

APPENDIX B
BUILDING CODE SUMMARY (2018 CODE EDITION)
FOR ALL COMMERCIAL PROJECTS

Name of Project: DAVIE COUNTY VEHICLE MAINTENANCE GARAGE - GENERATOR INSTALLATION
Address: 132 GOVERNMENT CENTER DR, MOCKSVILLE, NC Zip Code 27028
Proposed Use: OFFICE
Owner/Authorized Agent: BRIAN WHITLEY Phone # (336) 753-6063 Email bwhitley@daviecountync.gov
Owned By: City/County Private State
Code Enforcement Jurisdiction: City MOCKSVILLE County State

Table with columns: DESIGNER, FIRM, NAME, LICENSE #, TELEPHONE #, EMAIL. Rows include Building, Civil, Electrical, Fire Alarm, Plumbing, Mechanical, Sprinkler-Standpipe, Structural, Retaining Walls > 5' High, Metal Building, Other.

2018 EDITION OF NC CODE FOR New Construction Addition Upfit
EXISTING Reconstruction Alteration Repair Renovation
CONSTRUCTED: (date) 2004 ORIGINAL USE(S) (Ch. 3): Assembly
RENOVATED: (date) 2021 CURRENT USE(S) (Ch. 3): Assembly
PROPOSED USE(S) (Ch. 3): Assembly

BASIC BUILDING DATA: Construction Type (I-A to V-B), Sprinklers, Smoke and Heat Vents, Standpipes, Fire District, Building Height, Gross Building Area table.

ALLOWABLE AREA: Primary Occupancy (Assembly to Utility and Miscellaneous) and Accessory Occupancy (Assembly to Utility and Miscellaneous).

ALLOWABLE HEIGHT: Table with columns: Type of construction, Building Height in feet, Building Height in stories.

Incidental Uses (Table 508.2.5): Furnace room, Rooms with boilers, Refrigerant machine room, Hydrogen cutoff rooms, Incinerator rooms, Paint shops, Laboratories, Laundries, Group I-2 waste and linen collection rooms, Waste and linen collection rooms, Stationary storage battery systems, Rooms containing fire pumps, Group I-2 storage rooms, Group I-2 commercial kitchens, Group I-2 laundries, Group I-2 rooms or spaces that contain fuel-fired heating equipment.

Special Uses, Special Provisions, Mixed Occupancy. Includes occupancy separation rules and area calculations for separated use.

Table with columns: STORY NO., DESCRIPTION AND USE, BLDG AREA PER STORY (ACTUAL), TABLE 503.5 AREA, AREA FOR OPEN SPACE INCREASE IN SPIN, AREA FOR SPRINKLER COVERED AREAS, ALLOWABLE AREA OR UNLIMITED, MAXIMUM BLDG AREA.

- 1. Frontage area increases from Section 506.2 are computed thus: a. Perimeter which fronts a public way or open space having 20 feet minimum width = (F) b. Total Building Perimeter = (P) c. Ratio (F/P) = (F/P) d. W = Minimum width of public way = (W) e. Percent of frontage increase If = 100 [F/P - 0.25] x W/30 = (%)
2. The sprinkler increase per Section 506.3 is as follows:
a. Multi-story building Is = 200 Percent
b. Single-story building Is = 300 Percent
3. Unlimited area applicable under conditions of Sections 507.
4. Maximum Building Area = total number of stories in the building x E (506.4)
5. The maximum area of parking garages must comply with 406.3.5. The maximum area of air traffic control towers must comply with 412.1.2.

ALLOWABLE HEIGHT: Table with columns: Type of construction, Allowable height in feet, Increase for sprinklers, Increase for fire alarm, Increase for fire alarm and sprinklers, Increase for fire alarm, fire alarm and sprinklers and fire alarm, fire alarm and sprinklers and fire alarm and sprinklers, Increase for fire alarm, fire alarm and sprinklers, fire alarm and sprinklers and fire alarm and sprinklers and fire alarm and sprinklers, Code reference.

