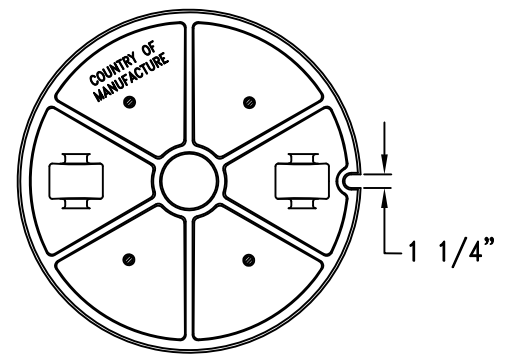
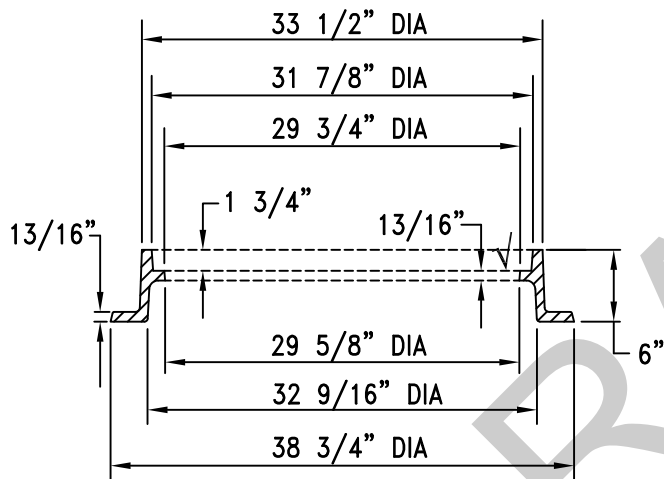


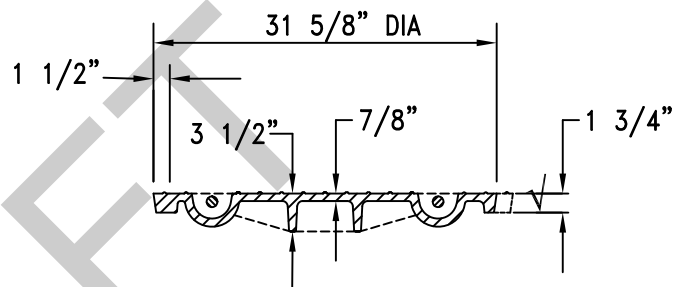
FRAME AND COVER – PLAN VIEW
N.T.S.



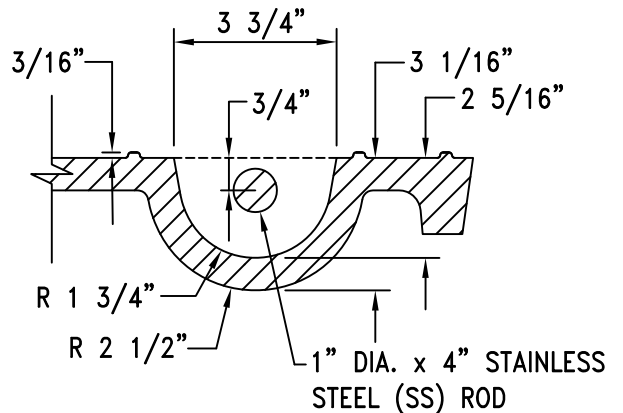
COVER – BOTTOM VIEW
N.T.S.



FRAME SECTION A-A
N.T.S.



COVER SECTION
N.T.S.



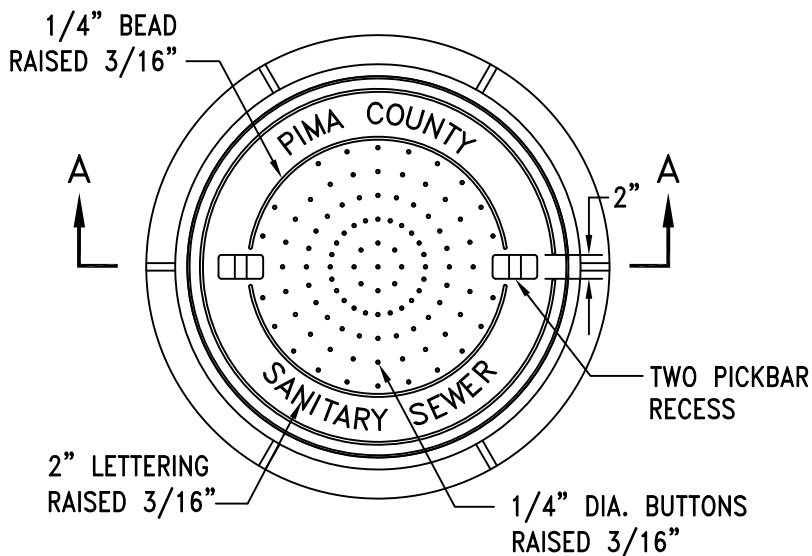
PICKBAR RECESS DETAIL
N.T.S.

✓ DENOTES MACHINED SURFACE

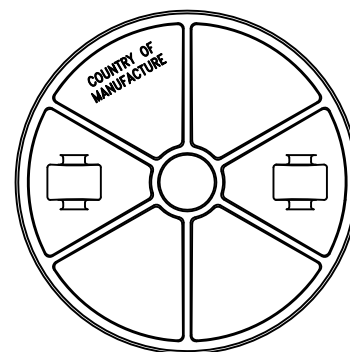
NOTES:

1. COVER STYLE MAY SLIGHTLY VARY WITH APPROVAL BY THE FIELD ENGINEER.
2. THE COVER SHALL HAVE PICK BAR RECESSES.
3. FRAME WEIGHT 200 LBS. (APPROX.) AND COVER WEIGHT 217 LBS. (APPROX.)
4. REFER TO SECTION 3.3.2(H) FOR MORE INFORMATION.

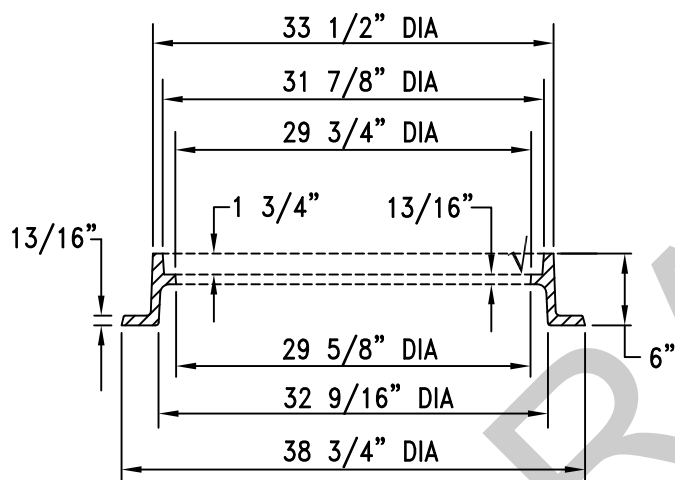
ISSUED:	STANDARD DETAIL		DETAIL NO.
8/92 (WWM-214.0)	30" FRAME AND COVER		RWRD 216
REVISED:			SHEET 1 OF 1
12/12			



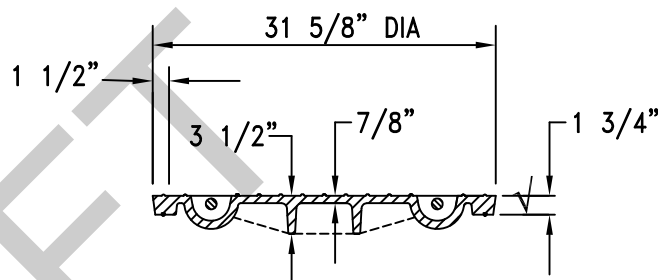
FRAME AND COVER – PLAN VIEW
N.T.S.



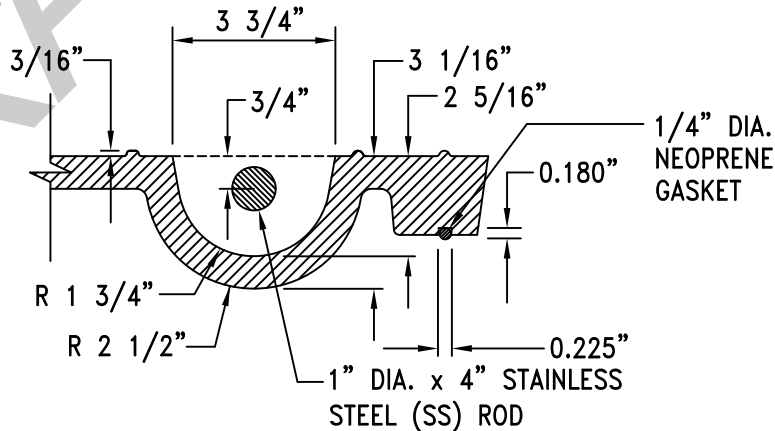
COVER – BOTTOM VIEW
N.T.S.



FRAME SECTION A-A
N.T.S.



COVER SECTION
N.T.S.

