

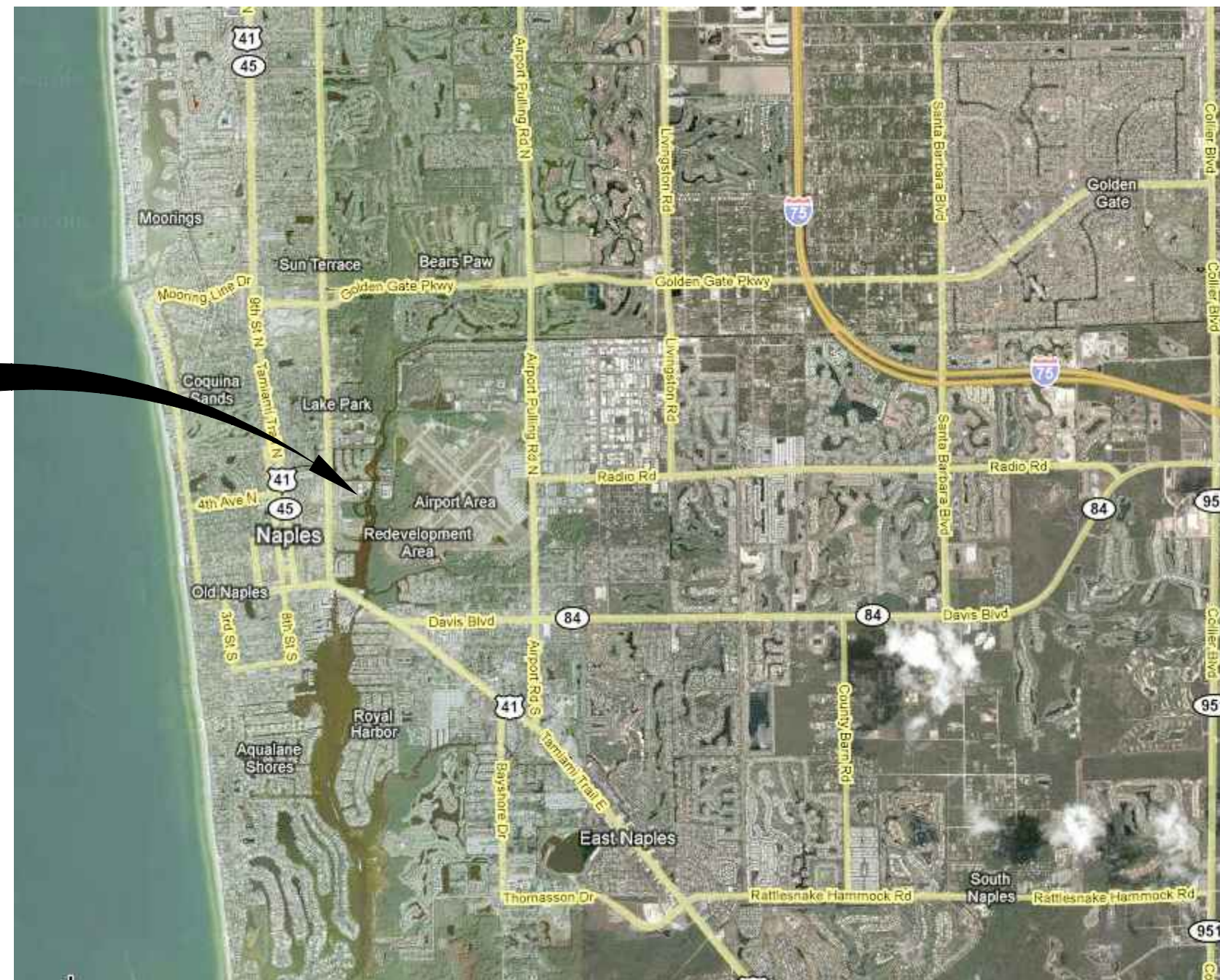
CITY OF NAPLES

AQUIFER STORAGE AND RECOVERY WELL

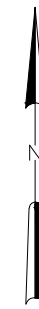
ASR NO. 3 AND MONITOR WELL NO. 3



PROJECT
LOCATION



LOCATION MAP
N.T.S.



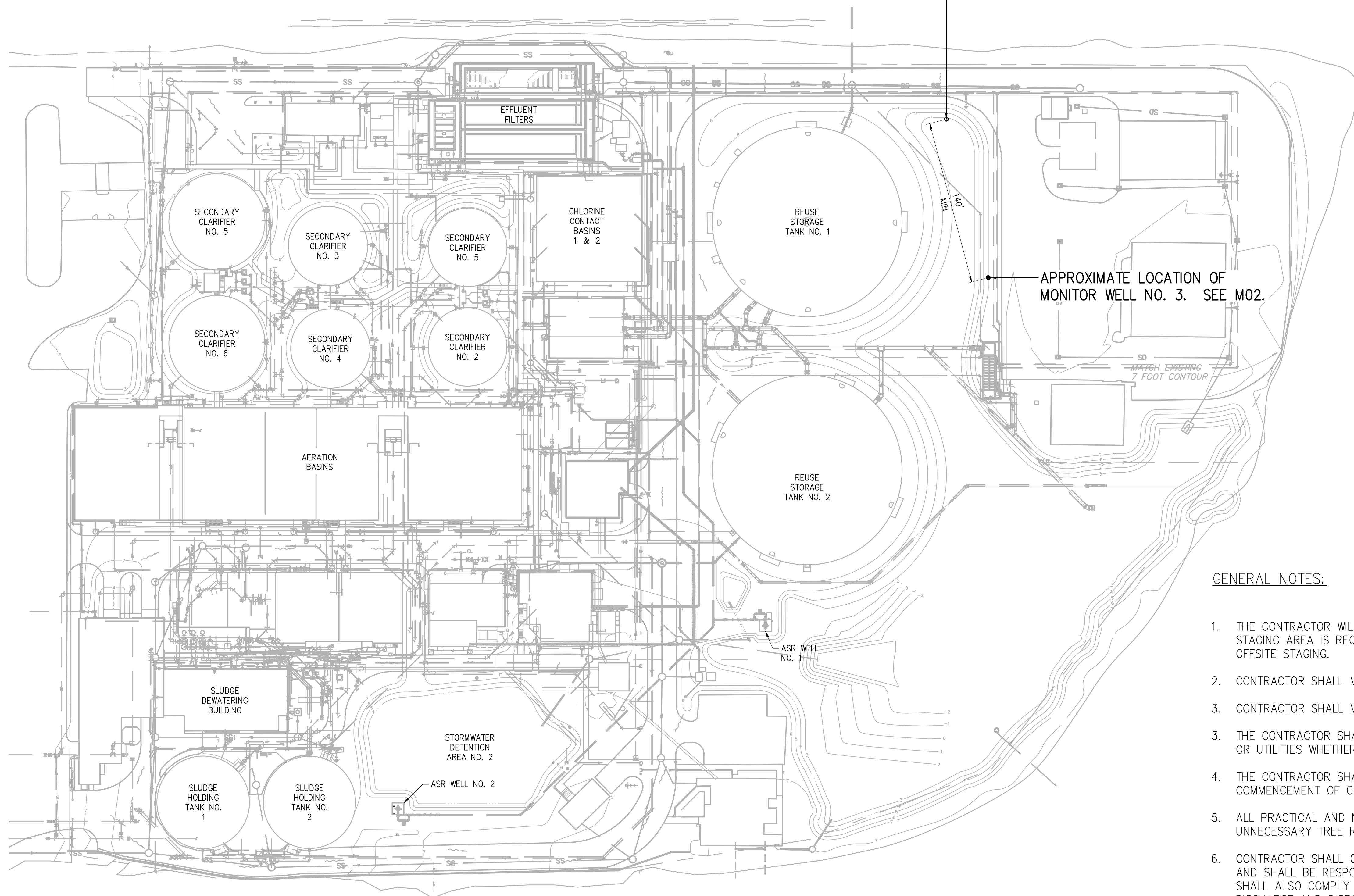
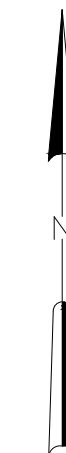
SEPTEMBER 2013

