

April 18, 2017

**BOARD OF COUNTY COMMISSIONERS
ORANGE COUNTY, FLORIDA
ADDENDUM NO. 1 / IFB NO. Y17-751-PH**

**OLD CHENEY HIGHWAY, ROBINSWOOD HILLS, SYLVAN HEIGHTS AND SHELDON
TERRACE WASTEWATER IMPROVEMENTS PACKAGE 10**

BID OPENING DATE: April 25, 2017

This addendum is hereby incorporated into the bid documents of the project referenced above. The following items are clarifications, corrections, additions, deletions and/or revisions to and shall take precedence over the original documents. Additions are indicated by underlining, deletions are indicated by ~~strikethrough~~.

A. CLARIFICATIONS

B. PROJECT DRAWINGS

Please see the attached Electrical Drawings to replace E-001 through ED-101 (total of eight sheets).

C. On Invitation for Bid Documents - BID SCHEDULE

No changes

D. ACKNOWLEDGEMENT OF ADDENDA

- a. The Proposer shall acknowledge receipt of this addendum by completing the applicable section in the solicitation or by completion of the acknowledgement information on the addendum. Either form of acknowledgement must be completed and returned not later than the date and time for receipt of proposal.
All other terms, conditions and specifications remain the same.

Receipt acknowledged by:

Authorized Signature

Date Signed

Title

Name of Firm

PLAN SYMBOLS

	HOME RUN TO PANELBOARD. NO. OF ARROWS INDICATE NO. OF CIRCUITS. HASH MARKS INDICATE NO. OF #12 AWG. CONDUCTORS. NO HASH MARKS INDICATE 2 #12 CONDUCTORS.
	CONDUIT CONCEALED IN WALL, IN SLAB ABOVE, OR ABOVE CEILING
	CONDUIT CONCEALED IN OR BELOW FLOOR OR UNDERGROUND.
	CONDUIT RUN EXPOSED. RUN PARALLEL OR PERPENDICULAR TO STRUCTURE OR WALL.
	FLEXIBLE CONDUIT WITH EQUIPMENT CONNECTION.
	POLE MOUNTED LIGHTING FIXTURE.
	ELECTRIC A.C. MOTOR, NO. INDICATES HORSEPOWER.
	ELECTRIC HEATER
	FLOW ELEMENT
	LEVEL ELEMENT
	LIMIT SWITCH
	PRESSURE SWITCH
	SOLENOID VALVE
	LEVEL INDICATING TRANSMITTER
	LIQUID LEVEL SWITCH
	FLOAT SWITCH
	FLOW INDICATING TRANSMITTER

RISER & CONTROL DIAGRAM SYMBOLS

	VOLTMETER
	AMMETER
	THREE PHASE VOLT SWITCH
	THREE PHASE AMP SWITCH
	GROUND FAULT INTERRUPTER
	FUSE
	MOLDED CASE CIRCUIT BREAKER
	SERVICE OR EQUIPMENT GROUND.
	OTHERWISE INDICATED.
	CURRENT TRANSFORMERS
	POTENTIAL TRANSFORMERS
	DUPLEX RECEPTACLE
	NORMALLY OPEN CONTACT
	NORMALLY CLOSED CONTACT
	FLOAT SWITCH, NORMALLY OPEN
	FLOAT SWITCH, NORMALLY CLOSED
	FLOW SWITCH, NORMALLY OPEN
	FLOW SWITCH, NORMALLY CLOSED
	TEMPERATURE SWITCH, NORMALLY OPEN
	TEMPERATURE SWITCH, NORMALLY CLOSED

RISER & CONTROL DIAGRAM SYMBOLS

	NORMALLY OPEN, TIMED TO CLOSE CONTACT
	NORMALLY CLOSED, TIMED TO OPEN CONTACT
	NORMALLY CLOSED, TIMED TO CLOSE CONTACT
	NORMALLY OPEN, TIMED TO OPEN CONTACT
	LIMIT SWITCH
	TORQUE SWITCH
	PRESSURE SWITCH
	ZERO SPEED SWITCH
	SOLENOID VALVE
	LIQUID LEVEL SWITCH
	VIBRATION SWITCH
	ALARM RELAY
	ALARM TIMER
	CONTROL RELAY
	MOTOR STARTER
	TIMING RELAY
	ALARM INDICATING LIGHT
	RUN INDICATING LIGHT
	MOMENTARY CONTACT PUSHBUTTON
	MOMENTARY BREAK PUSHBUTTON OR RESET
	KEYED SWITCH
	MAINTAINED CONTACT ON-OFF SWITCH
	START/STOP(S/S) CONTROL SWITCH MAINTAINED CONTACT
	THREE POSITION MAINTAINED CONTACT SELECTOR SWITCH
	CONTROL POWER TRANSFORMER
	REMOTE TERMINAL BLOCK POINT
	MINI-POWER ZONE

ABBREVIATIONS

A	AMPERES
AFF	ABOVE FINISHED FLOOR
AH	ALARM HORN
AIC	AMPS INTERRUPTING CURRENT
AL	ALARM LIGHT
ATS	AUTOMATIC TRANSFER SWITCH
ASB	ALTERNATOR TEST SWITCH
BKR	BREAKER
CCB	CONTROL CIRCUIT BREAKER
CCT	CONTROL CIRCUIT TRANSFORMER
CP	CONTROL PANEL
CPT	CONTROL POWER TRANSFORMER
CU	COPPER
DH	DATA HIGHWAY
DISC	DISCONNECT
DR	DUPLEX RECEPTACLE
EFF	EFFLUENT
ELEC	ELECTRICAL
ELR	EMERGENCY LOCK-OUT RELAY
EM	EMERGENCY
ENCL	ENCLOSURE
EP	EXPLOSION PROOF
ESB	ENERGY SAVING BALLAST
ETM	ELAPSED TIME METER
EXH	EXHAUST
EXIST	EXISTING
F	FUSE
FL	FLASHER
FR	FLOAT REGULATOR
FVNR	FULL VOLTAGE NON-REVERSING GENERATOR
GEN	GENERATOR
GFR	GROUND FAULT RECEPTACLE
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
GRS	GALVANIZED RIGID STEEL
HOA	HAND-OFF-AUTOMATIC
HOLR	HAND-OFF-LOCAL-REMOTE
HOR	HAND-OFF-REMOTE
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HSS	HORN SILENCE SWITCH
HWY	HIGHWAY
KVA	KILO VOLT-AMPERES
KW	KILOWATT
LA	LIGHTNING ARRESTOR
LF	LINEAR FEET
LTG	LIGHTING
MAX	MAXIMUM
MB	MOTOR BREAKER
MCB	MAIN CIRCUIT BREAKER
MPZ	MINI POWER ZONE
MIN	MINIMUM
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MS	MOTOR STARTER
MT	MOISTURE AND TEMPERATURE FAIL LIGHT
NEC	NATIONAL ELECTRIC CODE
N	NEUTRAL
NTS	NOT TO SCALE
OCU	ORANGE COUNTY UTILITIES
OH	OVERHEAD
OL	OVERLOAD HEATER
P	POLE
PA	POWER AVAILABLE LIGHT
PCP	PUMP CONTROL PANEL
PEF	PROGRESS ENERGY OF FLORIDA
PL	PILOT LIGHT
PM	PHASE MONITOR
PNL	PANEL
PRI	PRIMARY
PVC	POLYVINYL CHLORIDE
R	RELAY
RL	RUNNING LIGHT
RTS	REGULATOR TERMINAL STRIP
PRI	PRIMARY
SC	SURGE CAPACITOR
SEC	SECONDARY
SH	SHIELDED
SS	STAINLESS STEEL
STR	STARTER
SUPP	SUPPRESSOR
SW	SWITCH
TBR	TO BE REMOVED
TC	TIME CLOCK
TLS	TROUBLE LIGHT SWITCH
TS	TERMINAL STRIP
TTS	THERMAL TERMINAL STRIP
TYP	TYPICAL
UG	UNDERGROUND
V	VOLT
W	WATT
W/	WITH
WP	WEATHERPROOF
Ø	PHASE

NOTES

- ELECTRICAL CONTRACTOR SHALL SUPPLY AND INSTALL ALL NEW ELECTRICAL WORK INDICATED.
- ELECTRICAL CONTRACTOR SHALL VISIT JOB SITE AND FAMILIARIZE HIMSELF WITH ALL CONDITIONS AFFECTING ELECTRICAL INSTALLATION AND MAKE PROVISIONS AS TO THE COST THEREOF. EXISTING CONDITIONS OF ELECTRICAL EQUIPMENT, LIGHT FIXTURES, ETC... THAT ARE PART OF THE FINAL SYSTEM SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO SUBMITTING HIS BID.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE, ORANGE COUNTY STANDARDS AND SHALL COMPLY WITH ALL LOCAL RULES AND ORDINANCES.
- MINIMUM WIRE SIZE SHALL BE #12 A.W.G. EXCLUDING CONTROL WIRING, UNLESS OTHERWISE NOTED. ALL CONDUCTORS SHALL BE COPPER.
- IT IS NOT THE INTENT OF THESE PLANS TO SHOW EVERY MINOR DETAIL OF CONSTRUCTION. THE CONTRACTOR IS EXPECTED TO FURNISH AND INSTALL ALL ITEMS FOR A COMPLETE ELECTRICAL SYSTEM AND PROVIDE ALL REQUIREMENTS NECESSARY FOR THE EQUIPMENT TO BE PLACED IN PROPER WORKING ORDER.
- ELECTRICAL SYSTEM SHALL BE COMPLETE AND EFFECTIVELY GROUNDED AS REQUIRED BY THE LATEST EDITION OF THE N.E.C. OR LOCAL CODES. ALL CONDUITS SHALL HAVE A BOND WIRE SIZED PER TABLE 250 OF THE NATIONAL ELECTRIC CODE.
- ALL MATERIALS SHALL BE NEW AND BEAR UNDERWRITERS' LABELS WHERE APPLICABLE.
- ALL WORK SHALL BE PERFORMED BY A LICENSED ELECTRICAL CONTRACTOR IN A FIRST CLASS WORKMANLIKE MANNER. THE COMPLETED SYSTEM SHALL BE FULLY OPERATIVE AND ACCEPTED BY ENGINEER/OWNER.
- CONTRACTOR SHALL GUARANTEE ALL MATERIALS AND WORKMANSHIP FREE FROM DEFECTS FOR A PERIOD OF NOT LESS THAN TWO YEARS FROM DATE OF ACCEPTANCE.
- CORRECTION OF ANY DEFECTS SHALL BE COMPLETED WITHOUT ADDITIONAL CHARGE AND SHALL INCLUDE REPLACEMENT OR REPAIR OF ANY OTHER PHASE OF THE INSTALLATION WHICH MAY HAVE BEEN DAMAGED.
- THE ELECTRICAL INSTALLATION SHALL MEET ALL STANDARD REQUIREMENTS OF THE NATIONAL ELECTRIC CODE AND THE FLORIDA BUILDING CODE.
- CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING REQUIRED OF HIS WORK.
- ELECTRICAL CONTRACTOR SHALL LABEL ALL PANELS W/ TYPEWRITTEN DIRECTORIES (NEW & EXISTING).
- ALL ELECTRICAL WIRING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR.
- DO NOT SCALE THE ELECTRICAL DRAWINGS. REFER TO THE MECHANICAL DRAWINGS & THE APPROVED MANUFACTURER'S SHOP DRAWINGS FOR THE EXACT LOCATION OF ALL EQUIPMENT.
- SHADED TEXT DENOTES EXISTING EQUIPMENT OR STRUCTURES. NON-SHADED TEXT DENOTES NEW EQUIPMENT, STRUCTURES AND WORK. SLANTED TEXT (NOT SHADED) DENOTES FUTURE EQUIPMENT, STRUCTURES AND WORK.

BID SET

EDA
 Electrical Design Associates
 6965 PIAZZA GRANDE AVE., STE. 412
 ORLANDO, FLORIDA 32835
 PHONE: (407) 745-5604
 FAX: (407) 745-5603
 C.O.A. No. 8079
 LILLIAN M. REYES, P.E.
 Florida P.E. No. 50780

REV	DATE	DESCRIPTION

LINE IS 2 INCHES
 AT FULL SIZE
 (IF NOT SCALE ACCORDINGLY)

ORANGE COUNTY GOVERNMENT
ORANGE COUNTY UTILITIES DEPARTMENT
ENGINEERING DIVISION
 9150 CURRY FORD ROAD ORLANDO, FL. 32825

