

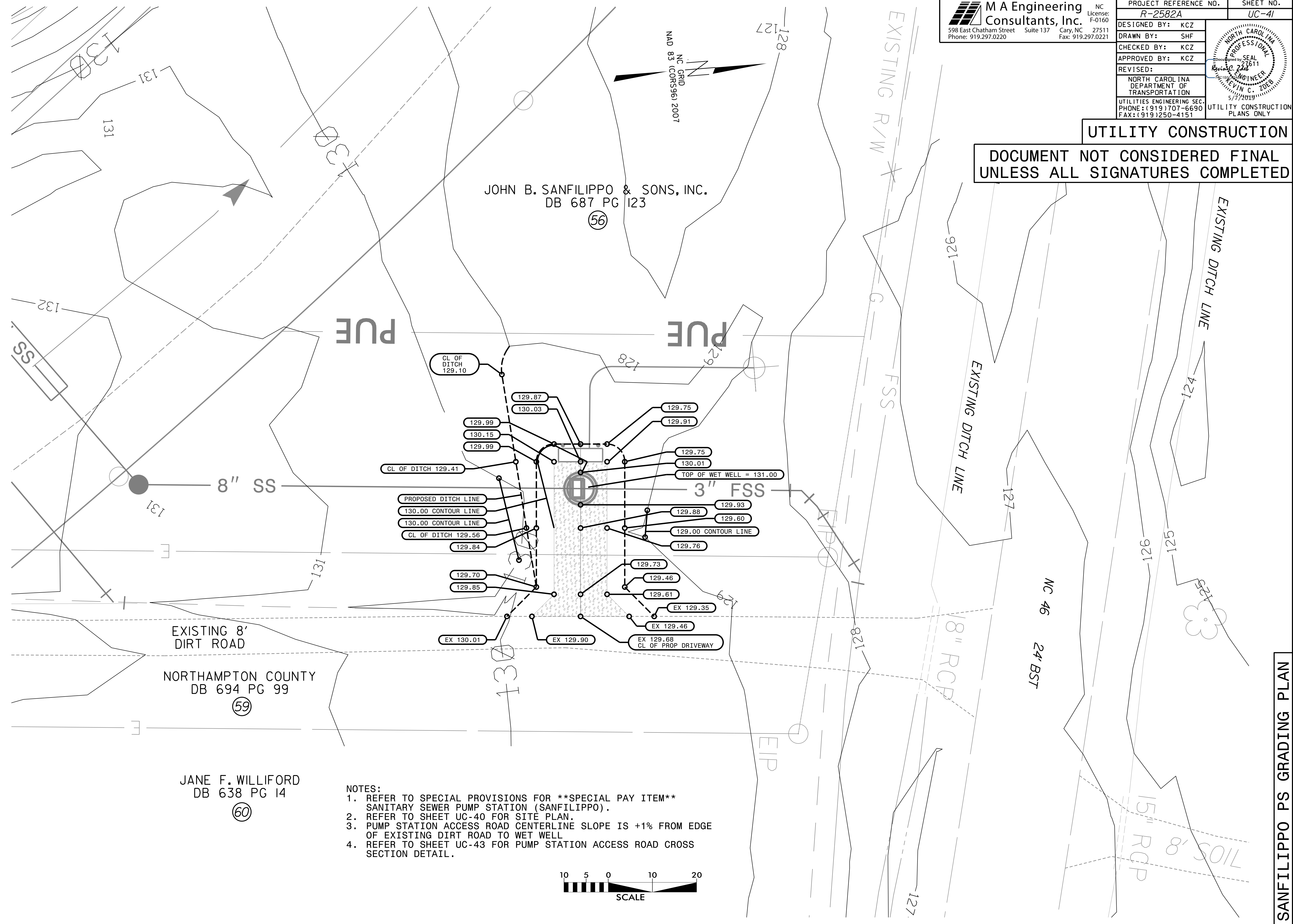
8/17/09

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 598 East Chatham Street Suite 137 Cary, NC 27511
 Phone: 919.297.0220 Fax: 919.297.0221

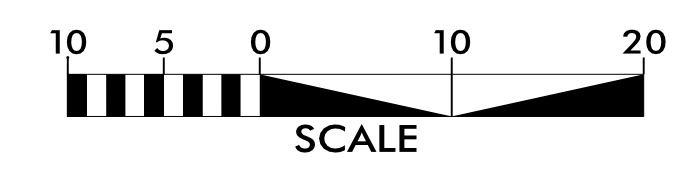
PROJECT REFERENCE NO. R-2582A	SHEET NO. UC-41
DESIGNED BY: KCZ	
DRAWN BY: SHF	
CHECKED BY: KCZ	
APPROVED BY: KCZ	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	

UTILITY CONSTRUCTION

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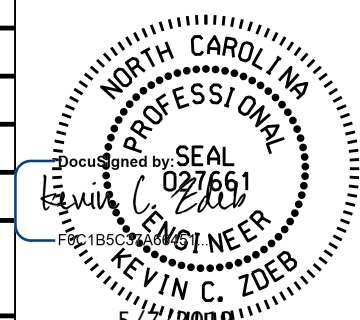
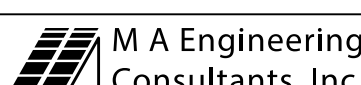
- NOTES:**
1. REFER TO SPECIAL PROVISIONS FOR **SPECIAL PAY ITEM** SANITARY SEWER PUMP STATION (SANFILIPPO).
 2. REFER TO SHEET UC-40 FOR SITE PLAN.
 3. PUMP STATION ACCESS ROAD CENTERLINE SLOPE IS +1% FROM EDGE OF EXISTING DIRT ROAD TO WET WELL
 4. REFER TO SHEET UC-43 FOR PUMP STATION ACCESS ROAD CROSS SECTION DETAIL.



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SANFILIPPO PS GRADING PLAN

5/14/99

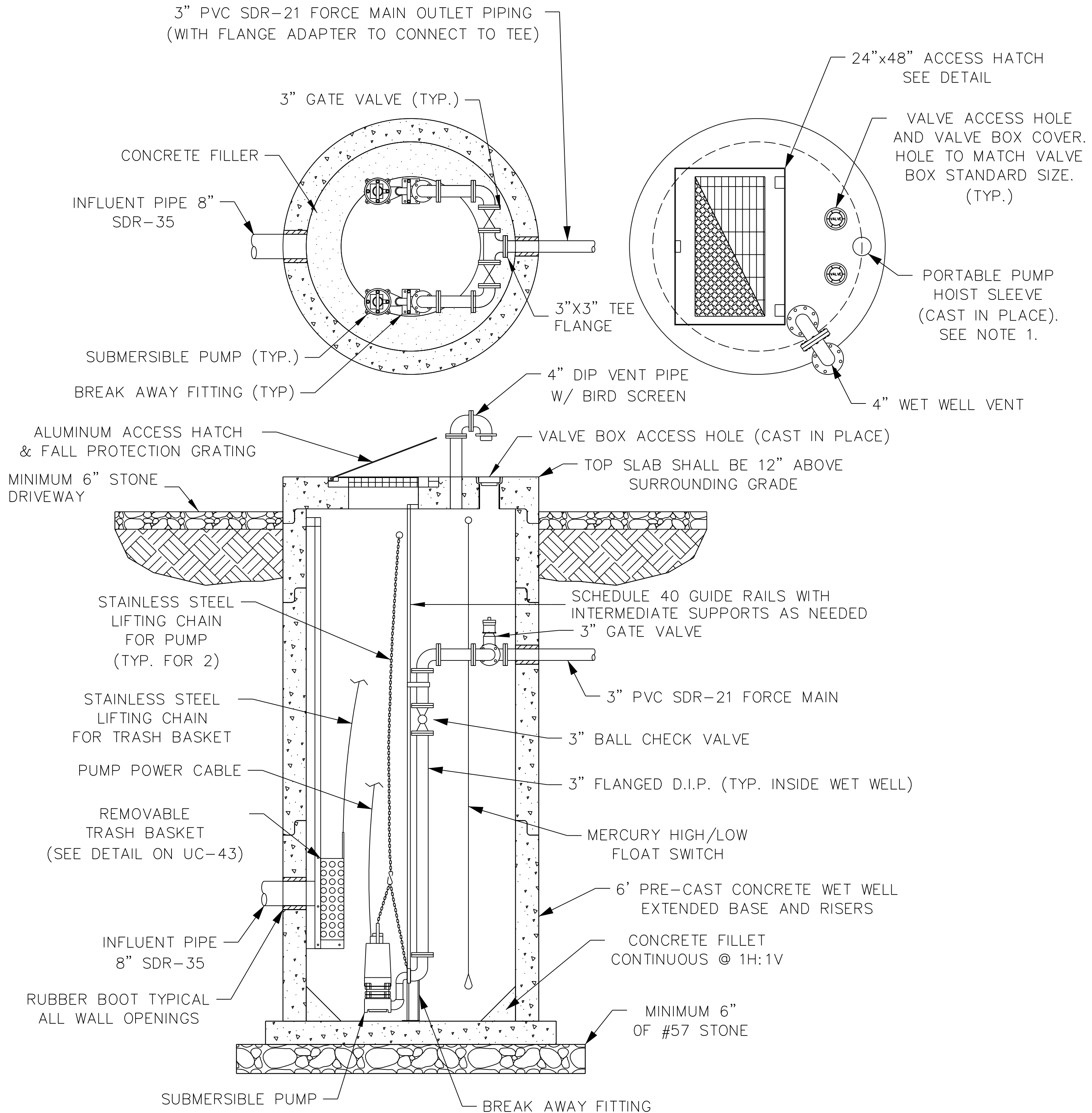
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DESIGNED BY: SHF	
DRAWN BY: SHF	
CHECKED BY: KCZ	
APPROVED BY: KCZ	
REVISED:	
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NOTES:

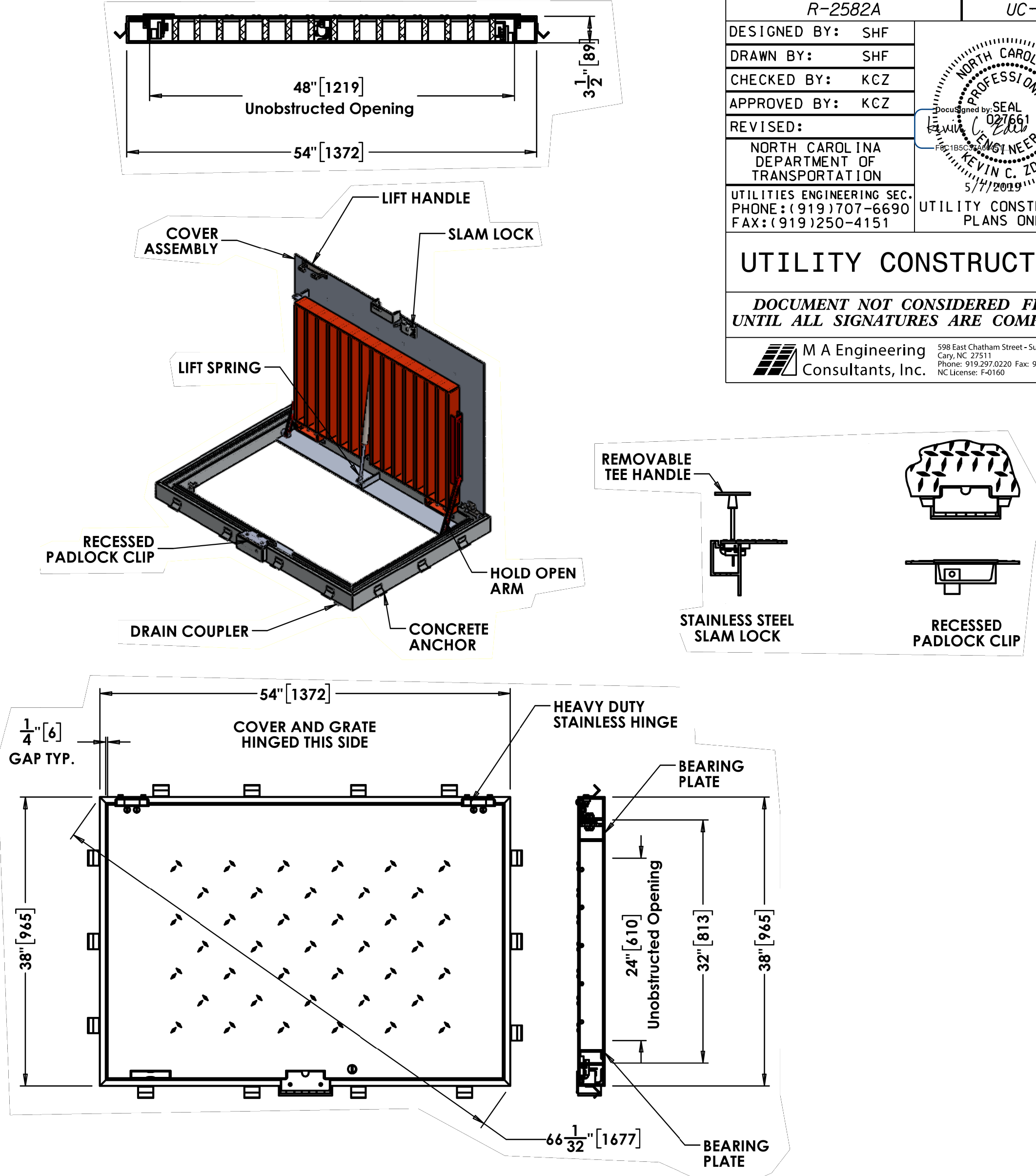
- REFER TO SPECIAL PROVISIONS FOR **SPECIAL PAY ITEM** SANITARY SEWER PUMP STATION (SANFILIPPO).
- EXISTING SANFILIPPO PUMP STATION SHALL BE REMOVED AFTER NEW PUMP STATION HAS BEEN FULLY TESTED, ACCEPTED BY UTILITY OWNER, AND PLACED INTO SERVICE.
- PUMP STATION SHALL MEET ALL STATE MINIMUM DESIGN REQUIREMENTS.
- WET WELL SHALL BE EPOXY COATED (80 MILS).
- PUMPS SHALL BE BARNES MODEL NO. XSGV3032L OR APPROVED EQUAL.
- BREAK AWAY FITTING SHALL BE BARNES MODEL NO. BAFEZ-2x3 OR APPROVED EQUAL.
- 3" GATE VALVES SHALL BE PROVIDED WITH PIPE SUPPORT (NOT SHOWN).

WET WELL AND CONTROL ELEVATIONS

TOP SLAB:	131.00
GROUND:	130.00
FORCE MAIN INVERT:	125.78
GRAVITY INVERT:	118.66
HIGH WATER ALARM:	117.66
LAG PUMP ON:	117.16
LEAD PUMP ON:	116.83
PUMPS OFF:	116.16
LOW WATER ALARM:	116.08
WET WELL BOTTOM:	115.33



SANFILIPPO PUMP STATION PLAN AND PROFILE
SCALE: 1"=2'



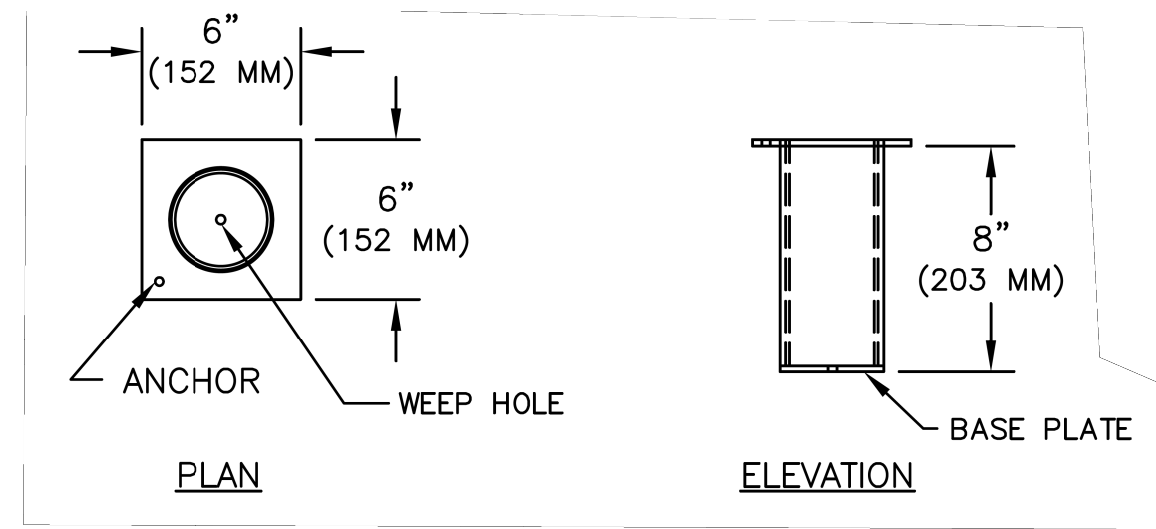
SANFILIPPO ACCESS HATCH
NOT TO SCALE

NOTES:

- MATERIAL SHALL BE 6061-T6 ALUMINUM FOR BARS, ANGLES AND EXTRUSIONS, 1/4" DIAMOND PLATE SHALL BE 5086 ALUMINUM.
- UNIT DESIGNED HEAVY DUTY, FOR 16,000 LBS + 30% IMPACT H-20 WHEEL LOADS, OVER A 10" X 20" CONTACT AREA. FRAMES AND BEARING PLATE MUST BE CAST INTO AND SUPPORTED BY CONCRETE DESIGNED FOR H-20 WHEEL LOADS.
- UNIT NOT SUITABLE FOR WHEEL LINE PLACEMENT.
- UNIT SUPPLIED WITH A HEAVY DUTY PNEU-SPRING, FOR EASE OF OPERATION WHEN OPENING GRATE. GRATE SHALL BE COUNTERBALANCED, SO ONE PERSON CAN EASILY OPEN THE SAFETY GRATE.
- FRAME SHALL BE OF EXTRUDED ALUMINUM. A DOVETAIL GROOVE SHALL BE EXTRUDED INTO THE SEAT OF THE FRAME FOR A 1/8" SILICONE GASKET.
- EACH HATCH SHALL BE EQUIPPED WITH A STAINLESS STEEL HOLD OPEN ARM. DOOR SHALL LOCK OPEN IN THE 90 DEGREE POSITION. HOLD OPEN ARM SHALL BE FASTENED TO THE FRAME WITH A 1/2" GRADE 316 STAINLESS STEEL BOLT.
- HINGES SHALL BE OF HEAVY DUTY DESIGN. MATERIAL SHALL BE GRADE 316 STAINLESS STEEL. EACH HINGE SHALL HAVE A GRADE 316 STAINLESS STEEL, 3/8" DIAMETER HINGE PIN. HINGE SHALL BE FASTENED TO THE CHANNEL FRAME AND DIAMOND PLATE WITH GRADE 316 STAINLESS STEEL BOLTS AND NY-LOCK NUT.
- ALUMINUM SHALL BE SUPPLIED WITH MILL FINISH. EXTERIOR OF FRAME WHICH COMES IN CONTACT WITH CONCRETE SHALL HAVE ONE COAT BLACK PRIMER.
- EACH HATCH SHALL BE SUPPLIED WITH A 316 STAINLESS STEEL SLAM LOCK, WITH THE KEY WAY PROTECTED BY A THREADED ALUMINUM PLUG. THE PLUG SHALL BE FLUSH WITH THE TOP OF THE 1/4" DIAMOND PLATE. THE SLAM LOCK SHALL BE FASTENED WITH GRADE 316 STAINLESS STEEL BOLTS AND WASHERS.
- EACH HATCH SHALL BE SUPPLIED WITH A RECESSED PADLOCK CLIP (PADLOCK BY OTHERS).
- EACH HATCH SHALL BE EQUIPPED WITH A STAINLESS STEEL LIFT HANDLE. LIFT HANDLES SHALL BE FLUSH WITH TOP OF 1/4" DIAMOND PLATE.
- EACH HATCH IS SUPPLIED WITH A 1-1/2" THREADED DRAIN COUPLER ON THE UNDERSIDE OF CHANNEL FRAME, FOR PIPE CONNECTION. (SPECIAL LOCATION).

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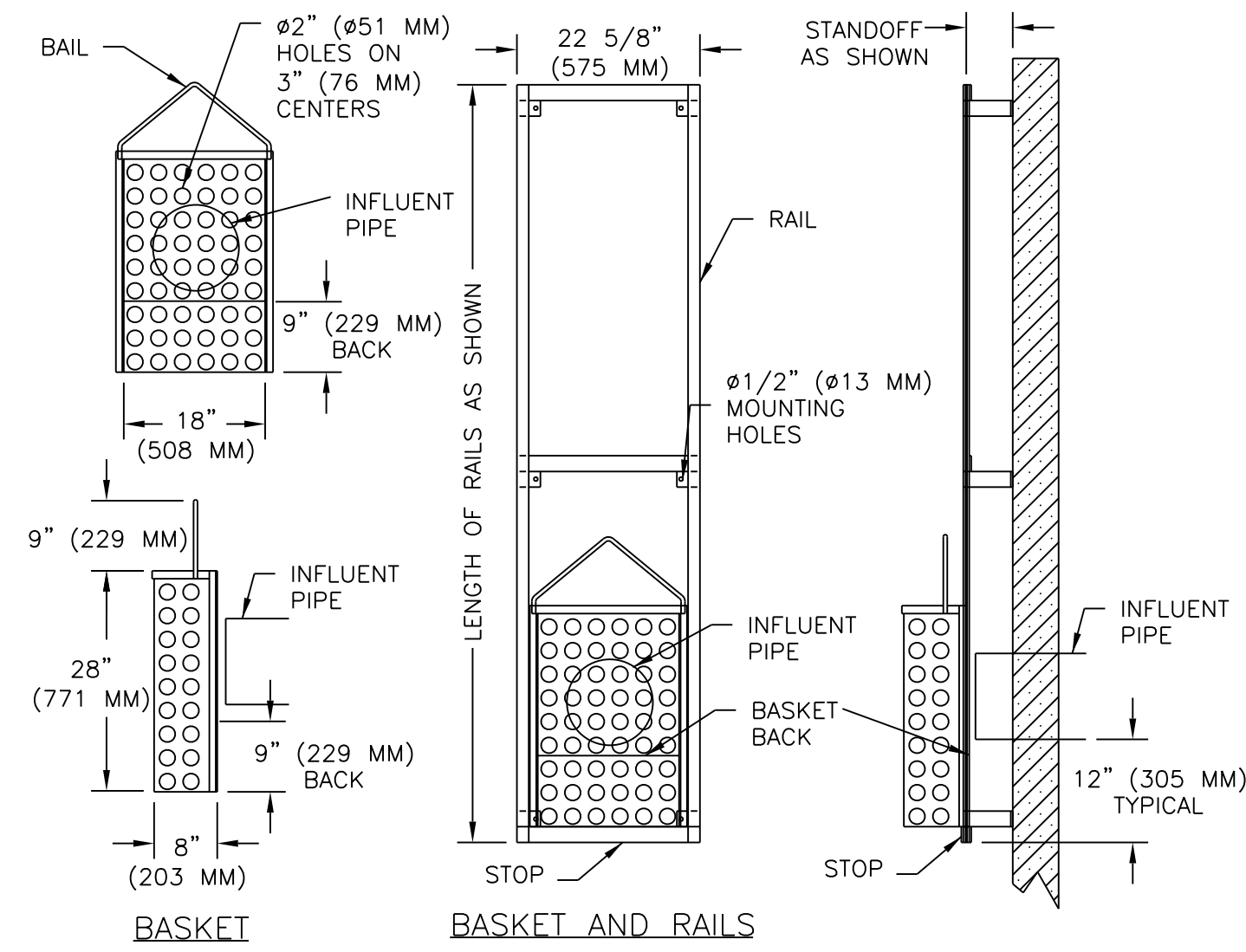
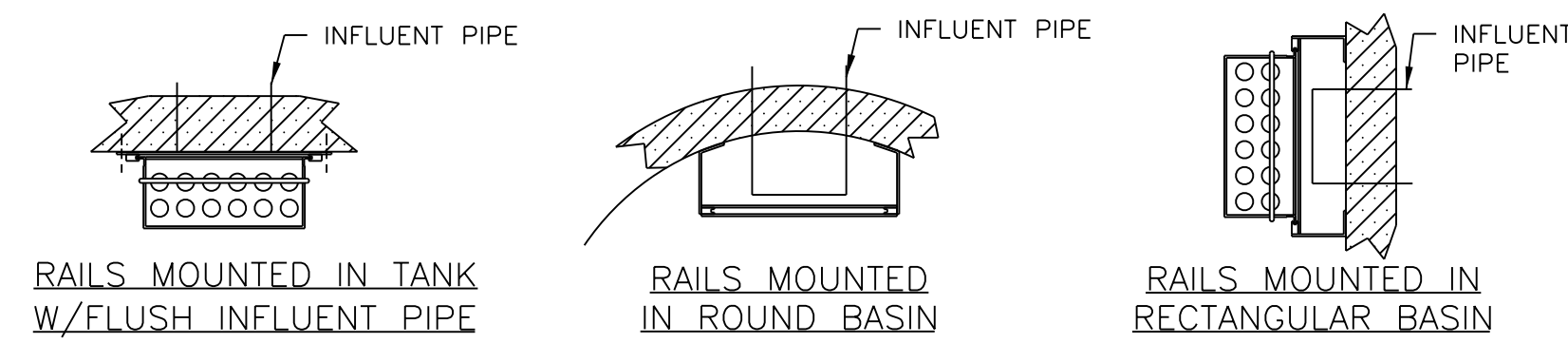
SANFILIPPO PS DETAILS



- NOTES:**
1. HOIST SOCKET SHALL BE PROVIDED WITH STAINLESS STEEL TYPE-316 CONSTRUCTION.
 2. HOIST SOCKET SHALL BE PROVIDED WITH POLYMER LINING FOR SMOOTHER ROTATION.
 3. HOIST SOKET SHALL BE CAST INTO TOP SLAB.

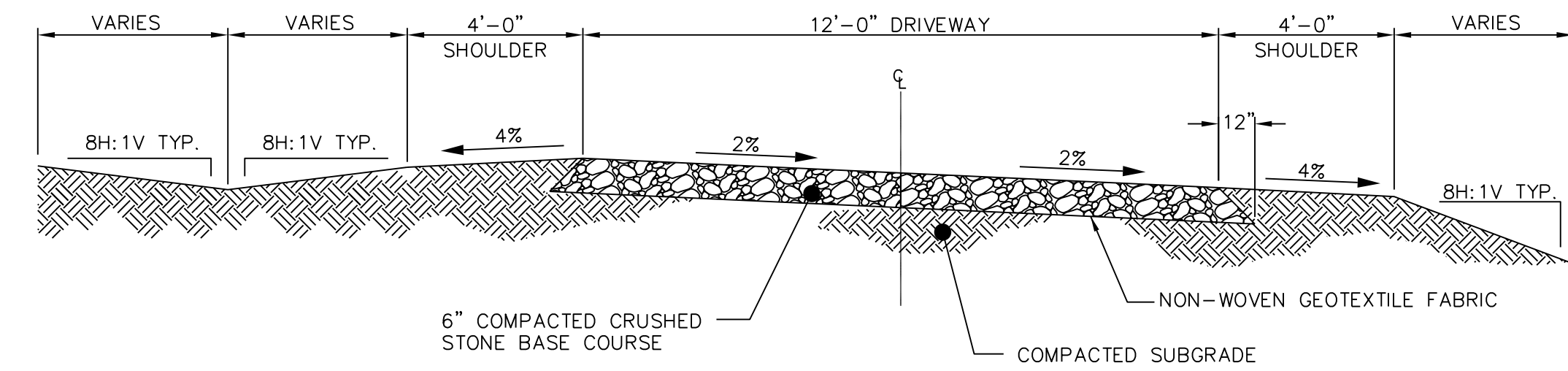
EMBEDDED PORTABLE HOIST SOCKET

NOT TO SCALE



SERIES B1A TRASH BASKET DETAIL

NOT TO SCALE



SANFILIPPO PUMP STATION ACCESS ROAD DETAIL

NOT TO SCALE

- NOTES:**
1. SLOPES SHALL NOT BE STEEPER THAN 3H:1V BEYOND SHOULDER POINT.

PROJECT REFERENCE NO. <i>R-2582A</i>	SHEET NO. <i>UC-43</i>
DESIGNED BY: SHF	
DRAWN BY: SHF	
CHECKED BY: KCZ	
APPROVED BY: KCZ	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	UTILITY CONSTRUCTION PLANS ONLY
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION	
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SYMBOLS

- 3/4" x 10" COPPER CLAD GROUND ROD; SEE DETAIL 2 SHEET E04 FOR CABLE CONNECTION DETAILS
- EXOTHERMIC WELD OR MECHANICAL CONNECTION; REFER TO APPROPRIATE DETAIL CONNECTION
- EQUIPMENT CONNECTION; COORDINATE WITH SUPPLIER PRIOR TO ROUGH-IN
- GFI RECEPTACLE; WEATHER PROOF COVER & BOX
- CONDUIT IDENTIFIER. REFER TO CONDUIT & CABLE SCHEDULE.
- ELECTRICAL DISCONNECT; NUMBER INDICATES TYPE; REFER TO DISCONNECT SCHEDULE
- SINGLE POLE SWITCH; COORDINATE LOCATION WITH DOOR SWING & MILLWORK; MOUNTING HEIGHT PER NC STATE BLDG CODE VOL 1-C
- UNSWITCHED CIRCUIT
- SWITCHED CIRCUIT

DRAWING SCHEDULE

DRAWING NUMBER	DRAWING TITLE	DATE	ISSUE							
			05/06/2019	DOT REVIEW						
UC-44	ELECTRICAL COVER SHEET SANFILIPPO		●							
UC-45	ELECTRICAL POWER RISER SANFILIPPO		●							
UC-46	CONDUIT AND CABLE SCHEDULE SANFILIPPO		●							
UC-47	DETAILS SANFILIPPO		●							

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PROJECT REFERENCE NO. <i>R-2582A</i>	SHEET NO. <i>UC-44</i>
DESIGNED BY: REF	
DRAWN BY: REF	
CHECKED BY: REF	
APPROVED BY: REF	
REVISED:	
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UTILITY CONSTRUCTION

**DOCUMENT NOT CONSIDERED FINAL
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ENERGY CODE INFORMATION

Electrical System and Equipment
 Method of Compliance: Prescriptive

Lighting Schedule
 Lamp type required in fixture – See Fixture Schedule
 Number of lamps in fixture – See Fixture Schedule
 Ballast type used in fixture – See Fixture Schedule
 Number of ballasts in fixture – See Fixture Schedule
 Total wattage per fixture – See Fixture Schedule
 Total interior wattage specified vs. allowed – N/A
 Total exterior wattage specified vs. allowed – 78.6 lumens/watt specified vs. 45 lumens/watt allowed

Equipment schedules with motors (not used for mechanical systems)
 Motor horsepower – N/A
 Number of phases – N/A
 Minimum efficiency – N/A
 Motor type – N/A
 # of poles – N/A

Designer Statement:
 To the best of my knowledge and belief, the design of this building complies with the electrical system and equipment requirements of North Carolina International Energy code

Signed: _____
 Name: REESE E. FINN
 Title: Engineer

LIGHT FIXTURE SCHEDULE

ID	DESCRIPTION	LAMP/ QTY	BALLAST/ QTY	VOLTS	WATTS	NOTES
A	LITHONIA EIS 2 54T5HD	T5HD 54W 2	GEB 1	120	108	ENCLOSED & GASKETED FLOURESCENT STRIP. WET LABEL. SURFACE MOUNTED. CONTRACTOR TO FURNISH & INSTALL.

MISC. DWG. SYMBOLS

- SECTION LETTER
SECTION DRAWING NUMBER
- DETAIL NUMBER
DRAWING NUMBER
- PLAN KEY NOTE
- DRAWING REVISION NUMBER
- DETAIL NUMBER
DRAWING NUMBER
TITLE
SCALE:

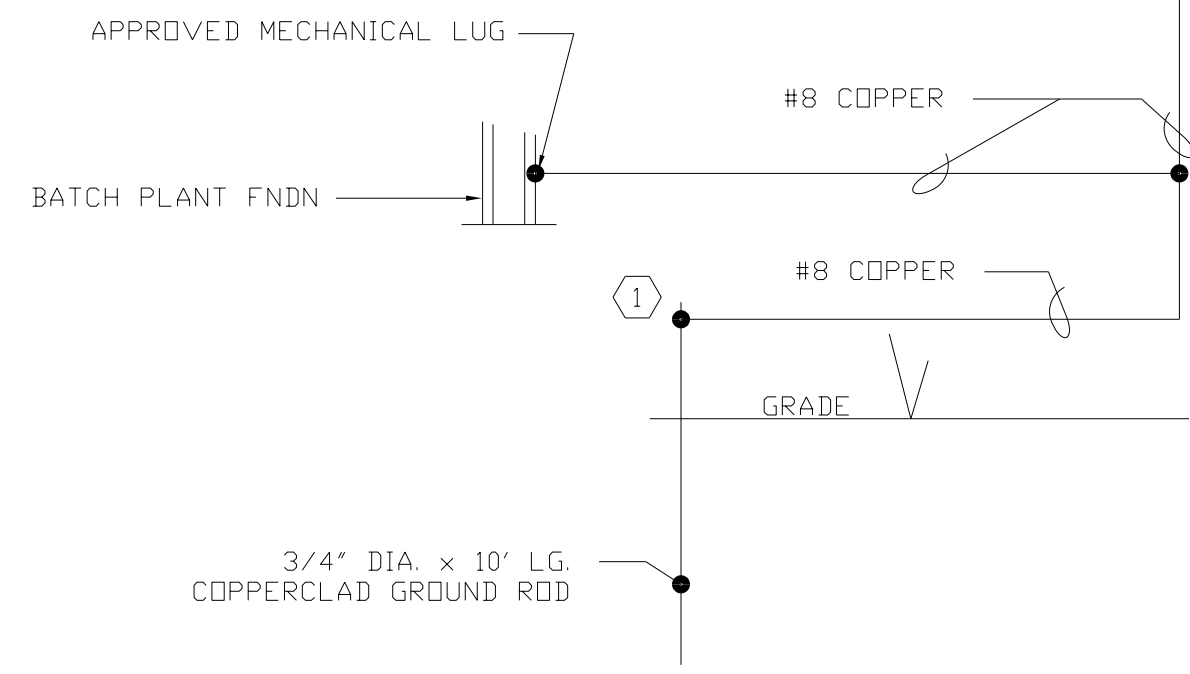
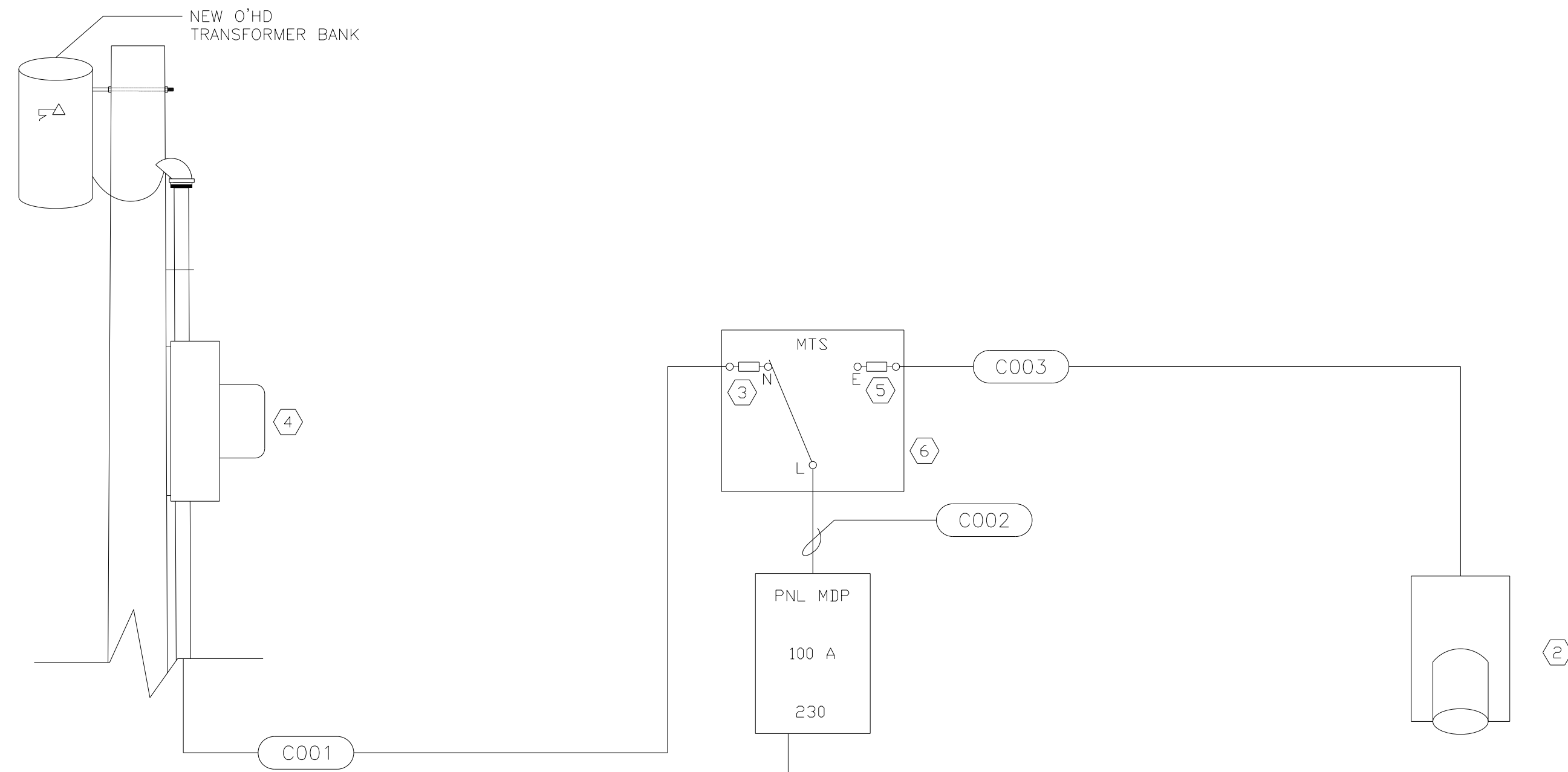
NOTE TO REVIEWER

NOTE TO REVIEWER

THIS APPLICATION IS TO PROVIDE UTILITY POWER AND CONTROL WIRING FOR A RELOCATED PUMPING STATION.

UTILITY CONSTRUCTION

**DOCUMENT NOT CONSIDERED FINAL
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1 ELECTRICAL POWER RISER
 UC-45 SCALE: N.T.S.

GENERAL NOTE:

THE CONDUIT ROUTING IS DIAGRAMMATIC. REFER TO CONDUIT & CABLE SCHEDULE FOR SIZE & CABLE CONTENT. THE EXACT ROUTING AND COORDINATION WITH SITE CONDITIONS IS THE CONTRACTORS RESPONSIBILITY.

Keyed Notes:

- ① APPROVED MECHANICAL GROUNDING LUG.
- ② KILLARK VERSAMATE 60A 2W 3P RECEPTACLE. MODEL VR632E4. COORDINATE WITH OWNER'S EQUIPMENT.
- ③ RK5 100A FUSE
- ④ UTILITY METER. COORDINATE LOCATION AND TYPE WITH UTILITY.
- ⑤ RK5 60A FUSE
- ⑥ SQUARE D DT223RB NEMA 3R DOUBLE THROW FUSED SWITCH.

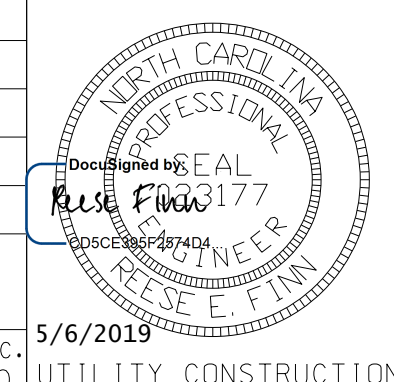
VOLTAGE: 230 AMPS: 100 AIC: 12,158		PANEL MDP										MAIN BREAKER: M.L.O. PHASE: 3 WIRE: 4 MOUNTING: SURFACE			
CKT	DESCRIPTION	C	W	P	CB	PHASE LOADS		VA	CB	P	W	C	DESCRIPTION	CKT	
						A	B								
1	PUMP - 1	3/4	10	2	30	2040	2220	2040	20	1	12	1/2	RECEPTACLE	2	
3					2	30	2040	2040						4	
5	PUMP - 2	3/4	10	2	30	2040	2160	120	20	1	12	1/2	CANOPY LIGHT	6	
7					2	30	2040	2340	300	15	1	14	1/2	PLC CONTROL	8
9						0								10	
11						0								12	
13						0								14	
15						0								16	
17						0								18	
						VA/ PHASE:	4380	4380	NEC LOAD: 9780						
						TOTAL VA:	8760		AMPS: 25						
						TOTAL AMPS:	22								
						NEC LOAD/ PHASE:	4890	4890							

NOTES:
 1. PROVIDE BOLT-ON BREAKERS
 2. SQUARE D NGOD

8/17/99

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 Phone: 919.297.0220 Fax: 919.297.0221

PROJECT REFERENCE NO.	SHEET NO.
R-2582A	UC-46
DESIGNED BY: REF	
DRAWN BY: REF	
CHECKED BY: REF	
APPROVED BY: REF	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SECTION PHONE: (919) 707-6690 FAX: (919) 250-4151	
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UTILITY CONSTRUCTION

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CONDUIT AND CABLE SCHEDULE				
CONDUIT I.D.	CONDUIT SIZE	CABLE/ WIRE	FROM	TO
C001	1-1/4"	3 #3 THHN COPPER	METER BASE	MTS
C002	1-1/4"	3 #3 THHN COPPER	MTS	MDP
C003	1-1/4"	3 #3 THHN COPPER	MTS	GEN RECPT

1 CONDUIT & CABLE SCHEDULE
 UC-46 SCALE: N.T.S.

GENERAL NOTES:

- ① ALL CONDUIT IS RIGID ALUMINUM UNLESS OTHERWISE NOTED ON THE PLANS
- ② CONTRACTOR IS RESPONSIBLE FOR ACTUAL QUANTITIES BASED ON TAKE OFF & FIELD CONDITIONS.

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SANFILIPPO PS ELECTRICAL

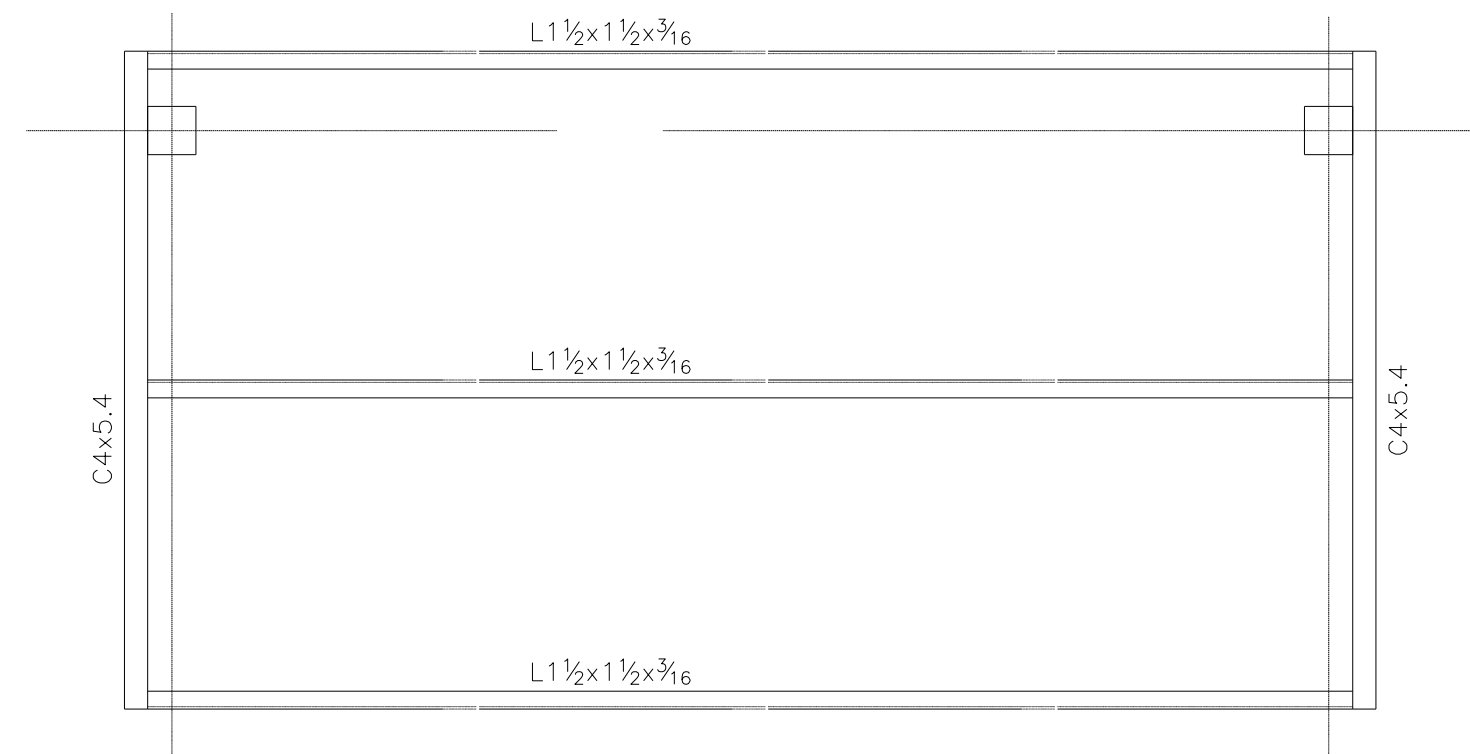
PROJECT REFERENCE NO.	R-2582A	SHEET NO.	UC-47
DESIGNED BY:	REF		
DRAWN BY:	REF		
CHECKED BY:	REF		
APPROVED BY:	REF		
REVISED:			
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FAX: (919) 250-4151			

Keyed Notes:

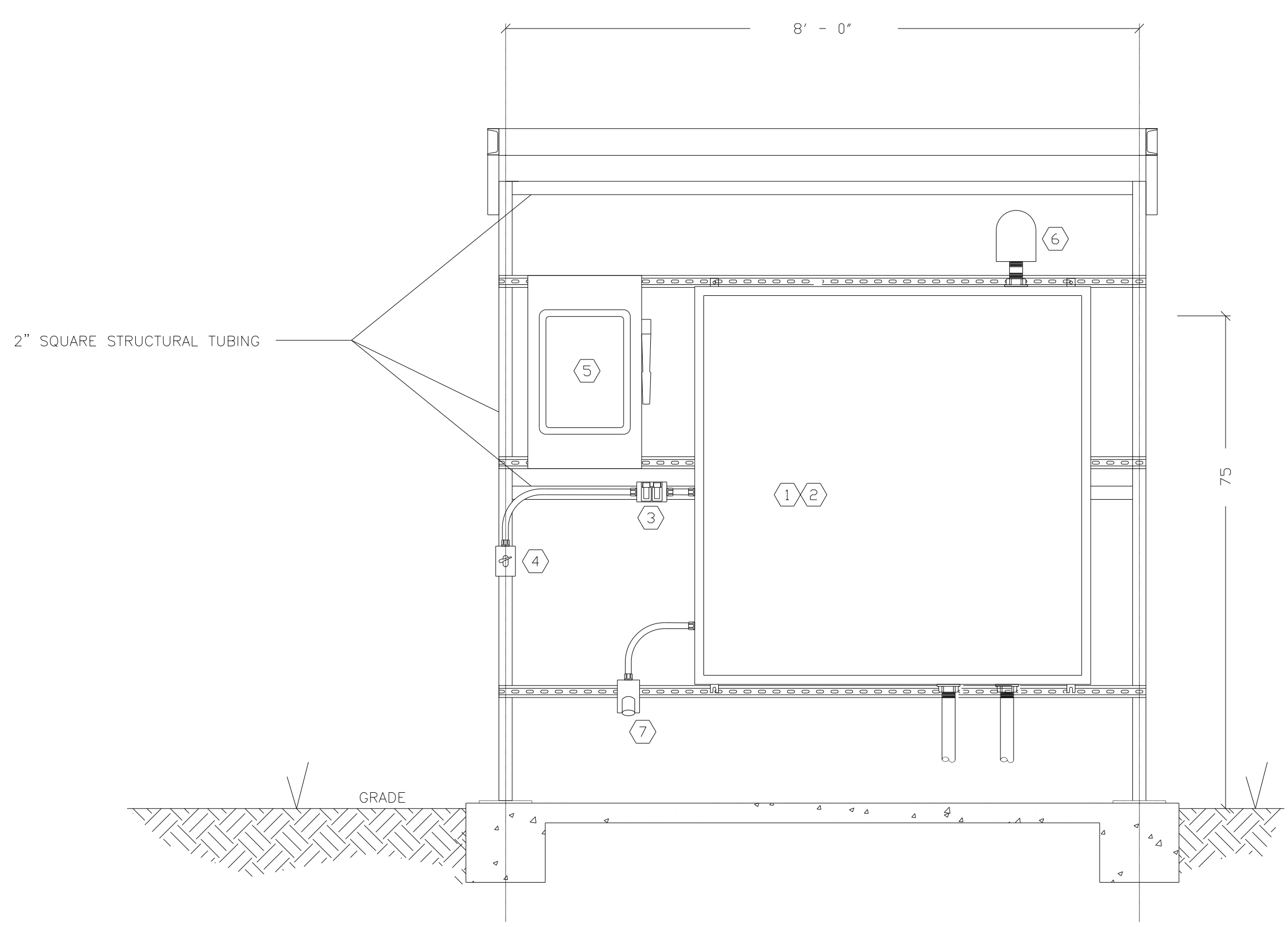
- ① 60x60x12 NEMA 3R CONTROL CABINET. PROVIDE BACK PANEL AND LOCKING HANDLE.
- ② MOUNT ATS, MDP, FLOW METER CONTROL UNIT, AND MISC. CONTROL UNITS. SIZE IS NOMINAL. CONFIRM SPACE REQUIREMENTS WITH EQUIPMENT SUPPLIERS. ADJUST BOX SIZE IF REQUIRED.
- ③ GFI RECEPTACLE WITH IN-USE COVER.
- ④ SP SWITCH WITH WP COVER. CONTROLS CANOPY LIGHT.
- ⑤ 2P DOUBLE THROW NEMA 3R MANUAL TRANSFER SWITCH, FUSED. SQUARE D DT223RB.
- ⑥ WARMA FLASHING RED LED WARNING LIGHT. COORDINATE WITH CONTRLS VENDOR.
- ⑦ KILLARK VERSAMATE 60A 2W 3P RECEPTACLE. MODEL VR632E4. COORDINATE WITH OWNER'S EQUIPMENT.