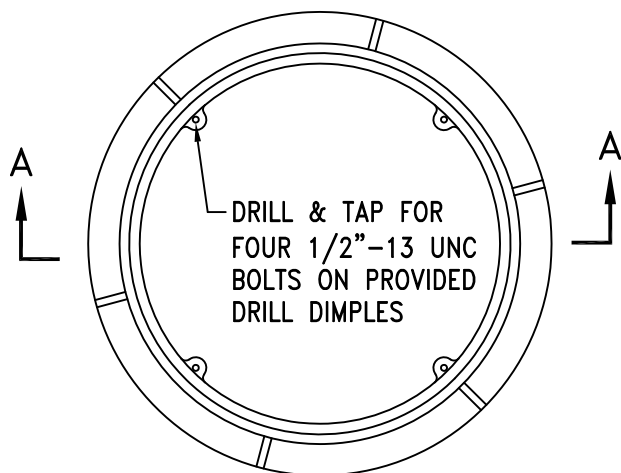


PICKBAR RECESS DETAIL
N.T.S.

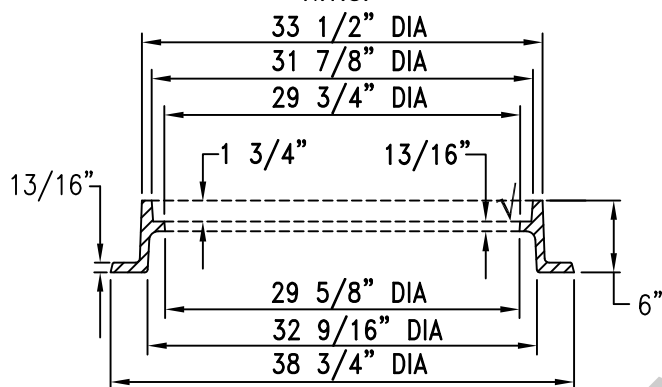
NOTES:

1. COVER STYLE MAY SLIGHTLY VARY WITH APPROVAL BY THE FIELD ENGINEER.
2. THE COVER SHALL HAVE PICK BAR RECESSES. VENT HOLES SHALL NOT BE PROVIDED.
3. FRAME WEIGHT 200 LBS. (APPROX.) AND COVER WEIGHT 217 LBS. (APPROX.)
4. REFER TO SECTION 3.3.2(H) FOR MORE INFORMATION.

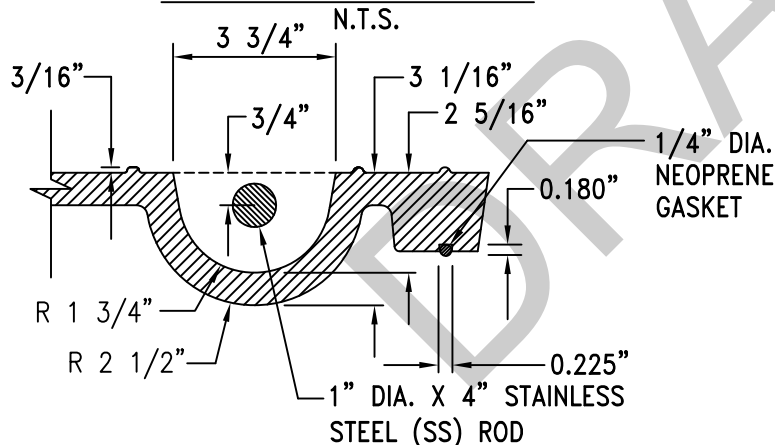
ISSUED:	STANDARD DETAIL		DETAIL NO.
8/92 (WWM-214.1)	30" WATERTIGHT FRAME AND COVER		RWRD 217
REVISED:			SHEET 1 OF 1
12/12			



FRAME - PLAN VIEW
N.T.S.

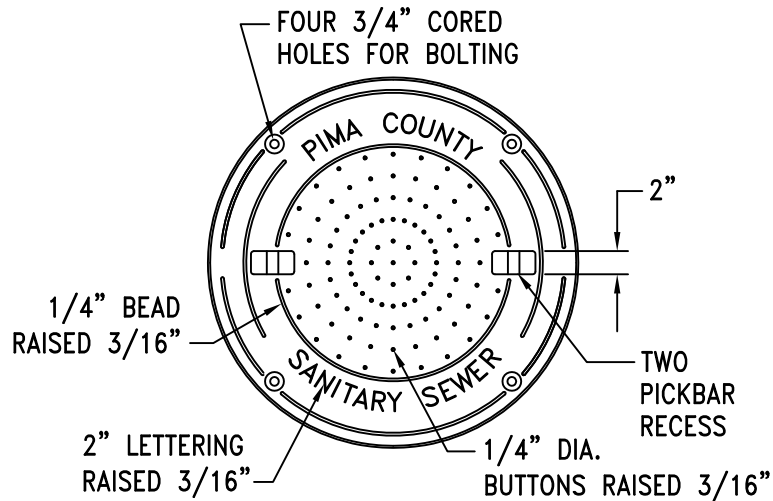


FRAME SECTION A-A

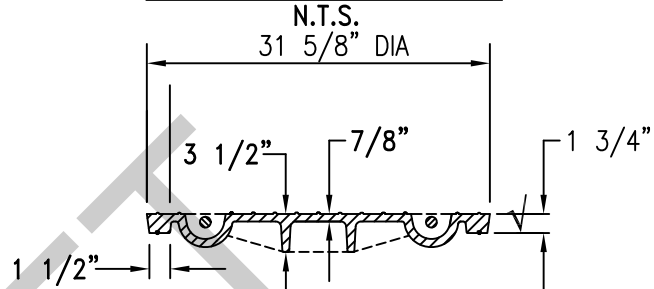


PICKBAR RECESS DETAIL
N.T.S.

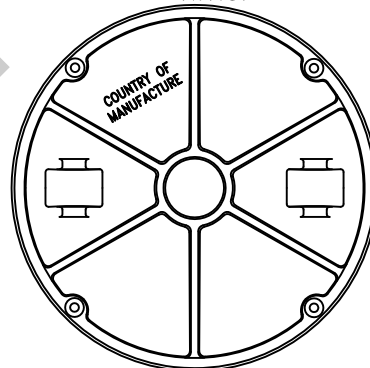
✓ DENOTES MACHINED SURFACE



COVER - TOP VIEW
N.T.S.

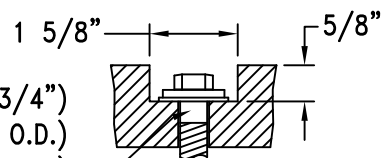


COVER SECTION
N.T.S.



COVER - BOTTOM VIEW
N.T.S.


SS HEX BOLT (1/2"-13 UNC x 1 3/4")
SS WASHER (1/2" I.D. x 1 1/4" O.D.)
RUBBER WASHER (1/2" FLAT)

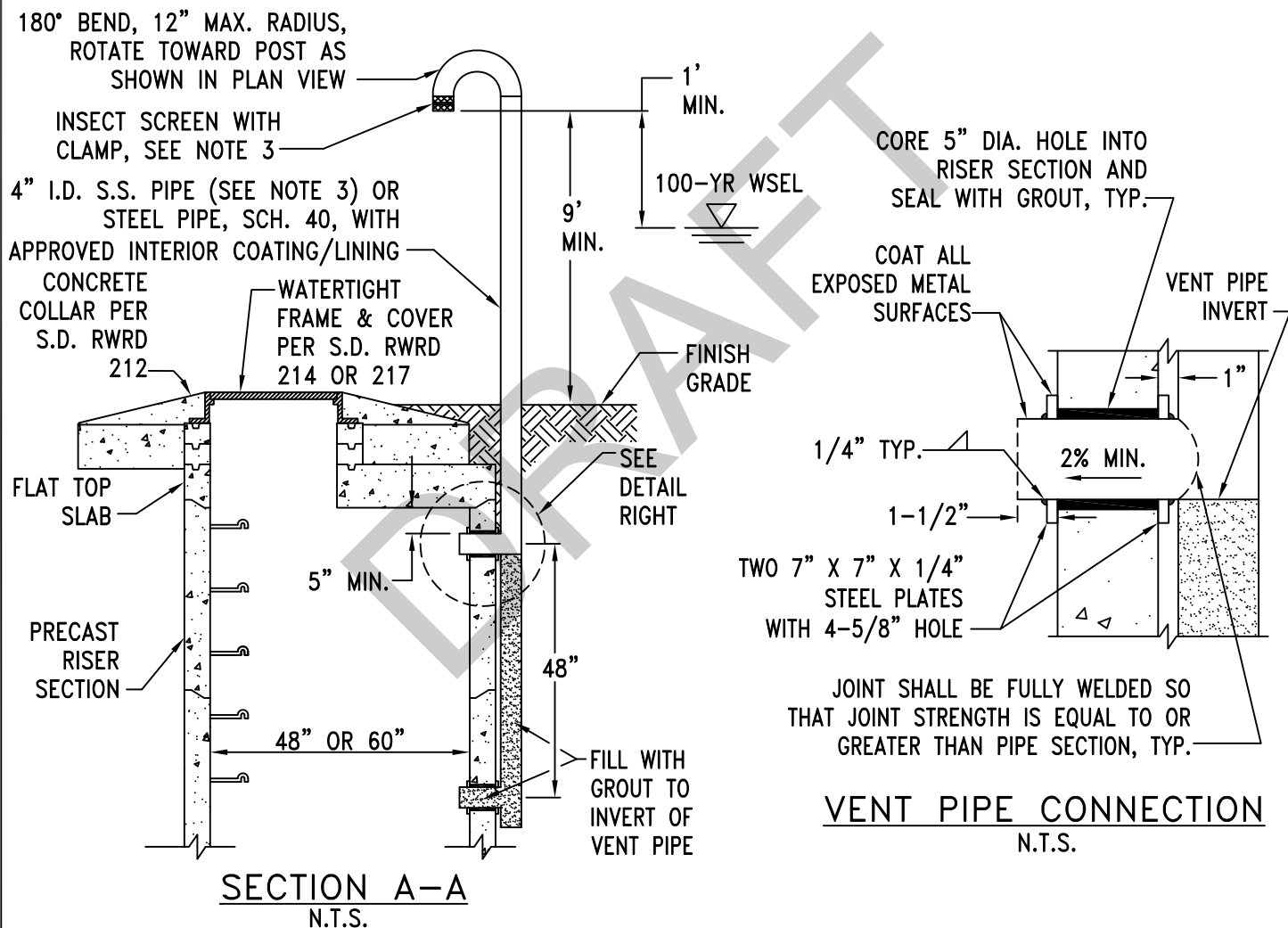
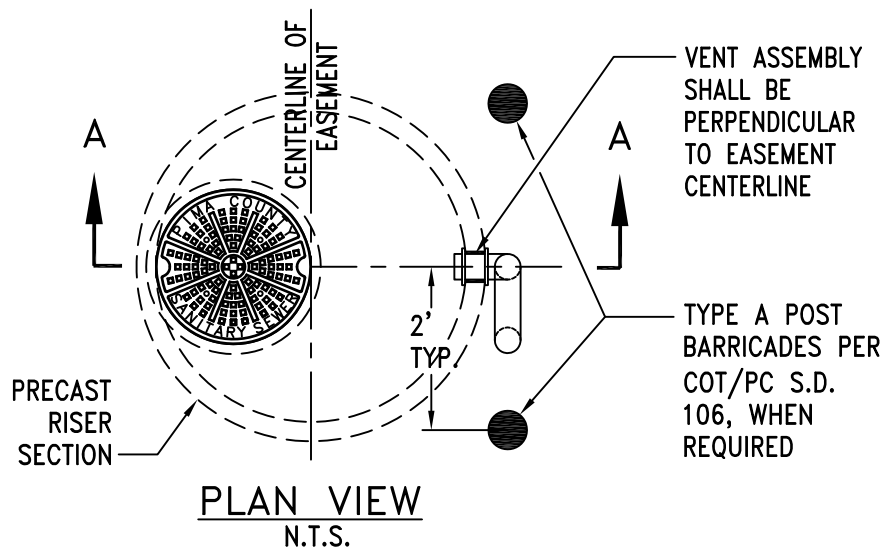