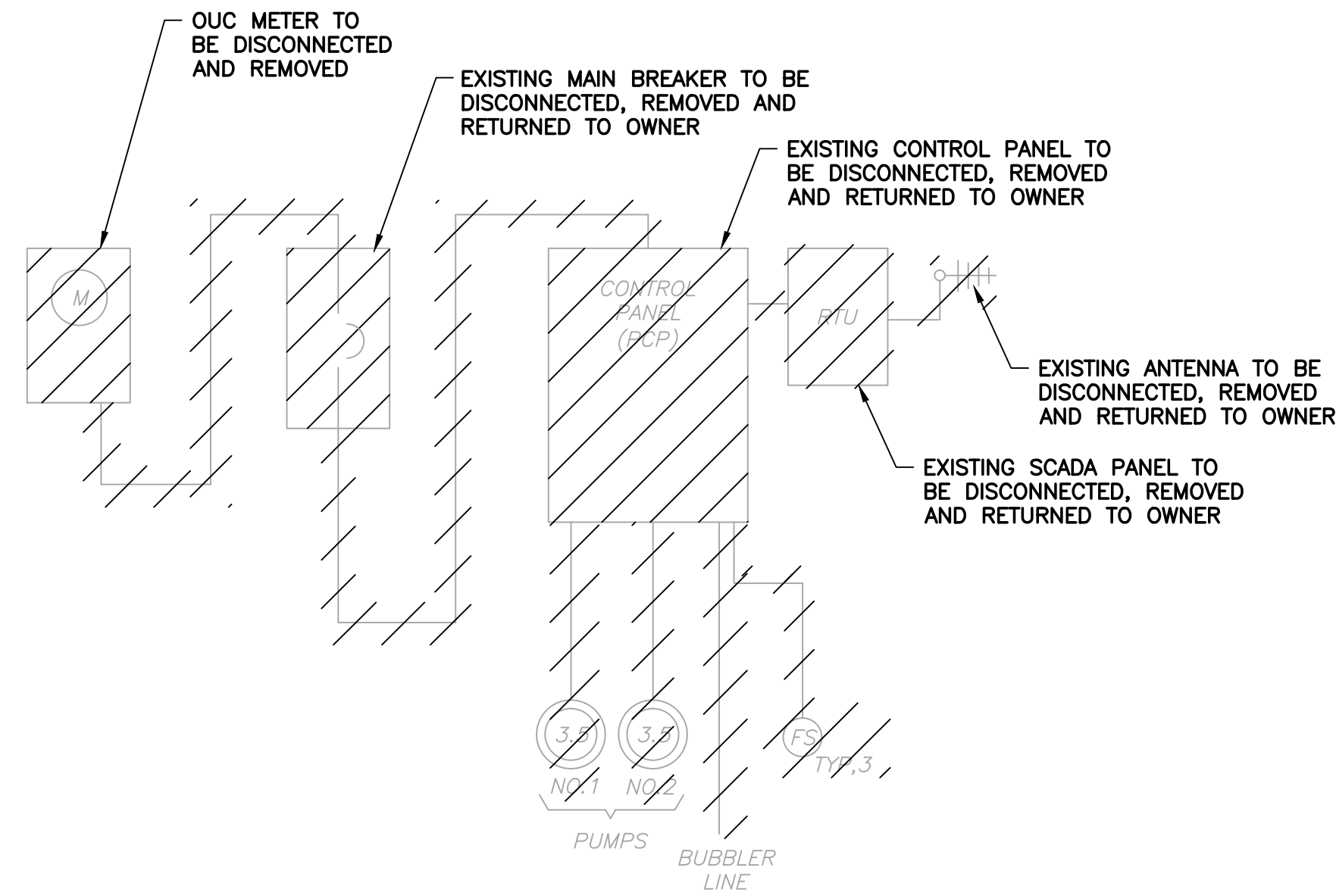
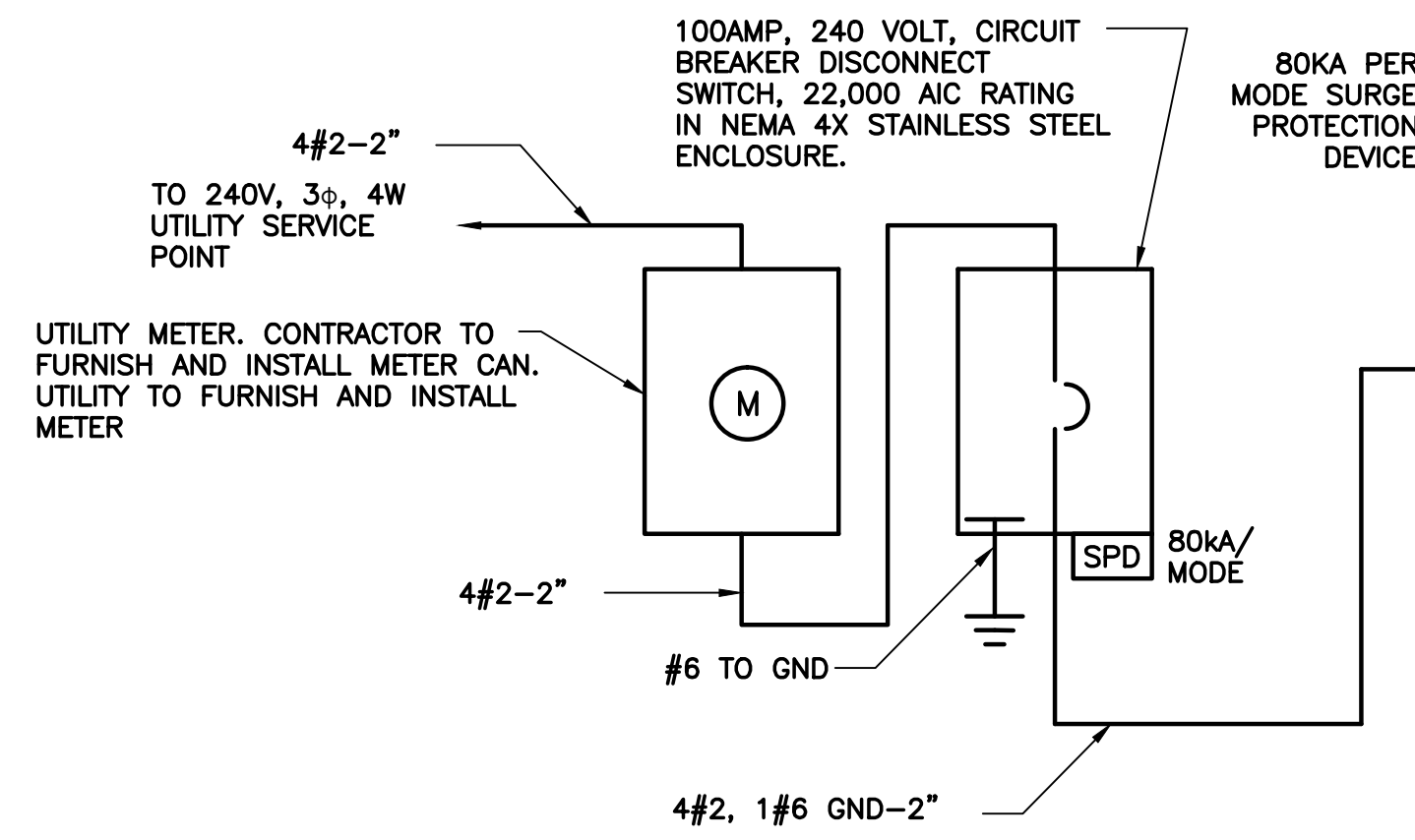
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 Arch. Lic. No. AA2600926
 Lndscp. Lic. No. LC0000298
 www.cphcorp.com
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ELECTRICAL NOTES, SYMBOLS AND ABBREVIATIONS

OCU FILE NO.: 71925
 DESIGNED BY: LMR
 DRAWN BY: RRM
 CHECKED BY: LMR
 CADD FILE: E-001 NOTES
 LILLIAN M. REYES
 PROFESSIONAL ENGINEER
 FLORIDA LICENSE #50780

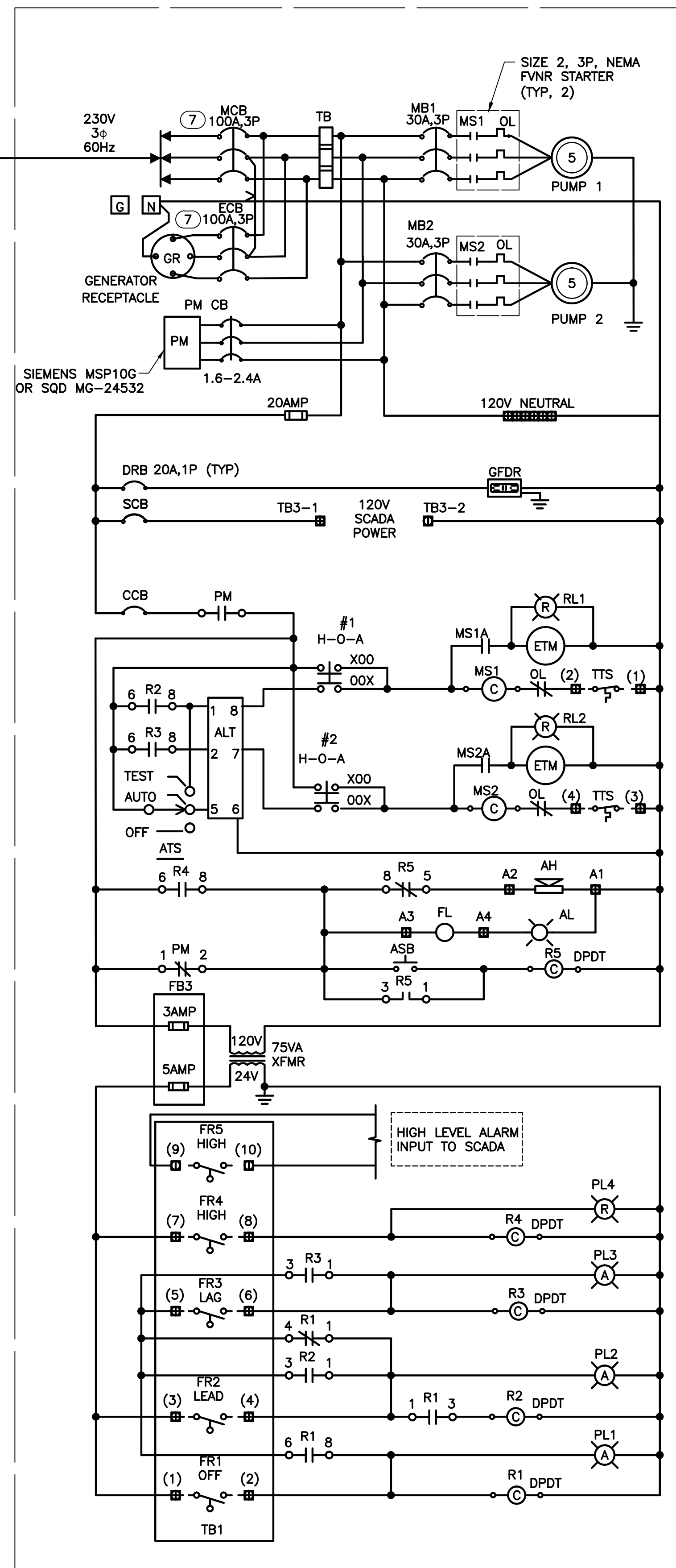
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 DRAWING NO.:
E-001
 SHEET: 51 OF 60

PUMP STATION #3201R
5747 OLD CHENEY HWY.



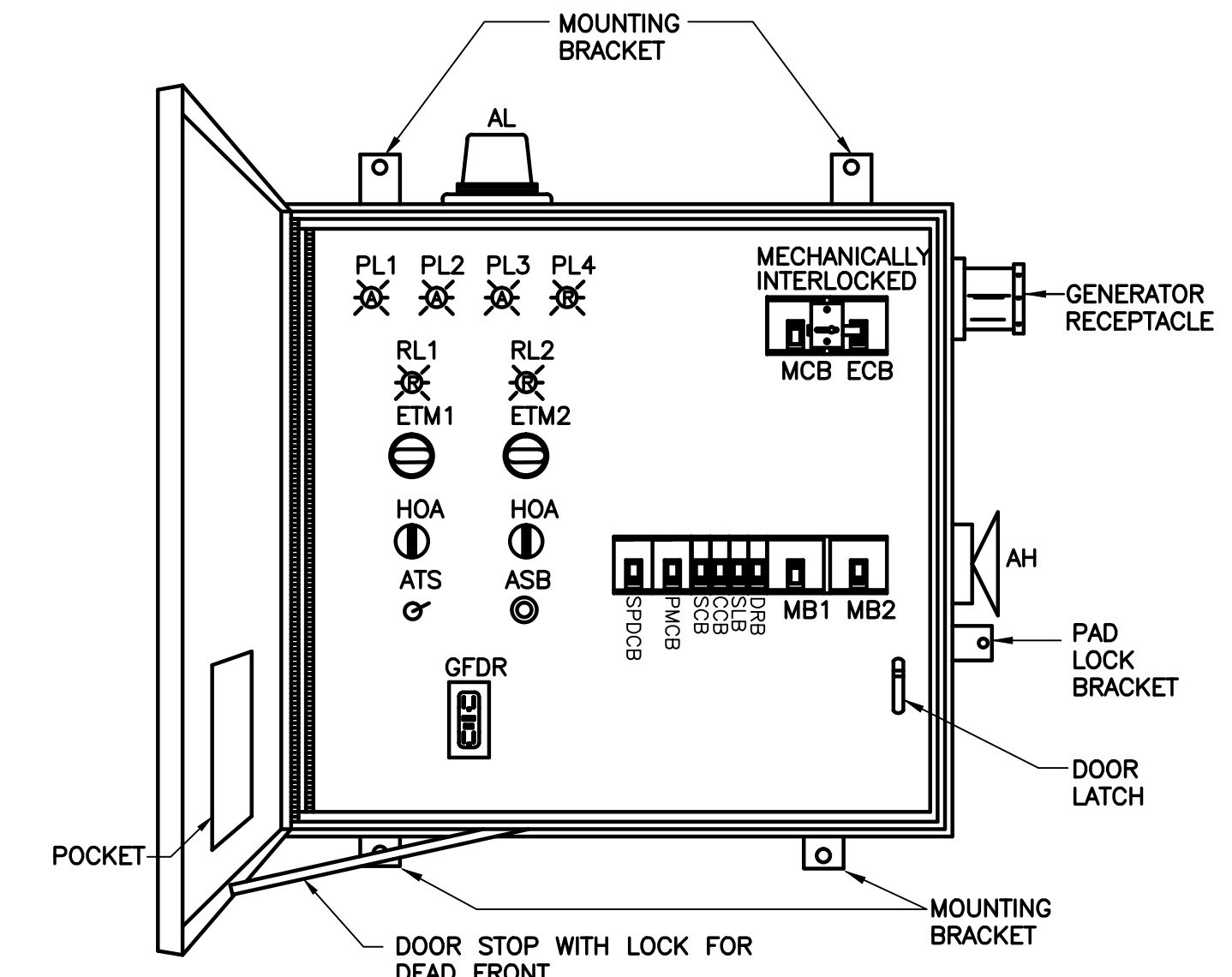
PS NO. 3201 DEMOLITION
SINGLE LINE DIAGRAM
SCALE: N.T.S.

LOAD TABULATION - PS 3201R		
SERVICE VOLTAGE: 240V-3φ		
DESCRIPTION	LOAD	AMPACITY
PUMPS	2 @ 5 HP EACH	= 24.84 AMPS
MISCELLANEOUS LOADS		= 5.00 AMPS
CONNECTED LOAD		= 29.84 AMPS
ⓈⓈ SERVICE ENTRANCE = 29.84 AMPS + (.25)(12.42) = 32.94 AMPS		
NOTES:		
Ⓢ SERVICE ENTRANCE MINIMUM SIZE AS PER ARTICLE 230 OF THE NATIONAL ELECTRICAL CODE.		
Ⓢ SERVICE ENTRANCE MINIMUM SIZE FOR ORANGE COUNTY IS 100 AMPS.		



