

1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

ELECTRICAL SYMBOLS LEGEND

note: all symbols do not necessarily appear on drawings.

RACEWAY CONCEALED IN CEILING, WALL, OR BELOW FLOOR. HASH MARKS INDICATE QUANTITY OF #12 AWG CONDUCTORS. NO MARKS INDICATES 2 #12 AWG CONDUCTORS FOR 120 VOLT CIRCUITS LESS THAN 100 FEET IN LENGTH AND 277 VOLT CIRCUITS LESS THAN 230 FEET IN LENGTH. USE #10 AWG FOR 120 VOLT CIRCUITS EXCEEDING 100 FT IN LENGTH AND 277 VOLT CIRCUITS EXCEEDING 230 FT. ISOLATED GROUND 120V RECEPTACLE RACEWAYS SHALL CONTAIN TWO GREEN GROUND CONDUCTORS: (1) EQUIPMENT AND (1) ISOLATION, SIZED PER NEC. ALL OTHER RACEWAYS SHALL CONTAIN ONE EQUIPMENT GROUNDING CONDUCTOR. REFER TO PANEL SCHEDULES FOR CONDUIT AND CONDUCTOR SIZES FOR LARGER THAN 20A. RACEWAY HOMERUN TO PANEL AND CIRCUITS INDICATED.

RACEWAY EXPOSED ON STRUCTURE WITH MARKS AS ABOVE.

RACEWAY BELOW SLAB WITH MARKS AS ABOVE.

RACEWAY BELOW GRADE WITH MARKS AS ABOVE.

CONDUIT TURNED UP.

CONDUIT TURNED DOWN.

FLEXIBLE METAL CONDUIT.

JUNCTION BOX MOUNTED ABOVE CEILING.

JUNCTION BOX MOUNTED IN WALL.

20A-125V DUPLEX RECEPTACLE MOUNTED 18" A.F.F. OR AS NOTED. WP DENOTES GASKETED WEATHER PROOF CAST METAL WHILE IN USE COVER. GP DENOTES INTEGRAL GROUND FAULT CIRCUIT INTERRUPTER. WR DENOTES WEATHER RESISTANT, USB DENOTES DUPLEX RECEPTACLE W/ 2 USB CHARGING PORTS.

20A-125/277 VAC SPST LIGHTING TOGGLE SWITCH. '2' DENOTES DPDT SWITCH. '3' DENOTES 3-WAY SWITCH. '4' DENOTES 4-WAY SWITCH. 'M' DENOTES MOMENTARY CONTACT.

MOTOR RATED SWITCH (MANUAL MOTOR STARTER WITHOUT OVERLOADS) 1P 20A RATED 600VAC OR AS NOTED.

DISCONNECT SWITCH (NON-FUSED UNLESS OTHERWISE INDICATED) NEMA ENCLOSURE PER ENVIRONMENT.

FUSED DISCONNECT SWITCH. NEMA 3R ENCLOSURE, UNLESS OTHERWISE NOTED. PROVIDE TYPE RK-1 FUSES

MAGNETIC MOTOR STARTER FURNISHED BY DIVISION 23. INSTALLATION AND POWER WIRING BY DIVISION 26

CONTRACTOR IN SURFACE WALL MOUNTED ENCLOSURE MOUNTED 12" BELOW LAY-IN CEILING OR AS NOTED.

DRY TYPE VENTILATED TRANSFORMER.

480Y/277 VAC PANELBOARD (LEFT) AND 208Y/120 VAC PANELBOARD.

TBB TELEPHONE/DATA EQUIPMENT BACKBOARD. SEE SPECIFICATIONS.

MECHANICAL CONTROL DEVICES (SENSOR, THERMOSTAT, WALL SWITCH, INTERVAL TIMER, NIGHT SETBACK, HUMIDISTAT) TO BE INSTALLED BY DIV 23 CONTRACTOR. ELECTRICAL CONTRACTOR SHALL PROVIDE A FLUSH WALL MOUNTED SINGLE GANG OUTLET BOX WITH CONDUIT STUBBED UP 6" ABOVE TYPE 2 CEILING WITH BUSHED OPENING AT LOCATION SHOWN. WALL SWITCH SHALL BE PROVIDED AND INSTALLED BY ELECT. CONTRACTOR.

WALL MOUNTED FIRE ALARM MONITOR MODULE.

CEILING MOUNTED FIRE ALARM MONITOR MODULE INSTALLED ON RECESSED OUTLET BOX. OUTLET BOX AND T-GRID BOX HANGER (WITH HANGER WIRE OR ROD TO STRUCTURE) BY DIVISION 26.

FIRE ALARM SYSTEM MAIN CONTROL PANEL. SEE SPECIFICATIONS.

FIRE ALARM J-BOX WITH FLEXIBLE CONDUIT FOR CONNECTION TO DUCT DETECTOR. REFER TO SPECS. DEVICE PROVIDED BY FIRE ALARM CONTRACTOR AND INSTALLED BY DIV. 23. POWER CONNECTION BY ELECTRICAL CONTRACTOR, FIRE ALARM CONNECTION BY FIRE ALARM CONTR.

