

**FISHERIES AND OCEANS, REAL PROPERTY, SAFETY AND SECURITY**

VANCOUVER, BC  
200-401 BURRARD ST.

Project title/Titre du projet

**VICTORIA SAR STATION**

25 Huron Street, Victoria, B.C.

Consultant Signature Box Only

Designed by/Concept par  
**CT**

DRAWN by/Dessiné par  
**TS**

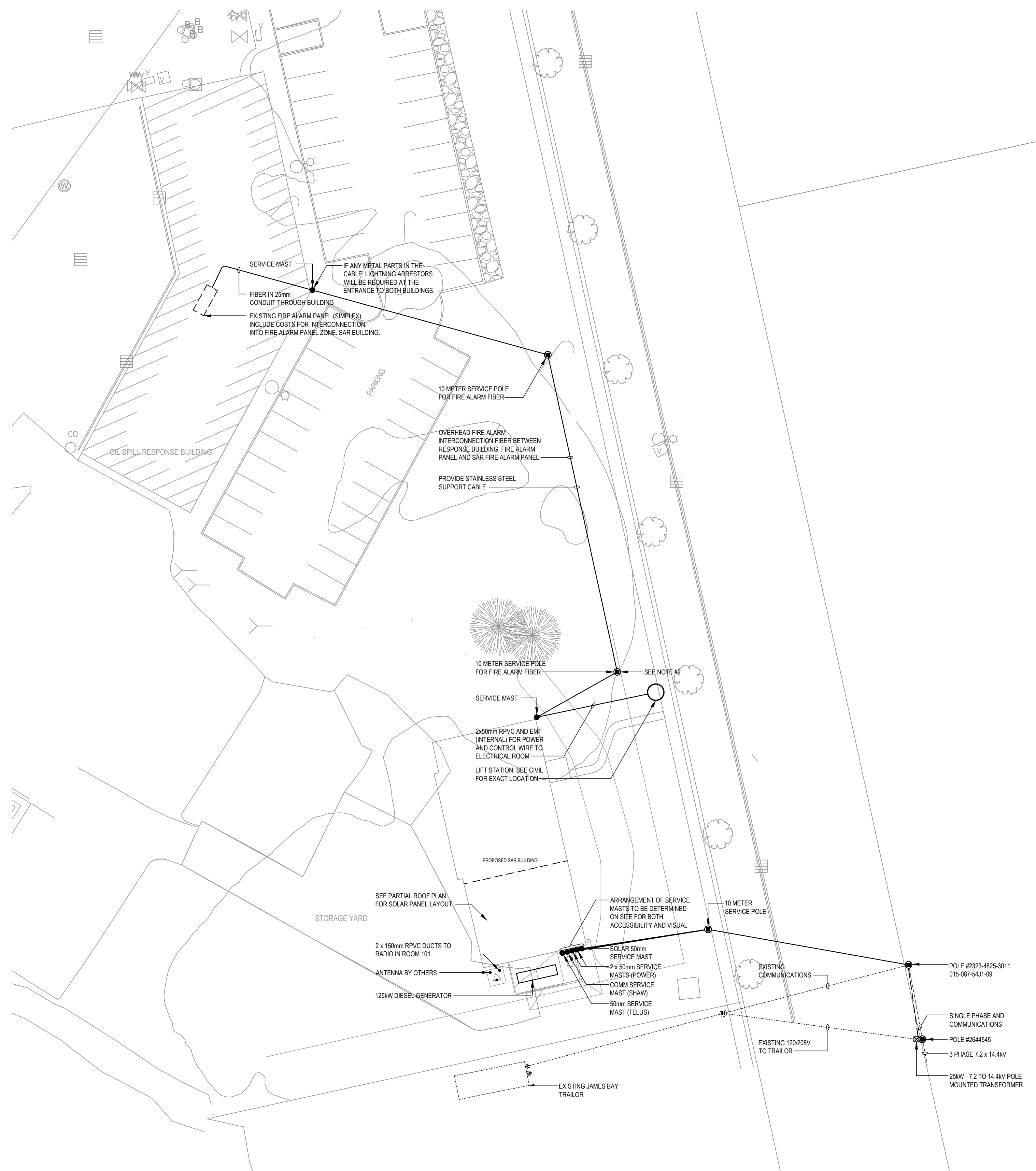
PW/GSC Project Manager/Administrateur de Projets TP/GSC

PW/GSC Regional Manager, Architectural and Engineering Services / Gestionnaire régionale, Services d'architecture et de génie, TP/GSC

Drawing title/Titre du dessin

**SITE PLAN AND LEGEND**

|                           |                |                               |
|---------------------------|----------------|-------------------------------|
| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
| <b>2017567</b>            | <b>E1.0</b>    |                               |



**1 SITE PLAN**  
SCALE: 1:300

- NOTES:
- EXACT LOCATION OF INCOMING HYDRO, TELUS AND SHAW SERVICES AND FIRE ALARM OVERHEAD ROUTE TO BE DETERMINED ON SITE.
  - FROM ELECTRICAL ROOM INSTALL A 25mm (RPVC) TO SERVICE POLE FOR FUTURE LIGHT.
  - SERVICE POLES TO BE INCLUDED IN CONTRACT.
  - CONTRACTOR RESPONSIBILITY TO CO-ORDINATE THE INCOMING HYDRO, TELUS AND SHAW SERVICES.

