JANUARY 2026

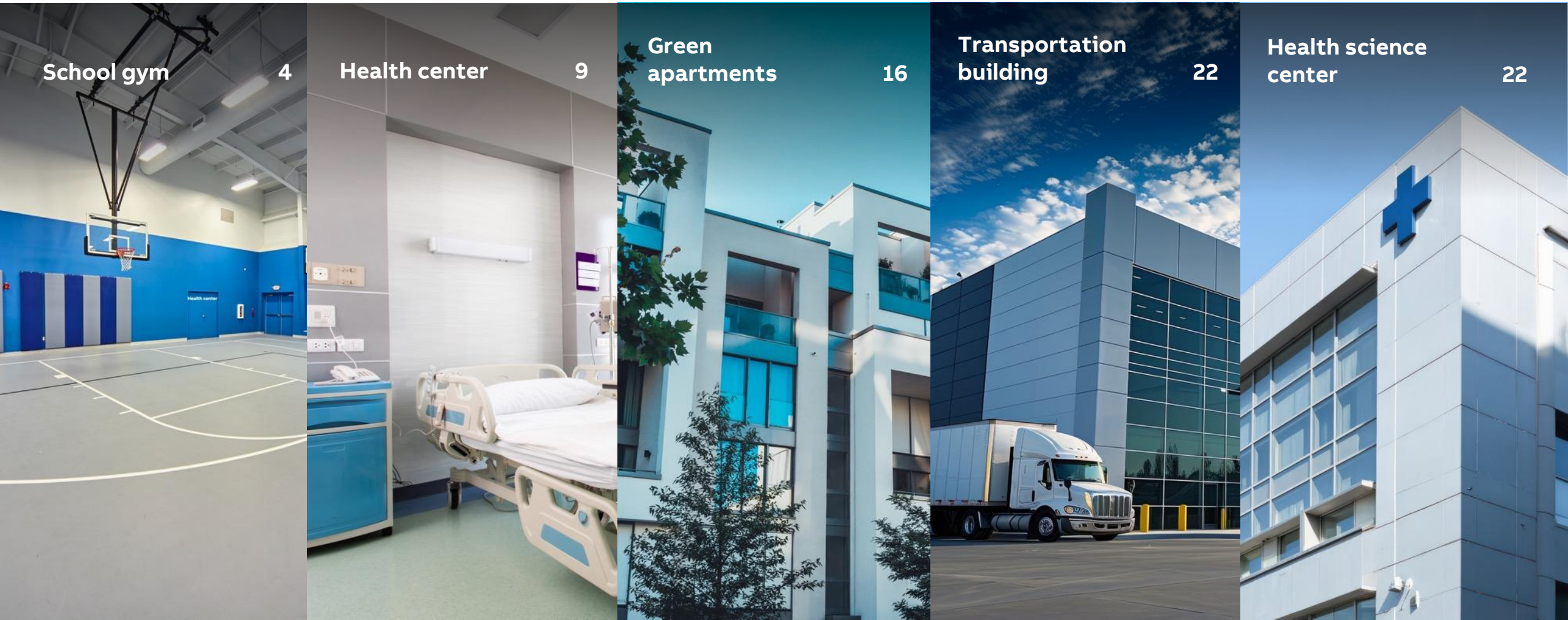
RELIAQUOTE SMALL PROJECT CERTIFICATION

Empower practice project workbook

9AKK108472A0300 Rev: B

Empower practice project workbook

Projects agenda



PROJECT 1
SCHOOL GYM

School gym

Project 1

Panel — RB

- Top feed
- Provide panelboards with copper bus
- Provide cabinet front with door-in-door construction
- Molded case circuit breakers: Bolt-on type

01

PANEL - RB

MOUNTING: RECESSED
ENCLOSURE: NEMA PB 1
FED FROM: 0 A/0P
LOCATION:

MAIN: 100 A MCB
VOLTS: 120/208 Wye
PHASE: 3
WIRE: 4
SCCR: 10 kA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	A		B		C		P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	REC.-GYM	20 A	1	360	400					1	20 A	SOLATUBE LIGHT	2	
	3	REC.- EXERCISE AREA	20 A	1			540	160			1	20 A	SOLATUBE LIGHT	4	
	5	REC.- EXERCISE AREA	20 A	1					1080	900	1	20 A	REC.- EXERCISE AREA	6	
	7	REC.-GYM	20 A	1	360	720					1	20 A	REC.- EXERCISE AREA	8	
	9	REC.-GYM	20 A	1			720	180			1	20 A	REC.-GYM	10	
	11	REC.-GYM	20 A	1					360	720	1	20 A	REC.-GYM	12	
	13	J-BOX.-BASKETBALL BOARD	20 A	1	500	720					1	20 A	REC.- MECH RM R-20 & 21	14	
	15	J-BOX.-SHOTCLOCK &...	20 A	1			1500	500			1	20 A	J-BOX-DISCO LIGHT MOTOR	16	
	17	J-BOX.-BASKETBALL BOARD	20 A	1					500	0	1	20 A	FA AMPLIFIER	18	1
	19	J-BOX.-BASKETBALL BOARD	20 A	1	500	300					1	20 A	FA POWER SUPPLY	20	1
	21	J-BOX.-BASKETBALL BOARD	20 A	1			500	0			1	20 A	SPARE	22	--
	23	J-BOX.-BASKETBALL BOARD	20 A	1					500	0	1	20 A	SPARE	24	--
--	25	SPARE	20 A	1	0	0					1	20 A	SPARE	26	--
--	27	SPARE	20 A	1			0	0			1	20 A	SPARE	28	--
--	29	SPARE	20 A	1					0	0	1	20 A	SPARE	30	--
--	31	SPARE	20 A	1	0	--					1	--	SPACE	32	--
--	33	SPACE	--	1			--	--			1	--	SPACE	34	--
--	35	SPACE	--	1					--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--					1	--	SPACE	38	--
--	39	SPACE	--	1			--	--			1	--	SPACE	40	--
--	41	SPACE	--	1					--	--	1	--	SPACE	42	--
			Total...		3860.00 VA		4100.00 VA		4060.00 VA						
			Total...		32.17		34.42		34.09						

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	TOTALS	
Other	2860 VA		
Power	2500 VA	TOTAL CONNECTED LOAD:	12.02 kVA
Receptacle	6660 VA	TOTAL ESTIMATE DEMAND LOAD:	
		TOTAL CONNECTED CURENT:	33.36 A
		TOTAL ESTIMATED DEMAND CURRENT:	

CIRCUIT KEY NOTES:
1. PROVIDE "LOCK-ON" DEVICE ON CIRCUIT BREAKER

Project 1

Panel — L1

- Top feed
- Provide panelboards with copper bus
- Molded case circuit breakers: Bolt-on type

School gym

PANEL - L1

MOUNTING: SURFACE
ENCLOSURE: NEMA PB 1
FED FROM: HVAC 1
LOCATION: ELEC RM R-04

MAIN: 70 A
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 10KA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	A		B		C		P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	LTG.EXTERIOR	20 A	1	196	834.53					1	20 A	LTG.- LEVEL 1	2	
	3	LTG.-DISCO LIGHTS	20 A	1			750	828.55			1	20 A	LTG.- LEVEL 1	4	
	5	LIGHTING CONTROL TIME CLOCK	20 A	1					500	1800	1	20 A	LTG.- LEVEL 2	6	
--	7	SPARE	20 A	1	0	1900					1	20 A	LTG.- LEVEL 2	8	
--	9	SPARE	20 A	1			0	1000			1	20 A	LTG.- LEVEL 2	10	
--	11	SPARE	20 A	1					0	0	1	20 A	SPARE	12	--
--	13	SPARE	20 A	1	0	0					1	20 A	SPARE	14	--
--	15	SPARE	20 A	1			0	0			1	20 A	SPARE	16	--
--	17	SPACE	--	1					--	0	1	20 A	SPARE	18	--
--	19	SPACE	--	1	--	--					1	--	SPACE	20	--
--	21	SPACE	--	1			--	--			1	--	SPACE	22	--
--	23	SPACE	--	1					--	--	1	--	SPACE	24	--
			Total...		2909.62 VA		2558.55 VA		2300.00 VA						
			Total...		10.65		9.38		8.30						

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD
Other	5436 VA
Power	0 VA
Lighting	985 VA
Lighting - Dwelling Unit	1400 VA

TOTALS	
TOTAL CONNECTED LOAD:	7.76 kVA
TOTAL ESTIMATE DEMAND LOAD:	
TOTAL CONNECTED CURENT:	9.34 A
TOTAL ESTIMATED DEMAND CURRENT:	

CIRCUIT KEY NOTES:

01

School gym

Project 1

Panel — HVAC 1

- Top feed
- Provide panelboards with copper bus
- Molded case circuit breakers: Bolt-on type

PANEL - HVAC 1

MOUNTING: SURFACE
ENCLOSURE: NEMA 3R
FED FROM: TRANSFORMER "G2"
LOCATION: GYM EXTERIOR

MAIN: 350 A
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 4
SCCR: 14KA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	A		B		C		P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	CU-1-1	30 A	3	5263	5263					3	30 A	CU-1-2	2	
--	3	--	--	--			5263	5263			--	--	--	4	--
--	5	--	--	--					5263	5263	--	--	--	6	--
	7	CU-1-3	30 A	3	5263	4155					3	20 A	CU-2-1	8	
--	9	--	--	--			5263	4155			--	--	--	10	--
--	11	--	--	--					5263	4155	--	--	--	12	--
	13	CU-2-2	20 A	3	4155	5213					3	25 A	AHU-1	14	
--	15	--	--	--			4155	5213			--	--	--	16	--
--	17	--	--	--					4155	5213	--	--	--	18	--
	19	AHU-2	15 A	3	2961	32273					3	150 A	HVAC 2	20	
--	21	--	--	--			2961	32273			--	--	--	22	--
--	23	--	--	--					2961	32273	--	--	--	24	--
	25	PANEL-L1	70 A	3	2909.62	--					1	--	SPACE	26	--
--	27	--	--	--			2558.55	--			1	--	SPACE	28	--
--	29	--	--	--					2300	--	1	--	SPACE	30	--
--	31	SPACE	--	1	--	--					1	--	SPACE	32	--
--	33	SPACE	--	1			--	--			1	--	SPACE	34	--
--	35	SPACE	--	1					--	--	1	--	SPACE	36	--
--	37	SPACE	--	1	--	--					1	--	SPACE	38	--
--	39	SPACE	--	1			--	--			1	--	SPACE	40	--
--	41	SPACE	--	1					--	--	1	--	SPACE	42	--
			Total...		67447.75 VA		67095.56 VA		66846.00 VA						
			Total...		243.63		242.36		241.32						

