

Contract Drawings For

Lee County Solid Waste Division

Site 4.16kV Distribution Feeder Extension

Utility/Site Electrical

Project No. 256616

Fort Myers, Florida June, 2016

INDEX OF DRAWINGS

GENERAL G-01 COVER

ELECTRICAL SITE WORK

ES-01 ELECTRICAL LEGEND AND GENERAL NOTES

ES-02 UTILITY PLAN 1 OF 2 ES-03 UTILITY PLAN 2 OF 2

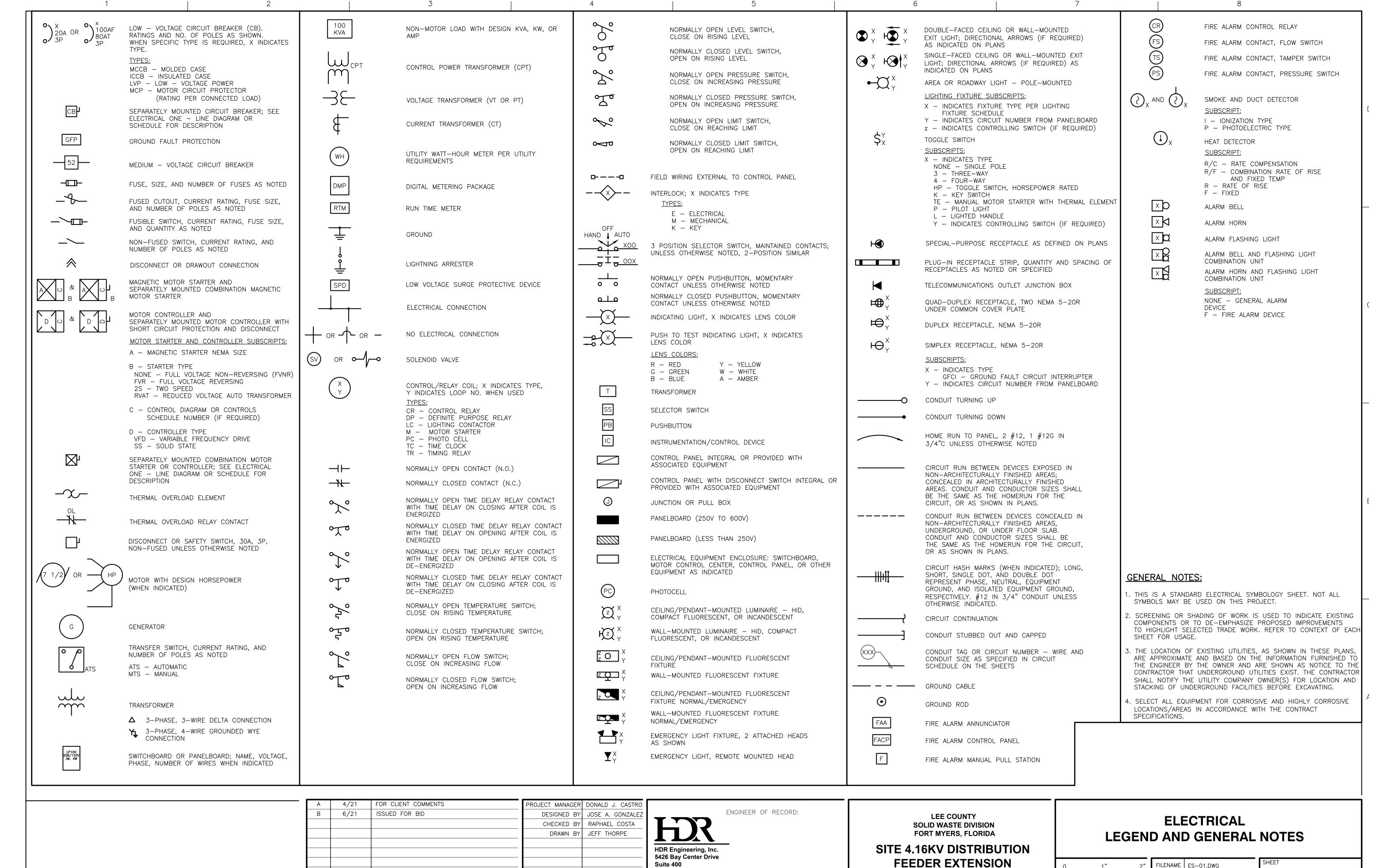
ES-04 C&DD DEMOLITION SITE POWER PLAN

ES-05 ONE LINE DIAGRAM

ES-06 ELECTRICAL PANELBOARD AND DETAILS

ES-07 ELECTRICAL DETAILS 1 OF 2

ES-08 ELECTRICAL DETAILS 2 OF 2



Tampa, FL 33609

CA 4213