**LUMINAIRE SCHEDULE:**

- TYPE 'A' - THIN SURFACE MOUNTED 10" ROUND 2200lm WHITE FINISH, TRANSMITTANCE LENS.
- TYPE 'A1' - THIN SURFACE MOUNTED 10" ROUND 1000lm LED WHITE FINISH, TRANSMITTANCE LENS.
- TYPE 'B' - SURFACE MOUNTED WRAP LUMINAIRE, 5200lm LED, DIMMABLE LED.
- TYPE 'C' - HIGH PERFORMING LED 14,000lm UNIVERSAL DRIVE, 0-10 DIMMING, ROD HUNG, 10" DIA.
- TYPE 'D' - SURFACE, 1000lm LED, DIMMABLE DRIVER, WHITE TRIM 7" ROUND.
- TYPE 'D1' - SURFACE 1000lm LED, DIMMABLE DRIVER, WHITE TRIM 5" ROUND.
- TYPE 'E' - 3" RECESSED SHOWER LIGHT 800lm LED, AIRTIGHT IC, WHITE TRIM, DIMMABLE FLOOD LED.
- TYPE 'G' - WALL MOUNTED - 2x7W 2200lm, LED, DIMMABLE WHITE, WHITE FINISH
- TYPE 'H' - RECESSED 6" ROUND POT LIGHT, 1500lm LED, AIR SEAL IC, DIMMING OPEN DOWNLIGHT, CLEAR DIFFUSED, SWIVEL LAMP 30"
- TYPE 'H1' - RECESSED 6" ROUND POT LIGHT, 1000lm LED, AIR SEAL IC, DIMMING OPEN DOWNLIGHT, CLEAR DIFFUSED, SWIVEL LAMP 30"
- TYPE 'J' - WALL LIGHT 24" SLIM, 24 W, 2640 LUMENS DIMMABLE WALL SCONCE, WHITE FINISH.
- TYPE 'K' - 2x2' RECESSED LIGHT, 3000lm LED DIMMABLE.
- TYPE 'L' - MINI WALL PACK EXTERIOR 2000L, 25W, BLACK.
- TYPE 'M' - SUSPENDED 2650lm DIMMABLE DRIVER, WHITE FINISH.
- TYPE 'N' - UNDERCOUNTER LED STRIP LIGHT
- TYPE 'P' - EXTERIOR WALL MOUNTED 80W LED FLOOD LIGHT, BRONZE.
- EXIT SIGN - GREEN "RUNNING MAN" STYLE PICTOGRAPH LIGHT C/W BATTERY.
- TYPE 'EMR' - DUAL HEAD EMERGENCY LIGHT WITH SELF CONTAINED BATTERY BACKUP
- 2 x 9W EMERGENCY LIGHTS

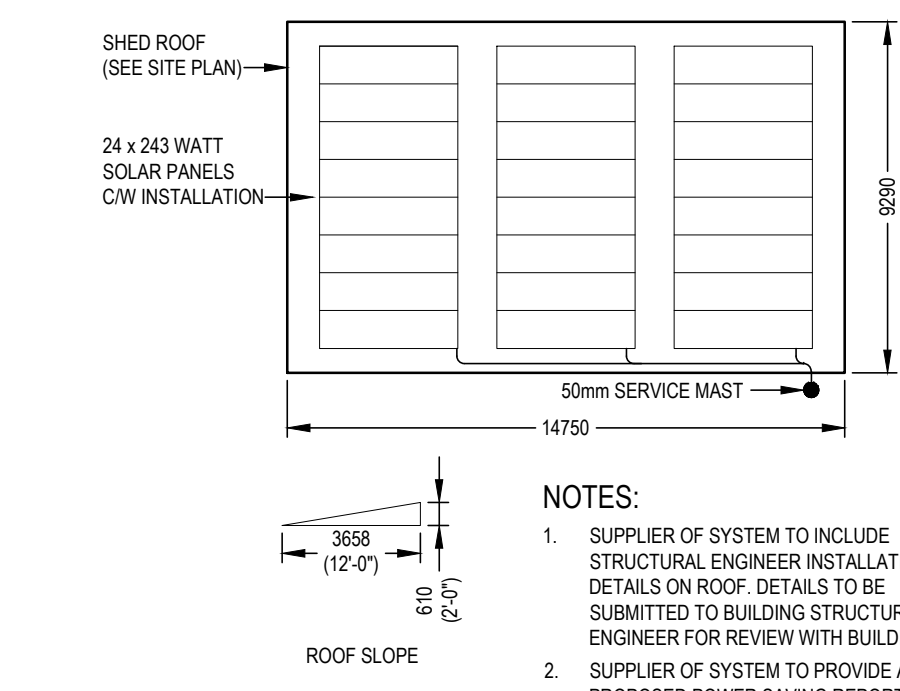
**NOTES:**

- LUMINAIRES IN ADMINISTRATION FLOOR - 3500k
- LUMINAIRES IN WORKSHOP - 4000k
- LUMINAIRES IN RESIDENTIAL FLOOR - 3000K
- EXTERIOR LUMINAIRES - 4000k

