FILE NAME: J:\- Government\2372 - Troop L State Police HVAC Renovation\Drawings\Current Drawings\E101 - Electrical Plan.dwg PLOT DATE & TIME: Friday, August 30, 2019 5:01:01 PM

PANEL SCHEDULE

PANEL: MDP2 (EXISTING TO REMAIN)
LOCATION: MECHANICAL ROOM
FEEDER SOURCE:
VOLTAGE: 480V 3Φ
ENCLOSURE: FPE FUSIBLE SWITCHBOARD

CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION / LOCATION	BREAKER AMP	BREAKER POLE	LOAD (VA)	AΦ BΦ CΦ	LOAD (VA)	BREAKER POLE	BREAKER AMP	LOAD DESCRIPTION / LOCATION	THHN WIRE SIZE	CKT NO
1					-		-					2
3	-	SUB-PANEL LA	100	3	-		-	3	100	CHILLER	-	4
5					-		-					6
7					-		-					8
9	-	HOT WATER PUMP #1	60	3	-		-	3	60	120V/240 TRANSFORMER FOR SUB-PANELS PA & PB	-	10
11					-		-					12
13					-		-					14
15	-	HOT WATER PUMP #2	30	3	-		-	3	30	CHILL WATER PUMP	-	16
17					-		-					18
19					-		-					20
21	-	TRANSFORMER #2 FEEDING REAR TOWER	30	3	-		-	3	100	AIR HANDLER UNIT (AHU-1)	#2	22
23					-		-					24

SOLID NEUTRAL
NEUTRAL WIRE (W)

TOTAL CONNECTED LOAD (VA) = ####
AΦ = #### BΦ = #### BΦ = ####

GROUND BUS
GROUND WIRE (G)

NOTE : ACCEPTS CLASS H, K, J, R FUSES
INSTALL FUSE(S) PER AHU MANUFACTURER RECOMMENDATION FOR MOPD

PANEL SCHEDULE

PANEL: SGT's ROOM PANEL
LOCATION: BLDG. WALL INTERIOR
FEEDER SOURCE: 480V 7.5 KVA TRANSFORMER ABOVE
VOLTAGE: 120/240V 1Φ, 100AMP
ENCLOSURE: FLUSH MOUNTED W/ EQUIPMENT GND BAR SQ D TYPE QO LOAD CENTER

CKT NO	THHN WIRE SIZE	LOAD DESCRIPTION / LOCATION	BREAKER AMP	BREAKER POLE	LOAD (VA)	AΦ BΦ	LOAD (VA)	BREAKER POLE	BREAKER AMP	LOAD DESCRIPTION / LOCATION	THHN WIRE SIZE	CKT NO
1		SGTs ROOM (EXISTING)	20	1				1	20	VAV 1, 2, 3, 8 (NEW)	#12	2
3		SGTs ROOM LIGHTING (EXISTING)	20	1				1	20	VAV 4, 5, 6, 7 (NEW)	#12	4
5												6

SOLID NEUTRAL
NEUTRAL WIRE (W)

TOTAL CONNECTED LOAD (VA) = ####

GROUND BUS
GROUND WIRE (G)

VAV BOX SCHEDULE

TAG	MAKE/MODEL	SIZE	MINIMUM FLOW CFM	DESIGN FLOW CFM	CONTROL	REMARKS
VAV-1	Johnson Control TSS5000-00	10	600	1400	KMC BAC-8001 CONTROLLER W/ KMC STE-8001 AND STE-140X SENSORS	1, 2, 3
VAV-2	Johnson Control TSS5000-00	8	300	800	KMC BAC-8001 CONTROLLER W/ KMC STE-8001 AND STE-140X SENSORS	1, 2, 3
VAV-3	Johnson Control TSS5000-00	12	800	1850	KMC BAC-8001 CONTROLLER W/ KMC STE-8001 AND STE-140X SENSORS	1, 2, 3
VAV-4	Johnson Control TSS5000-00	10	500	1470	KMC BAC-8001 CONTROLLER W/ KMC STE-8001 AND STE-140X SENSORS	1, 2, 3
VAV-5	Johnson Control TSS5000-00	10	500	1380	KMC BAC-8001 CONTROLLER W/ KMC STE-8001 AND STE-140X SENSORS	1, 2, 3
VAV-6	Johnson Control TSS5000-00	14	600	2730	KMC BAC-8001 CONTROLLER W/ KMC STE-8001 AND STE-140X SENSORS	1, 2, 3
VAV-7	Johnson Control TSS5000-00	8	300	880	KMC BAC-8001 CONTROLLER W/ KMC STE-8001 AND STE-140X SENSORS	1, 2, 3
VAV-8	Johnson Control TSS5000-00	6	200	500	KMC BAC-8001 CONTROLLER W/ KMC STE-8001 AND STE-140X SENSORS	1, 2, 3

