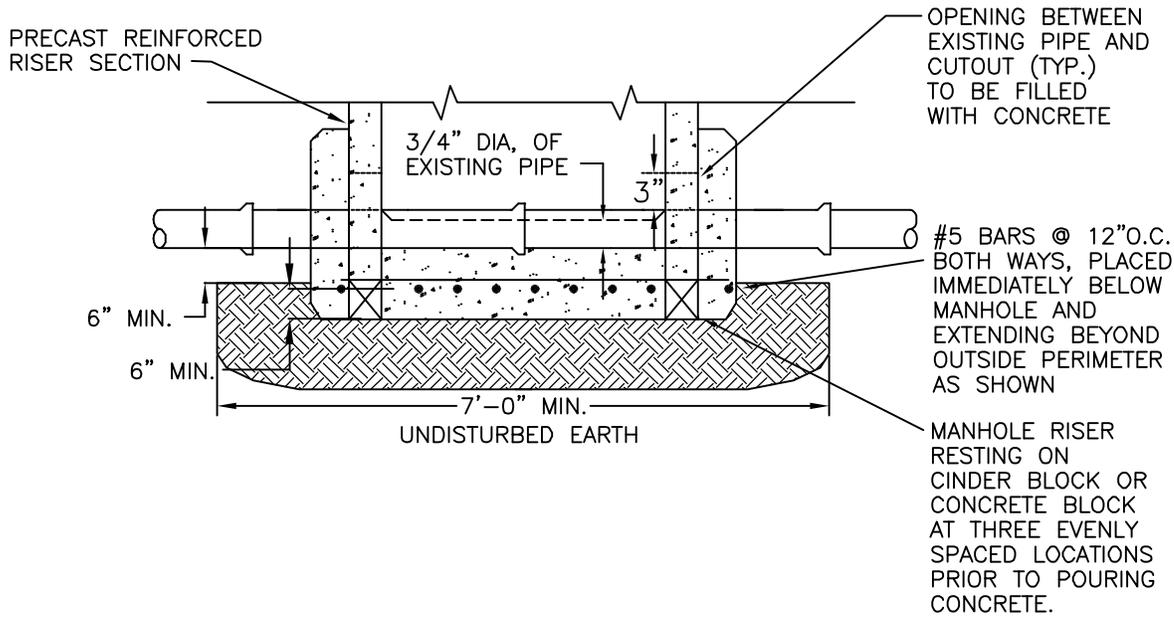
- 1) CORE DRILL HOLE INTO EXISTING MANHOLE WALL.
- 2) IF PVC OR D.I.P., INSTALL PSX: POSITIVE SEAL (PRESS-SEAL GASKET CORP.) OR APPROVED EQUAL.
- 3) RESHAPE AND OR RECONSTRUCT EXISTING CHANNEL FOR NEW FLOW PATTERN.
- 4) CUT OPENING IN EXISTING MANHOLE WALL EQUAL TO PROPOSED SANITARY SEWER O.D. PLUS 2" A WATERSTOP (FERNCO OR APPROVED EQUAL) SHALL BE PLACED AROUND THE PROPOSED SEWER CENTERED IN THE MANHOLE WALL AND EMBEDDED IN NON SHRINK GROUT WHICH SHALL BE USED TO SEAL THE ANNULAR OPENING.

2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
---	DATE OF ISSUE	1-9-04



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DETAIL #8
CONNECTION TO EXISTING
MANHOLE
WHITPAIN TOWNSHIP
 NOT TO SCALE



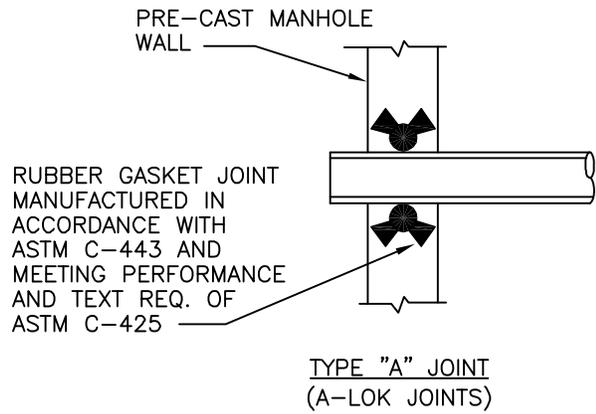
NOTE:

- EXISTING PIPE TO REMAIN UNTIL SATISFACTORY COMPLETION OF MANHOLE TESTING
- REMOVE CROWN OF EXISTING PIPE FLUSH WITH CONCRETE SHELF.

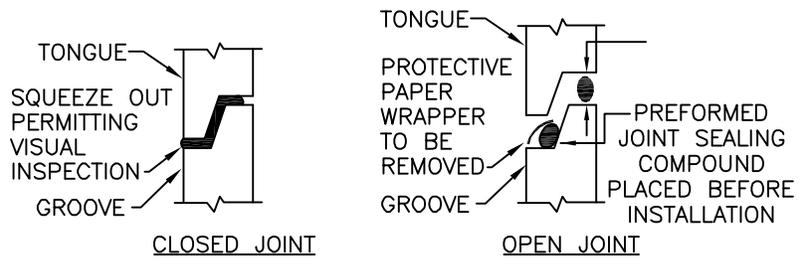
2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04


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DETAIL #9
DOGHOUSE MANHOLE DETAIL
WHITPAIN TOWNSHIP
 NOT TO SCALE



PIPE CONNECTION JOINT



PRECAST MANHOLE JOINT

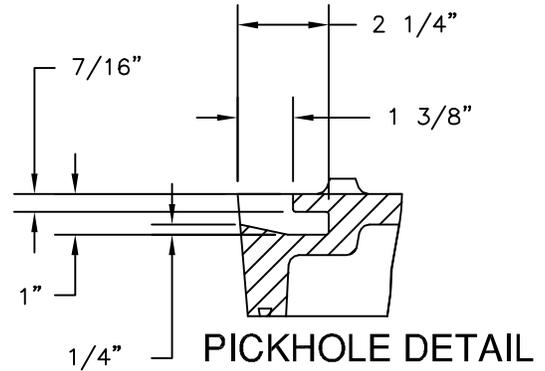
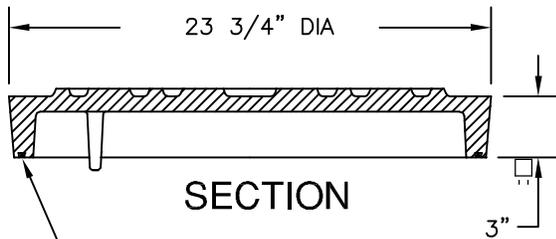
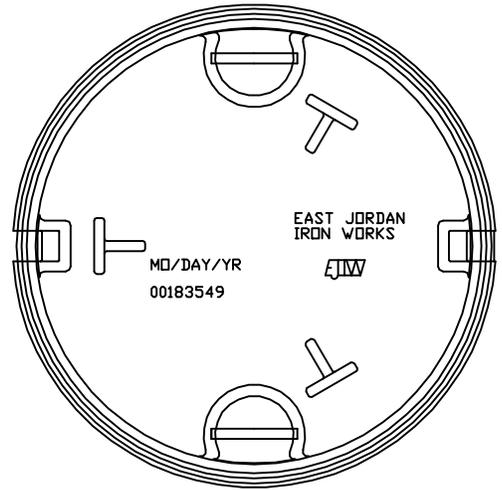
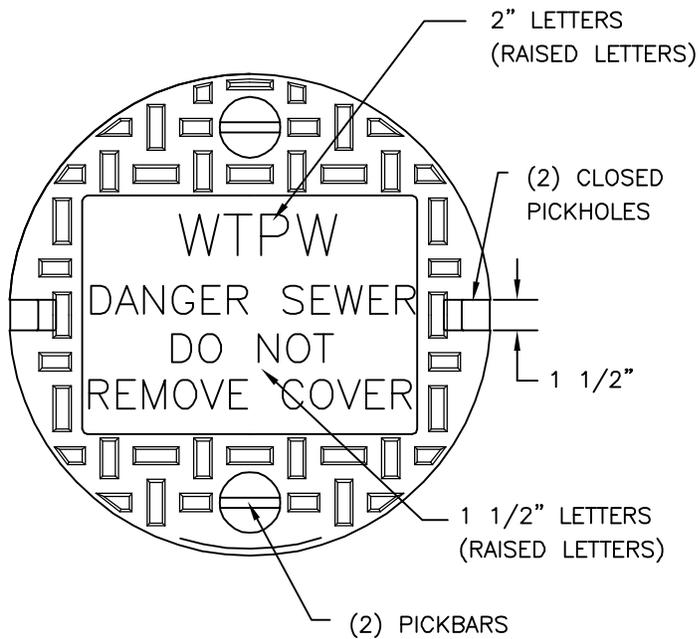
2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04



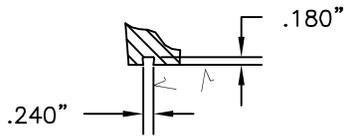
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DETAIL #10
JOINT DETAILS
WHITPAIN TOWNSHIP

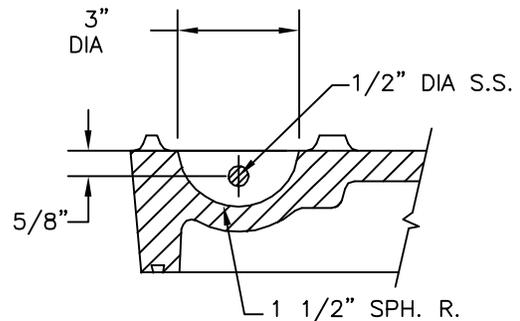
NOT TO SCALE



1/4" DIA
NEOPRENE GASKET



GASKET DETAIL

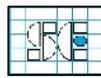


PICKBAR DETAIL

√ MACHINED SURFACE

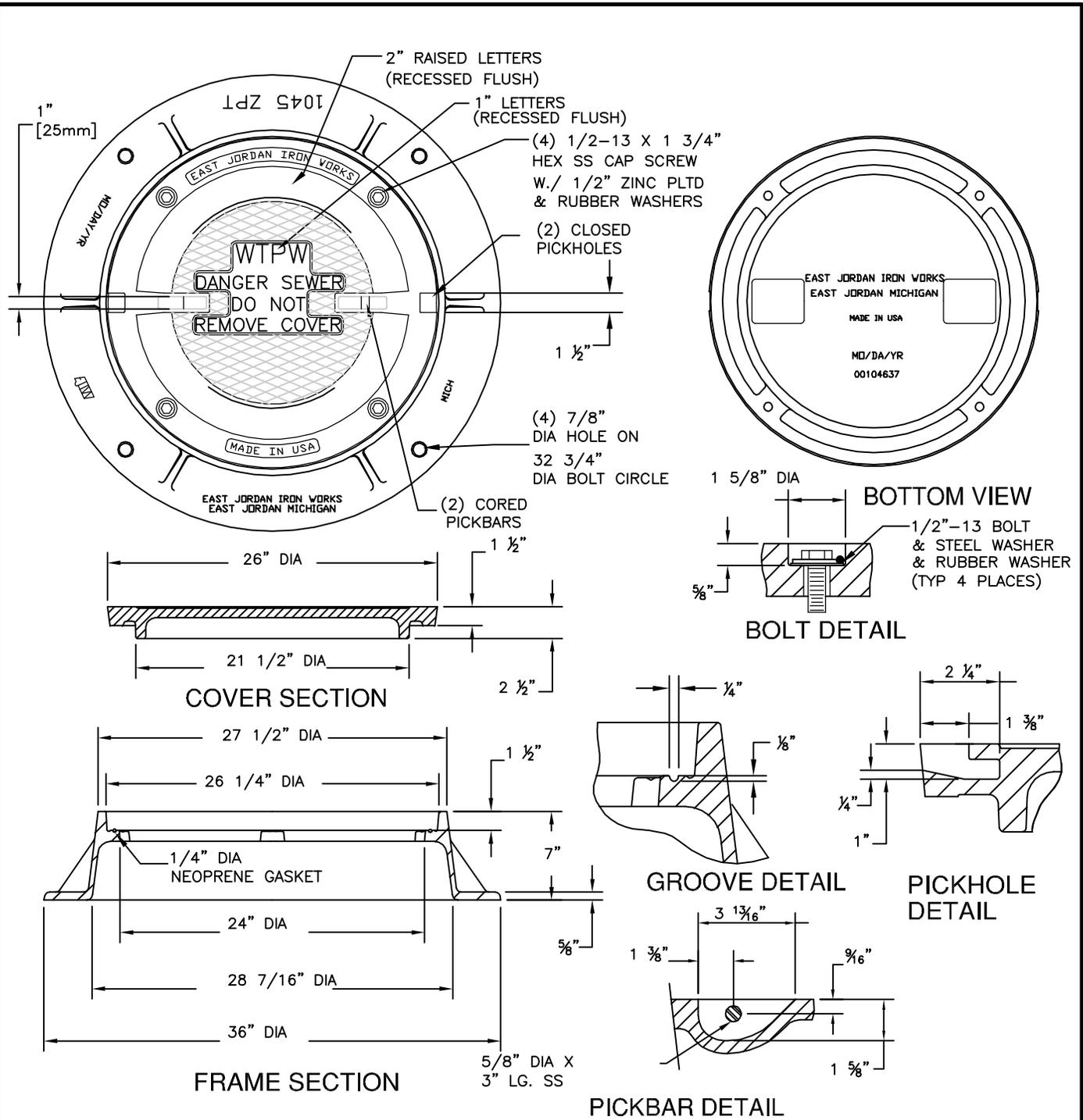
NOTE:
MANHOLE COVERS SHALL NOT BE COATED
EAST JORDAN IRON WORKS PRODUCT NO. 00183549

