City of Fairview Fire Station #2

1200 Stacy Road Fairview, Texas 75069

GENERATOR UPGRADES ISSUE FOR BIDDING AND CONSTRUCTION 11.03.2023

PROJECT SHEET LIST

HEET NO. SHEET NAME

26 - Electrical E0.00 E1.01

E2.01

Grand total: 3

GENERAL NOTES & LEGEND - ELECTRICAL FLOOR PLANS - ELECTRICAL ONE-LINE AND DETAILS - ELECTRICAL







GENERAL DEMOLITION NOTES:

- 1. THE INFORMATION ON THE DEMOLITION DRAWINGS ARE NOT FROM "AS BUILT" DRAWINGS BUT FROM ORIGINAL DRAWINGS. THIS INFORMATION IS INCLUDED FOR REFERENCE ONLY. CONTRACTOR WILL BE RESPONSIBLE FOR VISITING THE SITE PRIOR TO SUBMITTING A BID TO DETERMINE THE AMOUNT OF WORK THAT WILL BE REQUIRED. CONTRACTOR SHALL EXAMINE THE EXISTING BUILDING AND GENERALLY VERIFY THE LOCATION OF ALL EXISTING WORK AND BECOME INFORMED AS TO THE RELATION TO AND EFFECT ON THE WORK REQUIRED BEFORE SUBMITTING A BID. SUBMISSION OF A BID WILL CONSTITUTE EVIDENCE THAT THE CONTRACTOR HAS INSPECTED THE SITE OF THE PROPOSED WORK.
- 2. EXISTING MPE ITEMS TO BE REMOVED SHALL BE RETURNED TO THE OWNER OR DISPOSED OF AS DIRECTED BY THE DESIGNATED OWNER'S REPRESENTATIVE.
- 3. COORDINATE DEMOLITION WORK WITH THE BUILDING MAINTENANCE PERSONNEL AND OTHER TRADES PERFORMING WORK IN THE BUILDING PRIOR TO THE REMOVAL OF ANY ITEMS OF EQUIPMENT OR SYSTEMS THAT WILL AFFECT OTHER SYSTEMS WITHIN THE LIMIT OF NEW CONSTRUCTION OR OTHER AREAS OF THE BUILDING. CONTRACTOR SHALL VERIFY WITH THE OWNER IF THE BUILDING WILL BE OCCUPIED DURING CONSTRUCTION. ANY REQUIRED OUTAGES MUST BE COORDINATED WITH THE
- 4. PRIOR TO THE REMOVAL OF ANY MPE ITEMS OF EQUIPMENT, CONTRACTOR MUST VERIFY THE ORIGIN AND TERMINATION OF THOSE SYSTEMS AND CONFIRM THAT THE ITEMS BEING REMOVED DO NOT SERVE ANY ITEMS THAT ARE TO REMAIN (INCLUDING THOSE IN AREAS OUTSIDE THE CONTRACT LIMITS).
- 5. REFER TO ARCHITECTURAL DRAWINGS FOR OTHER DEMOLITION INFORMATION TO INCLUDE PHASING OF WORK AND CONSTRUCTION SCHEDULE.
- 6. DO NOT ABANDON ANY ITEMS IN PLACE. REMOVE ALL COMPONENTS ASSOCIATED WITH EACH ITEM CALLED OUT TO BE REMOVED.
- 7. REMOVE ELECTRICAL CONNECTIONS TO EXISTING MECHANICAL AND PLUMBING EQUIPMENT BEING REMOVED. REFER TO MECHANICAL AND PLUMBING PLANS FOR EQUIPMENT TO BE REMOVED.

GENERAL POWER NOTES:

- 1. ALL CIRCUITS SHOWN SHALL BE 120V, 20A CIRCUITS UNLESS NOTED OTHERWISE.
- 2. ALL CONDUCTORS SHALL BE #12 AWG UNLESS NOTED OTHERWISE.
- 3. ALL 120V RUNS LONGER THAN 60' SHALL BE #10 AWG UNLESS NOTED OTHERWISE ON THE PLANS.
- 4. ALL CONDUCTORS SHALL BE COPPER (#10 AND SMALLER SHALL BE SOLID).
- 5. WHERE CONDUCTOR SIZES ARE NOTED ON DRAWINGS, THAT CONDUCTOR SIZE SHALL BE THROUGH THE ENTIRE RUN UNLESS NOTED OTHERWISE.
- 6. PANELBOARD DIRECTORIES SHALL BE COMPLETELY FILLED OUT TO ACCURATELY IDENTIFY EACH CIRCUIT (EXISTING AND NEW CIRCUITS) IN ALL PANELS WITHIN SCOPE OF WORK. DIRECTORIES SHALL BE TYPEWRITTEN.
- 7. ELECTRIC CONNECTIONS TO PANELBOARDS SHALL BE MADE ONLY WHEN PANELBOARD HAS BEEN DE-ENERGIZED.
- 8. ALL ELECTRICAL PANELS SHALL HAVE PERMANENT ENGRAVED LABELS ON COVER INDICATING PANEL DESIGNATION.