UTILITY CONSTRUCTION

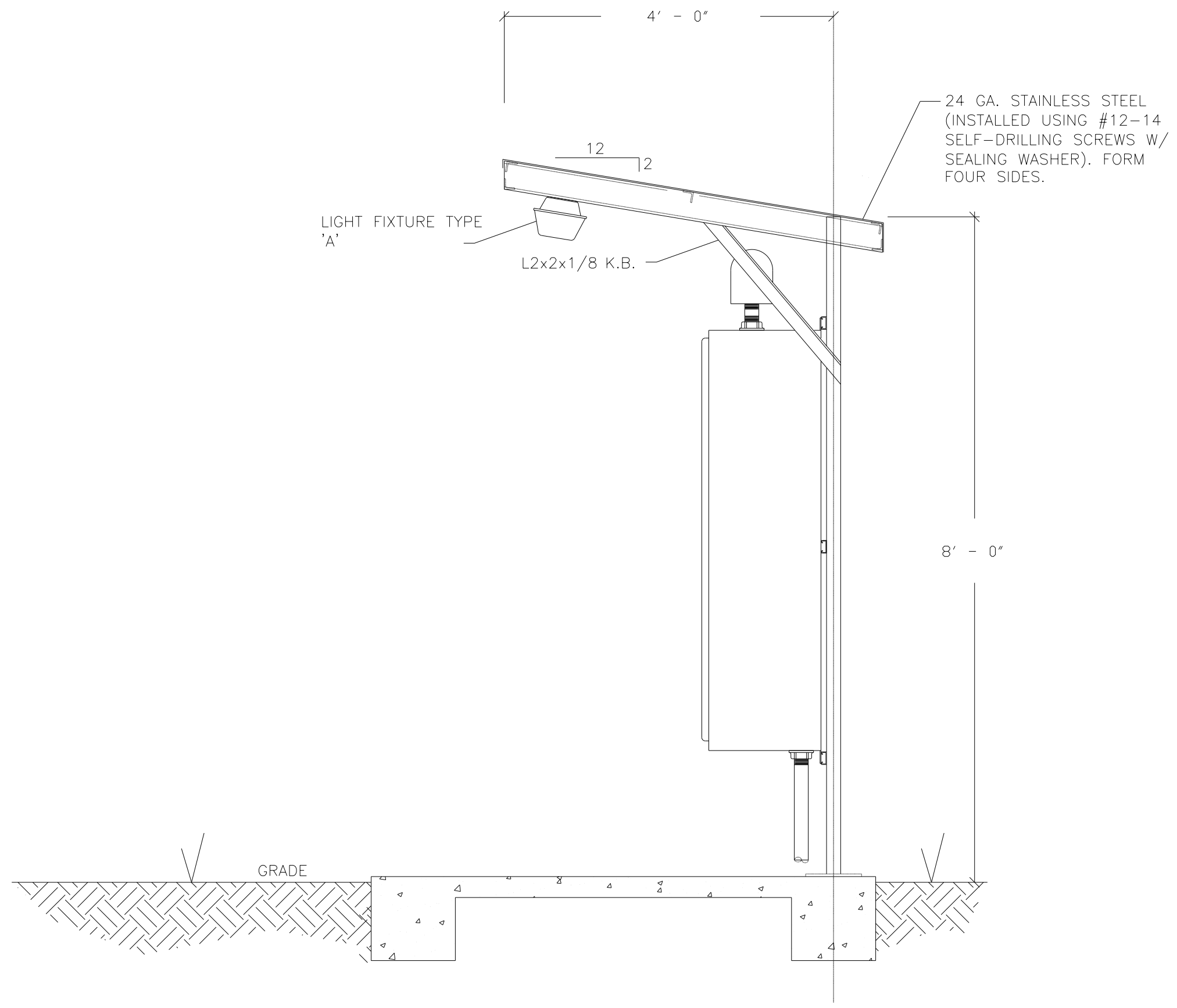
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3 SERVICE CANOPY PLAN VIEW
UC-47 SCALE: 3/4" = 1'-0"



1 SERVICE CANOPY FRONT ELEVATION
UC-47 SCALE: 3/4" = 1'-0"



2 SERVICE CANOPY SIDE ELEVATION
UC-47 SCALE: 3/4" = 1'-0"

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TIP PROJECT: R-2582A

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

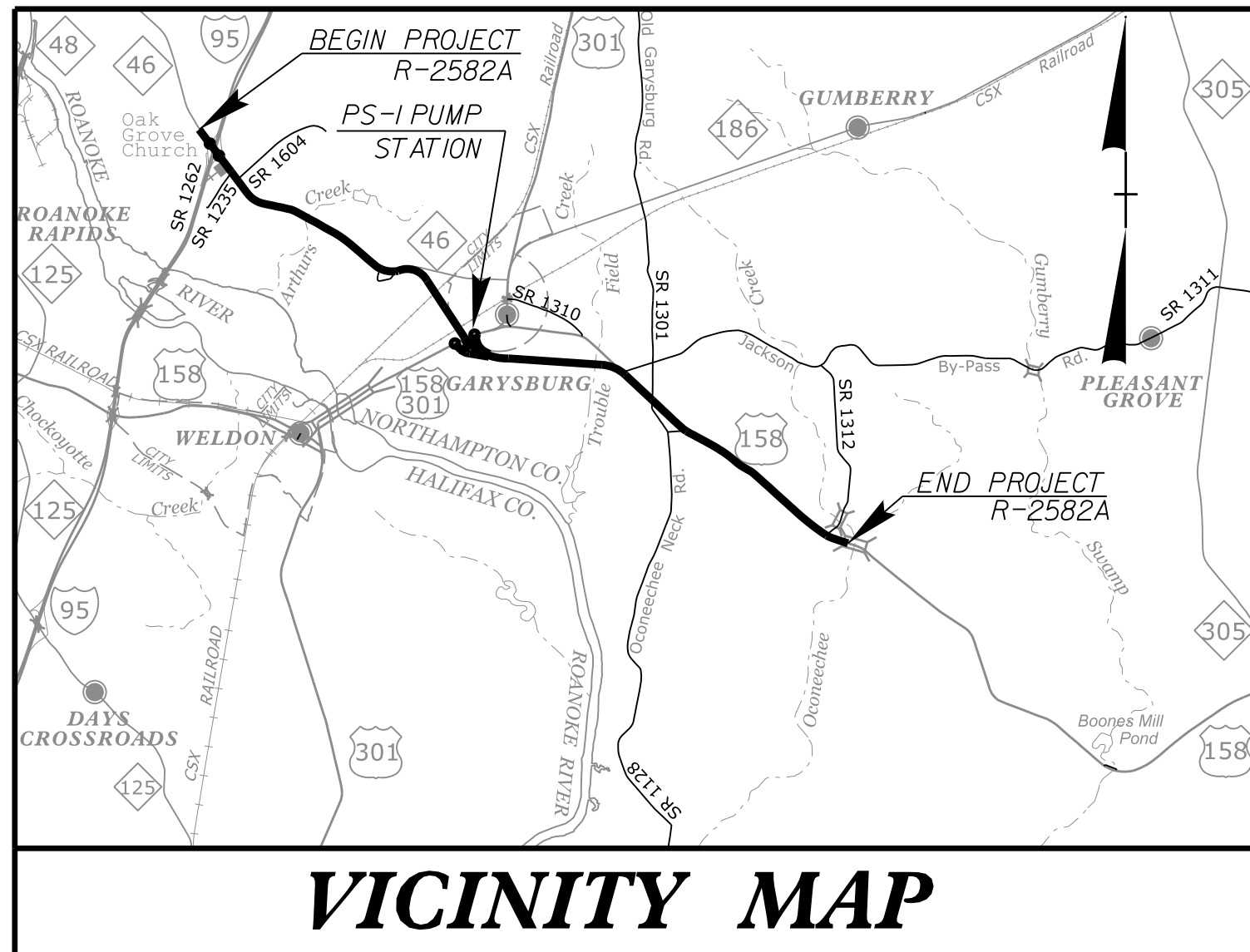
T.I.P. NO.	SHEET NO.
R-2582A	UC-48

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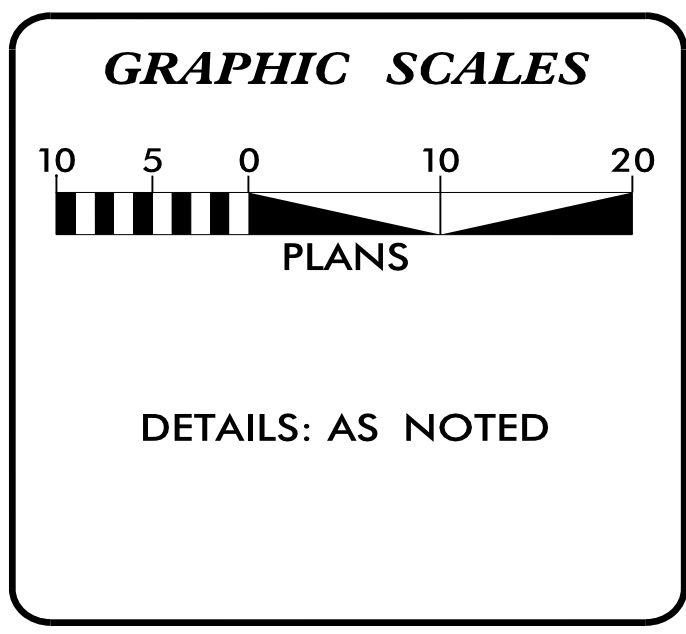
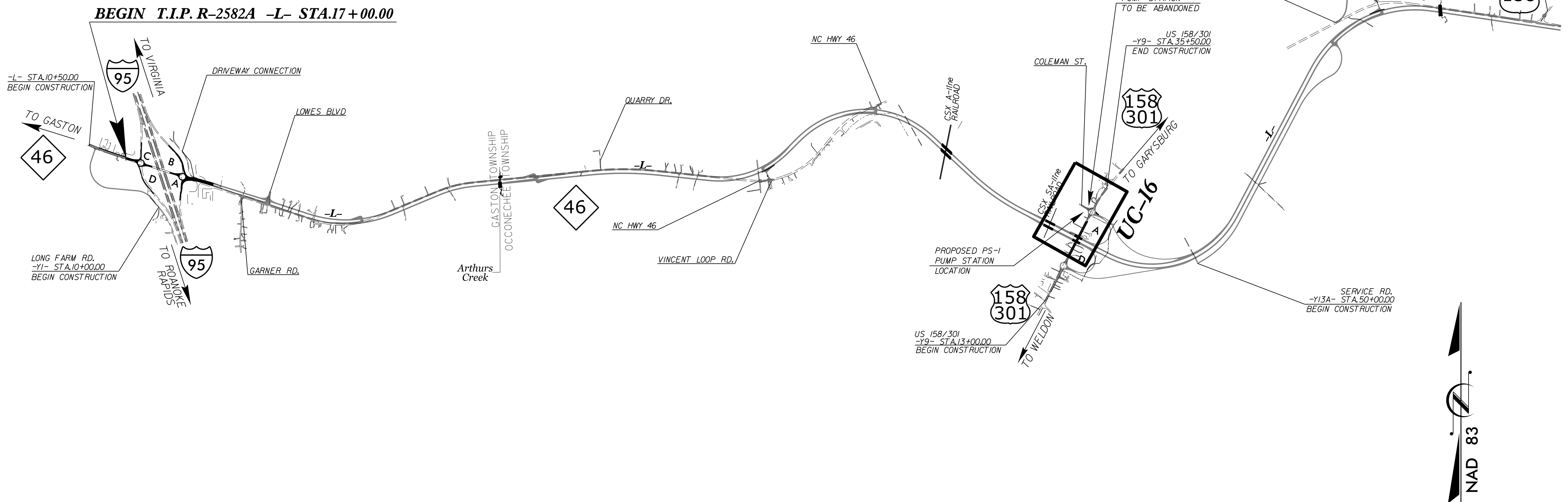
**UTILITY CONSTRUCTION PLANS
PS-1 PUMP STATION**

**LOCATION: INTERSECTION OF US-158/US-301 AND
COLEMAN STREET IN GARYSBURG**

TYPE OF WORK: SANITARY PUMP STATION CONSTRUCTION



VICINITY MAP



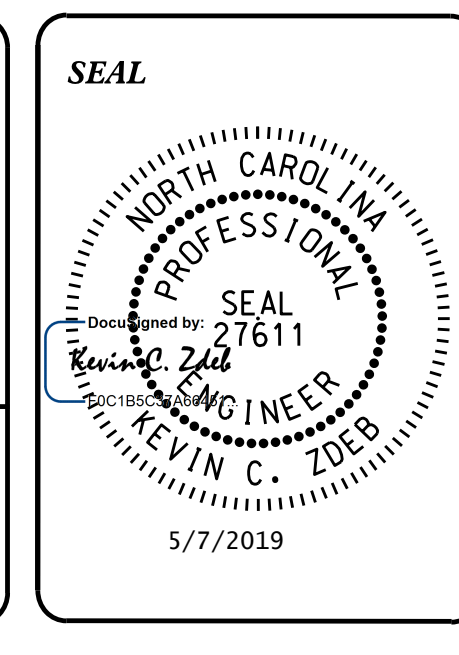
SHEET NO.:	DESCRIPTION:
UC-48	TITLE SHEET
UC-49	SITE PLAN
UC-50	GRADING PLAN
UC-51	DETAILS
UC-52	DETAILS
UC-53	DETAILS
UC-54	ELECTRICAL TITLE SHEET
UC-55	ELECTRICAL POWER RISER
UC-56	CONDUIT AND CABLE SCHEDULE
UC-57	SERVICE CANOPY DETAILS

UTILITY OWNERS
(A) SANITARY SEWER - NORTHAMPTON COUNTY
(B) WATER - NORTHAMPTON COUNTY
(C) POWER - DOMINION ENERGY

PREPARED IN THE OFFICE OF

M A Engineering Consultants, Inc.
598 East Chatham Street - Suite 137
Cary, NC 27511
Phone: 919.297.0220 Fax: 919.297.0221
NC License: F-0160

KEVIN C. ZDEB, PE PROJECT ENGINEER
SAM FORSTER PROJECT DESIGNER
WEBB WHITE PROJECT UTILITY COORDINATOR



**DIVISION OF HIGHWAYS
UTILITIES UNIT**
1020 BIRCH RIDGE DRIVE
RALEIGH, NC 27610
PHONE (919) 707-6690
FAX (919) 250-4151

NABIL HAMDAN REGIONAL UTILITIES ENGINEER
KIFAH KAMIL SENIOR UTILITIES ENGINEER
DAYTON MARTIN REGIONAL UTILITY COORDINATOR

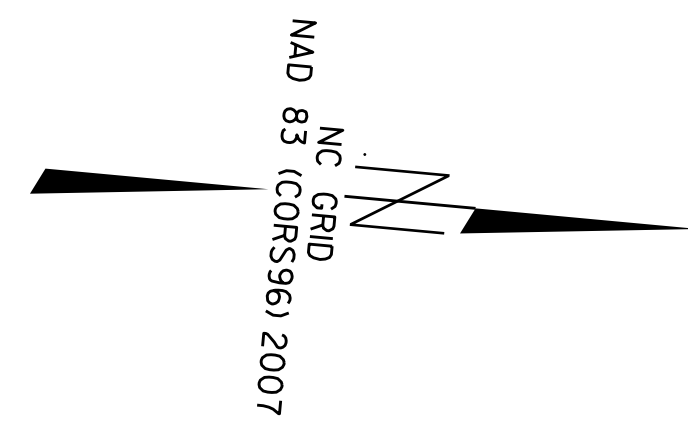
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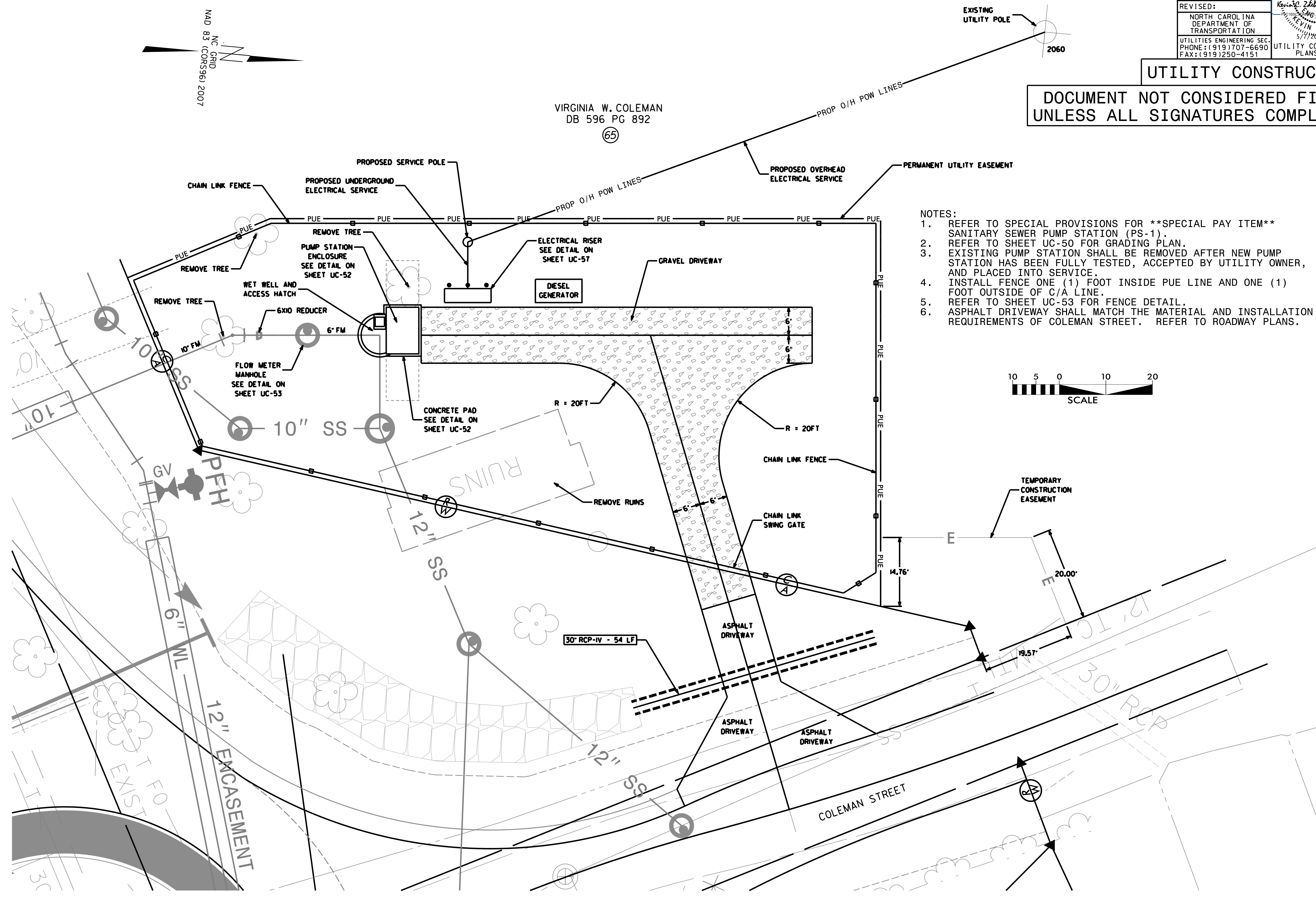
PROJECT REFERENCE NO. R-2582A	SHEET NO. UC-49
DESIGNED BY: KCZ	
DRAWN BY: SHF	
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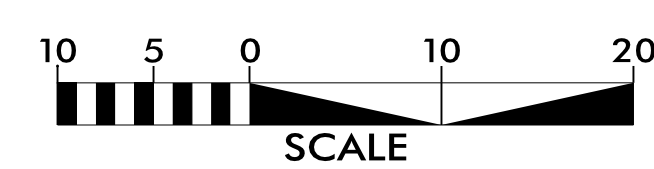
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VIRGINIA W. COLEMAN
DB 596 PG 892
(65)