BOLT HOLE DETAIL
N.T.S.

NOTES:

1. COVER STYLE MAY SLIGHTLY VARY WITH APPROVAL BY THE FIELD ENGINEER.
2. THE COVER SHALL HAVE RECESSES FOR PICKBARS. VENT HOLES SHALL NOT BE PROVIDED.
3. FRAME WEIGHT 200 LBS. (APPROX.) AND COVER WEIGHT 217 LBS. (APPROX.)
4. REFER TO SECTION 3.3.2(H) FOR MORE INFORMATION.


ISSUED:	STANDARD DETAIL		DETAIL NO.
8/92 (WWM-214.2)	30" BOLTED WATERTIGHT FRAME AND COVER		RWRD 218
REVISED:			
12/12			SHEET 1 OF 1

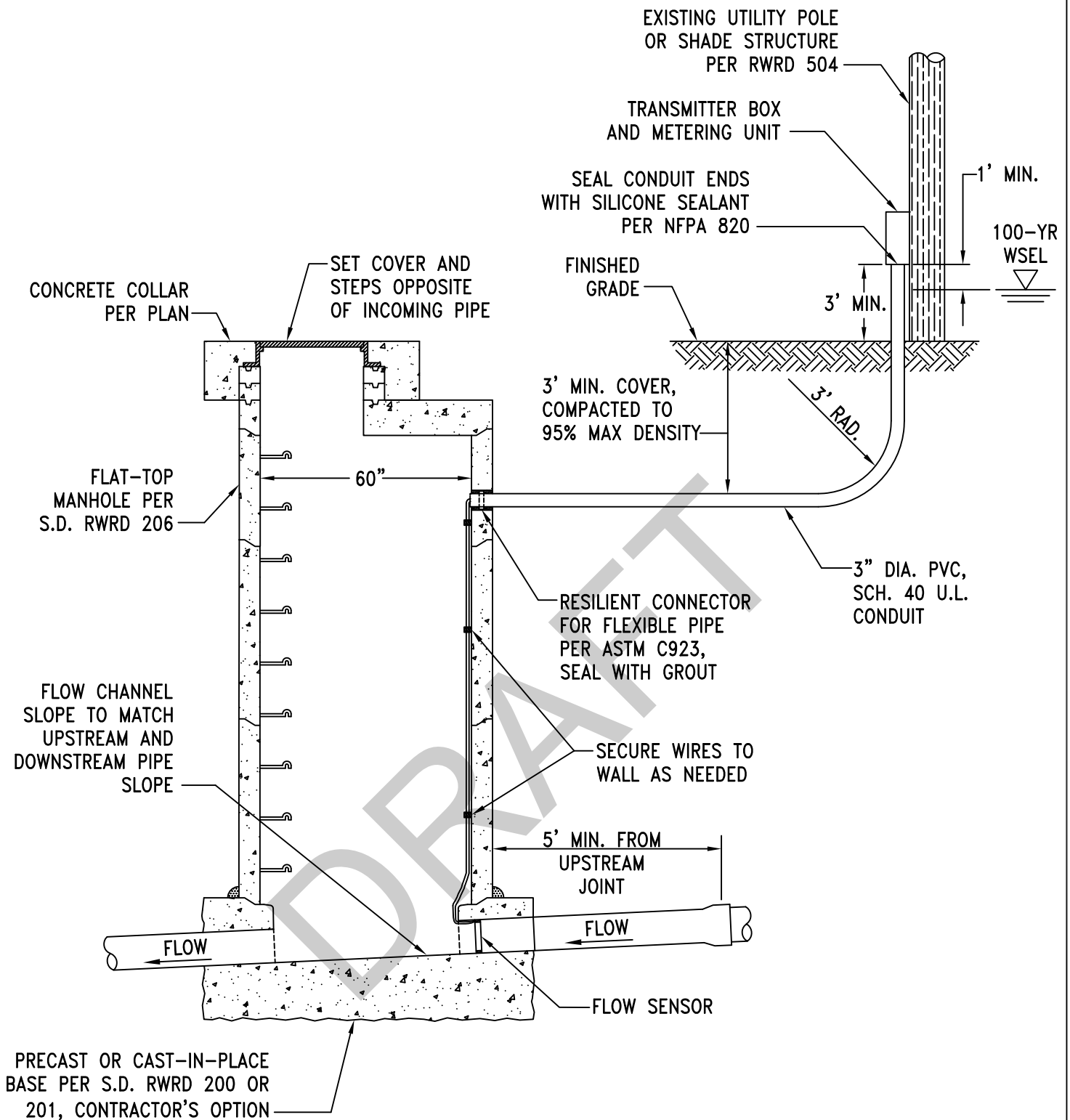


VENT PIPE CONNECTION
N.T.S.

NOTE:

SEE S.D. RWRD 223 FOR NOTES 1, 2 AND 3.

ISSUED:	STANDARD DETAIL	 PIMA COUNTY WASTEWATER RECLAMATION	DETAIL NO.
8/92 (WWM-221.2)	MODIFIED MANHOLE VENT ASSEMBLY		RWRD 224
REVISED:			SHEET 1 OF 1
12/12			

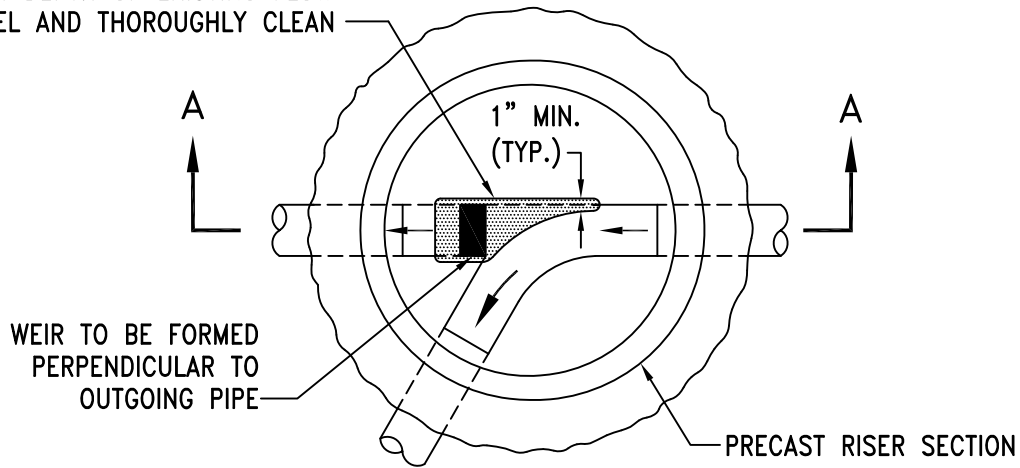


NOTES:

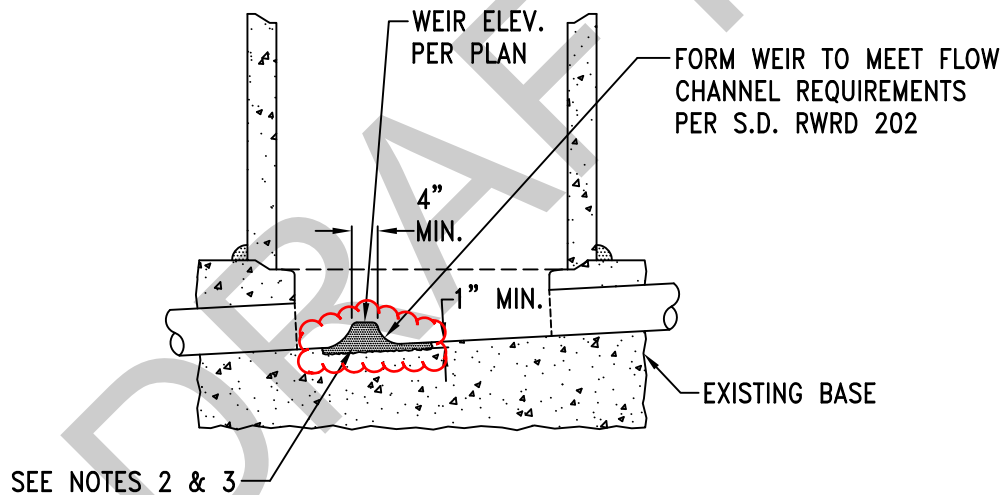
1. THIS SPECIAL STANDARD DETAIL MAY BE USED BY THE CONTRACTOR IF APPROVED IN THE PLANS OR IN WRITING BY THE FIELD ENGINEER.
2. MANHOLE SHALL BE LOCATED AT A HORIZONTALLY STRAIGHT REACH OF SEWER WITH NO LATERAL SEWERS OR SERVICE LATERAL (HCS/BCS) CONNECTIONS.

ISSUED:	SPECIAL STANDARD DETAIL		DETAIL NO.
8/92	FLOW METERING STATION		RWRD 225
REVISED:			SHEET 1 OF 1
12/12			

FOR EXISTING BASES, GRIND OUT
1" MIN. DEPTH OF EXISTING FLOW
CHANNEL AND THOROUGHLY CLEAN



PLAN VIEW
N.T.S.

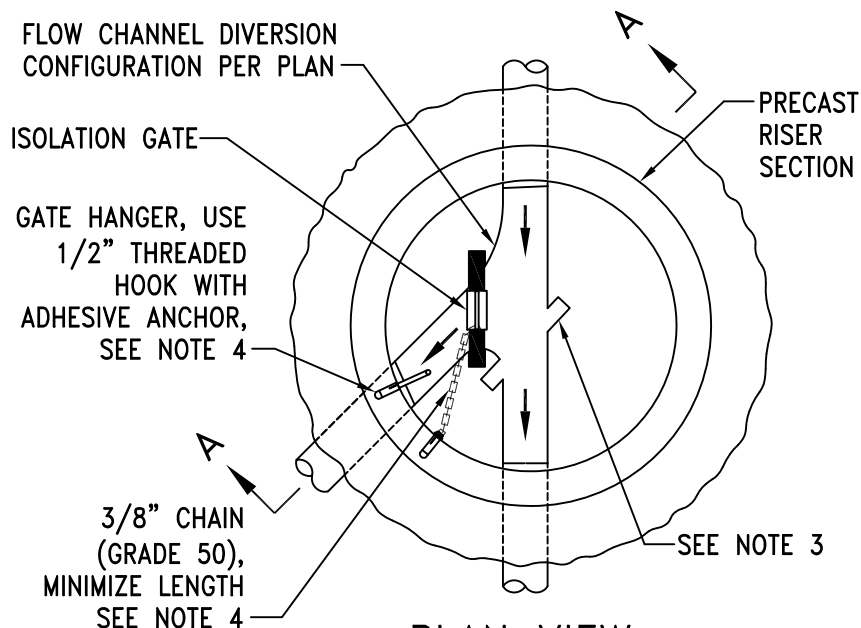


SECTION A-A
N.T.S.

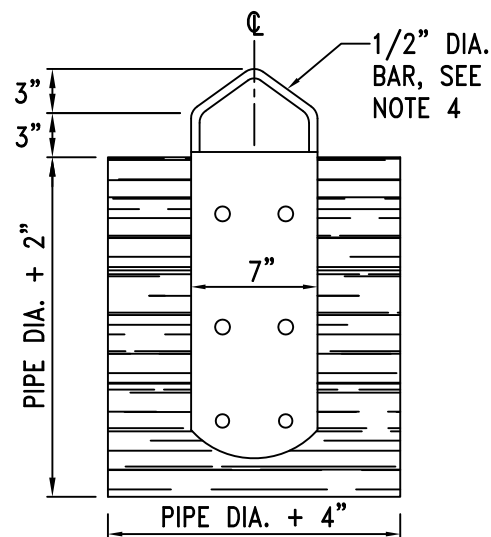
NOTE:

1. THIS SPECIAL STANDARD DETAIL MAY BE USED BY THE CONTRACTOR IF APPROVED IN THE PLANS OR IN WRITING BY THE FIELD ENGINEER.
2. FOR EXISTING BASES, APPLY AN APPROVED CONCRETE ADHESIVE AND USE CLASS 'S' CONCRETE (3,000 PSI) TO FORM WEIR.
3. FOR NEW BASES, CONSTRUCT BASE IN ACCORDANCE WITH S.D. RWRD 200 OR 201 AND FORM WEIR AS PART OF BASE CONSTRUCTION.

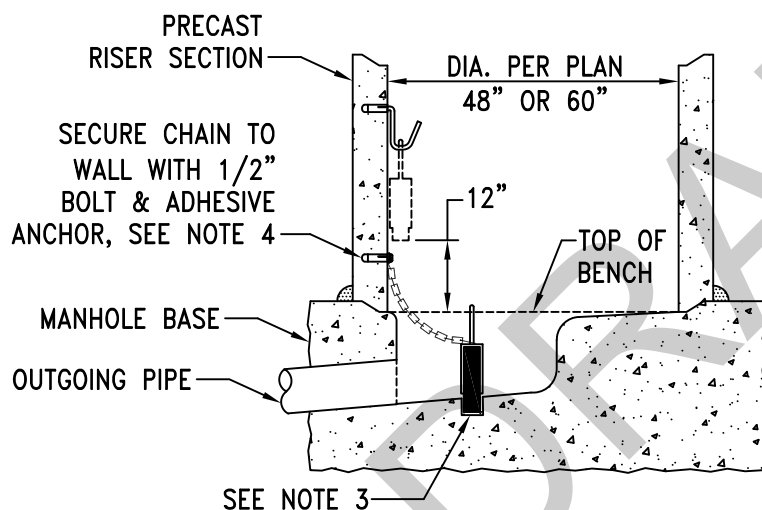
ISSUED:	SPECIAL STANDARD DETAIL CONCRETE WEIR FOR DIVERSION MANHOLES		DETAIL NO.
8/92 (WWM-219)			RWRD 226
REVISED:			
10/15			SHEET 1 OF 1



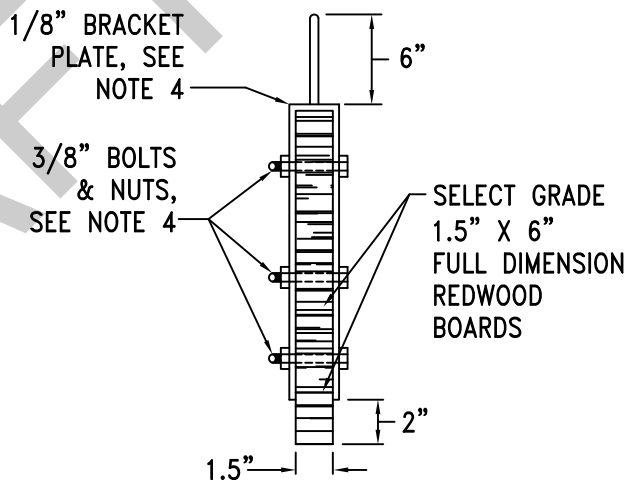
PLAN VIEW
N.T.S.



FRONT/REAR VIEW OF GATE
N.T.S.




SECTION A-A
N.T.S.

