SAN BERNARDINO COUNTY ADELANTO DETENTION CENTER GENERATOR REPLACEMENT

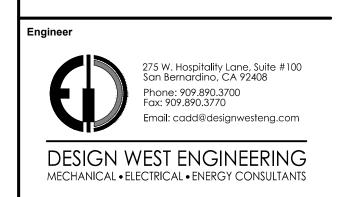
9438 COMMERCE WAY ADELANTO, CA 92301

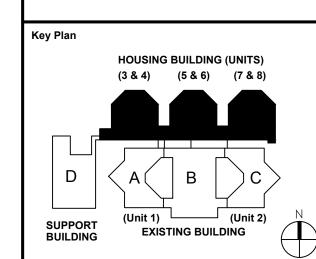




Adelanto Detention Center Generator Replacemen 9438 COMMERCE WAY Adelanto, CA 92301

County of San Bernardino

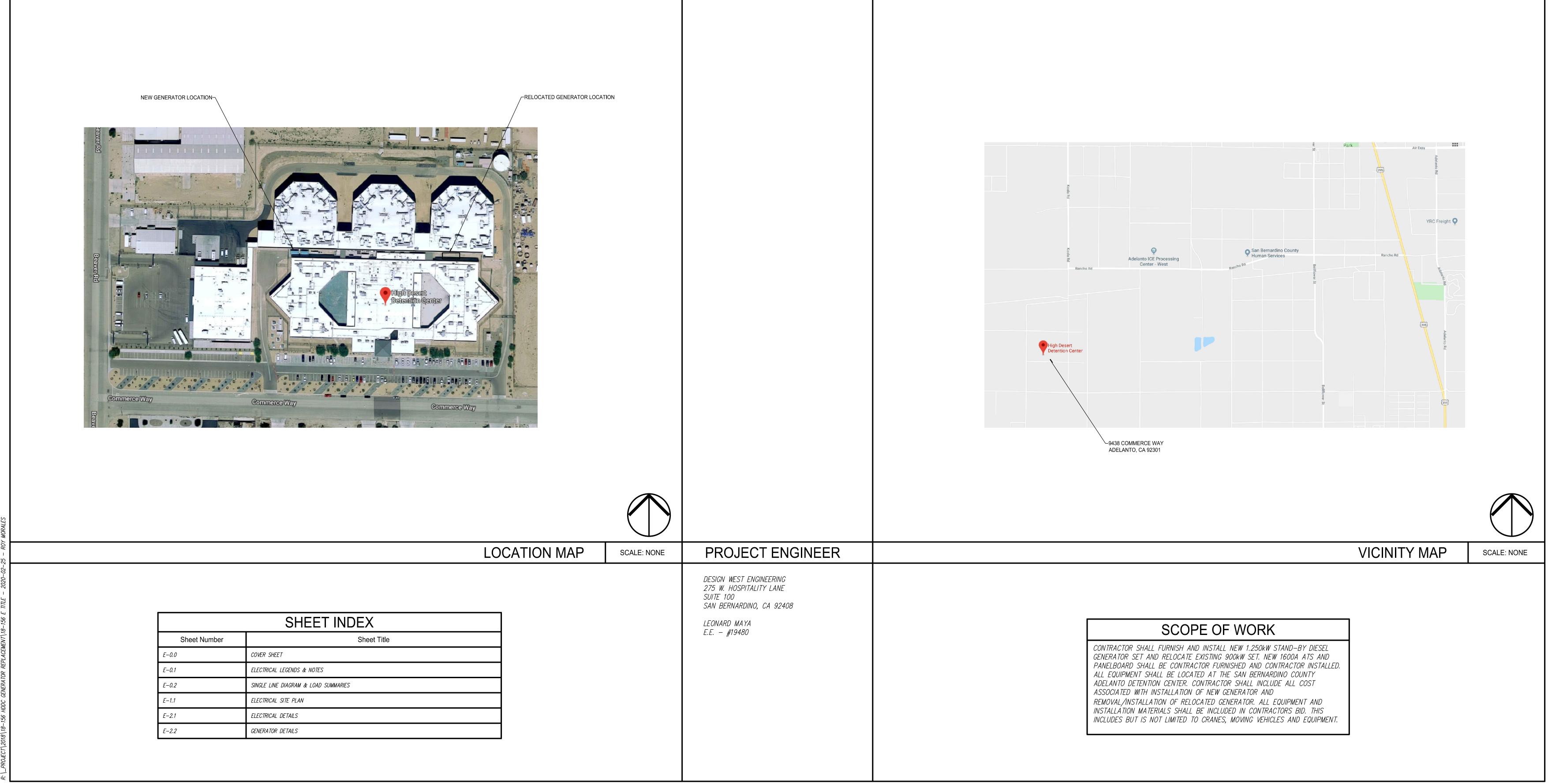


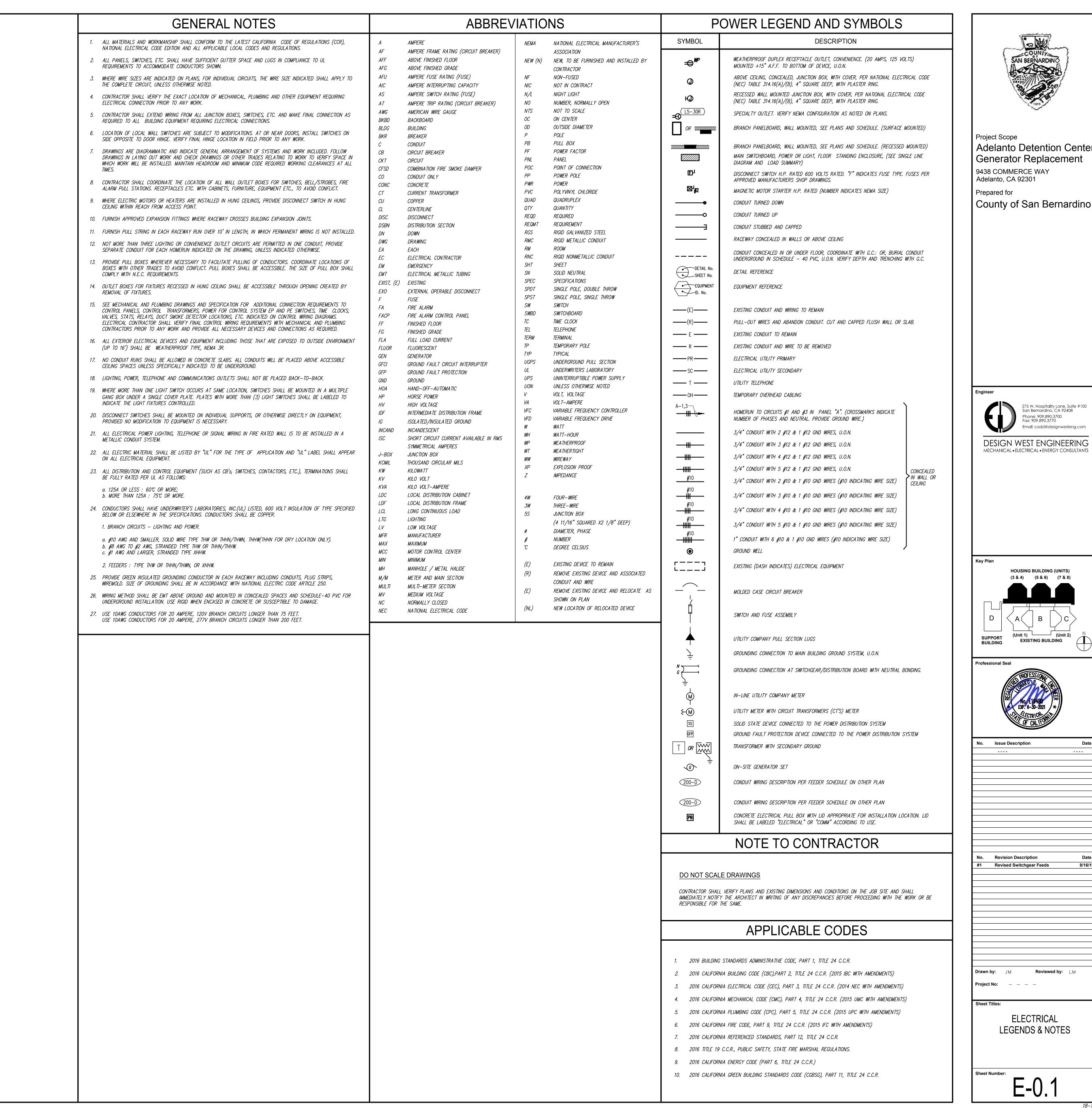


Issue Description

Revised Switchgear Feeds

COVER SHEET



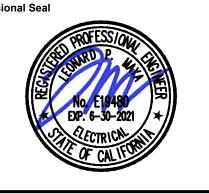




Project Scope Adelanto Detention Center Generator Replacement 9438 COMMERCE WAY