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD
Other	5436 VA
Power	0 VA
Lighting	985 VA
Lighting - Dwelling Unit	1400 VA
HVAC Remaining	193638 VA

TOTALS	
TOTAL CONNECTED LOAD:	201.39 kVA
TOTAL ESTIMATE DEMAND LOAD:	
TOTAL CONNECTED CURENT:	242.23 A
TOTAL ESTIMATED DEMAND CURRENT:	

CIRCUIT KEY NOTES:

01

Project 1

Panel — HVAC 2

- Bottom feed
- Provide panelboards with copper bus
- Molded case circuit breakers: Bolt-on type

School gym

PANEL - HVAC 2

MOUNTING: SURFACE
ENCLOSURE: NEMA 3R
FED FROM: HVAC 1
LOCATION: GYM EXTERIOR

MAIN: 150 A
VOLTS: 480/277 Wye
PHASE: 3
WIRE: 3
SCCR: 14KA

NOTES:

KEY	CKT NO.	LOAD DESCRIPTION	OCPD AMPS	P	A		B		C		P	OCPD AMPS	LOAD DESCRIPTION	CKT NO.	KEY
	1	CU-3-1	30 A	3	5263	5263					3	30 A	CU-3-2	2	
--	3	--	--	--			5263	5263			--	--	--	4	--
--	5	--	--	--					5263	5263	--	--	--	6	--
	7	CU-3-3	30 A	3	5263	4155					3	20 A	CU-4-1	8	
--	9	--	--	--			5263	4155			--	--	--	10	--
--	11	--	--	--					5263	4155	--	--	--	12	--
	13	CU-4-2	20 A	3	4155	5213					3	25 A	AHU-3	14	
--	15	--	--	--			4155	5213			--	--	--	16	--
--	17	--	--	--					4155	5213	--	--	--	18	--
	19	AHU-4	15 A	3	2961									20	
--	21	--	--	--			2961							22	
--	23	--	--	--					2961					24	
	25													26	
	27													28	
	29													30	
			Total...		32273.00 VA		32273.00 VA		32273.00 VA						
			Total...		116.51		116.51		116.51						

LOAD SUMMARY

LOAD CLASSIFICATION	CONNECTED LOAD	TOTALS	
HVAC Remaining	96819 VA		
		TOTAL CONNECTED LOAD:	96.82 kVA
		TOTAL ESTIMATE DEMAND LOAD:	
		TOTAL CONNECTED CURENT:	116.46 A
		TOTAL ESTIMATED DEMAND CURRENT:	

CIRCUIT KEY NOTES:

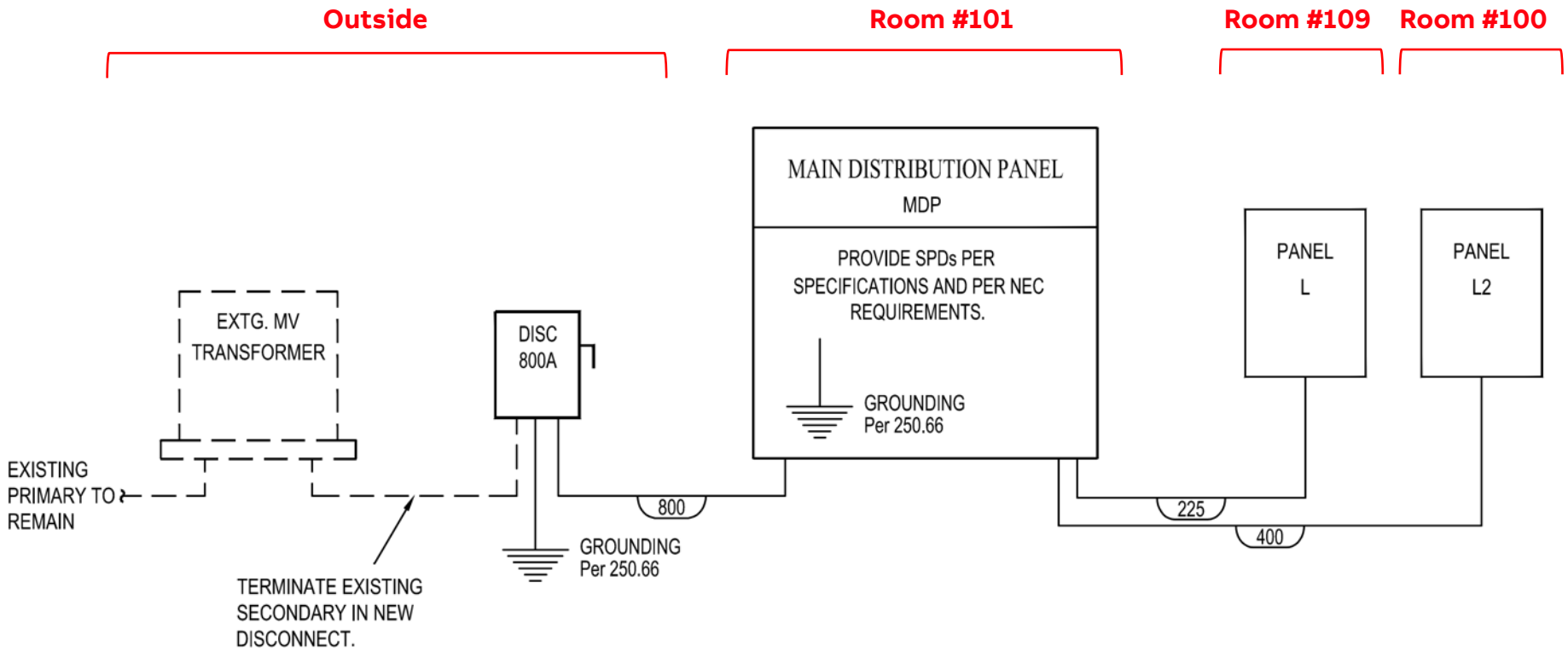
01

02

PROJECT 2
HEALTH CENTER

Health center

Project 2
One-line



Electrical riser diagram — Partial field house (no scale)

02

Project 2
Main disconnect

- Type 3R enclosure
- 800 amp
- 208/120 V AC
- 3-phase, 4-wire
- Fusible safety switch, 35 kA IC, with viewing window

02

Health center

Safety switches with viewing windows help enhance safety by enabling users to verify contact status at a glance — with no need to open the enclosure door to check blades and fuses.

Health center

Project 2

MDP

- Build as ReliaGear® neXT power panelboard
- Bottom feed
- Vertical-mounted main
- LSI main breaker with ground fault
- 100% rated
- Surge: Internal, 125 kA/mode, 250 kA/phase
- Name plates
- Standard locking cover

Panel - MDP Fed from - UTIL (208V 3PH)				Bus - 800A / 800MCB Service - 120/208 3PH 4Wire						In Room - 101 Surface Mount - Inside (NEMA 1) Branch AIC - 35kA (26.92kA - Available)
Provide - *SPD PER SPECS										Div. Load - 549A (A), 554A (B), 538A (C)
* See Riser Diagram for more information DEVICES & EQUIPMENT SERVED	Phase	Trip	Wire	Ckt #	ø LOAD in KiloWatts	Ckt #	Wire	Trip	Phase	* See Riser Diagram for wire size DEVICES & EQUIPMENT SERVED
PANEL L	3	225	*	1	14.4 (a) 30.5	2	*	400	3	PANEL L2
				3	15.4 (b) 30.7	4				
				5	15.4 (c) 28.8	6				
DRYER - 100	3	100	1	7	10.2 (a) 10.2	8	1	100	3	DRYER - 100
THRU 100A DISC. W/ 100A FUSES				9	10.2 (b) 10.2	10				THRU 100A DISC. W/ 100A FUSES
				11	10.2 (c) 10.2	12				
SPACE	3	-	-	13	0 (a) 0	14	-	-	3	SPACE
				15	0 (b) 0	16				
				17	0 (c) 0	18				
SPACE	3	-	-	19	0 (a) 0	20	-	-	3	SPACE
				21	0 (b) 0	22				
				23	0 (c) 0	24				
SPACE	3	-	-	25	0 (a) 0	26	4	60	3	SPD PROTECTION (INTERNAL IS PREFERRED)
				27	0 (b) 0	28				
				29	0 (c) 0	30				