	RACEWAY IN WALL OR ABOVE CEILING					
	RACEWAY IN WALL OR ABOVE CEILING					
	RACEWAY IN OR BELOW FLOOR					
B-4	HOMERUN : LETTER(S) DENOTES PANEL NAME NUMBER DENOTES CIRCUIT NUMBER					
Α	DENOTES DEVICE MOUNTED ABOVE COUNTER					
WP	DENOTES WEATHERPROOF DEVICE					
GFI	DENOTES GROUND FAULT INTERRUPTING DEVICE					
$\Phi \Phi \Phi$	DUPLEX RECEPTACLE - WALL / FLOOR / CEILING MOUNTED					
###	QUADRAPLEX RECEPTACLE - WALL / FLOOR / CEILING MOUNTED					
Φ	SIMPLEX RECEPTACLE					
\bigoplus	SINGLE PHASE, 3 WIRE GROUNDED RECEPTACLE (NUMBER INDICATES AMPERAGE RATING)					
	SPECIAL RECEPTACLE (NUMBER DENOTES AMPERAGE RATING)					
Ф 0 0°	JUNCTION BOX - WALL / FLOOR / CEILING MOUNTED					
4	DISCONNECT SWITCH					
4	DISCONNECT SWITCH - FUSED					
_	480V PANELBOARD					
	208V PANELBOARD					
	DISTRIBUTION PANELBOARD					
	DRY-TYPE TRANSFORMER					
	EXISTING WORK TO REMAIN					
	EXISTING WORK TO BE REMOVED					

NOT ALL SYMBOLS USED

ONE-LI	NE DIAGRAM LEGEND
₩	TRANSFORMER
M	METER
<u></u>	GROUND CONNECTION
^	CIRCUIT BREAKER
~^ ->>	DRAW-OUT CIRCUIT BREAKER
-\-	FUSED SWITCH
~-	NON-FUSED DISCONNECT
V	AUTOMATIC TRANSFER SWITCH
	GENERATOR
\odot	HEATER CONNECTION
	EXISTING WORK TO REMAIN
	EXISTING WORK TO BE REMOVED
	NEW WORK

NOT ALL SYMBOLS USED

		F	PANEL:	MA													
Location: ELECT ROOM 112					OOM 112			Volts:	120/208	Wye		A.I.C. Rating: 22,000 A.I.C.					
			Supply From:	MDP		Phases: 3						Mains Type: MLO					
			Mounting:		.F		Wires: 4					Mains Rating: 100.0 A					
			Enclosure:		_		s	Sections:									
KT	REM	Load Na	BKR	Poles	Wire Size		A	1	В		С	Wire Size	Poles	BKR	Load Name	REM	С
1					AAII & SIZE	0	0		3			VVII & SIZE				IXLIV	+
3		Spare	35	2				0	0				2	30	Spare		
		+		+++						0	0					+	
-		Spare	30	3		0	0						2	15	Spare		
)	1	'			7			0	0				1	20	Spare		1
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3		Spare	20	2		0	0						1	20	Spare		
5		Spare	20	1				0	0				1	20	Spare		
7		Spare	20	1						0	0		1	20	Spare		Ĺ
)		Spare	20	1		0	0						1	20	Spare		Ĺ
1		Space		1									1		Space		
3		Space		1									1		Space		
5		Space		1									1		Space		1
7		Space		1									1		Space		1
)		Space		1									1		Space		T
					Total Load:	0 \	VA	0 \	٧A	0 VA							
					Total Amps:	0.0	0 A	0.0	0 A	0.0	0 A						
oad Classification Connected Load			onnected Load	Demand Factor			Estimated Demand			Panel Totals					_		
																	_
													Total Con				_
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B. PROVIDE FULL SIZED PHASE, NEUTRAL AND GROUND BUSSES.