FIRE PROTECTION REQUIREMENTS: Table with columns: BUILDING ELEMENT, FIRE SEPARATION DISTANCE (FEET), REQD, PROVIDED (W/ REDUCTION), DETAIL # AND SHEET #, DESIGN # FOR RATED ASSEMBLY, DESIGN # FOR RATED PENETRATION, DESIGN # FOR RATED JOINTS. Rows include Structural frame, Bearing walls, Exterior walls, Interior walls, Nonbearing walls, Shaft Enclosures, Corridor Separation, Occupancy Separation, Party/Fire Wall Separation, Smoke Barrier Separation, Tenant Separation, Incidental Use Separation.

LIFE SAFETY SYSTEM REQUIREMENTS: Emergency Lighting, Exit Signs, Fire Alarm, Smoke Detection Systems, Panic Hardware.

LIFE SAFETY PLAN REQUIREMENTS: Fire and/or smoke rated wall locations, Assumed and real property line locations, Exterior wall opening area, Existing structures within 30' of the proposed building, Occupancy types for each area, Occupancy loads for each area, Exit access travel distance (1016), Common path of travel distance (1014.3 & 1028.8), Dead end lengths (1018.4), Clear exit widths for each exit door, Maximum calculated occupant load, Actual occupancy for each exit door, A separate schematic plan indicating where fire rated floor/ceiling and/or roof structure is provided for purposes of occupancy separation, Location of doors with panic hardware (1008.1.10), Location of doors with delayed egress locks and the amount of delay (1008.1.9.7), Location of doors with electromagnetic egress locks (1008.1.9.8), Location of doors equipped with hold-open devices, Location of emergency escape windows (1029), The square footage of each fire area (902), The square footage of each smoke compartment (407.4), Note any code exceptions or table notes that may have been utilized regarding the items above.

ACCESSIBLE DWELLING UNITS (SECTIONAL 1107): Table with columns: TOTAL UNITS, ACCESSIBLE UNITS REQUIRED, ACCESSIBLE UNITS PROVIDED, TYPE A UNITS, TYPE B UNITS, TYPE C UNITS, TYPE D UNITS, TYPE E UNITS, TYPE F UNITS, TOTAL ACCESSIBLE UNITS PROVIDED.