02

Health center

Project 2

Panel — L

- Bottom feed
- Name plate
- Front hinged to box

Panel - L Fed from - MDP (208V 3PH)				Bus - 225A / 225MCB Service - 120/208 3PH 4Wire						In Room - 109 Surface Mount - Inside (NEMA 1) Branch AIC - 14kA (11.22kA - Available)
										Div. Load - 120A (A), 128A (B), 130A (C)
* See Riser Diagram for more information DEVICES & EQUIPMENT SERVED	Phase	Trip	Wire	Ckt #	ø LOAD in KiloWatts	Ckt #	Wire	Trip	Phase	* See Riser Diagram for wire size DEVICES & EQUIPMENT SERVED
FIRE SAFETY CONTROL DEVICES	1	20	12	1	0 (a) 1.4	2	12	20	1	HYDROCOLLATOR - 121
RECEPTACLES - 116	1	20	12	3	1.4 (b) 1.4	4	12	20	1	HYDROCOLLATOR - 121
RECEPTACLES - 117, 118	1	20	12	5	1.4 (c) 1.4	6	12	20	1	HYDROCOLLATOR - 121
RECEPTACLES - 119	1	20	12	7	0.7 (a) 0.8	8	12	20	1	EWCS ON GFCI BREAKER - CORRIDOR
RECEPTACLES - 120	1	20	12	9	0.7 (b) 0.8	10	12	20	1	EWCS ON GFCI BREAKER - CORRIDOR
E-STEM - 120	1	20	12	11	1.5 (c) 3.3	12	8	40	2	HYDROWORX EVO - 104
RECEPTACLES - 120, 121	1	20	12	13	0.9 (a) 3.3	14				THRU 60A NONFUSED DISCONNECT
RECEPTACLES - 120, 121	1	20	12	15	1.3 (b) 3.4	16	6	50	2	WHIRLPOOL ON GFCI BREAKER - 104
MONITORS - 121	1	20	12	17	0.5 (c) 3.4	18				
RECEPTACLES - 114	1	20	12	19	1.3 (a) 1.3	20	12	20	1	ICE MACHINE ON GFCI BREAKER - 104
RECEPTACLES - 113	1	20	12	21	1.3 (b) 1.5	22	12	20	1	FREEZER ON GFCI BREAKER - 104
RECEPTACLES - 105, 108, 110, 120	1	20	12	23	0.7 (c) 0.5	24	12	20	1	RECEPTACLES - 104
REFRIGERATOR ON GFCI BREAKER - 109	1	20	12	25	1.4 (a) 1.5	26	12	20	1	E-STEM - 120
RECEPTACLES - 109	1	20	12	27	0.4 (b) 1.5	28	12	20	1	ERGOMETER - 120
RECEPTACLES & SPACE SAVER - 109	1	20	12	29	1 (c) 1.5	30	12	20	1	MICROGRAVITY TREADMILL - 120
RECEPTACLE - 107	1	20	12	31	0.2 (a) 1.5	32	12	20	1	E-STEM - 120
RECEPTACLE - 106	1	20	12	33	0.2 (b) 1.5	34	12	20	1	DEEP OSCILLATION MACHINE - 120
EXHAUST FANS - 106, 107	1	20	12	35	0.2 (c) 0	36	-	20	1	SPARE
SPARE	1	20	-	37	0 (a) 0	38	-	20	1	SPARE
SPARE	1	20	-	39	0 (b) 0	40	-	20	1	SPARE
SPARE	1	20	-	41	0 (c) 0	42	-	20	1	SPARE

02

Health center

Project 2

Panel — L2

- Add name plate

Panel - L2 Fed from - MDP (208V 3PH)				Bus - 400A / 400MCB Service - 120/208 3PH 4Wire						In Room - 100 Surface Mount - Inside (NEMA 1) Branch AIC - 35kA (23.32kA - Available)
Provide - *PROVIDE SURGE ARRESTORS AT ALL UNITS ON ROOF PER SPECS										Div. Load - 259A (A), 256A (B), 240A (C)
* See Riser Diagram for more information DEVICES & EQUIPMENT SERVED	Phase	Trip	Wire	Ckt #	ø LOAD in KiloWatts	Ckt #	Wire	Trip	Phase	* See Riser Diagram for wire size DEVICES & EQUIPMENT SERVED
WASHER - 100	3	60	4	1	6.9 (a) 1.2	2	12	20	1	CORD REEL - 101
THRU 60A DISCONNECT W/ 60A FUSES				3	6.9 (b) 1.2	4	12	20	1	CORD REEL - 101
				5	6.9 (c) 1.2	6	12	20	1	CORD REEL - 101
WASHER - 100	3	60	4	7	6.9 (a) 1.2	8	12	20	1	CORD REEL - 101
THRU 60A DISCONNECT W/ 60A FUSES				9	6.9 (b) 1.2	10	12	20	1	CORD REEL - 101
				11	6.9 (c) 0.4	12	12	20	1	RECEPTACLES - 100
RECEPTACLES - 102, 103	1	20	12	13	0.9 (a) 1.4	14	10	20	3	AHU# 6
RECEPTACLES & SPACE SAVER - 101	1	20	12	15	1.1 (b) 1.4	16				THRU 30A DISCONNECT W/ 20A FUSES
AHU# 3	3	50	6	17	3.3 (c) 1.4	18				
THRU 60A DISCONNECT W/ 45A FUSES				19	3.3 (a) 1	20	10	20	3	AHU# 4
				21	3.3 (b) 1	22				THRU 30A DISCONNECT W/ 15A FUSES
AHU# 8	3	50	6	23	3.3 (c) 1	24				
THRU 60A DISCONNECT W/ 45A FUSES				25	3.3 (a) 1	26	10	20	3	AHU# 5
				27	3.3 (b) 1	28				THRU 30A DISCONNECT W/ 15A FUSES
AHU# 7	3	50	6	29	3.3 (c) 1	30				
THRU 60A DISCONNECT W/ 45A FUSES				31	3.3 (a) 0.5	32	12	20	1	E.F.# 11, 12 ON ROOF
				33	3.3 (b) 0	34	-	20	1	SPARE
SPARE	1	20	-	35	0 (c) 0	36	-	20	1	SPARE
SPARE	1	20	-	37	0 (a) 0	38	-	-	1	SPACE
SPARE	1	20	-	39	0 (b) 0	40	-	-	1	SPACE
SPARE	1	20	-	41	0 (c) 0	42	-	-	1	SPACE

02

Health center

Project 2

Load center 1A

- Plug-on style load center
- Load center count 15 type A

LOAD CENTER SCHEDULE - 1A

MAIN: 125A MLO			VOLTAGE: 208/120	PHASE: 1		WIRE: 3 RECESSED			
CKT #	TRIP / POLES	BKR TYPE	DESCRIPTION	PHASE A	PHASE B	DESCRIPTION	BKR TYPE	TRIP / POLES	CKT #
1	50/2		RANGE			KITCHEN RECEPTACLES	AFCI	20/1	2
3	--		---			KIT/DINING RECEPTACLES	AFCI	20/1	4
5	30/2		DRYER			DISHWASHER	AFCI/GFCI	20/1	6
7	--		---			DISPOSAL	AFCI/GFCI	20/1	8
9	*20/1	AFCI/GFCI	MICROWAVE OVEN			WASHER	AFCI/GFCI	20/1	10
11	30/2	LOCKOFF	WATER HEATER			BATHROOM CIRCUIT		20/1	12
13	--		---			REFRIGERATOR	AFCI/GFCI	15/1*	14
15	40/2		INDOOR HVAC			LIGHTS & RECEPTACLES	AFCI	15/1	16
17	--		---			LIGHTS & RECEPTACLES	AFCI	15/1	18
19	20/2		OUTDOOR HVAC			LIGHTS & RECEPTACLES	AFCI	15/1	20
21	--		---			SPACE			22
23			SPACE			SPACE			24

NOTES:

1. BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE EQUIPPED WITH A PAD-LOCK DEVICE SO THAT CIRCUITS CAN BE DISCONNECTED SIMULTANEOUSLY.
2. FOR DWELLING UNITS DESIGNATED TO HAVE ACCESSIBLE MOBILITY FEATURES, OR THOSE DESIGNATED IBC ACCESSIBLE, TYPE A OR B, MAXIMUM HEIGHT TO ANY DEVICE HANDLE SHALL BE 48" AFF.

* GFCI NOT REQUIRED WHERE RECEPTACLE IS MORE THAN 6FT FROM THE EDGE OF A SINK MEASURED AS THE SHORTEST PATH THE CORD OF AN APPLIANCE CONNECTED TO THE RECEPTACLE WOULD FOLLOW

