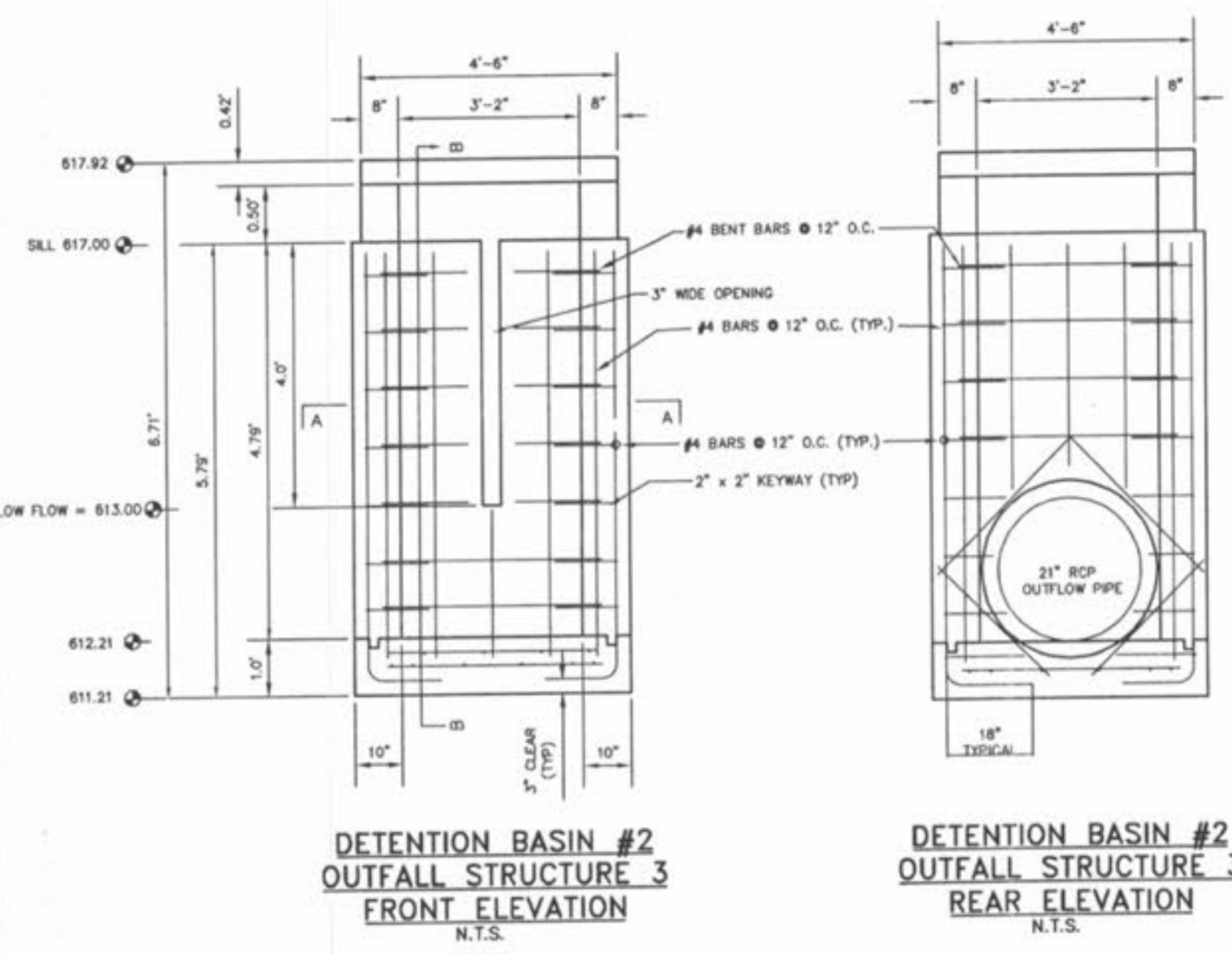
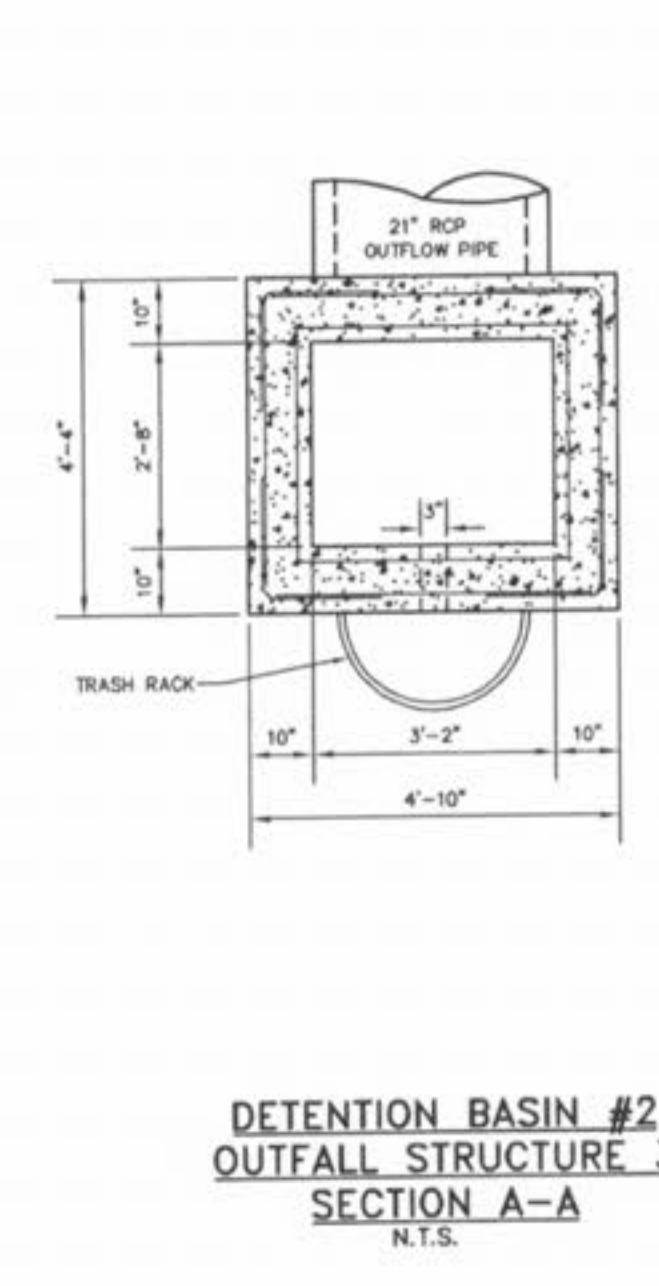