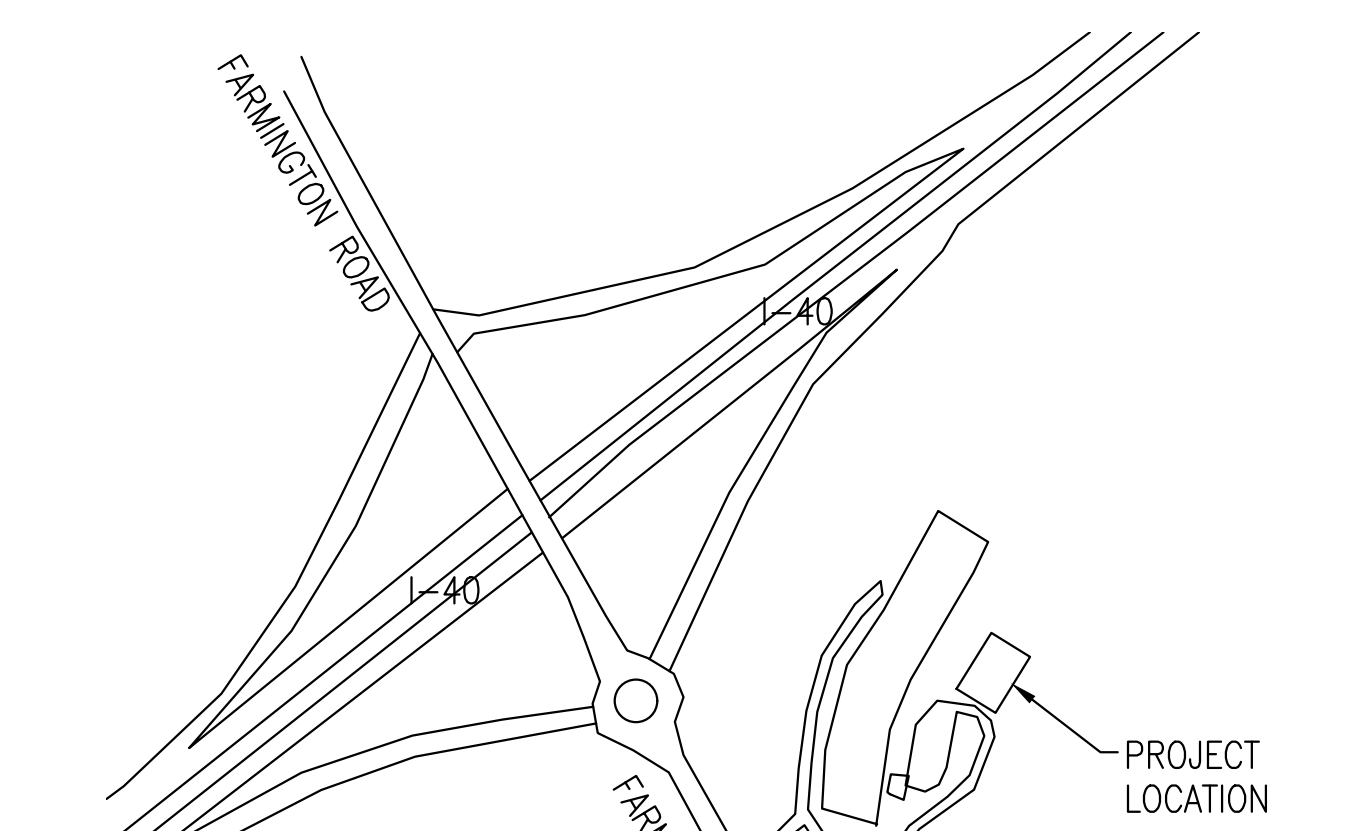
DRAWING LIST: C1.1 - COVER SHEET, APPENDIX B, VICINITY MAP; E1.1 - ELECTRICAL POWER PLAN AND RISER

ACCESSIBLE PARKING (SECTIONAL 1106): Table with columns: LOT OR PARKING AREA, TOTAL # OF PARKING SPACES, # OF ACCESSIBLE SPACES (REGULAR WITH 5' ACCESS AISLE, VAN SPACES WITH 132" ACCESS AISLE, VAN SPACES WITH 132" ACCESS AISLE), TOTAL # ACCESSIBLE PROVIDED.

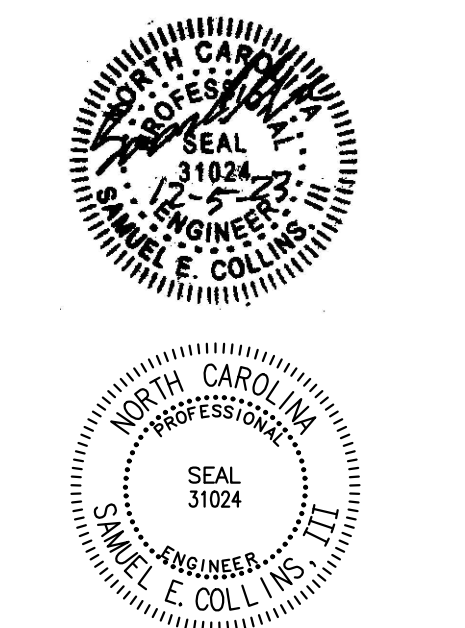
STRUCTURAL DESIGN: DESIGN LOADS: Importance Factors (Wind, Snow, Seismic), Live Loads (Roof, Mezzanine, 1st Floor, 2nd Floor), Ground Snow Load, Wind Load (Basic Wind Speed, Exposure Category, Wind Base Shear, etc.), SEISMIC DESIGN CATEGORIES (A to F).