2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04

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DETAIL #11
24" CAST IRON MANHOLE COVER
WHITPAIN TOWNSHIP

NOT TO SCALE



√ MACHINED SURFACE

PRODUCT NO. 00104637

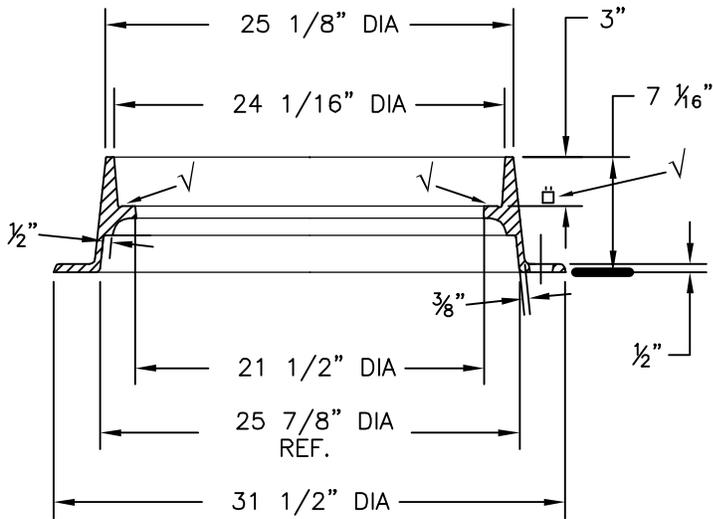
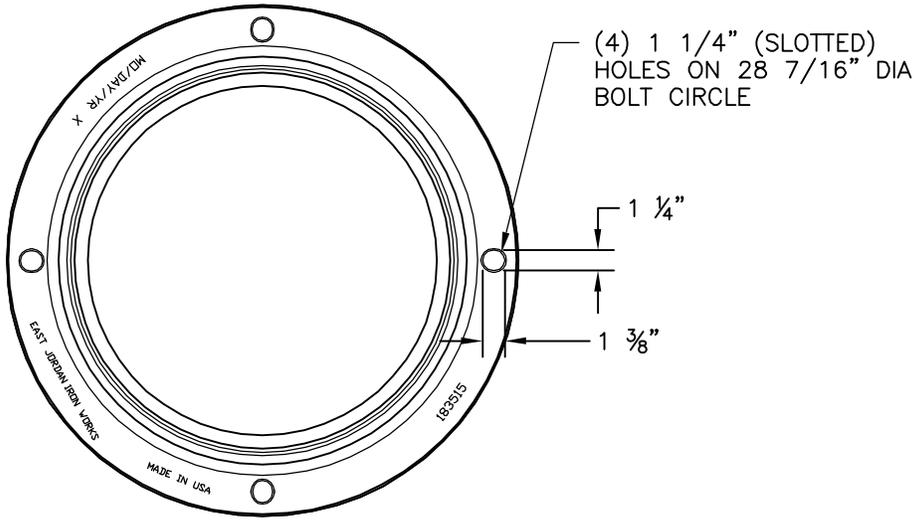
2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04



SCE S C Engineers, Inc.
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DETAIL #12
CAST IRON WATERTIGHT
MANHOLE FRAME AND COVER
WHITPAIN TOWNSHIP

NOT TO SCALE

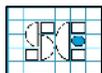


SECTION

√ MACHINED SURFACE

EAST JORDAN IRON WORKS PRODUCT NO. 00183515

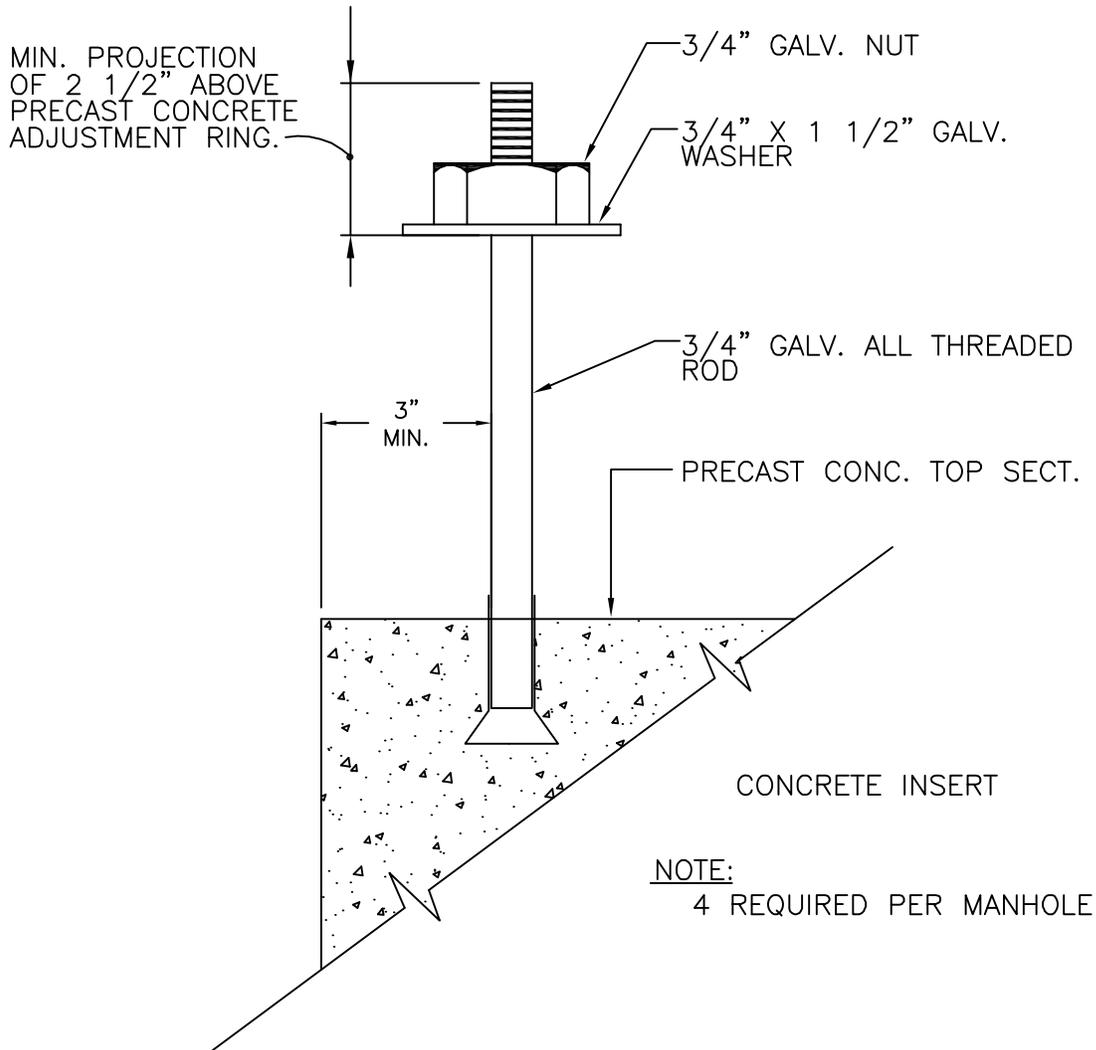
2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04



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DETAIL #13
MANHOLE FRAME
WHITPAIN TOWNSHIP

NOT TO SCALE



NOTE:
4 REQUIRED PER MANHOLE

2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04

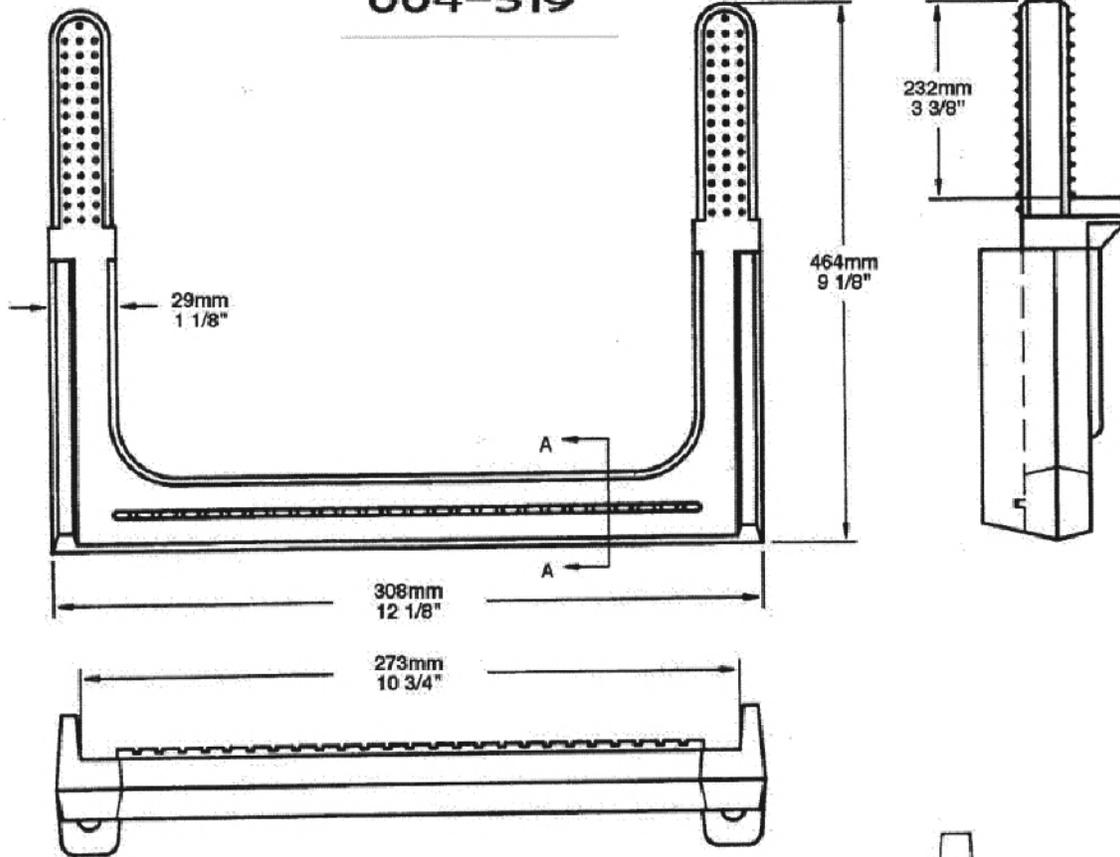


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DETAIL #14
ANCHOR BOLT DETAIL
WHITPAIN TOWNSHIP

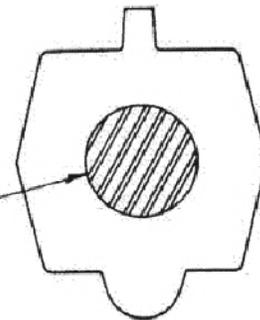
NOT TO SCALE

004-519

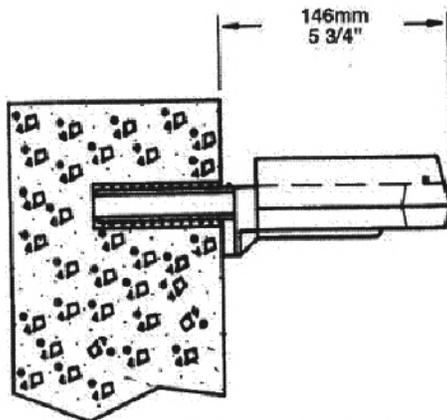


Copolymer Polypropylene Plastic

13mm 1/2" **GRADE 60 STEEL REINFORCEMENT**



SECTION-A



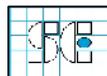
MEETS: ASTM-C-478
 ASTM-D-4101
 ASTM-A-615
 AASHTO-M-199



M.A. INDUSTRIES, INC.

