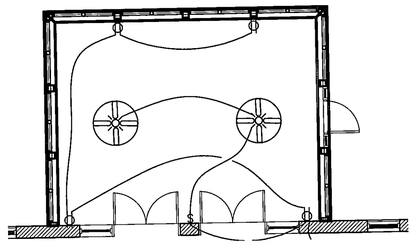
GENERAL DRAWING NOTES

1. PROVIDE SERVICE ENTRANCE AND POWER DISTRIBUTION EQUIPMENT AS SHOWN ON THE RISER. ALL CONDUCTORS SHALL BE COPPER.
2. CONTRACTOR TO COMPLETE DISTRIBUTION PANEL SCHEDULE ON INSIDE DOOR OF PANEL.
3. PROVIDE PROPER LIGHT FIXTURE FOR THE TYPE OF CEILING INSTALLED, INCLUDING ALL ACCESSORIES REQUIRED SUCH AS BAR HANGERS, TRIM, FLANGE RINGS, ETC.
4. BOXES AND 1/2" CONDUIT TO CEILING FOR TELEPHONE AND COMPUTER RECEPTACLES ARE TO BE INSTALLED WHERE SHOWN PER THIS CONTRACT. WIRING AND OUTLETS ARE PART OF AN ALLOWANCE.
5. A CENTRAL FIRE/SECURITY SYSTEM EXISTS IN THE MAIN STRUCTURE. NEW FIRE DETECTION, ANNUNCIATION, DUCT SMOKE DETECTORS AND PULLS CONNECT TO THIS SYSTEM.
6. ELECTRICAL SERVICE IN EXISTING BUILDING IS TO BE CODE COMPLIANT. THIS PLAN(S) MAKES NO CHANGES TO THE EXISTING ELECTRICAL SERVICE BEYOND THE NEW PANEL LOADS P & P1.
7. ALL AIR CONDITIONING UNITS, MAKE-UP AIR UNITS*, AND FAN COILS* SHALL HAVE A DISCONNECT SWITCH LOCATED WITHIN 36" OF THE RESPECTIVE UNIT. IF FACTORY EQUIPPED WITH ONE, THIS REQUIREMENT IS SATISFIED. IN ALL CASES, THE NEC REQUIREMENTS FOR DISCONNECTS ARE THE MINIMUM ACCEPTABLE STANDARD. [*OVER 1/8HP PER NEC 430-109(B)]
8. ALL MECHANICAL AND HVAC EQUIPMENT LOCATIONS ARE APPROXIMATE, AND SHOULD BE COORDINATED WITH MECHANICAL DRAWINGS FOR ACTUAL LOCATIONS.
9. ALL WORK SHOWN ON THESE DRAWINGS IS DIAGRAMMATIC. ELECTRICAL CONTRACTOR SHALL COORDINATE HIS WORK WITH THE OTHER TRADES. DO NOT SCALE DRAWINGS FOR OUTLET LOCATIONS. VERIFY ALL OUTLETS AND EQUIPMENT LOCATIONS BEFORE COMMENCING WORK. COORDINATE ALL WORK WITH ARCHITECTURAL AND EQUIPMENT DRAWINGS.
10. ALL ELECTRICAL WORK IS TO CONFORM TO THE RULES, REGULATIONS, AND RECOMMENDATIONS OF THE NATIONAL BOARD OF FIRE UNDERWRITERS, THE POWER COMPANY FURNISHING SERVICE, AND LOCAL AND STATE ORDINANCES. THE NATIONAL ELECTRIC CODE SHALL BE THE MINIMUM ACCEPTABLE STANDARD.
11. ALL EQUIPMENT SHALL BE LISTED BY UNDERWRITERS LABORATORY, INC. AND SHALL BEAR THE UL LABEL. PROVIDE ONLY NEW, UNDAMAGED EQUIPMENT UNLESS OTHERWISE INDICATED.