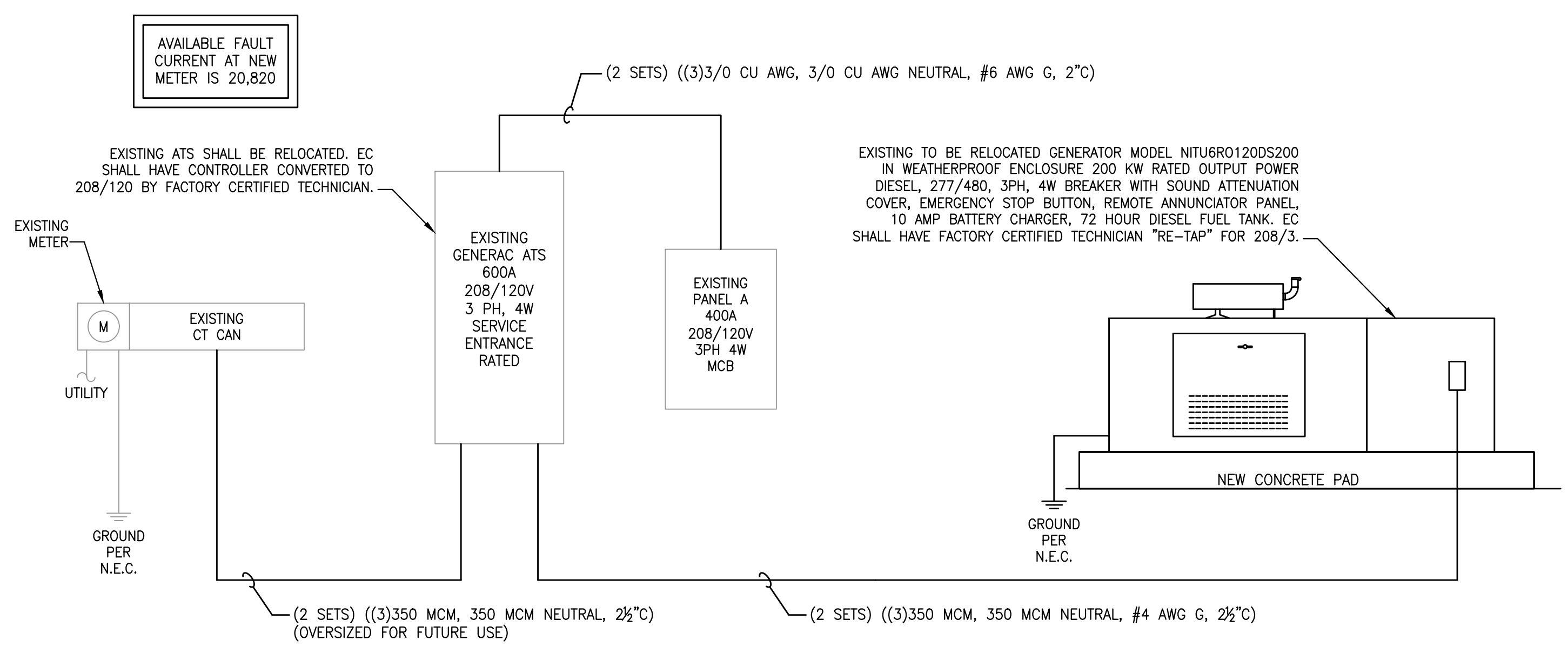
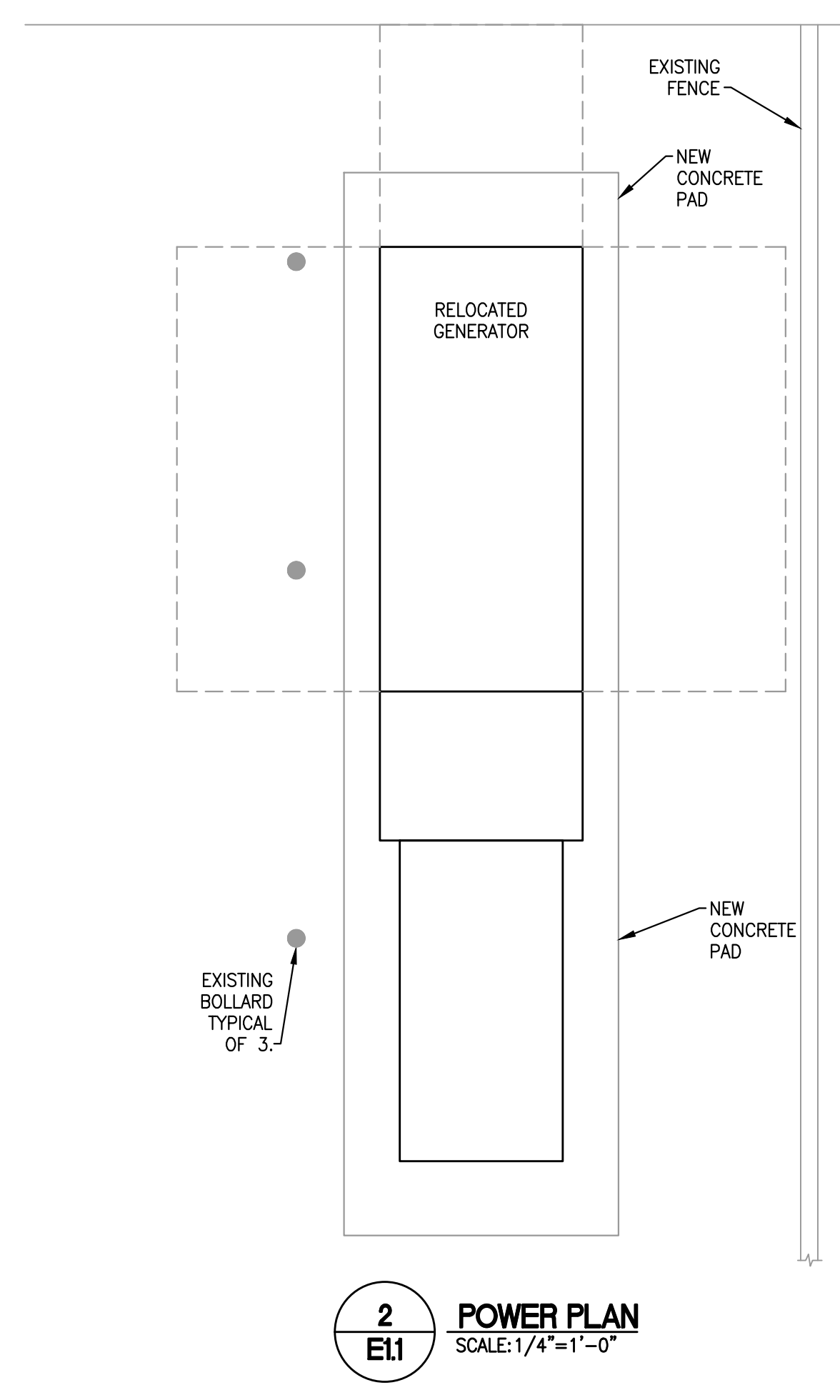
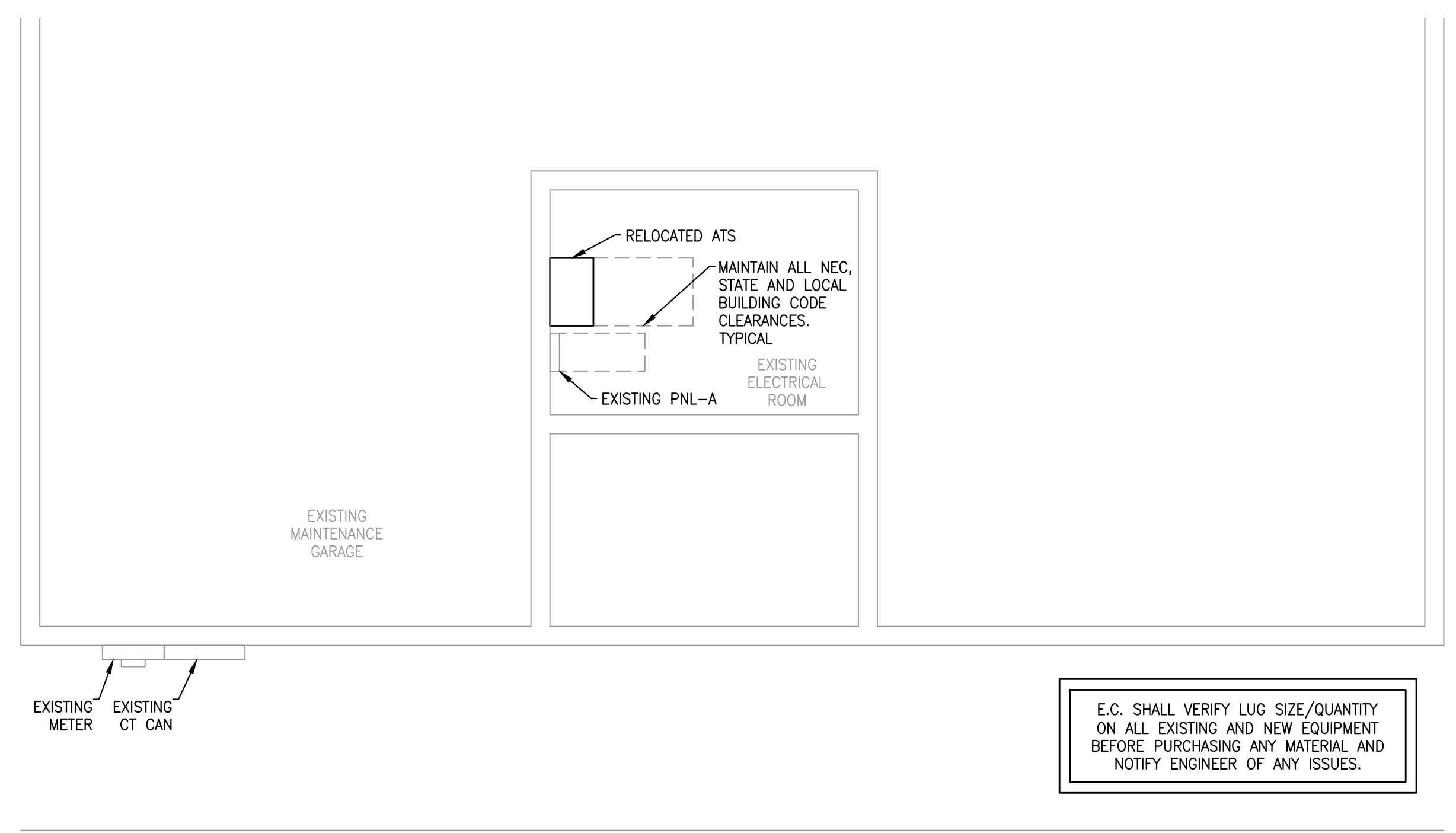