275 W. Hospitality Lane, Suite #100 an Bernardino, CA 92408 Phone: 909,890,3700 Email: cadd@designwesteng.com DESIGN WEST ENGINEERING MECHANICAL • ELECTRICAL • ENERGY CONSULTANTS

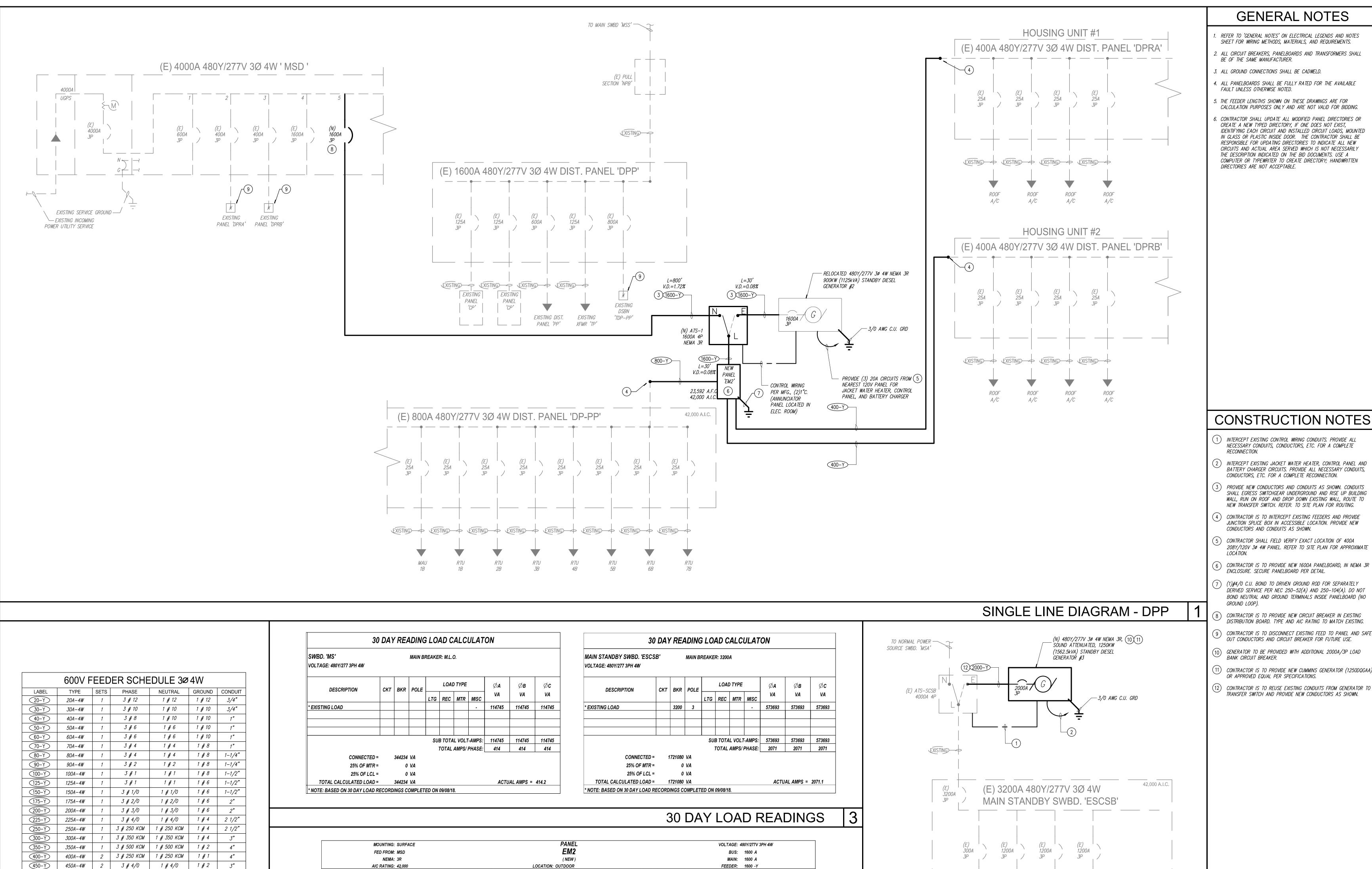
HOUSING BUILDING (UNITS) (3 & 4) (5 & 6) (7 & 8) (Unit 1) (Unit 2) EXISTING BUILDING