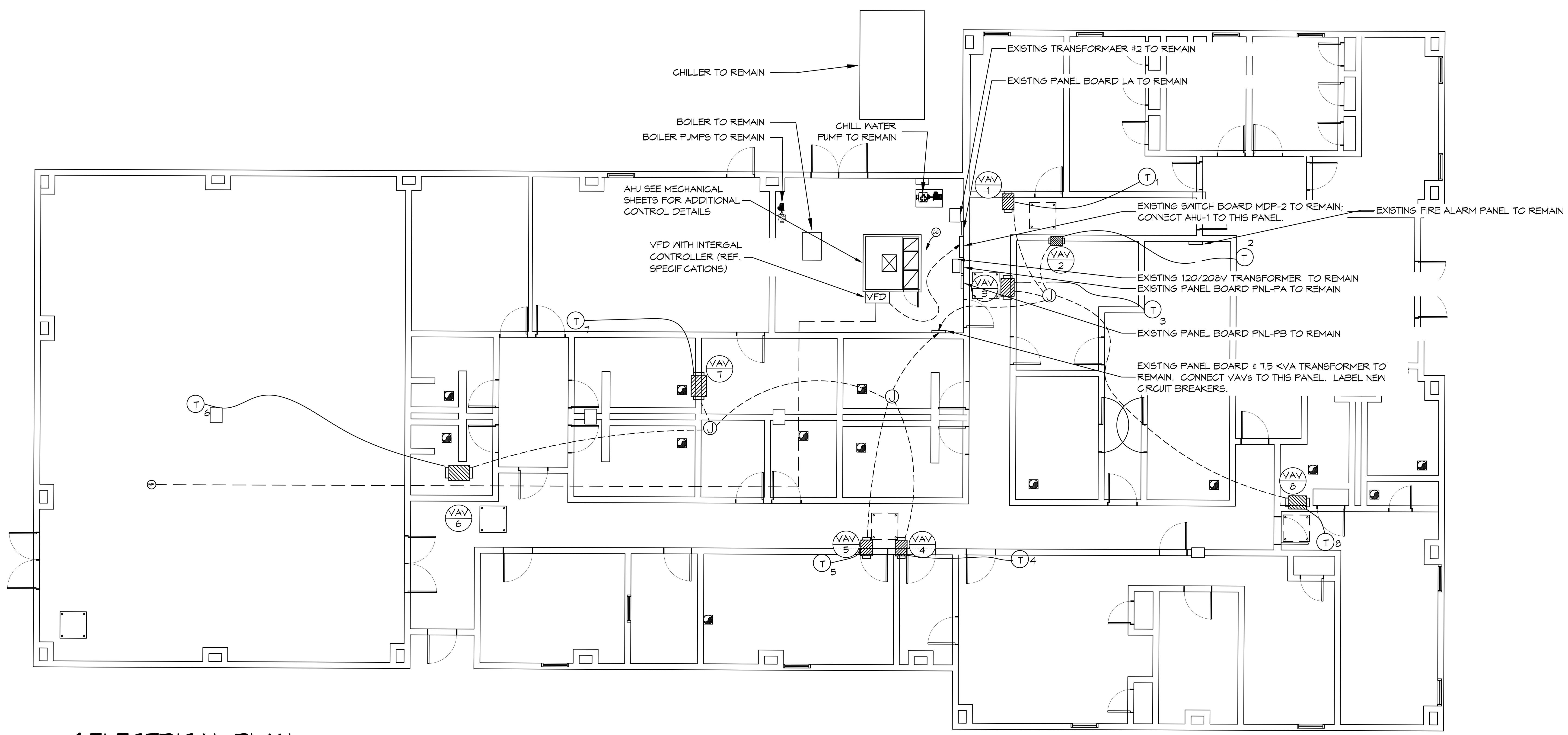
1. FURNISH WITH AIRFLOW SENSOR, CONTROL BOX, FLANGED DISCHARGE AND 120/24 V-UL APPROVED TRANSFORMER.