12. THE ELECTRIC PLAN IS DIAGRAMMATIC ONLY. REFER TO THE ARCHITECTURAL PLAN FOR EXACT LOCATION OF STRUCTURE. VERIFY DOOR SWINGS BEFORE INSTALLING LIGHT SWITCHES. INSTALL ON LOCK SIDE OF DOOR, 48" AFF UNLESS OTHERWISE NOTED. LOCATIONS SHOWN FOR ALL LIGHT FIXTURES ARE APPROXIMATE, AND MAY BE CHANGED SLIGHTLY TO ACCOMMODATE DROP CEILING LOCATIONS AND PHYSICAL OBSTRUCTIONS.
13. COORDINATE SERVICE ENTRANCE FOR AC POWER AND TELEPHONE SERVICES WITH APPROPRIATE UTILITY COMPANY. PROVIDE EQUIPMENT AND PERFORM WORK IN ACCORDANCE WITH THEIR STANDARDS.
14. WIRE SHALL BE SIZED IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE. EACH CIRCUIT SHALL CONNECT NO MORE ITEMS (LIGHTS, RECEPTACLES, SWITCHES, ETC.) THAN DIRECTED BY THE NATIONAL ELECTRIC CODE. WIRE SHALL BE COPPER WITH 75 DEGREE INSULATION. PROVIDE #12 WIRE MINIMUM, 1/2" CONDUIT MINIMUM UNLESS OTHERWISE DIRECTED. PROVIDE ALL WIRES NECESSARY FOR PROPER FUNCTION OF SYSTEM.
15. PROVIDE RIGID STEEL CONDUIT, OR IMC WHERE EMBEDDED IN CONCRETE, OR IN CONTACT WITH THE EARTH. PROVIDE EMT OR AC ELSEWHERE.
16. THE CONTRACTOR IS RESPONSIBLE FOR CORRECTLY PHASING THE CIRCUITS IN THE PANEL.
17. WHERE OUTLETS ARE INDICATED IN CLOSE PROXIMITY TO EACH OTHER, PROVIDE GANGED, DIVIDED OUTLET BOX WITH COMMON COVER PLATE.
18. DISCONNECT SWITCHES, CONDUITS, RECEPTACLES, ETC., MOUNTED ON MECHANICAL EQUIPMENT SHALL BE MOUNTED IN SUCH A MANNER AS TO NOT INTERFERE WITH PROPER FUNCTION OF MECHANICAL EQUIPMENT.
19. PANELS SPACING SHALL BE MAINTAINED, AND CLEARANCE AROUND PANELS SHALL BE MAINTAINED, IN ACCORDANCE WITH NEC 110-26.
20. INTERRUPTION OF ELECTRIC SERVICE SHALL BE MINIMIZED AT ALL TIMES, AND MUST BE COORDINATED WITH THE OWNER.
21. PROVIDE SIMPLE LIGHTING AS PRUDENT IN ATTICS AND UNOCCUPIED SERVICE AREAS. PROVIDE 120V RECEPTICLES AS PRUDENT NEAR HVAC EQUIPMENT IN ATTIC, ROOF, AND SERVICE AREAS.
22. HEALTH CARE FACILITIES WITHIN THIS STRUCTURE HAVE UNIQUE REQUIREMENTS FOR THE USE OF CONDUIT OR CABLE ARMOR IN "PATIENT CARE AREAS" AS IDENTIFIED IN NEC ARTICLE 517.13. BE AWARE THAT THE GROUNDING OF RECEPTACLES AND FIXED ELECTRICAL EQUIPMENT IN DEFINED PATIENT CARE AREAS MUST OCCUR VIA A GROUND PATH OF METAL RACEWAY (CONDUIT) OR CABLE WITH METALLIC ARMOR OR A SHEATH ASSEMBLY. SEE 517.10 FOR APPLICABILITY.
23. IN THE EVENT OF A DISAGREEMENT BETWEEN THE DRAWINGS AND THESE NOTES, THE NOTES SHALL TAKE PRECEDENCE.