INTERSYSTEM BONDING BUSBAR OR TELECOMMUNICATION GROUNDING BUSBAR (TMBG/TGB)

FLUSH WALL MOUNTED DATA OUTLET FOR COMPUTER NETWORKING. PROVIDE A 4-11/16" OUTLET BOX WITH SINGLE OR TWO-GANG MUD RING TO ACCOMMODATE FACEPLATE. ROUTE (1) 1" CONDUIT TO 6" ABOVE SUSPENDED CEILING AND TERMINATE WITH BUSHED OPENING. NUMBER NEXT TO OUTLET INDICATES THE QUANTITY OF HORIZONTAL UTP CABLES AND DATA JACKS INSTALLED AT OUTLET LOCATION. TEXT AP INDICATES OUTLET FOR WIRELESS ACCESS POINT TO BE LOCATED 6" ABOVE SUSPENDED CEILING.

FLOOR MOUNTED MAIN OR INTERMEDIATE DATA NETWORK SYSTEM FRAME WITH EQUIPMENT AS SPECIFIED.

WALL MOUNTED MAIN OR INTERMEDIATE DATA NETWORK SYSTEM FRAME WITH EQUIPMENT AS SPECIFIED.

MECHANICAL EQ. CONN. SCHED NOTES:

1. PROVIDE CONDUIT FOR CONTROL WIRING AS SHOWN ON DETAIL SHEET.
2. COORDINATE HEIGHT OF JUNCTION BOX WITH MECHANICAL CONTRACTOR. PROVIDE POWER CONNECTION TO CONDENSATE PUMP (WHERE INSTALLED). REFER TO DETAIL SHEET.
3. FOR ALL HVAC EQUIPMENT, PROVIDE MINIMUM OF 1/2" FROM ACCESSIBLE CEILING AND/OR CONTROL PANEL TO UNIT CONNECTION POINT FOR CONTROL WIRING BY OTHERS.
4. REFER TO MECHANICAL DRAWINGS FOR EXHAUST FAN INTERLOCK WITH LIGHTS. PROVIDE RELAY AS REQUIRED. COORDINATE WITH MECHANICAL CONTRACTOR.

UNIT	DESCRIPTION	VOLTAGE	TYPE DISCONNECT	COMMENTS
EF-02, 03, 05, 06, 10	EXHAUST FAN	120/1	MOTOR RATED SWITCH	NOTE 4
EH-01-07	ELECTRIC HEATER	277/1	PROVIDED WITH UNIT	
ERU-01-02	ENERGY RECOVERY UNIT	480/3	60/3 FUSED DISCONNECT IN NEMA 3R	FUSE PER NAMEPLATE DATA
MAHU-01-03	MINI-SPLIT AIR-HANDLER (INDOOR)	208/1	3 POLE MOTOR RATED SWITCH LOCATED ABOVE CEILING	CONTROL CONDUIT BY DIV 26 CONTRACTOR NOTE 2
MHP-01-03	MINI-SPLIT HEAT PUMP (OUTDOOR)	208/1	30/2 FUSED DISCONNECT IN NEMA 3R	CONTROL CONDUIT BY DIV 26 CONTRACTOR REFER TO DETAIL
PMU-01-02	PAD MOUNT UNIT	480/3	100/3 FUSED DISCONNECT IN NEMA 3R	FUSE PER NAMEPLATE DATA