2. CONFIGURE FOR PRESSURE INDEPENDENT VAV STAND ALONE OPERATION WITH HEAT/COOL SWITCH-OVER.

3. NAMING A CERTAIN BRAND, MAKE OR MANUFACTURER IS TO DESIGNATE THE GENERAL STYLE, TYPE, CHARACTER AND QUALITY STANDARD OF THE PRODUCT DESIRED. SEE SPECIFICATIONS FOR ADDITIONAL APPROVED DEVICES. SUBSTITUTION REQUESTS SHALL BE SUBMITTED PRIOR TO BIDDING.

GENERAL POWER NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE, THE GOVERNING ELECTRICAL CODE AND ALL OTHER INSPECTION DEPARTMENTS HAVING JURISDICTION. OBTAIN CERTIFICATES OR APPROVAL WHERE REQUIRED. ELECTRICAL CONTRACTOR SHALL VERIFY ALL WIRE AND CONDUIT SIZES FOR MECHANICAL EQUIPMENT TO BE INSTALLED.
2. CONTRACTOR SHALL EMPLOY FIRE ALARM COMPANY PER SPECIFICATIONS TO REMOVE AND RE-INSTALL ADDRESSABLE UNITS ATTACHED TO THE AHU.
3. ALL MATERIALS FURNISHED SHALL BE NEW AND SHALL BE U.L. LISTED.
4. THE DRAWINGS INDICATE SIZE AND GENERAL LOCATION OF WORK. SCALE DIMENSIONS SHALL NOT BE USED. THE EXACT LOCATION OF ALL LIGHTING FIXTURES, RECEPTACLES AND TELEPHONE OUTLETS, ETC. SHALL BE DETERMINED BY ACTUAL CONDITIONS IN THE FIELD.
5. PRIOR TO BIDDING, CONTRACTOR SHALL VISIT THE JOB SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING CONDITIONS.
6. ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES AND WITH OTHER CONTRACTORS WHOSE WORK MAY AFFECT THIS INSTALLATION.
7. ELECTRICAL CONTRACTOR SHALL COORDINATE INCOMING ELECTRICAL SERVICE WITH UTILITY COMPANY AND INCLUDE IN HIS BID ALL CHARGES AND FEES INCURRED IN MODIFICATIONS.
8. ELECTRICAL CONTRACTOR SHALL COORDINATE THE TELEPHONE INSTALLATION WITH THE TELEPHONE COMPANY AND THE GENERAL CONTRACTOR.
9. ELECTRICAL CONTRACTOR, BEFORE INSTALLING ANY OF THE WORK, SHALL SEE THAT IT DOES NOT INTERFERE WITH CLEARANCES REQUIRED FOR FINISHED COLUMNS, HUNG CEILINGS, PLASTER, PARTITIONS, WALLS, ETC. AS SHOWN IN THE ARCHITECTURAL DRAWINGS AND DETAILS. IF ANY WORK IS INSTALLED AND IT LATER DEVELOPS THAT SUCH DETAILS OR DESIGN CANNOT BE FOLLOWED, THE CONTRACTOR, AT HIS OWN EXPENSE, SHALL MAKE SUCH CHANGES IN THE WORK AS DIRECTED BY THE ARCHITECT, AS WELL AS TO PERMIT THE INSTALLATION OF THE ARCHITECTURAL WORK AS SHOWN ON THE PLANS AND DETAILS.
10. PERFORM TEST REQUIRED BY THE OWNER OR THE ENGINEER IN CONNECTION WITH THE OPERATION OF THE ELECTRICAL SYSTEM IN THE BUILDING. ALL TESTS SHALL BE MADE IN ACCORDANCE WITH THE LATEST STANDARD OF THE IEEE AND THE NATIONAL ELECTRICAL CODE.
11. MINIMUM CONDUCTOR SIZE SHALL BE #12, 600V INSULATION. MINIMUM SIZE CONDUIT SHALL BE 1/2" ELECTRICAL METALLIC TUBING (EMT) FOR INTERIOR USE. 6 FT LENGTH MC CABLE IS ALLOWED ABOVE DROPPED CEILING. INTERIOR FITTINGS SHALL BE CAST WHERE EXPOSED ON WALLS, AND EXTERIOR FITTINGS SHALL BE CAST BOXES WITH NEMA 3R COVER(S).
12. CONTRACTOR SHALL INSTALL WIRING AND OTHER CIRCUIT COMPONENTS TO MATCH EQUIPMENT ACTUALLY INSTALLED.
13. ALL 120V RUNS LONGER THAN 60 FEET SHALL BE #10 AWG AND 277V RUNS LONGER THAN 150 FEET SHALL BE #10 AWG UNLESS NOTED OTHERWISE.
14. INSTALL GROUND FAULT RECEPTACLES AT RECEPTACLE LOCATIONS WITHIN 5' OF SINKS OR LAVATORIES, AND AT EXTERIOR LOCATIONS. EXTERIOR RECEPTACLES SHALL ALSO BE WATERPROOF. ALL RECEPTACLES IN A KITCHEN AREA SHALL HAVE GROUND FAULT PROTECTION.
15. BONDING AND GROUNDING SHALL BE IN ACCORDANCE WITH NFPA 70:230-63, NFPR 250-23, 250-71 & 250-72.
16. GROUND NEUTRAL IN ACCORDANCE WITH NFPA 70:250-23b.
17. FUSES SHALL BE ITT CLASS K5, 250 VOLT, 200,000 AMP INTERRUPTING CAP.
18. PROVIDE SERVICES OF A FIRE/SMOKE DETECTION AND ALARM COMPANY TO DESIGN AND INSTALL ALARM SYSTEM TO MEET REQUIREMENTS OF THE STATE FIRE MARSHALL AND THE FIRE DISTRICT.
19. EXTERIOR LIGHTING SHALL BE SHADED OR INWARDLY DIRECTED IN SUCH A MANNER SO THAT NO DIRECT LIGHTING OR GLARE IS CAST BEYOND THE PROPERTY LINE. THE INTENSITY OF SUCH LIGHTING SHALL NOT EXCEED ONE FOOT CANDLE AS MEASURED AT THE ABUTTING PROPERTY LINE.
20. ALL ELECTRICAL, MECHANICAL AND PLUMBING PENETRATING FIRE PARTITIONS SHALL BE FIRE CAULKED. (PENETRATIONS THROUGH RATED CONSTRUCTION SHALL BE SEALED WITH A MATERIAL CAPABLE OF PREVENTING THE PASSAGE OF FLAMES AND HOT GASES WHEN TESTED IN ACCORDANCE WITH ASTM-E814.)
21. VERIFY ELECTRICAL CONNECTIONS PER MANUFACTURER'S RECOMMENDATIONS.