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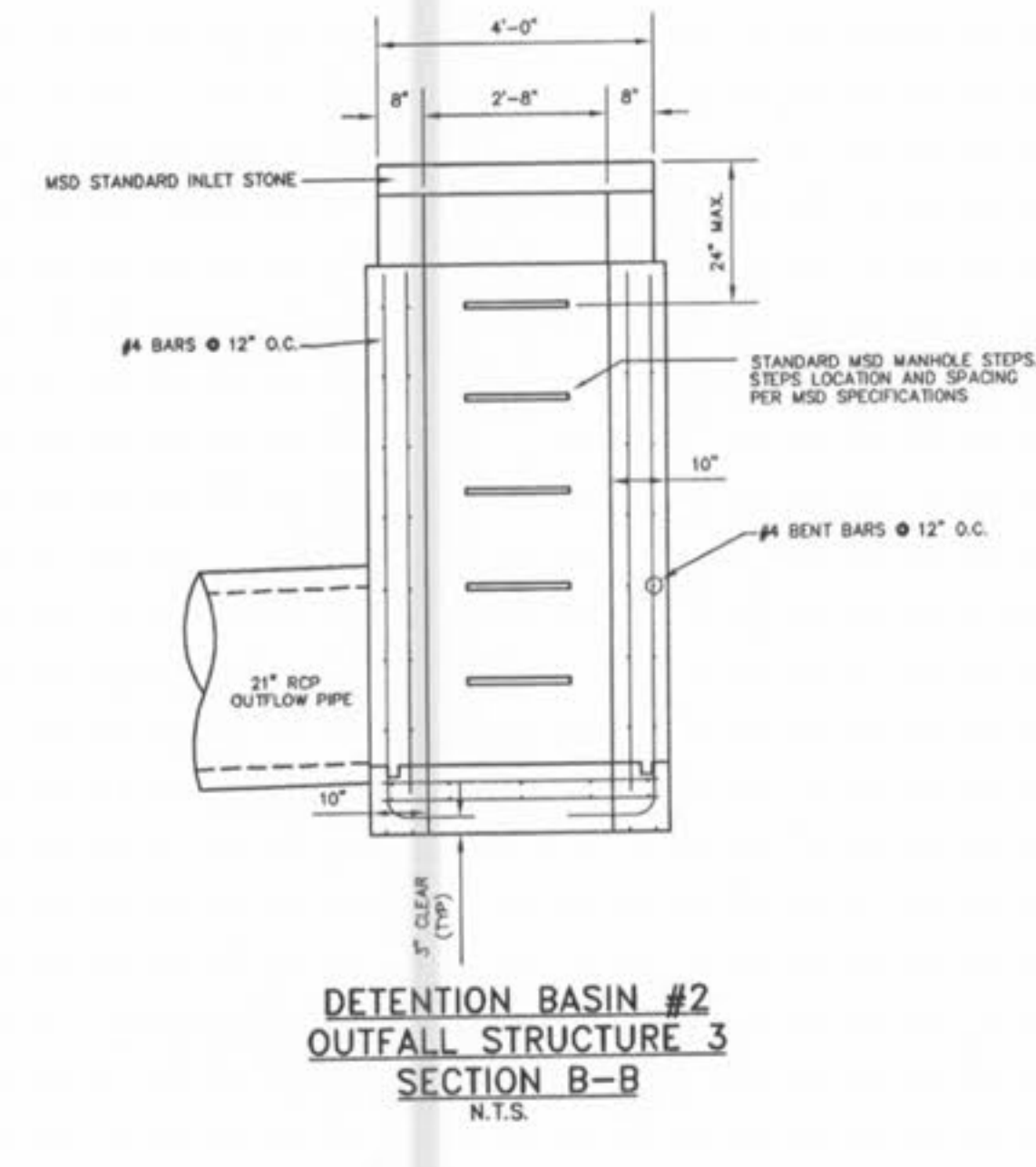