02

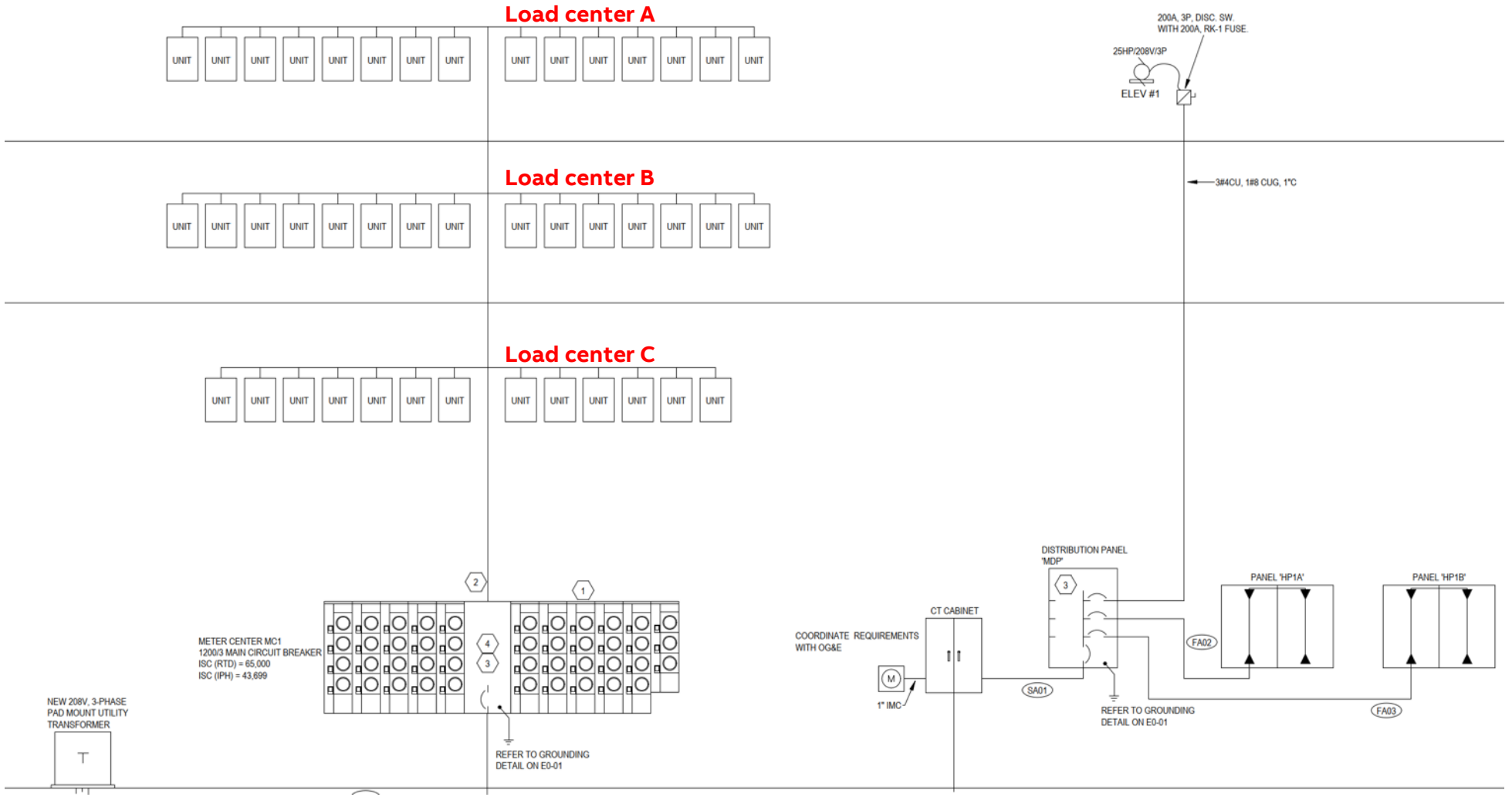
03

PROJECT 3
GREEN
APARTMENTS

Green apartments

Project 3

One-line



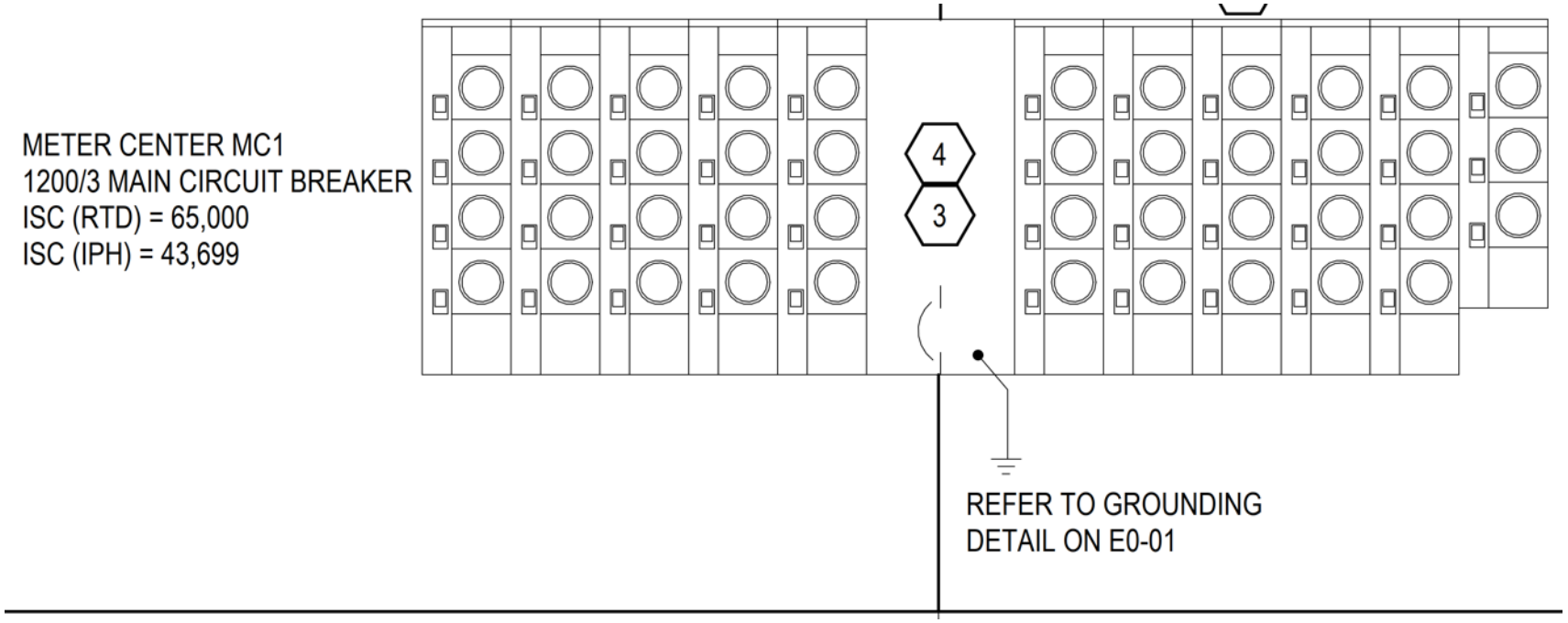
03

Green apartments

Project 3

Meter stack

- Note 3 — NEMA 3R enclosure
- Note 4 — Furnish and install meter center with integral circuit breakers



03

Green apartments

Project 3
Panel MDP

- Name plate
- Circuit 4 shunt is the shunt for elevator: shunt voltage of 24 V

DISTRIBUTION PANEL: MDP

LOCATION:
SUPPLIED FROM:
MOUNTING: SURFACE
NEMA ENCLOSURE: NEMA 3R

VOLTAGE: 208/120 WYE
PHASE: 3
WIRE: 4

A.I.C. RATING: 42k
MAIN TYPE: MCB
MAIN RATING: 1000 A

CKT	CIRCUIT DESCRIPTION	# OF POLES	FRAME SIZE	TRIP/ FUSE RATING	TRIP TYPE	LITES (KVA)	RCPT (KVA)	MTR (KVA)	A/C (KVA)	HEAT (KVA)	KTCH (KVA)	MISC	Load	NOTES
1	PANEL HP1A	3	400 A	400 A		1.3	3.4	17.8	17.9	37.0		3.1	80.5	
2	PANEL HP1B	3	600 A	500 A		4.4	11.8	4.0	11.3	21.1		78.8	132.8	
3	ELEVATOR	3	225 A	200 A				26.9				0.0	26.9	
4	SHUNT TRIP	1	--	--	--							0.0	--	
5	SPD	3	100 A	60 A								0.0	0.0	
6	SPACE (PROVIDE 225A FRAME)	3	--	--	--							0.0	--	
7	SPACE (PROVIDE 225A FRAME)	3	--	--	--							0.0	--	
8														
9														
10														
					TOTAL:	LITES	RCPT	MTR	A/C	HEAT	KTCH	MISC		
						5.7	15.2	48.7	29.3	58.1		81.8		

LOAD TYPES:		CONNECTED LOAD	ESTIMATED LOAD	PANEL TOTALS	
LITES	- LIGHTING:	5679 VA	7099 VA		
RCPT	- RECEPTACLES:	15220 VA	12610 VA	TOTAL CONNECTED LOAD (KVA):	240.2
MTR	- MOTORS:	48720 VA	55457 VA	TOTAL DEMAND LOAD (KVA):	245.8
AC	- A/C:	29254 VA	29254 VA	TOTAL CONNECTED LOAD (AMPS):	666.8
HEAT	- HEATING:	58141 VA	58141 VA	TOTAL DEMAND LOAD (AMPS):	682.2
KTCH	- KITCHEN:	0 VA	0 VA		
MISC	- MISCELLANEOUS:	81827 VA	81827 VA	AMPACITY REQUIRED:	678 A
EV	- ELECTRIC VEHICLE	0 VA	0 VA		

NOTES: CB=CIRCUIT BREAKER F=FUSE

1. FOR ANY BREAKER OR FUSE 1200A OR HIGHER, AN ARC-ENERGY REDUCING MAINTENANCE SWITCH (ERMS) SHALL BE PROVIDED.
2. SWITCHBOARD SHALL BE ORDERED AND INSTALLED PER NEC 230.71.

03

Green apartments

Project 3

Panel HP1A

- Name plate
- Feed-through lug kit
- Rule of 42 (tub-in-tub)
- Breaker counts:
  - 3-pole 70 A – qty. 1
  - 3-pole 35 A – qty. 2
  - 2-pole 45 A – qty. 1
  - 2-pole 25 A – qty. 7
  - 2-pole 20 A – qty. 6
  - 1-pole 20 A – qty. 35
  - 1-pole space – qty. 12