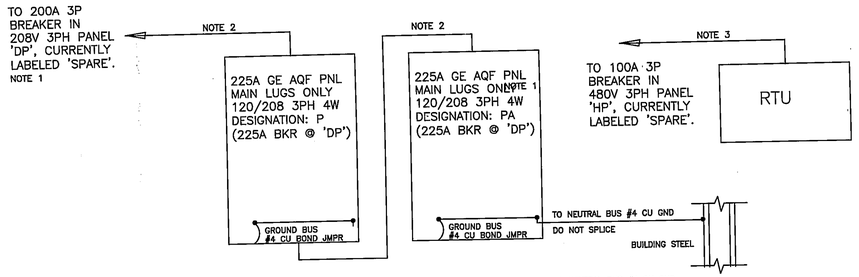
LIGHTING FIXTURE SCHEDULE

- 2x4 FLUORESCENT PRISMATIC
  MIDWEST 2TGA332SDSS0120
  (3) 32W T8 LAMPS
  120VAC, 1.0A
- 2x2 FLUORESCENT PRISMATIC
  MIDWEST 2DTGA2U31SDSS0120
  (2) U31W T8 LAMPS
  120VAC, 0.7A
- EXTERIOR WALL MOUNT
  LITHONIA VR1
  (1) 100W INCANDESCENT LAMP
  120VAC, .85A
- EF1 EXHAUST FAN
  BROAN HD80, 115V 0.8A
- EF2 EXHAUST FAN
  BROAN L150, 115V 1.1A
- CEILING PADDLE FAN/LIGHT
  W/LIGHT FIXTURE
  DAYTON 1VP23 W/6NP32 LIGHT KIT
  SIZED FOR 160W
  120VAC, 1.4A
- FLUORESCENT SURFACE WRAPAROUND
  MIDWEST F412AE120
  (2) 32W T8
  120VAC, 0.6A
- WALL PACK, COMPACT
  SIMKAR HMH50L11
  (1) 50W HPS E-17 LAMP
  120VAC, 0.5A
- LED EXIT SIGN W/ EMERGENCY LIGHTS
  PATHWAY PLEP12X2R UNIVERSAL
  120 VAC, 20W, 0.17A
- EMERGENCY LIGHT
  PATHWAY AR-2-DL LOW PROFILE
  120 VAC, 15W, 0.13A
- DUPLEX RECEPTACLE, SPEC GRADE
  20A, 125VAC, 2 POLE 3 WIRE
  GROUNDING TYPE, SIDE WIRE DEVICE
- GFI DUPLEX RECEPTACLE, SPEC GRADE
  20A, 125VAC, 2 POLE 3 WIRE
  GROUNDING TYPE, SIDE WIRE DEVICE
  PROTECTED BY GFI
- MOTION SENSING SWITCH, SPEC GRADE
  20 A, 120/277VAC, 1 POLE, T-RATED
- $3 MOTION SENSING SWITCH,
  SPEC GRADE, 3 WAY
- SD SMOKE DETECTOR
- PHONE/DATA JACK
- PHONE JACK(WALL MOUNT)
- TV COAX FOR TV
- J JUNCTION BOX



PORCH POWER & LIGHTING PLAN

SCALE: 3/8" = 1'-0"



GROUND PER NEC ARTICLE 250

RISER NOTES:

1. PANELS HP, DP AND OTHER EXISTING SERVICE EQUIPMENT ARE ADEQUATELY SIZED AND IN GOOD APPARENT WORKING ORDER. ON SEPTEMBER 12 2008, EXISTING PANEL LOADS AND RESERVE CAPACITY WERE ASSESSED AND FOUND TO BE ADEQUATE TO SUPPLY POWER TO THIS ADDITION WITHOUT THE NEED FOR SERVICE UPGRADES.
2. 1 SET (4) #3/0 AWG CU 75C W/ #4 CU GND – 2"C
3. 1 SET (4) #1/0 AWG CU 75C W/ #6 CU GND – 2"C