A414 - 240V DUPLEX PUMP CONTROL SCHEMATIC

- LEGEND**
- AH - ALARM HORN
 - AL - ALARM LIGHT
 - ALT - ALTERNATOR
 - ASB - ALARM SILENCE BUTTON
 - ATS - ALTERNATOR TEST SWITCH
 - CB - CIRCUIT BREAKER
 - CCB - CONTROL CIRCUIT BREAKER
 - DPDT - DOUBLE POLE DOUBLE THROW
 - DRB - DUPLEX RECEPTACLE BREAKER
 - ECB - EMERGENCY CIRCUIT BREAKER
 - ETM - ELAPSED TIME METER
 - F - FUSE
 - FB - FUSE BLOCK
 - FL - FLASHER
 - FR - FLOAT REGULATOR
 - GFDR - GROUND FAULT DUPLEX RECEPTACLE
 - GR - GENERATOR RECEPTACLE
 - HOA - HAND-OFF-AUTO SELECTOR SWITCH
 - MB - MOTOR BREAKER
 - MCB - MAIN CIRCUIT BREAKER
 - MS - MOTOR STARTER
 - OL - OVERLOAD
 - PL - PILOT LIGHT
 - PM - PHASE MONITOR
 - R - RELAY
 - RL - RUNNING LIGHT
 - SCB - SCADA CIRCUIT BREAKER
 - SLB - SITE LIGHT BREAKER
 - TB - TERMINAL BLOCK
 - TTS - THERMAL TERMINAL STRIP
 - TVSS - TRANSIENT VOLTAGE SURGE SUPPRESSOR
 - VA - VOLT AMPERE
 - XFMR - TRANSFORMER



- NOTES:**
- DEADFRONT LAYOUT NEMA TYPE 3R S.S. ENCLOSURE W/CONTINUOUS HINGE. ALL HARDWARE TYPE 316 S.S. TYPICAL, ACTUAL LAYOUT MAY VARY WITH HORSEPOWER
 - THIS CONTROL PANEL, INCLUDING THE GENERATOR RECEPTACLE, SHALL COMPLY WITH THE STANDARD LIST OF COMPONENTS REQUIRED BY ORANGE COUNTY UTILITIES.
 - ALL CONTROL WIRE TO BE #14 AWG MINIMUM.
 - CONTROL PANEL SHALL BE U.L. LISTED AND LABELED.
 - CONTROL PANEL SHALL INCLUDE 30 SPARE TERMINALS (TB2).
 - PHASE MONITOR CIRCUIT BREAKER TO BE SIEMENS P/N: MSP10G, OR SQ-D P/N: MG24532.
 - PROVIDE AUXILIARY FORM "C" CONTACT ON MAIN AND EMERGENCY CIRCUIT BREAKERS IN PUMP CONTROL PANEL.
 - ALL 240V CIRCUIT BREAKERS SHALL BE TYPE "HGL"

A417 - DUPLEX CONTROL PANEL
ENCLOSURE DEAD FRONT LAYOUT
SCALE: N.T.S.

REV	DATE	DESCRIPTION

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Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Landscape Lic. No. LC0000298

**PUMP STATION 3201R
DUPLEX PUMP CONTROL PANEL
SINGLE LINE DIAGRAM**

LILLIAN M. REYES
PROFESSIONAL ENGINEER
FLORIDA LICENSE #50780

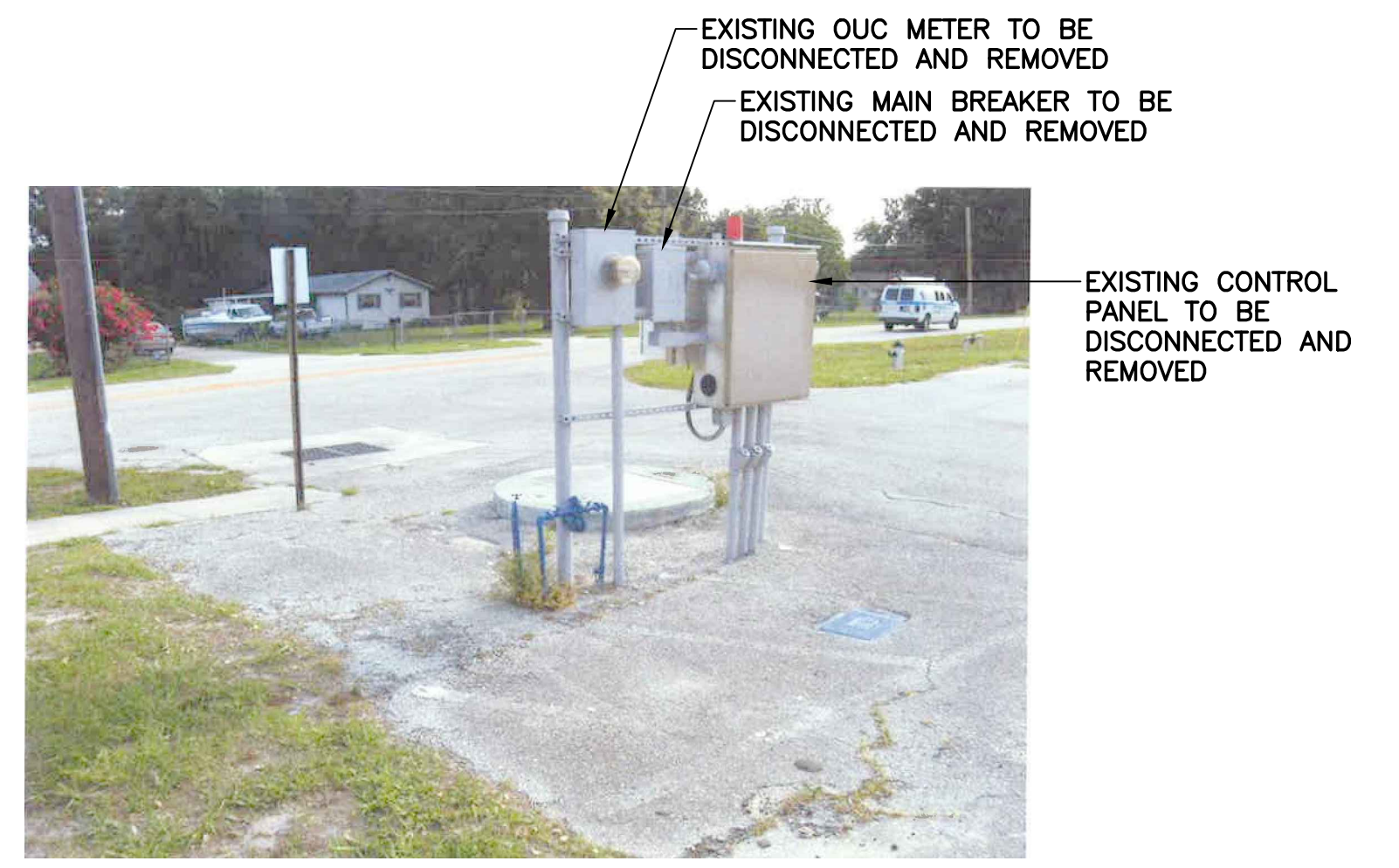
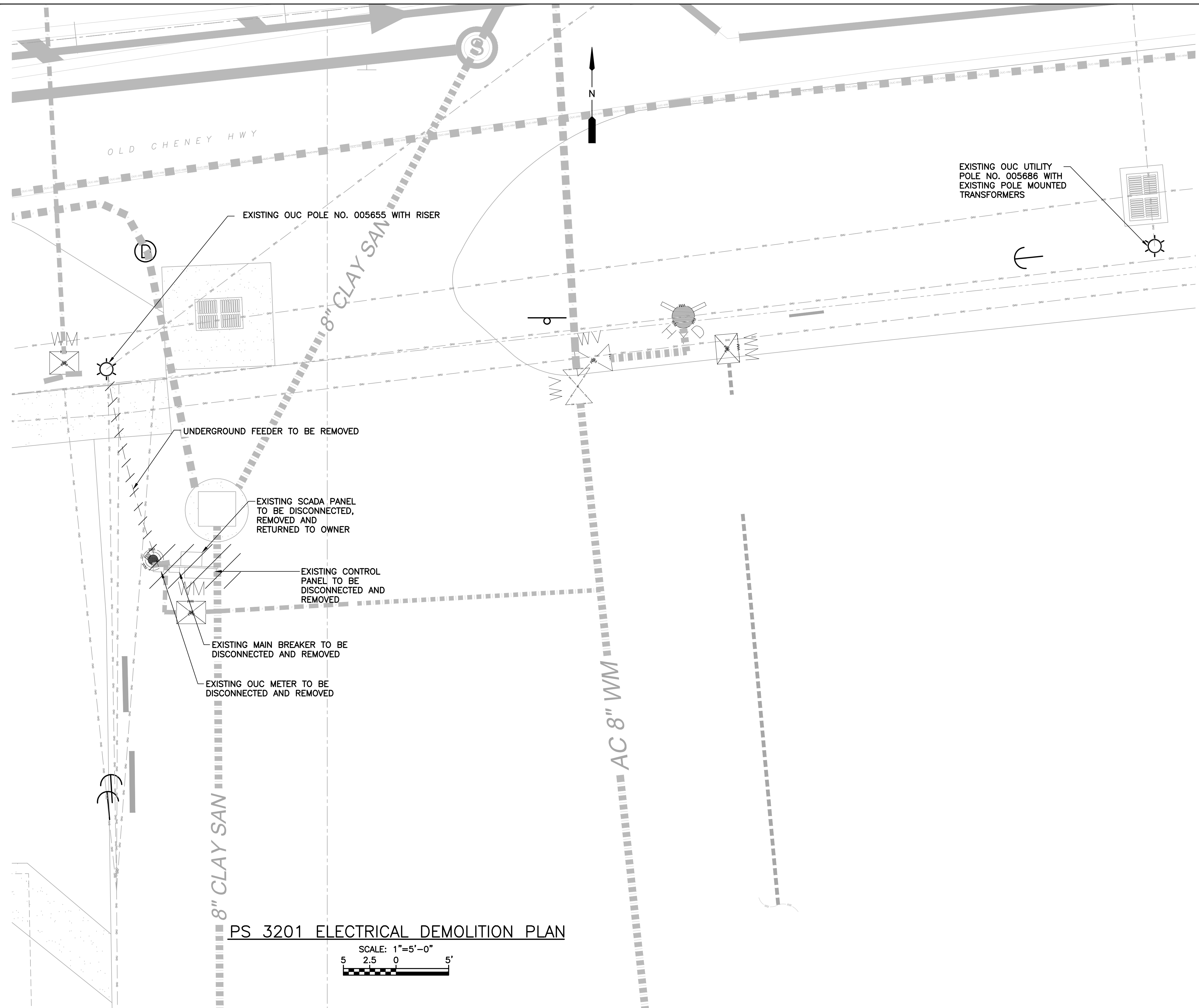
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DESIGNED BY: LMR
DRAWN BY: RRM
CHECKED BY: LMR
CADD FILE: E-100 PS 3201 SLD

SCALE: AS NOTED:
DRAWING NO.: **E-100**
SHEET: 52 OF 60

EDA
Electrical Design Associates
6965 PIAZZA GRANDE AVE., STE. 412
ORLANDO, FLORIDA 32835
PHONE: (407) 745-5604
FAX: (407) 745-5603
C.O.A. No. 8079
LILLIAN M. REYES, P.E.
Florida P.E. No. 50780

**PUMP STATION #3201
5801 OLD CHENEY HWY.**

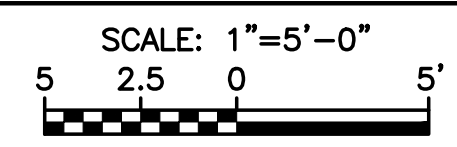


PS 3201 FIGURE NO. 1
SCALE: N.T.S.



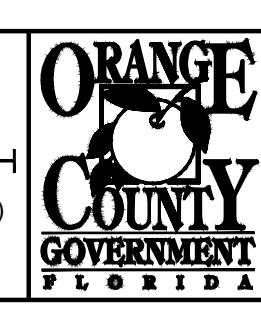
PS 3201 FIGURE NO. 2
SCALE: N.T.S.

PS 3201 ELECTRICAL DEMOLITION PLAN



REV	DATE	DESCRIPTION

LINE IS 2 INCHES
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**PUMP STATION 3201
ELECTRICAL DEMOLITION PLAN**

LILLIAN M. REYES
PROFESSIONAL ENGINEER
FLORIDA LICENSE #50780

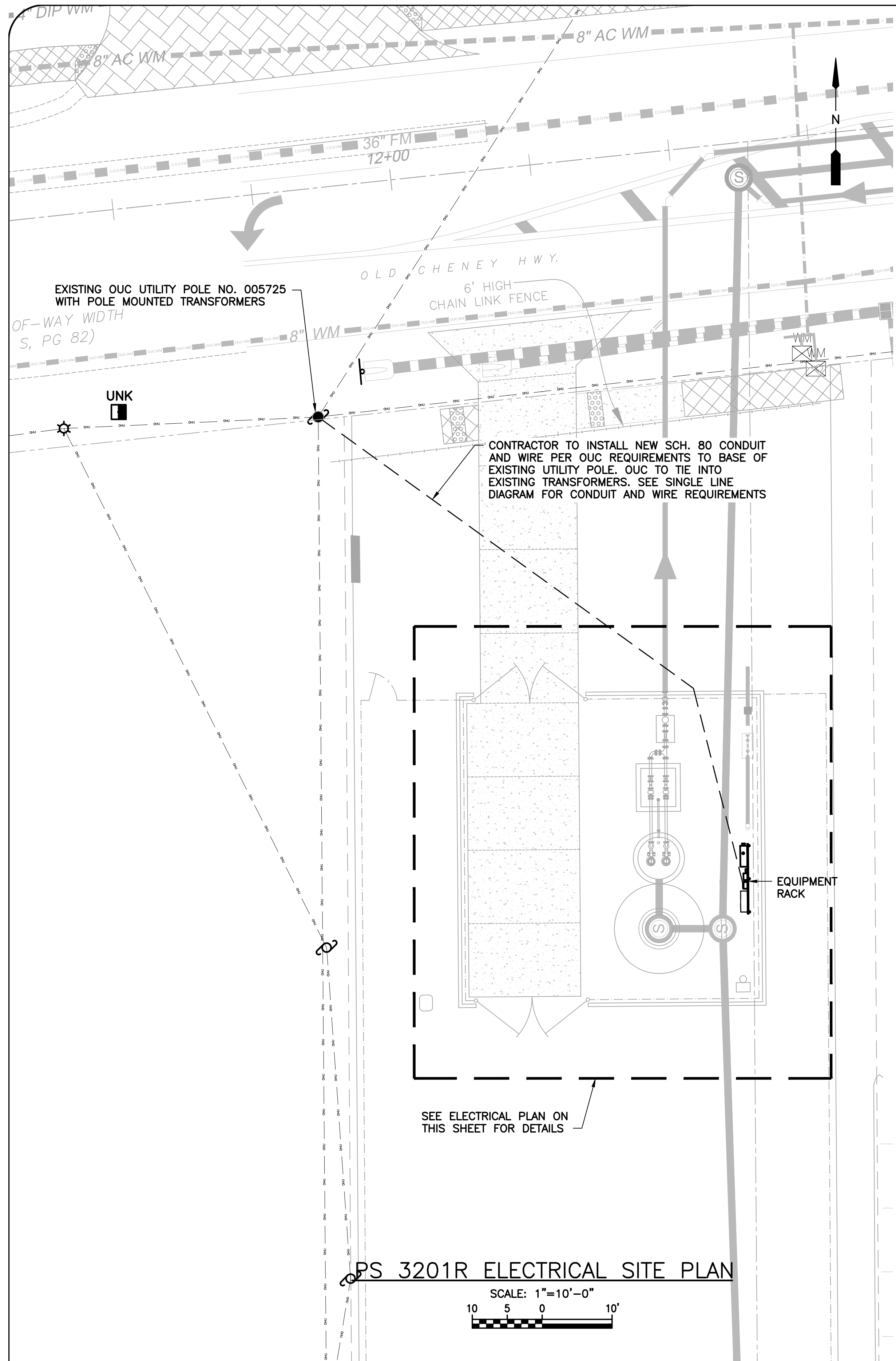
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DRAWN BY: RRM
CHECKED BY: LMR
CADD FILE: E-101 PS 3201 DEMO