**GENERAL NOTES:**

- COMMUNICATION:  
CONTRACTOR TO PROVIDE CONDUIT, BOXES, FISH WIRE, MAST FOR SYSTEM INSTALLED BY OTHERS. COORDINATE WITH SAR DEPARTMENT. (TELUS / SHAW)
- CCTV:  
CONTRACTOR TO PROVIDE CONDUIT, OUTLETS AND FISHWIRE FOR SYSTEM INSTALLATION BY OTHERS. COORDINATE WITH SAR DEPARTMENT. 19mm CONDUITS TO TERMINATE IN ELECTRICAL ROOM.
- DOOR SECURITY:  
CONTRACTOR TO PROVIDE CONDUIT, OUTLETS AND FISHWIRE FOR SYSTEM INSTALLATION BY OTHERS. COORDINATE WITH SAR DEPARTMENT.
- TELEVISION:  
CONTRACTOR TO PROVIDE CONDUIT, OUTLETS, COAX CABLES, SPLITTERS, COVERPLATES. TERMINATE IN METER ROOM AND TEST SYSTEM.
- SOLAR PANEL:  
CONTRACTOR TO INCLUDE SYSTEM SUPPLIER. A COMPLETE PACKAGE INCLUDING DESIGN INFORMATION WITH SHOP DRAWINGS. INCLUDE EXPECTED MONTHLY WATTAGE BASED ON VICTORIA WEATHER FROM LAST 5 YEARS.
- FIRE ALARM:  
THE EXISTING SITE FIRE ALARM PANELS ARE ADDRESSABLE SIMPLEX. THE SAR FIRE ALARM PANEL TO BE COMPATIBLE WITH THE SIMPLEX PANEL. CONTRACTOR TO INCLUDE ALL COSTS FOR INTERCONNECTION, TESTING AND VERIFICATION.

| LEGEND                |   |
|-----------------------|---|
| <b>LIGHTING</b>       |   |
|                       | EMERGENCY LUMINAIRE                                 |
|                       | LED STRIP LUMINAIRE                                 |
|                       | CEILING SUSPENDED LINEAR LUMINAIRE                  |
|                       | SURFACE MOUNTED LUMINAIRE                           |
|                       | RECESSED DOWN LIGHT                                 |
|                       | WALL MOUNTED DOWN LIGHT                             |
|                       | PENDANT LUMINAIRE                                   |
|                       | VACANCY SWITCH                                      |
|                       | SWITCH  |
|                       | THREE WAY TOGGLE SWITCH                             |
|                       | SWITCH WITH PILOT LIGHT                             |
|                       | TIMER SWITCH  |
|                       | PHOTO CELL  |
|                       | OCCUPANCY SENSOR, CEILING MOUNTED                   |
|                       | DIMMER SWITCH                                       |
|                       | EXIT SIGN - FACING AND ARROWS AS INDICATED          |
|                       | EMERGENCY BATTERY PACK                              |
|                       | DUAL REMOTE EMERGENCY HEADS, WALL MOUNTED           |
| <b>POWER</b>          |   |
|                       | SINGLE RECEPTACLE                                   |
|                       | DUPLEX RECEPTACLE                                   |
|                       | 5-20R DUPLEX RECEPTACLE (T-SLOT)                    |
|                       | GFCI DUPLEX RECEPTACLE                              |
|                       | FLOOR MOUNTED DUPLEX RECEPTACLE                     |
|                       | MECHANICAL EQUIPMENT DIRECT CONNECTION              |
|                       | MECHANICAL MOTOR CONNECTION                         |
|                       | DISCONNECT SWITCH                                   |
|                       | MAGNETIC STARTER                                    |
|                       | BC HYDRO METER                                      |
|                       | CONDUIT RUN UP                                      |
|                       | CONDUIT RUN DOWN                                    |
| <b>FIRE ALARM</b>     |   |
|                       | SMOKE DETECTOR                                      |
|                       | FIRE ALARM BELLSTROBE COMBINATION                   |
|                       | SPRINKLER FLOW SWITCH                               |
|                       | SPRINKLER VALVE SUPERVISORY                         |
|                       | DUCT SMOKE DETECTOR                                 |
|                       | FIRE ALARM PULL STATION                             |
|                       | SMOKE DAMPER  |
|                       | SMOKE ALARM   |
| <b>COMMUNICATIONS</b> |   |
|                       | COMBINATION TELEPHONE AND DATA OUTLET, WALL MOUNTED |
|                       | COMMUNICATION CONDUIT TO COMM BOX ON MAIN FLOOR     |
|                       | COMBINATION TELEPHONE AND DATA OUTLET FLOOR         |
|                       | COMMUNICATION PULL BOX                              |
|                       | CABLE TV  |
|                       | TELEVISION PULL BOX                                 |
| <b>SECURITY</b>       |   |
|                       | EXIT DOOR ENTRY SYSTEM                              |
|                       | CCTV CAMERA   |

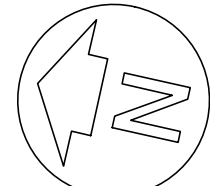


**2 ROOF SOLAR PANEL LAYOUT**  
SCALE: 1:200

**NOTES:**

- SUPPLIER OF SYSTEM TO INCLUDE STRUCTURAL ENGINEER INSTALLATION DETAILS ON ROOF. DETAILS TO BE SUBMITTED TO BUILDING STRUCTURAL ENGINEER FOR REVIEW WITH BUILDING.
- SUPPLIER OF SYSTEM TO PROVIDE A PROPOSED POWER SAVING REPORT.





| Revision/Revision | Description/Description | Date/Date  |
|-------------------|-------------------------|------------|
| 4                 | TENDER                  | 2018-12-14 |
| 3                 | 100% REVIEW             | 2018-11-05 |
| 2                 | 90% REVIEW              | 2018-09-04 |
| 1                 | review                  | 2018-xx-xx |