- NOTES:**
- REFER TO SPECIAL PROVISIONS FOR **SPECIAL PAY ITEM** SANITARY SEWER PUMP STATION (PS-1).
 - REFER TO SHEET UC-50 FOR GRADING PLAN.
 - EXISTING PUMP STATION SHALL BE REMOVED AFTER NEW PUMP STATION HAS BEEN FULLY TESTED, ACCEPTED BY UTILITY OWNER, AND PLACED INTO SERVICE.
 - INSTALL FENCE ONE (1) FOOT INSIDE PUE LINE AND ONE (1) FOOT OUTSIDE OF C/A LINE.
 - REFER TO SHEET UC-53 FOR FENCE DETAIL.
 - ASPHALT DRIVEWAY SHALL MATCH THE MATERIAL AND INSTALLATION REQUIREMENTS OF COLEMAN STREET. REFER TO ROADWAY PLANS.



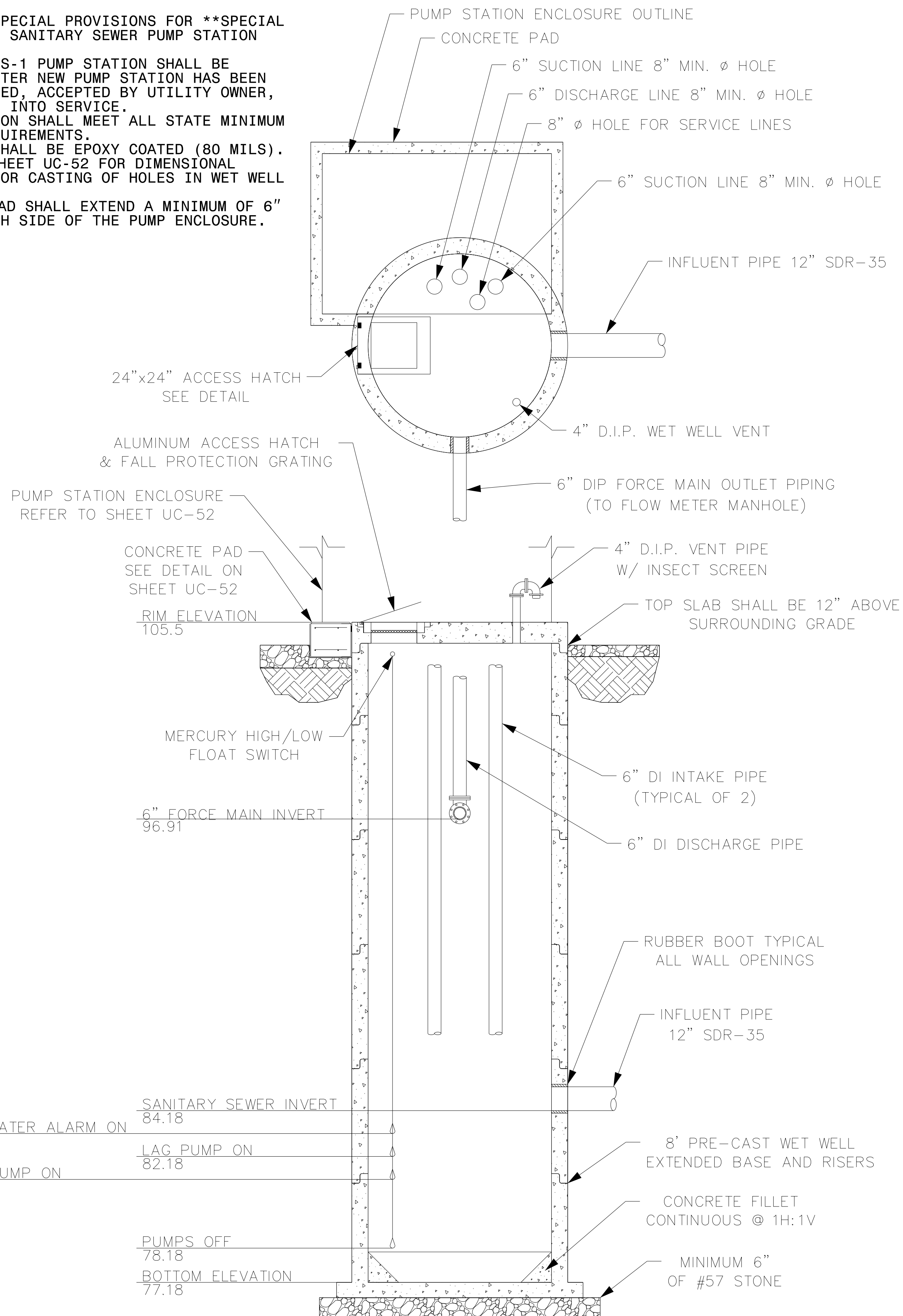
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PS-1 SITE PLAN

5/14/99

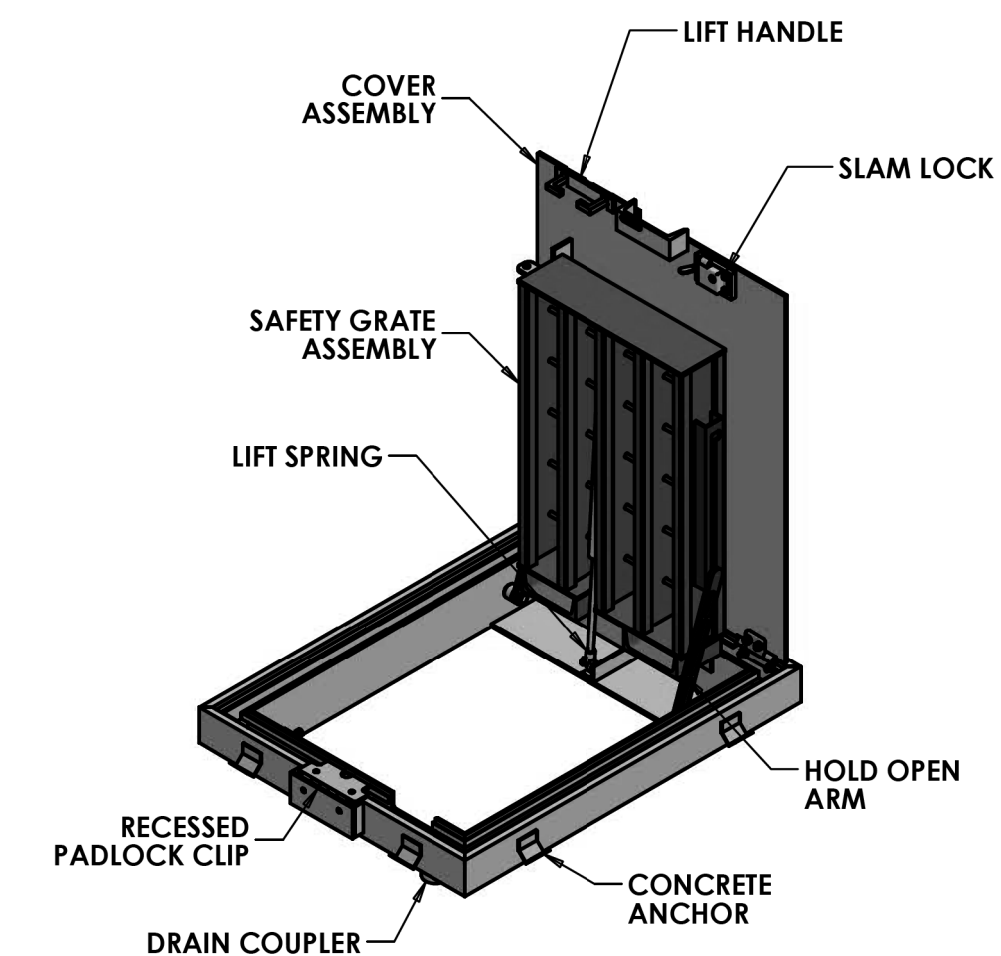
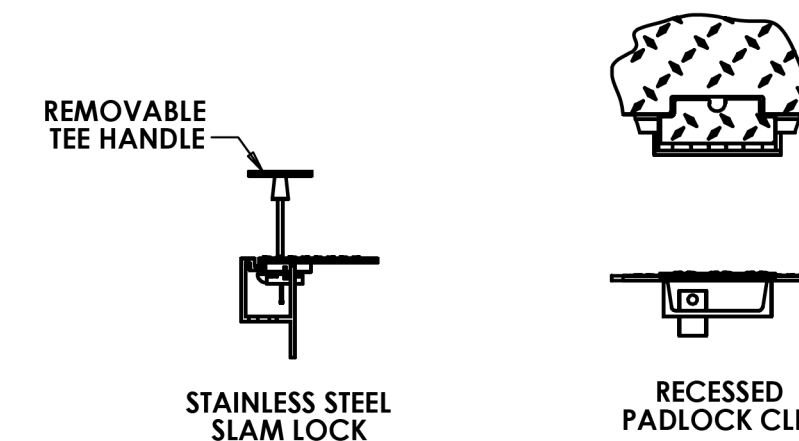
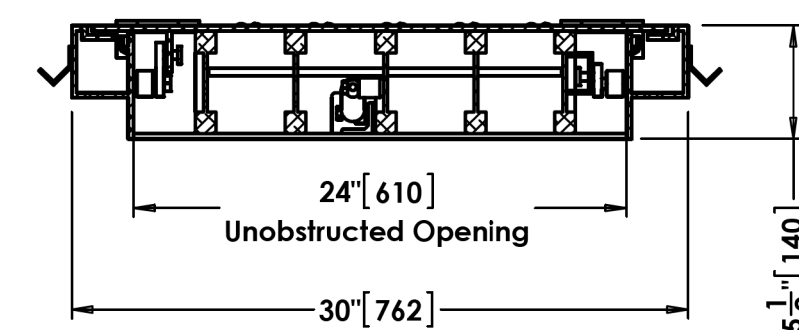
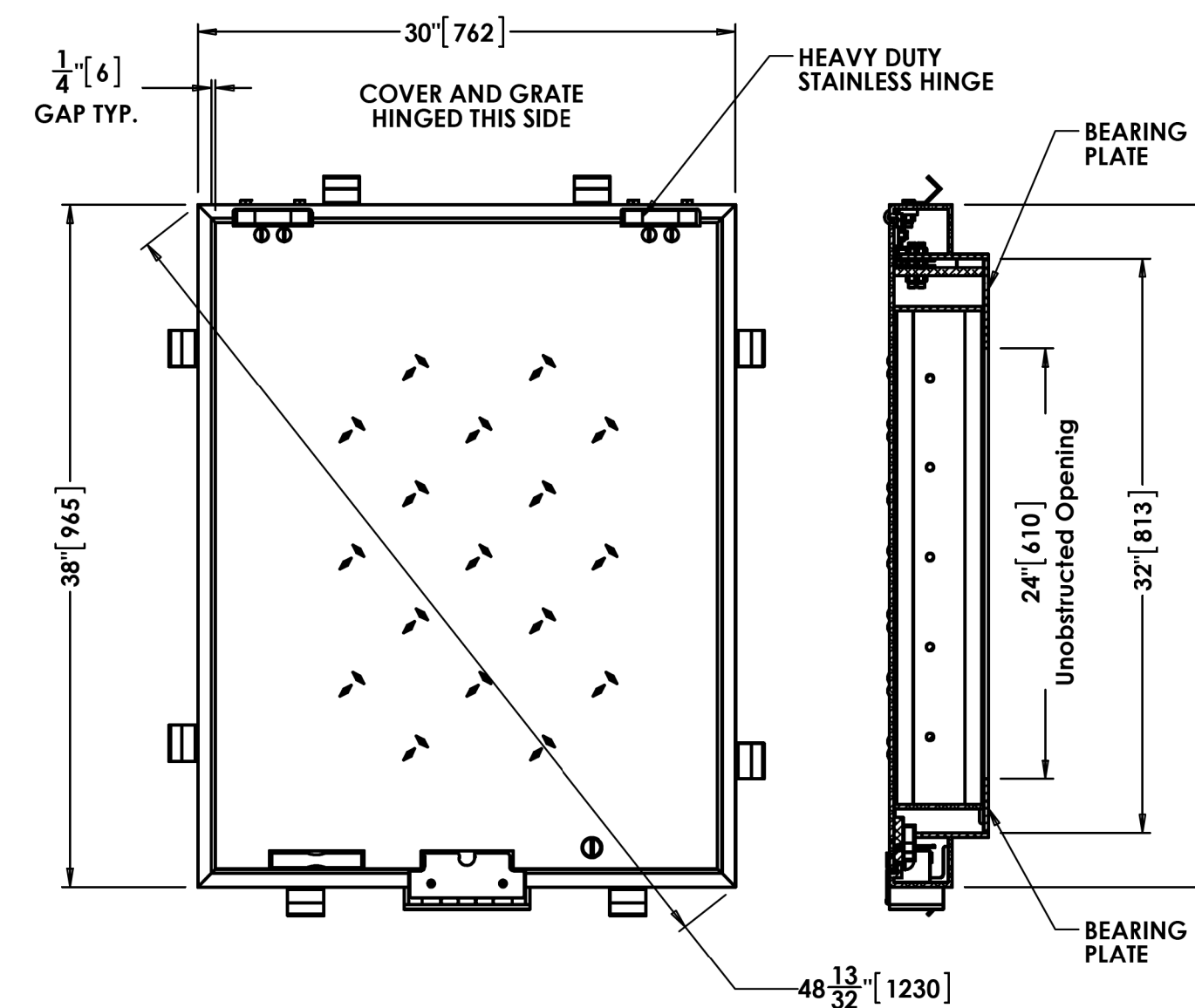
NOTES:

1. REFER TO SPECIAL PROVISIONS FOR **SPECIAL PAY ITEM** SANITARY SEWER PUMP STATION (PS-1).
2. EXISTING PS-1 PUMP STATION SHALL BE REMOVED AFTER NEW PUMP STATION HAS BEEN FULLY TESTED, ACCEPTED BY UTILITY OWNER, AND PLACED INTO SERVICE.
3. PUMP STATION SHALL MEET ALL STATE MINIMUM DESIGN REQUIREMENTS.
4. WET WELL SHALL BE EPOXY COATED (80 MILS).
5. REFER TO SHEET UC-52 FOR DIMENSIONAL TEMPLATE FOR CASTING OF HOLES IN WET WELL TOP SLAB.
6. CONCRETE PAD SHALL EXTEND A MINIMUM OF 6" BEYOND EACH SIDE OF THE PUMP ENCLOSURE.