PROJECT NUMBER 256616

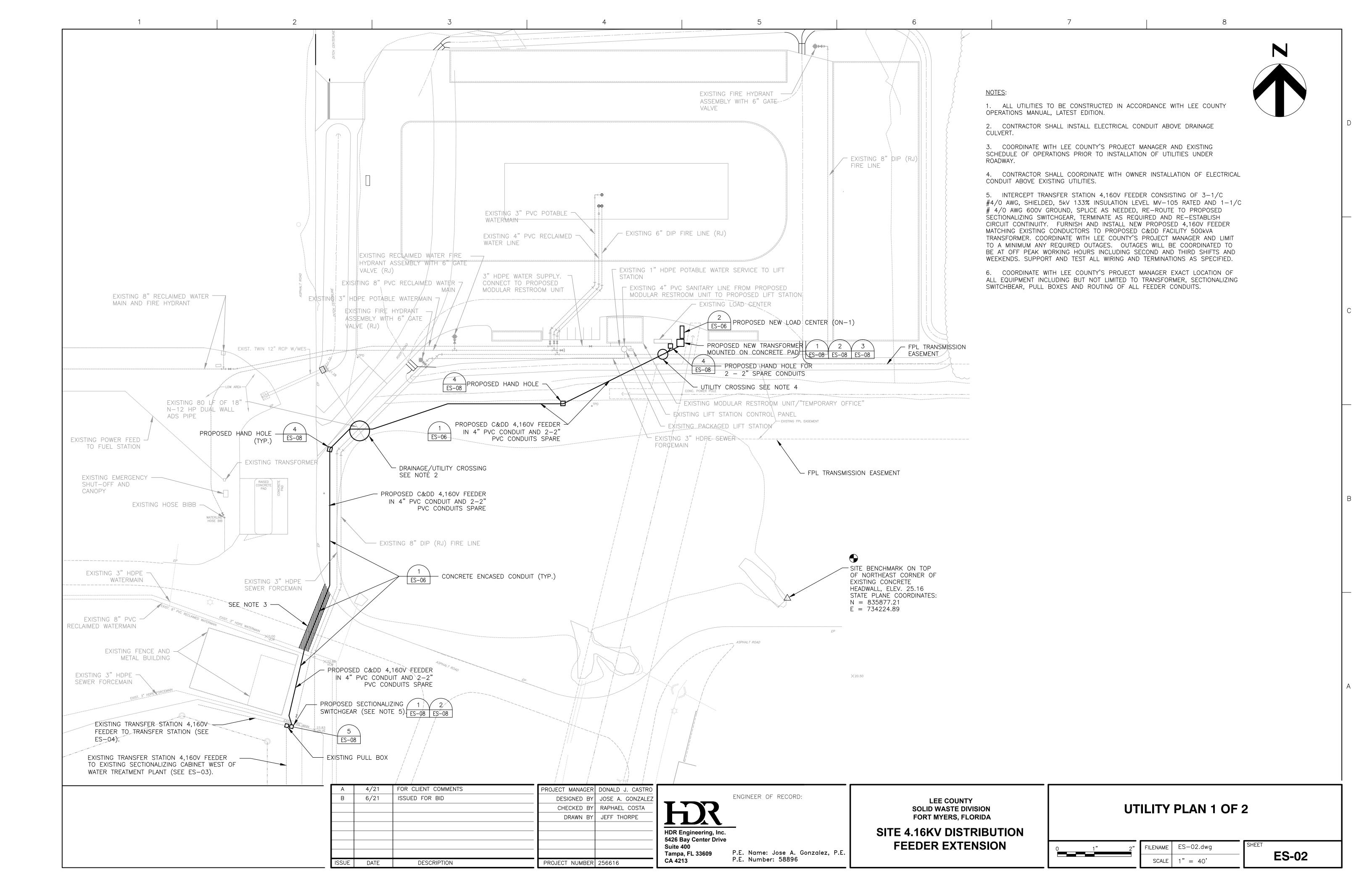
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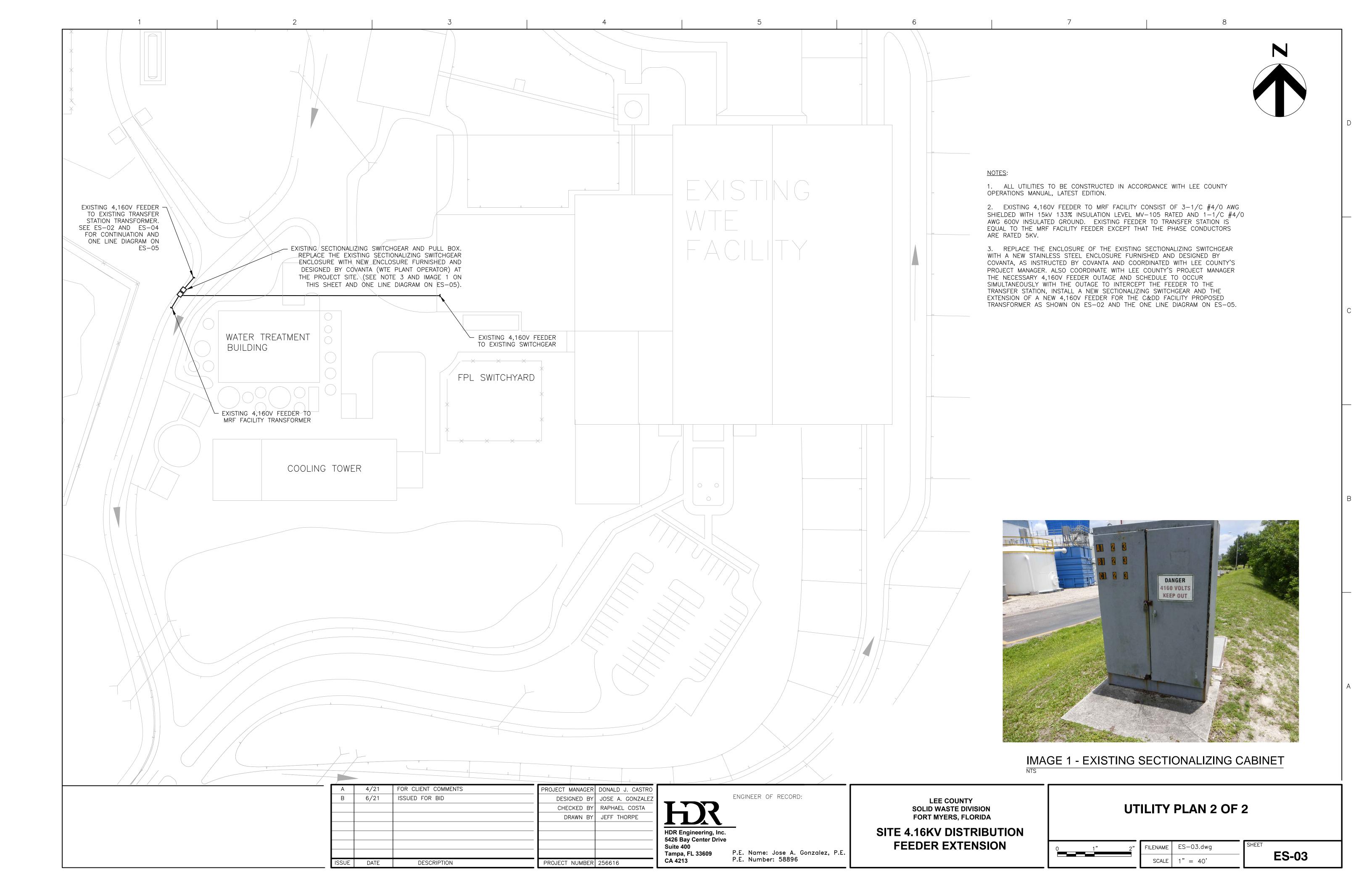
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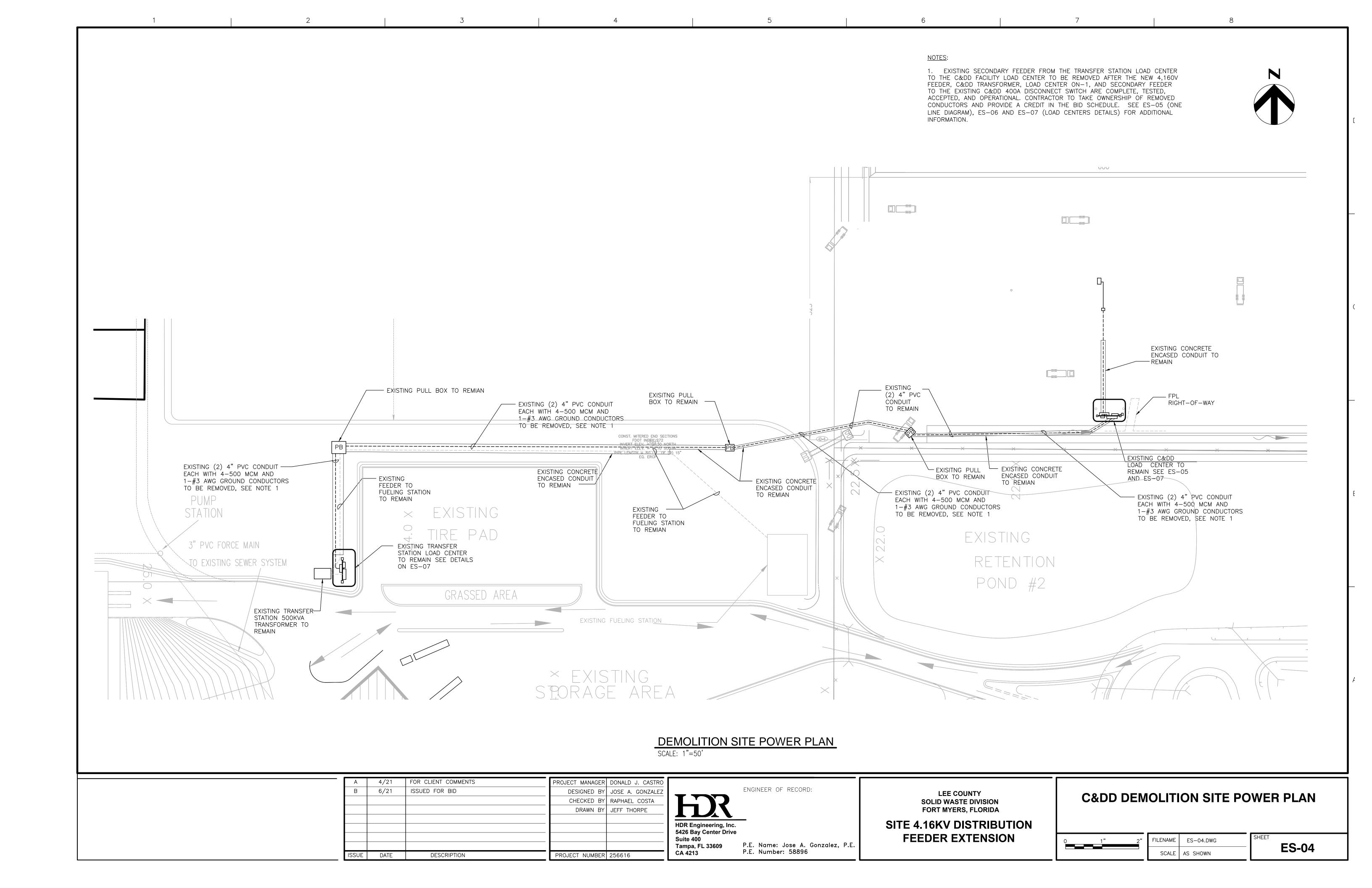
P.E. Name: Jose A. Gonzalez, P.E.

