SEE PANEL SCHEDULE '3H' SHEET E-2.1

## SE RATED PANELBOARD SCHEDULE - '1H' GFI

MAIN: 1000A MCB W/FEED THRU LUGS | VOLTAGE: 480/277 | PHASE: 3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 22,000 | NOTES: 100% RATED MAIN BREAKER

| CKT # | BKR TRIP | POLE | WIRE SIZE | COND SIZE | DESCRIPTION | LOAD (KVA) LTG | REC | MTR | A/C | HTG | KIT | MISC | PHASE A/B/C | LOAD (KVA) LTG | REC | MTR | A/C | HTG | KIT | MISC | DESCRIPTION | COND SIZE | WIRE SIZE | POLE | BKR TRIP | CKT # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | 5.3 | | | | | | | | 8.3 | | | | | | 2 |
| 3 | 40 | 3 | 6 | 3/4" | EUH-1 | | | | | | | 6.3 | | | | | | | | 8.3 | EUH-4 | 3/4" | 6 | 3 | 40 | 4 |
| 5 | | | | | | | | | | | | 6.3 | | | | | | | | 8.3 | | | | | | 6 |
| 7 | | | | | | | | | | | | 6.3 | | | | | | | | 8.3 | | | | | | 8 |
| 9 | 40 | 3 | 6 | 3/4" | EUH-2 | | | | | | | 6.3 | | | | | | | | 8.3 | EUH-5 | 3/4" | 6 | 3 | 40 | 10 |
| 11 | | | | | | | | | | | | 6.3 | | | | | | | | 8.3 | | | | | | 12 |
| 13 | | | | | | | | | | | | 6.3 | | | | | | | | 8.3 | | | | | | 14 |
| 15 | 40 | 3 | 6 | 3/4" | EUH-3 | | | | | | | 6.3 | | | | | | | | 8.3 | EUH-6 | 3/4" | 6 | 3 | 40 | 16 |
| 17 | | | | | | | | | | | | 6.3 | | | | | | | | 8.3 | | | | | | 18 |
| 19 | | | | | | | | | | | | | | | | | | | | | | | | | | 20 |
| 21 | 15 | 3 | 12 | 1/2" | CF-1 | | | | | | 0.8 | | | | | | | | 0.8 | | CF-2 | 1/2" | 12 | 3 | 15 | 22 |
| 23 | | | | | | | | | | | 0.8 | | | | | | | | 0.8 | | | | | | | 24 |
| 25 | | | | | | | | | | | 0.8 | | | | | | | | 0.8 | 8.3 | | | | | | 26 |
| 27 | 15 | 3 | 12 | 1/2" | EF-3 | | | | | | 0.8 | | | | | | | | | 8.3 | AH-3 | 3/4" | 8 | 3 | 40 | 28 |
| 29 | | | | | | | | | | | 0.8 | | | | | | | | | 8.3 | | | | | | 30 |
| 31 | | | | | | | | | | 5.0 | | | | | | | | | | 8.3 | | | | | | 32 |
| 33 | 25 | 3 | 10 | 3/4" | AH-1 | | | | | 5.0 | | | | | | | | | | 8.3 | AH-4 | 3/4" | 8 | 3 | 40 | 34 |
| 35 | | | | | | | | | | 5.0 | | | | | | | | | | 8.3 | | | | | | 36 |
| 37 | | | | | | | | | | 5.0 | | | | | | | | | | 8.6 | | | | | | 38 |
| 39 | 25 | 3 | 10 | 3/4" | AH-2 | | | | | 5.0 | | | | | | | | | | 8.3 | AH-5 | 3/4" | 10 | 3 | 25 | 40 |
| 41 | | | | | | | | | | 5.0 | | | | | | | | | | 8.3 | | | | | | 42 |
| | | | | | SECTION 2 | | | | | | | | | | | | | | | | SECTION 2 | | | | | |
| 43 | | | | | | | | | | | | 1.1 | | 3.7 | | | | | | | LIGHTS | 1/2" | 12 | 1 | 20 | 44 |
| 45 | 20 | 3 | 12 | 1/2" | EUH-7 | | | | | | | 1.1 | | 3.3 | | | | | | | LIGHTS SHOP | 1/2" | 12 | 1 | 20 | 46 |
| 47 | | | | | | | | | | | | 1.1 | | 2.2 | | | | | | | LIGHTS SHOP | 1/2" | 12 | 1 | 20 | 48 |