C. THE CONTRACTOR SHALL UPDATE ROOM NAMES AND ROOM NUMBERS ON FINAL PANEL SCHEDULE TO REFLECT FINAL BUILDING CONDITIONS.

1. PROVIDE GFCI CIRCUIT BREAKER.

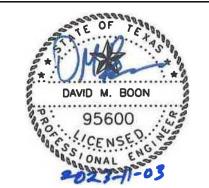
2. PROVIDE CIRCUIT BREAKER AND / OR FUSES PER EQUIPMENT MANUFACTURER'S SPECIFICATIONS.

3. BRANCH CIRCUIT SHALL BE 2 #12 & #12 GROUND IN 3/4" CONDUIT.

4. BRANCH CIRCUIT ROUTED THROUGH AND CONTROLLED BY SECONDARY CONTACTOR. 5. BRANCH CIRCUIT ROUTED THROUGH AND CONTROLLED BY UTILITY LAB CONTROLLER.

6. PROVIDE CIRCUIT BREAKER CAPABLE OF BEING LOCKED IN THE OFF POSITION.

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GENERAL NOTES & LEGEND -

CHECKED BY: MD

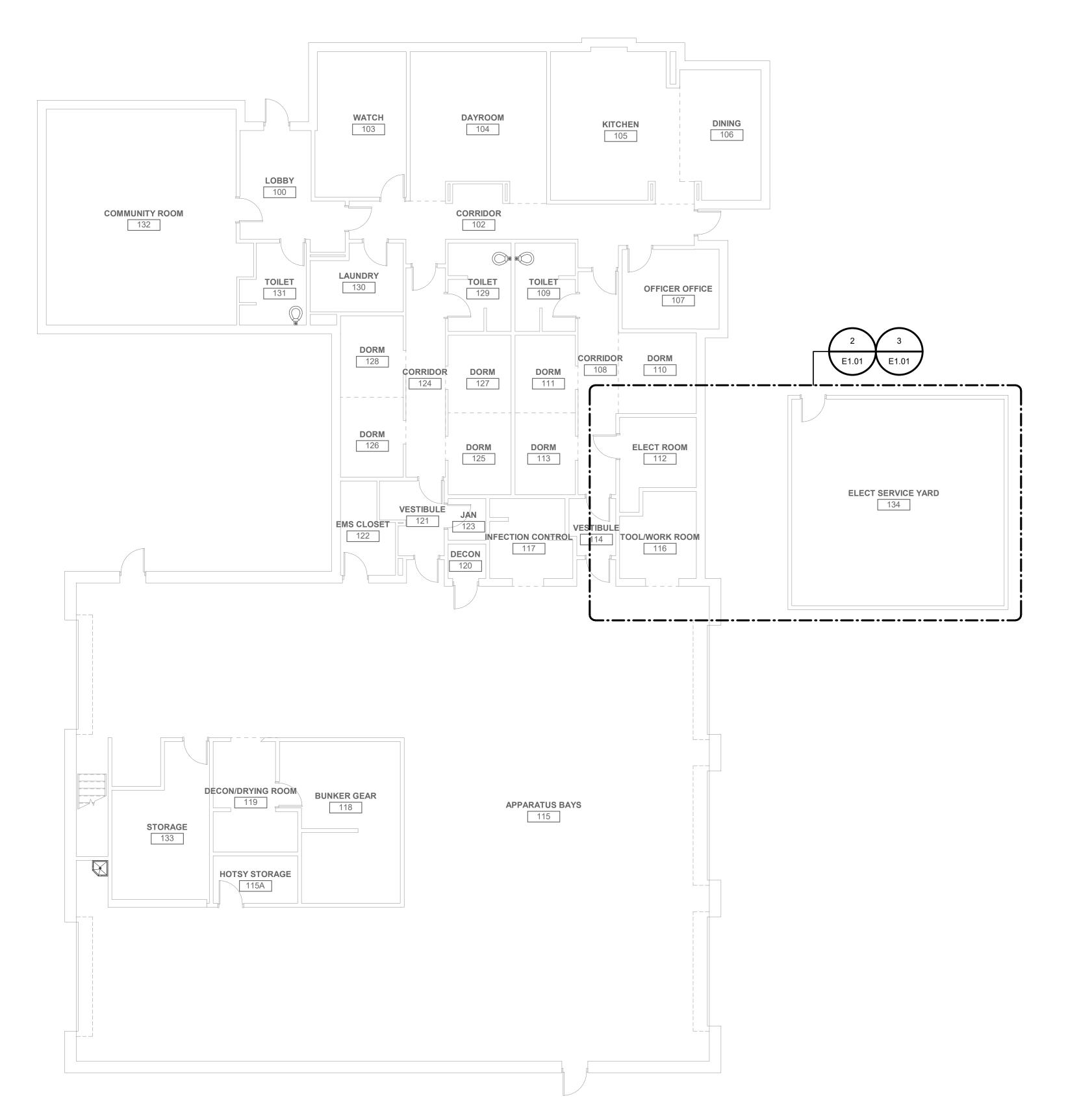
ELECTRICAL

APPROVED BY: DMB SHEET NO.