HAZEN AND SAWYER
Environmental Engineers & Scientists
2101 Corporate Boulevard, Suite 301
Boca Raton, Florida 33431
Certificate of Authorization Number: 2771

DRAWING INDEX

SHEET NUMBER	SHEET TITLE
G01	COVER SHEET, LOCATION MAP AND DRAWING INDEX
C01	SITE PLAN
M01	AQUIFER STORAGE AND RECOVERY TEST WELL DETAIL
M02	MONITOR WELL DETAILS

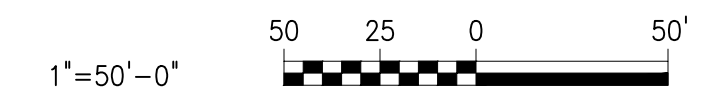
APPROXIMATE LOCATION OF ASR WELL NO. 3 WHICH WILL BE DETERMINED IN THE FIELD WITH THE OWNER AND THE ENGINEER. SEE ###.



APPROXIMATE LOCATION OF MONITOR WELL NO. 3. SEE M02.

GENERAL NOTES:

1. THE CONTRACTOR WILL BE PROVIDED WITH A STAGING AREA BY THE OWNER. IF ADDITIONAL STAGING AREA IS REQUIRED THE CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR OBTAINING OFFSITE STAGING.
2. CONTRACTOR SHALL MAINTAIN ACCESS TO PRIVATE PROPERTY AT ALL TIMES.
3. CONTRACTOR SHALL MAINTAIN HIS WORK WITHIN THE AREA DESIGNATED BY THE OWNER.
3. THE CONTRACTOR SHALL TAKE ALL PRECAUTIONARY MEASURES TO PROTECT EXISTING PIPELINES OR UTILITIES WHETHER SHOWN OR NOT.
4. THE CONTRACTOR SHALL INSURE THAT ALL NECESSARY PERMITS ARE IN HAND BEFORE COMMENCEMENT OF CONSTRUCTION.
5. ALL PRACTICAL AND NECESSARY EFFORTS SHALL BE TAKEN DURING CONSTRUCTION TO PREVENT UNNECESSARY TREE REMOVAL AND OR DAMAGE.
6. CONTRACTOR SHALL COORDINATE DISCHARGE OF DRILLING FLUIDS WITH OWNER AND ENGINEER, AND SHALL BE RESPONSIBLE FOR TURBIDITY CONTROL DURING ALL ACTIVITIES. CONTRACTOR SHALL ALSO COMPLY WITH ANY AND ALL APPLICABLE STANDARDS AND REGULATIONS FOR DISCHARGE AND DISPOSAL OF FLUIDS AND CUTTINGS.



PLOT DATE: 9/9/2013 4:08 PM BY: BENNETT

NO.	DATE	ISSUED FOR	BY

DESIGNED A.M.
 DRAWN F.C.B.
 CHECKED J.C.K.
 PROJ.ENGR. A.M.


THE SCALE BAR SHOWN BELOW MEASURES ONE INCH LONG ON THE ORIGINAL DRAWING.

