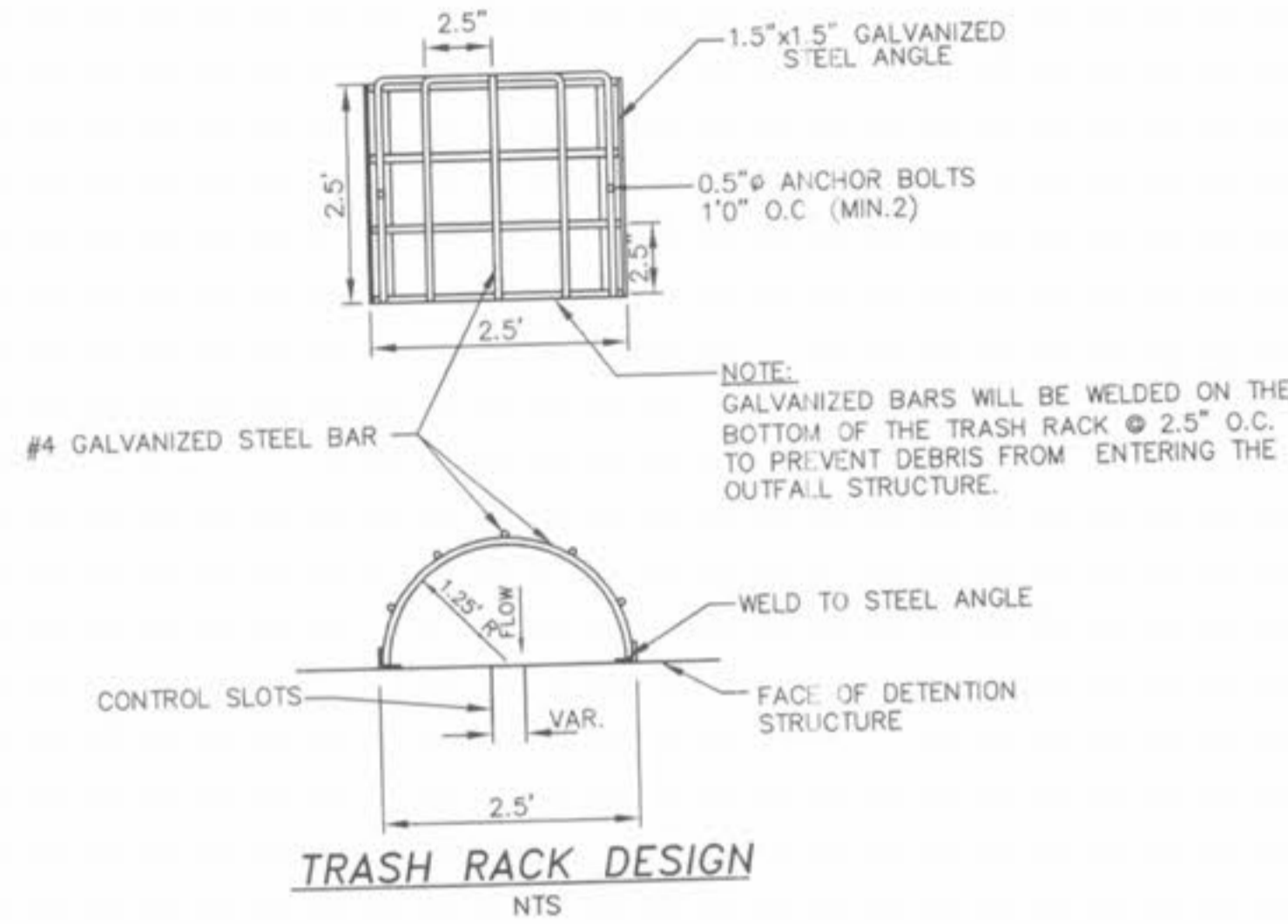


**OUTFALL STRUCTURE 29  
DRAIN DETAIL**  
N.T.S.