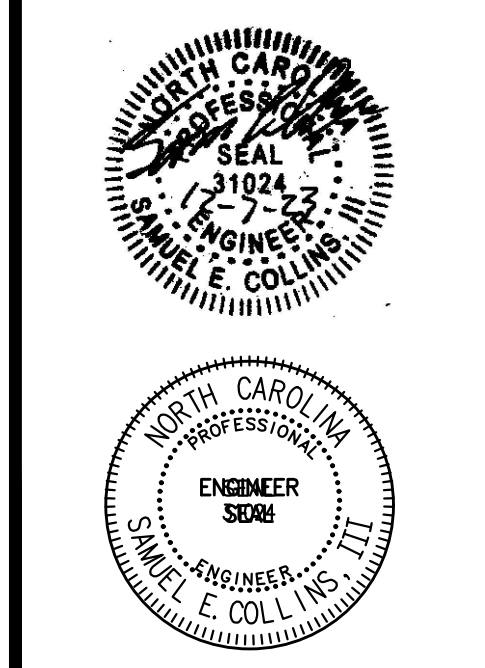
LATERAL DESIGN CONTROL: Earthquake, Wind. SOIL BEARING CAPACITIES: Field Test, Presumptive Bearing Capacity. SPECIAL INSPECTIONS REQUIRED: Yes, No.