| 49 | | | | | | | | | | | 1.7 | | | 3.3 | | | | | | | LIGHTS SHOP | 1/2" | 12 | 1 | 20 | 50 |
| 51 | 15 | 3 | 12 | 1/2" | HP-1 | | | | | | 1.7 | | | | | | | | 4.0 | | | | | | | 52 |
| 53 | | | | | | | | | | | 1.7 | | | | | | | | 4.0 | | DWH-1 | 1/2" | 12 | 3 | 20 | 54 |
| 55 | | | | | | | | | | | 1.7 | | | | | | | | 4.0 | | | | | | | 56 |
| 57 | 15 | 3 | 12 | 1/2" | HP-2 | | | | | | 1.7 | | | 1.5 | | | | | | | LT SITE (WEST/SOUTH) | 3/4" | 10 | 1 | 20 | 58 |
| 59 | | | | | | | | | | | 1.7 | | | 1.1 | | | | | | | LT SITE (NORTH/EAST) | 3/4" | 10 | 1 | 20 | 60 |
| 61 | | | | | | | | | | | 2.5 | | | | | | | | | | SPACE ONLY | | | | | 62 |
| 63 | 15 | 3 | 12 | 1/2" | HP-3 | | | | | | 2.5 | | | | | | | | | | SPACE ONLY | | | | | 64 |
| 65 | | | | | | | | | | | 2.5 | | | | | | | | | | SPACE ONLY | | | | | 66 |
| 67 | | | | | | | | | | | 2.5 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.8 | | | | | | 68 |
| 69 | 15 | 3 | 12 | 1/2" | HP-4 | | | | | | 2.5 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.8 | PANEL"SH" | 2" | 3/0 | 3 | 200 | 70 |
| 71 | | | | | | | | | | | 2.5 | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 20.8 | | | | | | 72 |
| 73 | | | | | | | | | | | 1.7 | | | | | | | | | 22.1 | | | | | | 74 |
| 75 | 15 | 3 | 12 | 1/2" | HP-5 | | | | | | 1.7 | | | | | | | | | 22.1 | CNC MACHINE (4) | 1 1/4" | 3 | 3 | 100 | 76 |
| 77 | | | | | | | | | | | 1.7 | | | | | | | | | 22.1 | | | | | | 78 |
| 79 | | | | | SPACE ONLY | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 96.8 | SUB FEED BREAKER | | | | | 80 |
| 81 | | | | | SPACE ONLY | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 96.8 | PANEL 2H' | SEE | RISER | 3 | 400 | 82 |
| 83 | | | | | SPACE ONLY | | | | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 96.8 | | | | | | 84 |
| LIGHTING (KVA): | | | | | | 15.1 | 9.9 | 9.9 | 4.8 | 10.8 | 11.4.7 | 0.0 | 3.3 | | | | 15.1 | 0.0 | 2.4 | 9.9 | 15.1.7 | 0.0 | 4.16.7 | CONNECTED LOAD (KVA): | | | | | 726.9 |
| RECEPTACLES (KVA): | | | | | | 0.0 | | | | | | | | | | | | | | | | | | DEMAND LOAD (KVA): | | | | | 732.7 |
| MOTORS (KVA): | | | | | | 7.3 | | | | | | | PHASE A | 245 | 684.4 | | | | | | | | | | | | |
| A/C (KVA): | | | | | | 0.0 | | | | | | | PHASE B | 283 | 876.3 | | | | | | | | | CONNECTED LOAD (AMPS): | | | | 876.7 |
| HEATING (KVA): | | | | | | 289.4 | | | | | | | PHASE C | 241 | 870.6 | | | | | | | | | DEMAND LOAD (AMPS): | | | | 681.3 |
| KITCHEN (KVA): | | | | | | 0.0 | | | | | | | | KVA | AMPS | | | | | | | | | | | | |
| MISCELLANEOUS (KVA): | | | | | | 429.6 | | | | | | | | | | | | | | | | | | | | | |