**DETENTION BASIN #2
OUTFALL STRUCTURE 3
FRONT ELEVATION**
N.T.S.

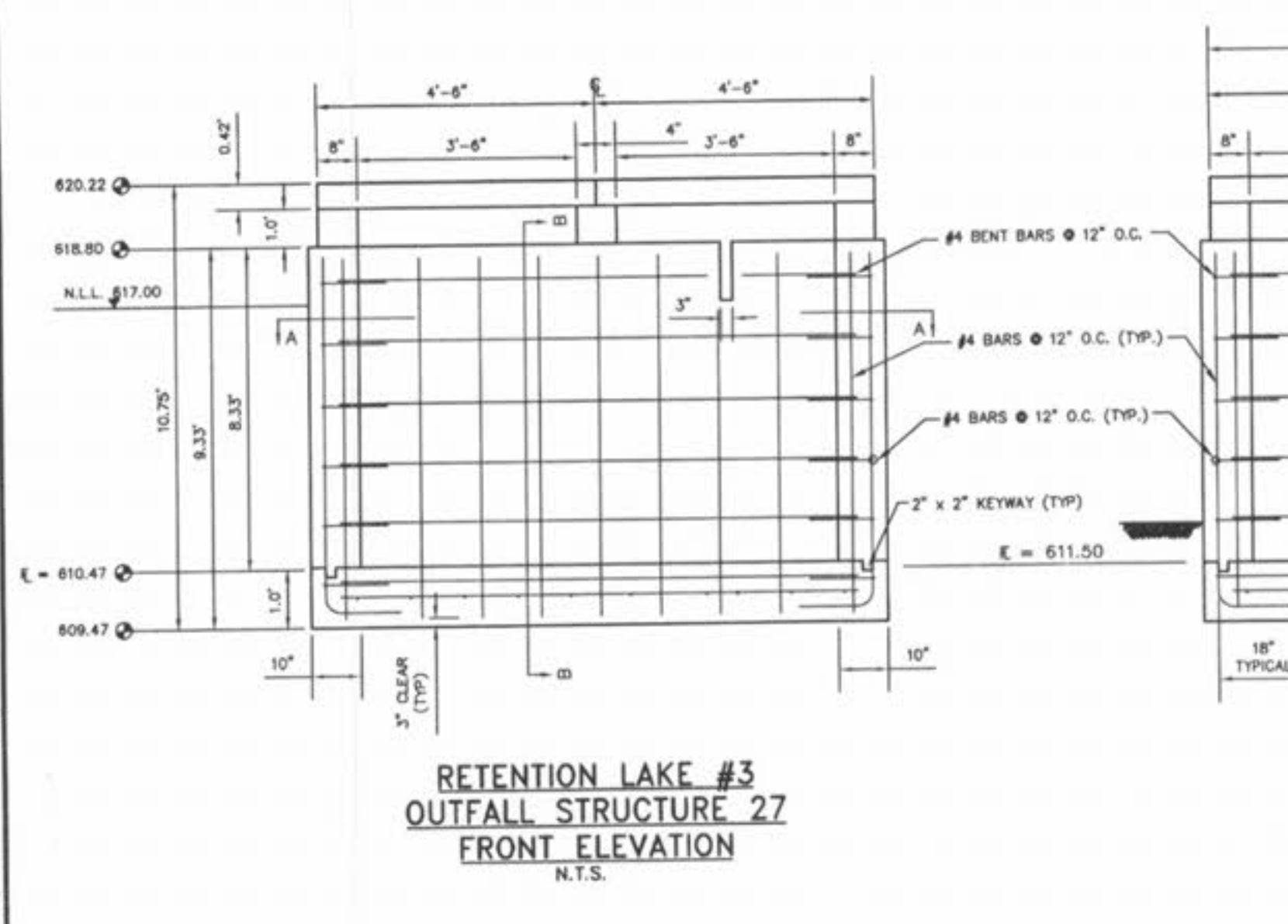
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OUTFALL STRUCTURE 3
REAR ELEVATION**
N.T.S.