PS-1 WET WELL PLAN AND PROFILE

SCALE: 1"=3'



NOTES:

1. MATERIAL SHALL BE 6061-T6 ALUMINUM FOR BARS, ANGLES AND EXTRUSIONS, 1/4" DIAMOND PLATE SHALL BE 5086 ALUMINUM.
2. UNIT DESIGNED HEAVY DUTY, FOR 16,000 LBS + 30% IMPACT H-20 WHEEL LOADS, OVER A 10" X 20" CONTACT AREA. FRAMES AND BEARING PLATE MUST BE CAST INTO AND SUPPORTED BY CONCRETE DESIGNED FOR H-20 WHEEL LOADS.
3. UNIT NOT SUITABLE FOR WHEEL LINE PLACEMENT.
4. UNIT SUPPLIED WITH A HEAVY DUTY PNEU-SPRING, FOR EASE OF OPERATION WHEN OPENING GRATE. GRATE SHALL BE COUNTERBALANCED, SO ONE PERSON CAN EASILY OPEN THE SAFETY GRATE.
5. FRAME SHALL BE OF EXTRUDED ALUMINUM. A DOVETAIL GROOVE SHALL BE EXTRUDED INTO THE SEAT OF THE FRAME FOR A 1/8" SILICONE GASKET.
6. EACH HATCH SHALL BE EQUIPPED WITH A STAINLESS STEEL HOLD OPEN ARM. DOOR SHALL LOCK OPEN IN THE 90 DEGREE POSITION. HOLD OPEN ARM SHALL BE FASTENED TO THE FRAME WITH A 1/2" GRADE 316 STAINLESS STEEL BOLT.
7. HINGES SHALL BE OF HEAVY DUTY DESIGN. MATERIAL SHALL BE GRADE 316 STAINLESS STEEL. EACH HINGE SHALL HAVE A GRADE 316 STAINLESS STEEL, 3/8" DIAMETER HINGE PIN. HINGE SHALL BE FASTENED TO THE CHANNEL FRAME AND DIAMOND PLATE WITH GRADE 316 STAINLESS STEEL BOLTS AND NY-LOCK NUT.
8. ALUMINUM SHALL BE SUPPLIED WITH MILL FINISH. EXTERIOR OF FRAME WHICH COMES IN CONTACT WITH CONCRETE SHALL HAVE ONE COAT BLACK PRIMER.
9. EACH HATCH SHALL BE SUPPLIED WITH A STAINLESS STEEL SLAM LOCK, WITH THE KEY WAY PROTECTED BY A THREADED ALUMINUM PLUG. THE PLUG SHALL BE FLUSH WITH THE TOP OF THE 1/4" DIAMOND PLATE. THE SLAM LOCK SHALL BE FASTENED WITH GRADE 316 STAINLESS STEEL BOLTS AND WASHERS.
10. EACH HATCH SHALL BE SUPPLIED WITH A RECESSED PADLOCK CLIP (PADLOCK BY OTHERS).
11. EACH HATCH SHALL BE EQUIPPED WITH A STAINLESS STEEL LIFT HANDLE. LIFT HANDLES SHALL BE FLUSH WITH TOP OF 1/4" DIAMOND PLATE.
12. EACH HATCH IS SUPPLIED WITH A 1-1/2" THREADED DRAIN COUPLER ON THE UNDERSIDE OF CHANNEL FRAME, FOR PIPE CONNECTION. (SPECIAL LOCATION).

PS-1 ACCESS HATCH
NOT TO SCALE

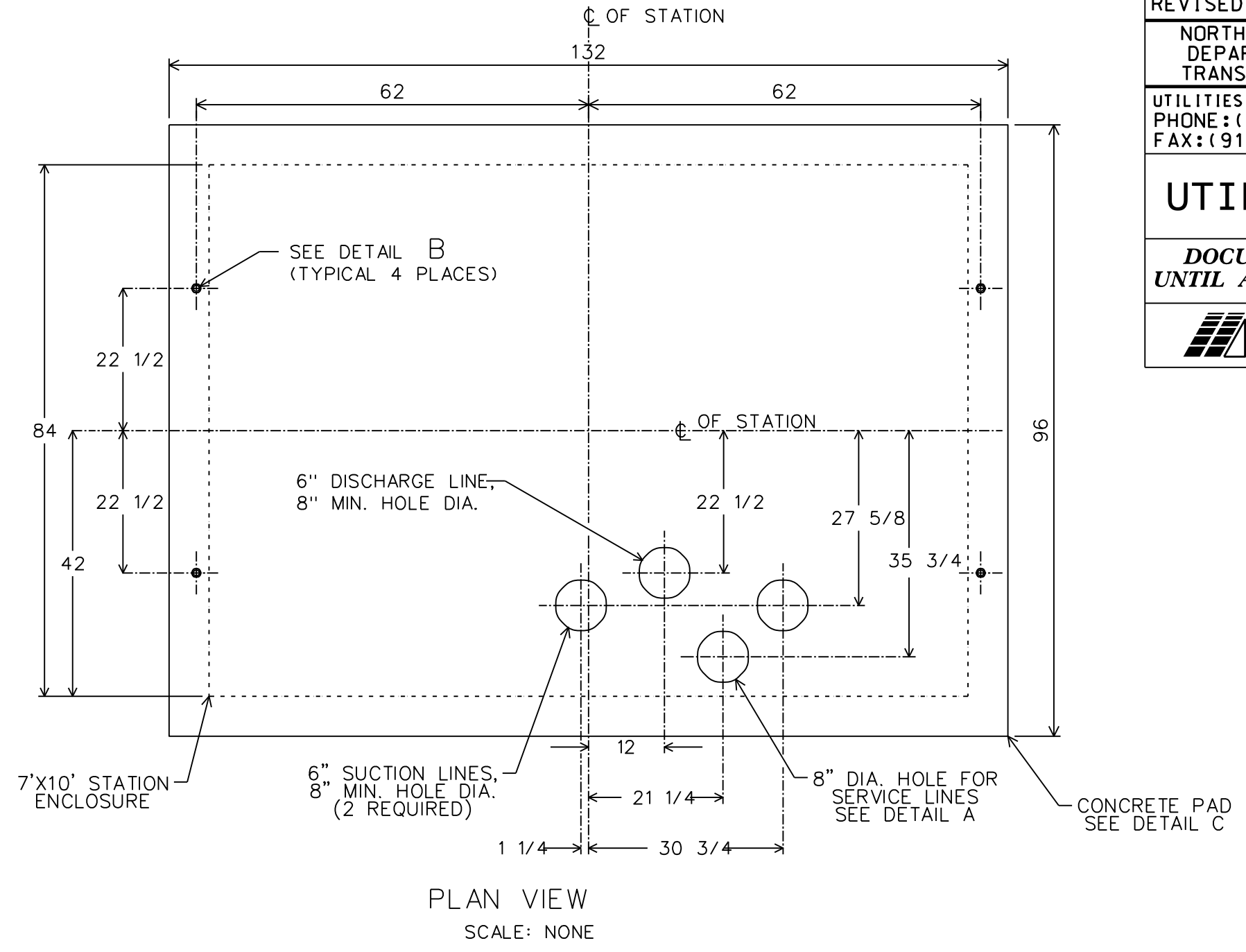
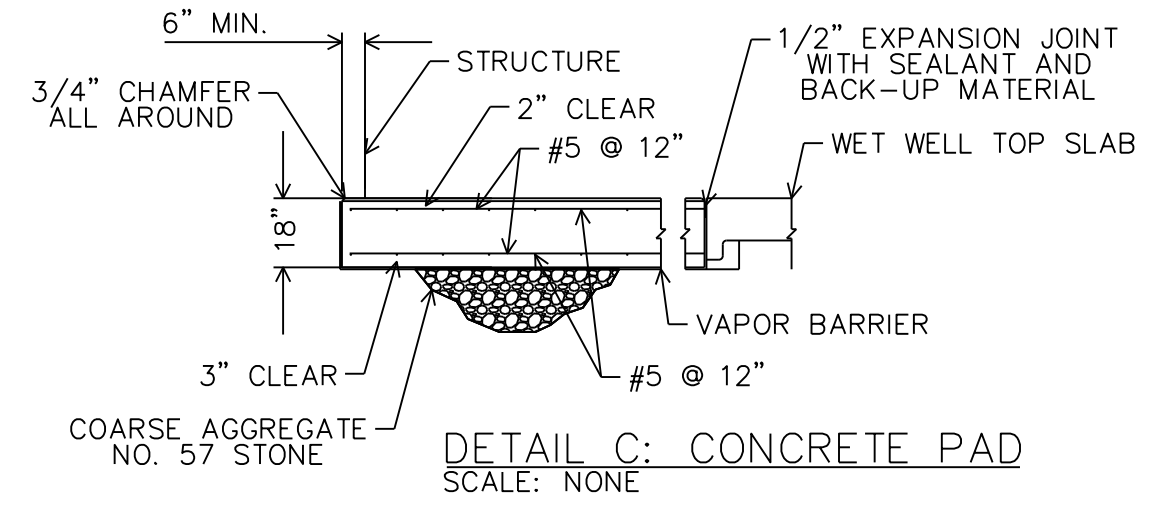
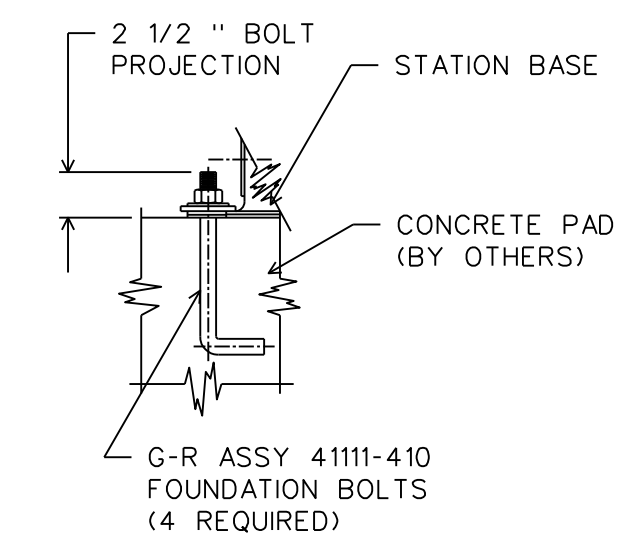
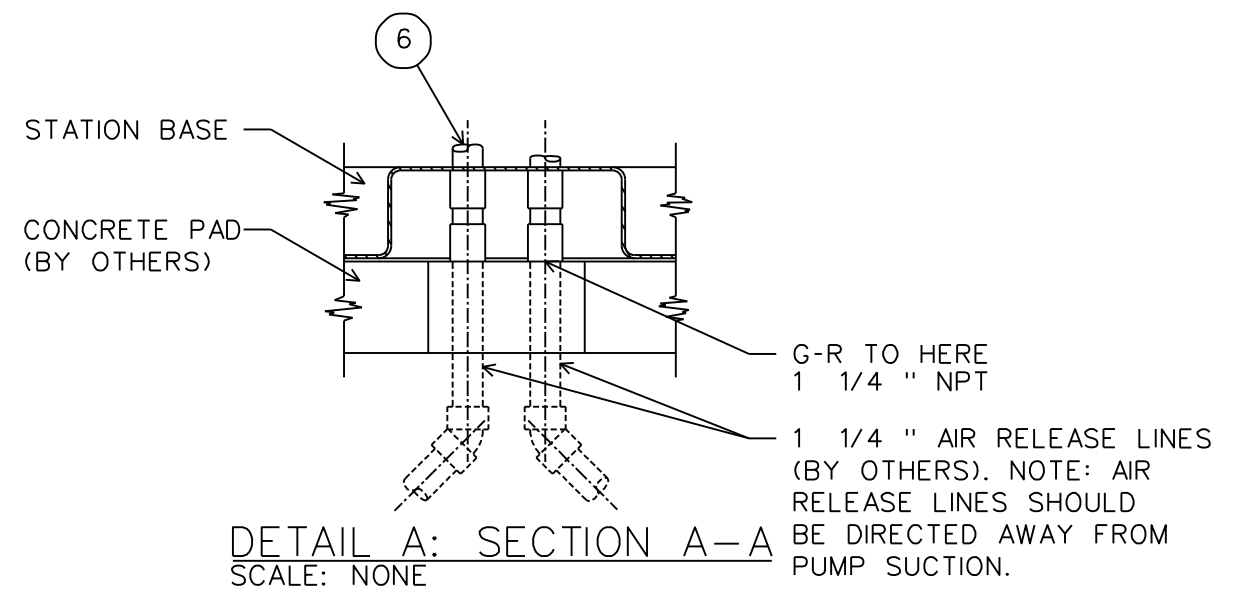
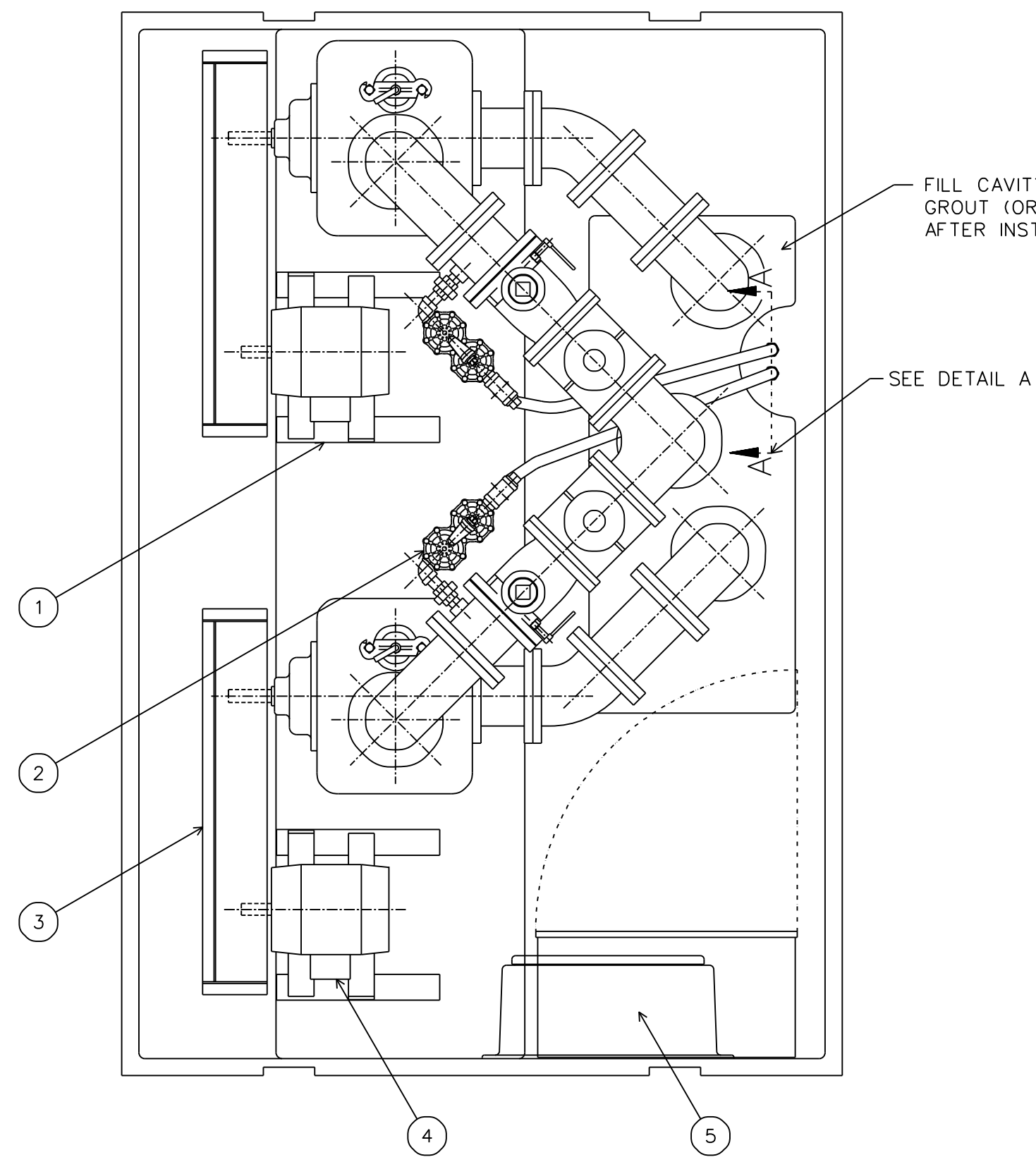
PROJECT REFERENCE NO. R-2582A	SHEET NO. UC-51
DESIGNED BY: SHF	
DRAWN BY: SHF	
CHECKED BY: KCZ	
APPROVED BY: KCZ	
REVISER:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
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PS-1 DETAILS