NOTES: BASIS OF DESIGN BASED ON SQUARE D EQUIPMENT.

## PNL '1H' DEMAND CALCS

| | | | |
|---|---|---|---|
| LIGHTING | 15.13 | KVA X 125 % = | 18.9 KVA |
| RECEPTAC TOTAL | 0.00 | KVA | |
| 1ST | 10.00 | KVA X 100 % = | 0.0 KVA |
| REMAIN | 0.00 | KVA X 50 % = | 0.0 KVA |
| MOTORS | 7.29 | KVA X 100 % = | 7.3 KVA |
| A/C | 0.00 | KVA X 100 % = | 0.0 KVA |
| HEATING | 289.44 | KVA X 100 % = | 289.4 KVA |
| LOCKED-OUT LOAD | | KVA X 100 % = | 0.0 KVA |
| KITCHEN | 0.00 | KVA X 65 % = | 0.0 KVA |
| MISCELLANEOUS | 429.65 | KVA X 100 % = | 429.6 KVA |
| TOTAL = | 881.30 amps | = | 732.7 KVA |

## TROUGH SCHEDULE - 'SCWT'

VOLTAGE: 480/277 | PHASE: 3 | WIRE: 4 | MTG: SURFACE | AIC: 22,000 | NOTES:

| CKT # | CIRCUIT BREAKER SIZE | SIZE | POLE | WIRE SIZE | COND SIZE | DESCRIPTION | LOAD (KVA) LTG | REC | MTR | A/C | HTG | KIT | MISC | PHASE A/B/C |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 800 | | 3 | SEE | RISER | PANEL '1H' | 7.3 | 0.0 | 2.4 | 0.0 | 95.5 | 0.0 | 146.0 | |
| | | | | | | | 4.8 | 0.0 | 2.4 | 0.0 | 96.5 | 0.0 | 140.0 | |
| | | | | | | | 3.3 | 0.0 | 2.4 | 0.0 | 99.3 | 0.0 | 146.0 | |
| 2 | 200 | | 3 | SEE | RISER | DISCONNECT '1T' | 1.5 | 8.3 | 0.0 | 0.0 | 0.0 | 0.0 | 10.5 | |
| | | | | | | | 2.4 | 6.7 | 0.2 | 0.0 | 1.5 | 0.0 | 5.7 | |
| | | | | | | | 4.6 | 6.0 | 0.3 | 0.0 | 1.5 | 0.0 | 10.2 | |
| | | | | | | | 23.6 | 21.2 | 7.8 | 0.0 | 289.4 | 0.0 | 580.3 | |

| | | | | |
|---|---|---|---|---|
| CONNECTED LOAD (KVA) | 788.3 | | | |
| DEMAND LOAD (KVA): | 788.8 | PHASE A | 958.3 | 265.6 |
| | | PHASE B | 935.9 | 256.2 |
| CONNECTED LOAD (AMPS) | 948.2 | PHASE C | 982.0 | 263.7 |
| DEMAND LOAD (AMPS): | 948.6 | AMPS | KVA | |

NOTES:
1.4X14G, SCREW COVER WIRING TROUGH WITH NSI POLARIS LUGS

## SCWT' DEMAND CALCS

| | | | |
|---|---|---|---|
| LIGHTING | 23.62 | KVA X 125 % = | 29.5 KVA |
| RECEPTAC TOTAL | 21.16 | KVA | |
| 1ST | 10.00 | KVA X 100 % = | 10.0 KVA |
| REMAIN | 11.16 | KVA X 50 % = | 5.6 KVA |
| MOTORS | 7.79 | KVA X 100 % = | 7.8 KVA |
| A/C | 0.00 | KVA X 100 % = | 0.0 KVA |
| HEATING | 289.44 | KVA X 100 % = | 289.4 KVA |
| LOCKED-OUT LOAD | | KVA X 100 % = | 0.0 KVA |
| KITCHEN | 0.00 | KVA X 65 % = | 0.0 KVA |
| MISCELLANEOUS | 446.32 | KVA X 100 % = | 446.3 KVA |
| TOTAL = | 948.6 amps | = | 788.6 KVA |

## VOLTAGE DROP SCHEDULE

120 VOLT BRANCH CIRCUITS UP TO 8 AMPS

| RUN DISTANCE IN FEET | | | WIRE SIZE AWG |
|---|---|---|---|
| 1' | - | 120' | #12 |
| 121' | - | 190' | #10 |
| 191' | - | 300' | #8 |
| 301' | - | 470' | #6 |

120 VOLT BRANCH CIRCUITS 9 AMPS TO 14 AMPS

| RUN DISTANCE IN FEET | | | WIRE SIZE AWG |
|---|---|---|---|
| 1' | - | 65' | #12 |
| 66' | - | 110' | #10 |
| 111' | - | 170' | #8 |
| 171' | - | 270' | #6 |

277 VOLT BRANCH CIRCUITS UP TO 14 AMPS

| RUN DISTANCE IN FEET | | | WIRE SIZE AWG |
|---|---|---|---|
| 1' | - | 160' | #12 |
| 161' | - | 250' | #10 |
| 251' | - | 390' | #8 |
| 391' | - | 620' | #6 |

WIRE SIZES INDICATED IN PANEL SCHEDULES ARE MINIMUM WIRE SIZES. CONTRACTOR SHALL UPSIZE WIRE SIZES DUE TO LOAD AND LENGTH OF RUN AS INDICATED IN SCHEDULE ABOVE.