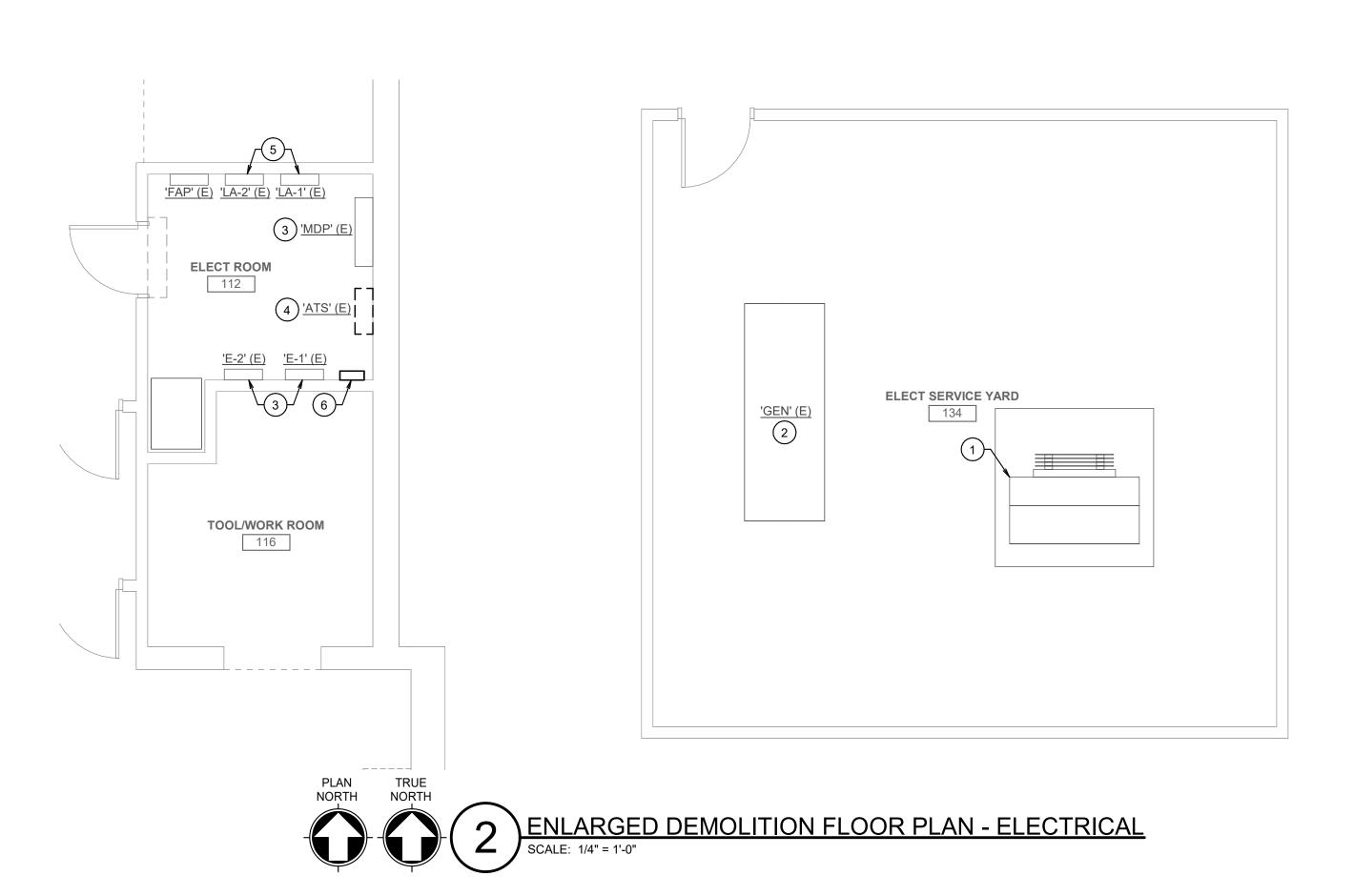
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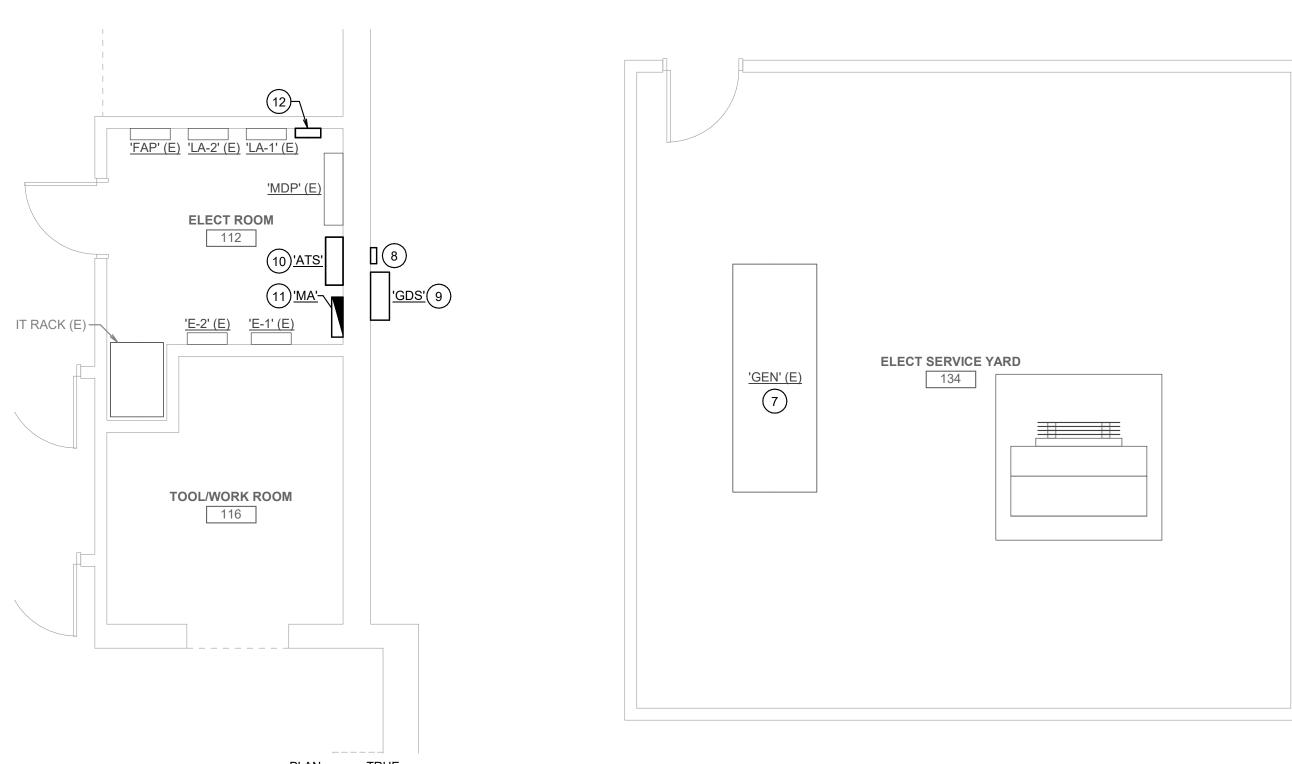
NOTES BY SYMBOL 'C': 1) EXISTING UTILITY TRANSFORMER TO REMAIN.