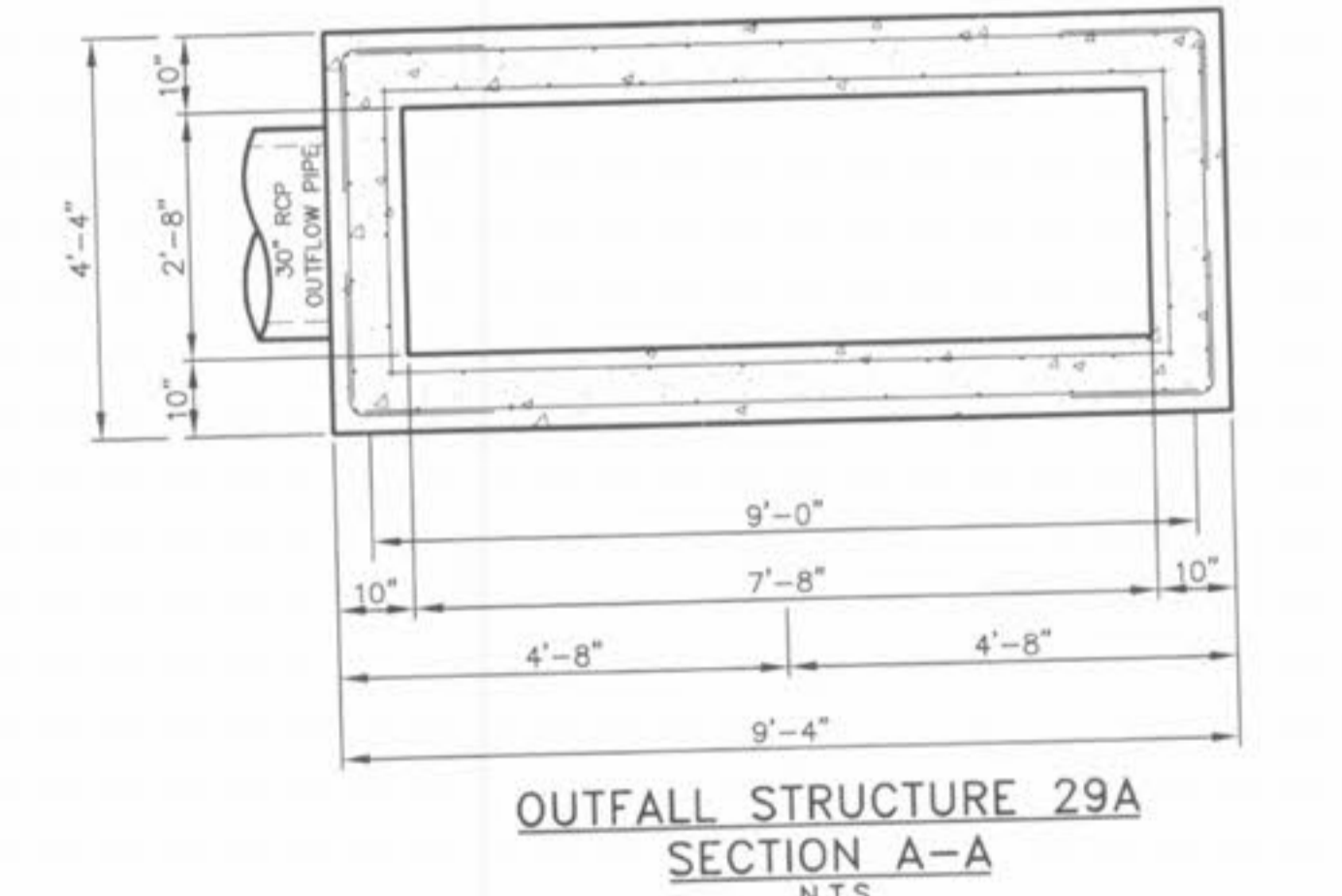
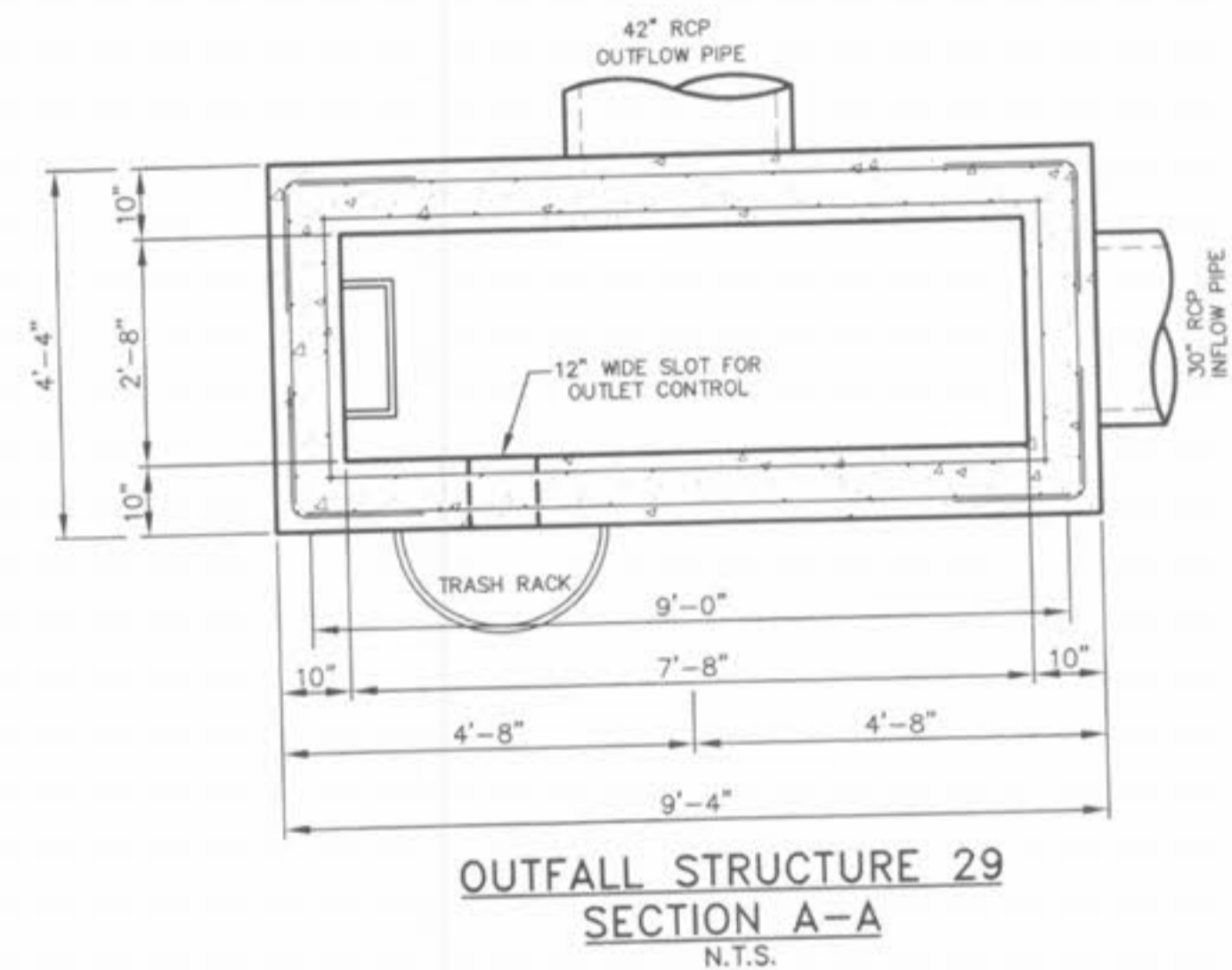
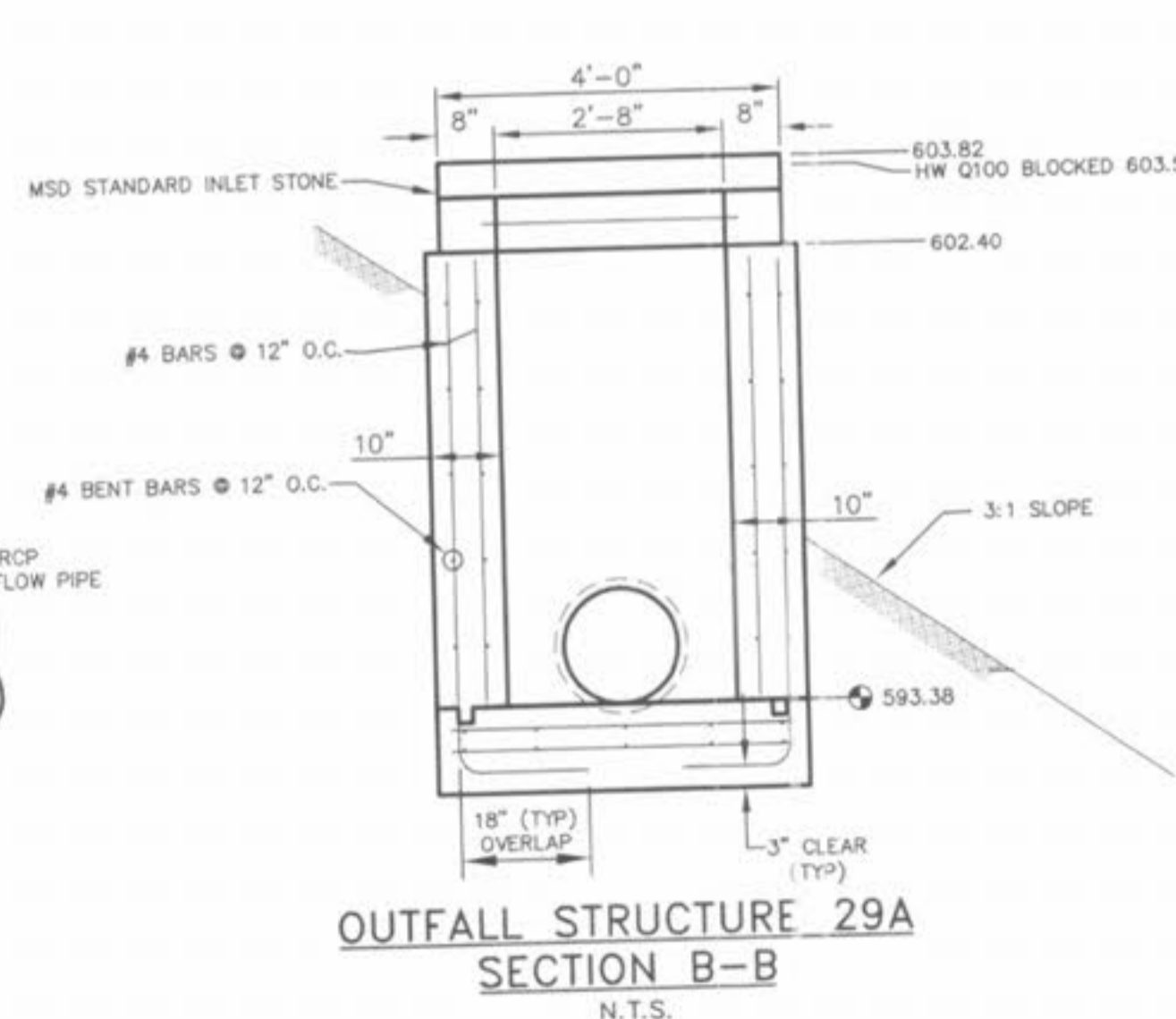
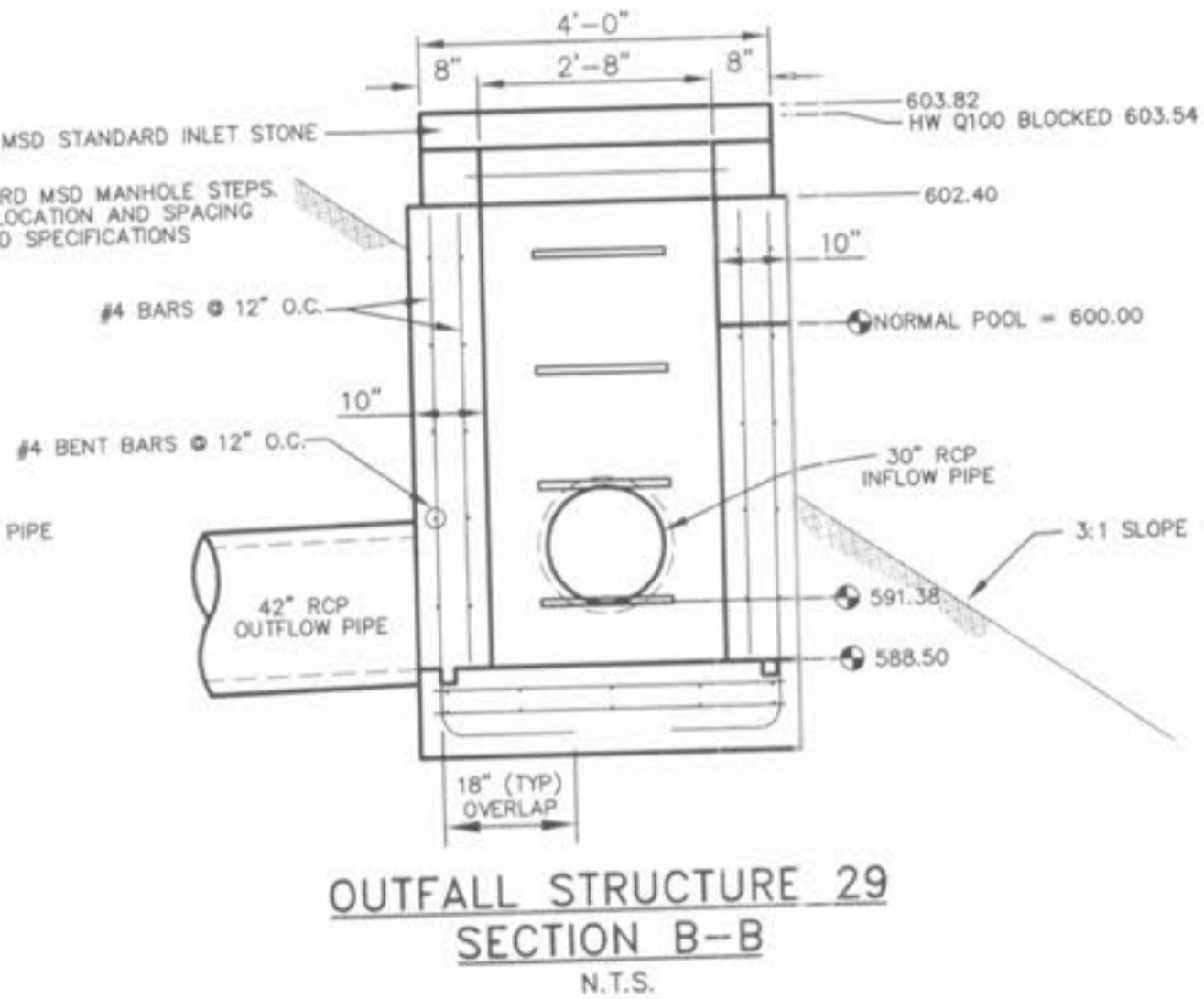
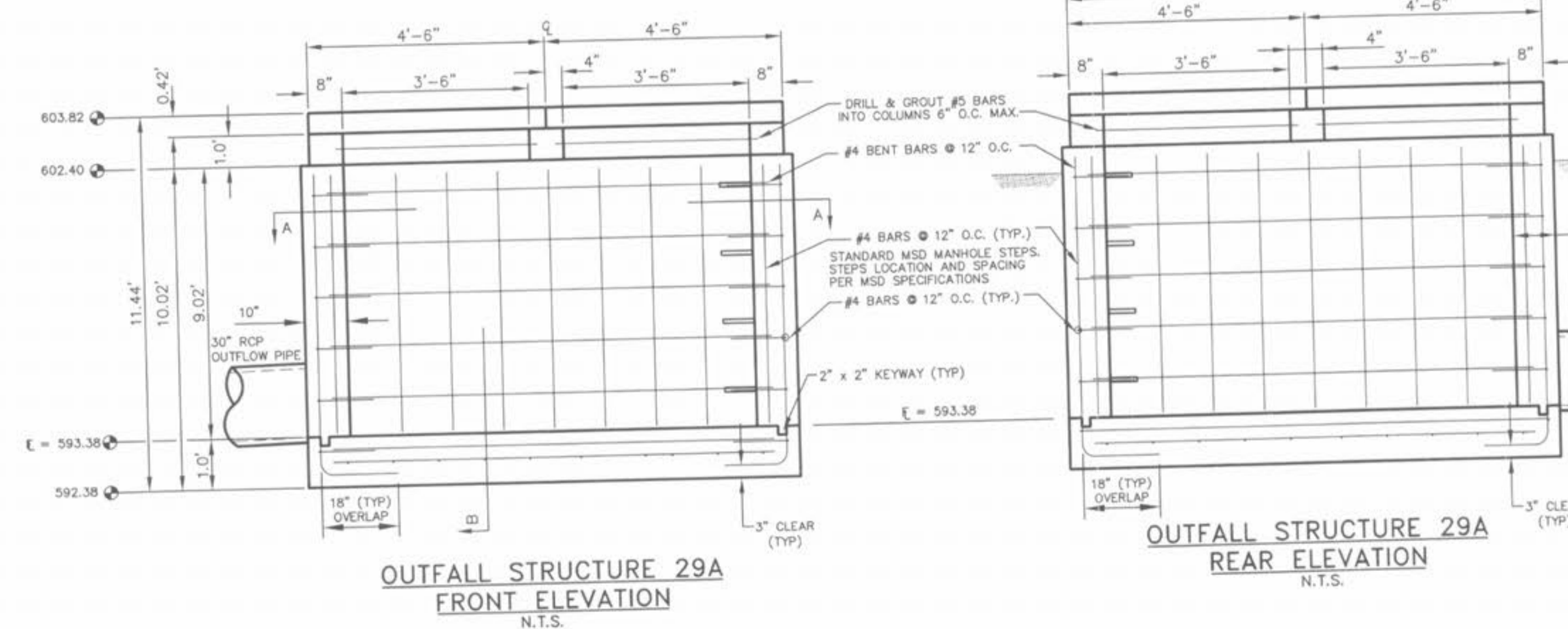
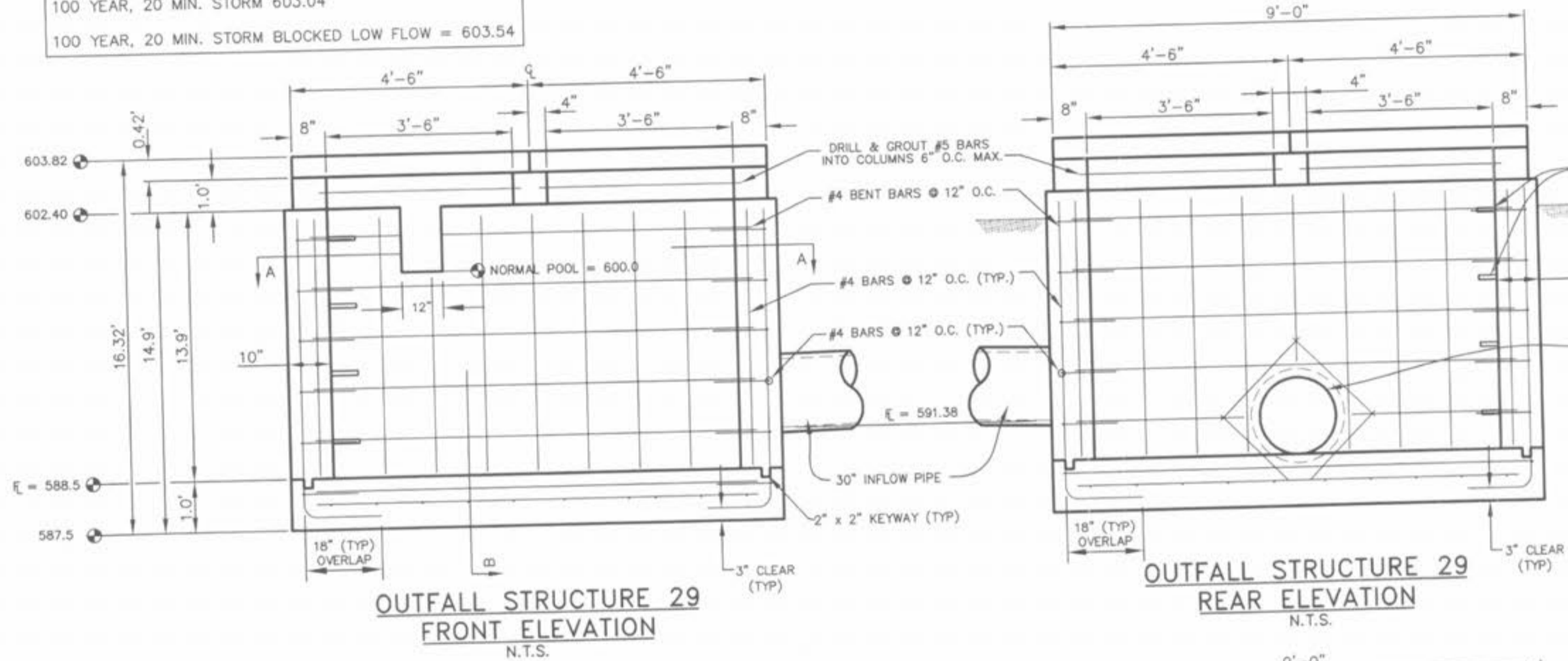
**OUTFALL STRUCTURE #29 & 29A**

2 YEAR, 20 MIN. STORM	601.41
15 YEAR, 20 MIN. STORM	602.21
25 YEAR, 20 MIN. STORM	602.63
100 YEAR, 20 MIN. STORM	603.04