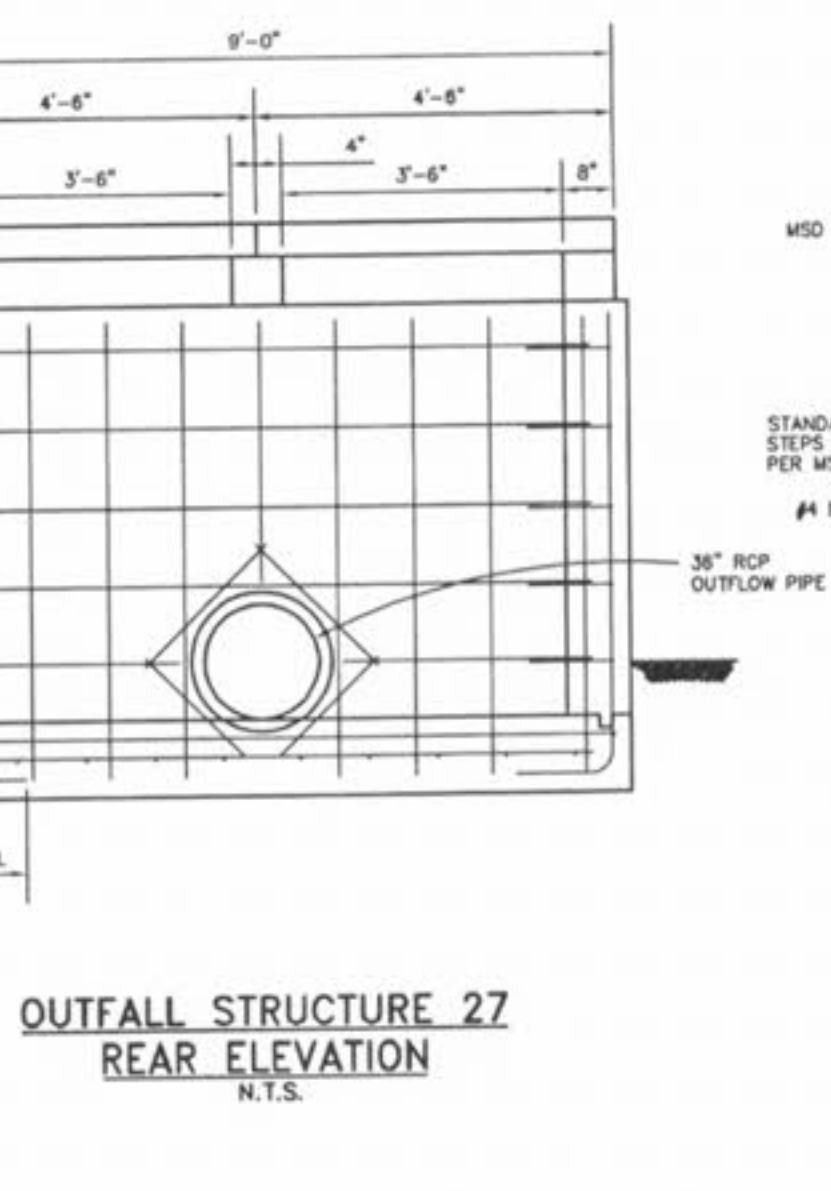
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OUTFALL STRUCTURE 3
SECTION A-A**
N.T.S.