Revision Description Revised Switchgear Feeds

Reviewed by: LM Project No: - - - -

ELECTRICAL LEGENDS & NOTES



3 # 250 KCM

500A-4W

600A-4W

700A-4W

1 # 250 KCM | 1 # 2

DESCRIPTION

SPACE

SPACE

SUBTOTALS

<u>LOAD TYPE</u>

(M) MOTOR

(L) LIGHTING

(R) RECEPTACLE

LARGEST MOTOR

(C) CONTINUOUS

(N) NON-CONTINUOUS (K) KITCHEN (NEC 220.56)

(S) SPECIAL DEMAND

CEC LOAD CALC:

161214

TOTAL AMPS CONNECTED AT 480Y/277V 3PH 4W WITH LCL

161214 161214 161214

CONNECTED DEMAND

SUBTOTALS: PHASE

286972 VA A

286972 VA B

286972 VA C

860916 VA TOTAL

1036 AMPS

64541

PANEL SCHEDULE

4

125758 125758 125758

NOTES:

3 # 350 KCM | 1 # 350 KCM | 1 # 1/0 |

3 | 3 | 500 KCM | 1 | 500 KCM | 1 | 2/0 |

1200A-4W 3 3 # 600 KCM 1 # 600 KCM 1 # 3/0 4"

1600A-4W | 4 | 3 # 600 KCM | 1 # 600 KCM | 1 # 4/0 | 4"

2000A-4W | 4 | 3 # 700 KCM | 1 # 700 KCM | 1#250KCM | 4"

2500A-4W | 6 | 3 # 600 KCM | 1 # 600 KCM | 1#350KCM | 4"

3000A-4W | 8 | 3 # 600 KCM | 1 # 600 KCM | 1#500KCM | 4"

4000A-4W | 10 | 3 # 600 KCM | 1 # 600 KCM | 1#500KCM | 4"

SINGLE LINE DIAGRAM

ALL CONDUCTOR SIZES ARE BASED ON TYPE THHN COPPER CONDUCTOR UNLESS OTHERWISE NOTED. THE

AMPACITY OF CONDUCTORS SHALL BE BASED ON THE TERMINALS NOT TO EXCEED 60°C FOR CONDUCTOR

SIZE #14 THROUGH #1 AWG OR 75°C FOR CONDUCTOR SIZE OVER #1 AWG AS PER NEC 110.14(C).