- (2) EXISTING GENERATOR TO REMAIN.
- 3 EXISTING ELECTRICAL PANEL TO REMAIN. EXISTING FEEDERS TO BE MODIFIED. REFER TO ELECTRICAL ONE-LINE DIAGRAM SHEET E2.01 FOR ADDITIONAL INFORMATION.
- 4 REMOVE EXISTING AUTOMATIC TRANSFER SWITCH. REFER TO ELECTRICAL ONE-LINE DIAGRAM SHEET E2.01 FOR ADDITIONAL INFORMATION.
- (5) EXISTING ELECTRICAL PANEL AND ASSOCIATED FEEDER TO REMAIN.
- 6 EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED AND RELOCATED TO PROVIDE ROOM FOR NEW ELECTRICAL PANEL TO BE INSTALLED ON THE ADJACENT WALL. REFER TO FLOOR PLAN '3' ON THE SAME SHEET FOR ADDITIONAL INFORMATION.
- 7 TEST EXISTING GENERATOR AND ADD NEW PROPANE VAPORIZER TO ENSURE GENERATOR WILL START IN COLD WEATHER CONDITIONS. COORDINATE TESTING AND VAPORIZER MODIFICATIONS WITH OWNER'S GENERATOR SERVICE GROUP.
- 8 NEW ENCLOSED CIRCUIT BREAKER. REFER TO ELECTRICAL ONE-LINE DIAGRAM SHEET E2.01 FOR ADDITIONAL INFORMATION.
- 9 NEW GENERATOR DOCKING STATION. REFER TO ELECTRICAL ONE-LINE DIAGRAM SHEET E2.01 FOR ADDITIONAL INFORMATION.
- 10) NEW AUTOMATIC TRANSFER SWITCH. REFER TO ELECTRICAL ONE-LINE DIAGRAM SHEET E2.01 FOR ADDITIONAL INFORMATION.
- NEW PANELBOARD. REFER TO ELECTRICAL ONE-LINE DIAGRAM SHEET E2.01 FOR ADDITIONAL INFORMATION.
- NEW LOCATION OF EXISTING ELECTRICAL EQUIPMENT PREVIOUSLY LOCATED ON THE SOUTH WALL. EXTEND EXISTING CONDUIT AND WIRING AS NEEDED.