ALBERT MUNIZ, PE NO. 35587

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CITY OF NAPLES

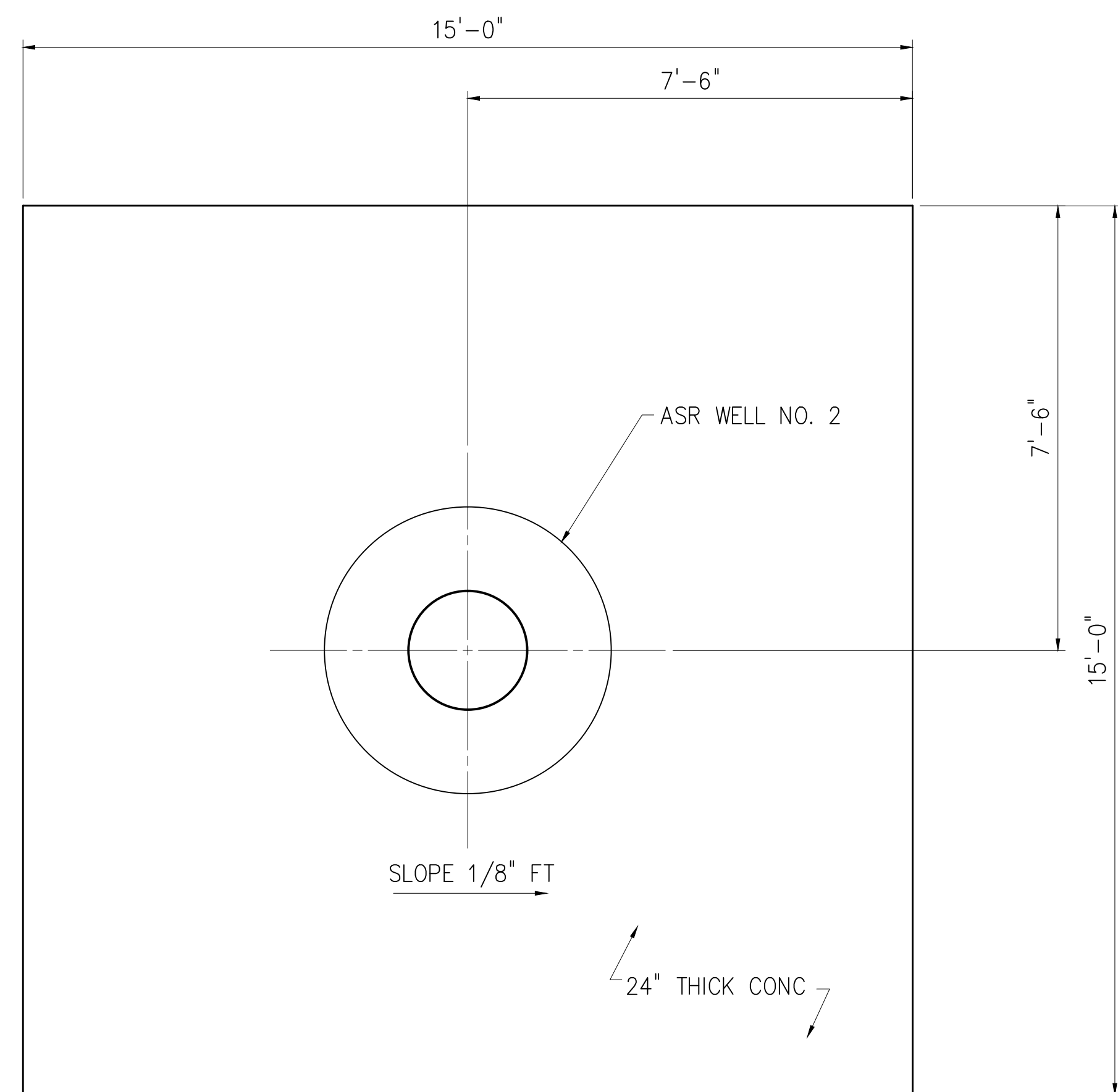


ASR 3 PIPING

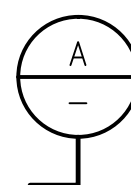
SITE PLAN

DATE	SEPTEMBER 2013
PROJECT NUMBER	41000-006
DRAWING NUMBER	C01

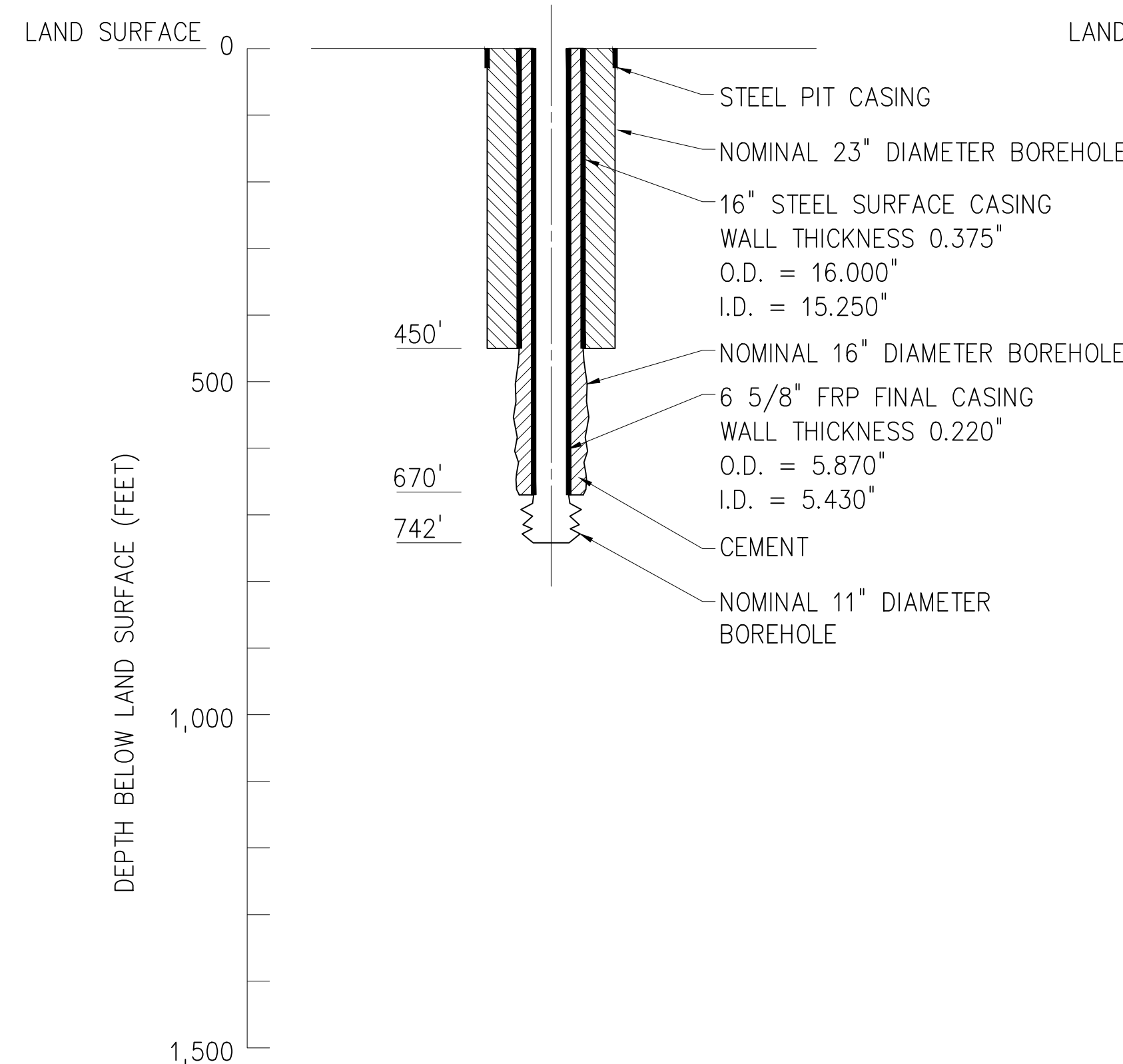
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PLAN
1/2" = 1'-0"