SCALE: AS NOTED:
DRAWING NO.:
E-101
SHEET: 53 OF 60

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EDA
Electrical Design Associates
6965 PIAZZA GRANDE AVE., STE. 412
ORLANDO, FLORIDA 32835
PHONE: (407) 745-5604
FAX: (407) 745-5603
C.O.A. No. 8079
LILLIAN M. REYES, P.E.
Florida P.E. No. 50780

W12_Active Projects\CPI\Orange County\11-082CPS RR Package 103_Bld Set\tag\E-101 PS 3201 DEMO.dwg, 22/3/24, 2/20/2017 3:42:41 PM, rmarks

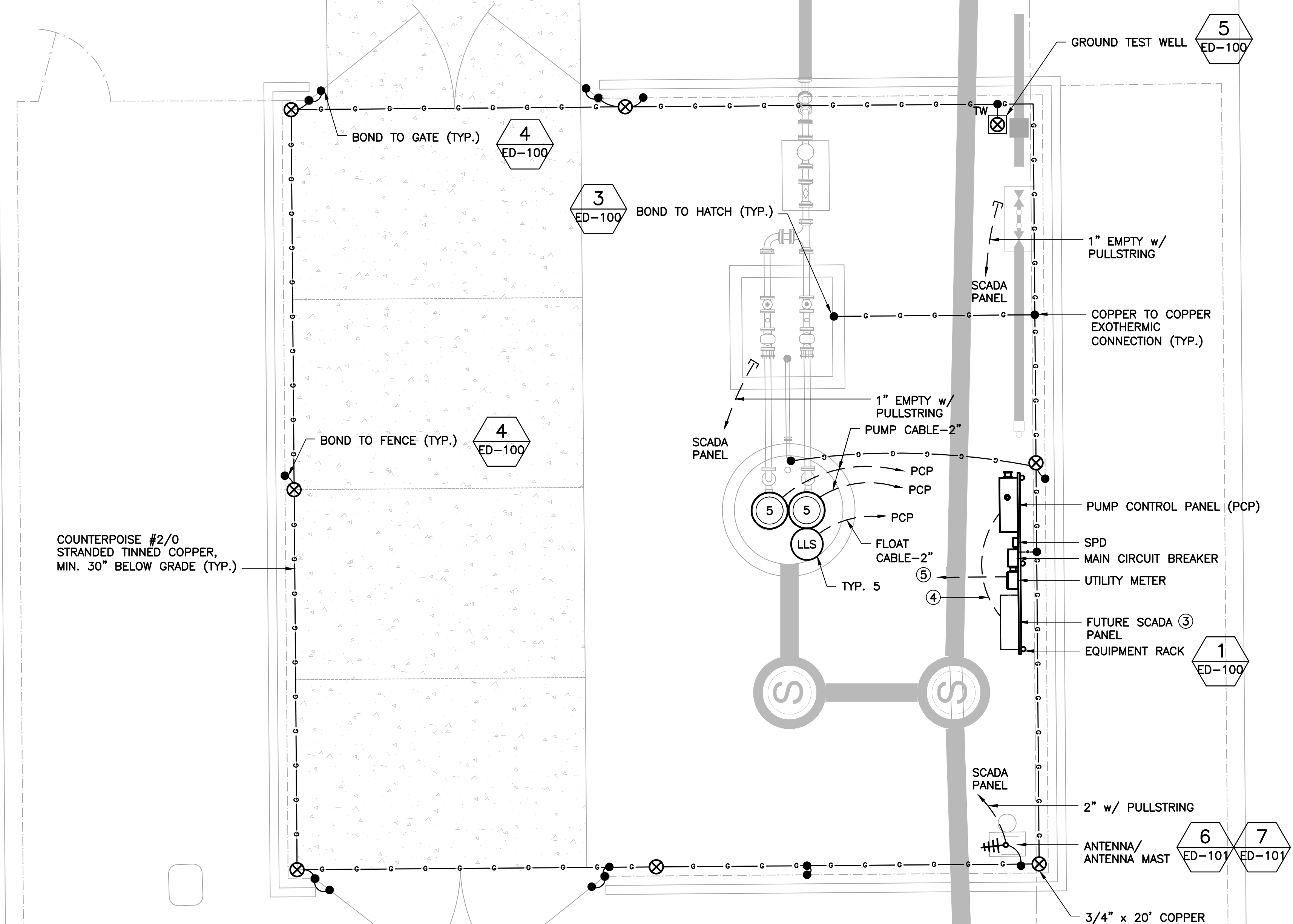


SEE ELECTRICAL PLAN ON THIS SHEET FOR DETAILS

PS 3201R ELECTRICAL SITE PLAN

SCALE: 1"=10'-0"
 10 5 0 10'

PUMP STATION #3201R
 5747 OLD CHENEY HWY.



PS 3201R ELECTRICAL PLAN

SCALE: 1/4"=1'-0"
 1 0 1 2 3 7'

- NOTES:**
- REFER TO SHEET E-001 FOR ELECTRICAL NOTES, SYMBOLS AND ABBREVIATIONS.
 - REFER TO SINGLE LINE DIAGRAM FOR CONDUIT AND WIRE REQUIREMENTS.
 - CONTRACTOR TO FURNISH AND INSTALL ANTENNA MAST. OCU TO INSTALL RELOCATED SCADA PANEL, ANTENNA, AND ANTENNA CABLE. ORANGE COUNTY SCADA TO PROVIDE THE INTERCONNECTION BETWEEN THE PCP AND THE SCADA PANEL, INCLUDING ANTENNA CABLE FROM SCADA PANEL TO ANTENNA. CONTRACTOR TO FURNISH AND INSTALL CONDUIT.
 - CONTRACTOR TO FURNISH AND INSTALL THREE (3) 1" CONDUITS WITH PULLSTRING FROM THE SCADA PANEL TO THE PCP.
 - TO 240V-3 ϕ SERVICE POINT, SEE ELECTRICAL SITE PLAN.

REV	DATE	DESCRIPTION

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 (IF NOT SCALE ACCORDINGLY)

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 Lndscp. Lic. No. LC0000298
 1117 East Robinson Street - Orlando, FL 32801 - Phone: 407.425.0452

PUMP STATION 3201R ELECTRICAL SITE PLAN & ELECTRICAL PLAN

LILLIAN M. REYES
 PROFESSIONAL ENGINEER
 FLORIDA LICENSE #50780

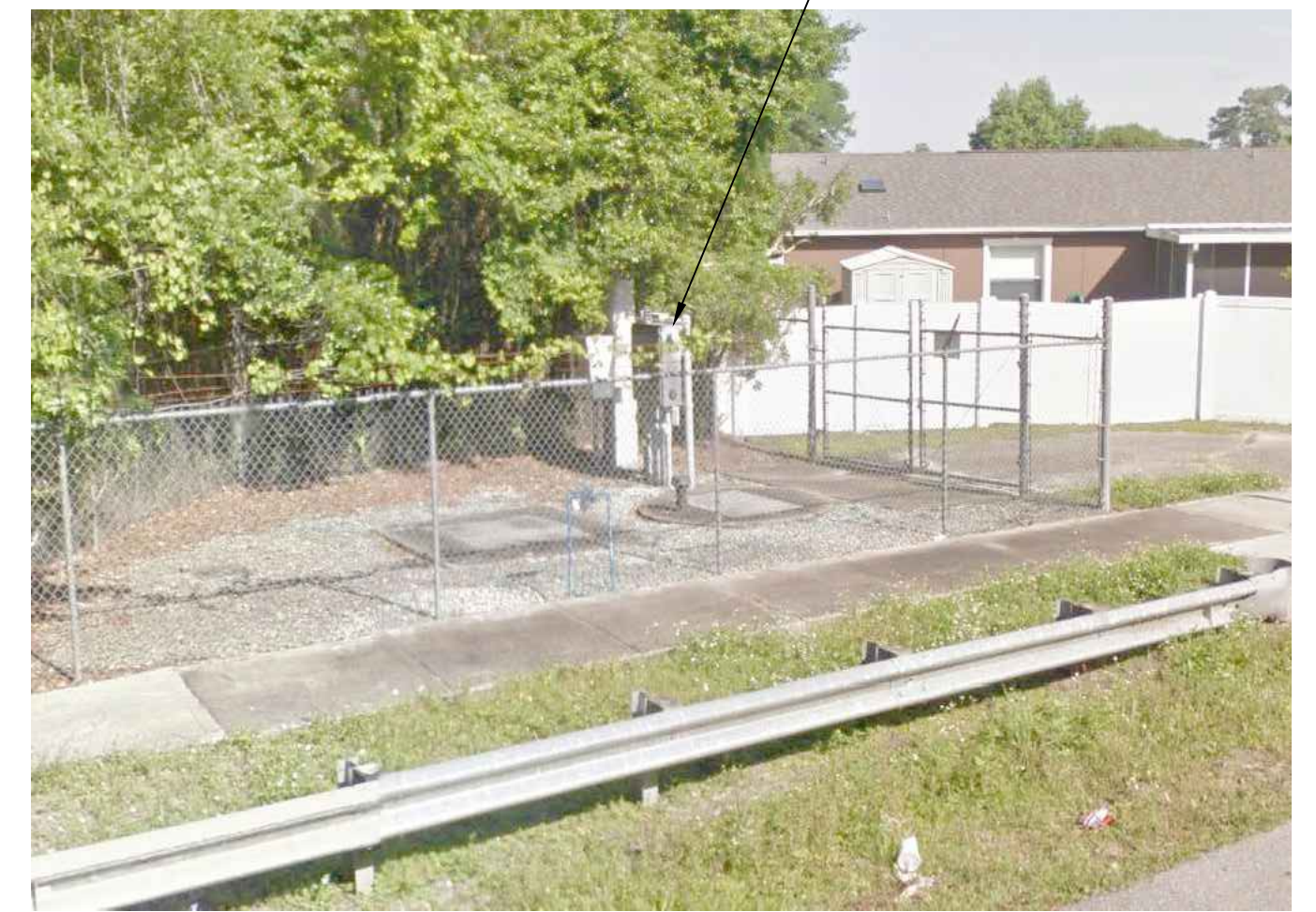
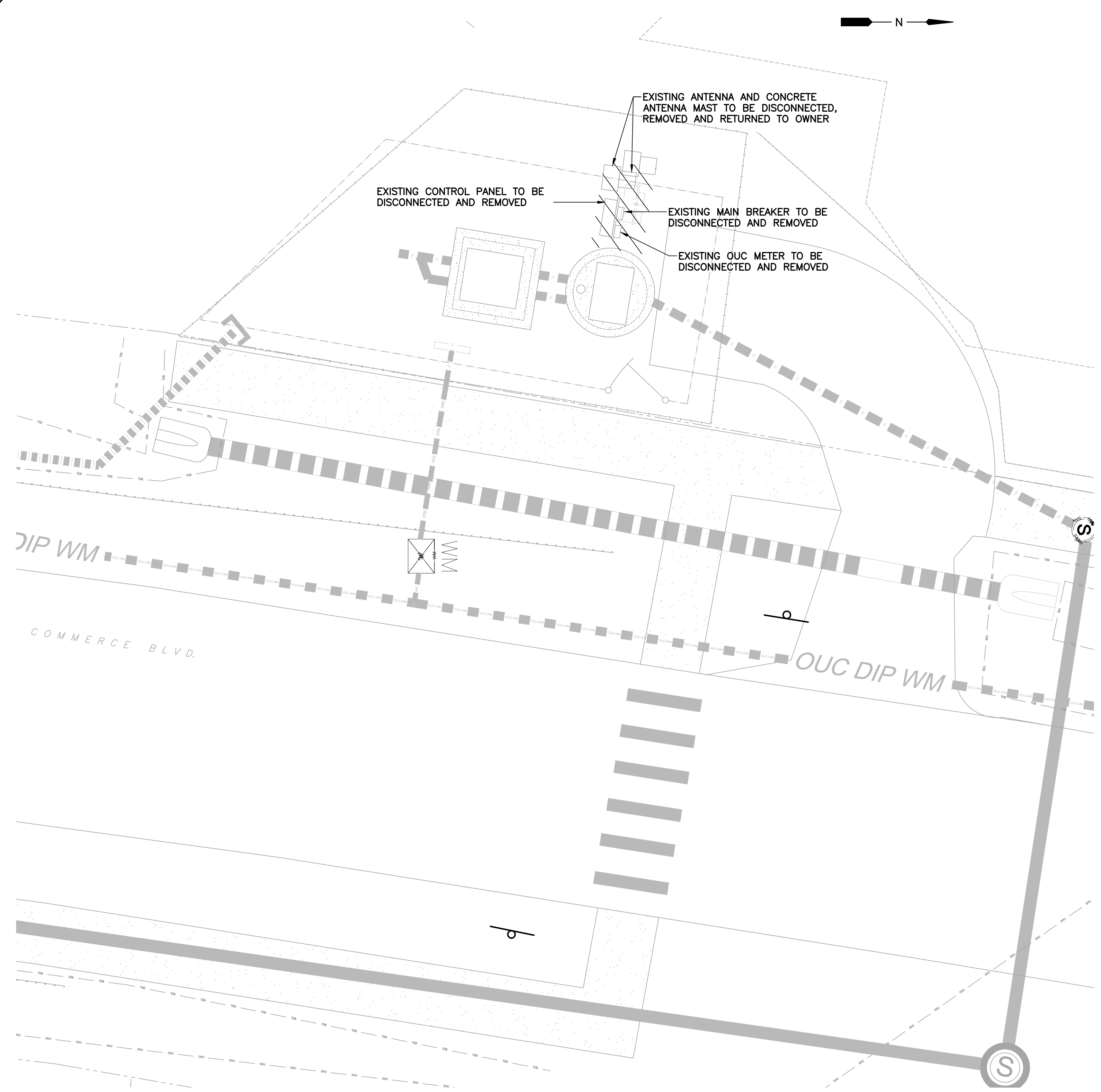
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 DESIGNED BY: LMR
 DRAWN BY: RRM
 CHECKED BY: LMR
 CADD FILE: E-102 PS 3201 PLAN