1 ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

LEGEND

- EXHAUST GRILLE AND ALL ASSOCIATED DUCT WORK TO REMAIN
- VAV/ZONE NUMBER TAG
- VAV BOX
- RETURN AIR DIFFUSER (SIZED BELOW)
- SUPPLY AIR DIFFUSER (SIZED BELOW)
- TWO (2) WAY SUPPLY AIR GRILLE (SIZED BELOW)
- AIR FLOW DIRECTION
- SUPPLY AIR DUCT BEFORE VAV
- SUPPLY AIR DUCT AFTER VAV
- VAV VARIABLE DAMPER
- RETURN AIR DUCT
- FLEX DUCT
- ELECTRICAL WIRING
- THERMOSTAT
- CAPPED OFF DUCT
- 1 = CFM FLOW RATE OR RETURN AIR
  A = REGISTER/GRILL SIZE SEE BELOW
  2 = ROUND DUCT SIZE FOR SUPPLY OR RETURN DUCT SIZE IN INCHES
- A = 24x24 SUPPLY DIFFUSER
- B = 12x12 SUPPLY DIFFUSER
- C = ROUND SUPPLY DIFFUSER
- D = NOT USED
- E = 24x24 RETURN GRILLE
- F = 12x12 RETURN GRILLE
- SMOKE DETECTOR
- STATIC PRESSURE SENSOR
- VFD VARIABLE FREQUENCY DRIVE CONTROLLER
- JUNCTION BOX

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#	DESCRIPTION	DATE

REVISIONS

SEAL:

HVAC SYSTEM REPLACEMENT
PROJECT NO.: 01-107-06B-11, F.01003807

STATE POLICE TROOP L HEADQUARTERS

2600 N CAUSEWAY BLVD, MANDEVILLE, LA 70471
STATE ID: S00814 SITE CODE: 1-52-004

JOB No:	2372	DATE:	7/25/2019
DRAWN BY:	DD	CHECKED BY:	DD

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SHEET TITLE:
ELECTRICAL PLAN

DRAWING NUMBER:
E101

SHEET No: 10 of 10