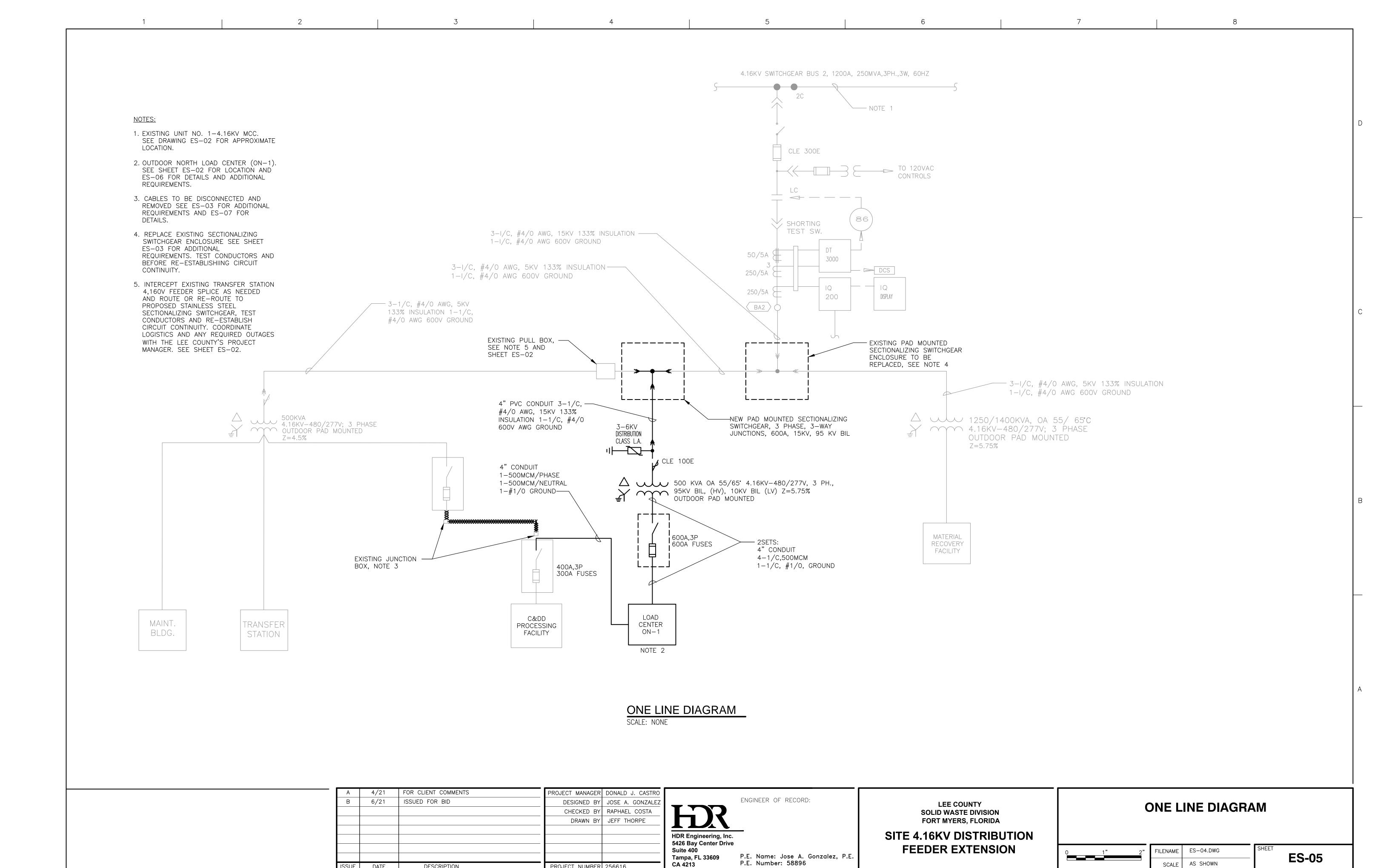
P.E. Number: 58896

2" FILENAME ES-01.DWG ES-01







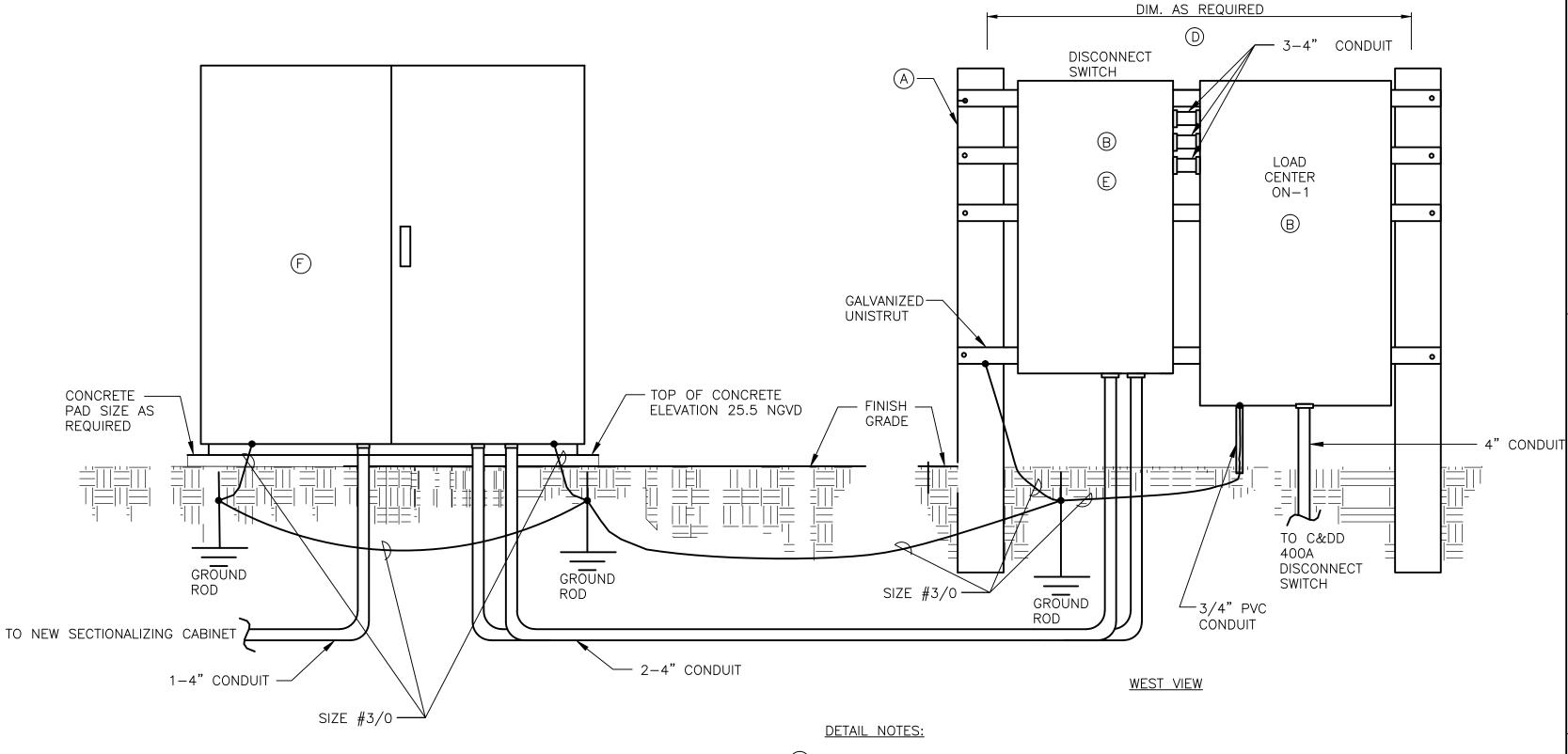


ISSUE DATE

DESCRIPTION

PROJECT NUMBER 256616

LOAD CENTER - OUTSIDE NORTH NO. 1 (ON-1) PANELBOARD NO: VOLTAGE: BUS RATING (A): **ENCLOSURE**: NEMA 3R - LOCKABLE PHASE: MAIN OC DEVICE (A/PHASE): SURFACE WIRE: 4+GND INTERRUPTING RATING (KA): LOCATION: C&DD AREA NO SERVICE ENTRANCE LABEL: 200% NEUTRAL: CONNECTED LOAD (VA) OCP OCP CONNECTED LOAD (VA) LTS REC MECH MISC AMPS P AMPS P LTS REC MECH MISC DESCRIPTION NO. DESCRIPTION 65,000 SPACE 3 C&DD PROCESSING 65,000 300 3 B SPACE 65,000 SPACE SPACE 7 SPACE 9 SPACE SPACE 11 SPACE SPACE 13 SPACE SPACE 15 SPACE SPACE 17 SPACE SPACE 19 SPACE SPACE 21 SPACE SPACE 23 SPACE SPACE 25 SPACE SPACE 27 SPACE SPACE 29 SPACE SPACE 31 SPACE SPACE 33 SPACE SPACE B 35 SPACE SPACE C 37 SPACE SPACE 39 SPACE SPACE 41 SPACE SPACE C LOAD SUMMARY LTS | REC | MECH | MISC | SPARE | TOTAL PHASE BALANCE CONNECTED LOAD (KVA) 0.0 0.0 0.0 195.0 480 LINE-TO-LINE VOLTS PHASE A (KVA) DEMAND FACTOR 1.25 NEC 1.00 1.00 20% 235 CONNECTED AMPS PHASE B (KVA) DESIGN LOAD (KVA) 0.0 0.0 195.0 39.0 234.0 281 DESIGN AMPS PHASE C (KVA)