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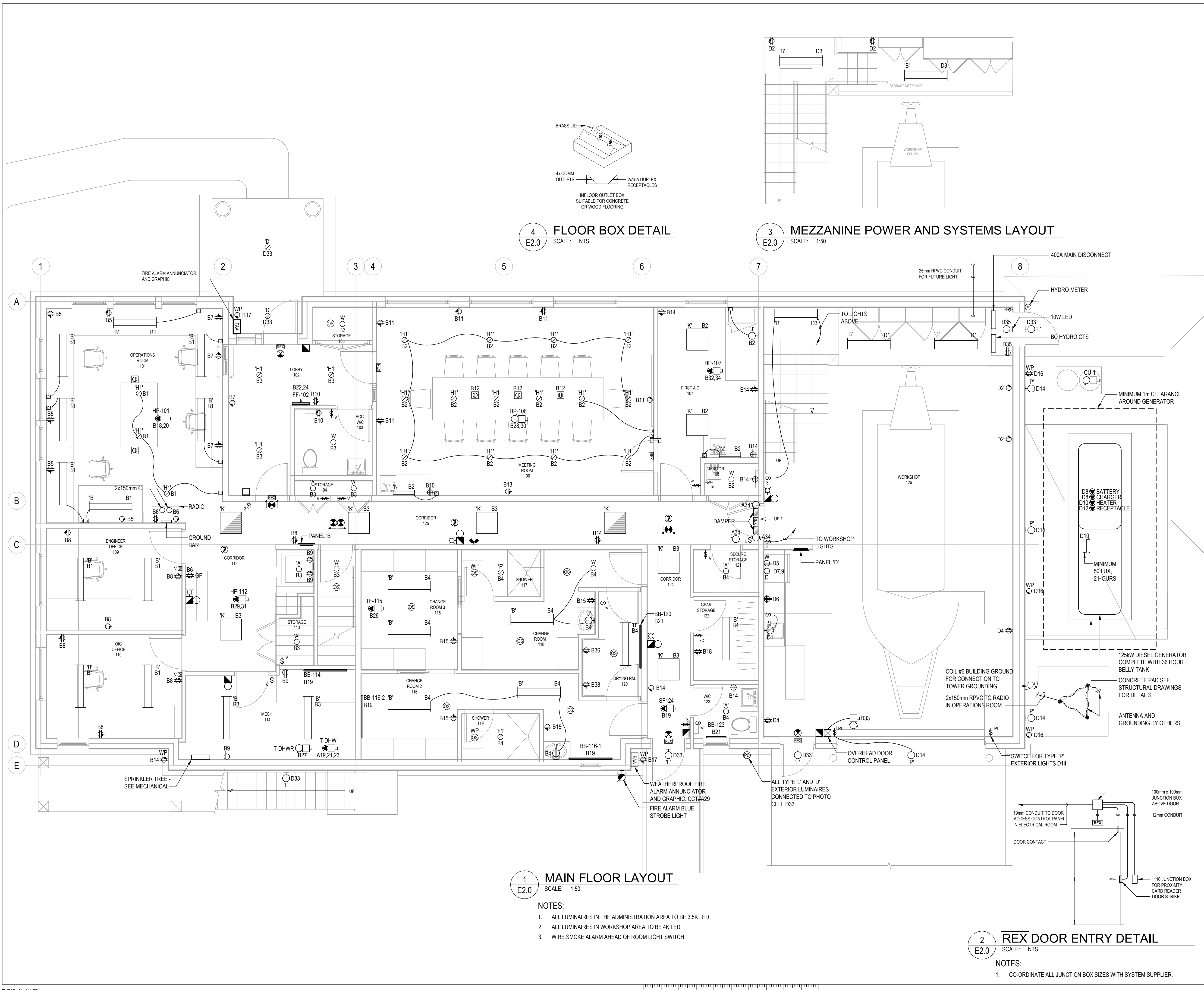
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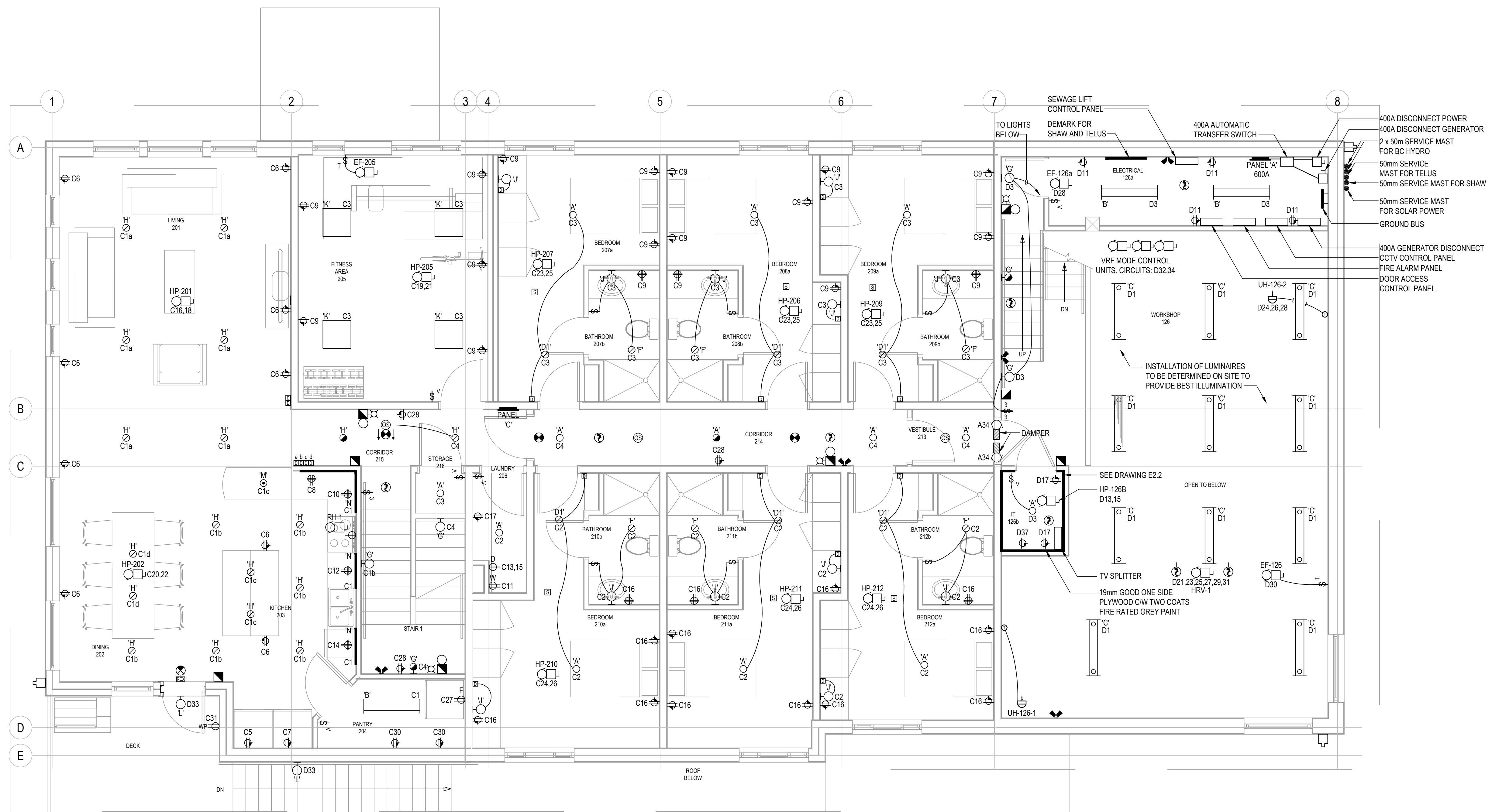
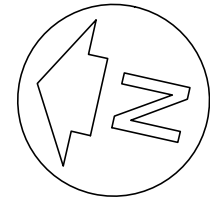
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 PWGSC Regional Manager, Architectural and Engineering Services / Gestionnaire régionale, Services d'architecture et de génie, TPSGC