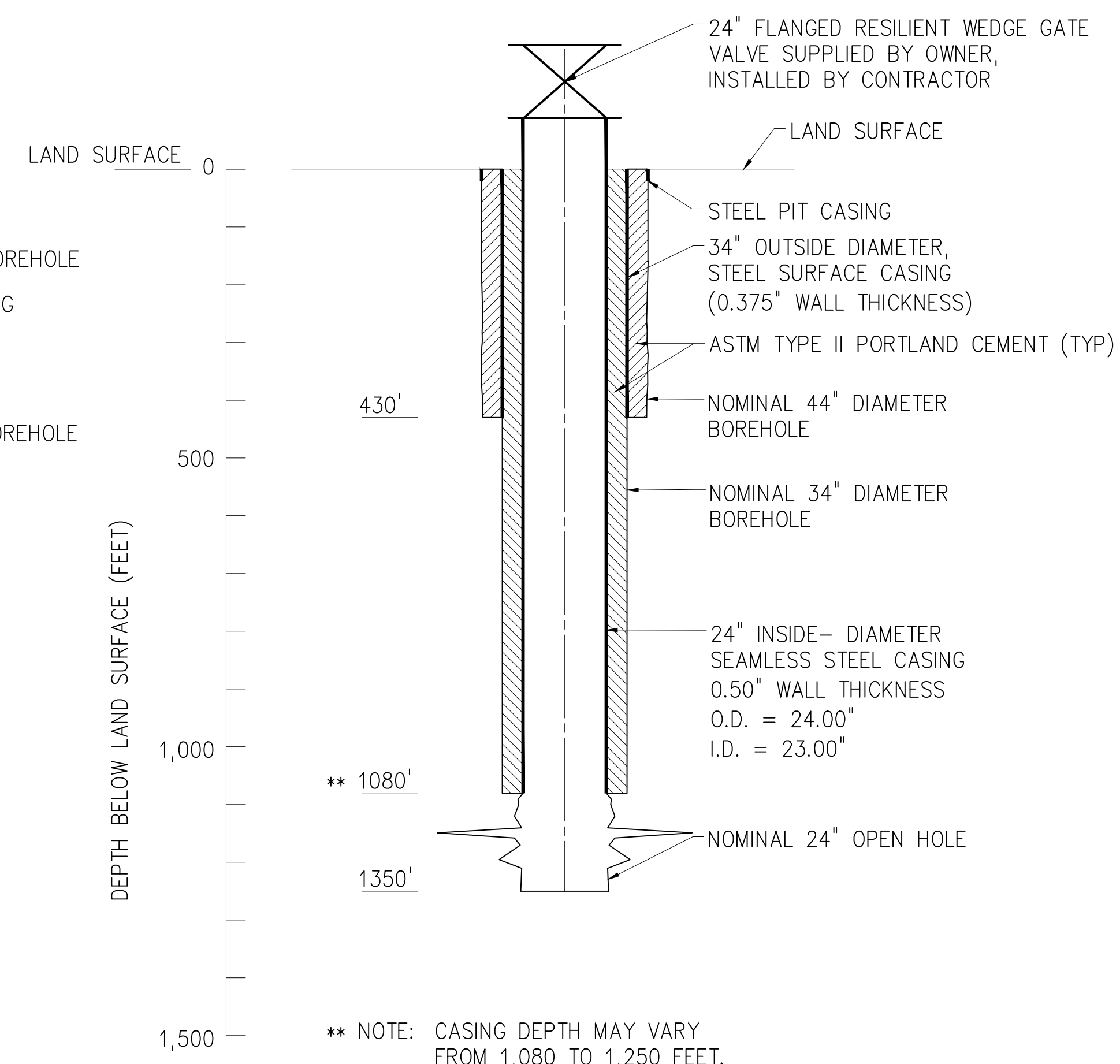


MONITOR WELL NO. 3 COMPLETION DIAGRAM

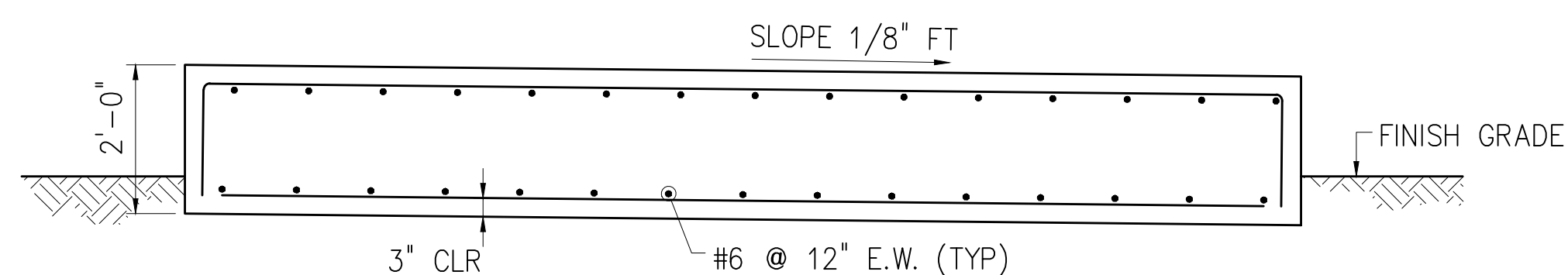


MONITOR WELL NO. 3
NTS

ESTIMATED CASING DEPTHS



AQUIFER STORAGE AND RECOVERY TEST WELL NO. 3 CONSTRUCTION DETAILS
NTS



SECTION
1/2" = 1'-0"

ASR TEST WELL PAD DETAIL
1/2" = 1'-0"