03

BRANCH PANEL: HP1A

LOCATION: ELEC C100c
SUPPLY FROM: MDP
MOUNTING: SURFACE
NEMA ENCLOSURE: NEMA 1

VOLTAGE: 208/120 WYE
PHASE: 3
WIRE: 4

A.I.C. RATING: 22k
MAIN TYPE: MLO
PANEL RATING: 600 A

CKT	TRIP TYPE	TRIP / POLES	DESCRIPTION	LITES (KVA)	RCPT (KVA)	MTR (KVA)	A/C (KVA)	HEAT (KVA)	KTCH (KVA)	MISC (KVA)	A	B	C	MISC (KVA)	KTCH (KVA)	HEAT (KVA)	A/C (KVA)	MTR (KVA)	RCPT (KVA)	LITES (KVA)	DESCRIPTION	TRIP / POLES	TRIP TYPE	CKT
1		20 A/1	FACP							1.0				0.0						0.2	PUMP RM LTG	20 A/1		2
3		20 A/1	STAIR 2 LTG	0.2						0.0				0.0					0.7		NORTH EXT REC	20 A/1		4
5		20 A/1	L3 CORRIDOR REC		0.4					0.0				0.0					0.5		FITNESS CONV REC	20 A/1		6
7		20 A/1	PUMP RM REC		0.2					0.0				0.0					0.4		L1 CORRIDOR REC	20 A/1		8
9		20 A/1	L2 CORRIDOR LTG	0.2						0.0				0.0						0.2	L1 CORRIDOR LTG	20 A/1		10
11		20 A/1	L3 CORRIDOR LTG	0.2						0.0				0.0		3.3					EUH PUMP	35 A/3		12
13		20 A/1	L2 CORRIDOR REC		0.4					0.0				--		3.3					--	--	--	14
15		70 A/3	BP-1			3.1				0.0				--		3.3					--	--	--	16
17	--	--	--			3.1				--				0.0		3.3					EUH PUMP	35 A/3		18
19	--	--	--			3.1				--				--		3.3					--	--	--	20
21		20 A/1	EF PUMP			1.2				0.0				--		3.3					--	--	--	22
23		25 A/2	DSAH/DSHP COR				0.9			0.0				0.0			0.9				DSAH/DSHP COR	25 A/2		24
25	--	--	--				0.9			--				--			0.9				--	--	--	26
27		25 A/2	DSAH/DSHP COR				0.9			0.0				0.0			0.9				DSAH/DSHP COR	25 A/2		28
29	--	--	--				0.9			--				--			0.9				--	--	--	30
31		25 A/2	DSAH/DSHP COR				0.9			0.0				0.0			0.9				DSAH/DSHP COR	25 A/2		32
33	--	--	--				0.9			--				--			0.9				--	--	--	34
35		25 A/2	HP COM				1.3			0.0				0.0			1.1				HP FIT	20 A/2		36
37	--	--	--				1.3			--				--			1.1				--	--	--	38
39		20 A/2	EWH A					1.5		0.0				0.0				0.6			DH COR	20 A/1		40
41	--	--	--					1.5		--				0.0		1.2					EDH COR	20 A/2		42
43		20 A/1	DH COR			0.6				0.0				--		1.2					--	--	--	44
45		20 A/2	EDH COR					1.2		0.0				0.0		1.2					EDH COR	20 A/2		46
47	--	--	--					1.2		--				--		1.2					--	--	--	48
49		20 A/1	FUTURE RADON POWER							0.8				0.0				0.6			DH COR	20 A/1		50
51		45 A/2	AH FIT					3.5		0.0				0.0				0.5			SF COR	20 A/1		52
53	--	--	--					3.5		--				0.0				0.5			SF COR	20 A/1		54
55		20 A/1	FITNESS/MAL CONV REC		0.4					0.0				0.0				0.5			SF COR	20 A/1		56
57		20 A/1	MAIL REC		0.4					0.0				0.0			1.1				HP LEASE	20 A/2		58
59		20 A/1	FITNESS WATER FTN			1.0				0.0				--			1.1				--	--	--	60
61		20 A/1	FITNESS EQUIPMENT			1.0				0.0				0.0							20A/1P SPARE	20 A/1	--	62
63		20 A/1	FITNESS EQUIPMENT			1.0				0.0				0.0							20A/1P SPARE	20 A/1	--	64
65		20 A/1	FITNESS EQUIPMENT			1.0				0.0				0.0							20A/1P SPARE	20 A/1	--	66
67		20 A/1	FITNESS/MAIL LTG	0.3						0.0				0.0							20A/1P SPARE	20 A/1	--	68
69		20 A/1	SITE LTG							1.3				0.0							20A/1P SPARE	20 A/1	--	70
71		20 A/1	SITE LTG	0.0						0.0														72
73		20 A/1	ATTIC LTG/REC	0.1	0.2					0.0														74
75																								76
77																								78
79																								80
81																								82
83																								84

TOTAL:	LITES	RCPT	MTR	A/C	HEAT	KTCH	MISC
	1.3	3.4	17.8	17.9	37.0		3.1

TOTAL:	PHASE A	PHASE B	PHASE C
	23.4	28.1	29.0

LOAD TYPES:		CONNECTED LOAD	ESTIMATED DEMAND
LITES	- LIGHTING:	1324 VA	1655 VA
RCPT	- RECEPTACLES:	3420 VA	3420 VA
MTR	- MOTORS:	17772 VA	20072 VA
AC	- A/C:	17936 VA	17936 VA
HEAT	- HEATING:	37000 VA	37000 VA
KTCH	- KITCHEN:	0 VA	0 VA
MISC	- MISCELLANEOUS:	3050 VA	3050 VA
EV	- ELECTRIC VEHICLE	0 VA	0 VA

PANEL TOTALS	
TOTAL CONNECTED LOAD (KVA):	80.5
TOTAL DEMAND LOAD (KVA):	83.1
TOTAL CONNECTED LOAD (AMPS):	223.5
TOTAL DEMAND LOAD (AMPS):	230.8
AMPACITY REQUIRED:	231 A

NOTES:

BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE FIELD-EQUIPPED WITH A MANUALLY OPERATED HANDLE-TIE DEVICE TO ENSURE THAT ALL UNGROUNDED CONDUCTORS ARE SIMULTANEOUSLY DISCONNECTED PER NEC 240.15. PROVIDE FEED THROUGH LUG KIT.

Green apartments

Project 3

Panel HP1B

- Name plate
- Feed-through lug kit
- Rule of 42 (tub-in-tub)
- Breaker counts:
  - 2-pole 100 A – qty. 4
  - 2-pole 50 A – qty. 1
  - 2-pole 35 A – qty. 1
  - 2-pole 30 A – qty. 1
  - 2-pole 25 A – qty. 4
  - 2-pole 20 A – qty. 2
  - 1-pole 20 A – qty. 49
  - 1-pole space – qty. 9

03

BRANCH PANEL: HP1B

LOCATION: MAINT 115a
SUPPLY FROM: MDP
MOUNTING: SURFACE
NEMA ENCLOSURE: NEMA 1

VOLTAGE: 208/120 WYE
PHASE: 3
WIRE: 4

A.I.C. RATING: 22k
MAIN TYPE: MLO
PANEL RATING: 500 A

CKT	TRIP TYPE	TRIP / POLES	DESCRIPTION	LITES (KVA)	RCPT (KVA)	MTR (KVA)	A/C (KVA)	HEAT (KVA)	KTCH (KVA)	MISC (KVA)	A	B	C	MISC (KVA)	KTCH (KVA)	HEAT (KVA)	A/C (KVA)	MTR (KVA)	RCPT (KVA)	LITES (KVA)	DESCRIPTION	TRIP / POLES	TRIP TYPE	CKT
1		20 A/1	L1 CORRIDOR REC		0.7					0.0				19.2							19.2 KW EV CHARGER	100 A/2		2
3		20 A/1	L1 CORRIDOR LTG	0.3		0.0				0.0				--							--	--	--	4
5		20 A/1	STAIR 2 LTG	0.4						0.0				19.2							19.2 KW EV CHARGER	100 A/2		6
7		20 A/1	SOUTH EXT REC		0.4					0.0				--							--	--	--	8
9		20 A/1	L1 IDF QUAD REC		0.4					0.0				19.2							19.2 KW EV CHARGER	100 A/2		10
11		20 A/1	L2 CORRIDOR REC		0.7					0.0				--							--	--	--	12
13		20 A/1	LITES	0.3						0.0				19.2							19.2 KW EV CHARGER	100 A/2		14
15		20 A/1	L2 QUAD REC		0.4					0.0				--							--	--	--	16
17		20 A/1	ELEV PIT LTG	0.1						0.0				0.0						1.0	MONUMENT SIGN	20 A/1		18
19		20 A/1	ELEVATOR PIT REC		0.2					0.0				0.0			0.9				DSAH/DSHP IDF	25 A/2		20
21		20 A/1	L3 CORRIDOR LTG	0.3						0.0				--			0.9				--	--	--	22
23		20 A/1	L3 IDF QUAD REC		0.4					0.0				0.0			0.9				DSAH/DSHP IDF	25 A/2		24
25		20 A/1	L3 CORRIDOR REC		0.7					0.1				--			0.9				--	--	--	26
27		20 A/1	ELEV CAB LTG	1.0						0.0				0.0			0.9				DSAH/DSHP IDF	25 A/2		28
29		20 A/1	ATTIC LTG/REC	0.1	0.2					0.0				--			0.9				--	--	--	30
31		20 A/1	ELEV SHAFT LTG	0.1						0.0				0.0			0.9				DSAH/DSHP MAINT	25 A/2		32
33		20 A/1	ELEV SHAFT REC		0.2					0.0				--			0.9				--	--	--	34
35		20 A/1	ESP-1							1.1				0.0		1.5					EWH A	20 A/2		36
37		20 A/1	FUTURE RADON POWER							0.8				--		1.5					--	--	--	38
39		50 A/2	AH COM					4.1		0.0				0.0		2.3					WHE-2	30 A/2		40
41	--	--	--					4.1		--				--		2.3					--	--	--	42
43		20 A/1	HWRP 1			1.2				0.0				0.0					1.0		LEASE PRINT/COPY REC	20 A/1		44
45		20 A/1	COMMUNITY GAME REC		0.9					0.0				0.0					0.7		LEASING REC	20 A/1		46
47		20 A/1	COMMUNITY REC		0.5					0.0				0.0					0.9		LEASING REC	20 A/1		48
49		20 A/1	COMPUTER REC		0.4					0.0				0.0					0.5		LEASING DESK REC	20 A/1		50
51		20 A/1	COMMUNITY REC		0.5					0.0				0.0					0.2		KITCHEN REF.	20 A/1		52
53		20 A/1	MECH/MAINT. CONV REC		0.4					0.0				0.0				1.0			U/C MICROWAVE	20 A/1		54
55		20 A/1	KITCHEN ISLAND REC		0.5					0.0				0.0					0.4		KITCHEN AC REC	20 A/1		56
57		20 A/1	DISPOSAL REC			0.8				0.0				0.0				1.0			DISHWASHER REC	20 A/1		58
59		20 A/1	REST RM REC		0.2					0.0				0.0			2.0				DSAH/DSHP ELEV	20 A/2		60
61		20 A/1	REST RM REC		0.2					0.0				--			2.0				--	--	--	62
63		35 A/2	AH LEASE					2.7		0.0				0.0							20A/1P SPARE	20 A/1	--	64
65	--	--	--					2.7		--				0.0							20A/1P SPARE	20 A/1	--	66
67		20 A/1	EXT WALL PACK LTG							0.0				0.0							20A/1P SPARE	20 A/1	--	68
69		20 A/1	LEASE/COMM. EXT REC		0.4					0.0				0.0							20A/1P SPARE	20 A/1	--	70
71		20 A/1	COMMUNITY LTG	0.4						0.0				0.0							20A/1P SPARE	20 A/1	--	72
73		20 A/1	LEASING LTG	0.3						0.0														74
75		20 A/1	LEASE RR LTG	0.0						0.0														76
77		20 A/1	SITE LTG							0.0														78
79																								80
81																								82
83																								84