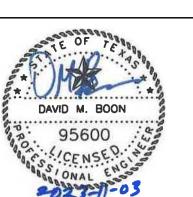




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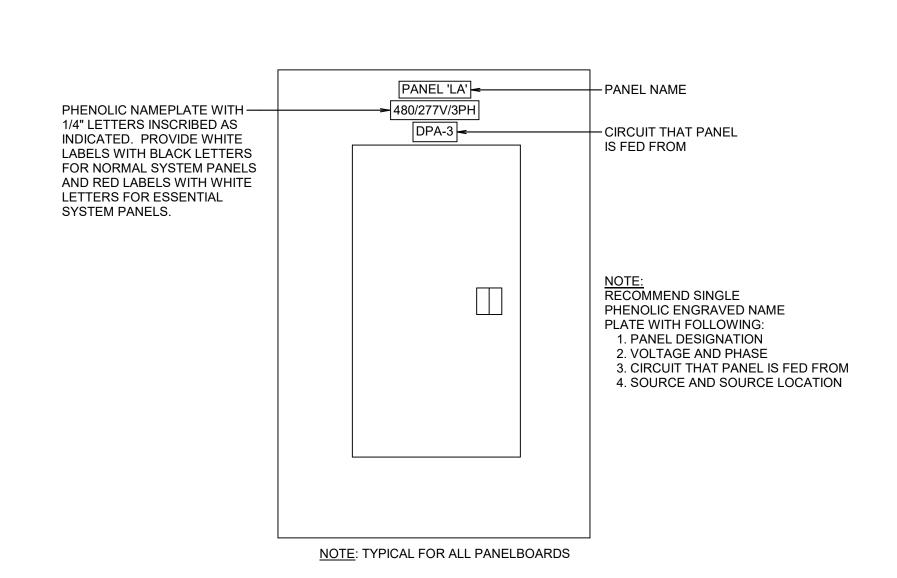
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GENERATOR UPGRADI TOWN OF FAIRVIEW, TEXAS 1200 Stacy Road