100 YEAR, 20 MIN. STORM BLOCKED LOW FLOW	= 603.54



**CONSTRUCTION NOTES:**

1. CONCRETE FOR THE STRUCTURE SHALL BE "AIR ENTRAINED" AND CONTAIN AT LEAST 6 SACK CLASS "A" PORTLAND CEMENT PER CUBIC YARD. THE CONCRETE SHALL BE PLACED AT A SLUMP OF 4 INCHES ± 1/2 INCH. THE CONCRETE SHALL BE PROPORTIONED AND TRANSPORTED IN ACCORDANCE WITH ASTM C-94.
2. REINFORCING STEEL SHALL CONFORM TO ASTM C-615-60 WITH DEFORMATIONS CONFORMING TO ASTM A-305 AND SHALL HAVE A MINIMUM COVER OF 2 INCHES EXCEPT FOR 3 INCHES WHERE CONCRETE IS POURED AGAINST EARTH.
3. LAPS AND/OR SPLICES IN REINFORCING STEEL SHALL BE A MINIMUM OF 30 BAR DIAMETERS.
4. KEYED JOINTS SHOWN ARE TO BE 2-INCH BY 2-INCH KEYED CONSTRUCTION JOINTS.
5. FY = 60,000 PSI
6. FC = 3,500 PSI
7. ALL EXPOSED EDGES ARE TO HAVE A 3/4-INCH CHAMFER.