TOTAL:	LITES	RCPT	MTR	A/C	HEAT	KTCH	MISC
	4.4	11.8	4.0	11.3	21.1		78.8

TOTAL:	PHASE A	PHASE B	PHASE C
	43.4	47.7	41.7

LOAD TYPES:		CONNECTED LOAD	ESTIMATED DEMAND	PANEL TOTALS	
LITES	- LIGHTING:	4355 VA	5444 VA		
RCPT	- RECEPTACLES:	11800 VA	10900 VA	TOTAL CONNECTED LOAD (KVA):	132.8
MTR	- MOTORS:	4000 VA	4300 VA	TOTAL DEMAND LOAD (KVA):	133.3
AC	- A/C:	11318 VA	11318 VA	TOTAL CONNECTED LOAD (AMPS):	368.5
HEAT	- HEATING:	21141 VA	21141 VA	TOTAL DEMAND LOAD (AMPS):	369.9
KTCH	- KITCHEN:	0 VA	0 VA		
MISC	- MISCELLANEOUS:	78777 VA	78777 VA	AMPACITY REQUIRED:	366 A
EV	- ELECTRIC VEHICLE	0 VA	0 VA		

NOTES:

BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE FIELD-EQUIPPED WITH A MANUALLY OPERATED HANDLE-TIE DEVICE TO ENSURE THAT ALL UNGROUNDED CONDUCTORS ARE SIMULTANEOUSLY DISCONNECTED PER NEC 240.15. PROVIDE FEED THRU LUG KIT.

Green apartments

Project 3

Load center(s)

- Plug-on style load center

LOAD CENTER SCHEDULE - 1A

MAIN: 125A MLO			VOLTAGE: 208/120		PHASE: 1	WIRE: 3 RECESSED			AIC: 10,000
CKT #	TRIP / POLES	BKR TYPE	DESCRIPTION	PHASE A	PHASE B	DESCRIPTION	BKR TYPE	TRIP / POLES	CKT #
1	50/2		RANGE			KITCHEN RECEPTACLES	AFCI	20/1	2
3	--		---			KIT/DINING RECEPTACLES	AFCI	20/1	4
5	30/2		DRYER			DISHWASHER	AFCI/GFCI	20/1	6
7	--		---			DISPOSAL	AFCI/GFCI	20/1	8
9	*20/1	AFCI/GFCI	MICROWAVE OVEN			WASHER	AFCI/GFCI	20/1	10
11	30/2	LOCKOFF	WATER HEATER			BATHROOM CIRCUIT		20/1	12
13	--		---			REFRIGERATOR	AFCI/GFCI	15/1*	14
15	40/2		INDOOR HVAC			LIGHTS & RECEPTACLES	AFCI	15/1	16
17	--		---			LIGHTS & RECEPTACLES	AFCI	15/1	18
19	20/2		OUTDOOR HVAC			LIGHTS & RECEPTACLES	AFCI	15/1	20
21	--		---			SPACE			22
23			SPACE			SPACE			24

NOTES:

1. BREAKERS PROTECTING MULTI-WIRE BRANCH CIRCUITS SHALL BE EQUIPPED WITH A PAD-LOCK DEVICE SO THAT CIRCUITS CAN BE DISCONNECTED SIMULTANEOUSLY.
2. FOR DWELLING UNITS DESIGNATED TO HAVE ACCESSIBLE MOBILITY FEATURES, OR THOSE DESIGNATED IBC ACCESSIBLE, TYPE A OR B, MAXIMUM HEIGHT TO ANY DEVICE HANDLE SHALL BE 48" AFF.

* GFCI NOT REQUIRED WHERE RECEPTACLE IS MORE THAN 6FT FROM THE EDGE OF A SINK MEASURED AS THE SHORTEST PATH THE CORD OF AN APPLIANCE CONNECTED TO THE RECEPTACLE WOULD FOLLOW

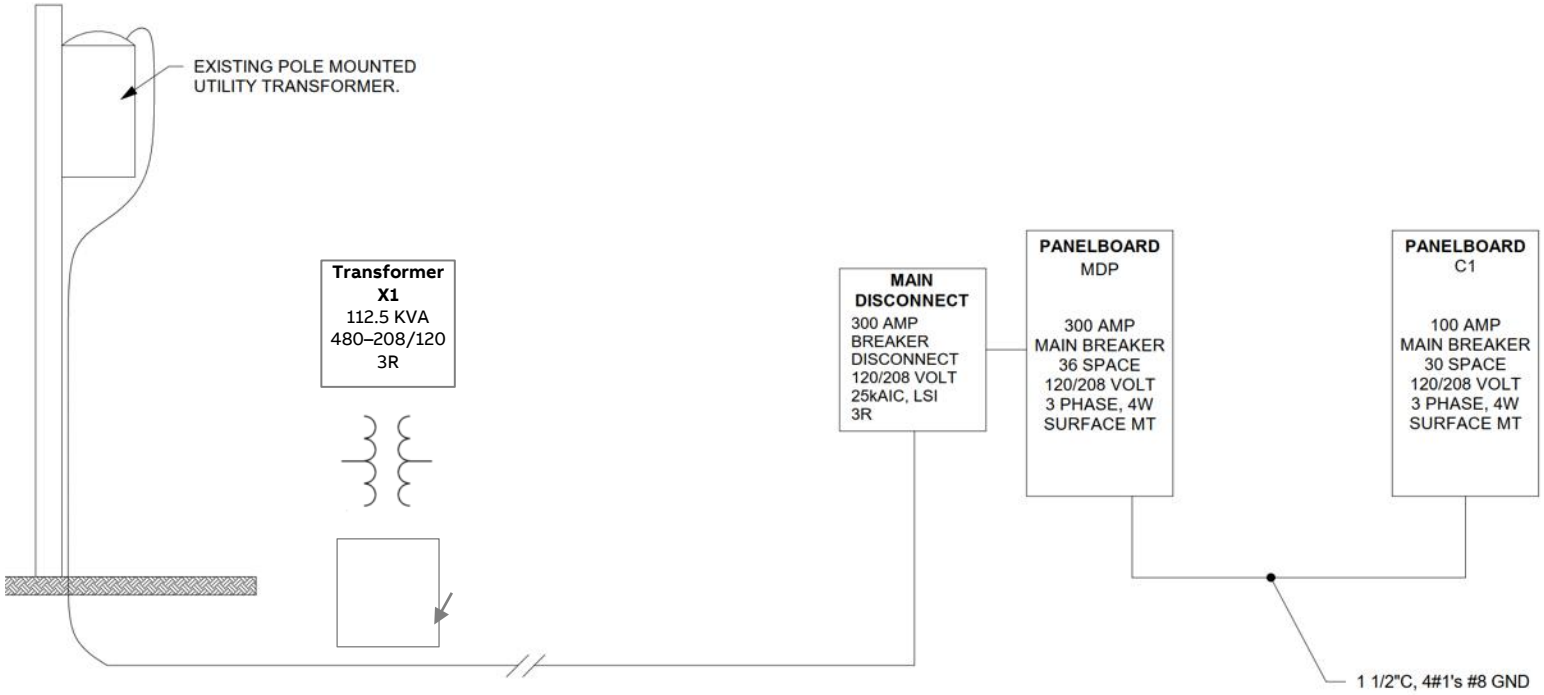
03

04

PROJECT 4
TRANSPORTATION BUILDING

Transportation building

Project 4
One-line



Electrical one-line diagram (not to scale)

04

Project 4
Main disconnect

- Type 3R enclosure
- 300 amp
- 208/120 V
- 3-phase, 4-wire
- Breaker disconnect
- 25 kA IC
- LSI trip
- Grounded neutral

04

Transportation building

NEMA Type 3R enclosures may be used indoors or outdoors. They provide a degree of protection to personnel against access to hazardous parts and to the equipment inside against ingress of solid foreign objects (falling dirt) and ingress of water (rain, sleet, snow. NEMA 3R enclosures are undamaged by the external formation of ice on the enclosure.