P.O. Box 2322, 303 Dividend Dr. • Peachtree City, GA 30269 • Phone: (770) 487-7761 • Molding Sales Fax: (770) 487-1482 • Corporate Fax: (770) 631-4679

2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04

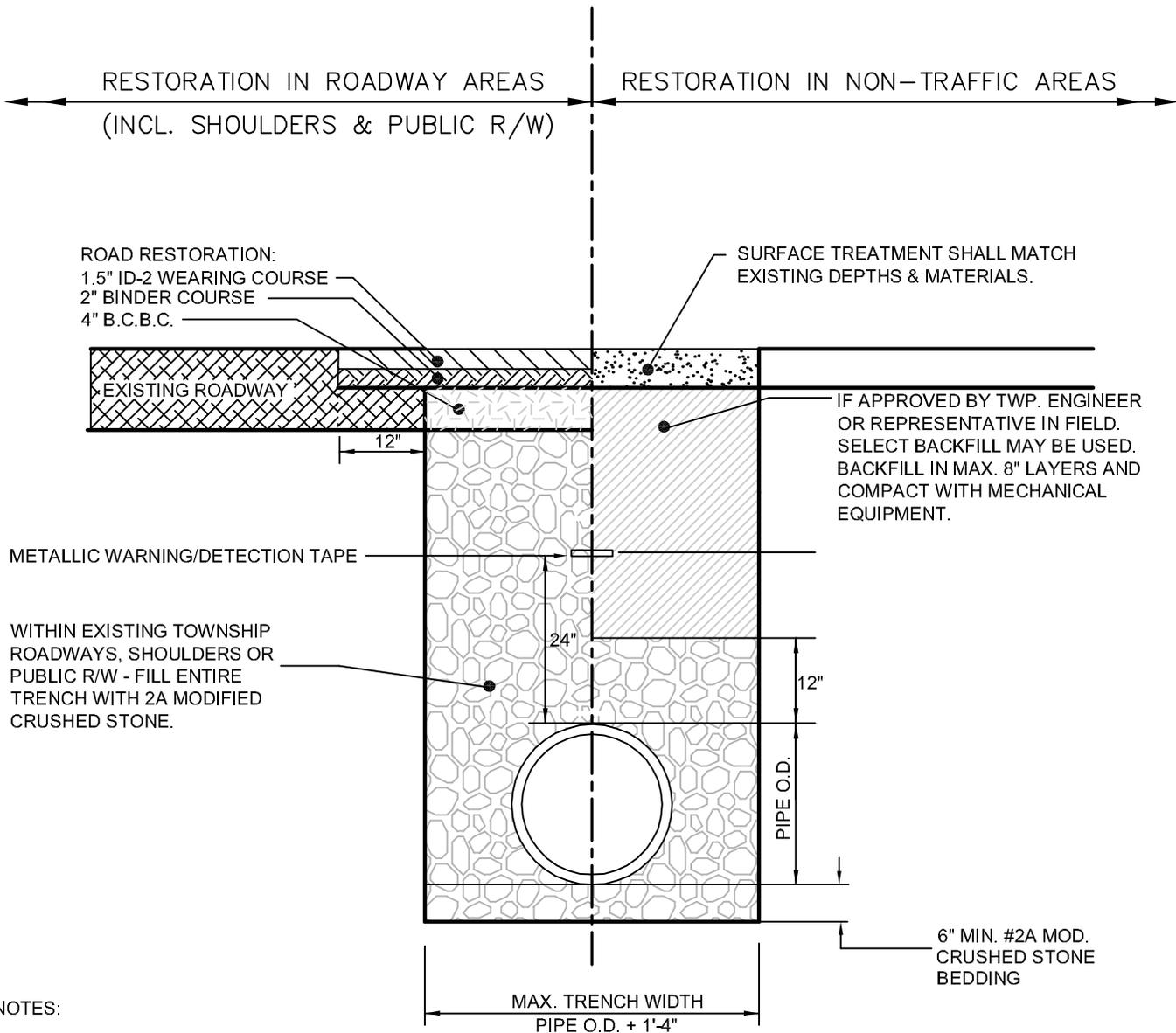


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DETAIL #15
MANHOLE STEP
WHITPAIN TOWNSHIP

NOT TO SCALE



NOTES:

1. WARNING/DETECTION TAPE:
 - A. THREE (3) INCHES WIDE METALLIC LINED, STENCILED EVERY TWO (2) FEET.
 - B. TAPE SHALL BE GREEN IN COLOR WITH "CAUTION BURIED SEWER LINE BELOW" ON IT.
 - C. TAPE IS TO BE PLACED APPROXIMATELY 24" ABOVE PIPE.
 - D. TAPE SHALL BE SET AT ALL MAINS AND LATERALS.

2. ROAD RESTORATION IN STATE ROADS SHALL COMPLY REQUIREMENTS OF W/HIGHWAY OCCUPANCY PERMIT.

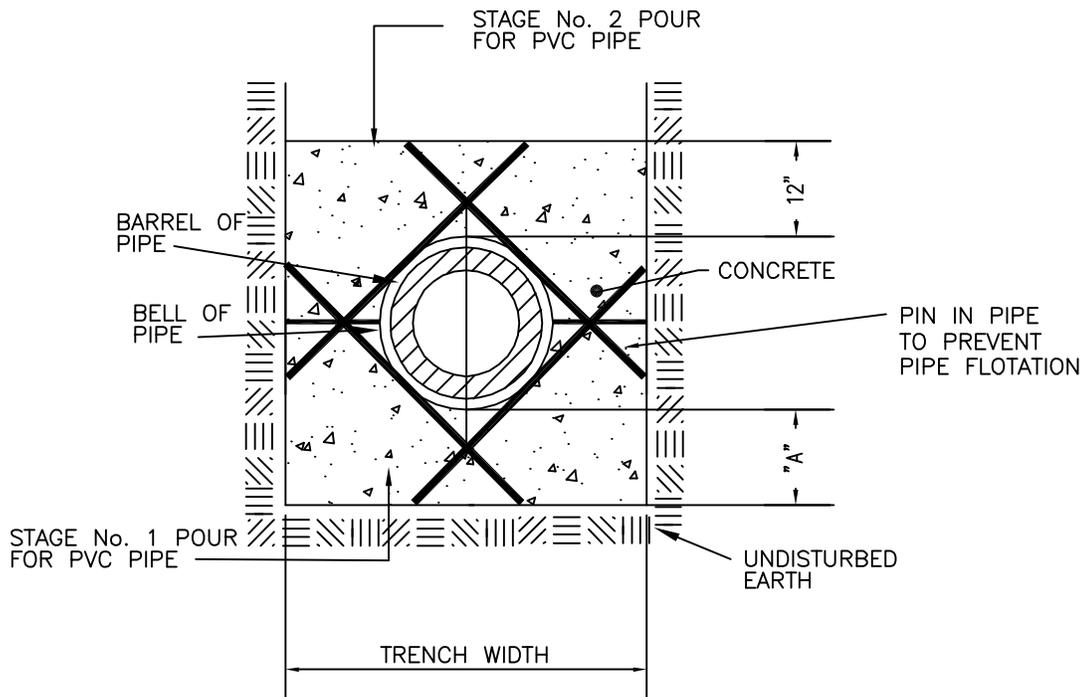
2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04



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DETAIL #16
SANITARY SEWER BACKFILL DETAIL
WHITPAIN TOWNSHIP

NOT TO SCALE



PIPE SIZE	A
4"-16"	6"
18"-48"	8"
54"-84"	10"

METHOD OF ENCASING P.V.C. PIPE IN CONCRETE

STAGE No. 1—INSTALL CONCRETE FROM BOTTOM OF TRENCH TO CENTERLINE OF PIPE.

STAGE No. 2—AFTER 24 HOUR PERIOD INSTALL CONCRETE FROM CENTERLINE OF PIPE TO 12" ABOVE BARREL OF PIPE.

2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04

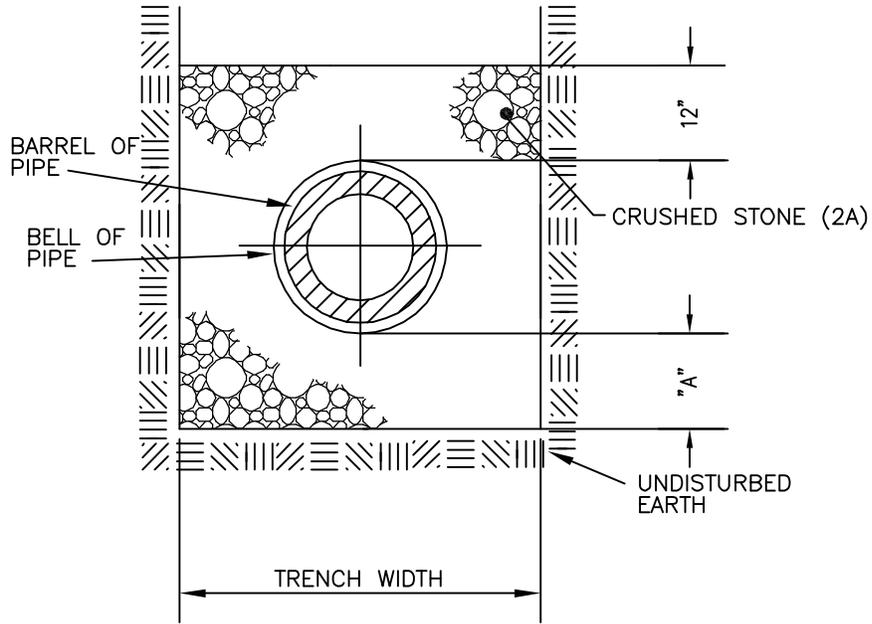


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DETAIL #17
CONCRETE ENCASEMENT DETAIL
WHITPAIN TOWNSHIP

NOT TO SCALE



PIPE SIZE	A
4"–16"	6"
18"–48"	8"
54"–84"	10"