PANELBOARD SCHEDULE

SCALE: NONE

EXOTHERMIC WELD,
TEST WELD NOT
SHOWN FOR CLARITY

COUNTERPOISE
CONDUCTOR

WARNING TAPE

WARNING TAPE

BACKFILL PER
SPECIFICATION
SPECIFICATION
NOTE
1

AND
NOTE
1

2,500 PSI CONCRETE

CONCRETE ENCASED DUCTBANK SECTION (1

SCALE: NONE

DUCTBANK NOTES:

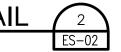
1. REFER TO UTILITY PLAN ES-02 AND ONE LINE DIAGRAM ES-05 FOR THE NUMBER OF CONDUITS. MINIMUM COVER FROM TOP OF THE HIGHEST CONDUIT IS 48" FOR 4.16kV DISTRIBUTION SYSTEM AND 36" FOR SECONDARY DISTRIBUTION SYSTEMS. ALL UNDERGROUND CONDUITS AND FITTINGS ARE TO BE PVC SCHEDULE 80.

- 2. P SUBSCRIPT ELECTRICAL POWER OR CONTROL CONDUIT.
- 3. C SUBSCRIPT COMMUNICATION (TELEPHONE, DATA, INSTRUMENTATION) CONDUIT.
- 4. CONDUITS SHALL BE INSTALLED BY OPEN—CUT METHOD INCLUDING BUT NOT LIMITED TO ACROSS EXISTING ROADWAY.
- 5. THE EXISTING ROADWAY SHALL REMAIN OPEN FOR CONTINUOUS TRAFFIC AND SITE OPERATIONS.
- 6. CONTRACTOR SHALL EXCAVATE TRENCH FOR CONDUIT INSTALLATION OF A LENGTH NO GREATER THAN 1/2 WIDTH OF ROADWAY PAVEMENT IN ORDER TO MAINTAIN TRAFFIC FLOW.
- 7. AFTER CONDUITS ARE IN-PLACE AND ENCASED, OPEN TRENCH SHALL BE BACKFILLED WITH SELF-CONSOLIDATING EXCAVATABLE FLOWABLE FILL AS PER SPECIFICATION SECTION 31 23 33.
- 8. FLOWABLE FILL BACKFILL SHALL TERMINATE AT AN ELEVATION 2-INCHES BELOW THE FINISHED PAVEMENT SURFACE TREATMENT ELEVATION.
- 9. CONTRACTOR SHALL PROVIDE A PLAN FOR PROTECTION OF THE TRENCH RESTORATION AND CLEAN CUT EDGES OF EXISTING PAVEMENT SURFACE FOR A PERIOD OF 14 DAYS, UNLESS OTHERWISE INDICATED IN WRITNG BY THE LEE COUNTY'S PROJECT MANAGER.
- 10. AFTER THE 14 DAY CURING PERIOD, THE CONTRACTOR SHALL VERIFY THE CONDITION OF THE EXISTING ASPHALT PAVEMENT EDGE ALONG THE CONDUIT TRENCH, AND IF DAMAGED, SHALL RE—CUT THE PAVEMENT EDGE AND ESTABLISH A CLEAN STRAIGHT EDGE LINE.
- 11. CONTRACTOR SHALL INSTALL THE FINAL ASPHALT SURFACE TREATMENT, TYPE S-1, IN MULTIPLE LIFTS, AS REQUIRED, TO MATCH THE FINISHED GRADE OF THE ROADWAY.
- 12. COORDINATE WITH LEE COUNTY'S PROJECT MANAGER TO APPLY A RED FINISH TO THE TOP OF THE CONCRETE ENVELOPE BY MEANS OF A EPOXY CONCRETE COATING.
- 13. ALL DUCTBANKS AND DIRECT BURIED CONDUITS ARE TO BE IN COMPLIANCE WITH THE SPECIFICATIONS INCLUDING BUT NOT LIMITED TO SECTION 26 05 43.