GROUND PER NEC ARTICLE 250

ELECTRICAL RISER DIAGRAM

PANEL P PHASE 3 WIRE 4 VOLTS 120/208 VAC MOUNTING SURFACE
TYPE GE AQF3422MB W/FEED-THRU LUGS FEEDER 1 SET OF (4) 3/0 CU 75C W/ #6 CU GND IN 2"C
Location OLD STORAGE ROOM MAIN MAIN LUGS ONLY FRAME 225 AMPS ENCLOSURE NEMA 1

CONDUIT	Cable	Load KVA	Location	Trip Amps	Pole	Ckt No.	Load (KVA) A	B	C	Ckt No.	Pole	Trip Amps	Location	Load KVA	Cable	CONDUIT
3/4"	12/2	1.7	OFFICE LIGHTS	20	1	1	2.8	---	---	2	1	20	ENTRANCE	1.1	12/2	3/4"
3/4"	12/2	1.6	RECEPTION LIGHTS	20	1	3	---	3.4	---	4	1	20	MUSIC ROOM LIGHTS	1.8	12/2	3/4"
3/4"	12/2	1.5	HALL LIGHTS	20	1	5	---	---	2.2	6	1	20	LOUNGE LIGHTS	.7	12/2	3/4"
3/4"	12/2	1.4	STORAGE LIGHTS	20	1	7	2.9	---	---	8	1	20	FITNESS RM LIGHTS	1.5	12/2	3/4"
3/4"	12/2	1.5	FITNESS RM LIGHTS	20	1	9	---	2.8	---	10	1	20	EQUIPMENT ROOM	1.3	12/2	3/4"
3/4"	12/2	1.0	OFFICE RCPT	20	1	11	---	---	2.0	12	1	20	OFFICE JUNCTION BX	1.0	12/2	3/4"
3/4"	12/2	.4	OFFICE RCPTS	20	1	13	1.4	---	---	14	1	20	OFFICE JUNCTION BX	1.0	12/2	3/4"
3/4"	12/2	.4	BATH/LOUNGE RCPT.	20GFI	1	15	---	1.4	---	16	1	20	LOUNGE FRIDGE	1.0	12/2	3/4"
3/4"	12/2	1.3	COMP. RCPTS	20	1	17	---	---	2.9	18	1	20	FITNESS RM RCPTS	1.6	12/2	3/4"
3/4"	12/2	1.8	EQUIPMENT ROOM	20	1	19	3.6	---	---	20	1	20	HALL RCPTS	1.8	12/2	3/4"
3/4"	12/2	1.0	OFFICE JUNCTION BX	20	1	21	---	1.7	---	22	1	20GFI	BATHROOM RCPT	0.7	12/2	3/4"
3/4"	12/2	1.0	OFFICE JUNCTION BX	20	1	23	---	---	2.0	24	1	20	PRINTER	1.0	12/2	3/4"
3/4"	12/2	1.4	OFFICE RCPTS	20	1	25	2.4	---	---	26	1	20	PRINTER	1.0	12/2	3/4"
3/4"	12/2	1.3	RECEPTION RCPTS	20	1	27	---	2.4	---	28	1	20	MUSIC RCPTS	1.1	12/2	3/4"
3/4"	12/2	1.2	WORK ROOM	20	1	29	---	---	1.2	30	1	20	SPARE	---	---	---
3/4"	12/2	1.0	24 HR LIGHTS	20	1	31	1.0	---	---	32	1	20	SPARE	---	---	---
3/4"	12/2	0.5	WALL PACKS	20	1	33	---	0.5	---	34	1	20	---	---	---	---
---	---	---	---	20	1	35	---	---	---	36	1	20	---	---	---	---
---	---	---	---	20	1	37	---	---	---	38	1	20	---	---	---	---
---	---	---	---	20	1	39	---	---	---	40	1	20	---	---	---	---
---	---	---	---	20	1	41	---	---	---	42	1	20	---	---	---	---
Connected Load							12.1	12.2	10.3	34.6 KVA @ 208 VAC, 3PH = 96.1 A						