## PANELBOARD SCHEDULE - '2H'

MAIN: 400A MLO W/FEED THRU LUGS | VOLTAGE: 480/277 | PHASE: 3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 14,000 | NOTES:

| CKT # | BKR TRIP | POLE | WIRE SIZE | COND SIZE | DESCRIPTION | LOAD (KVA) LTG | REC | MTR | A/C | HTG | KIT | MISC | PHASE A/B/C | LOAD (KVA) LTG | REC | MTR | A/C | HTG | KIT | MISC | DESCRIPTION | COND SIZE | WIRE SIZE | POLE | BKR TRIP | CKT # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | | | | | | | | | | | | 3.4 | | | | | | | | 3.4 | | | | | | 2 |
| 3 | 20 | 3 | 12 | 1/2" | WELDER (2) | | | | | | | 3.4 | | | | | | | | 3.4 | WELDER (2) | 1/2" | 12 | 3 | 20 | 4 |
| 5 | | | | | | | | | | | | 3.4 | | | | | | | | 3.4 | | | | | | 6 |
| 7 | | | | | | | | | | | | 3.4 | | | | | | | | 3.4 | | | | | | 8 |
| 9 | 20 | 3 | 12 | 1/2" | WELDER (2) | | | | | | | 3.4 | | | | | | | | 3.4 | WELDER (2) | 1/2" | 12 | 3 | 20 | 10 |
| 11 | | | | | | | | | | | | 3.4 | | | | | | | | 5.3 | | | | | | 12 |
| 13 | | | | | | | | | | | | 5.3 | | | | | | | | 5.3 | | | | | | 14 |
| 15 | 25 | 3 | 10 | 3/4" | WELD STATION (1) | | | | | | | 5.3 | | | | | | | | 5.3 | WELD STATION (1) | 3/4" | 10 | 3 | 25 | 16 |
| 17 | | | | | | | | | | | | 5.3 | | | | | | | | 5.3 | | | | | | 18 |
| 19 | | | | | | | | | | | | 3.4 | | | | | | | | 3.4 | | | | | | 20 |
| 21 | 20 | 3 | 12 | 1/2" | WELDER (2) | | | | | | | 3.4 | | | | | | | | 3.4 | WELDER (2) | 1/2" | 12 | 3 | 20 | 22 |
| 23 | | | | | | | | | | | | 3.4 | | | | | | | | 3.4 | | | | | | 24 |
| 25 | | | | | | | | | | | | 3.4 | | | | | | | | 3.4 | | | | | | 26 |
| 27 | 20 | 3 | 12 | 1/2" | WELDER (2) | | | | | | | 3.4 | | | | | | | | 3.4 | WELDER (2) | 1/2" | 12 | 3 | 20 | 28 |
| 29 | | | | | | | | | | | | 3.4 | | | | | | | | 3.4 | | | | | | 30 |
| 31 | | | | | | | | | | | | 5.3 | | | | | | | | 5.3 | | | | | | 32 |
| 33 | 25 | 3 | 10 | 3/4" | WELD STATION (1) | | | | | | | 5.3 | | | | | | | | 5.3 | WELD STATION (1) | 3/4" | 10 | 3 | 25 | 34 |
| 35 | | | | | | | | | | | | 5.3 | | | | | | | | 5.3 | | | | | | 36 |
| 37 | | | | | | | | | | | | 5.3 | | | | | | | | 5.3 | | | | | | 38 |
| 39 | 25 | 3 | 10 | 3/4" | WELD STATION (1) | | | | | | | 5.3 | | | | | | | | 5.3 | WELD STATION (1) | 3/4" | 10 | 3 | 25 | 40 |
| 41 | | | | | | | | | | | | 5.3 | | | | | | | | 5.3 | | | | | | 42 |
| | | | | | SECTION 2 | | | | | | | | | | | | | | | | SECTION 2 | | | | | |
| 43 | | | | | | | | | | | | 3.4 | | | | | | | | | | | | | | 44 |