Drawing title/Titre du dessin  
**MAIN FLOOR ELECTRICAL LAYOUT**

| Project No./No. du projet | Sheet/ Feuille | Revision no./ La Révision no. |
|---------------------------|----------------|-------------------------------|
| 2017567                   | E2.0           |                               |





| 4         | TENDER                  | 2018-12-14 |
|-----------|-------------------------|------------|
| 3         | 100% REVIEW             | 2018-11-05 |
| 2         | 90% REVIEW              | 2018-09-04 |
| 1         | REVIEW                  | 2018-xx-xx |
| Revision/ | Description/Description | Date/Date  |
| Revision  |                         |            |

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Drawing title/Titre du dessin  
**SECOND FLOOR  
 ELECTRICAL LAYOUT**

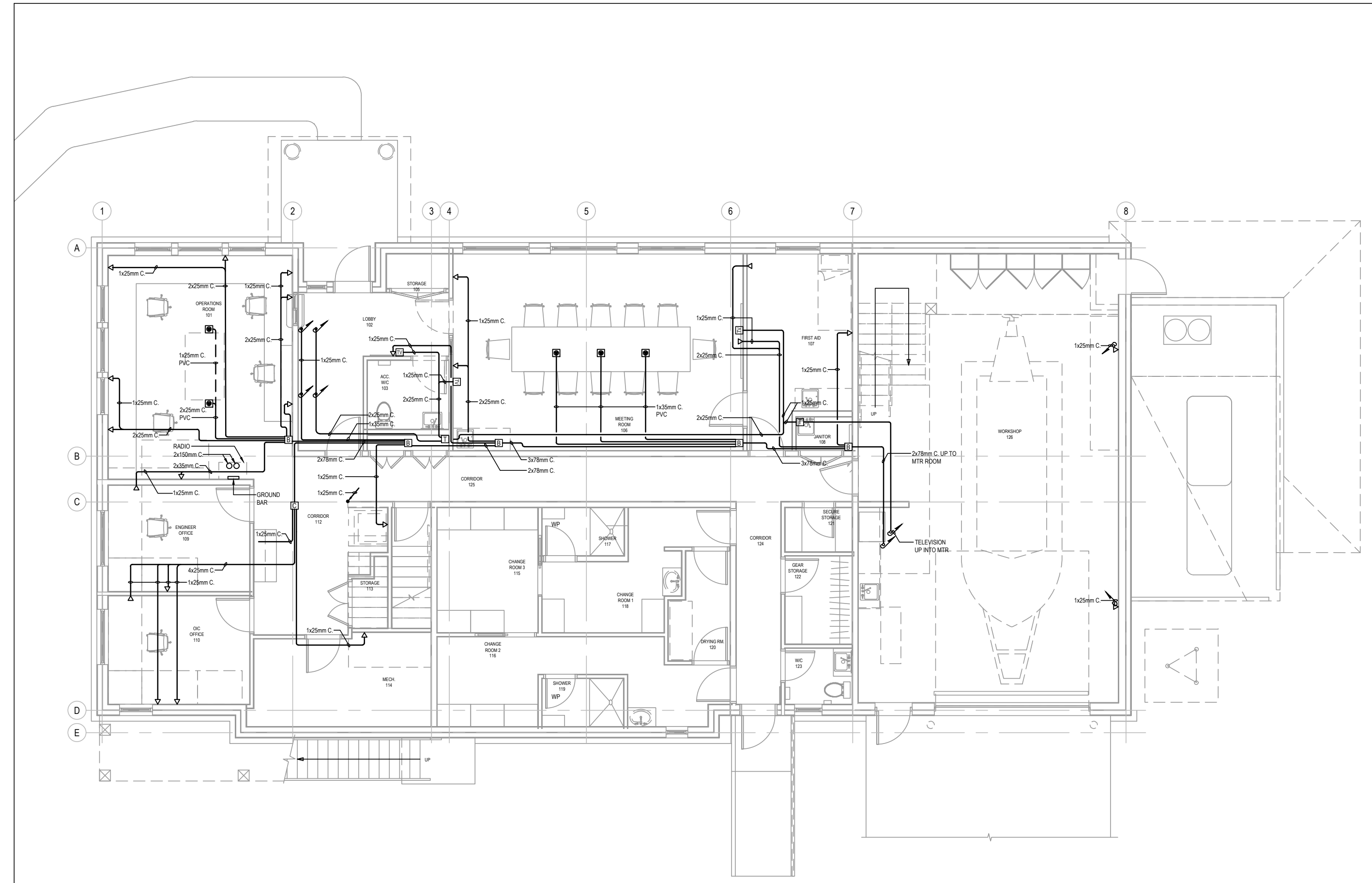
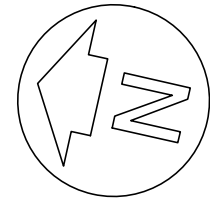
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|---|-------------------------------|----------------------------------|
| Project No./No. du projet<br><b>2017567</b> | Sheet/ Feuille<br><b>E2.1</b> | Revision no./<br>La Révision no. |
|---|-------------------------------|----------------------------------|

**1 SECOND FLOOR LAYOUT**  
 E2.1 SCALE: 1:50

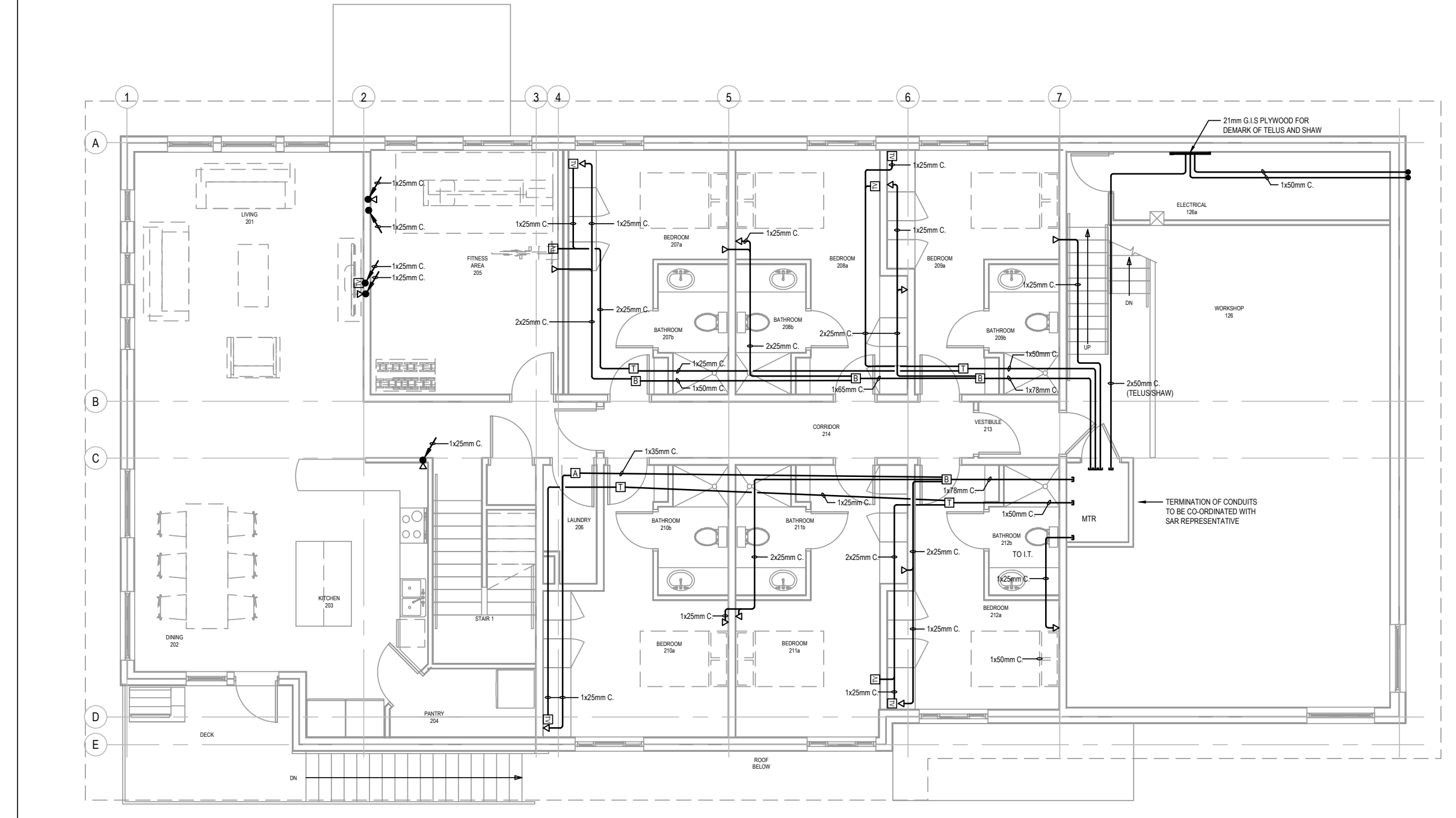
- NOTES:
- ALL LUMINAIRES IN THE RESIDENTIAL AREA TO BE 3.0K LED
  - ALL LUMINAIRES IN WORKSHOP AREA TO BE 4K LED