2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04

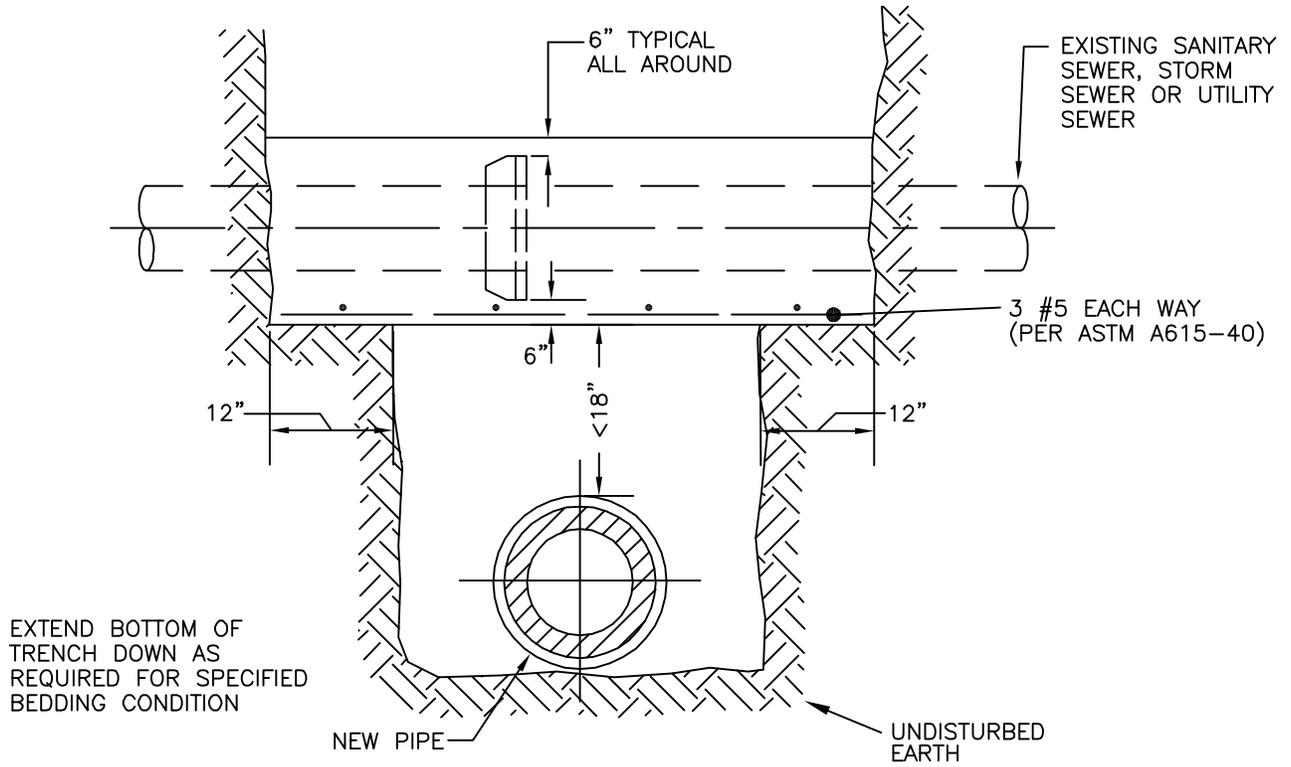


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DETAIL #18
CRUSHED STONE ENCASEMENT
DETAIL
WHITPAIN TOWNSHIP

NOT TO SCALE

CLASS "B" CONCRETE



ENCASEMENT OF EXISTING PIPE

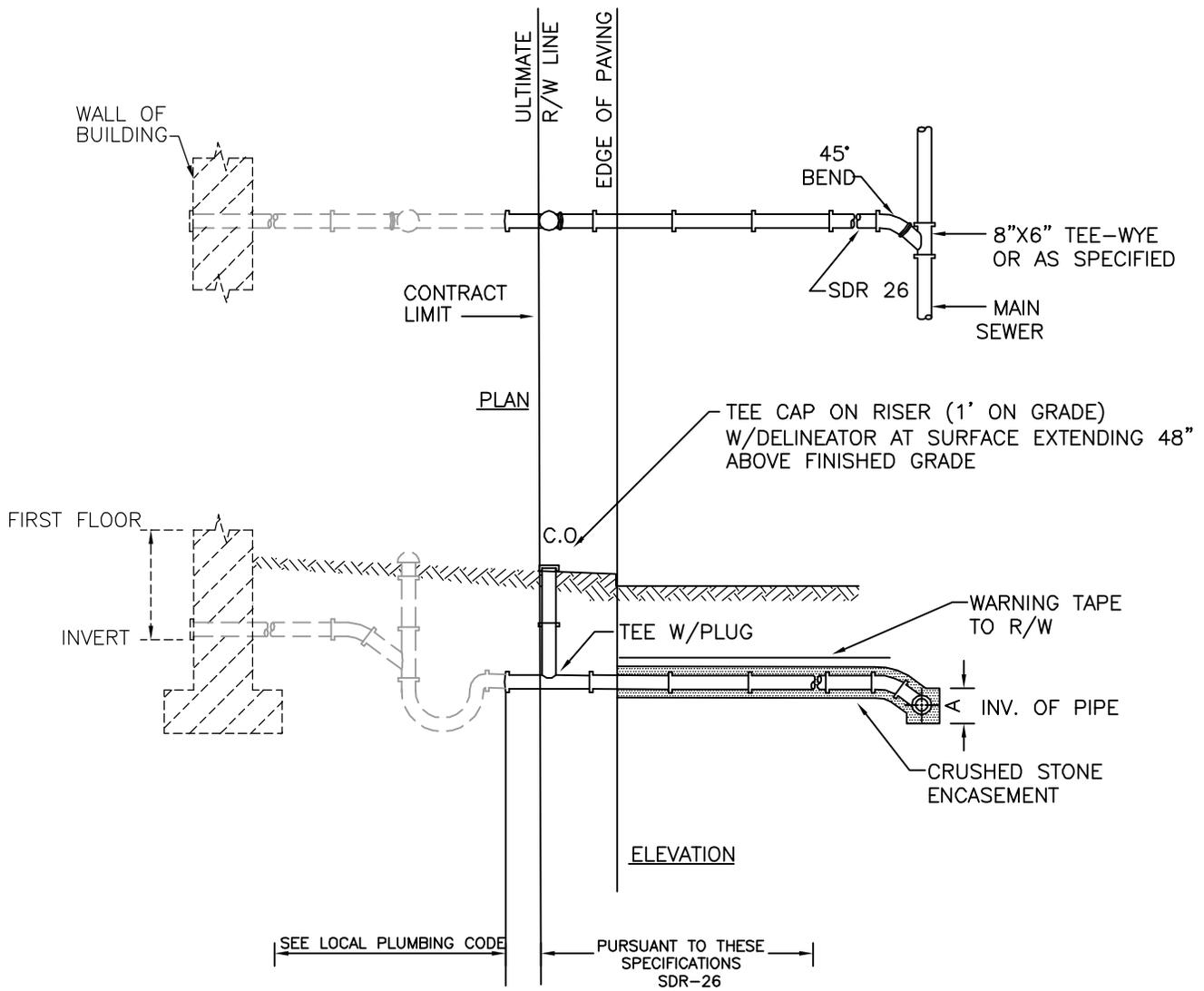
NOTES:

1. BACKFILL TO WITHIN 6" OF BELL
2. LEDGE 12" EACH SIDE OF TRENCH ON UNDISTURBED EARTH
3. UPON LEDGES AND BACKFILL, POUR CONCRETE 6" ON OUTSIDE BELL PLACE REINFORCED STEEL AS SHOWN
4. COMPLETE BACKFILLING AFTER CONCRETE HAS SET AT LEAST 24 HR.

2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
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DETAIL #19
ENCASEMENT OF EXISTING PIPE
DETAIL
WHITPAIN TOWNSHIP
 NOT TO SCALE



- NOTES:
1. MINIMUM GRADE OF LATERAL = 1/4" IN 1'-0", EXCEPT AS APPROVED OTHERWISE BY TOWNSHIP.
 2. 36" MINIMUM COVER.

4	GENERAL REVISIONS	04-24-12
3	REVISED PER TOWNSHIP	2-13-12
2	GENERAL REVISIONS	9-7-10
1	GENERAL REVISIONS	6-11-10
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04

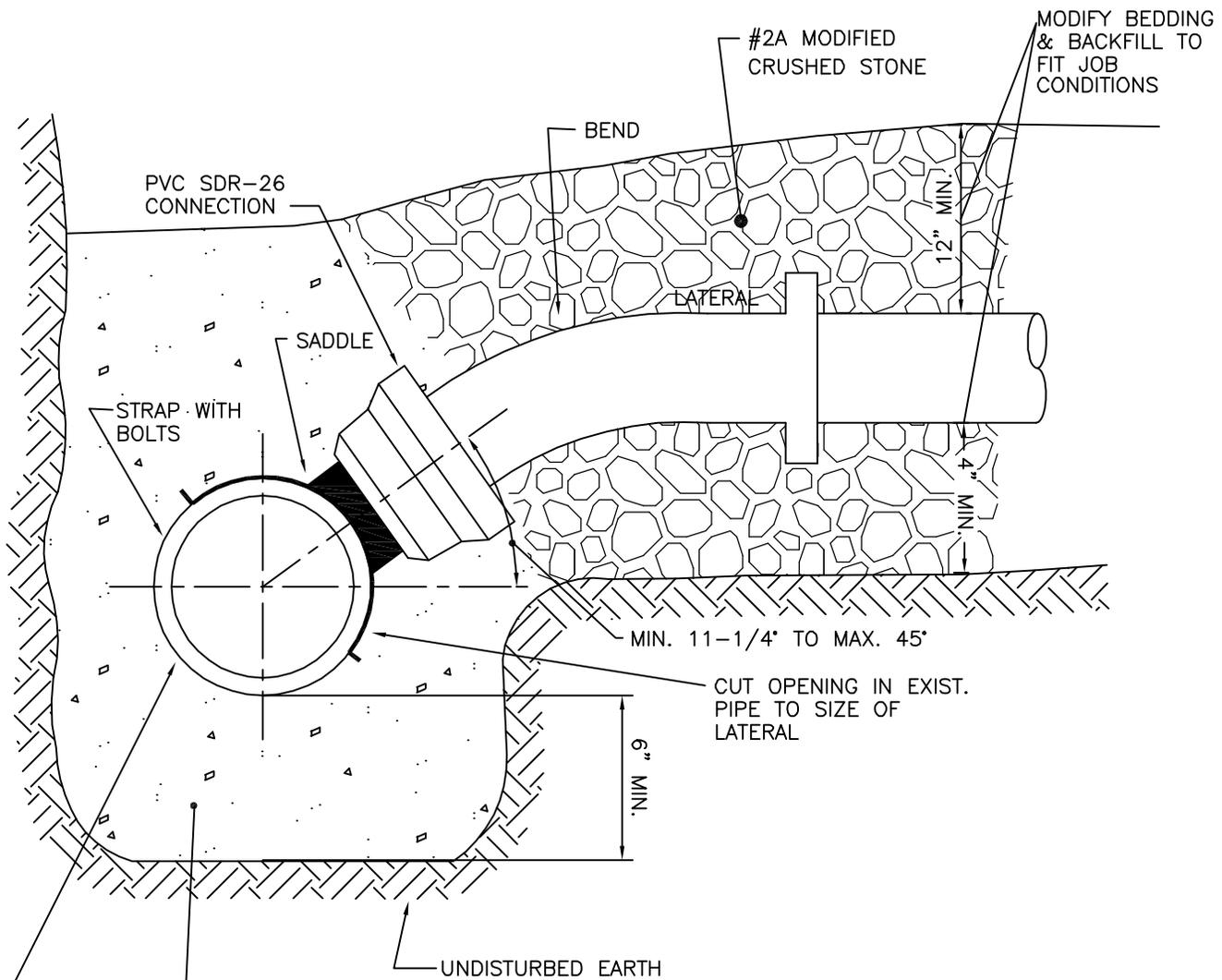


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DETAIL #20
TYPICAL LATERAL CONNECTION
FIRST FLOOR SERVICE
WHITPAIN TOWNSHIP

NOT TO SCALE

WP-20.DWG



PVC SDR-26 CONNECTION

BEND

#2A MODIFIED CRUSHED STONE

MODIFY BEDDING & BACKFILL TO FIT JOB CONDITIONS

SADDLE

LATERAL

STRAP WITH BOLTS

MIN. 11-1/4" TO MAX. 45"

CUT OPENING IN EXIST. PIPE TO SIZE OF LATERAL

6" MIN.

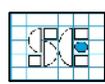
UNDISTURBED EARTH

SEWER MAIN

CONCRETE HAUNCH AROUND EACH TEE SADDLE WITH A MIN. 6" COVER

PRIOR TO INSTALLING CONCRETE HAUNCH PAINT SADDLE CONNECTION WITH BITUMASTIC COATING (CAST IRON SOIL PIPE ONLY).