SCALE: AS NOTED:
 DRAWING NO.: **E-102**
 SHEET: 54 OF 60

EDA Electrical Design Associates
 6965 PIAZZA GRANDE AVE., STE. 412
 ORLANDO, FLORIDA 32835
 PHONE: (407) 745-5604
 FAX: (407) 745-5603
 C.O.A. No. 80795
 LILLIAN M. REYES, P.E.
 Florida P.E. No. 50780

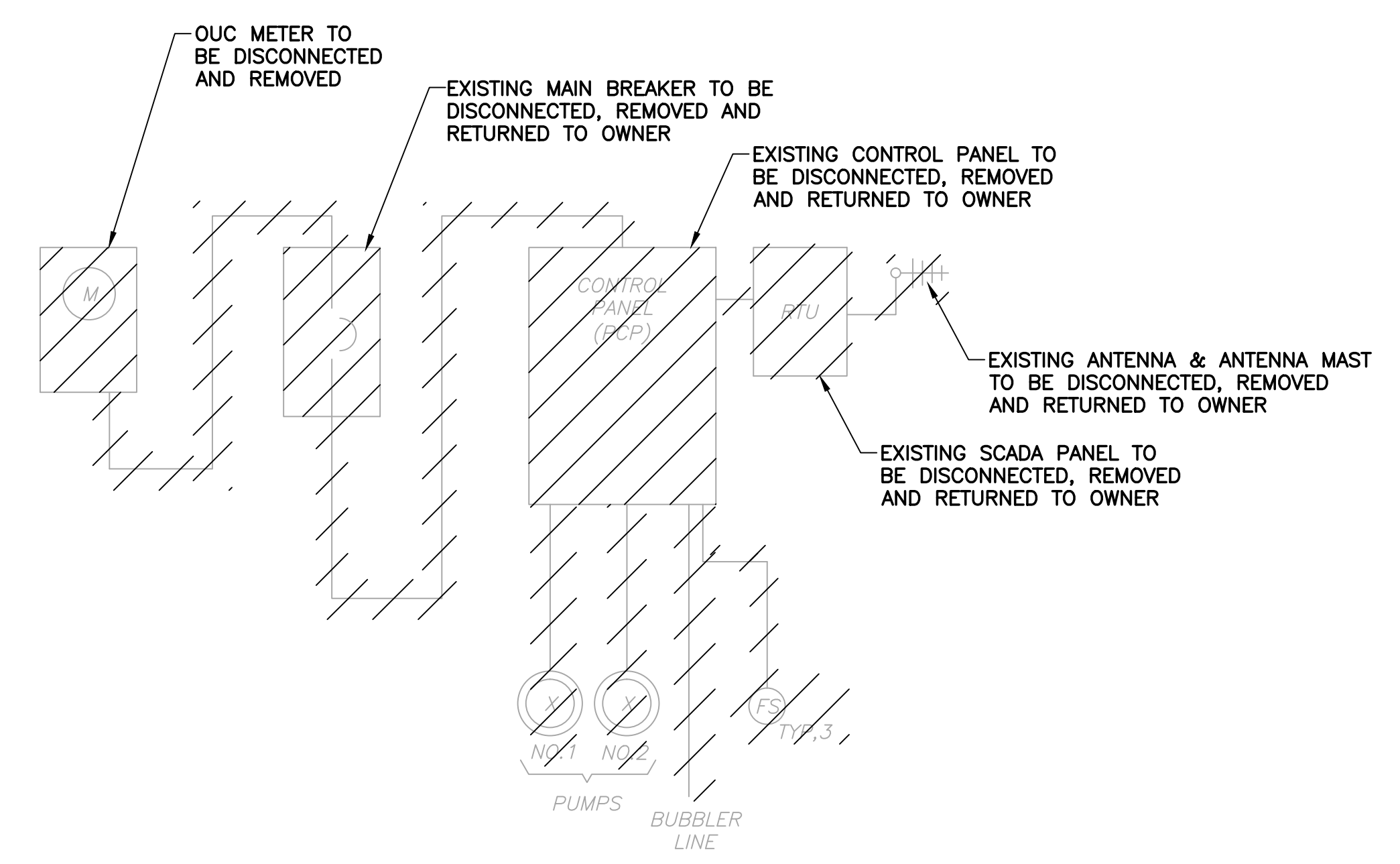
BID SET

**PUMP STATION #3531
1577 COMMERCE BLVD.**



CONTRACTOR TO DISCONNECT AND REMOVE EXISTING ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO METER, DISCONNECT, CONTROL PANEL, SCADA PANEL, ETC.

PS 3531 FIGURE NO. 1
SCALE: N.T.S.



**PS NO. 3531 DEMOLITION
SINGLE LINE DIAGRAM**
SCALE: N.T.S.

P.S. 3531 ELECTRICAL DEMOLITION PLAN

SCALE: 1"=5'-0"
5 2.5 0 5'

REV	DATE	DESCRIPTION

LINE IS 2 INCHES
AT FULL SIZE
(IF NOT SCALE ACCORDINGLY)

ORANGE COUNTY GOVERNMENT
ORANGE COUNTY UTILITIES DEPARTMENT ENGINEERING DIVISION
9150 CURRY FORD ROAD ORLANDO, FL. 32825

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**PUMP STATION 3531
ELECTRICAL DEMOLITION PLAN**

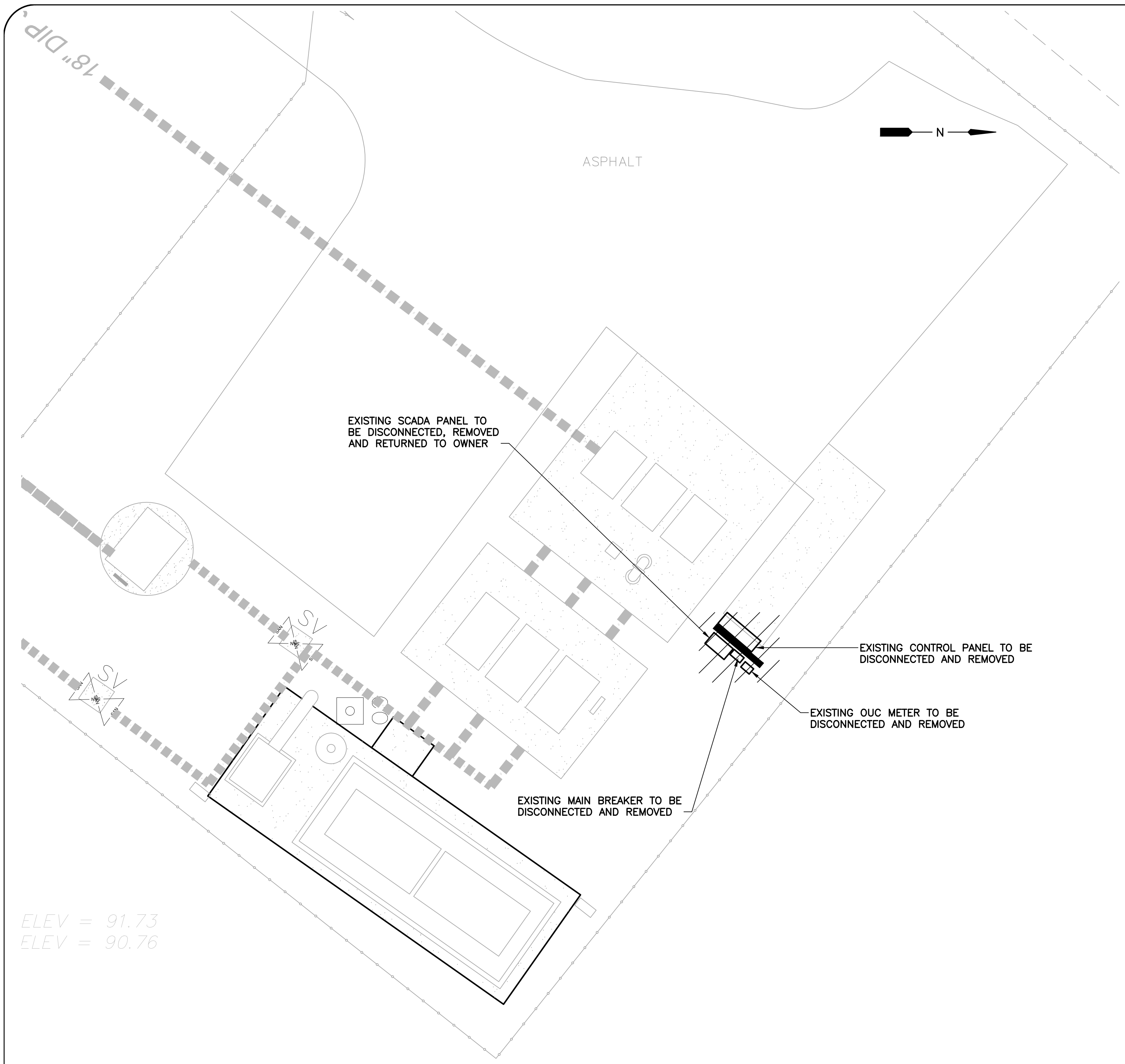
LILLIAN M. REYES
PROFESSIONAL ENGINEER
FLORIDA LICENSE #50780

BID SET
OCU FILE NO.: 71925
DESIGNED BY: LMR
DRAWN BY: RRM
CHECKED BY: LMR
CADD FILE: E-200 PS 3531 DEMO

SCALE: AS NOTED:
DRAWING NO.:
E-200
SHEET: 54 OF 60

EDA
Electrical Design Associates
6965 PIAZZA GRANDE AVE., STE. 412
ORLANDO, FLORIDA 32835
PHONE: (407) 745-5604
FAX: (407) 745-5603
C.O.A. No. 8079
LILLIAN M. REYES, P.E.
Florida P.E. No. 50780

W:\2_Active Projects\CPI\Orange County\11-002\CPS RR Package 103_Bld Scaffolding\00 PS 3531 DEMO.dwg, 22/3/24, 2/20/2017 3:43:01 PM, rmarks

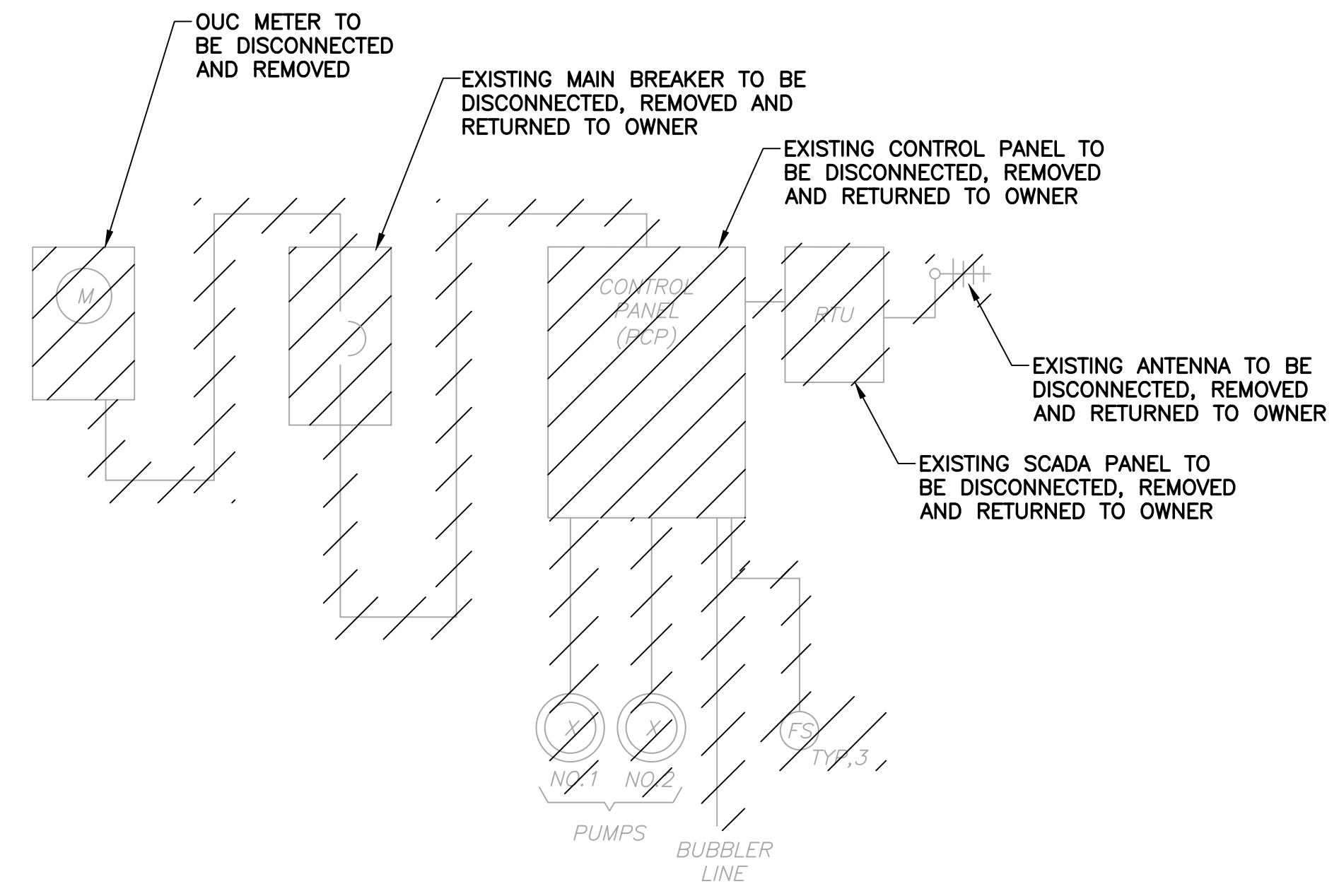


PUMP STATION #3407
6137 CORNELIA AVE.