- ELECTRICAL ROOM NOTES:
- PROVIDE 19mm GOOD ONE SIDE PLYWOOD AROUND ELECTRICAL ROOM FOR MOUNTING OF ALL ELECTRICAL EQUIPMENT. 2 COATS OF FIRE RATED PAINT, GREY.



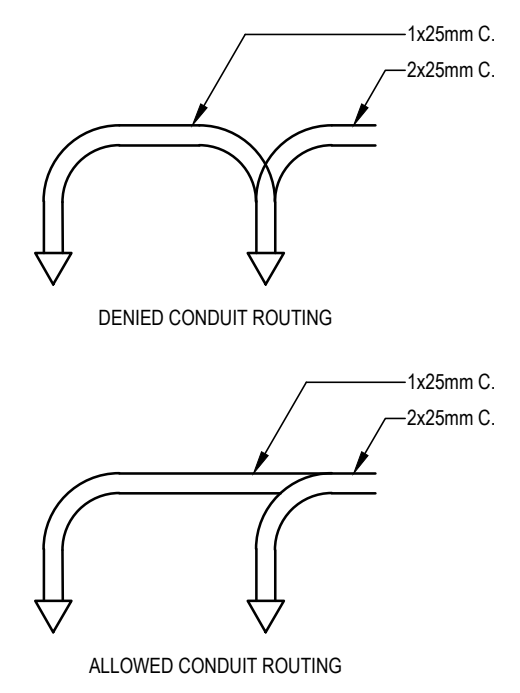


**1 MAIN FLOOR COMMUNICATIONS LAYOUT**  
E2.2 SCALE: 1:100

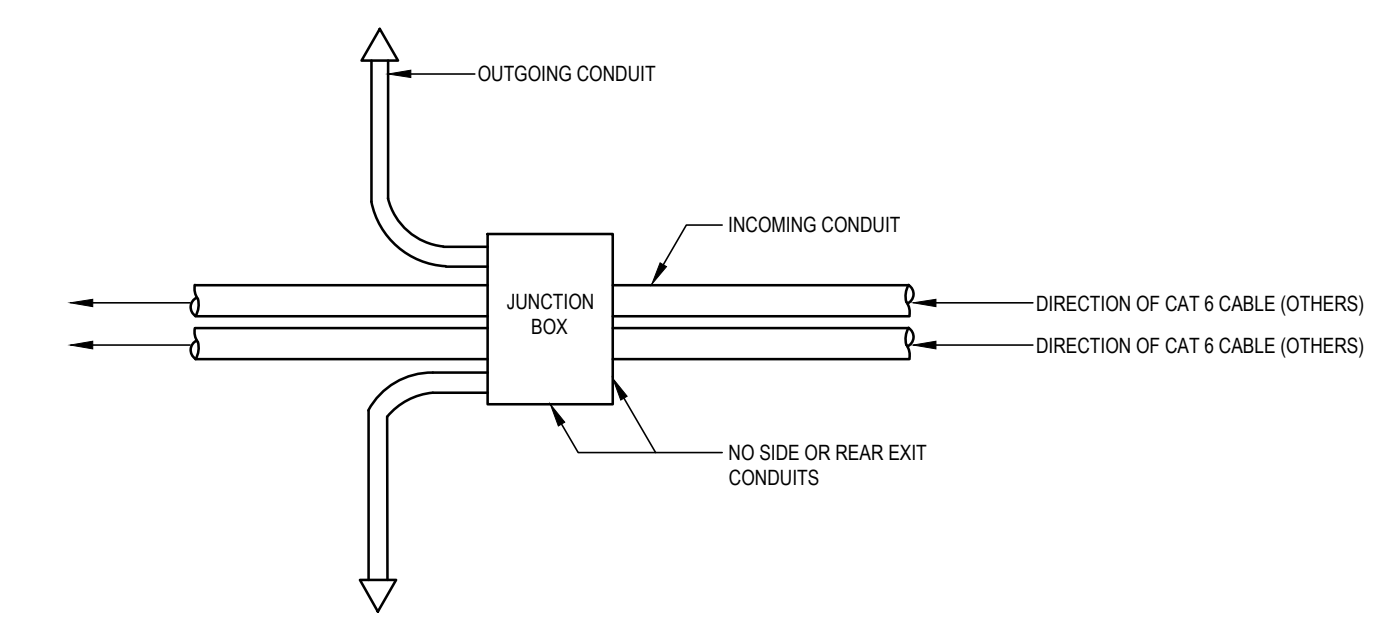


**2 SECOND FLOOR COMMUNICATIONS LAYOUT**  
E2.2 SCALE: 1:100