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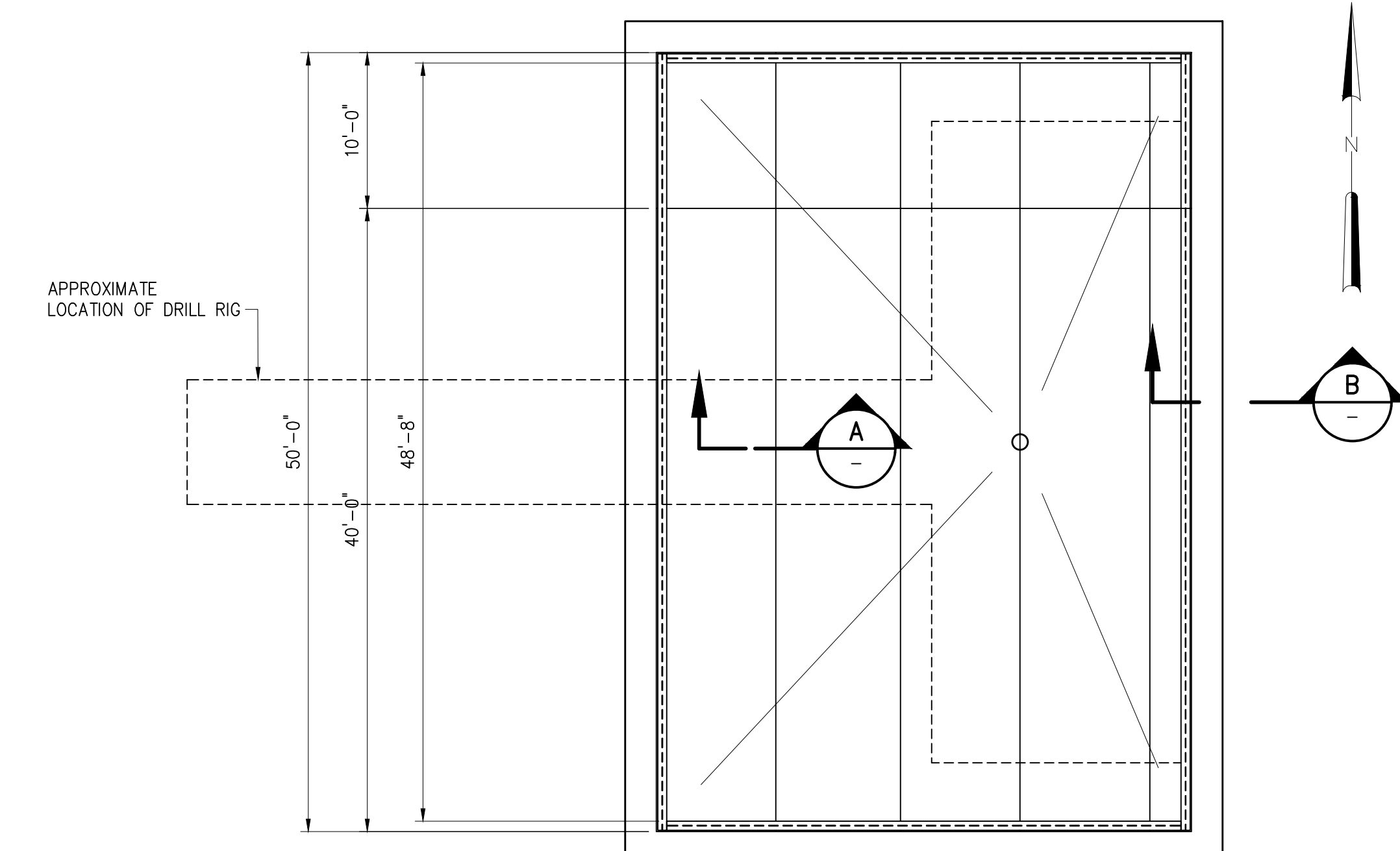
CITY OF NAPLES