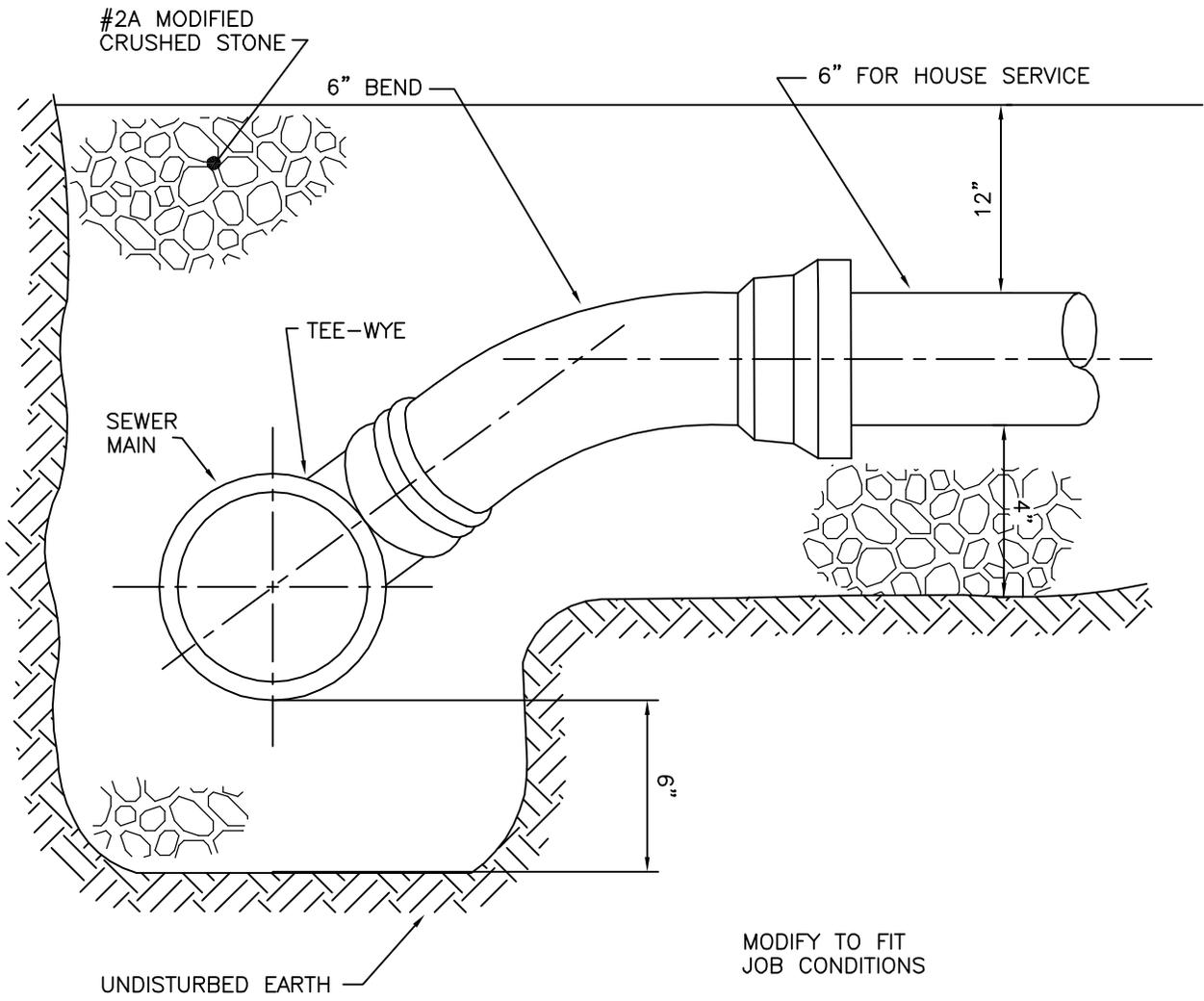
2	GENERAL REVISIONS	04-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04


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DETAIL #21
SADDLE CONNECTION
(TIE-IN TO EXISTING SEWER)
WHITPAIN TOWNSHIP

NOT TO SCALE

WP-21.DWG

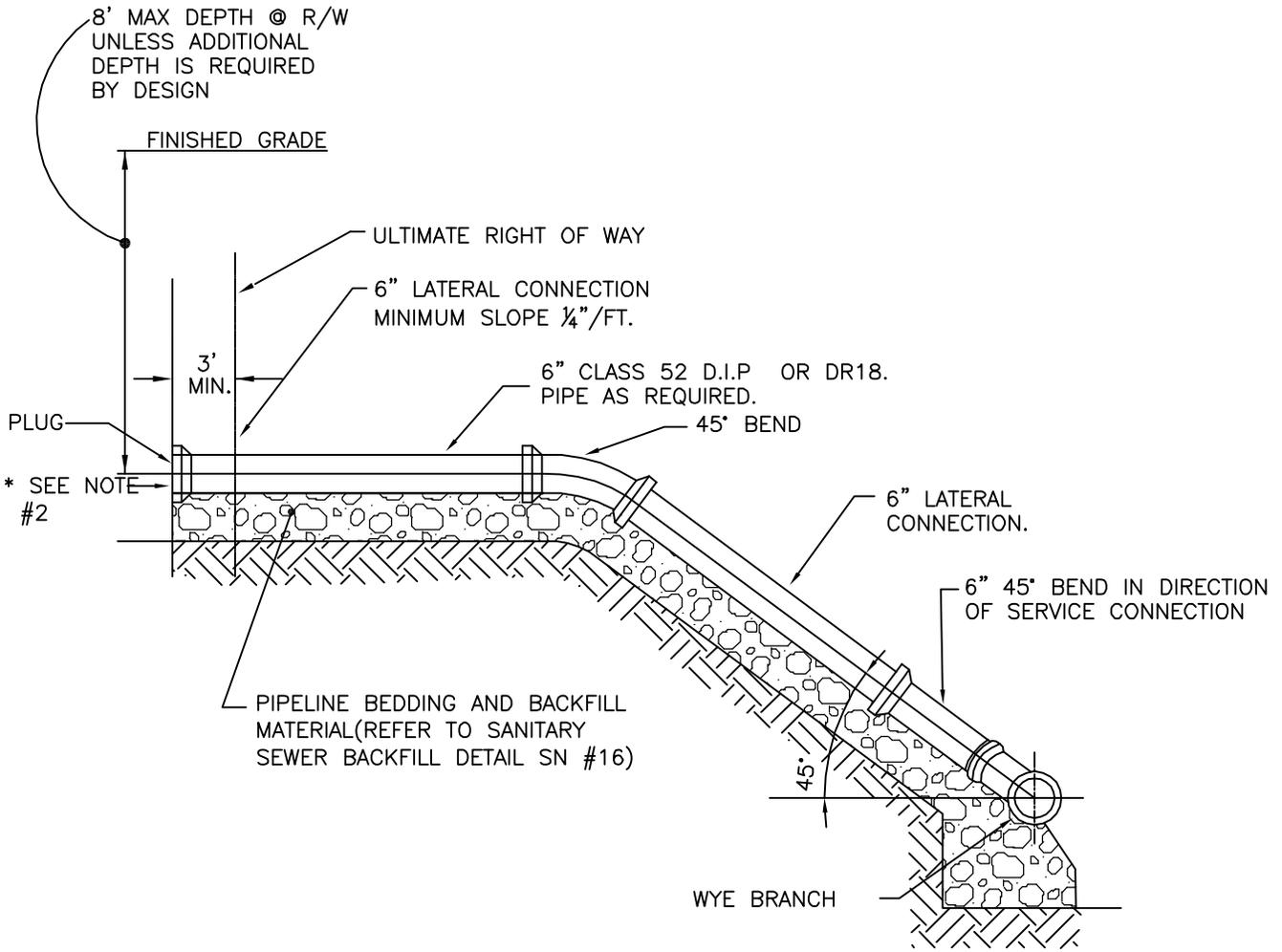


2	GENERAL REVISIONS	04-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04


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DETAIL #22
SUPPORT FOR "Y" BRANCH
(NEW CONSTRUCTION)
WHITPAIN TOWNSHIP
 NOT TO SCALE

WP-22.DWG



NOTE:
 1. 6" LATERAL TO BE EXTENDED TO ULT. R/W.

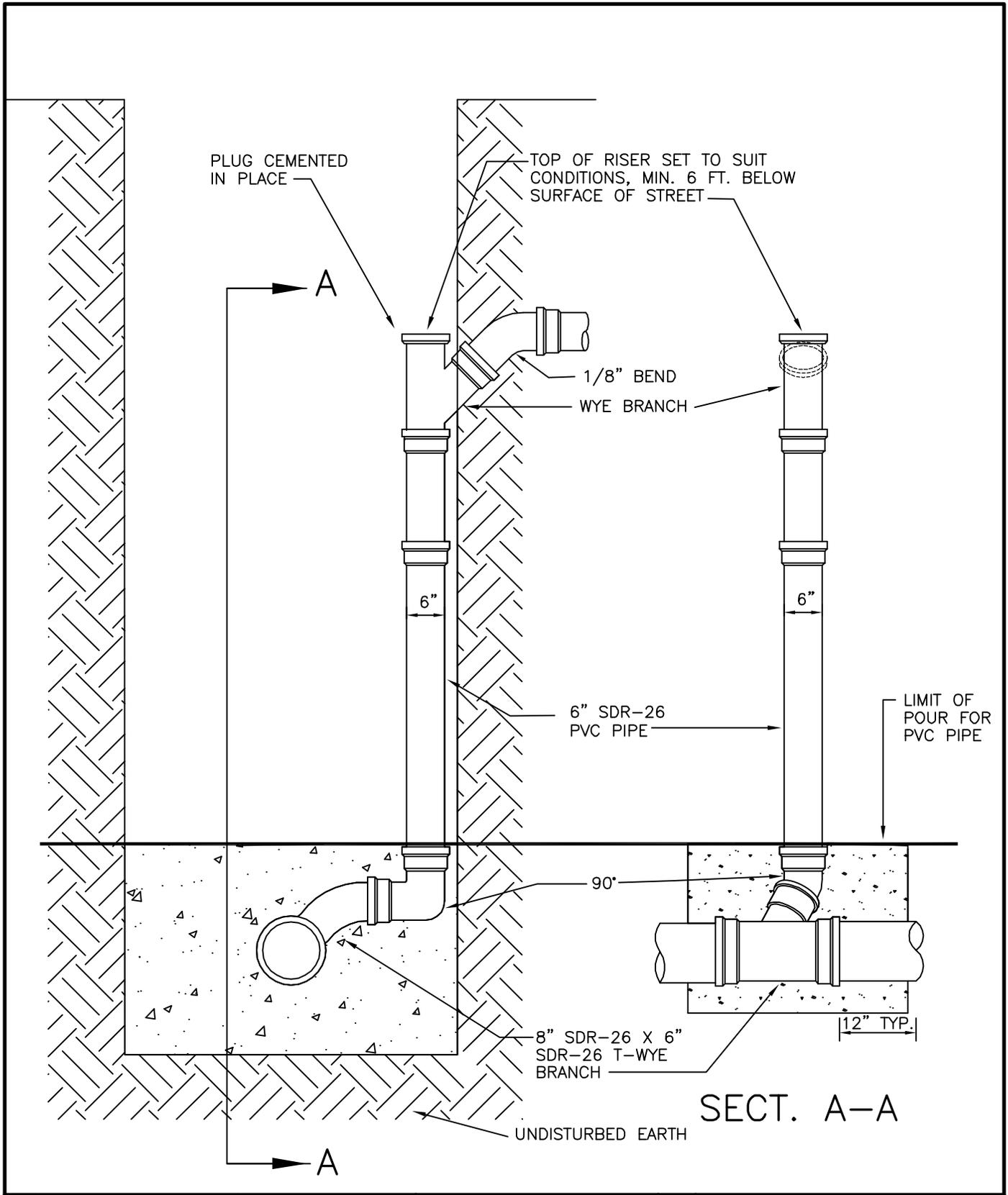
1	GENERAL REVISIONS	04-24-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04



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DETAIL #23
DEEP CUT LATERAL
WHITPAIN TOWNSHIP
 NOT TO SCALE

WP-23.DWG



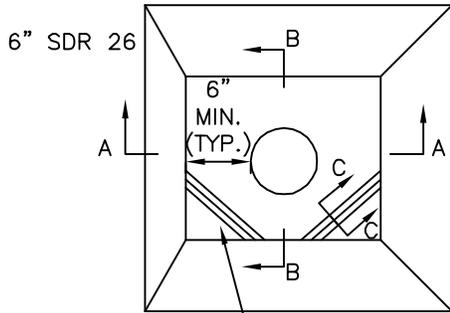
2	GENERAL REVISIONS	04-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04