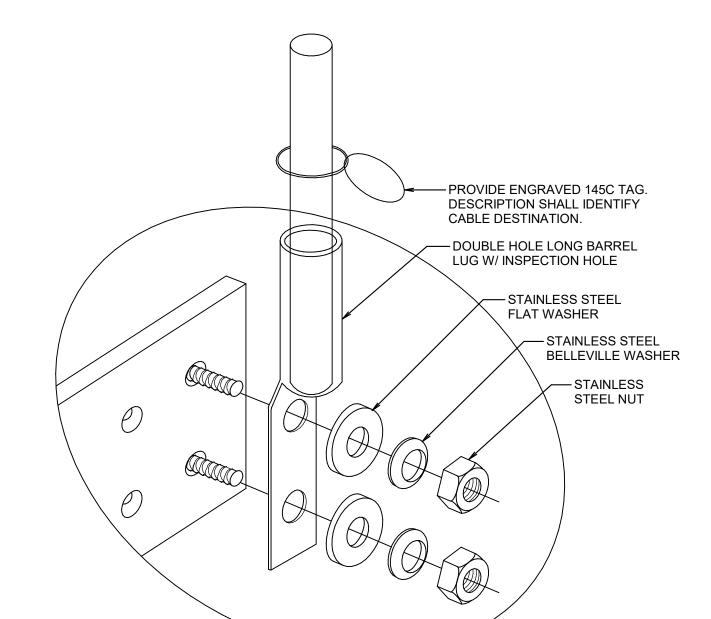
FLOOR PLANS -ELECTRICAL

DRAWN BY:PH CHECKED BY: MD APPROVED BY: DMB

SHEET NO. **E1.01**

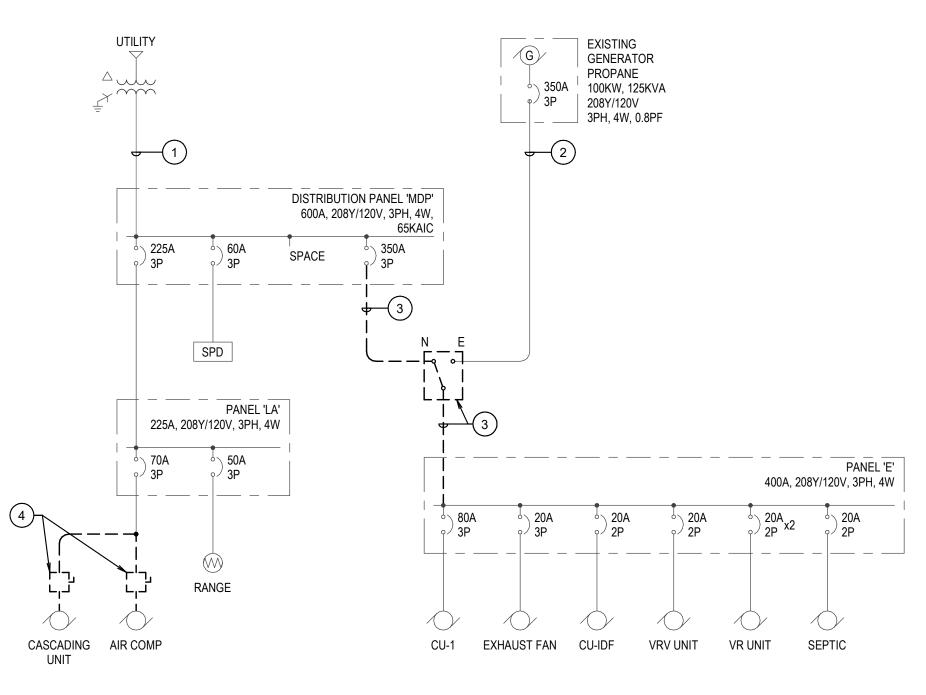


PANELBOARD IDENTIFICATION DETAIL
NO SCALE

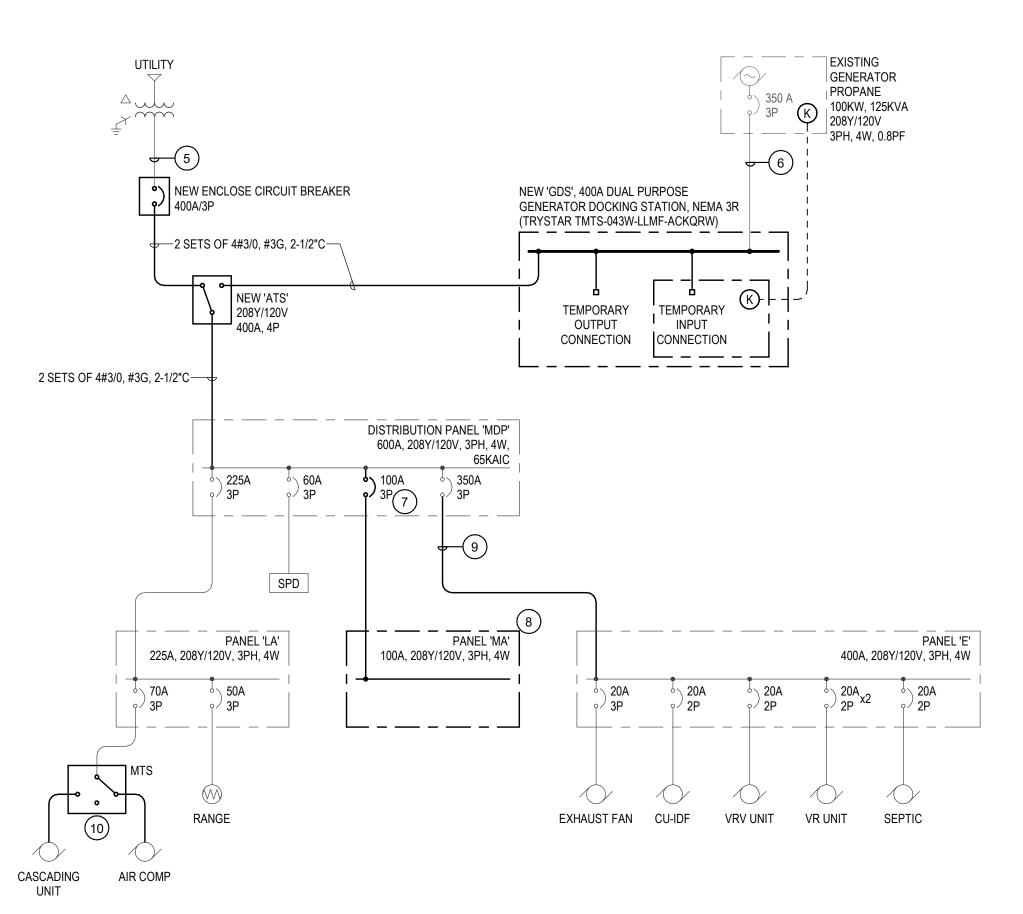


NOTE: ALL CONNECTIONS TO BE DOUBLE COMPRESSION (CRIMP) TYPE. NO MECHANICAL CONNECTIONS, MINIMUM 4 CRIMPS FOR DOUBLE COMPRESSION FITTING.

GROUND BUS BAR CONNECTION



1 DEMOLITION ELECTRICAL ONE-LINE DIAGRAM
NO SCALE



2 ELECTRICAL ONE-LINE DIAGRAM
NO SCALE

NOTES BY SYMBOL 'O':

PRIOR TO BID.

- 1 NEW SERVICE DISCONNECT SWITCH WILL INTERCEPT SECONDARY FEEDER OUTSIDE OF THE BUILDING. EXISTING CONDUITS TO BE INTERCEPTED AND EXTENDED AS NEEDED. PREPARE EXISTING CONDUCTORS FOR EXTENSION TO NEW SERVICE DISCONNECT SWITCH.
- 2 NEW DOCKING STATION WILL INTERCEPT FEEDER OUTSIDE OF THE BUILDING. EXISTING CONDUITS TO BE INTERCEPTED AND EXTENDED AS NEEDED. PREPARE EXISTING CONDUCTORS FOR EXTENSION TO NEW DOCKING STATION.
- 3 REMOVE EXISTING AUTOMATIC TRANSFER SWITCH. DISCONNECT AND REMOVE EXISTING CONDUCTORS, RACEWAYS, HANGERS, AND SUPPORTS BACK TO SOURCE.