| 45 | 20 | 3 | 12 | 1/2" | WELDER | | | | | | | | | | | | | | | | SPARE | | | 3 | 20 | 46 |
| 47 | | | | | | | | | | | | 3.4 | | | | | | | | | | | | | | 48 |
| 49 | | | | | | | | | | | | 3.4 | | | | | | | | 3.4 | | | | | | 50 |
| 51 | 20 | 3 | 12 | | ER (2) | | | | | | | 3.4 | | | | | | | | 3.4 | WELDER (2) | 1/2" | 12 | 3 | 20 | 52 |
| 53 | | | | | | | | | | | | 3.4 | | | | | | | | 3.4 | | | | | | 54 |
| 55 | | | | | | | | | | | | 3.6 | | | | | | | | 3.4 | | | | | | 56 |
| 57 | 20 | 3 | 12 | 1/2" | ROBOT (6) | | | | | | | 3.6 | | | | | | | | 3.4 | WELDER (2) | 1/2" | 12 | 3 | 20 | 58 |
| 59 | | | | | | | | | | | | 3.6 | | | | | | | | | | | | | | 60 |
| 61 | 20 | | | 1/2" | ROBOT (6) | | | | | | | 3.6 | | | | | | | | | SPACE | | | | | 62 |
| 63 | | | | | | | | | | | | 3.6 | | | | | | | | | SPACE | | | | | 64 |
| 65 | 30 | 3 | | | SPARE | | | | | | | 4.0 | | | | | | | | | SPACE | | | | | 66 |
| 67 | | | | | | | | | | | | 4.0 | | | | | | | | | SPACE | | | | | 68 |
| 69 | 30 | 3 | | 10 | CONVEYOR (8) | | | | | | | 4.0 | | | | | | | | | SPACE | | | | | 70 |
| 71 | | | | | | | | | | | | 4.0 | | | | | | | | | SPACE | | | | | 72 |
| 73 | | | | | | | | | | | | | | | | | | | | | SPACE | | | | | 74 |
| 75 | 30 | 3 | | | SPARE | | | | | | | | | | | | | | | | SPACE | | | | | 76 |
| 77 | | | | | | | | | | | | | | | | | | | | | SPACE | | | | | 78 |
| 79 | | | | | | | | | | | | 13.3 | | | | | | | | | SPACE | | | | | 80 |
| 81 | 60 | 3 | 6 | 1" | VACUUM PUMP (5) | | | | | | | 13.3 | | | | | | | | | SPACE | | | | | 82 |
| 83 | | | | | | | | | | | | 13.3 | | | | | | | | | SPACE | | | | | 84 |
| LIGHTING (KVA): | | | | | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 181.9 | | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 189.5 | CONNECTED LOAD (KVA): | | | | | 280.4 |
| RECEPTACLES (KVA): | | | | | | 0.0 | | | | | | | | | | | | | | | DEMAND LOAD (KVA): | | | | | 289.4 |
| MOTORS (KVA): | | | | | | 0.0 | | | | | | | PHASE A | 97 | 349.5 | | | | | | | | | | | |
| A/C (KVA): | | | | | | 0.0 | | | | | | | PHASE B | 97 | 349.5 | | | | | | | | | CONNECTED LOAD (AMPS): | | | 349.3 |
| HEATING (KVA): | | | | | | 0.0 | | | | | | | PHASE C | 97 | 349.5 | | | | | | | | | DEMAND LOAD (AMPS): | | | 349.3 |
| KITCHEN (KVA): | | | | | | 0.0 | | | | | | | | KVA | AMPS | | | | | | | | | | | |
| MISCELLANEOUS (KVA): | | | | | | 290.4 | | | | | | | | | | | | | | | | | | | | |

NOTES: BASIS OF DESIGN BASED ON SQUARE D EQUIPMENT.