Transportation building

Project 4
Panel MDP

- Name plate
- Tin-plated copper bus
- Circuit breakers shall be bolt-on type
- Indoor locations: Type 1 surface-mount enclosure
- Front hinged to box

MDP

Location: ELECT. 116
Supply From:
Mounting: Surface
Enclosure: Type 1

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 25k AIC
Mains Type: MCB
Mains Rating: 400 A
MCB Rating: 300 A

Notes:

Note	CKT	Circuit Description	Trip	Pole	A		B		C		Pole	Trip	Circuit Description	CKT	Note
	1				0	0								2	
1	3	SHOP SUB PANEL	200 A	3			0	0			3	200 A	NEW ADDITION	4	1
	5								0	0				6	
1	7	BLANK	--	1	--	--					1	--	BLANK	8	1
1	9	BLANK	--	1			--	--			1	--	BLANK	10	1
1	11	BLANK	--	1					--	--	1	--	BLANK	12	1
1	13	BLANK	--	1	--	--					1	--	BLANK	14	1
1	15	BLANK	--	1			--	--			1	--	BLANK	16	1
1	17	BLANK	--	1					--	--	1	--	BLANK	18	1
1	19	BLANK	--	1	--	5000								20	
1	21	A/C	60 A	2			0	5000			3	100 A	PANEL C1	22	3
	23								0	5383				24	
	25				0	0								26	
1	27	EXISTING LOAD	60 A	3			0	0			3	100 A	EXISTING LOAD	28	1
	29								0	0				30	
	31				0	0								32	
1	33	EXISTING LOAD	40 A	3			0	0			3	60 A	EXISTING LOAD	34	1
	35								0	0				36	
			Total Load:		5000 VA		5000 VA		5383 VA						
			Total Amps:		42 A		42 A		45 A						

NOTE:

'1' DENOTES EXISTING CIRCUIT '2' DENOTES NEW CIRCUIT UTILIZING EXISTING BREAKER '3' DENOTES NEW CIRCUIT AND BREAKER

04

Transportation building

Project 4

Panel C1

- Name plate
- Tin-plated copper bus
- Circuit breakers shall be bolt-on type
- Type 3R surface-mount enclosure

Branch Panel: C1

Location:
Supply From: MDP
Mounting: Surface
Enclosure: Type 3R

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10 kAIC
Mains Type: MCB
Mains Rating: 100 A
MCB Rating: 100 A

Notes:

CKT	Circuit Description	Trip	Pole	A		B		C		Pole	Trip	Circuit Description	CKT
1	REC - BLOCK HEATER	20 A	1	1000	1000					1	20 A	REC - BLOCK HEATER	2
3	REC - BLOCK HEATER	20 A	1			1000	1000			1	20 A	REC - BLOCK HEATER	4
5	REC - BLOCK HEATER	20 A	1					1000	1000	1	20 A	REC - BLOCK HEATER	6
7	REC - BLOCK HEATER	20 A	1	1000	1000					1	20 A	REC - BLOCK HEATER	8
9	REC - BLOCK HEATER	20 A	1			1000	1000			1	20 A	REC - BLOCK HEATER	10
11	LTG - SITE/SIGN	20 A	1					792	1000	1	20 A	REC - BLOCK HEATER	12
13	BLANK	--	1	--	1000					1	20 A	REC - BLOCK HEATER	14
15	BLANK	--	1			--	1000			1	20 A	REC - BLOCK HEATER	16
17	LTG - CANOPY	20 A	1					644	1000	1	20 A	REC - BLOCK HEATER	18
19	BLANK	--	1	--	--					1	--	BLANK	20
21	BLANK	--	1			--	--			1	--	BLANK	22
23	BLANK	--	1					--	--	1	--	BLANK	24
25	BLANK	--	1	--	--					1	--	BLANK	26
27	BLANK	--	1			--	--			1	--	BLANK	28
29	BLANK	--	1					--	--	1	--	BLANK	30
		Total Load:		5000 VA		5000 VA		5383 VA					
		Total Amps:		42 A		42 A		45 A					

Legend:

04

Transportation building

Project 4
Transformer X1

- Type 3R enclosure
- 112.5 kVA
- 480 V primary rating
- 208/120 V secondary rating
- Copper coil
- Provide IEEE sound test report

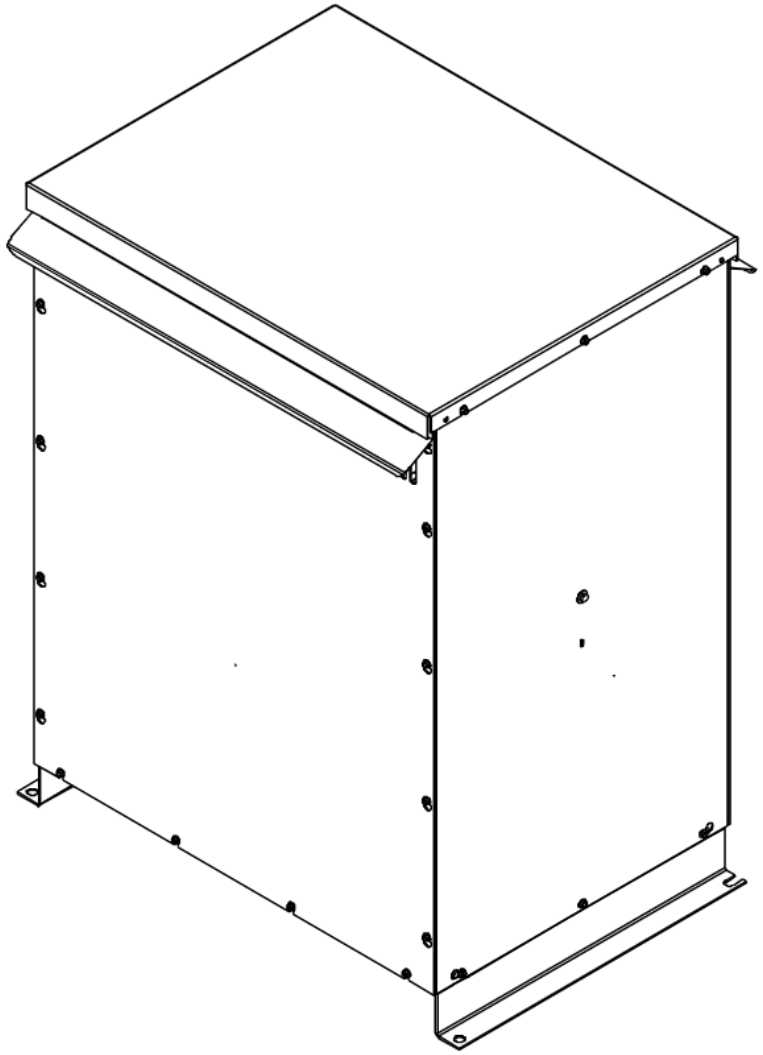


ABB low voltage dry-type transformers are built to last with features that promote easy installation. They meet DOE 2016 efficiency standards and are available with aluminum or copper windings.