- (A) 6"X6"X10'L, STRAIGHT CONCRETE POLE.
- B ENCLOSURE SHALL BE NEMA 3R GASKETED TYPE WITH PADLOCKABLE HASP. ALL METAL COMPONENTS OF LATCH SYSTEM TO BE MANUFACTURED OF GALVANIZED STEEL
- C ALL FASTENERS FOR CONSTRUCTION OF THE RACK SHALL BE GALVANIZED SCREWS, NUTS, BOLTS AND WASHERS.
- ONTRACTOR SHALL SIZE RACK PER EQUIPMENT SIZE AND NEC. ALL STRUCTURAL OR ELECTRICAL COMPONENTS SHALL BE AS SPECIFIED HEREIN, OR APPROVED EQUAL. ALL ELECTRICAL COMPONENTS AND WIRING SHALL BE IN ACCORDANCE WITH NEC. LATEST REVISION. ANY LOCAL ELECTRIC CODES IN CONFLICT WITH THE DETAIL SHOWN, SHALL BE RESOLVED BY THE ELECTRICAL CONTRACTOR WITH THE APPROVAL OF ENGINEER, PRIOR TO CONSTRUCTION.
- PLASTIC WARNING LABELS STATING "DANGER HIGH VOLTAGE" TO O.S.H.A. SPECIFICATIONS AND ARC FLASH LABEL AS REQUIRED BY THE NEC MUST BE INSTALLED ON THE OUTSIDE OF THE ENCLOSURE DOOR. SECURE LABEL TO DOOR WITH SCREWS AND GASKETS OR OTHER APPROVED MEANS THAT DO NOT VOID THE NEMA 3R ENCLOSURE RATING.
- (F) 500KVA PAD MOUNTED TRANSFORMER.

NEW LOAD CENTER MOUNTING DETAIL

SCALE: NONE



Α	4/21	FOR CLIENT COMMENTS	PROJECT MANAGER	DONALD J. CASTRO
В	6/21	ISSUED FOR BID	DESIGNED BY	JOSE A. GONZALEZ
			CHECKED BY	RAPHAEL COSTA
			DRAWN BY	JEFF THORPE
ISSUE	DATE	DESCRIPTION	PROJECT NUMBER	256616

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P.E. Name: Jose A. Gonzalez, P.E. P.E. Number: 58896 LEE COUNTY SOLID WASTE DIVISION FORT MYERS, FLORIDA

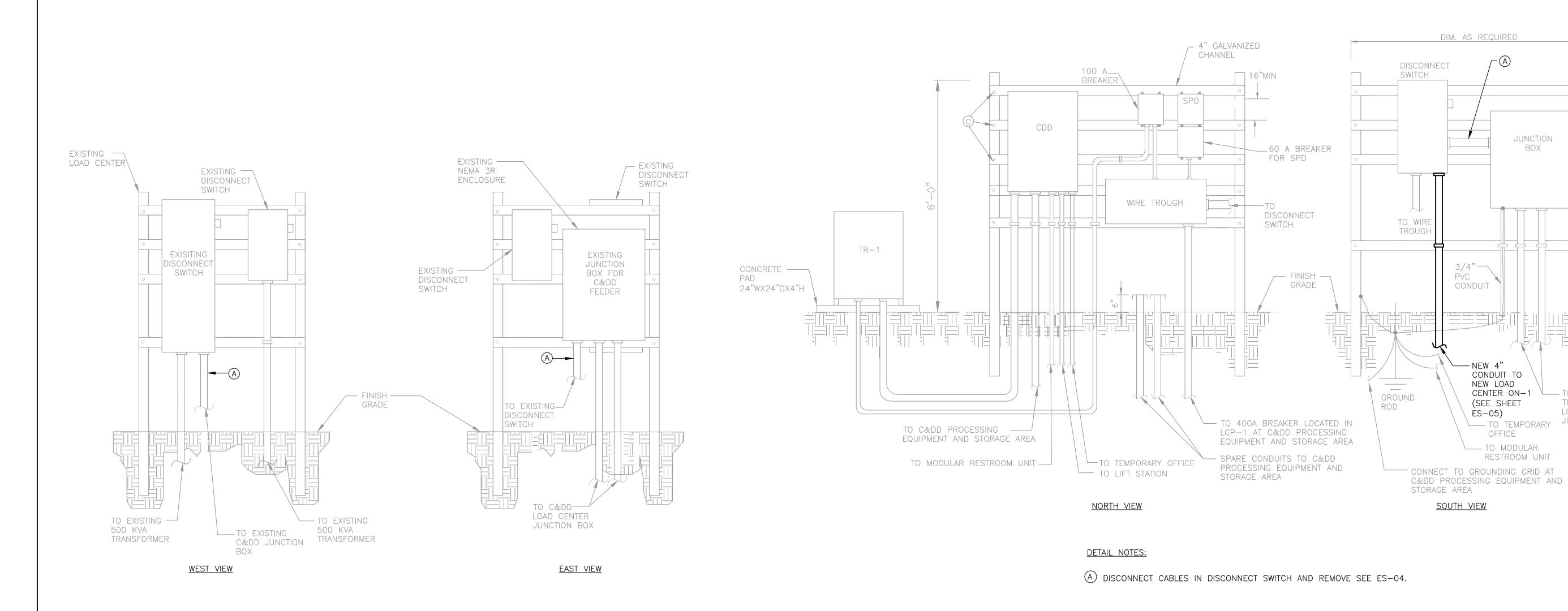
SITE 4.16KV DISTRIBUTION FEEDER EXTENSION