## PNL '2H' DEMAND CALCS

| | | | |
|---|---|---|---|
| LIGHTING | 0.00 | KVA X 125 % = | 0.0 KVA |
| RECEPTAC TOTAL | 0.00 | KVA | |
| 1ST | 10.00 | KVA X 100 % = | 0.0 KVA |
| REMAIN | 0.00 | KVA X 50 % = | 0.0 KVA |
| MOTORS | 0.00 | KVA X 100 % = | 0.0 KVA |
| A/C | 0.00 | KVA X 100 % = | 0.0 KVA |
| HEATING | 0.00 | KVA X 100 % = | 0.0 KVA |
| LOCKED-OUT LOAD | | KVA X 100 % = | 0.0 KVA |
| KITCHEN | 0.00 | KVA X 65 % = | 0.0 KVA |
| MISCELLANEOUS | 290.45 | KVA X 100 % = | 290.4 KVA |
| TOTAL = | 349.3 amps | = | 290.4 KVA |

## PANELBOARD SCHEDULE - '1L'

MAIN: 400A MCB W/ FEED THRU LUGS | VOLTAGE: 208/120 | PHASE: 3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 10,000 | NOTES:

| CKT # | BKR TRIP | POLE | WIRE SIZE | COND SIZE | DESCRIPTION | LOAD (KVA) LTG | REC | MTR | A/C | HTG | KIT | MISC | PHASE A/B/C | LOAD (KVA) LTG | REC | MTR | A/C | HTG | KIT | MISC | DESCRIPTION | COND SIZE | WIRE SIZE | POLE | BKR TRIP | CKT # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 1 | 12 | 1/2" | EWC * | | | | | | | 0.9 | | | 0.5 | | | | | | RECEPTS-CORD | 1/2" | 12 | 1 | 20 | 2 |
| 3 | 20 | 1 | 12 | 1/2" | RECEPTS (GEN. | | 0.7 | | | | | | | | 0.5 | | | | | | RECEPTS-CORD | 1/2" | 12 | 1 | 20 | 4 |
| 5 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 1.1 | | | | | | | | | | | | | 0.3 | EWC * | 1/2" | 12 | 1 | 20 | 6 |
| 7 | 20 | 1 | 12 | 1/2" | RECEPTS | | 1.1 | | | | | | | | | | | | | 0.3 | EWC * | 1/2" | 12 | 1 | 20 | 8 |
| 9 | 20 | 1 | 12 | 1/2" | VENDING * | | | | | | 1.2 | | | | | | | | | | SPARE | | | | | 10 |
| 11 | 20 | 1 | 12 | 1/2" | VENDING * | | | | | | 1.2 | | | | | | | | | 0 | PARTITION | 1/2" | 12 | 1 | 20 | 12 |
| 13 | 20 | 1 | 12 | 1/2" | VENDING * | | | | | | 1.2 | | | | | | | | | | FIRE ALARM | 1/2" | 12 | 1 | 20 | 14 |
| 15 | 20 | 1 | 12 | 1/2" | SMALL APP. REC * | | | | | | 1.5 | | | | | | | | | | PHYSIOLOGY | 1/2" | 12 | 1 | 20 | 16 |
| 17 | 20 | 1 | 12 | 1/2" | SMALL APP. REC * | | | | | | 1.5 | | | 1.2 | | | | | | | CON CONTROL | 1/2" | 12 | 1 | 20 | 18 |
| 19 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 1.1 | | | | | | | 0.3 | | | | | | | LIGHTING | 1/2" | 12 | 1 | 20 | 20 |
| 21 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 0.9 | | | | | | | 1.2 | | | | | | | INSTRUMENTATION | 1/2" | 12 | 1 | 20 | 22 |
| 23 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 1.1 | | | | | | | 1.2 | | | | | | | SPACE CONNECTION | 1/2" | 12 | 1 | 20 | 24 |
| 25 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 1.1 | | | | | | | 1.2 | | | | | | | SPACE CONNECTION | 1/2" | 12 | 1 | 20 | 26 |
| 27 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 0.4 | | | | | | | 0.5 | | | | | | | LIGHTS EXTERIOR | 1/2" | 12 | 1 | 20 | 28 |
| 29 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 0.4 | | | | | | | | | | | | | | LIGHTS EXTERIOR | 1/2" | 12 | 1 | 20 | 30 |
| 31 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 0.4 | | | | | | | | | | | | | 0.3 | LIGHTING CLTS | 1/2" | 12 | 1 | 20 | 32 |
| 33 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 0.2 | | | | | | | | | | | | 1.5 | | RPZ HEATER | 3/4" | 8 | 1 | 20 | 34 |