- REFER TO 'GENERAL NOTES' ON ELECTRICAL LEGENDS AND NOTES
- 2. ALL CIRCUIT BREAKERS, PANELBOARDS AND TRANSFORMERS SHALL
- 3. ALL GROUND CONNECTIONS SHALL BE CADWELD.
- 4. ALL PANELBOARDS SHALL BE FULLY RATED FOR THE AVAILABLE
- 5. THE FEEDER LENGTHS SHOWN ON THESE DRAWINGS ARE FOR
- 5. CONTRACTOR SHALL UPDATE ALL MODIFIED PANEL DIRECTORIES OR CREATE A NEW TYPED DIRECTORY, IF ONE DOES NOT EXIST, IDENTIFYING EACH CIRCUIT AND INSTALLED CIRCUIT LOADS, MOUNTED IN GLASS OR PLASTIC INSIDE DOOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR UPDATING DIRECTORIES TO INDICATE ALL NEW CIRCUITS AND ACTUAL AREA SERVED WHICH IS NOT NECESSARILY THE DESCRIPTION INDICATED ON THE BID DOCUMENTS. USE A COMPUTER OR TYPEWRITER TO CREATE DIRECTORY; HANDWRITTEN



Project Scope Adelanto Detention Center Generator Replacement 9438 COMMERCE WAY

Prepared for County of San Bernardino

Adelanto, CA 92301

275 W. Hospitality Lane, Suite #100 San Bernardino, CA 92408 Phone: 909.890.3700 Fax: 909.890.3770 Email: cadd@designwesteng.com DESIGN WEST ENGINEERING

MECHANICAL • ELECTRICAL • ENERGY CONSULTANTS

(3 & 4) (5 & 6) (7 & 8)

CONTRACTOR IS TO PROVIDE NEW CIRCUIT BREAKER IN EXISTING DISTRIBUTION BOARD. TYPE AND AIC RATING TO MATCH EXISTING.

- (9) CONTRACTOR IS TO DISCONNECT EXISTING FEED TO PANEL AND SAFE OUT CONDUCTORS AND CIRCUIT BREAKER FOR FUTURE USE.
- (10) GENERATOR TO BE PROVIDED WITH ADDITIONAL 2000A/3P LOAD

EXISTING EXISTING EXISTING

EXISTING DIST. EXISTING DIST. EXISTING DIST. EXISTING DIST.

PANEL 'EH2S' PANEL 'EH4S' PANEL 'EH6S' PANEL 'EH8S'

<u>2150 GALLONS</u>

SINGLE LINE DIAGRAM - ESCSB

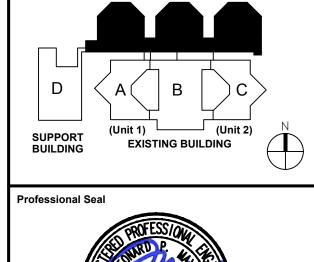
GENERATOR FUEL CALCULATION

DIESEL FUEL CONSUMPTION @ 100% LOAD: 89 GALLONS / HR.

APPROX. RUNNING TIME @ 100% LOAD: 2150 / 89 = 24.2 HOURS

BASE TANK CAPACITY:

- CONTRACTOR IS TO PROVIDE NEW CUMMINS GENERATOR (1250DQGAA) OR APPROVED EQUAL PER SPECIFICATIONS.
- CONTRACTOR IS TO REUSE EXISTING CONDUITS FROM GENERATOR TO



	No. E19480 EXP. 6-30-2021 * ** ** ** ** ** ** ** ** **	
).	Issue Description	D

Revision Description Revised Switchgear Feeds

SINGLE LINE DIAGRAM & LOAD SUMMARIES

E-0.2