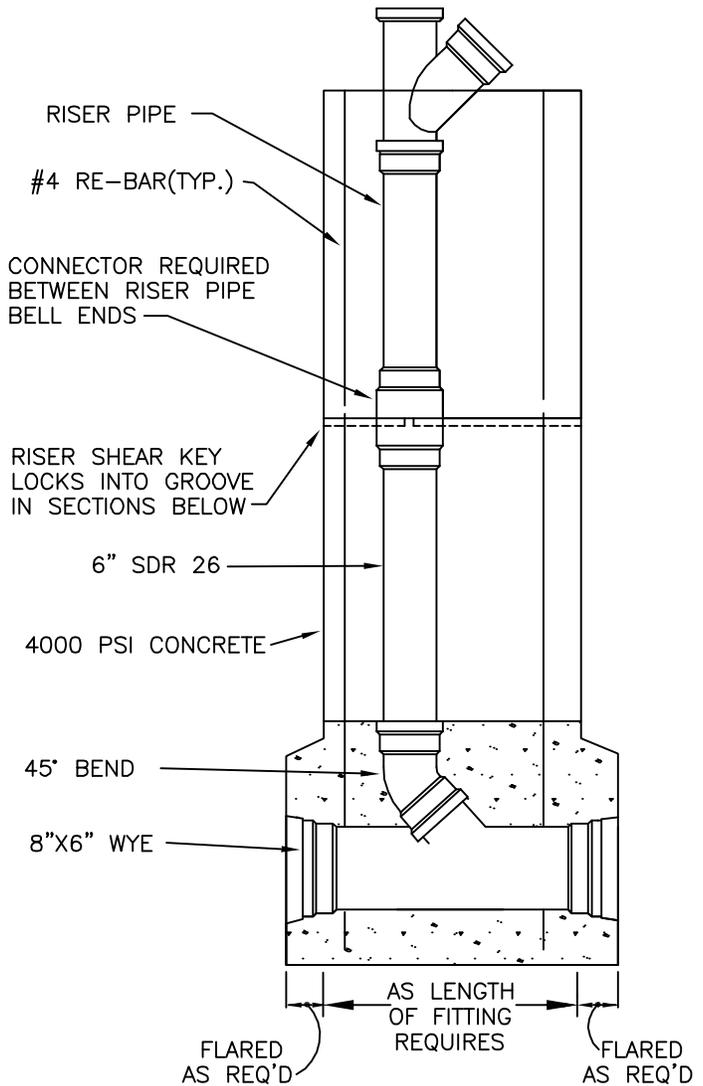
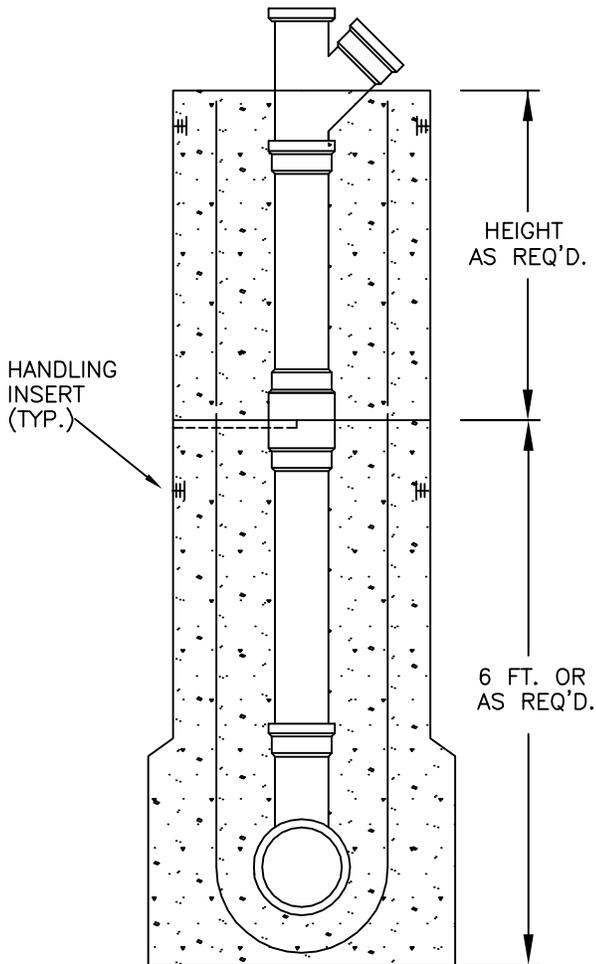
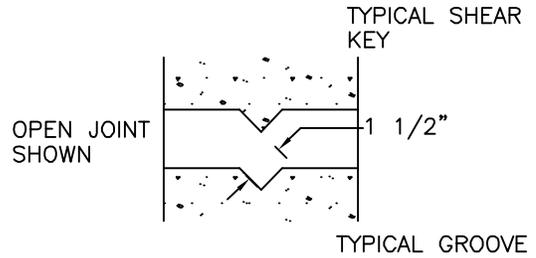
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DETAIL #24
DEEP CUT LATERAL
WHITPAIN TOWNSHIP
 NOT TO SCALE

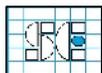
WP-24.DWG



SHEAR KEY & GROOVE, TOP & BOTTOM EACH PIECE



No.	REVISIONS	DATE
2	GENERAL REVISIONS	04-24-12
1	REVISED PER TOWNSHIP	2-13-12
DATE OF ISSUE		
1-9-04		



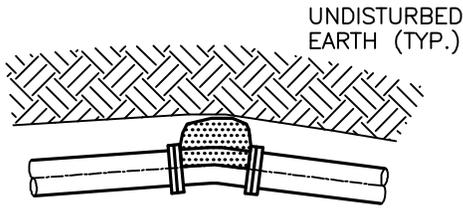
S C Engineers, Inc.
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DETAIL #25
PRECAST FOR DEEP HOUSE CONNECTION
WHITPAIN TOWNSHIP

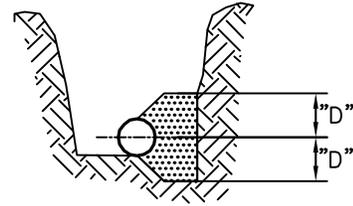
NOT TO SCALE

WP-25.DWG

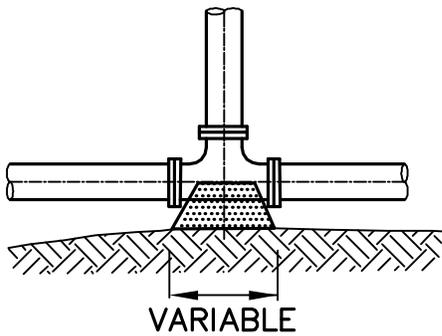
90° TO TANGENT
OF PIPE



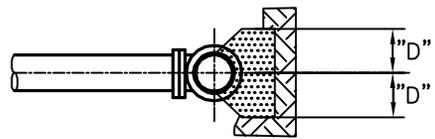
3,750 P.S.I. CONCRETE



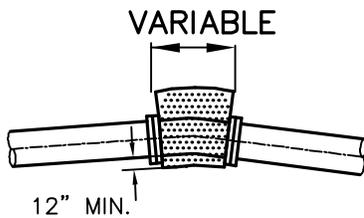
HORIZONTAL BENDS



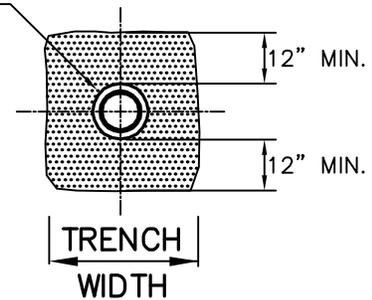
3,750 P.S.I. CONCRETE



HORIZONTAL TEES



3,750 P.S.I. CONCRETE
BELL OF PIPE



VERTICAL BENDS

NOTES:

1. THRUST BLOCKS MUST BEAR AGAINST UNDISTURBED EARTH.
2. SIZE OF THRUST BLOCKS TO BE DETERMINED INDIVIDUALLY AT TIME OF CONSTRUCTION.
3. HARNESS OR RESTRAINT PIPE IF ORDERED.
4. "D" IS EQUAL TO DIAMETER OF PIPE.

2	GENERAL REVISIONS	04-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04

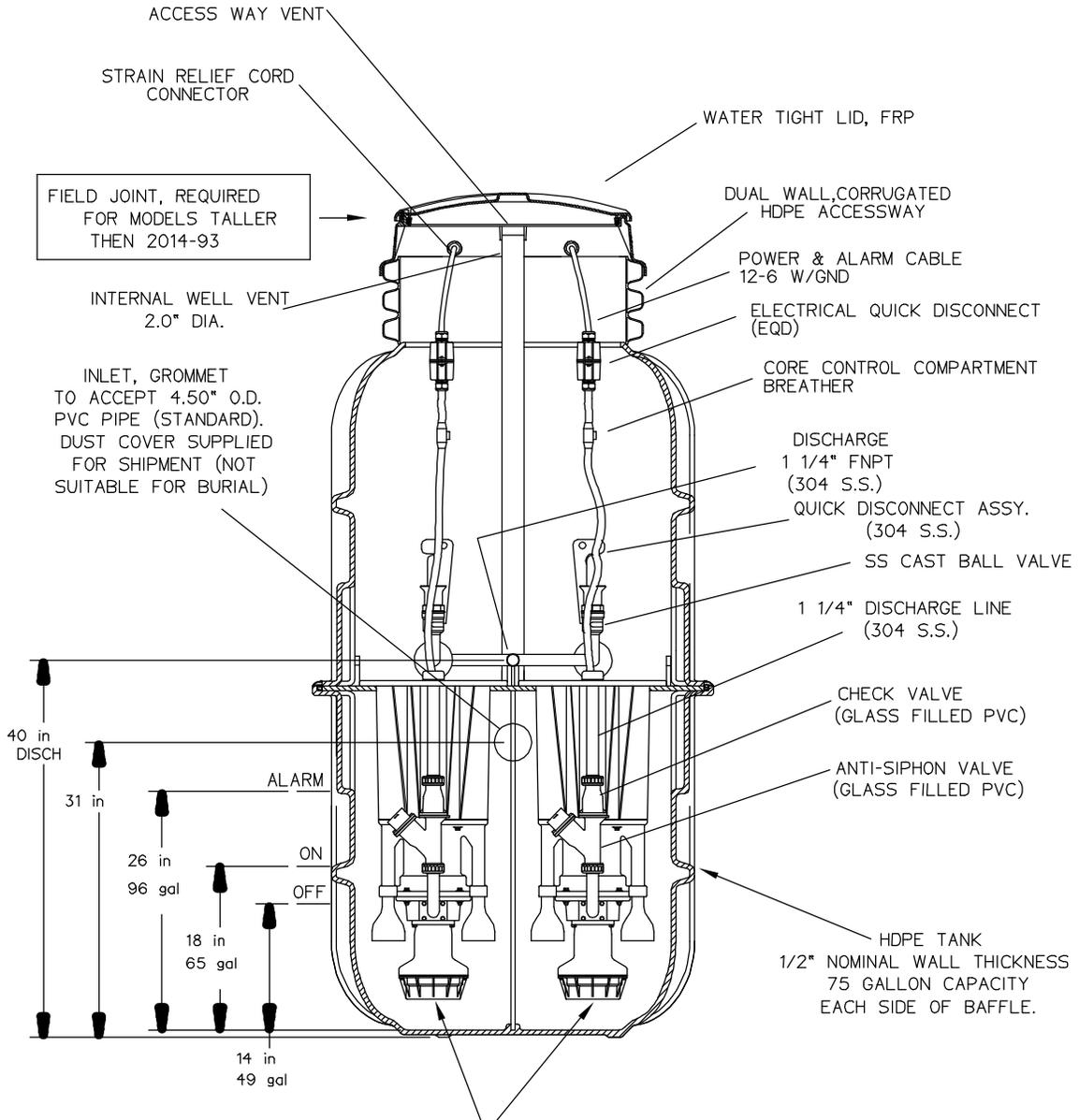


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DETAIL #26
TYPICAL THRUST BLOCKS
WHITPAIN TOWNSHIP

NOT TO SCALE



SEMI-POSITIVE DISPLACEMENT TYPE PUMP
 DIRECTLY DRIVEN BY A 1 HP MOTOR
 CAPABLE OF DELIVERING 9 gpm AT 138' T.D.H.
 (34 lpm AT 42m T.D.H.)