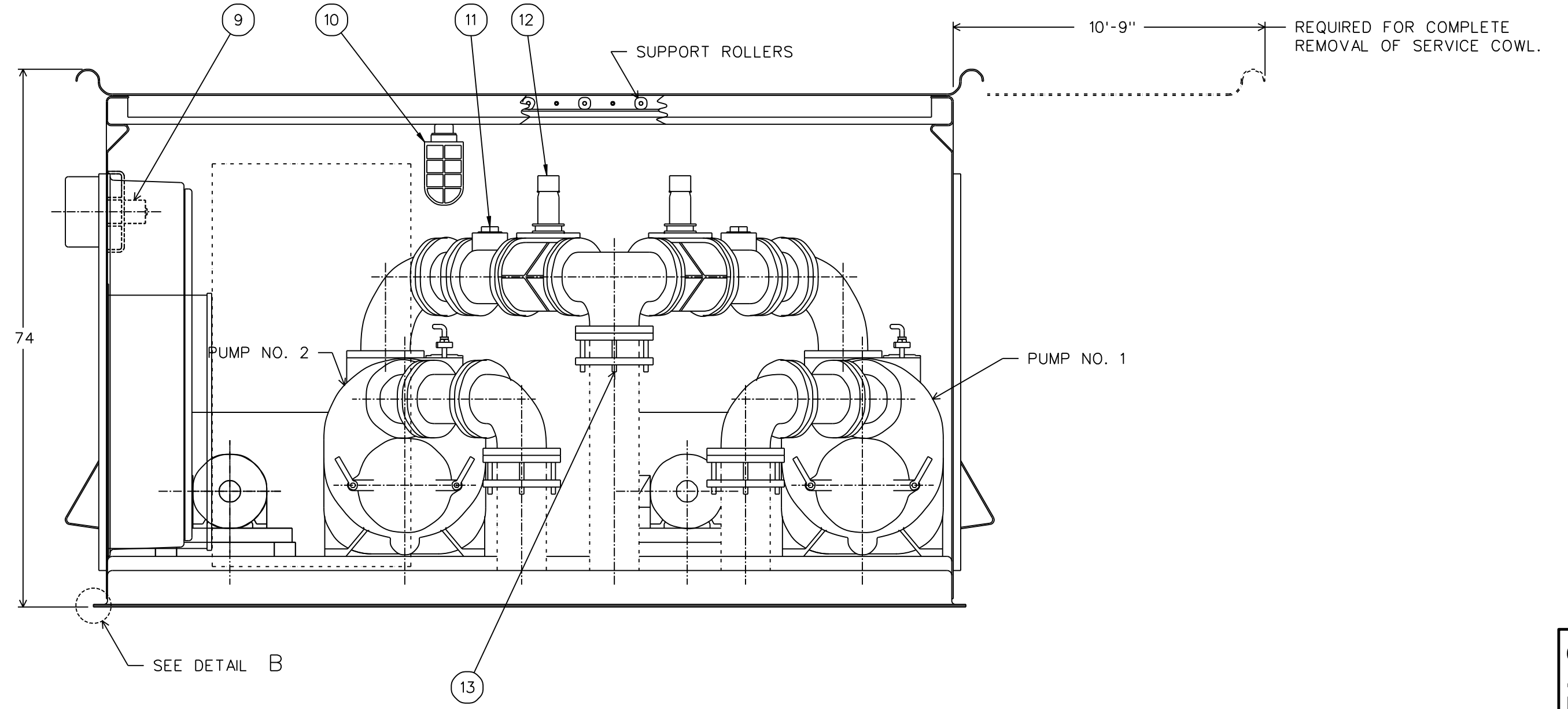
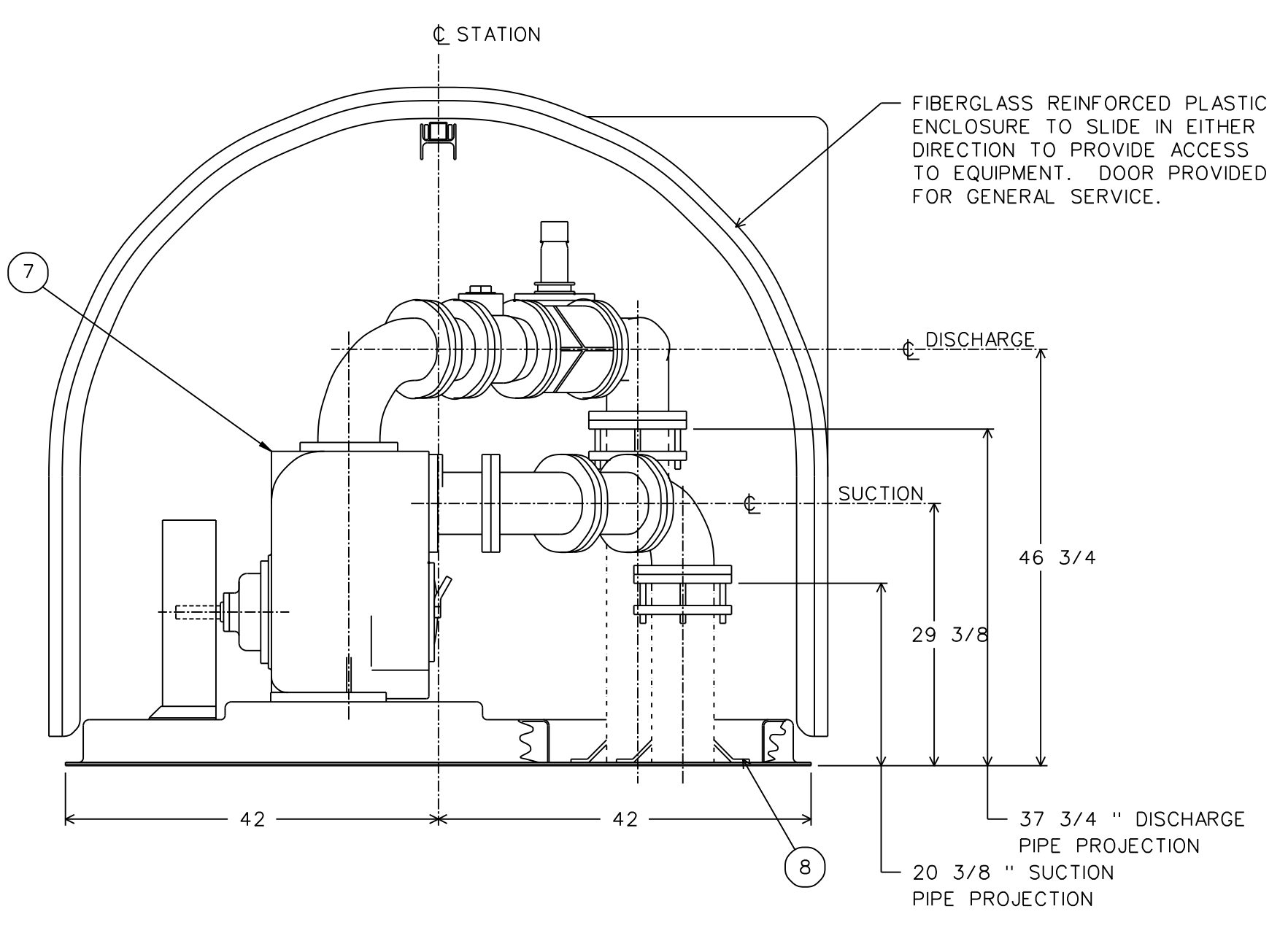
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5/14/99

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ITEM	DESCRIPTION	MAT'L & SIZE
1	MOTOR BASE ASSY	STEEL
2	AIR RELEASE VALVE	FIBERGLASS 1 1/4"
3	BELT GUARD ASSY	STEEL
4	MOTOR	CAST IRON
5	CONTROL PANEL	FIBERGLASS
6	AIR RELEASE LINE	FLEXIBLE 1 1/4"
7	PUMP	CAST IRON T6A-B
8	GROUT DAM	RUBBER
9	EXHAUST FAN	500 CFM
10	VAPOR TIGHT LIGHT	200 WATT
11	DISCHARGE CHECK VALVE	CAST IRON 6"
12	DISCHARGE PLUG VALVE	CAST IRON 6"
13	ADAPTOR COUPLING	CAST IRON 6"



**7'x10' ABOVEGROUND
SEWAGE LIFT STATION ASSEMBLY DETAIL**

PS-1 DETAILS

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SYMBOLS

- 3/4" x 10" COPPER CLAD GROUND ROD; SEE DETAIL 2 SHEET E04 FOR CABLE CONNECTION DETAILS
- EXOTHERMIC WELD OR MECHANICAL CONNECTION; REFER TO APPROPRIATE DETAIL CONNECTION
- EQUIPMENT CONNECTION; COORDINATE WITH SUPPLIER PRIOR TO ROUGH-IN
- GFI RECEPTACLE; WEATHER PROOF COVER & BOX
- CONDUIT IDENTIFIER; REFER TO CONDUIT & CABLE SCHEDULE.
- ELECTRICAL DISCONNECT; NUMBER INDICATES TYPE; REFER TO DISCONNECT SCHEDULE
- SINGLE POLE SWITCH; COORDINATE LOCATION WITH DOOR SWING & MILLWORK; MOUNTING HEIGHT PER NC STATE BLDG CODE VOL 1-C
- UNSWITCHED CIRCUIT
- SWITCHED CIRCUIT

DRAWING SCHEDULE		ISSUE							
DRAWING NUMBER	DRAWING TITLE	DATE	OWNER'S COMMENTS	DOT REVIEW					
UC-54	ELECTRICAL COVER SHEET PS-1	02/22/2019							
UC-55	ELECTRICAL POWER RISER PS-1	05/06/2019							
UC-56	CONDUIT AND CABLE SCHEDULE PS-1								
UC-57	DETAILS PS-1								

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 Suite 137 Cary, NC 27511
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PROJECT REFERENCE NO. <i>R-2582A</i>	SHEET NO. <i>UC-54</i>
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APPROVED BY: REF	
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UTILITY CONSTRUCTION

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ENERGY CODE INFORMATION

Electrical System and Equipment
 Method of Compliance: Prescriptive

Lighting Schedule
 Lamp type required in fixture – See Fixture Schedule
 Number of lamps in fixture – See Fixture Schedule
 Ballast type used in fixture – See Fixture Schedule
 Number of ballasts in fixture – See Fixture Schedule
 Total wattage per fixture – See Fixture Schedule
 Total interior wattage specified vs. allowed – N/A
 Total exterior wattage specified vs. allowed – 78.6 lumens/watt specified vs. 45 lumens/watt allowed

Equipment schedules with motors (not used for mechanical systems)
 Motor horsepower – N/A
 Number of phases – N/A
 Minimum efficiency – N/A
 Motor type – N/A
 # of poles – N/A

Designer Statement:
 To the best of my knowledge and belief, the design of this building complies with the electrical system and equipment requirements of North Carolina International Energy code

Signed: _____
 Name: REESE E. FINN
 Title: Engineer

LIGHT FIXTURE SCHEDULE						
ID	DESCRIPTION	LAMP/ QTY	BALLAST/ QTY	VOLTS	WATTS	NOTES
A	LITHONIA EIS 2 54T5HD	T5HD 54W 2	GEB 1	120	108	ENCLOSED & GASKETED FLOURESCENT STRIP. WET LABEL. SURFACE MOUNTED. CONTRACTOR TO FURNISH & INSTALL.

MISC. DWG. SYMBOLS

- SECTION LETTER
SECTION DRAWING NUMBER
- DETAIL NUMBER
DRAWING NUMBER
- PLAN KEY NOTE
- DRAWING REVISION NUMBER
- DETAIL NUMBER
DRAWING NUMBER
TITLE
SCALE:

NOTE TO REVIEWER

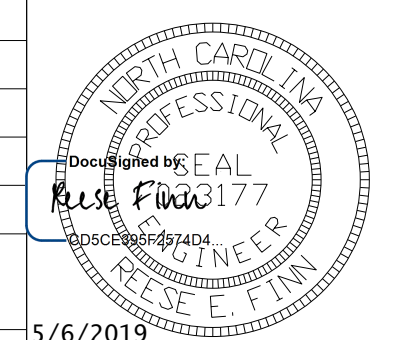
NOTE TO REVIEWER
 THIS APPLICATION IS TO PROVIDE UTILITY POWER, EMERGENCY GENERATOR BACK-UP, AND CONTROL WIRING FOR A RELOCATED PUMPING STATION.

PS-1 ELECTRICAL

8/17/99

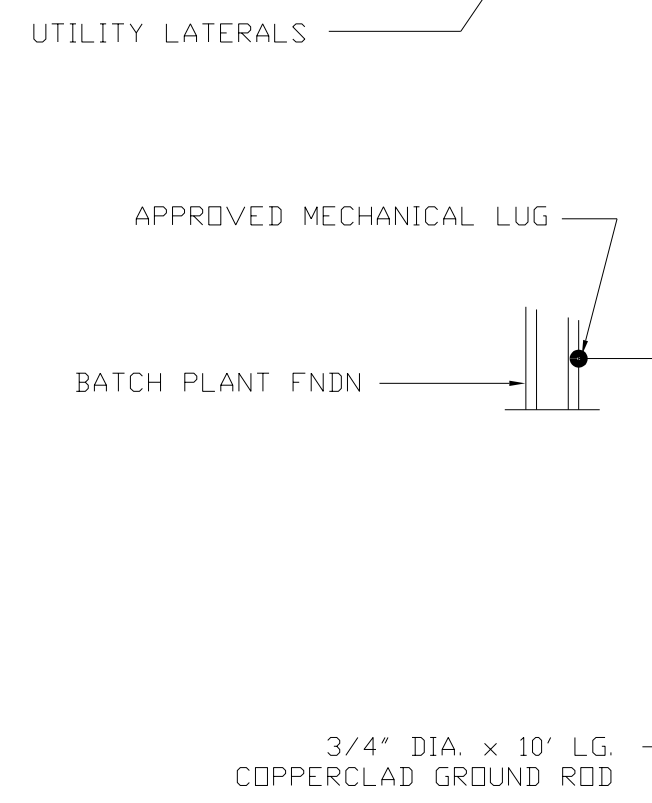
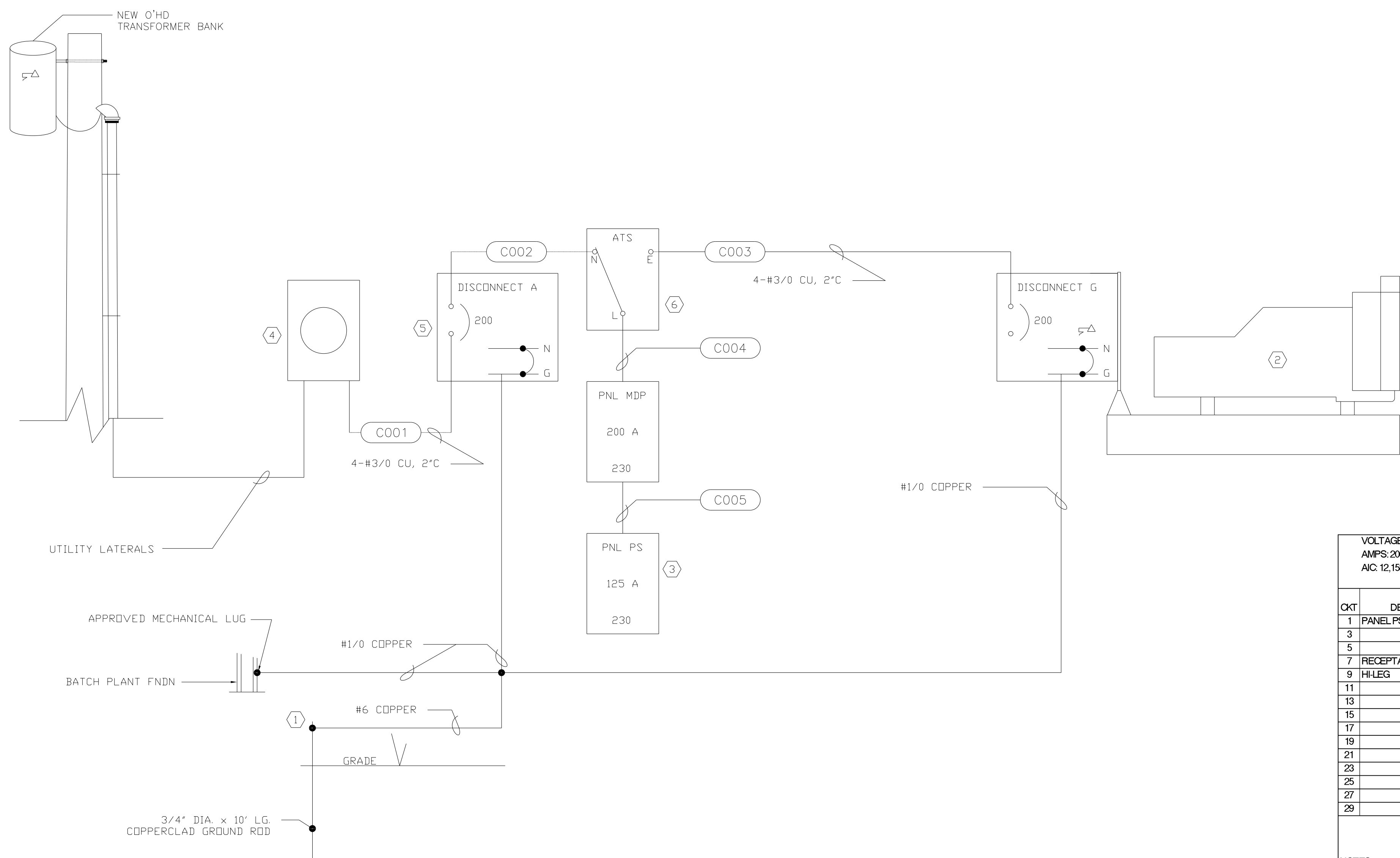
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598 East Chatham Street Suite 137 Cary, NC 27511
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PROJECT REFERENCE NO. R-2582A SHEET NO. UC-55
DESIGNED BY: REF
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APPROVED BY: REF
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UTILITY CONSTRUCTION

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1 ELECTRICAL POWER RISER
UC-55 SCALE: N.T.S.

GENERAL NOTE:

THE CONDUIT ROUTING IS DIAGRAMMATIC. REFER TO CONDUIT & CABLE SCHEDULE FOR SIZE & CABLE CONTENT. THE EXACT ROUTING AND COORDINATION WITH SITE CONDITIONS IS THE CONTRACTORS RESPONSIBILITY.

Keyed Notes:

- 1 APPROVED MECHANICAL GROUNDING LUG.
- 2 40 KW DIESEL GENERATOR WITH BASE MOUNTED FUEL TANK, WEATHER/NOISE ENCLOSURE. MAIN BREAKER. SIX WINDINGS. 240 VAC 3Ø.
- 3 SUB-PANEL SUPPLIED WITH AND LOCATED IN SEWAGE LIFT STATION ENCLOSURE. COORDINATE WITH EQUIPMENT SUPPLIER.
- 4 UTILITY METER. COORDINATE LOCATION AND TYPE WITH UTILITY.
- 5 3P NEMA 3R DISCONNECT WITH SOLID NEUTRAL AND GROUND. SE RATED.
- 6 ASCO 300 SERIES (260-400 AMPERE) 'J' FRAME AUTOMATIC TRANSFER SWITCH.