PLUMBING FIXTURE REQUIREMENTS (TABLE 2902.1): Table with columns: USE, WATERCLOSETS, URINALS, SINKS, TOILETS, SHOWER STALLS, BATH TUBS, DRINKING FOUNTAINS. Rows include Existing, New, Required.



1 VICINITY MAP SCALE: NO SCALE





**1
E1.1
POWER RISER
SCALE: NO SCALE**

| EXISTING PANEL "A" | | PANEL SUMMARY | |
|----------------------------------|-----------------------|---------------|-------|
| MFG. & TYPE | "SQUARE D" | LIGHTS | 2400 |
| SERVICE | 208/120Y 3PH 4W 60 HZ | RECEPTACLES | 18000 |
| CABINET | SURFACE | HVAC | 7680 |
| AIC RATING | 22,000 AIC | MOTORS | 38424 |
| MAINS | 400 AMP MCB | FANS | 240 |
| BREAKERS | BOLT-ON TYPE | WHS / PUMPS | 11520 |
| COPPER BUS & NEUTRAL AND GND KIT | | KITCHEN | 0 |
| | | OTHER | 0 |
| | | TOTAL | 78264 |

| DESCRIPTION | WIRE SIZE | CONDUIT SIZE | AMPS-A | AMPS-B | AMPS-C | VOLT-AMPS | TRIP | CIRCUIT # | A | B | C | CIRCUIT # | TRIP | VOLT-AMPS | AMPS-A | AMPS-B | AMPS-C | CONDUIT SIZE | WIRE SIZE | DESCRIPTION |
|---------------------|-----------|-------------------|--------|--------|--------|-----------|------|-----------|---|---|---|-----------|------|-----------|--------|--------|--------|--------------|-----------|--------------------------|
| LTF-INTERIOR | L | EXISTING | 10.0 | | | 1200 | 20 | 1 | | | | 1 | 20 | 1200 | 10.0 | | | EXISTING | L | LTG-EXT |
| REC-OFFICE AREA | R | EXISTING | | 12.5 | | 1500 | 20 | 3 | | | | 3 | 20 | 1500 | | 12.5 | | EXISTING | R | REC-SHOP |
| REC-SHOP AREA | R | EXISTING | | | 12.5 | 1500 | 20 | 5 | | | | 5 | 20 | 1500 | | | 12.5 | EXISTING | R | REC-SHOP |
| REC-PORT A COOL | R | EXISTING | 12.5 | | | 1920 | 20 | 7 | | | | 7 | 20 | 1920 | 16.0 | | | EXISTING | H | GAS FURNACE |
| REC- ALIGNMENT MACH | R | EXISTING | | 12.5 | | 1500 | 20 | 9 | | | | 9 | 20 | 1920 | | 16.0 | | EXISTING | H | GAS UNIT HEATERS |
| OVERHEAD DOORS | M | EXISTING | | | 16.0 | 1920 | 20 | 11 | | | | 11 | 20 | 1500 | | | 12.5 | EXISTING | R | CORD REEL & COILING LT |
| OVERHEAD DOORS | M | EXISTING | 16.0 | | | 1920 | 20 | 13 | | | | 13 | 20 | 1500 | 12.5 | | | EXISTING | R | CORD REEL & COILING LT |
| OVERHEAD DOORS | M | EXISTING | | 16.0 | | 1920 | 20 | 15 | | | | 15 | 20 | 1500 | | 12.5 | | EXISTING | R | CORD REEL & COILING LT |
| OVERHEAD DOORS | M | EXISTING | | | 16.0 | 1920 | 20 | 17 | | | | 17 | 20 | 240 | | | 2.0 | EXISTING | F | EXHAUST FAN |
| SPARE | | EXISTING | 0.0 | | | 0 | 30 | 19 | | | | 19 | 20 | 1500 | 12.5 | | | EXISTING | R | TV |
| " | | EXISTING | | 0.0 | | 0 | 30 | 21 | | | | 21 | 20 | 2880 | | 24.0 | | EXISTING | M | AIR COMPRESSOR |
| CU-F102 | H | EXISTING | | | 16.0 | 1920 | 20 | 23 | | | | 23 | 20 | 2880 | 24.0 | | 24.0 | EXISTING | M | " |
| " | H | EXISTING | 16.0 | | | 1920 | 20 | 25 | | | | 25 | 20 | 2880 | 24.0 | | | EXISTING | M | " |
| EW-1 IN F101 | W | EXISTING | | 24.0 | | 2880 | 30 | 27 | | | | 27 | 20 | 2880 | | 24.0 | | EXISTING | M | KOBALT AIR COMPRESS |
| " | W | EXISTING | | | 24.0 | 2880 | 30 | 29 | | | | 29 | 20 | 2880 | | | 24.0 | EXISTING | M | " |
| EW-1 IN F101 | W | EXISTING | 24.0 | | | 2880 | 30 | 31 | | | | 31 | 20 | 1920 | 16.0 | | | EXISTING | M | WHEEL BALANCER |
| " | W | EXISTING | | 24.0 | | 2880 | 30 | 33 | | | | 33 | 20 | 1920 | | 16.0 | | EXISTING | M | " |
| FOUR-POST LIFT | M | EXISTING | | | 0.0 | 24 | 30 | 35 | | | | 35 | 20 | 1920 | | | 16.0 | EXISTING | M | TIRE CHANGER |
| FOUR-POST LIFT | M | EXISTING | 24.0 | | | 2880 | 30 | 37 | | | | 37 | 20 | 1920 | 16.0 | | | EXISTING | M | " |
| TWO-POST LIFT | M | EXISTING | | 24.0 | | 2880 | 30 | 39 | | | | 39 | 20 | 1500 | | 12.5 | | EXISTING | R | RECEPTACLE BY PANEL |
| TWO-POST LIFT | M | EXISTING | | | 24.0 | 2880 | 30 | 41 | | | | 41 | 20 | 1500 | | | 12.5 | EXISTING | R | 2ND DOOR LIFT RECEPTACLE |
| TOTALS | | | | | | | | | | | | | | | | | | | | |
| A PHASE AMPS TOTAL | 210 | A PHASE V-A TOTAL | 25140 | | | | | | | | | | | | | | | | | |
| B PHASE AMPS TOTAL | 231 | B PHASE V-A TOTAL | 27660 | | | | | | | | | | | | | | | | | |
| C PHASE AMPS TOTAL | 212 | C PHASE V-A TOTAL | 25440 | | | | | | | | | | | | | | | | | |