NOTE: A CONCRETE ANCHOR
 IS REQUIRED TO PREVENT THE TANK FROM FLOATING.
 SEE INSTALLATION INSTRUCTIONS
 OR
 SPECIFIC CUT SHEET
 FOR SIZE AND WEIGHT OF ANCHOR

E-ONE MODEL: DH 152

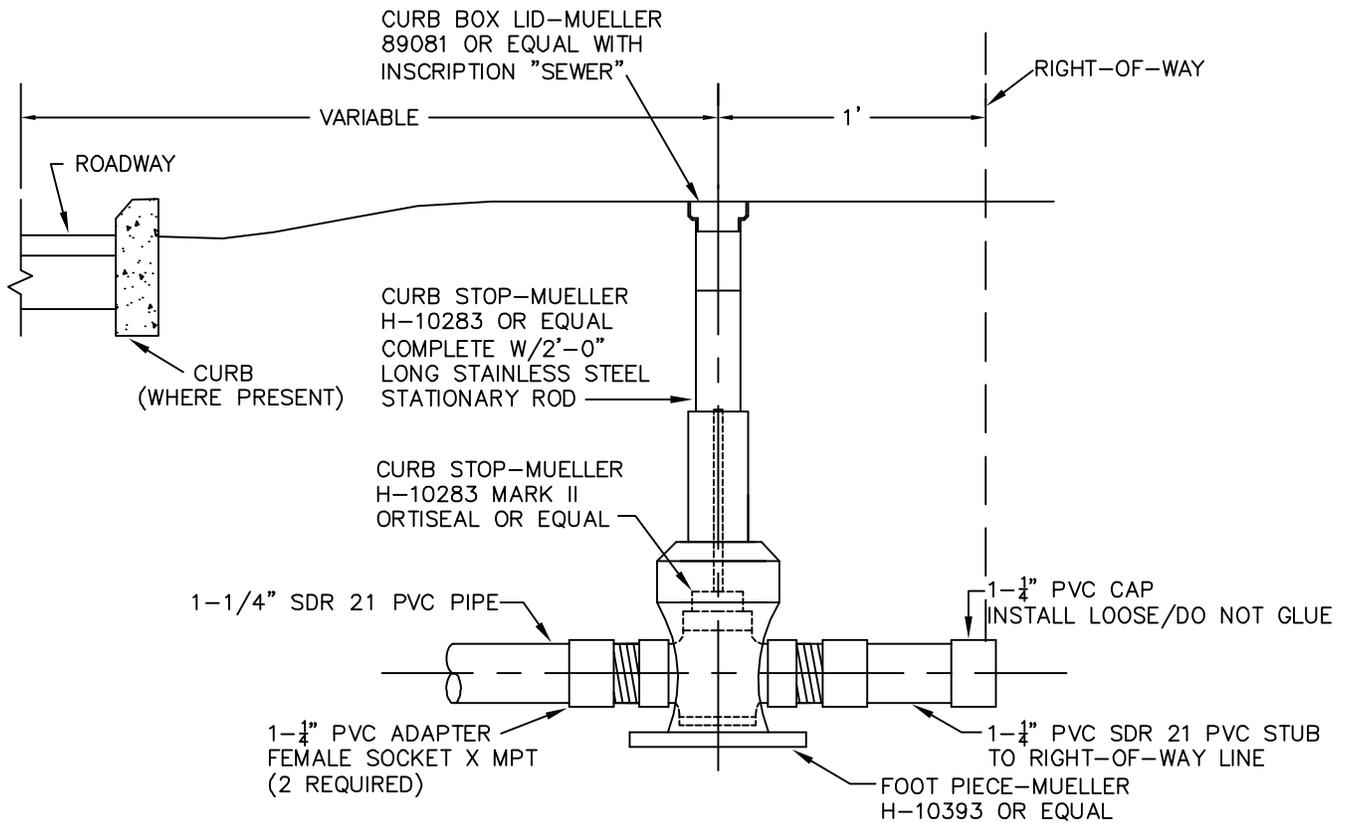
2	GENERAL REVISIONS	04-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04


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DETAIL #27
DUPLEX GRINDER PUMP
FOR NEW CONSTRUCTION
WHITPAIN TOWNSHIP

NOT TO SCALE

WP-27.DWG



NOTES:

1. CURB BOX SHALL BE PLACED 1' INSIDE ROAD RIGHT-OF-WAY LINE.
2. DO NOT PLACE CURB BOX IN PAVED AREAS
3. PROVIDE MINIMUM COVER OF 4' WITH RESPECT TO CURB BOX.

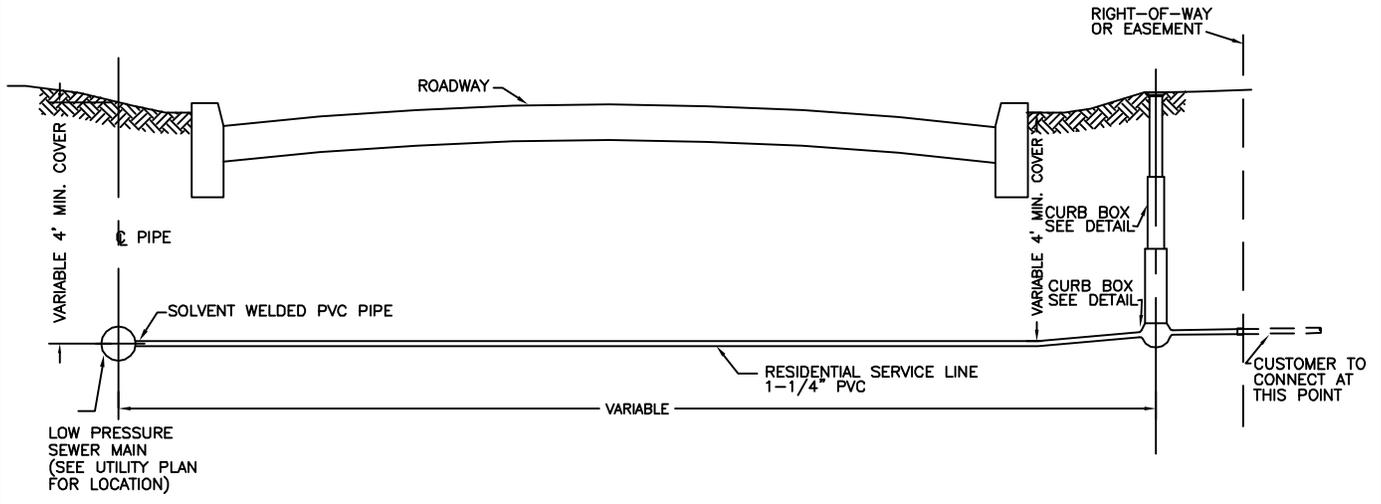
2	GENERAL REVISIONS	04-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04



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**DETAIL #28
TYPICAL CURB STOP
AND CURB BOX
WHITPAIN TOWNSHIP**

NOT TO SCALE



2	GENERAL REVISIONS	04-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04



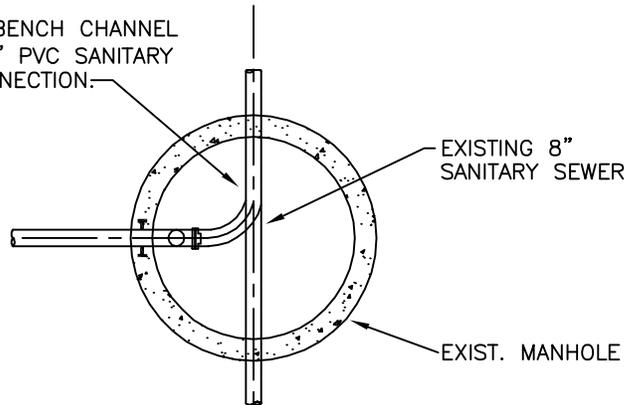
SCE **Engineers, Inc.**
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DETAIL #29
PRESSURE SEWER
SERVICE CONNECTION
WHITPAIN TOWNSHIP

NOT TO SCALE

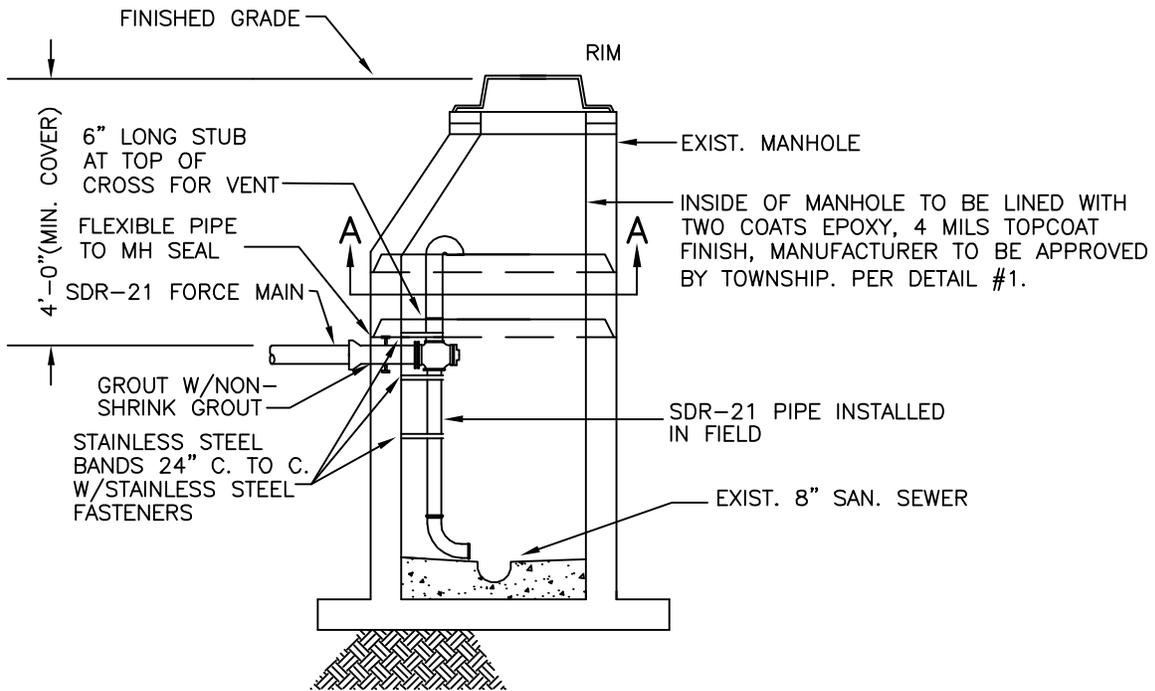
WP-29.DWG

MODIFY EXISTING BENCH CHANNEL FOR PROPOSED 8" PVC SANITARY SEWER DROP CONNECTION.

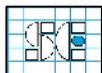


NOTE:
CUT OPENING IN EXISTING MANHOLE WALL, AT ONE (1) LOCATION, EQUAL TO PROPOSED SANITARY SEWER OUTSIDE DIAMETER PLUS 2". A WATERSTOP (FERNCO OR APPROVED EQUAL) SHALL BE PLACED AROUND THE PROPOSED SEWER, CENTERED IN THE MANHOLE WALL AND EMBEDDED IN NON-SHRINK GROUT WHICH SHALL BE USED TO SEAL THE ANNULAR OPENED.