| 35 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 0.2 | | | | | | | | | | | | 1.5 | | RPZ HEATER | 3/4" | 8 | 1 | 20 | 36 |
| 37 | 20 | 1 | | | SPARE | | | | | | | | | 1.2 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 7.4 | SUB FEED BREAKER | | | | | 38 |
| 39 | 20 | 1 | 12 | 1/2" | LIGHTS 2ND | | 0.5 | | | | | | | 0.5 | 0.0 | 0.0 | 0.0 | 0.0 | 0.0 | 2.0 | PANEL 2L' | 2 1/2" | 4/0 | 3 | 225 | 40 |
| 41 | 20 | 1 | 12 | 1/2" | LIGHTS 1ST | | 1.2 | | | | | | | 0.5 | 1.8 | 0.0 | 0.0 | 0.0 | 0.0 | 8.2 | | | | | | 42 |
| | | | | | SECTION 2 | | | | | | | | | | | | | | | | SECTION 2 | | | | | |
| 43 | 20 | 1 | 12 | 1/2" | RECEPTS. | | | | | | | | | | 0.5 | | | | | | RECEPTS. | 1/2" | 12 | 1 | 20 | 44 |
| 45 | 20 | 1 | 12 | 1/2" | RECEPTS. | | | | | | | | | | 0.5 | | | | | | RECEPTS. | 1/2" | 12 | 1 | 20 | 46 |
| 47 | 20 | 1 | 12 | 1/2" | RECEPTS. | | | | | | | | | | 0.5 | | | | | | RECEPTS. | 1/2" | 12 | 1 | 20 | 48 |
| 49 | 20 | 1 | 12 | 1/2" | RECEPTS. | | | | | | | | | | 0.5 | | | | | | RECEPTS. | 1/2" | 12 | 1 | 20 | 50 |
| 51 | 20 | 1 | | | SPARE | | | | | | | | | | 0.7 | | | | | | RECEPTS | 1/2" | 12 | 1 | 20 | 52 |
| 53 | 20 | 1 | | | SPARE | | | | | | | | | | | | | | | | SPACE | | | | | 54 |
| 55 | 20 | 1 | | | SPARE | | | | | | | | | | | | | | | | SPACE | | | | | 56 |
| 57 | 20 | 1 | | | SPARE | | | | | | | | | | | | | | | | SPACE | | | | | 58 |
| 59 | 20 | 1 | | | SPARE | | | | | | | | | | | | | | | | SPACE | | | | | 60 |
| 61 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 62 |
| 63 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 64 |
| 65 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 66 |
| 67 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 68 |
| 69 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 70 |
| 71 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 72 |
| 73 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 74 |
| 75 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 76 |
| 77 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 78 |
| 79 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 80 |
| 81 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 82 |
| 83 | | | | | SPACE | | | | | | | | | | | | | | | | SPACE | | | | | 84 |
| LIGHTING (KVA): | | | | | | 8.5 | 1.7 | 11.3 | 9.5 | 0.0 | 0.0 | 0.0 | 6.9 | | 6.8 | 9.6 | 0.0 | 0.0 | 3.9 | 9.0 | 19.4 | CONNECTED LOAD (KVA): | | | | | 59.4 |
| RECEPTACLES (KVA): | | | | | | 21.7 | | | | | | | | | | | | | | | | DEMAND LOAD (KVA): | | | | | 56.0 |
| MOTORS (KVA): | | | | | | 0.5 | | | | | | | PHASE A | 29 | 170.6 | | | | | | | | | | | | |
| A/C (KVA): | | | | | | 0.0 | | | | | | | PHASE B | 16 | 137.1 | | | | | | | | | CONNECTED LOAD (AMPS): | | | 164.9 |
| HEATING (KVA): | | | | | | 3.0 | | | | | | | PHASE C | 22 | 187.4 | | | | | | | | | DEMAND LOAD (AMPS): | | | 155.3 |
| KITCHEN (KVA): | | | | | | 0.0 | | | | | | | | KVA | AMPS | | | | | | | | | | | | |
| MISCELLANEOUS (KVA): | | | | | | 26.3 | | | | | | | | | | | | | | | | | | | | | |