CONTRACTOR TO DISCONNECT AND REMOVE EXISTING ELECTRICAL EQUIPMENT, INCLUDING BUT NOT LIMITED TO METER, DISCONNECT, CONTROL PANEL, SCADA PANEL, ETC.



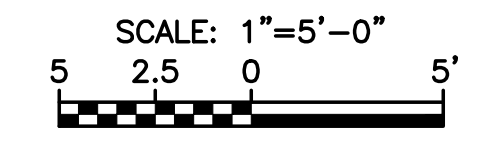
PS 3407 FIGURE NO. 1
SCALE: N.T.S.



PS NO. 3407 DEMOLITION
SINGLE LINE DIAGRAM
SCALE: N.T.S.

ELEV = 91.73
ELEV = 90.76

P.S. 3407 ELECTRICAL DEMOLITION PLAN



REV	DATE	DESCRIPTION

LINE IS 2 INCHES
AT FULL SIZE
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ORANGE COUNTY GOVERNMENT
ORANGE COUNTY UTILITIES DEPARTMENT ENGINEERING DIVISION
9150 CURRY FORD ROAD ORLANDO, FL. 32825

cph
www.cphcorp.com
1117 East Robinson Street ~ Orlando, FL 32801 ~ Phone: 407.425.0452

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Licenses:
Eng. C.O.A. No. 3215
Survey L.B. No. 7143
Arch. Lic. No. AA2600926
Landscape Lic. No. LC000298

PUMP STATION 3407
ELECTRICAL DEMOLITION PLAN

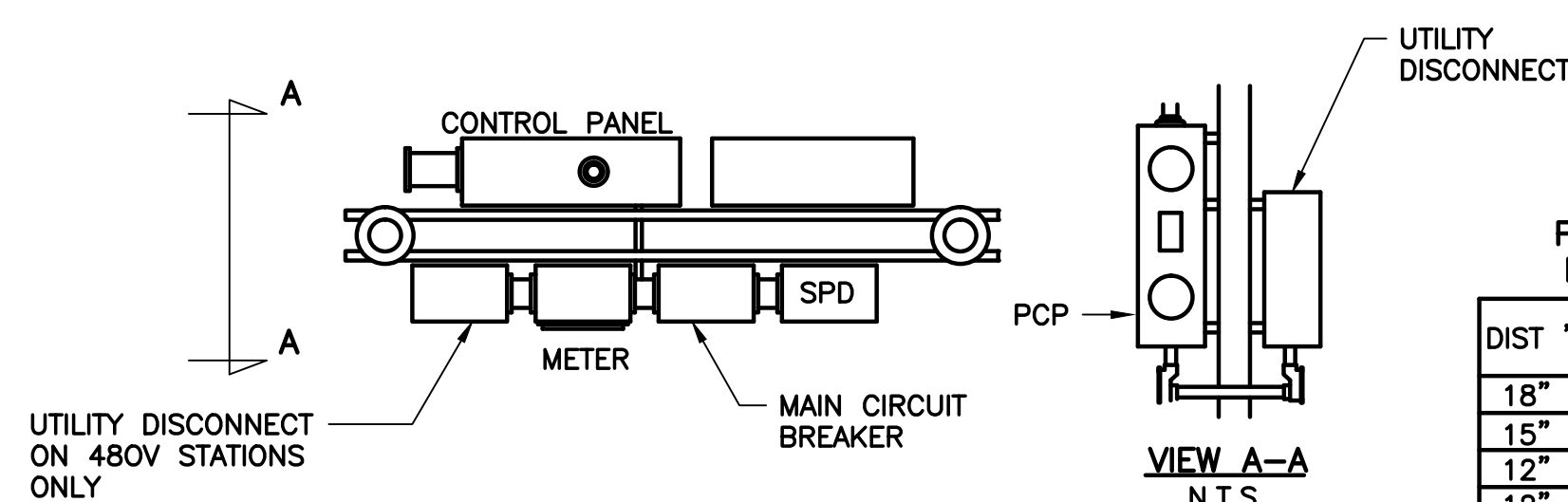
LILLIAN M. REYES
PROFESSIONAL ENGINEER
FLORIDA LICENSE #50780

BID SET
OCU FILE NO.: 71925
DESIGNED BY: LMR
DRAWN BY: RRM
CHECKED BY: LMR
CADD FILE: E-300 3407 DEMO

SCALE: AS NOTED:
DRAWING NO.:
E-300
SHEET: 56 OF 60

EDA
Electrical Design Associates
6965 PIAZZA GRANDE AVE., STE. 412
ORLANDO, FLORIDA 32835
PHONE: (407) 745-5604
FAX: (407) 745-5603
C.O.A. No. 8079
LILLIAN M. REYES, P.E.
Florida P.E. No. 50780

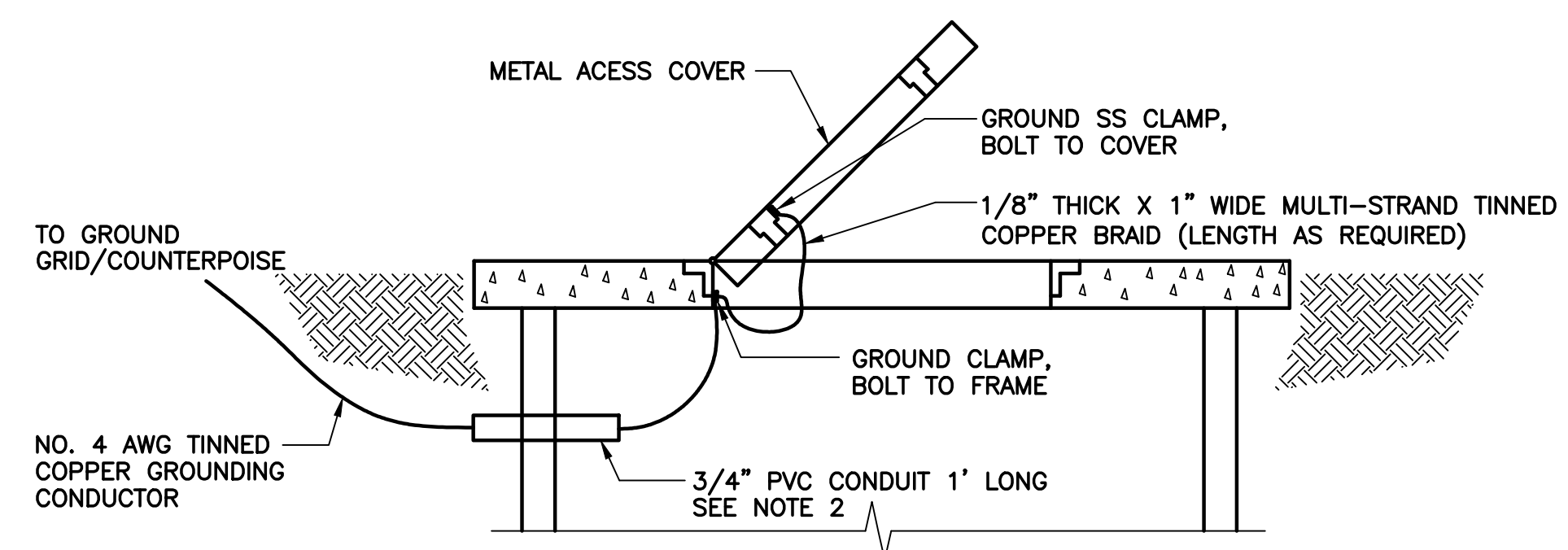
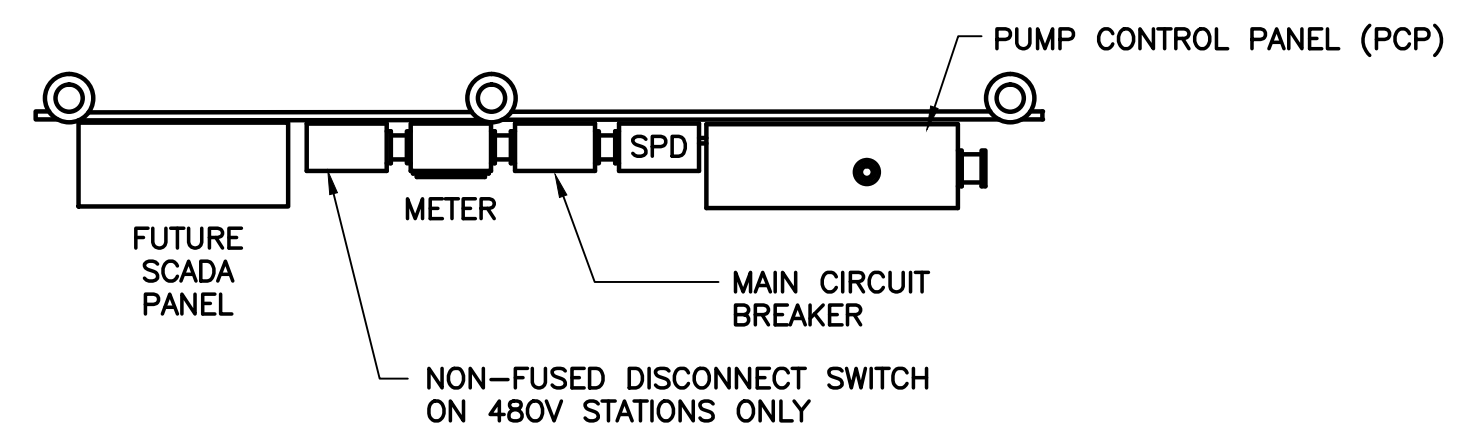
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PANEL & SEAL-OFF MOUNTING HEIGHTS

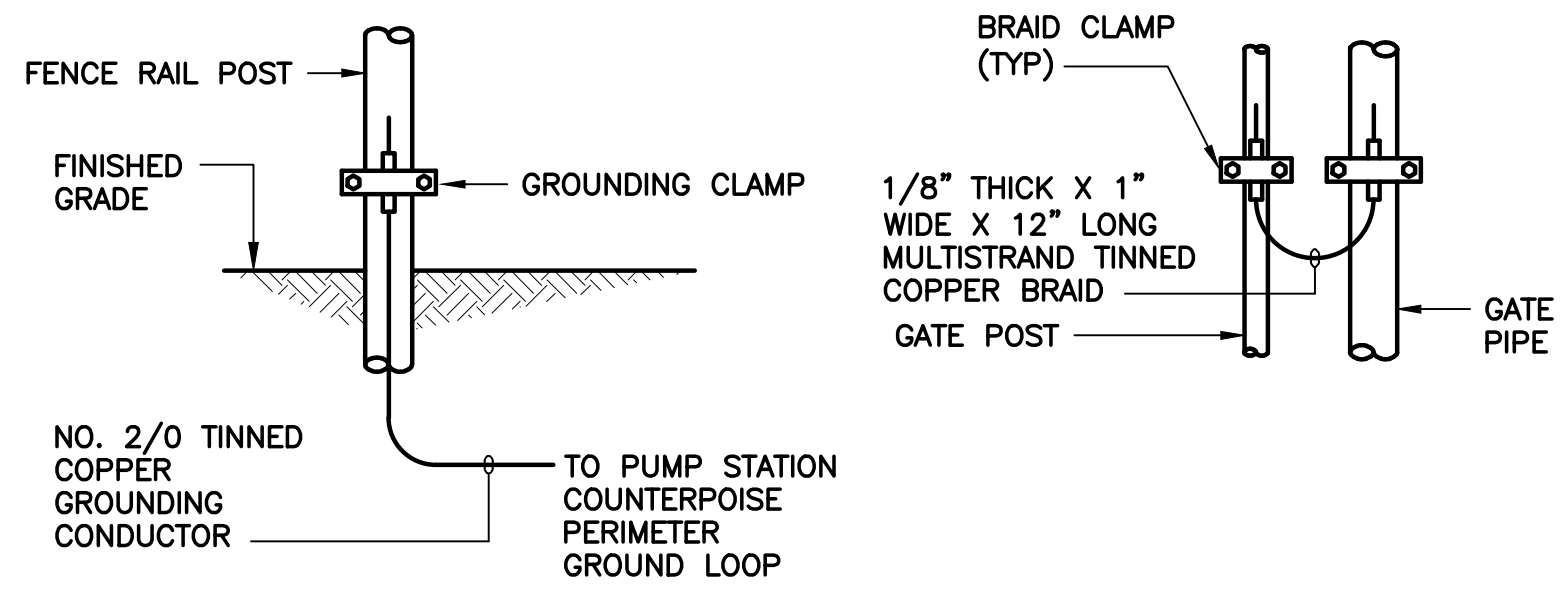
DIST "Y"	DIST "X"	PANEL HEIGHT
18"	36"	36"
15"	30"	42"
12"	24"	48"
12"	24"	60"