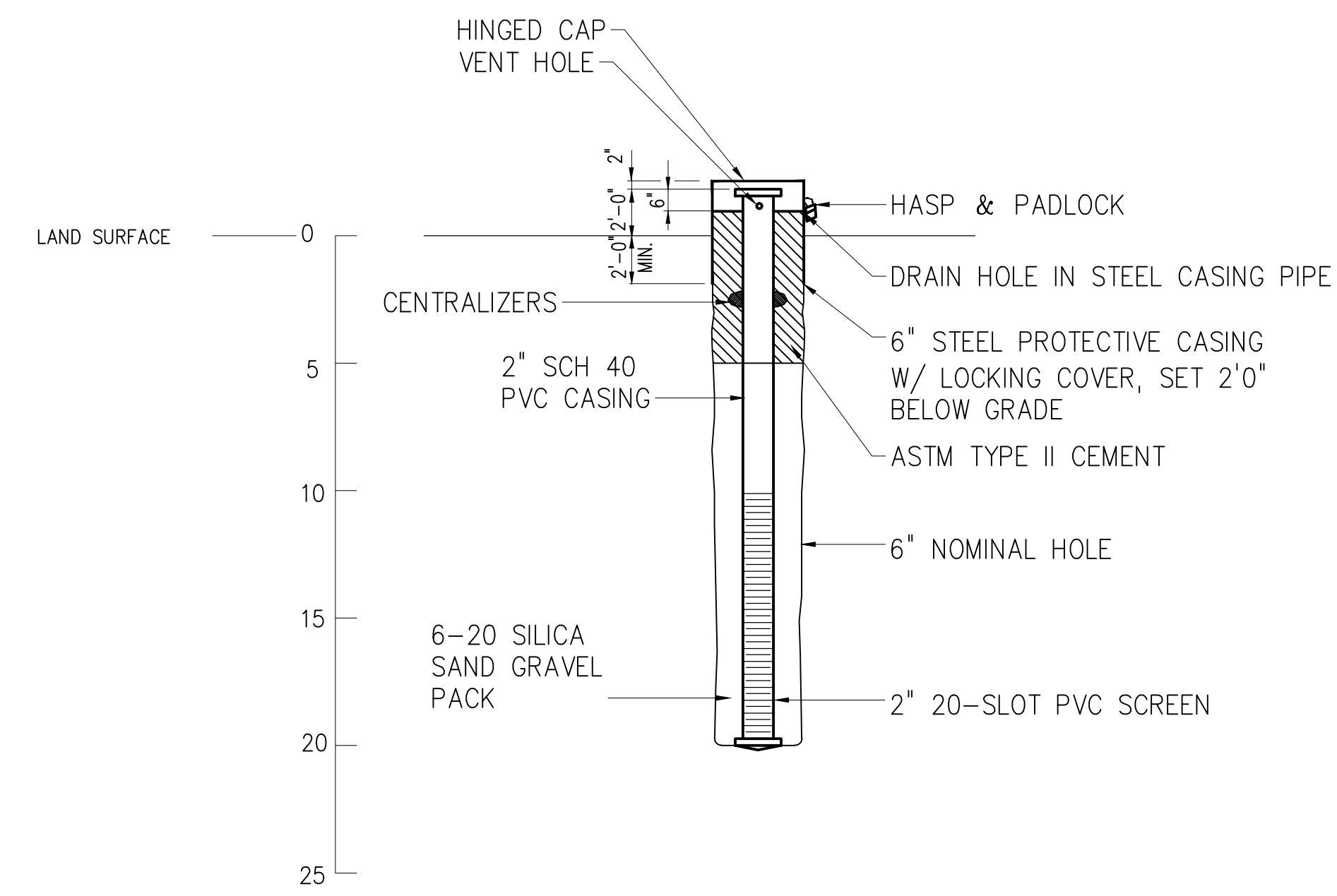
ASR 3 PIPING

AQUIFER STORAGE AND RECOVERY TEST WELL DETAIL

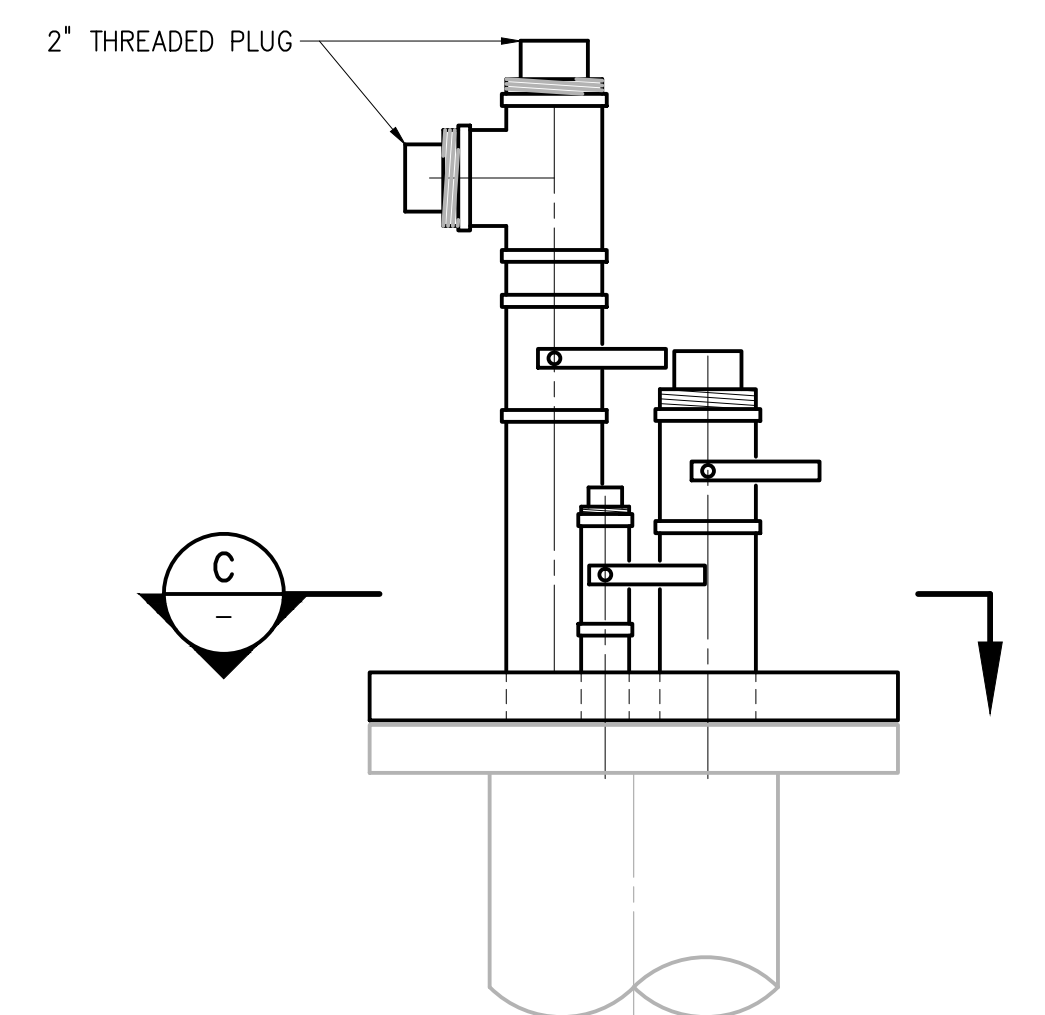
DATE	SEPTEMBER 2013
PROJECT NUMBER	41000-006
DRAWING NUMBER	M01



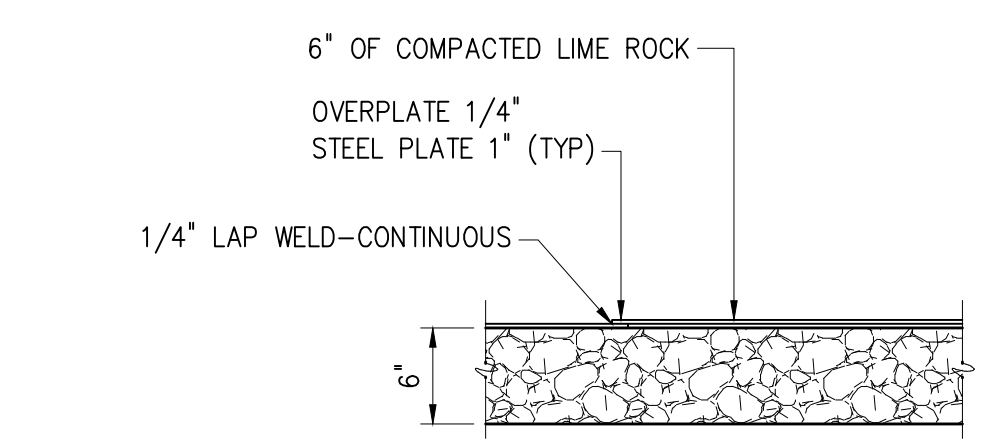
PROPOSED TEMPORARY STEEL DRILLING PAD
1/8" = 1'-0"