LOAD SUMMARY (PANELS P & PA)		NEC 220 LOAD
LIGHTING	13.6 KVA	12.0 KVA
RECEPTACLES	23.0 KVA	23.0 KVA
APPLIANCES	10.4 KVA	10.4 KVA
MOTORS	6.3 KVA	6.3 KVA
TOTAL	53.3 KVA	51.7 KVA

PANEL PA PHASE 3 WIRE 4 VOLTS 120/208 VAC MOUNTING SURFACE
TYPE GE AQF3302MB FEEDER 1 SET OF (4) 3/0 CU 75C W/ #6 CU GND IN 2"C
Location OLD STORAGE ROOM MAIN MAIN LUGS ONLY FRAME 225 AMPS ENCLOSURE NEMA 1

CONDUIT	Cable	Load KVA	Location	Trip Amps	Pole	Ckt No.	Load (KVA) A	B	C	Ckt No.	Pole	Trip Amps	Location	Load KVA	Cable	CONDUIT
3/4"	8/2	6.0	WATER HEATER	35	2	1	4.0	---	---	2	1	20	EXERCISE RCPT	1.0	12/2	3/4"
---	---	---	---	---	–	3	---	4.0	---	4	1	20	EXERCISE RCPT	1.0	12/2	3/4"
3/4"	12/2	0.1	HW CIRC PUMP	20	1	5	---	---	1.1	6	1	20	EXERCISE RCPT	1.0	12/2	3/4"
3/4"	12/2	2.2	WALL HEATER	20	2	7	---	2.2	---	8	2	20	WALL HEATER	2.2	12/2	3/4"
---	---	---	---	---	–	9	---	---	2.2	10	–	---	---	---	---	---
3/4"	12/2	0.2	ELEC RM OUTLET	20	1	11	2.2	---	---	12	2	40	DRYER	4.0	8/2	1"
---	---	---	---	---	1	13	---	2.0	---	14	–	---	---	---	---	---
---	---	---	---	---	1	15	---	---	1.0	16	1	20	CLOTHES WASHER	1.0	12/2	3/4"
---	---	---	---	---	1	17	---	---	0.0	18	1	---	---	---	---	---
---	---	---	---	---	1	19	0.0	---	---	20	1	---	---	---	---	---
---	---	---	---	---	1	21	---	0.0	---	22	1	---	---	---	---	---
---	---	---	---	---	1	23	---	---	0.0	24	1	---	---	---	---	---
---	---	---	---	---	1	25	0.0	---	---	26	1	---	---	---	---	---
---	---	---	---	---	1	27	---	0.0	---	28	1	---	---	---	---	---
---	---	---	---	---	1	29	---	---	0.0	30	1	---	---	---	---	---
---	---	---	XXXXXXXXXXXXXXX	XXX	–	31	---	---	---	32	–	XXX	XXXXXXXXXXXXXXXXX	---	---	---
---	---	---	---	---	–	33	---	---	---	34	–	---	---	---	---	---
---	---	---	---	---	–	35	---	---	---	36	–	---	---	---	---	---
---	---	---	---	---	–	37	---	---	---	38	–	---	---	---	---	---
---	---	---	---	---	–	39	---	---	---	40	–	---	---	---	---	---
---	---	---	---	---	–	41	---	---	---	42	–	---	---	---	---	---
Connected Load							6.2	8.2	4.3	18.7 KVA @ 208 VAC, 3PH = 51.9 A						

ENGINEER'S CERTIFICATION STATEMENT

I CERTIFY THAT THESE DOCUMENTS WERE PREPARED OR APPROVED BY ME, AND THAT I AM A DULY LICENSED ENGINEER UNDER THE LAWS OF THE STATE OF MARYLAND. LICENSE NO. 19927, EXPIRATION DATE MAY 12, 2010.

LEWIS ENGINEERING ASSOCIATES, INC
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REVISIONS

ADDITION TO CLARK CENTER
LA PLATA, MARYLAND

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