04

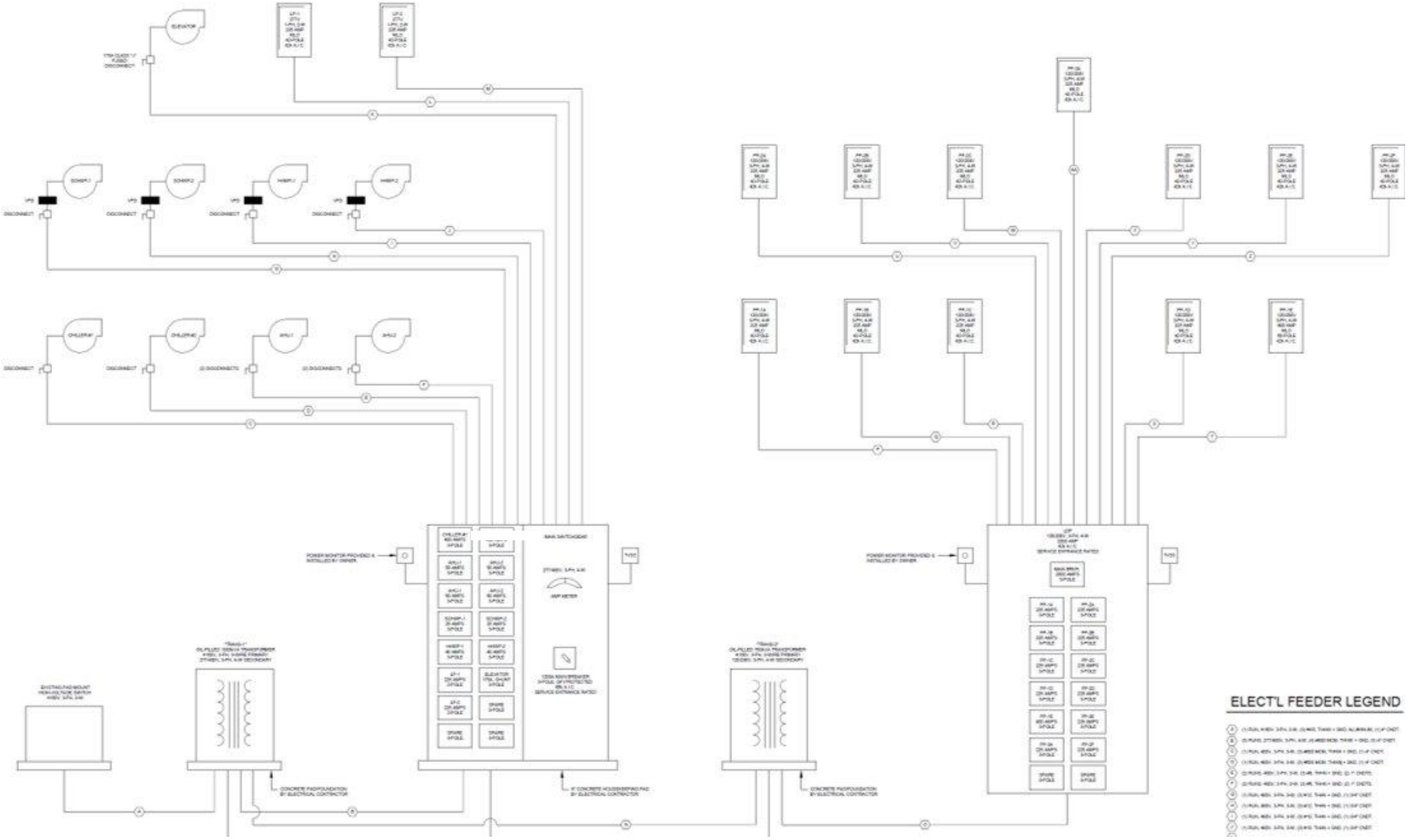
05

PROJECT 5
HEALTH SCIENCE CENTER

Health science center

Project 5

One-line



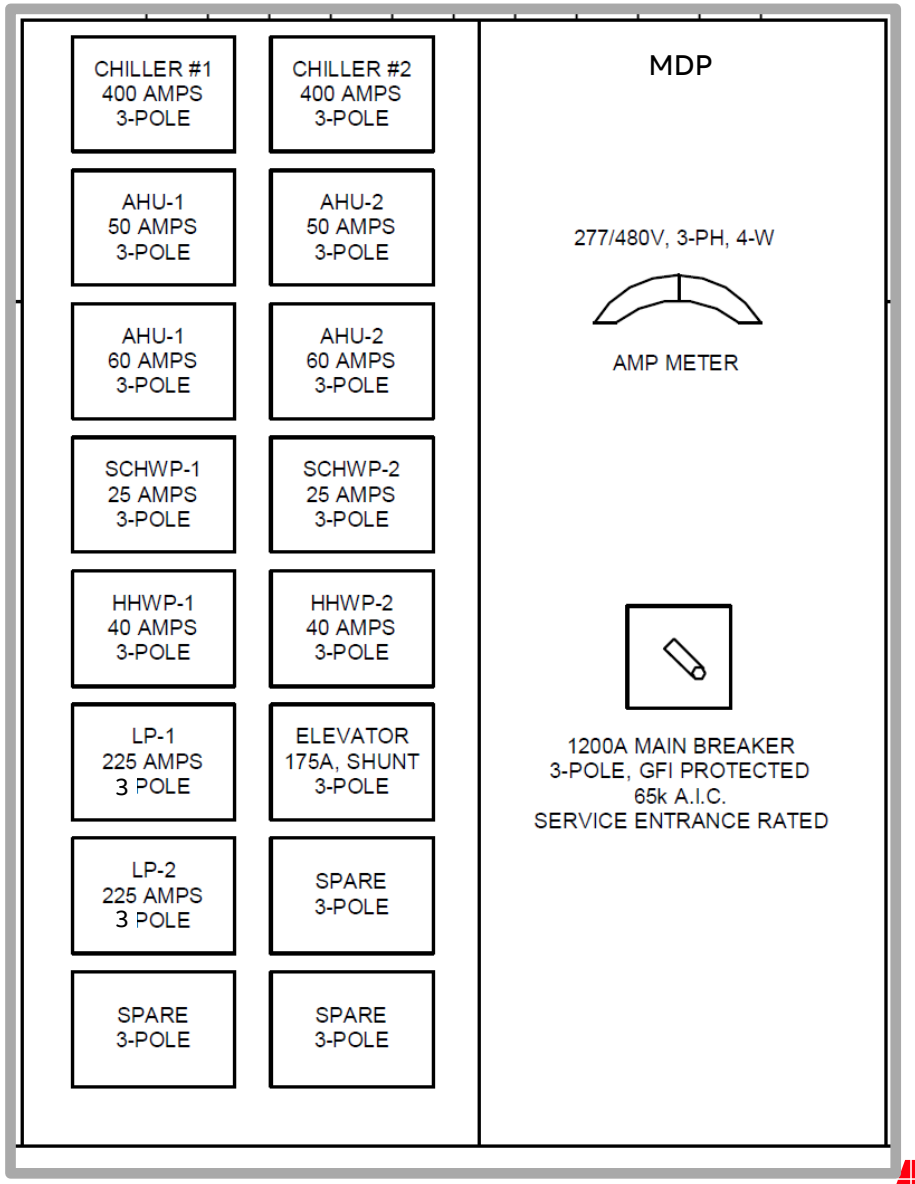
05

Health science center

Project 5

Panel — MDP

- 277/480 V, 3-phase, 4-wire
- 1200 amp MB-LSIG
- 65 kA IC
- Service-entrance rated
- Right incoming
- SPD — Type 2 group-mounted: 150/300
- RGM2200 meter
- 500 MCM mechanical lug
- 24 V shunt
- Type 3R walk-in 35 enclosure



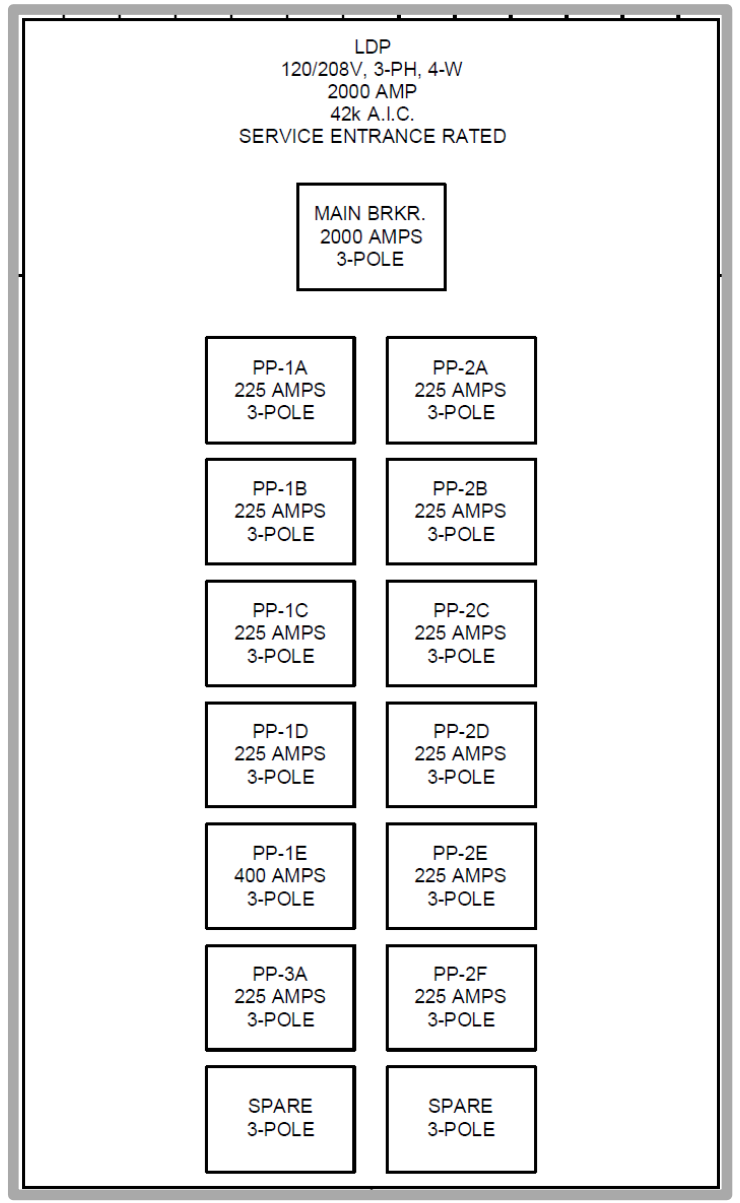
05

Health science center

Project 5

Panel — LDP

- Switchboard — LDP
- Bottom feed
- Left incoming location
- 500 MCM mechanical lug
- SPD — Type 2 group-mounted: 150/300
- RGM2200 meter
- Minimum integrated short circuit rating, as shown on drawings
- Type 3R enclosure



05

Health science center

Project 5

Panel — PP-1A

- Main lug
- 42 kA IC
- Bottom feed
- Panelboards with copper bus
- Panelboards for this project shall be fully rated unless otherwise noted
- Minimum integrated short circuit rating as shown on drawings
- Molded case circuit breakers: Bolt-on type

05

PP-1A
120/208V, 3-PH, 4-WIRE, 225 AMP

DOOR OPERATORS	1	20			20	2	ELECTRIC HEATER
RECEPTACLES	3	20			20	4	RECEPTACLES
COMPUTER CART	5	20			20	6	INSTRUCTOR LECTERN
RECEPTACLES	7	20			20	8	RECEPTACLES
RECEPTACLES	9	20			20	10	ROLLER SHADES
COMPUTER CART	11	20			20	12	INSTRUCTOR LECTERN
RECEPTACLES	13	20			20	14	RECEPTACLES
RECEPTACLES	15	20			20	16	RECEPTACLES
RECEPTACLES	17	20			20	18	ROLLER SHADE
RECEPTACLES	19	20			20	20	ROLLER SHADE
COPY MACHINE	21	20			20	22	RECEPTACLES
REFRIGERATOR	23	20			20	24	MICROWAVE
COFFEE BREWER	25	20			20	26	RECEPTACLES
RECEPTACLES	27	20			20	28	CONFERENCE OUTLETS
RECEPTACLES	29	20			20	30	RECEPTACLES
COMPUTER CART	31	20			20	32	RECEPTACLES
RECEPTACLES	33	20			20	34	INSTRUCTOR LECTERN
INSTRUCTOR LECTERN	35	20			20	36	ROLLER SHADE
RECEPTACLES	37	20			20	38	RECEPTACLES
DOOR OPERATORS	39	20			20	40	ELECTRIC HEATER
---	41	20			20	42	---

PROVIDE FOR MINIMUM 36" CLEARANCE IN FRONT OF PANEL, FULL HEIGHT FROM FLOOR TO CEILING/DECK.

Health science center

Project 5

Panel — PP-3A

- Main lug
- 42 kA IC
- Bottom feed
- Panelboards with copper bus
- Panelboards for this project shall be fully rated unless otherwise noted
- Minimum integrated short circuit rating as shown on drawings
- Molded case circuit breakers: Bolt-on type

05

PP-3A
120/208V, 3-PH, 4-WIRE, 225 AMP

RECEPTACLES	1	20	20	2	RECEPTACLES
	3	20	20	4	
AHU-1 LIGHTING	5	20	20	6	AHU-2 LIGHTING
PHHWP-1	7	20	35	8	PHHWP-2
	9	20	35	10	
	11	20	35	12	
RELIEF FAN	13	60	60	14	RELIEF FAN
	15	60	60	16	
	17	60	60	18	
AIR COMPRESSOR	19	50	50	20	AIR COMPRESSOR
	21	50	50	22	
	23	50	50	24	
EF-1	25	20	20	26	EF-6
FAN COIL UNIT	27	20	20	28	
	29	20	20	30	
HEAT PUMP	31	20	20	32	HEAT PUMP
	33	20	20	34	
HEAT PUMP	35	30	20	36	
	37	30	20	38	
	39	20	20	40	
	41	20	20	42	

PROVIDE FOR MINIMUM 36" CLEARANCE IN FRONT OF PANEL, FULL HEIGHT FROM FLOOR TO CEILING/DECK.

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