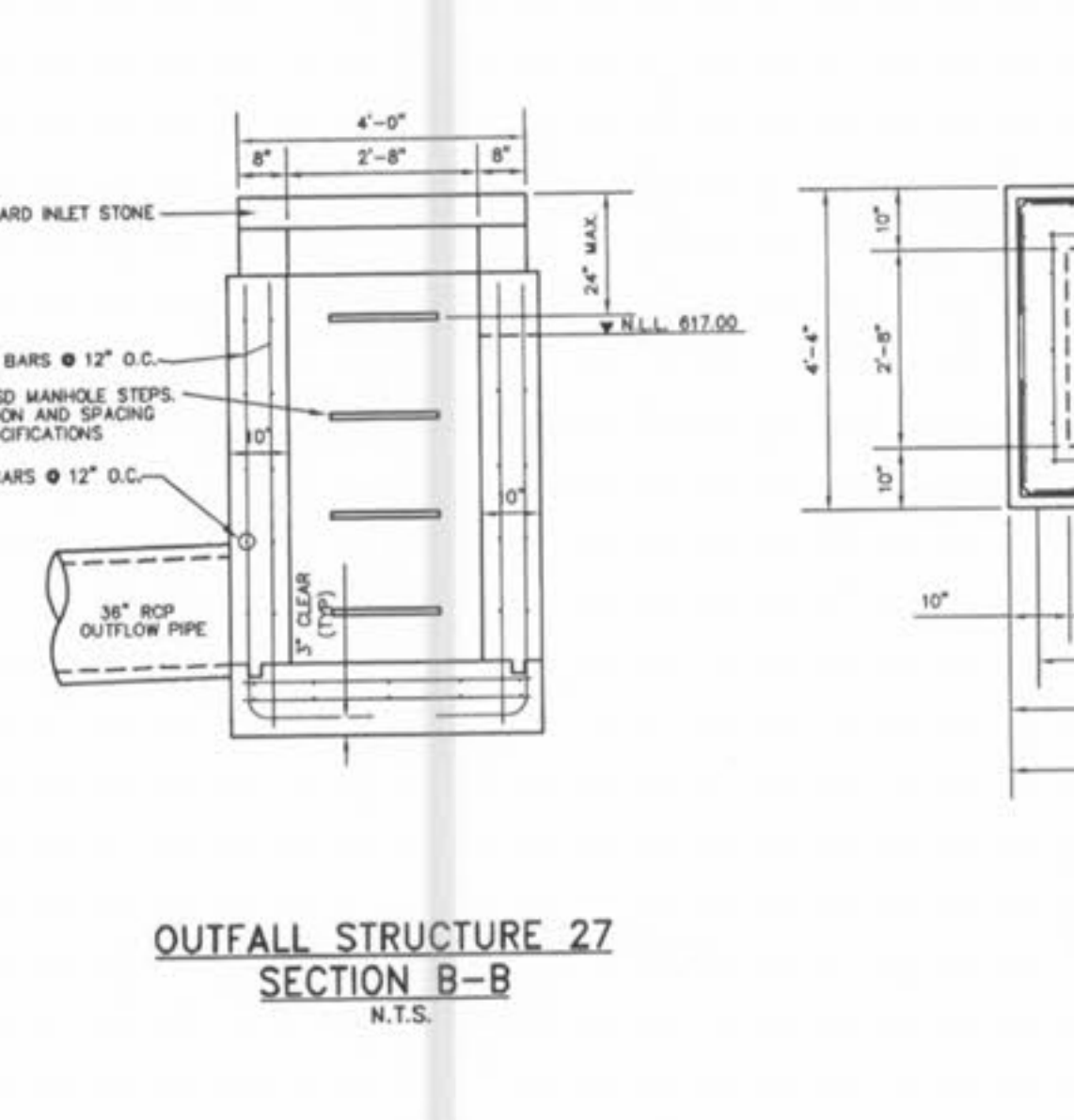
**DETENTION BASIN #2
OUTFALL STRUCTURE 3
SECTION B-B**
N.T.S.