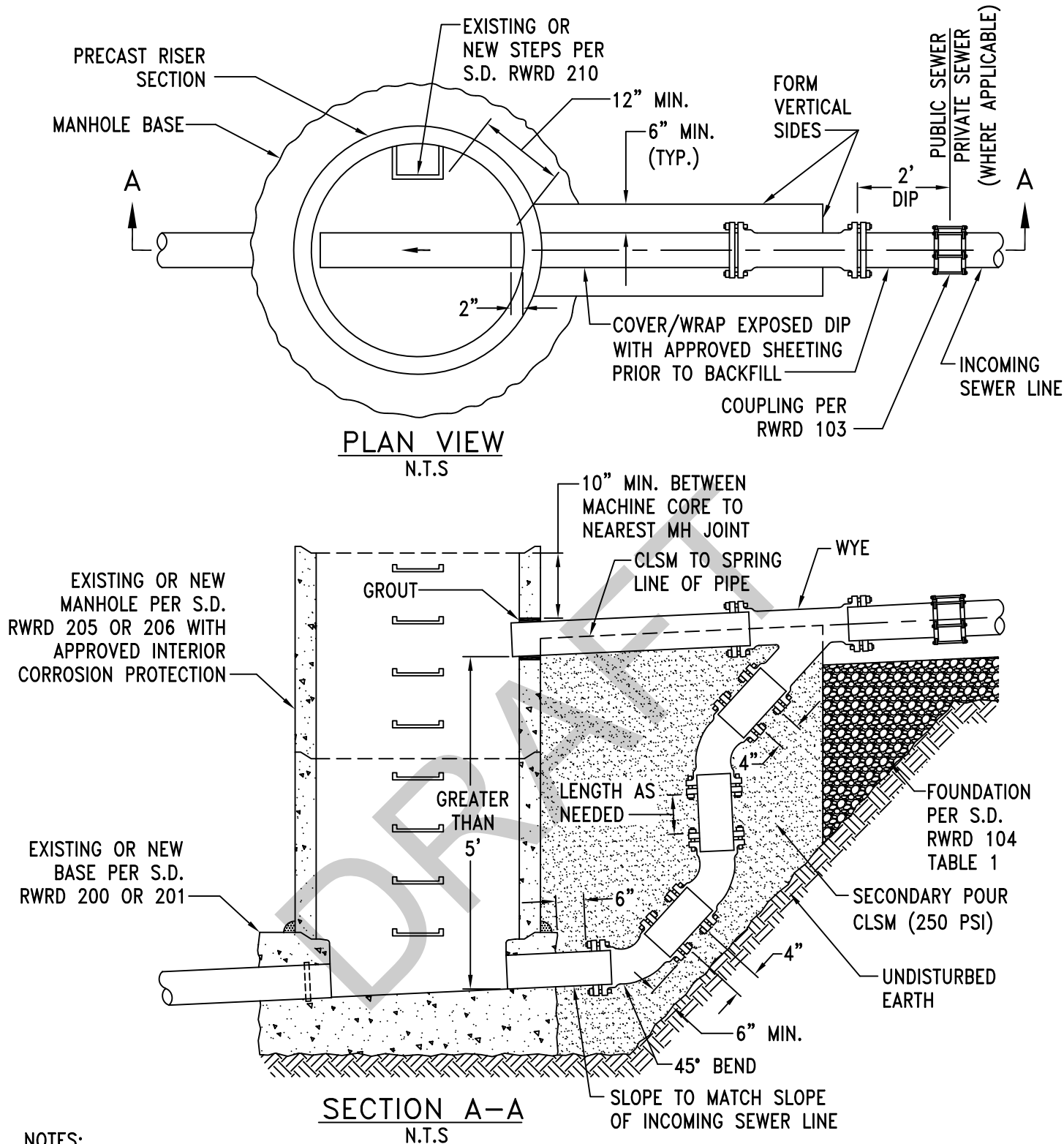


SIDE VIEW OF GATE
N.T.S.

NOTES:

1. THIS SPECIAL STANDARD DETAIL MAY BE USED BY THE CONTRACTOR IF APPROVED IN THE PLANS OR IN WRITING BY THE FIELD ENGINEER.
2. REDWOOD GATES FOR FLOW CHANNEL ISOLATION (AS SHOWN) SHALL BE USED FOR OUTGOING PIPE DIAMETERS OF 30" OR LESS.
3. FORM OR GRIND 2" WIDE BY 2" DEEP NOTCH INTO FLOW CHANNEL TO SECURE GATE IN PLACE. PLACE NOTCH AS CLOSE TO THE EDGE OF THE FLOW CHANNEL AS POSSIBLE. SHOP DRAWINGS FOR GATES AND LOCATION WITHIN MANHOLE SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND APPROVAL BY THE FIELD ENGINEER.
4. ALL METAL HARDWARE SHALL BE TYPE 316 STAINLESS STEEL UNLESS APPROVED BY THE FIELD ENGINEER.

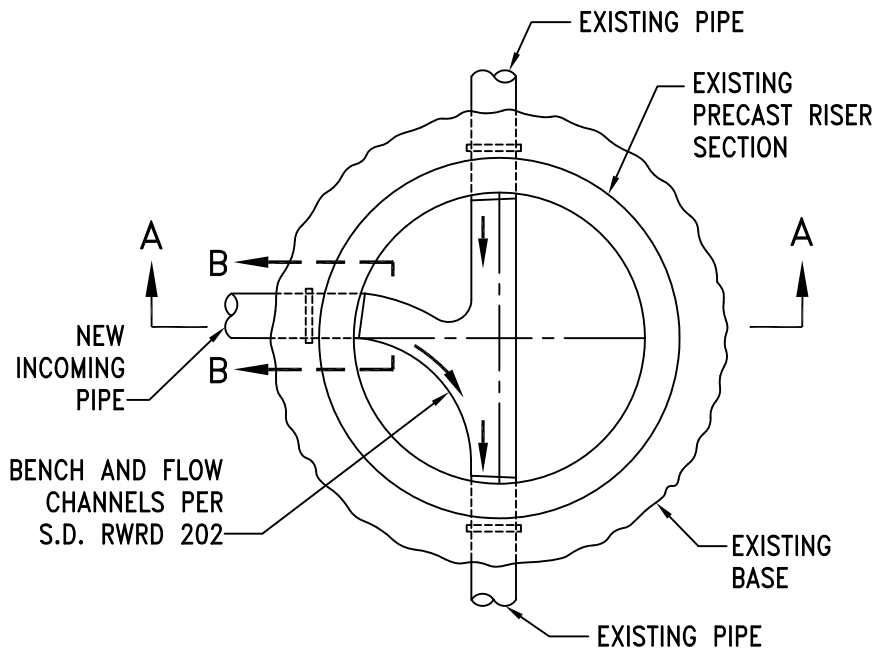
ISSUED:	SPECIAL STANDARD DETAIL REDWOOD ISOLATION GATE	 PIMA COUNTY WASTEWATER RECLAMATION	DETAIL NO.
8/92 (WWM-220)			RWRD 228
REVISED:			
12/12			SHEET 1 OF 1



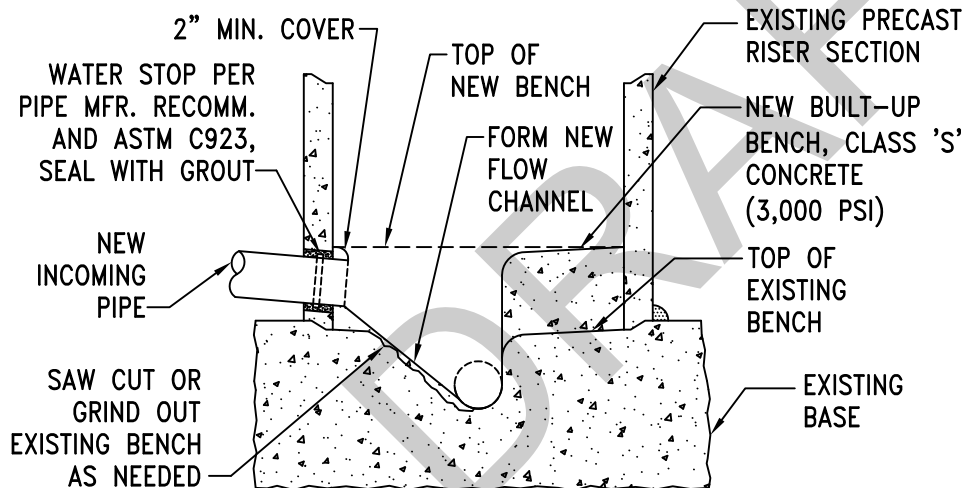
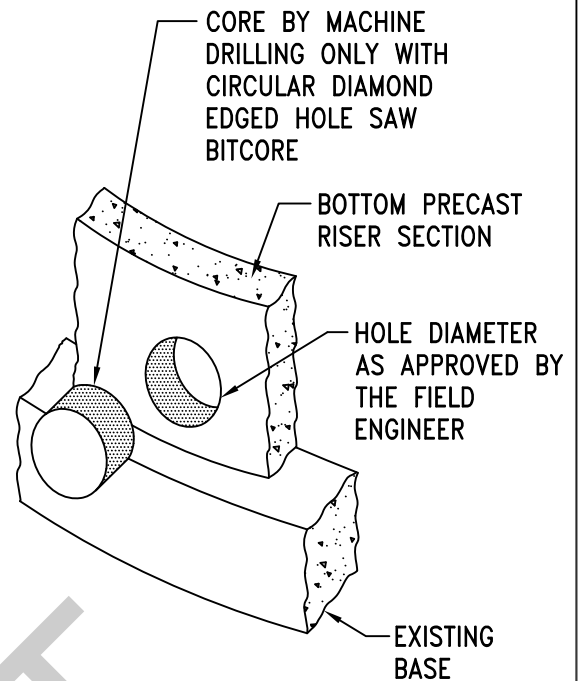
NOTES:

1. THIS SPECIAL STANDARD DETAIL MAY BE USED BY THE CONTRACTOR IF APPROVED IN THE PLANS OR IN WRITING BY THE FIELD ENGINEER.
2. DROP PIPING AND FITTINGS SHALL BE THE SAME DIAMETER AS THE INCOMING SEWER LINE. TEE AND 90° BEND FITTINGS ARE NOT ACCEPTABLE.
3. DROP PIPING MATERIAL AND FITTINGS SHALL BE DIP WITH APPROVED INTERIOR CORROSION PROTECTION. FITTINGS SHALL HAVE MECHANICAL JOINTS.