NOTES: 1. BASIS OF DESIGN BASED ON SQUARE D EQUIPMENT. 2. * - INDICATES GFCI RATED BREAKER. 3. ** - INDICATES BREAKER WITH LOCK OFF DEVICE.

## PNL '1L' DEMAND CALCS

| | | | |
|---|---|---|---|
| LIGHTING | 8.49 | KVA X 125 % = | 10.6 KVA |
| RECEPTAC TOTAL | 21.16 | KVA | |
| 1ST | 10.00 | KVA X 100 % = | 10.0 KVA |
| REMAIN | 11.16 | KVA X 50 % = | 5.6 KVA |
| MOTORS | 0.50 | KVA X 100 % = | 0.5 KVA |
| A/C | 0.00 | KVA X 100 % = | 0.0 KVA |
| HEATING | 3.00 | KVA X 100 % = | 3.0 KVA |
| LOCKED-OUT LOAD | | KVA X 100 % = | 0.0 KVA |
| KITCHEN | 0.00 | KVA X 65 % = | 0.0 KVA |
| MISCELLANEOUS | 26.27 | KVA X 100 % = | 26.3 KVA |
| TOTAL = | 155.3 amps | = | 56.0 KVA |

## PANELBOARD SCHEDULE - '2L'

MAIN: 225A MLO W/FEED THRU LUGS | VOLTAGE: 208/120 | PHASE: 3 | WIRE: 4 | MOUNTING: SURFACE | AIC: 10,000 | NOTES:

| CKT # | BKR TRIP | POLE | WIRE SIZE | COND SIZE | DESCRIPTION | LOAD (KVA) LTG | REC | MTR | A/C | HTG | KIT | MISC | PHASE A/B/C | LOAD (KVA) LTG | REC | MTR | A/C | HTG | KIT | MISC | DESCRIPTION | COND SIZE | WIRE SIZE | POLE | BKR TRIP | CKT # |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 0.4 | | | | | | | | 0.5 | | | | | | RECEPTS-CORD | 1/2" | 12 | 1 | 20 | 2 |
| 3 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 0.4 | | | | | | | | 0.5 | | | | | | RECEPTS-CORD | 1/2" | 12 | 1 | 20 | 4 |
| 5 | 20 | 1 | 12 | 1/2" | RECEPTS | | 0.4 | | | | | | | | 0.5 | | | | | | RECEPTS-CORD | 1/2" | 12 | 1 | 20 | 6 |
| 7 | 20 | 1 | 12 | 1/2" | RECEPTS. | | 0.4 | | | | | | | | 0.5 | | | | | | RECEPTS-CORD | 1/2" | 12 | 1 | 20 | 8 |
| 9 | 20 | 1 | 12 | 1/2" | 3S EVAL BOOTH | | | | | | | 0.4 | | | 0.5 | | | | | | RECEPTS-CORD | 1/2" | 12 | 1 | 20 | 10 |
| 11 | 20 | 1 | 12 | 1/2" | 3S TRAINING REC | | 0.4 | | | | | | | | 0.4 | | | | | | RECEPTS. | 1/2" | 12 | 1 | 20 | 12 |
| 13 | 20 | 1 | 12 | 1/2" | PLC (7) | | | | | | | 1.2 | | | 0.4 | | | | | | RECEPTS. | 1/2" | 12 | 1 | 20 | 14 |
| 15 | 20 | 1 | 12 | 1/2" | ROBOT AREA REC | | 0.2 | | | | | | | | 0.4 | | | | | | RECEPTS. | 1/2" | 12 | 1 | 20 | 16 |
| 17 | 30 | 2 | 10 | 3/4" | RADIAL ARM SAW (10) | | | | | | | 1.8 | | | | | | | | 1.8 | WELDING REC | 1/2" | 12 | 1 | 20 | 18 |
| 19 | | | | | | | | | | | | 1.8 | | | | | | | | 1.8 | WELDING REC | 1/2" | 12 | 1 | 20 | 20 |
| 21 | 20 | 1 | 12 | 1/2" | RADIAL AREA REC. | | 0.2 | | | | | | | | | | | | | 1.8 | WELDING REC | 1/2" | 12 | 1 | 20 | 22 |
| 23 | | | | | SPACE ONLY | | | | | | | | | | | | | | | 1.8 | WELDING REC | 1/2" | 12 | 1 | 20 | 24 |
| 25 | | | | | SPACE ONLY | | | | | | | | | | | | | | | 1.8 | WELDING REC | 1/2" | 12 | 1 | 20 | 26 |
| 27 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPARE | | | 1 | 20 | 28 |
| 29 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 30 |
| 31 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 32 |
| 33 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 34 |
| 35 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 36 |
| 37 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 38 |
| 39 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 40 |
| 41 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 42 |
| | | | | | SECTION 2 | | | | | | | | | | | | | | | | SECTION 2 | | | | | |
| 43 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 44 |
| 45 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 46 |
| 47 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 48 |
| 49 | | | | | SPACE ONLY | | | | | | | | | | | | | | | | SPACE ONLY | | | | | 50 |
| 51 | | | | | SPACE ONLY |