- (4) EXISTING 60A RATED DISCONNECT SWITCH IS FEEDING EQUIPMENT THAT EXCEEDS THIS RATING. DISCONNECT AND REMOVE EXISTING DISCONNECT SWITCH. EXISTING CONDUCTORS AND RACEWAY CAN BE REUSED. PREPARE FOR EXTENSION TO NEW TRANSFER SWITCH.
- 5 RECONNECT EXISTING FEEDER TO NEW SERVICE DISCONNECT SWITCH.
- 6 RECONNECT EXISTING FEEDER TO NEW GENERATOR DOCKING STATION.

 7 PROVIDE NEW 100A/3P CIRCUIT BREAKER IN EXISTING SPACE OF MAIN
- 8 PROVIDE NEW ELECTRICAL PANEL 'MA' TO SERVE HVAC LOADS UNDER THE CONCURRENT HVAC UPGRADES PROJECT. PROVIDE (4) #2 & (1) #8 GROUND IN 1-1/2" CONDUIT.

DISTRIBUTION PANELBOARD 'MDP'. FIELD VERIFY EXACT PANEL CONDITIONS

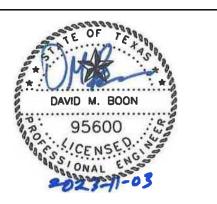
- 9 PROVIDE NEW FEEDER TO BYPASS EXISTING ATS THAT WAS REMOVED. PROVIDE (4) 500KCMIL AND (1) #3 GROUND IN 4" CONDUIT.
- PROVIDE NEW 100A/3P/NF DOUBLE-THROW MANUAL TRANSFER SWITCH (MTS) TO SERVE BOTH THE EXISTING AIR COMPRESSOR AND THE EXISTING CASCADING SYSTEM. RECONNECT/EXTEND EXISTING CONDUCTORS AND CONDUIT AS REQUIRED.

RWB Consulting Engineers

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ENERATOR UPGRADES
TOWN OF FAIRVIEW, TEXAS

ONE-LINE AND DETAILS -ELECTRICAL

DRAWN BY:PH CHECKED BY: MD APPROVED BY: DMB

E2.01

SHEET NO.