PROVIDE A SEPARATE NEUTRAL FOR ALL MULTI-WIRE LINE TO NEUTRAL LOADS. PROVIDE TRACER ON THE WHITE NEUTRAL WIRE THE SAME COLOR AS PHASE CONDUCTOR.

| ELECTRICAL LOAD SUMMARY (600A SERVICE) | | | | | | | |
|--|-----------------|------------------|----------|------------------|--------------|------------------|-------------------------------|
| POWER | ITEM | CURRENT | FUTURE | TOTAL VA | POWER FACTOR | EQUIVALENT VA | MDP PANEL LOAD |
| NORMAL | LIGHTING | 2,400.0 | 0 | 2,400.0 | 1.25 | 3,000.0 | |
| | RECEPTACLES | 18,000.0 | 0 | 18,000.0 | 1.0 | 18,000.0 | |
| | HVAC | 7,680.0 | 0 | 7,680.0 | 1.0 | 7,680.0 | |
| | MOTORS | 38,424.0 | 0 | 38,424.0 | 1.0 | 38,424.0 | |
| | FANS | 240.0 | 0 | 240.0 | 1.0 | 240.0 | |
| | WTR.HTRS/ PMPMS | 11,520.0 | 0 | 11,520.0 | 1.0 | 11,520.0 | |
| | KITCHEN | 0.0 | 0 | 0.0 | 1.0 | 0.0 | |
| | OTHER | 0.0 | 0 | 0.0 | 1.0 | 0.0 | |
| TOTAL | | 78,264.00 | 0 | 78,264.00 | | 78,864.00 | / 1.73 x 208 = 219.2 A |

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