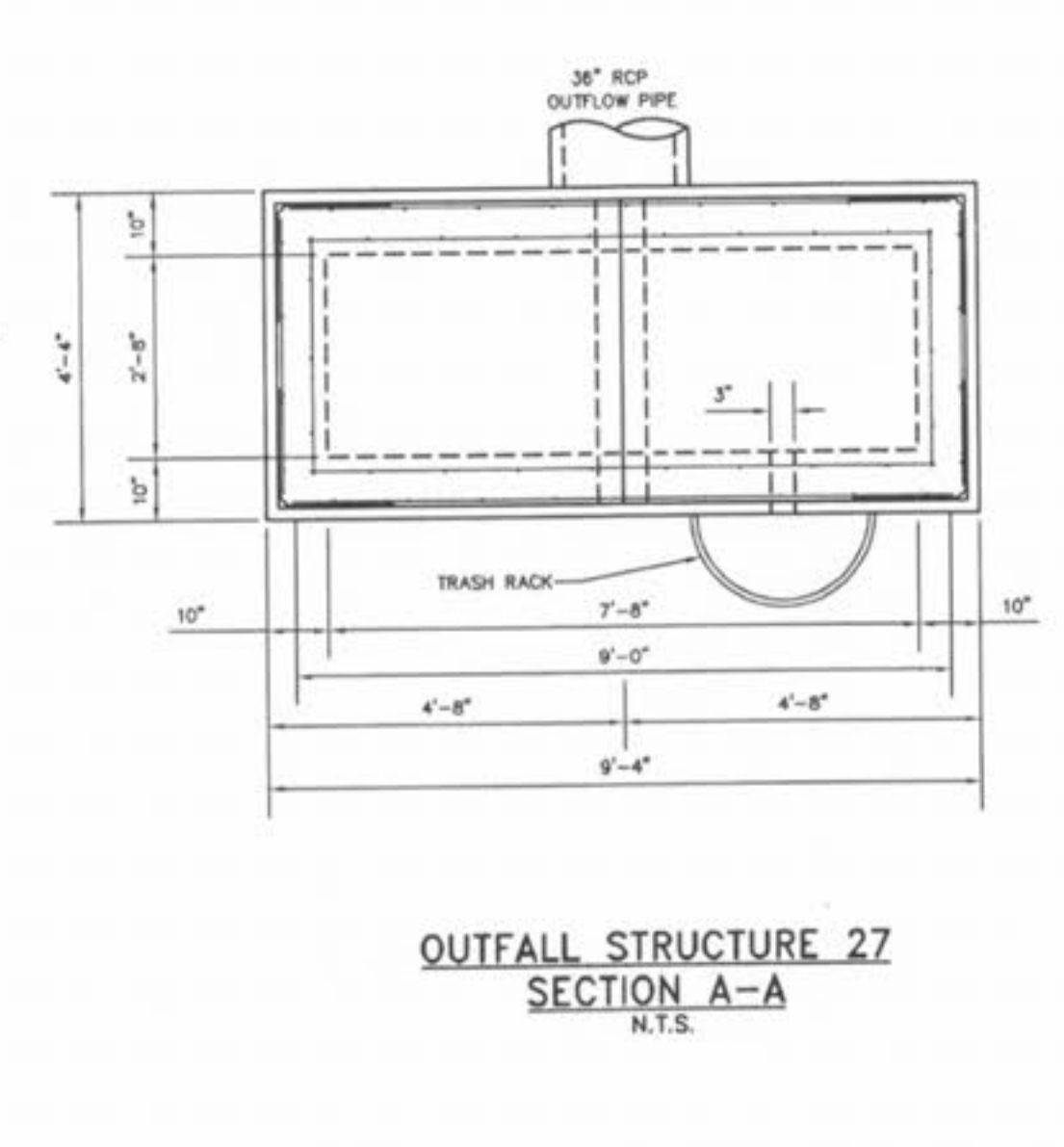
**RETENTION LAKE #3
OUTFALL STRUCTURE 27
FRONT ELEVATION**
N.T.S.



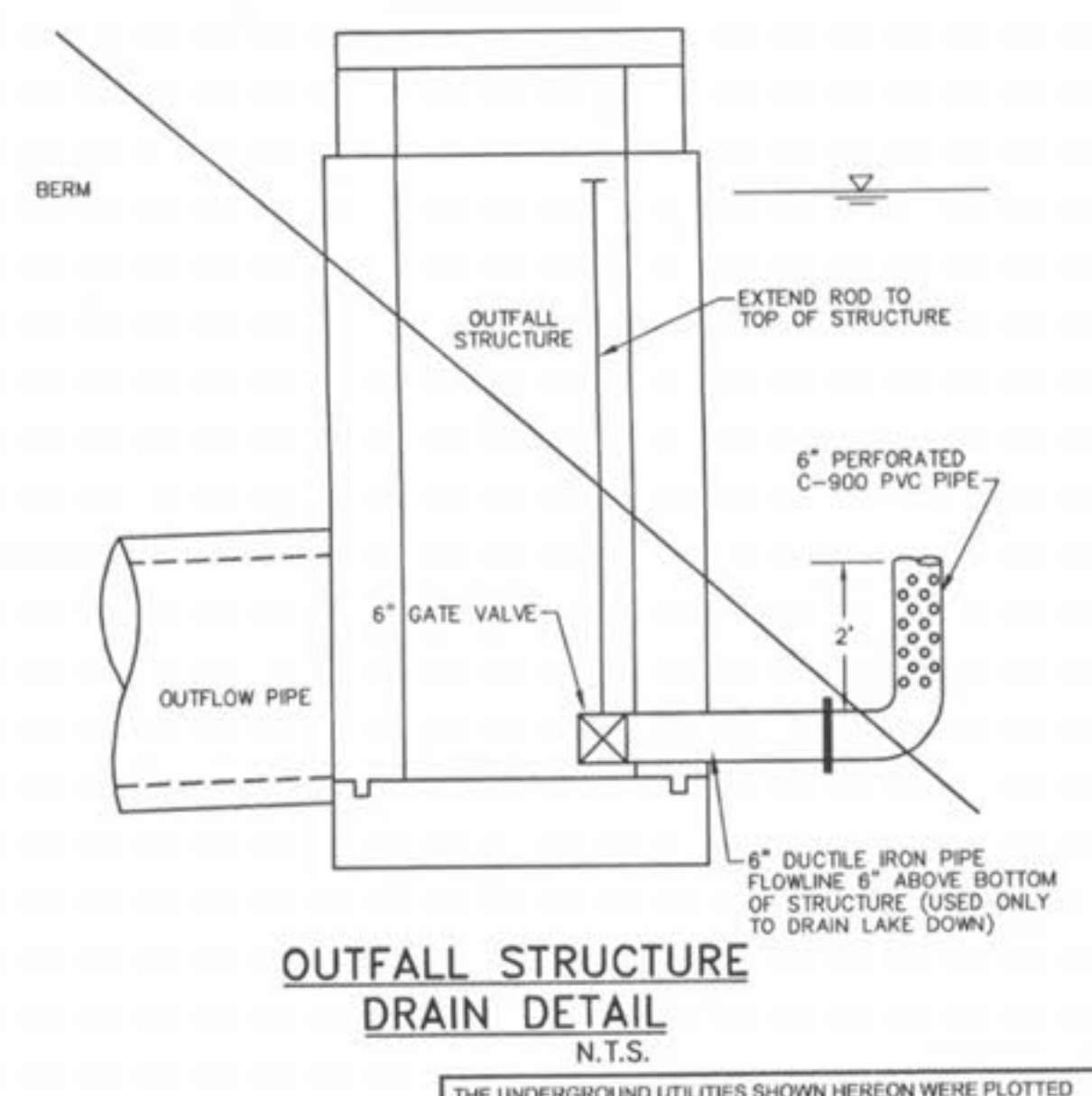
**OUTFALL STRUCTURE 27
REAR ELEVATION**
N.T.S.