SECTION A-A



2	GENERAL REVISIONS	04-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04

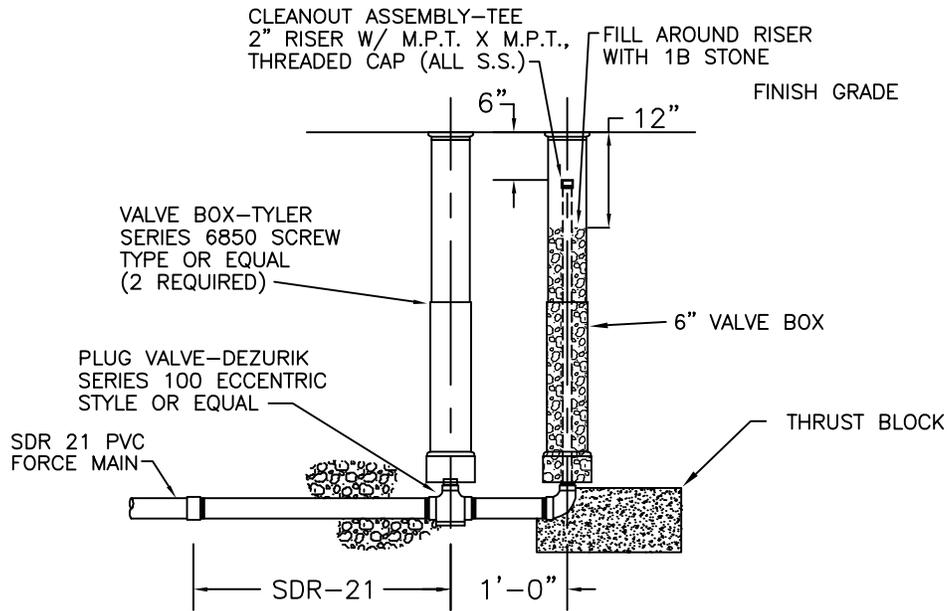


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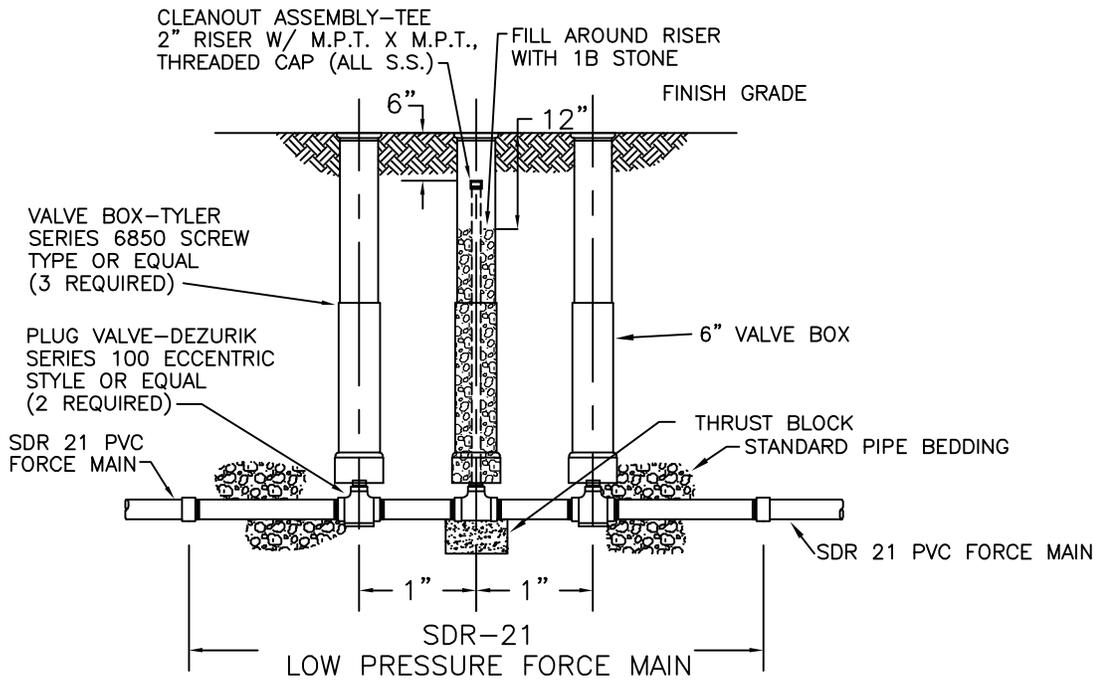
DETAIL #30
**PRESSURE SEWER CONNECTION TO EXISTING
SANITARY SEWER (PROPOSED INSIDE DROP)**
WHITPAIN TOWNSHIP

NOT TO SCALE

WP-30.DWG



TERMINAL CLEANOUT



IN-LINE CLEANOUT

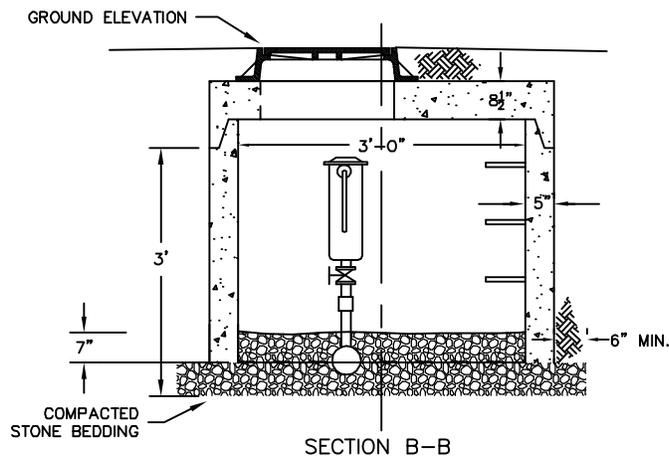
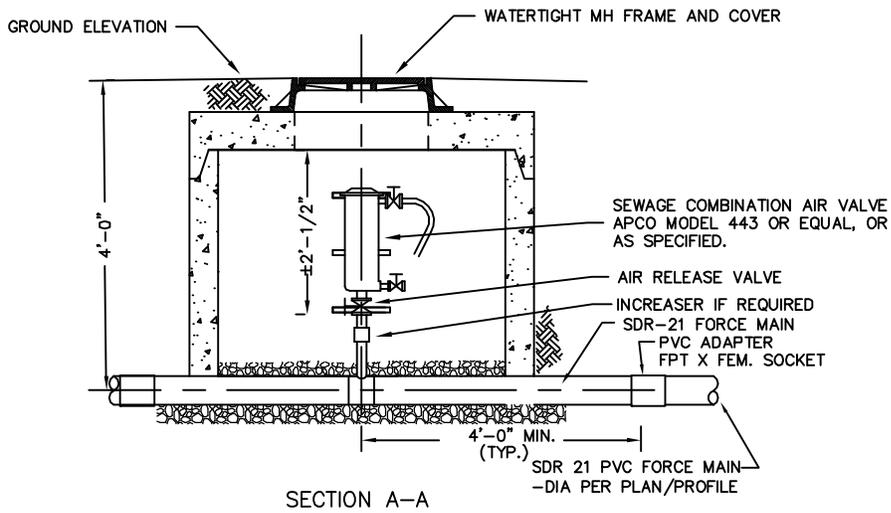
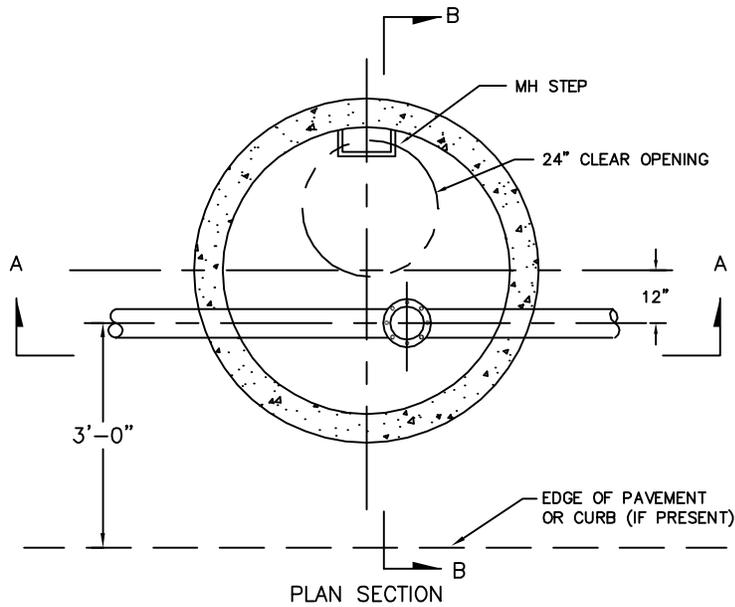
2	GENERAL REVISIONS	04-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
---	DATE OF ISSUE	1-9-04



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**DETAIL #31
PRESSURE SEWER
CLEANOUT DETAILS
WHITPAIN TOWNSHIP**

NOT TO SCALE



NOTE:
WITHIN ROADWAY CONCRETE
PIPE MANHOLE W/LOAD BEARING
MANHOLE COVER

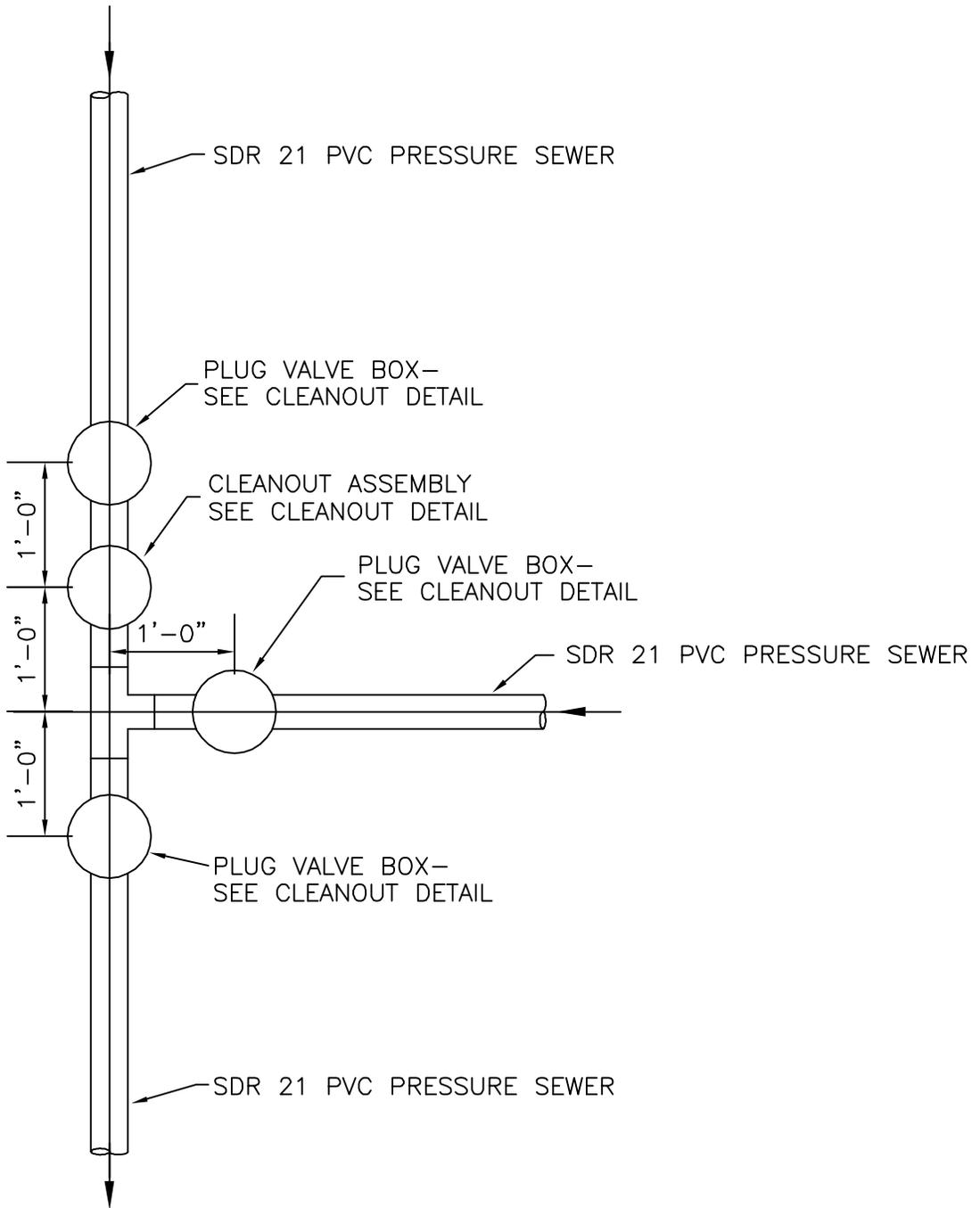
2	GENERAL REVISIONS	4-24-12
1	REVISED PER TOWNSHIP	2-13-12
No.	REVISIONS	DATE
—	DATE OF ISSUE	1-9-04



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DETAIL #32
AIR VALVE CHAMBER
WHITPAIN TOWNSHIP

NOT TO SCALE



1	GENERAL REVISIONS	04-24-12
No.	REVISIONS	DATE
	DATE OF ISSUE	1-9-04



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DETAIL #33
LOW PRESSURE SEWER SYSTEM
FORCE MAIN JUNCTION DETAIL
WHITPAIN TOWNSHIP

NOT TO SCALE