FOR PANELS NOT LISTED ADJUST MOUNTING HEIGHTS ACCORDINGLY

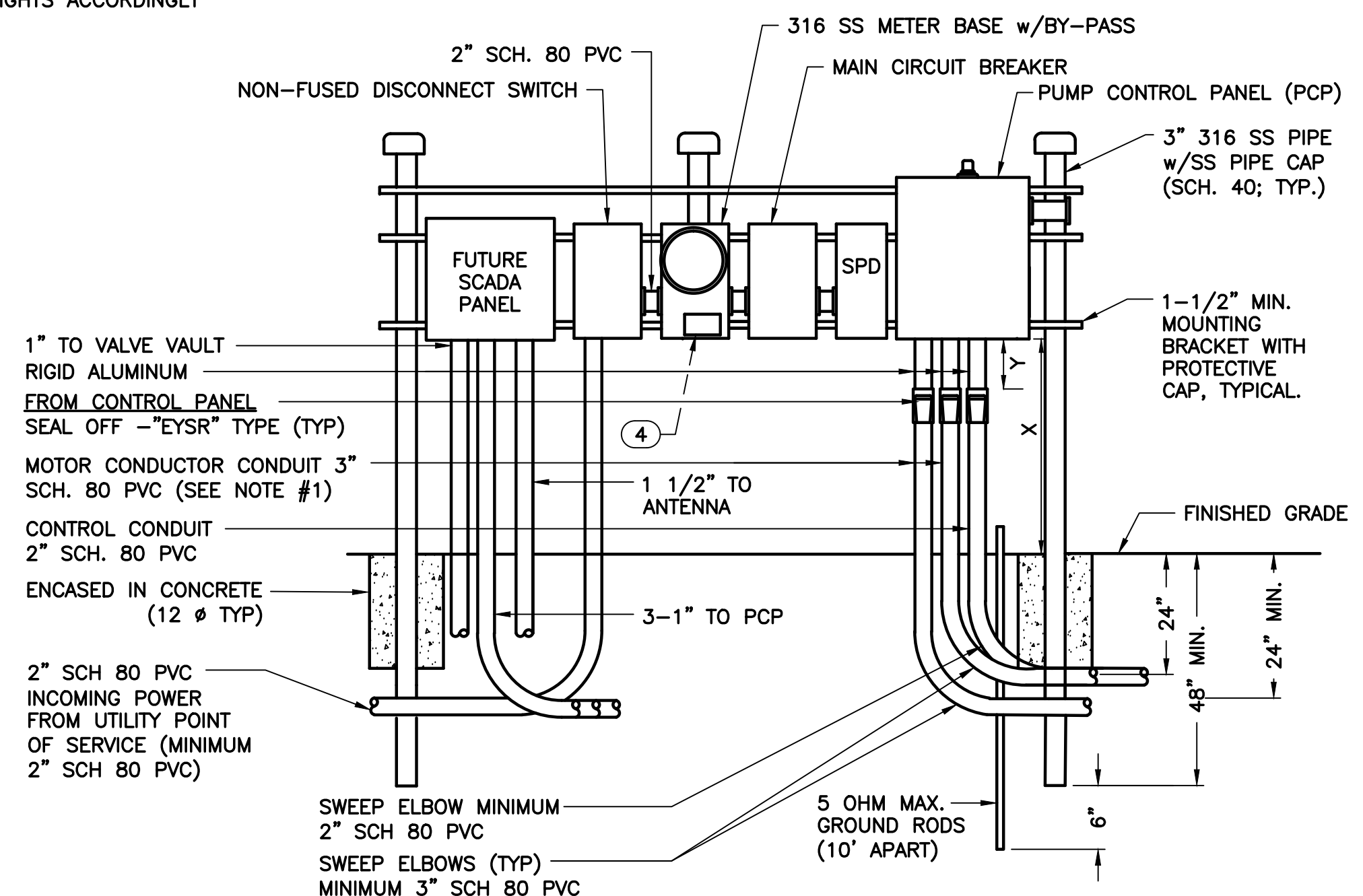
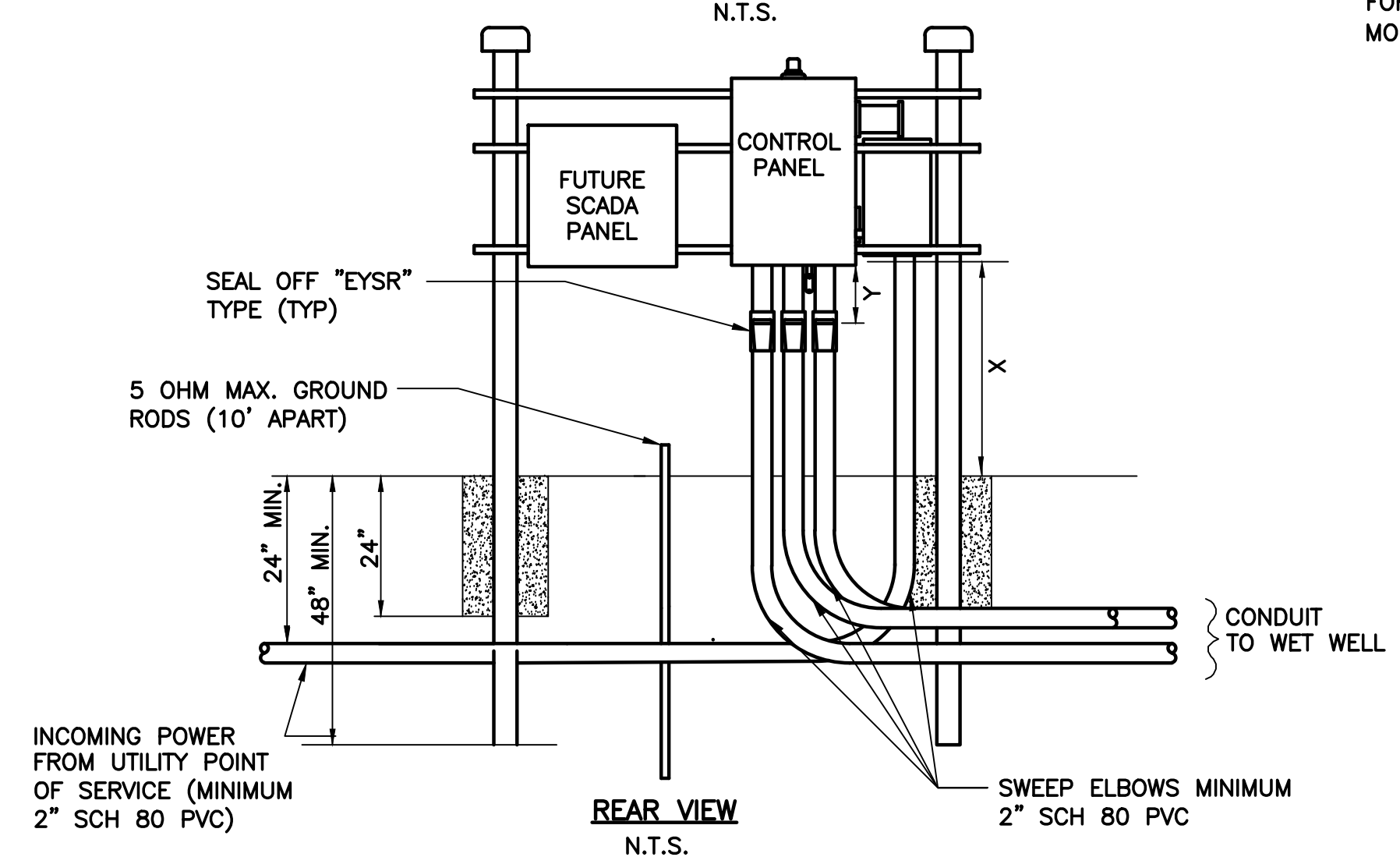


- ON COVERS WITH MULTIPLE DOORS, PROVIDE BRAID FROM FRAME TO DOOR ON EACH DOOR
- PROVIDE WATERPROOF CAULKING WHERE GROUND CABLE AND CONDUIT PENETRATES WETWELL TO PREVENT INTRUSION OF GROUND WATER AND ESCAPE OF VAPORS FROM WETWELL.
- INSTALL GROUND WIRE SO THAT IT WILL NOT CROSS CLEAR OPENING OR PREVENT OR IMPEDE NORMAL METHOD OF REMOVING FLOATS OR PUMPS.

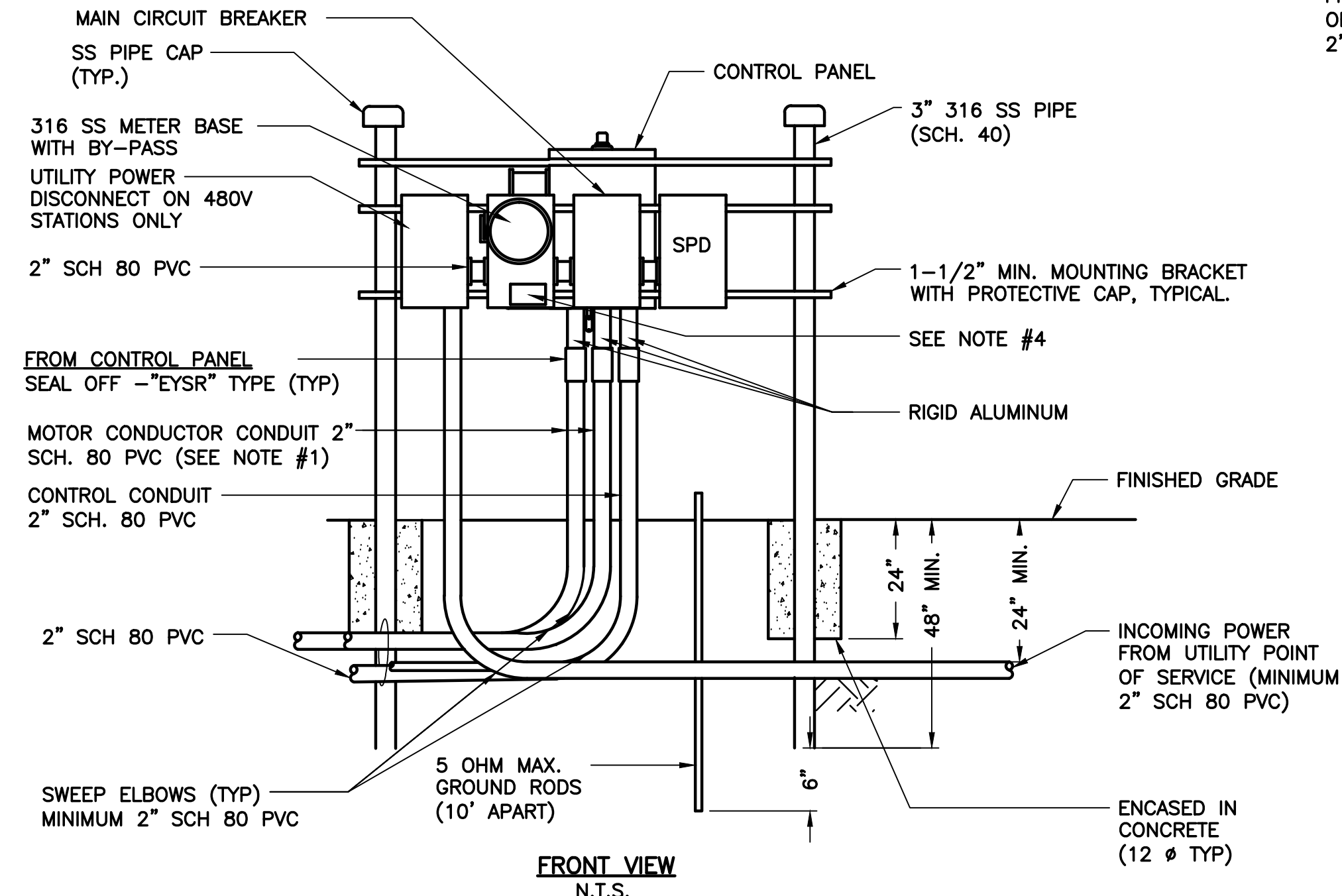
A419-2 COVER & DOOR GROUNDING DETAIL
N.T.S.



A419-4 FENCE POST GROUNDING
N.T.S.



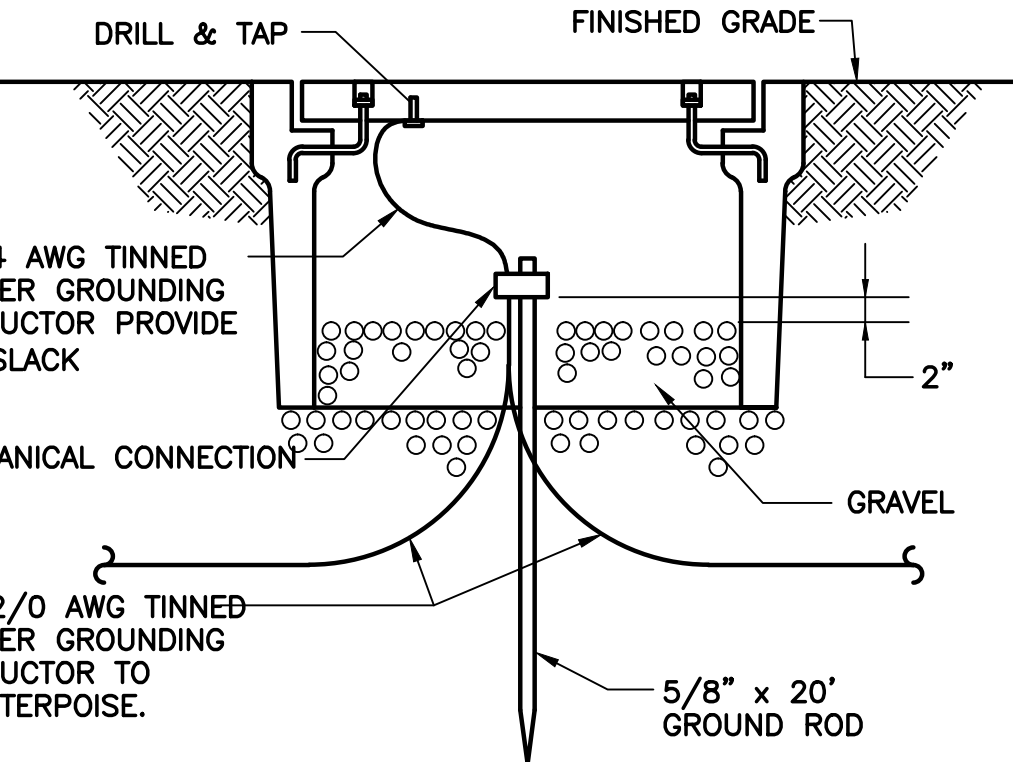
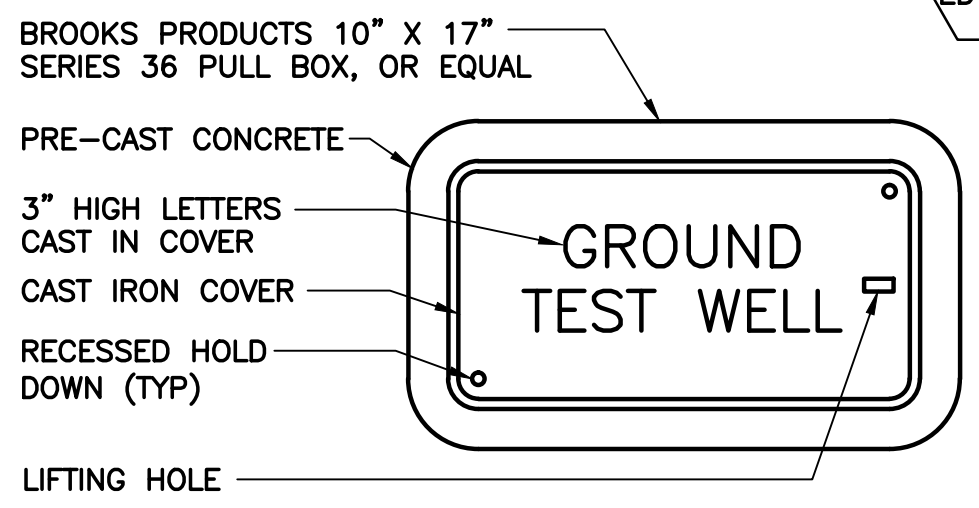
2 SIDE BY SIDE EQUIPMENT RACK
N.T.S.