VOLTAGE: 230 AMPS: 200 AIC: 12,158		PANEL MDP												MAIN BREAKER: M.L.O. PHASE: 3 WIRE: 4 MOUNTING: SURFACE			
CKT	DESCRIPTION	C	W	P	CB	PHASE LOADS			VA	CB	P	W	C	DESCRIPTION	CKT		
						A	B	C									
1	PANEL PS	1-1/2	1/0	3	150	13034	13214		180	20	1	12	1/2	RECEPTACLE	2		
3					3	150	12154	12154						HI-LEG	4		
5					3	150	13234		15154	1920	20	1	12	1/2	LIGHTS	6	
7	RECEPTACLE	1/2	12	1	20	180	480		300	15	1	14	1/2	FLOW METER	8		
9	HI-LEG							0						HI-LEG	10		
11								0							12		
13								0							14		
15								0							16		
17								0							18		
19								0							20		
21								0							22		
23								0							24		
25								0							26		
27								0							28		
29								0							30		
						VA PHASE:	13694	12154	15154							NECLOAD:	45666
						TOTAL VA:	41003									AMPS:	115
						TOTAL AMPS:	103										
						NECLOAD/ PHASE:	15089	13549	17029								

NOTES:
1. PROVIDE BOLT-ON BREAKERS
2. SQUARE D NOOD

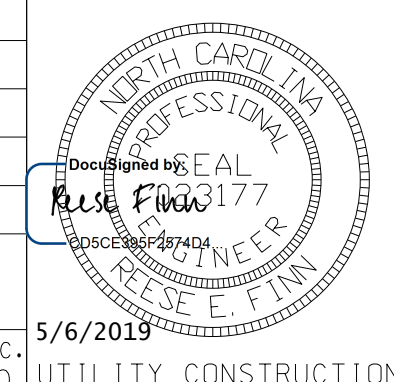
VOLTAGE: 230 AMPS: 125 AIC: 10 K		PANEL PS												MAIN BREAKER: M.L.O. PHASE: 3 WIRE: 4 MOUNTING: SURFACE			
CKT	DESCRIPTION	C	W	P	CB	PHASE LOADS			VA	CB	P	W	C	DESCRIPTION	CKT		
						A	B	C									
1	15HP PUMP	1	6	3	80	5577	11154	11154	5577	20	3	6	1	15HP PUMP	2		
3					3	80	5577		5577					HI-LEG	4		
5					3	80	5577		11154	5577				HI-LEG	6		
7	INTERIOR LIGHT	1/2	12	1	20	200	380		180	20	1	12	1/2	RECEPTACLE	8		
9	HI-LEG							0						HI-LEG	10		
11	CONTROLS	1/2	14	1	15	360		480	180	20	1	12	1/2	RECEPTACLE	12		
13	SPACE HEATER	1/2	12	2	20	250	1250		1000	15	3	14	1/2	POWER TRANSFORMER	14		
15	HI-LEG							1000	1000	15				HI-LEG	16		
17	AIR PUMP	1/2	14	1	15	250		250	1000	15				HI-LEG	18		
19	AIR PUMP	1/2	14	1	15	250	250		1000	15				HI-LEG	20		
21	HI-LEG							0						HI-LEG	22		
23	EXHAUST FAN	1/2	14	1	15	350		350						HI-LEG	24		
25								0						HI-LEG	26		
27	HI-LEG							0						HI-LEG	28		
29								0						HI-LEG	30		
31								0						HI-LEG	32		
33	HI-LEG							0						HI-LEG	34		
35								0						HI-LEG	36		
37								0						HI-LEG	38		
39	HI-LEG							0						HI-LEG	40		
41								0						HI-LEG	42		
						VA PHASE:	13034	12154	13234							NECLOAD:	44000
						TOTAL VA:	38423									AMPS:	110
						TOTAL AMPS:	96										
						NECLOAD/ PHASE:	14429	13549	16023								

NOTES:
1. PANEL PROVIDED BY ENCLOSURE SUPPLIER.

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PS-1 ELECTRICAL

PROJECT REFERENCE NO.	SHEET NO.
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UTILITY CONSTRUCTION

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CONDUIT AND CABLE SCHEDULE				
CONDUIT I.D.	CONDUIT SIZE	CABLE/ WIRE	FROM	TO
C001	2"	3 #3/0 THHN COPPER	METER BASE	DISC A
C002	2"	3 #3/0 THHN COPPER, #6 G	DISC A	ATS
C003	2"	3 #3/0 THHN COPPER, #6 G	ATS	DISC G
C004	2"	3 #3/0 THHN COPPER, #6 G	ATS	MDP
C005	1-1/4"	3 #1 THHN COPPER, #8 G	MDP	PNL PS

1 CONDUIT & CABLE SCHEDULE
 UC-56 SCALE: N.T.S.

GENERAL NOTES:

- ① ALL CONDUIT IS RIGID ALUMINUM UNLESS OTHERWISE NOTED ON THE PLANS
- ② CONTRACTOR IS RESPONSIBLE FOR ACTUAL QUANTITIES BASED ON TAKE OFF & FIELD CONDITIONS.

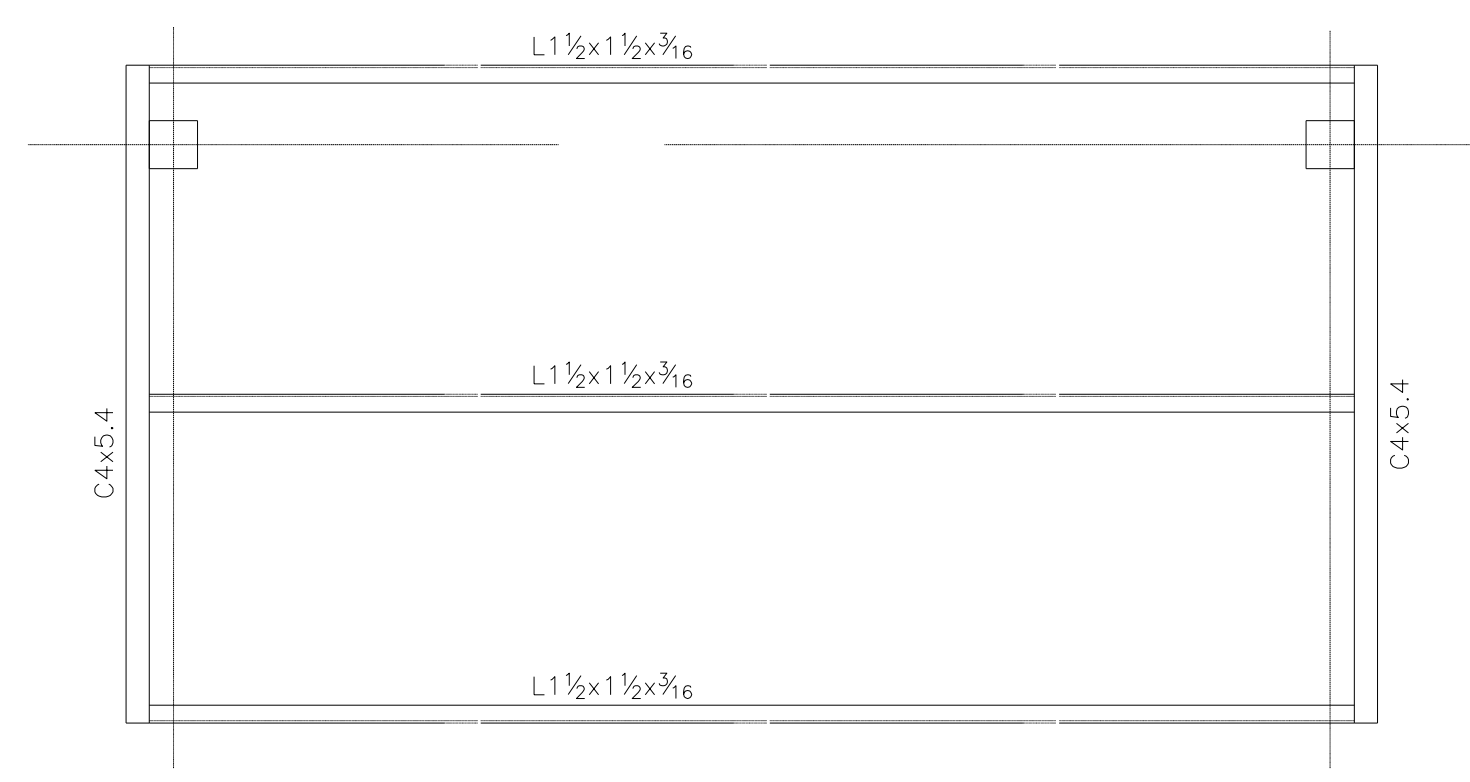
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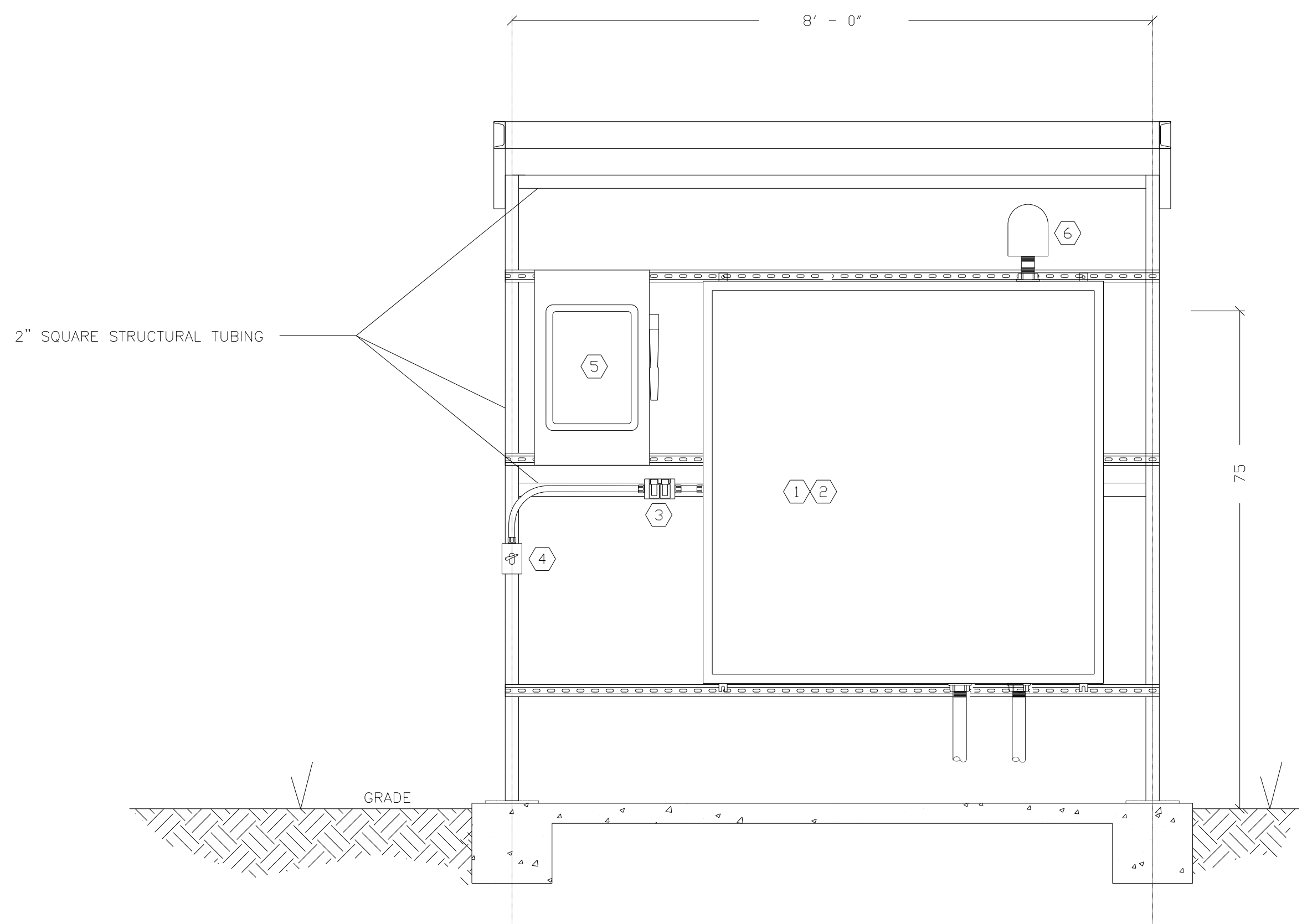
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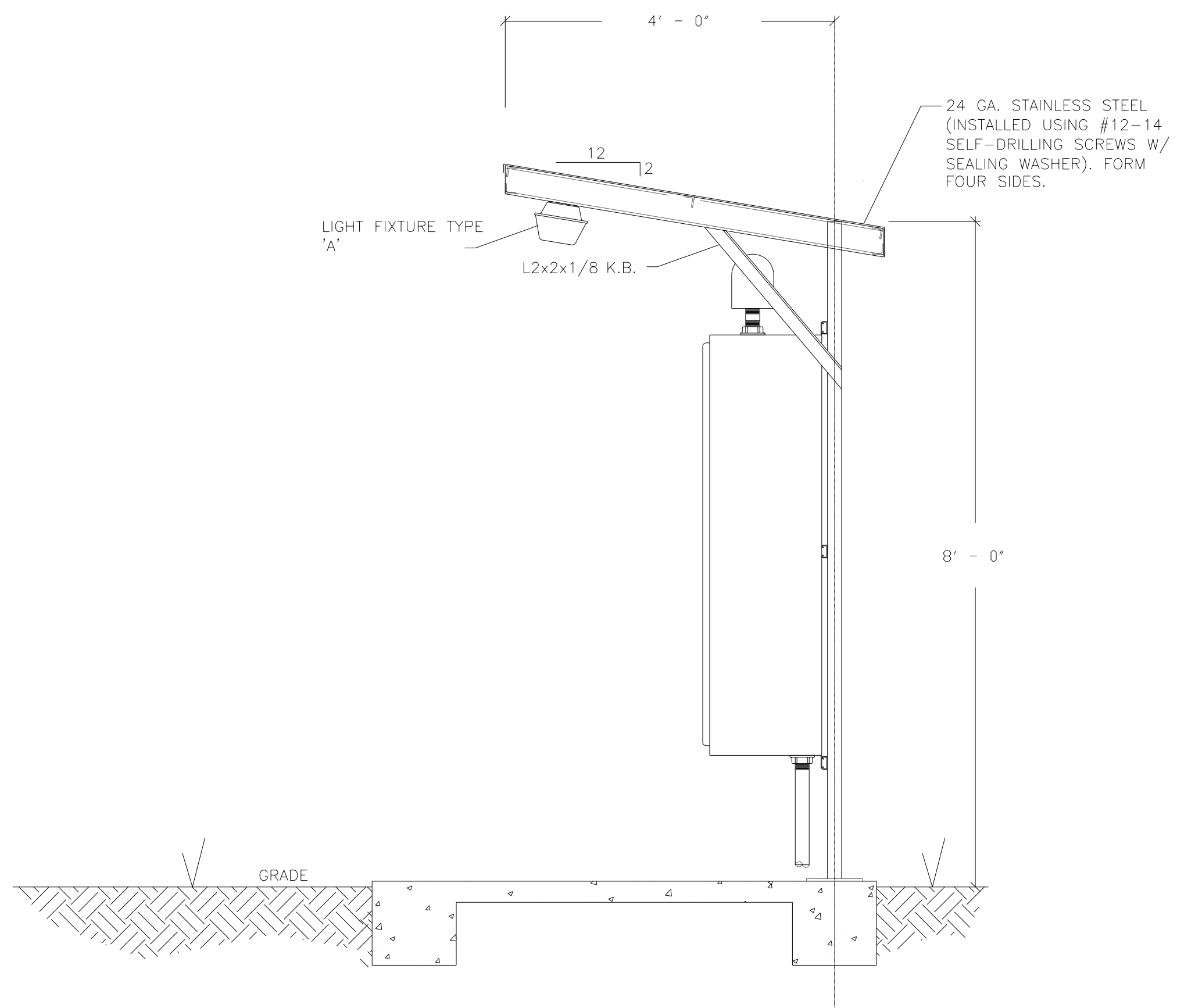
- ① 60x60x12 NEMA 3R CONTROL CABINET, PROVIDE BACK PANEL AND LOCKING HANDLE.
- ② MOUNT ATS, MDP, FLOW METER CONTROL UNIT, AND MISC. CONTROL UNITS. SIZE IS NOMINAL. CONFIRM SPACE REQUIREMENTS WITH EQUIPMENT SUPPLIERS.
- ③ GFI RECEPTACLE WITH IN-USE COVER.
- ④ SP SWITCH WITH WP COVER. CONTROLS CANOPY LIGHT.
- ⑤ 3P NEMA 3R DISCONNECT WITH SOLID NEUTRAL AND GROUND. SE RATED.
- ⑥ WARMA FLASHING RED LED WARNING LIGHT. COORDINATE WITH CONTRLS VENDOR.



③ SERVICE CANOPY PLAN VIEW
UC-57 SCALE: 3/4" = 1'-0"



① SERVICE CANOPY FRONT ELEVATION
UC-57 SCALE: 3/4" = 1'-0"



② SERVICE CANOPY SIDE ELEVATION
UC-57 SCALE: 3/4" = 1'-0"

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