**OUTFALL STRUCTURE 27
SECTION B-B**
N.T.S.



**OUTFALL STRUCTURE 27
SECTION A-A**
N.T.S.



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

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 ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR 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 319, RSMO

DETENTION BASIN #2, OS 3

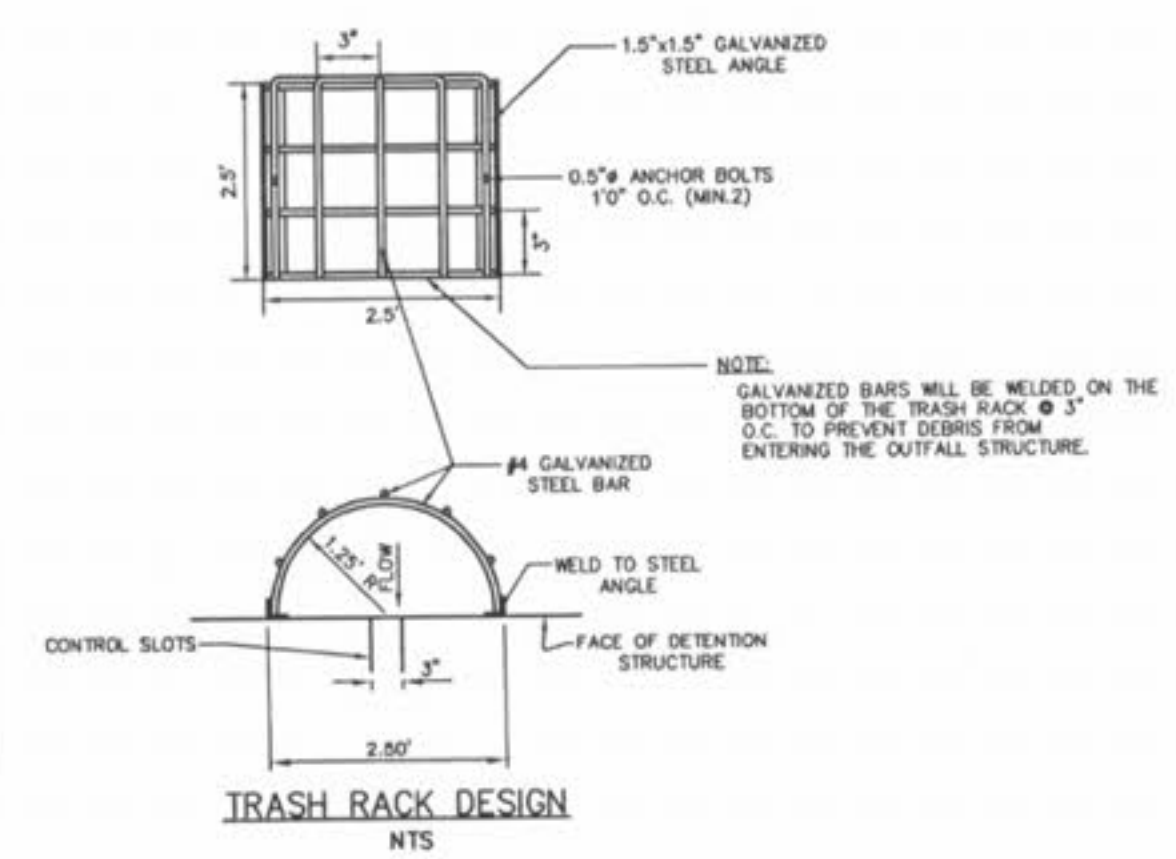
2 YEAR, 20 MIN. STORM HIGH WATER = 615.85
 15 YEAR, 20 MIN. STORM HIGH WATER = 616.37
 25 YEAR, 20 MIN. STORM HIGH WATER = 616.85
 100 YEAR, 20 MIN. STORM HIGH WATER = 617.03