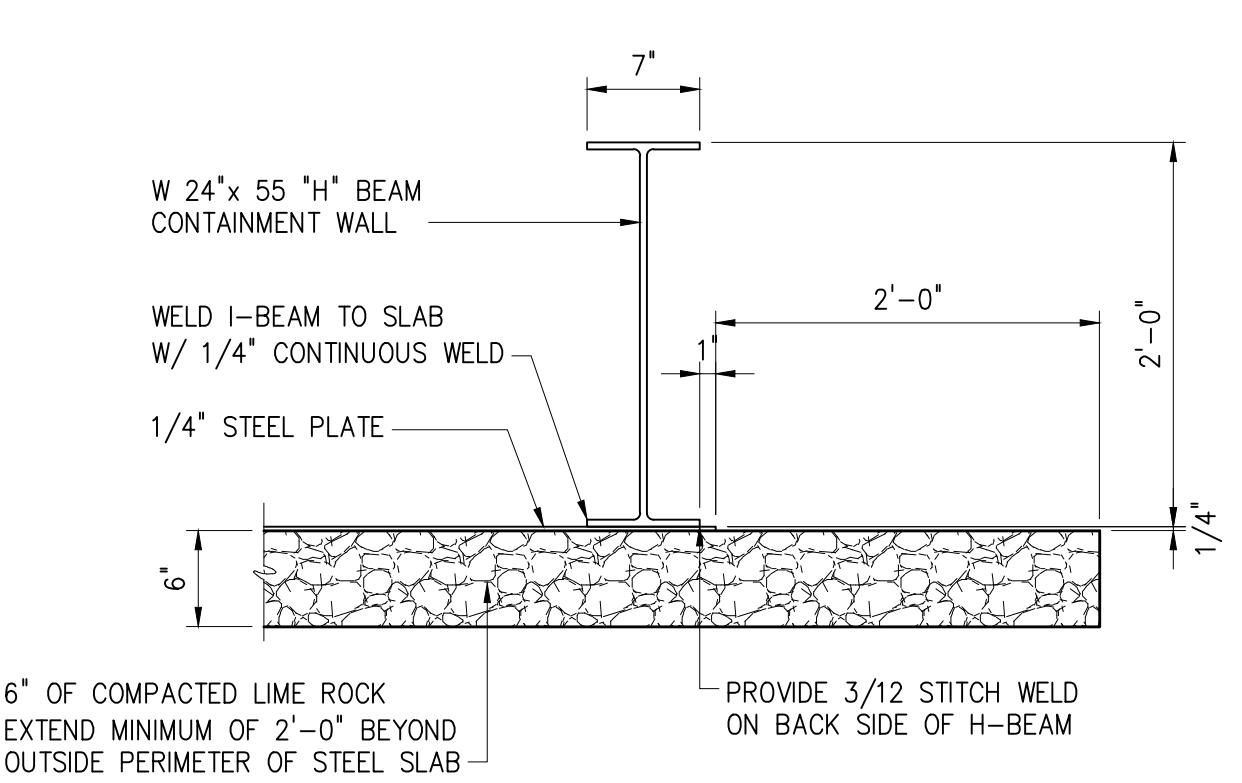
SHALLOW MONITOR WELL DIAGRAM
DETAIL 1
NTS



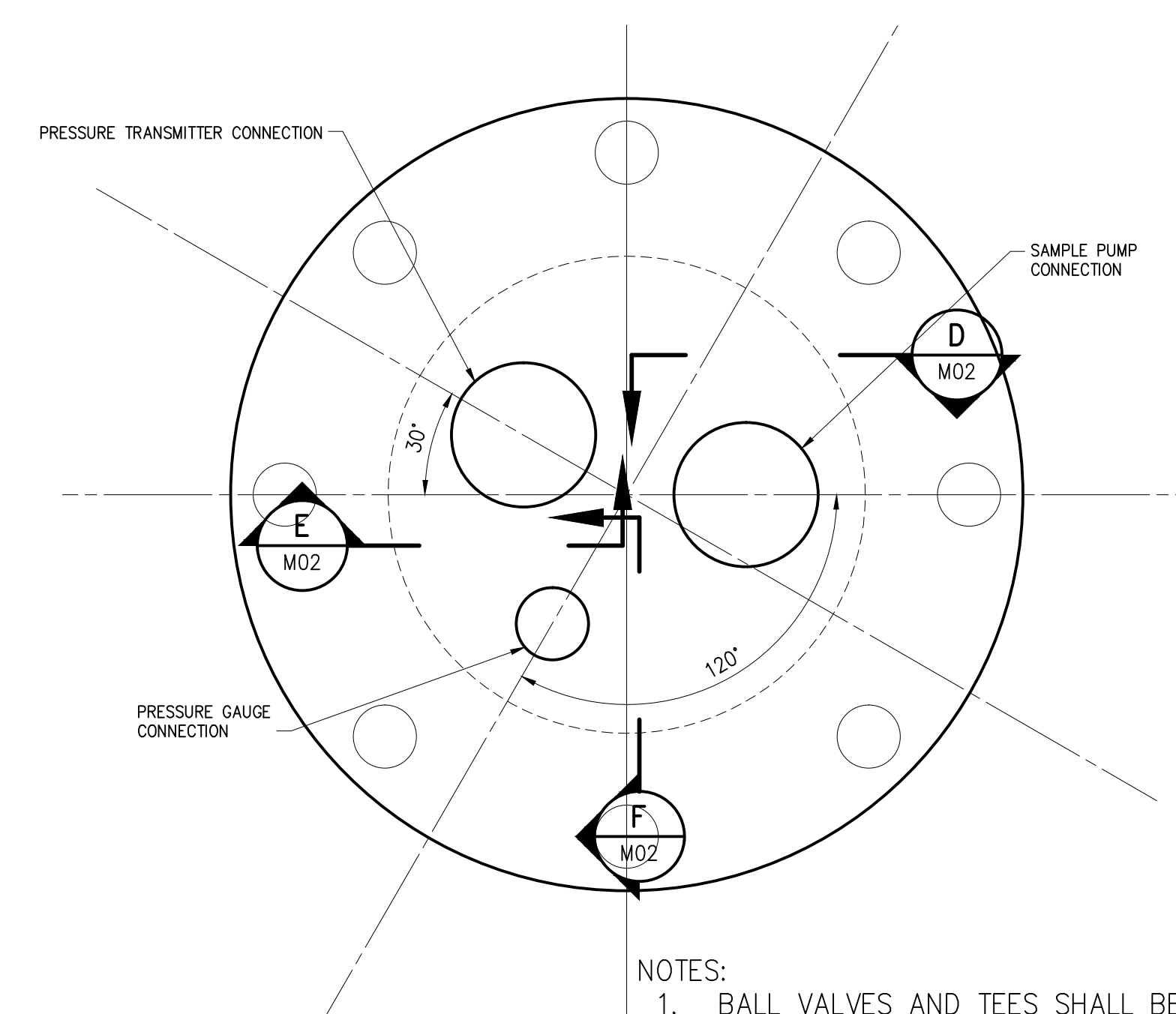
MONITOR WELL DETAIL
DETAIL 2
3" = 1'-0"