1 A413-1 & A413-2 BACK TO BACK EQUIPMENT RACK
N.T.S.

PANEL INSTALLATION NOTES:

- PUMP MOTOR CONDUIT SHALL BE SIZED TO ACCOMMODATE 40% CONDUIT FILL. MINIMUM CONDUIT SIZE TO BE 2" SCH 80 PVC.
- POWER SUPPLY SHALL BE UNDERGROUND ON THE LIFT STATION SITE AND SHALL BE 3-PHASE, FROM A 3-PHASE SOURCE ONLY.
- AN ELECTRICAL GROUNDING SYSTEM SHALL BE INSTALLED AS PER THE NATIONAL ELECTRICAL CODE, LOCAL CODES AND ORDINANCES, AN UNDERGROUND PERIMETER CABLE GROUNDING SYSTEM SHALL BE INSTALLED WITH CONNECTIONS TO AT LEAST WET WELL COVER, VALVE VAULT COVER, CONTROL PANELS, UTILITY COMPANY TRANSFORMER, MANUAL DISCONNECT SWITCH AND METAL FENCE. REFER TO GROUNDING DETAILS.
- THE STATION NAME, ORANGE COUNTY I.D. NUMBER, AND ADDRESS SHALL BE AFFIXED TO THE FRONT OF THE METER CABINET.
- ALL MOUNTING HARDWARE, BRACKETS AND ELECTRICAL ENCLOSURES SHALL BE 316 STAINLESS STEEL.
- THE SCADA PANEL IS SHOWN FOR INFORMATION ONLY AND WILL BE INSTALLED IN THE FUTURE (BY OTHERS).



5 A419-3 GROUND TEST WELL
N.T.S.

BID SET

REV	DATE	DESCRIPTION

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ELECTRICAL DETAILS

LILLIAN M. REYES
PROFESSIONAL ENGINEER
FLORIDA LICENSE #50780

OCU FILE NO.: 71925
DESIGNED BY: LMR
DRAWN BY: RRM
CHECKED BY: LMR
CADD FILE: ED-100 DTLs

SCALE: AS NOTED:
DRAWING NO.: **ED-100**
SHEET: 57 OF 60

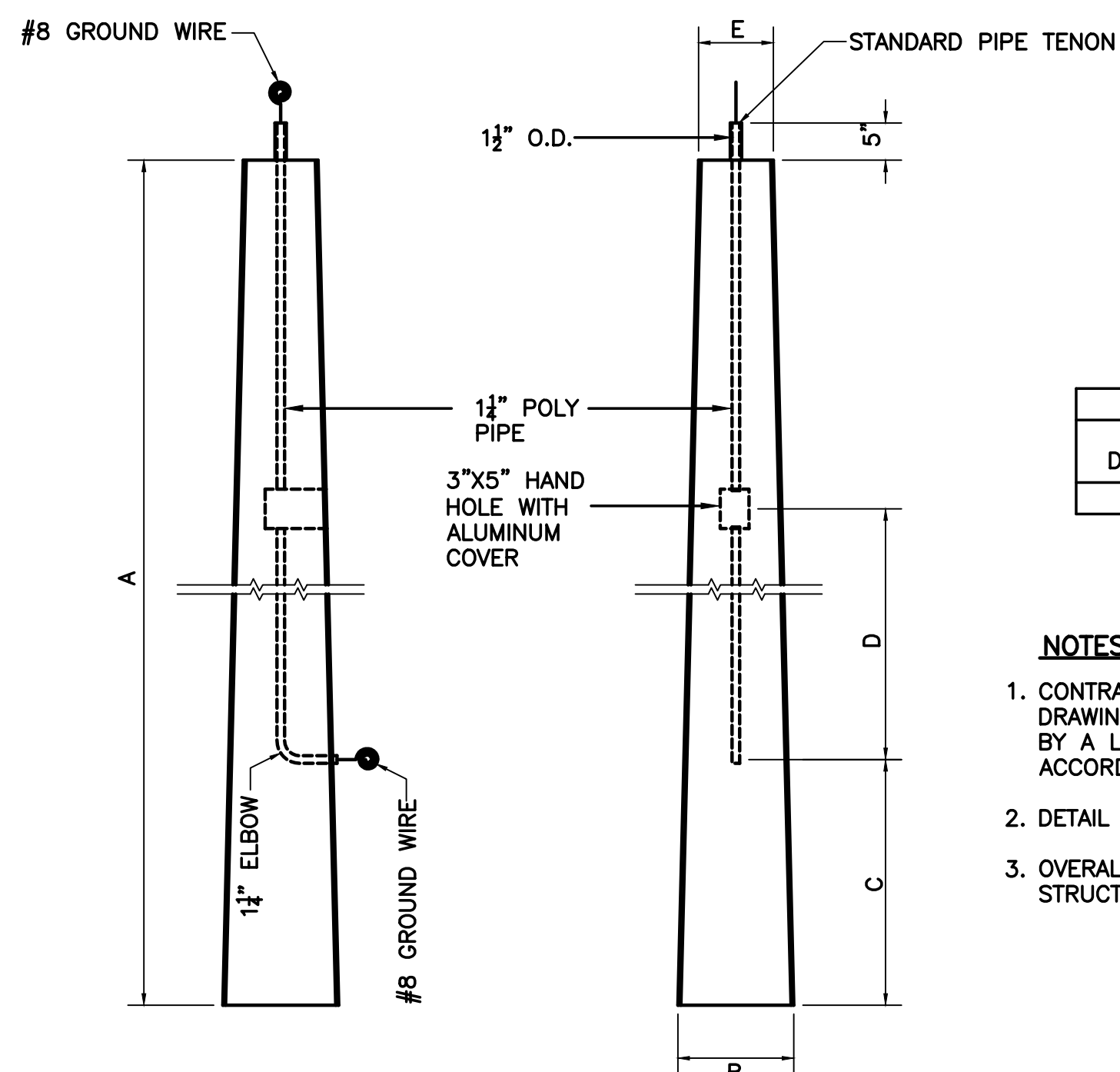
EDA Electrical Design Associates

6965 PIAZZA GRANDE AVE., STE. 412
ORLANDO, FLORIDA 32835
PHONE: (407) 745-5604
FAX: (407) 745-5603
C.O.A. No. 8079
LILLIAN M. REYES, P.E.
Florida P.E. No. 50780

DATE: November 20, 2015

TYPICAL SCADA POLE

FIGURE A707

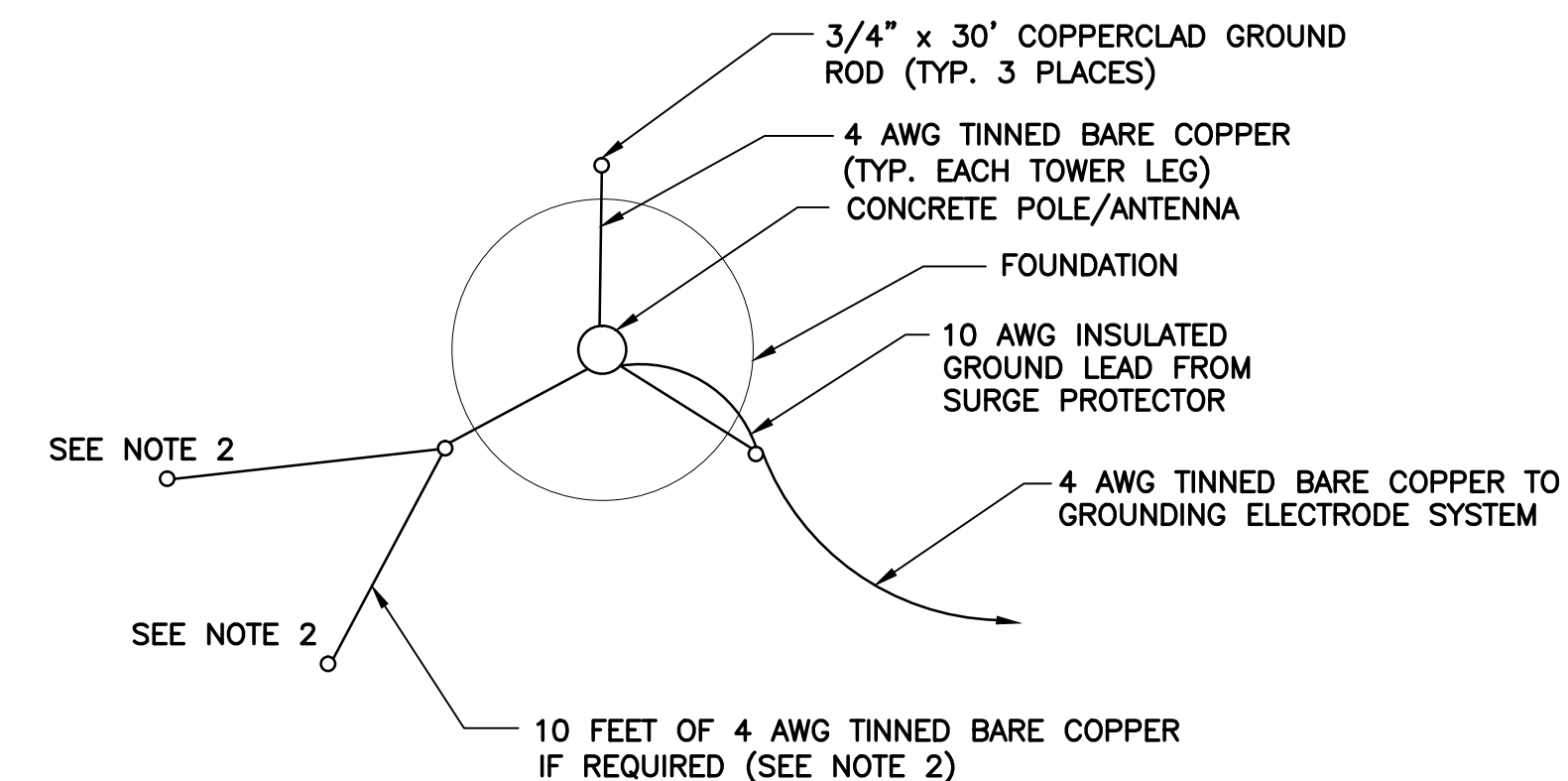


STANDARD PIPE TENON SIZE	
NOMINAL DIAMETER (IN.)	OUTSIDE DIAMETER (IN.)
1"	1 1/2"

NOTES:

- CONTRACTOR TO PROVIDE STRUCTURAL AND FOOTING DETAILED DRAWINGS AND WIND LOAD CALCULATIONS SIGNED AND SEALED BY A LICENSED STATE OF FLORIDA STRUCTURAL ENGINEER IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.
- DETAIL IS NOT INTENDED AS AN INSTALLATION GUIDELINE.
- OVERALL POLE HEIGHT SHALL BE IN ACCORDANCE WITH STRUCTURAL ENGINEERING DRAWINGS FROM NOTE NO. 1.

CRITERION	50 FT. TYPE III-O POLE			35 FT. TYPE I-O POLE		
	50'	50'	35'	170	175	180
A	50'		35'			
B	14 5/8"		12"			
C	8'-6"		5'-8"			
D	3'-8"		3'-6"			
E	6 1/2"		6"			
EMBEDMENT SPECIFIED	10'		7'			
HEIGHT ABOVE GROUND	40'		28'			
WEIGHT (LBS.)	5840		3110			
WIND VELOCITY (MPH)	160	170	180	170	175	180
MAXIMUM EPA (SQ. FT.)	19.9	15.8	11.5	4.9	3.5	2.2



- MEGGER GROUND SYSTEM FOLLOWING INSTALLATION.
- IF READING IS GREATER THAN 5 OHMS, INSTALL TWO ADDITIONAL GROUND RODS RADIALLY FROM EACH LEG AS SHOWN UNTIL A VALUE OF 5 OHMS OR LESS IS ATTAINED.
- IF READING IS STILL ABOVE 5 OHMS, INCREASE THE LENGTH OF EACH ROD IN 10 FEET INCREMENTS UNTIL THE REQUIRED VALUE IS OBTAINED
- ALL ELECTRODE SYSTEM CONNECTIONS TO BE EXOTHERMALLY BONDED.
- USE MOST STRINGENT REQUIREMENT OF THESE DETAILS OR APPLICABLE CODES.

7
ED-101

MAST GROUNDING PLAN

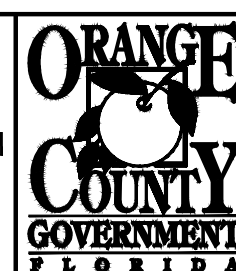
N.T.S.

6
ED-101

A707
SCADA POLE
N.T.S.

REV	DATE	DESCRIPTION

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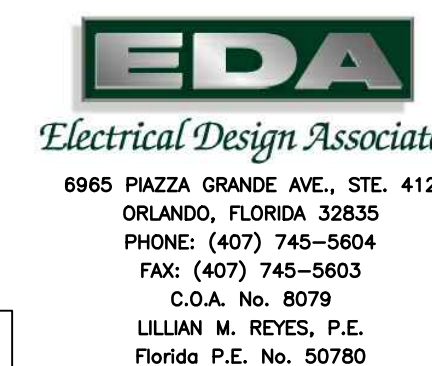
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SCALE: AS NOTED:
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6965 PIAZZA GRANDE AVE., STE. 412
ORLANDO, FLORIDA 32835
PHONE: (407) 745-5604
FAX: (407) 745-5603
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