8. CONTRACTOR TO PROVIDE FOR BYPASS OF STORMWATER DURING CONSTRUCTION OF STRUCTURE.
9. SOIL DENSITY TESTS SHALL BE OBTAINED BY THE SOILS ENGINEER AT SELECTED INTERVALS TO INSURE COMPLIANCE WITH SOILS SPECIFICATIONS.
10. ALL SOIL SPECIFICATIONS SHALL BE DIRECTED BY SOILS ENGINEER.
11. 2" CLEAR (TYP) TO CLOSEST REBAR TO CONCRETE SURFACE, UNLESS NOTED OTHERWISE.



THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF SAID UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL, IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION ACT, CHAPTER 309, RSMo.

**ISSUE REMARKS DATE**

10	CITY COMMENTS/02/04/06
11	CITY COMMENTS/02/15/06
3	DCSD COMMENTS/02/29/05
4	DCSD COMMENTS/03/13/05
5	DCSD AND CITY COMMENTS/03/14/05
6	CITY COMMENTS/03/22/05
7	CITY COMMENTS/03/22/05
8	WATER DISTRICT #2 COMMENTS/03/17/06
9	DEVELOPER REVISIONS/03/24/06

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DRAWN: LG  
DESIGNED: JCM  
CHECKED: gm  
PROJECT: COUNTRYSHIRE  
SHEET TITLE: OUTFALL STRUCTURE DETAILS

NO.	02	12	311
M.S.D.			SHEET
P#			10.2
DATE			CF

Drawing name: K:\0212311 RHODES TRACT\dwg\MPROD\DWG\231105.dwg Plotted on: Feb 15, 2006 - 6:52pm Plotted by: lgruen