ELECTRICAL PANELBOARD AND DETAILS

1" 2" FIL

FILENAME	ES-06.DWG	SHEET
SCALE	AS SHOWN	

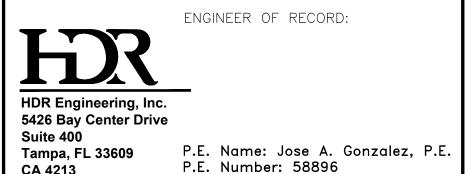
ES-06



EXISTING C&DD ELECTRICAL LOAD CENTER MOUNTING DETAIL NOT TO SCALE

EXISTING TRANSFER STATION ELECTRICAL LOAD CENTER NOT TO SCALE

					_
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LEE COUNTY SOLID WASTE DIVISION FORT MYERS, FLORIDA **SITE 4.16KV DISTRIBUTION** FEEDER EXTENSION

ELECTRICAL	DETAILS	1	OF 2	

1" 2"	FILENAME	ES-07.DWG
	SCALE	AS SHOWN

DIM. AS REQUIRED

3/4"— PVC

CONDUIT

– NEW 4"

ES-05)

SOUTH VIEW

CONDUIT TO NEW LOAD

OFFICE

— TO MODULAR RESTROOM UNIT

CENTER ON-1 TO EXISTING
(SEE SHEET TRANSFER STATION
LOAD CENTER

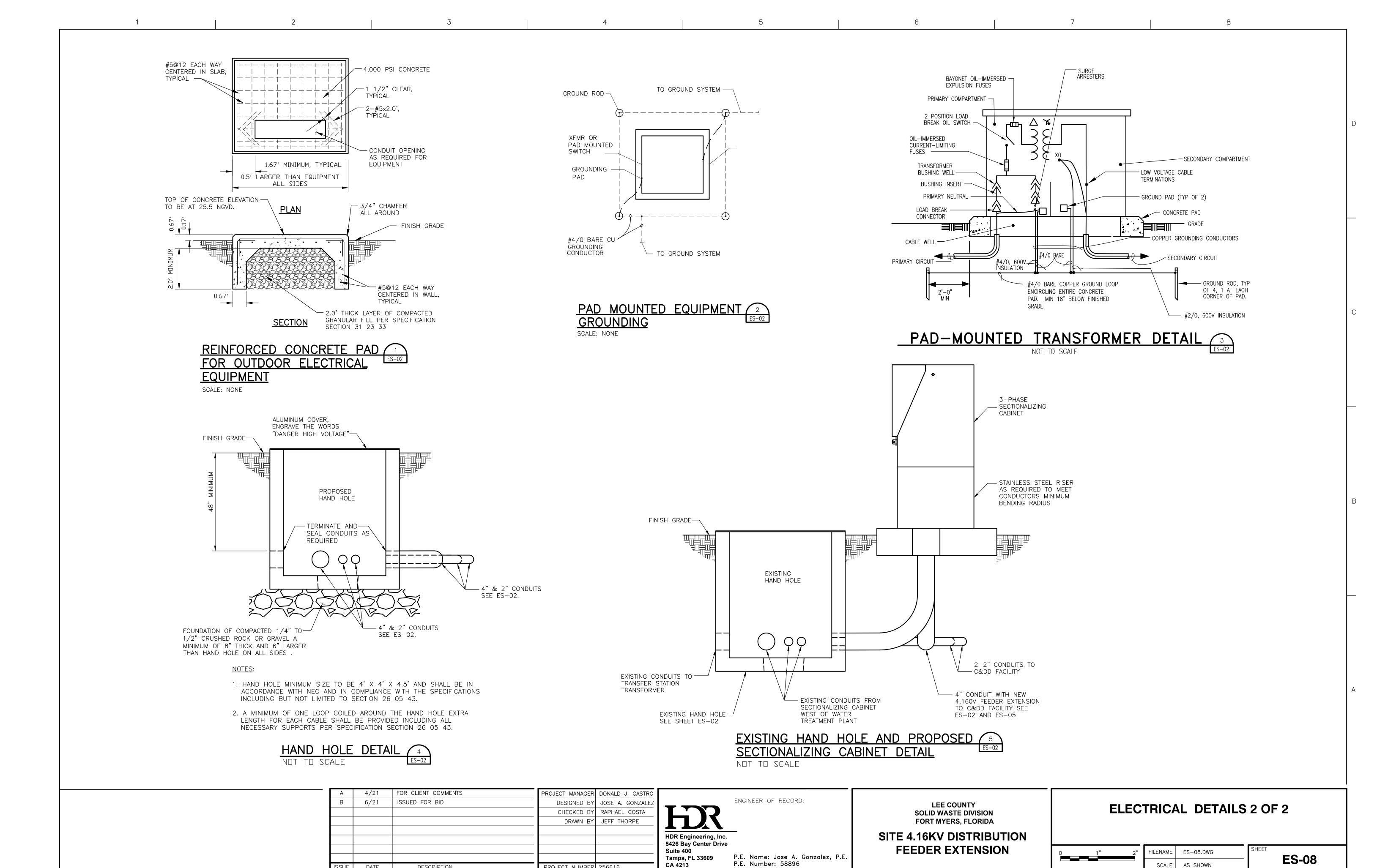
TO TEMPORARY JUNCTION BOX

JUNCTION BOX

- NEMA 3R

ENCLOSURE

ES-07



PROJECT NUMBER 256616

DATE

DESCRIPTION