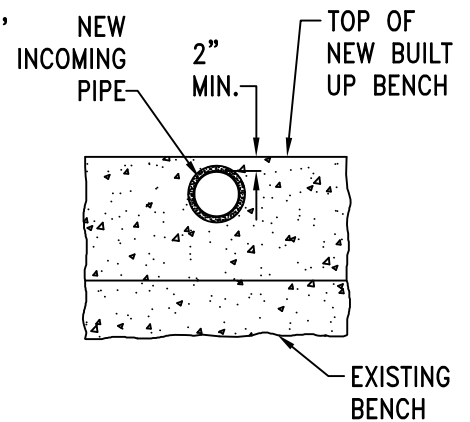
ISSUED:	SPECIAL STANDARD DETAIL HIGH DROP MANHOLE CONNECTION		DETAIL NO.
12/12			RWRD 230
REVISED:			
			SHEET 1 OF 1



PLAN VIEW
N.T.S.




SECTION A-A
N.T.S.

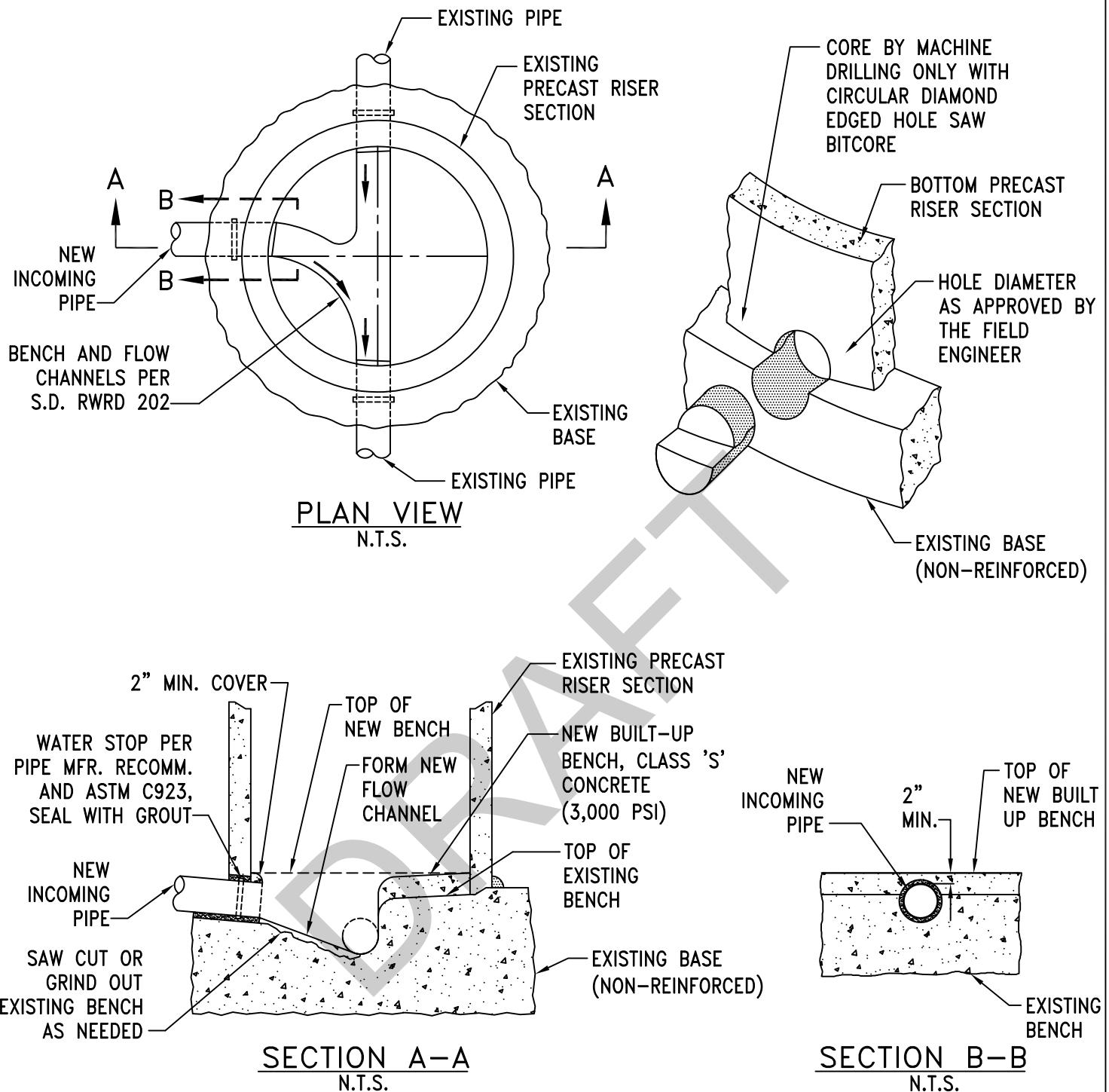


SECTION B-B
N.T.S.

NOTES:


1. EXISTING BENCH SHALL BE THOROUGHLY CLEANED PRIOR TO CONSTRUCTING NEW BUILT-UP BENCH.
2. CONNECTIONS TO EXISTING MANHOLES SHALL BE INSPECTED AND APPROVED BY THE FIELD ENGINEER.

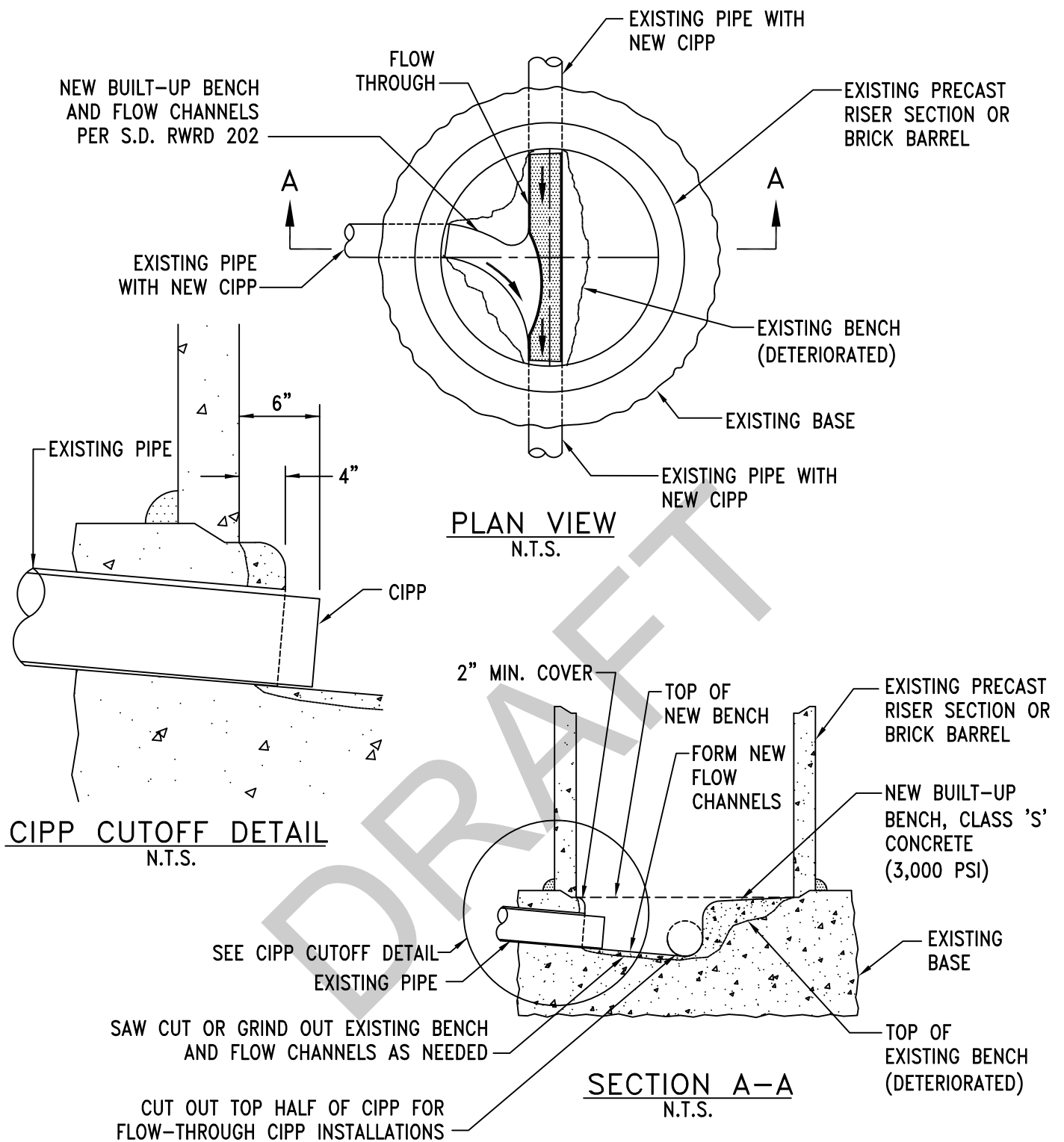
ISSUED:	STANDARD DETAIL CONNECTION TO EXISTING MANHOLE BARREL	 PIMA COUNTY WASTEWATER RECLAMATION	DETAIL NO.
8/92 (WWM-301)			RWRD 300
REVISED:			SHEET 1 OF 1
12/12			



NOTES:


1. EXISTING BENCH SHALL BE THOROUGHLY CLEANED PRIOR TO CONSTRUCTING NEW BUILT-UP BENCH.
2. CONNECTIONS TO EXISTING MANHOLES SHALL BE INSPECTED AND APPROVED BY THE FIELD ENGINEER.