2 YEAR, 20 MIN. STORM HIGH WATER BLOCKED LOW FLOW = 617.36
 15 YEAR, 20 MIN. STORM HIGH WATER BLOCKED LOW FLOW = 617.56
 25 YEAR, 20 MIN. STORM HIGH WATER BLOCKED LOW FLOW = 617.68
 100 YEAR, 20 MIN. STORM HIGH WATER BLOCKED LOW FLOW = 617.87

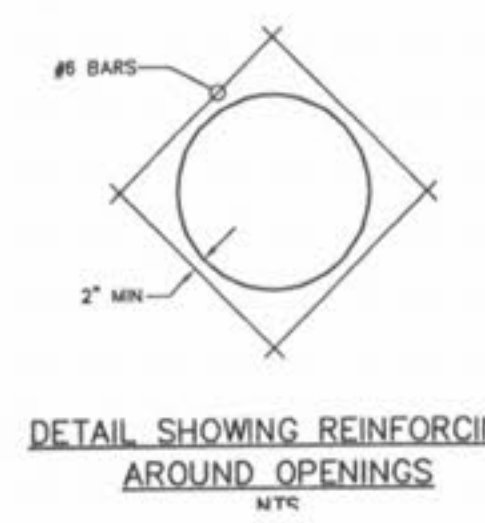
RETENTION LAKE #3, OS 27

2 YEAR, 20 MIN. STORM HIGH WATER = 617.85
 15 YEAR, 20 MIN. STORM HIGH WATER = 618.36
 25 YEAR, 20 MIN. STORM HIGH WATER = 618.66
 100 YEAR, 20 MIN. STORM HIGH WATER = 619.05

2 YEAR, 20 MIN. STORM HIGH WATER BLOCKED LOW FLOW = 619.24
 15 YEAR, 20 MIN. STORM HIGH WATER BLOCKED LOW FLOW = 619.47
 25 YEAR, 20 MIN. STORM HIGH WATER BLOCKED LOW FLOW = 619.61
 100 YEAR, 20 MIN. STORM HIGH WATER BLOCKED LOW FLOW = 619.80



TRASH RACK DESIGN
N.T.S.



**DETAIL SHOWING REINFORCING
AROUND OPENINGS**
N.T.S.

CONSTRUCTION NOTES:

- 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.
- 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.
- Laps and/or splices in reinforcing steel shall be a minimum of 30 bar diameters.
- Keyed joints shown are to be 2-inch by 2-inch keyed construction joints.
- Fy = 60,000 psi.
- Fc = 3,500 psi.
- All exposed edges are to have a 3/4-inch Chamfer.
- Contractor to provide for bypass of stormwater during construction of structure.
- Soil density tests shall be obtained by the soils engineer at selected intervals to insure compliance with soils specifications.
- All soil specifications shall be directed by soils engineer.
- 2" clear (typ) to closest rebar to concrete surface.

ISSUE	REMARKS/DATE
1	11-14-02 1st Submittal
2	02-05-03 City of Ofallon Comments
3	02-28-03 Client Revisions
4	03-12-03 City of Ofallon Comments
5	04-02-03 City of Ofallon Comments
6	06-26-03 Client Revisions
7	07-15-03 City of Ofallon Comments

PREPARED FOR:
McBride & Son Homes, Inc.
 #1 McBride & Son Center Drive
 Chesterfield, Missouri 63005
 (636) 537-2000

THE **STERLING** CO.
 ENGINEERS & SURVEYORS
 5065 NEW BAUMGARTNER ROAD
 ST. LOUIS, MISSOURI 63129
 (314) 487-0440 FAX 487-8644
 E-Mail: Sterling@sterling-eng-sur.com

PROJECT: **BRIARCHASE**

NO. **02 03 043**

M.S.D. SHEET **16** OF **18**

P# **16**

DATE: 07/15/03

BY: [Signature]

CHECKED: [Signature]

DESIGNED: [Signature]

DRAWN: [Signature]

PROJECT: **BRIARCHASE**

NO. **02 03 043**

M.S.D. SHEET **16** OF **18**

P# **16**

DATE: 07/15/03

BY: [Signature]

CHECKED: [Signature]

DESIGNED: [Signature]

DRAWN: [Signature]