TYPICAL LAP JOINT
SECTION A
1" = 1'-0"

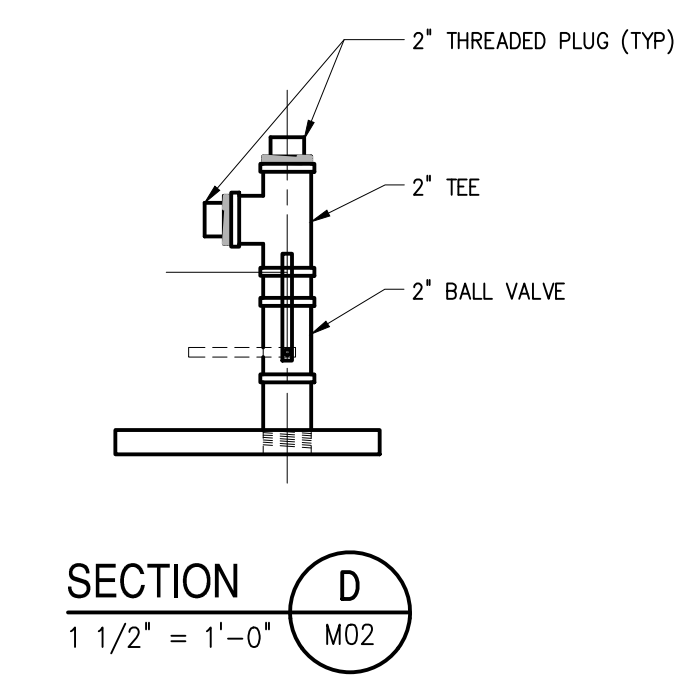


TYPICAL WALL SECTION
SECTION B
1" = 1'-0"

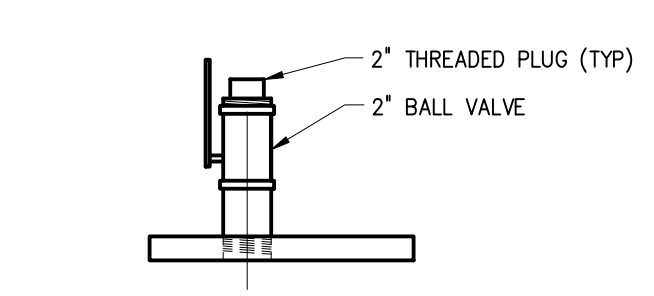


SECTION C
6" = 1'-0" M02

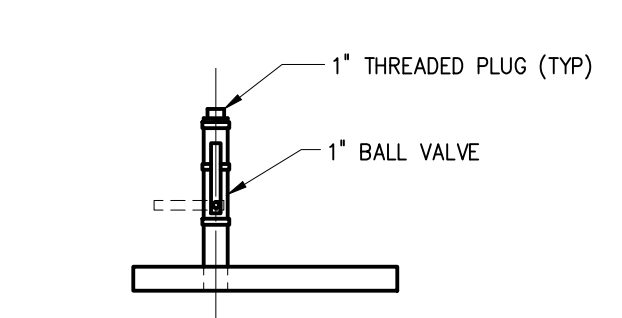
- NOTES:
- BALL VALVES AND TEES SHALL BE PROVIDED WITH THREADED END CONNECTIONS.
 - BLIND FLANGE, NUTS AND BOLTS, AND ALL BALL VALVES, FITTINGS AND PIPING SHALL BE 316 SS.



SECTION D
1 1/2" = 1'-0" M02



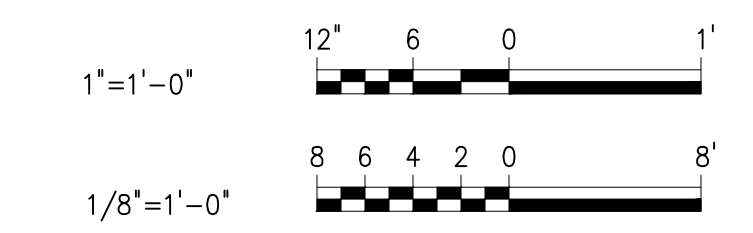
SECTION E
1 1/2" = 1'-0" M02



SECTION F
1 1/2" = 1'-0" M02

NOTES:

- TEMPORARY MONITOR WELLS SHALL BE INSTALLED PRIOR TO START OF DRILLING OPERATIONS AND SHALL BE REMOVED AFTER COMPLETION OF DRILLING AND TESTING.
- STEEL DRILLING PAD TO BE RELOCATED TO MONITOR WELL UPON COMPLETION OF INJECTION WELL. MUD SYSTEM PAD TO BE CENTRALLY LOCATED AND STATIONARY THROUGHOUT THE PROJECT.
- THE DRILLING PAD SHALL BE CONSTRUCTED OF CONTINUOUS 1/4" THICK ASTM A36 STEEL PLATE. ALL WELDING FOR THE STEEL DRILLING PAD AND CONTAINMENT WALL TO BE 1/4" CONTINUOUS IN ACCORDANCE WITH THE AMERICAN WELDING SOCIETY STRUCTURAL WELDING CODE WHICH SHALL BE WATERTIGHT.
- SITE EXCAVATION AND BACKFILL FOR THE COMPACTED LIMEROCK BASE SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION SECTION 120 TO A DENSITY OF 98%. ANY REQUIRED STABILIZATION SHALL BE IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION SECTION 160.
- THE STEEL DRILLING PAD SHALL PITCH TO THE SUMP ON A 6" COMPACTED LIMEROCK BASE CONSTRUCTED IN ACCORDANCE WITH FDOT STANDARD SPECIFICATION SECTION 200 COMPACTED TO 98% DENSITY.
- EXACT DEPTH OF WELL AND SCREEN SETTING WILL BE DETERMINED IN THE FIELD. TOP OF SCREEN WILL BE A MINIMUM OF 5 FEET BELOW WATER TABLE.
- CONTRACTOR IS RESPONSIBLE FOR PROVIDING DRILLING PAD DETAILS TO ACCOMMODATE HIS OPERATIONS.



PLOT DATE: 9/9/2013 4:08 PM BY: BENNETT

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DRAWN	F.C.B.		
CHECKED	A.M.		
PROJ.ENGR.	J.C.K.		
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ASR 3 PIPING

MONITOR WELL DETAILS
DATE SEPTEMBER 2013
PROJECT NUMBER 41000-006
DRAWING NUMBER M02