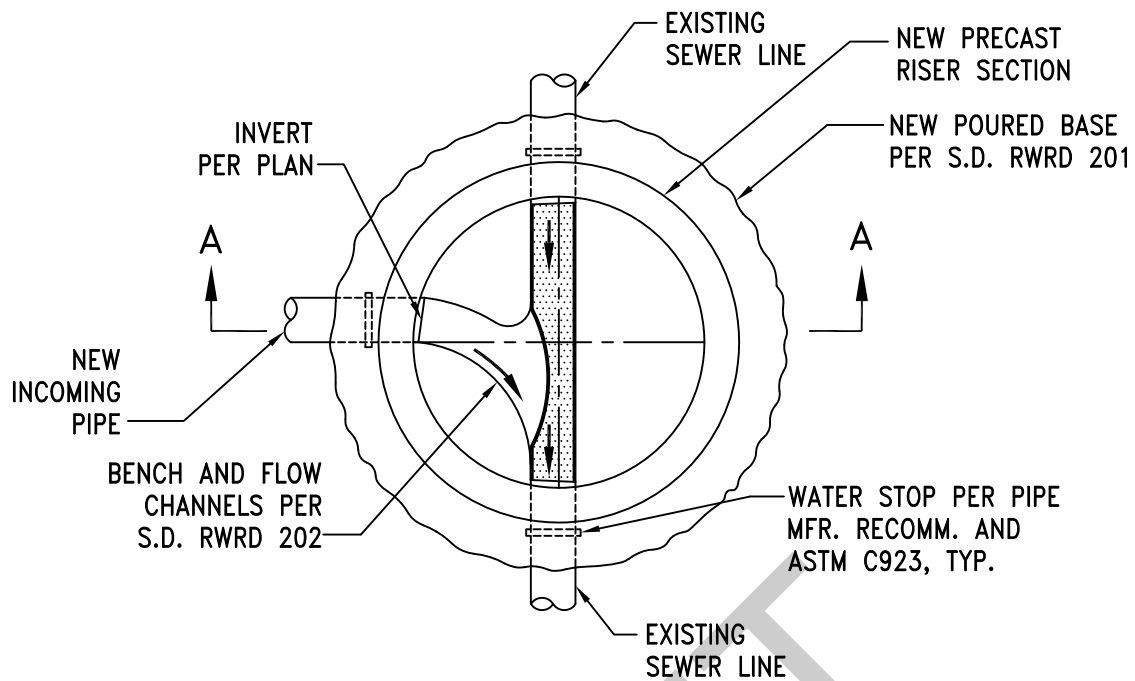
ISSUED:	STANDARD DETAIL	 PIMA COUNTY WASTEWATER RECLAMATION	DETAIL NO.
8/92	CONNECTION TO EXISTING MANHOLE BASE		RWRD 301
REVISED:			
12/12			
SHEET 1 OF 1			



NOTES:

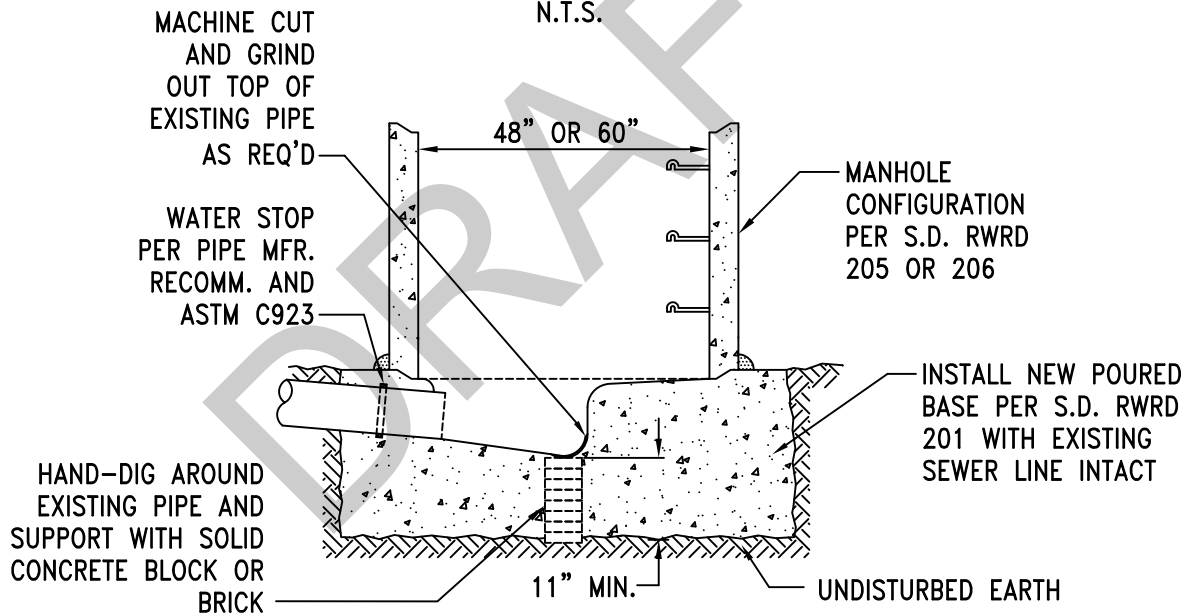
1. THIS DETAIL SHALL APPLY TO THE REHABILITATION OF EXISTING MANHOLES WITH DETERIORATED BENCHES AND THE REHABILITATION OF EXISTING SEWER LINES BY METHOD OF CURED IN PLACE PIPE (CIPP).
2. EXISTING BENCH AND FLOW CHANNELS SHALL BE THOROUGHLY CLEANED PRIOR TO CONSTRUCTING NEW BUILT UP BENCH.

ISSUED:	STANDARD DETAIL		DETAIL NO.
12/12	RAISE EXISTING BENCH		RWRD 302
REVISED:			SHEET 1 OF 1



PLAN VIEW

N.T.S.




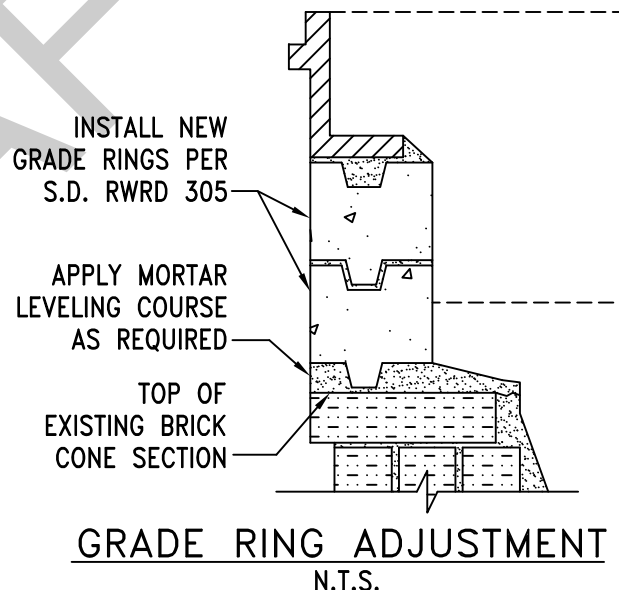
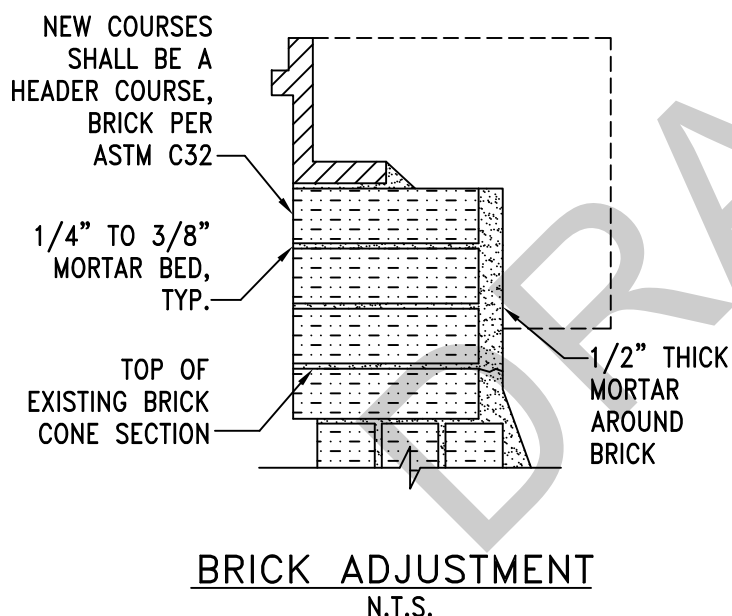
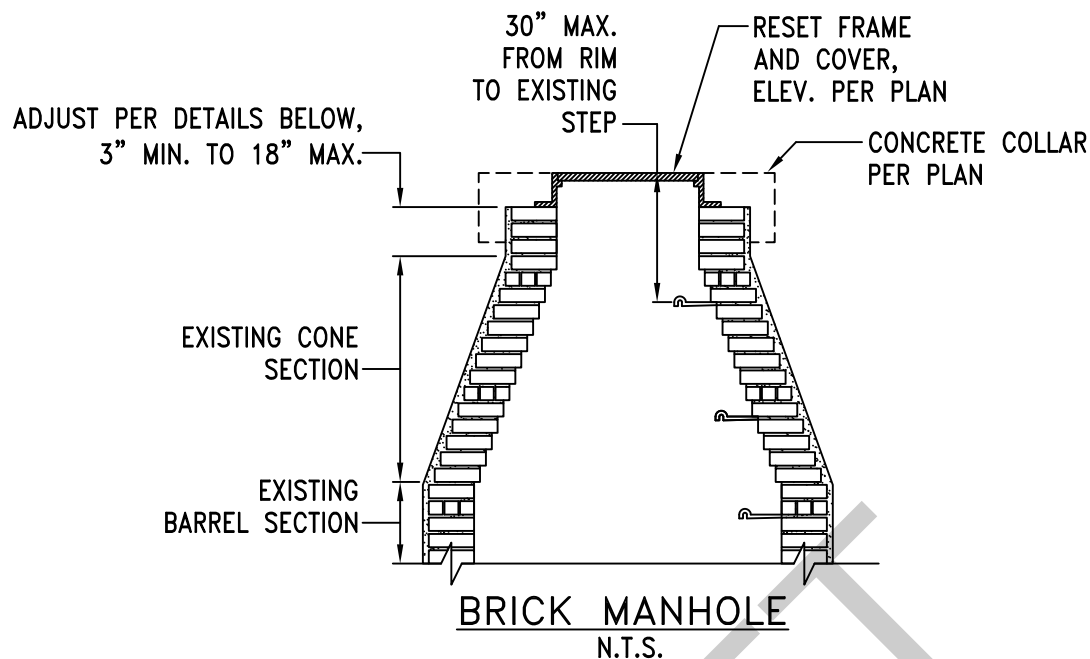
SECTION A-A