480Y/277V 3-Phase 4-Wire LIGHTING PANEL Name: HA

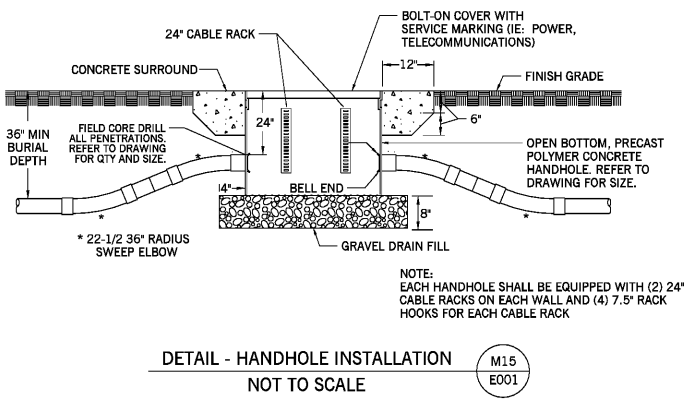
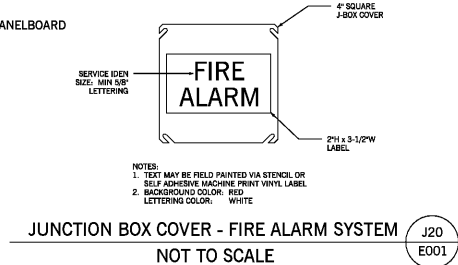
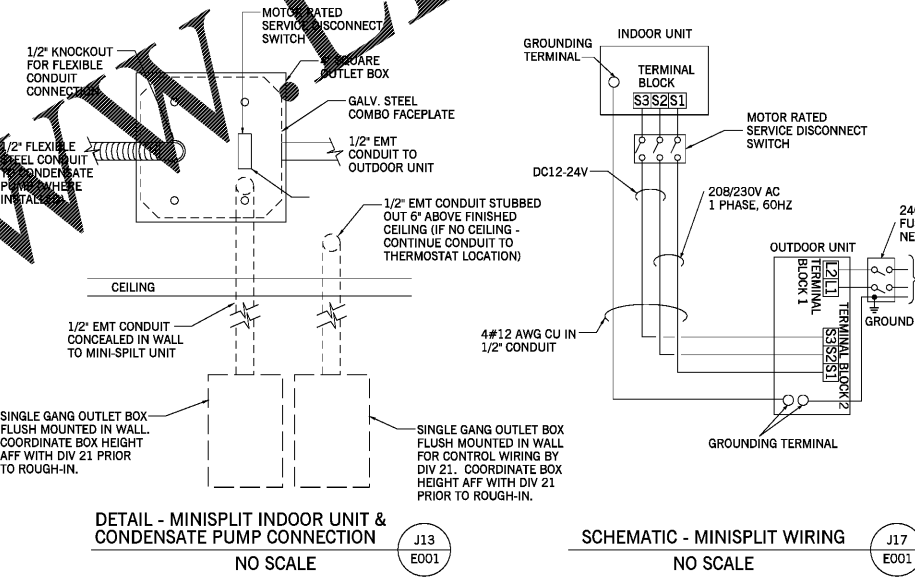
Mains: 480A MLD Trip: Surface Door: Yes Min Sym I.C. 19000 Fed from: MSB Reeder: Note 4

Neutral: SW Ground bar: Yes

CIR DESCRIPTION	CONDUIT	PHASE	NEUT	END	TRIP	POLES			CONDUIT	PHASE	NEUT	END	DESCRIPTION	CIR
						A	B	C						
1 LTS 716-721	Note 5	#12	#12	#12	20	1	1629						LTS 709-715	2
3 LTS 722-728	Note 5	#12	#12	#12	20	1	2158						LTS 701-705	4
5 LTS GYM 704	Note 5	#12	#12	#12	20	1	2179						LTS 67M 705	6
7 LTS GYM 706	Note 5	#12	#12	#12	20	1	3010						LTS 67M 705	6
9 EH-01 MECH 727	Note 5	#12	#12	#12	20	1	4000						EH-04 CONC 702	10
11 EH-02 ELEC 710	Note 5	#12	#12	#12	20	1	4000						EH-05 LOBBY 701	12
13 EH-03 E1/LS 703	Note 5	#12	#12	#12	20	1	4000						EH-06 BOYS 704	14
15 SPARE					20	1	4000						EH-07 JAN 705	16
17 SPARE					20	2	4000						SPARE	18
19													SPARE	20
21 PMU-01	1"	#3	-	#6	100	3	21727						SPARE	21
23							21727						SPARE	24
25							21727						SPARE	25
27 PMU-02	1"	#3	-	#6	100	3	21727						ERU-02 GIR. LC	27
29							7039							
31							21727							
33 ERU-01 BOYS LOOR	3/4"	#8	-	#10	35	3	7039						Space only	34
35							7039						Space only	35
37							7039						Space only	36
39 Space only							13675							40
41 Space only							14692							42
Phase load totals		A	85067				8946							
		B	8946				8363							

Notes for HA:

- 1 THIS PANEL AND ALL BREAKERS ARE NEW
- 2 PROVIDE ALL CIRCUIT BREAKERS SHOWN
- 3 NEW BRANCH CIRCUITS - 2", 2", 2"
- 4 Feeder is (1) 3-1/2" - 48500c.cil. - 48500c.cil.
- 5 A maximum of 3 phases, 1 neutral and 1 ground may be combined per conduit without derating
- 6 Use breaker multiple for TSC conductors or circuits 21



PANEL SCHEDULES THIS SHEET:

HA

NOTE: ON PANELBOARD DIRECTORIES, CONTRACTOR SHALL ADD SUFFICIENT TEXT TO EACH CIRCUIT DESCRIPTION SO AS TO DIFFERENTIATE EACH CIRCUIT FROM ALL OTHERS, IN COMPLIANCE WITH 2017 NEC ARTICLE 408

Southern A&E REGISTERED ARCHITECTS & ENGINEERS

7951 Iron Circle
Austell, Ga. 30168
(770) 819-7777

DATE: December 10 2019
JOB NUMBER: 01 610 291

HVAC RENOVATIONS FOR:
EAST COWETA
MIDDLE SCHOOL GYMNASIUM
COWETA COUNTY SCHOOL SYSTEM
NEWNAN, GEORGIA

DRAWING NUMBER: **E001**

STATE OF GEORGIA REGISTERED ARCHITECT: GREGORY SCHILLING
STATE OF GEORGIA REGISTERED PROFESSIONAL ENGINEER: W. E. CAMPO, III