N.T.S.

NOTES:


1. FOUNDATION PER S.D. RWRD 104 TO THE FIRST JOINT BEYOND OPEN TRENCH CONDITIONS MAY BE REQUIRED DEPENDING ON DEPTH OF EXCAVATION AND TYPE OF SOIL.
2. SEE SUBSECTION 3.3.3(D)(v) FOR MORE INFORMATION.

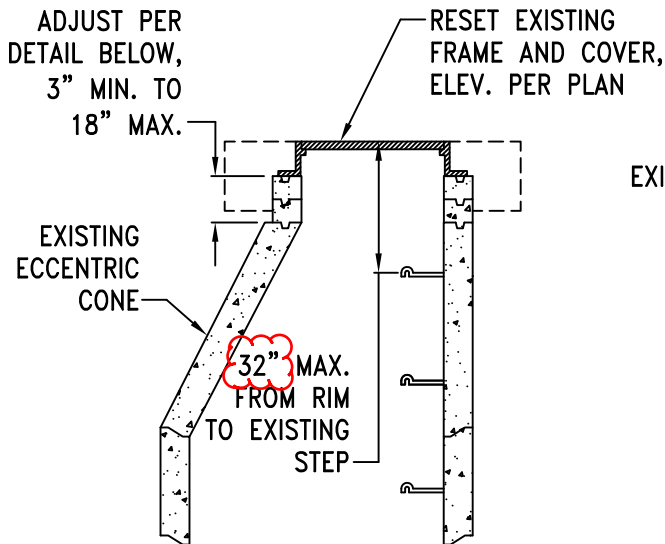
ISSUED:	STANDARD DETAIL NEW MANHOLE OVER EXISTING SEWER LINE		DETAIL NO.
8/92			RWRD 303
REVISED:			
12/12			SHEET 1 OF 1



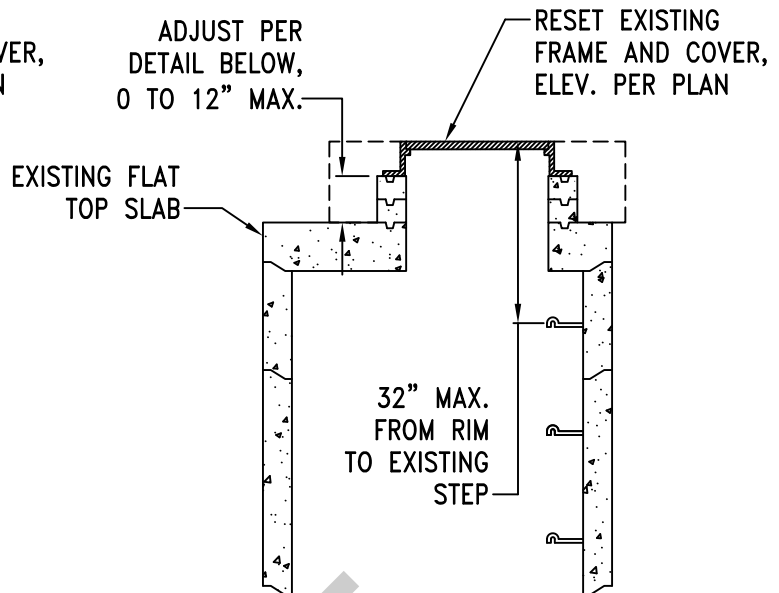
NOTES:

1. A SEWER CONSTRUCTION PERMIT FROM PCRWRD IS REQUIRED PRIOR TO REMOVAL OF THE FRAME AND COVER ON EXISTING PUBLIC MANHOLES. GRADE ADJUSTMENT WORK SHALL BE INSPECTED AND APPROVED BY THE FIELD ENGINEER.
2. RECONSTRUCTION OF THE EXISTING BRICK MANHOLE SHALL BE REQUIRED FOR VIOLATION OF THE DIMENSIONAL RANGES NOTED ABOVE OR THE AGE, CONDITION OR TYPE OF MATERIAL WARRANTS SUCH REPLACEMENT, AS DIRECTED BY THE FIELD ENGINEER.
3. SEE SUBSECTION 3.3.3(D)(iv) FOR MORE INFORMATION.

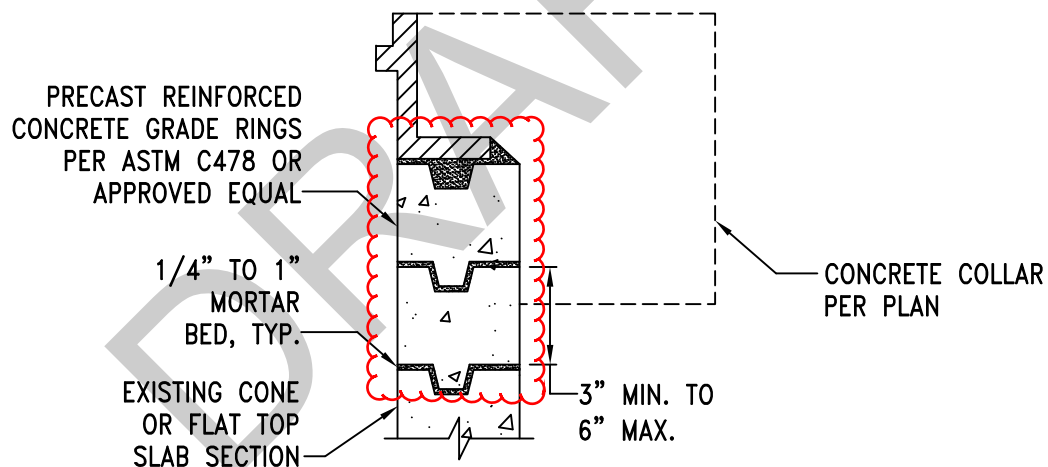
ISSUED:	STANDARD DETAIL		DETAIL NO.
8/92	GRADE ADJUSTMENT FOR EXISTING BRICK MANHOLE		RWRD 304
REVISED:			SHEET 1 OF 1
12/12			



**PRECAST MANHOLE
WITH CONE SECTION**
N.T.S.



**PRECAST MANHOLE
WITH FLAT-TOP SLAB**
N.T.S.



GRADE RING DETAIL
N.T.S.

NOTES:

1. A SEWER CONSTRUCTION PERMIT FROM PCRWRD IS REQUIRED PRIOR TO REMOVAL OF THE FRAME AND COVER ON EXISTING PUBLIC MANHOLES. GRADE ADJUSTMENT WORK SHALL BE INSPECTED AND APPROVED BY THE FIELD ENGINEER.
2. RECONSTRUCTION OF THE EXISTING PRECAST MANHOLE SHALL BE REQUIRED FOR VIOLATION OF THE DIMENSIONAL RANGES NOTED ABOVE, AGE OF THE EXISTING MANHOLE, CONDITION OR TYPE OF MATERIAL WARRANTING SUCH REPLACEMENT, AS DIRECTED BY THE FIELD ENGINEER.
3. SEE SUBSECTION 3.3.3(D)(i) FOR MORE INFORMATION.

ISSUED:	STANDARD DETAIL		DETAIL NO.
8/92	GRADE ADJUSTMENT FOR EXISTING PRECAST MANHOLE		RWRD 305
REVISED:			SHEET 1 OF 1
10/15			