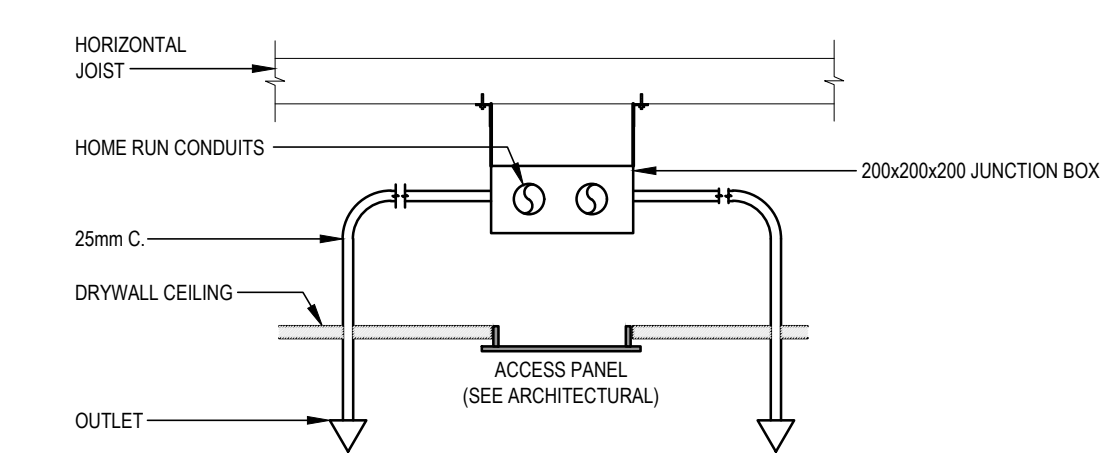
- NOTES:
- TELEVISION CONDUITS SHOWN ARE REPRESENTATIVE SO AS NOT TO BE CONFUSED WITH COMMUNICATION.
  - TELEVISION CONDUITS TO FOLLOW COMMUNICATION ROUTING.



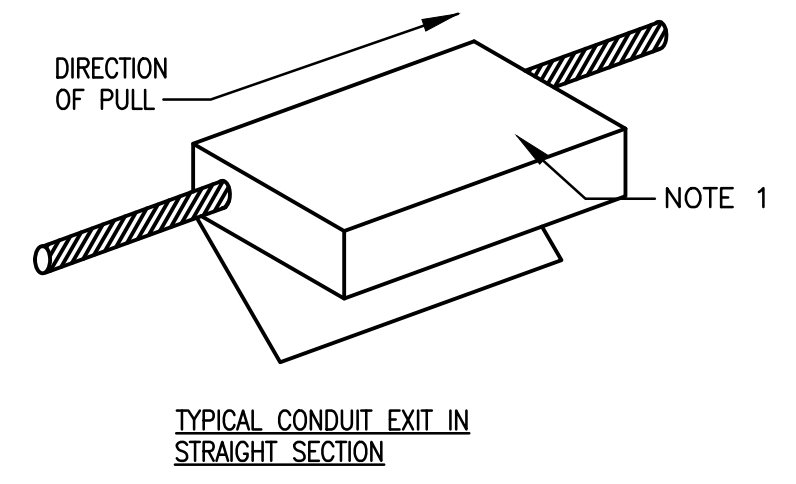
**6 CONDUIT ROUTING DETAIL**  
E2.2 SCALE: NOT TO SCALE



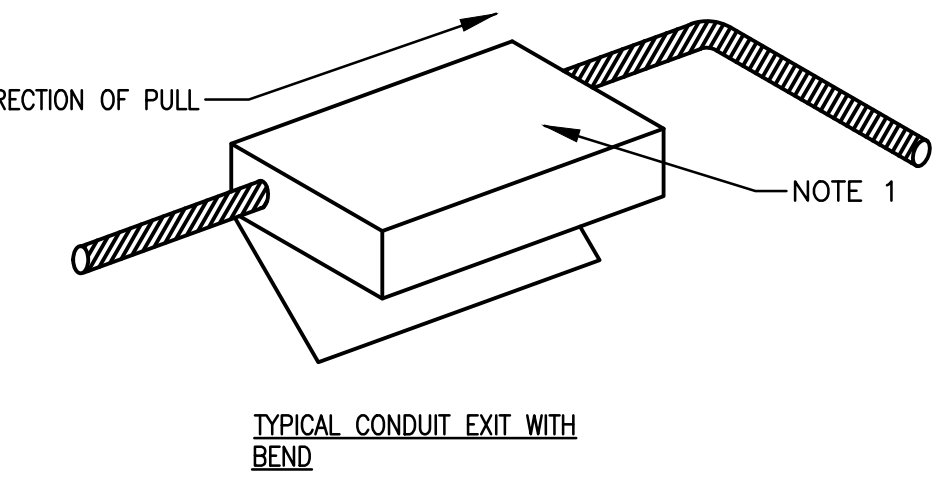
**3 COMMUNICATION DISTRIBUTION PLAN**  
E2.2 SCALE: NOT TO SCALE



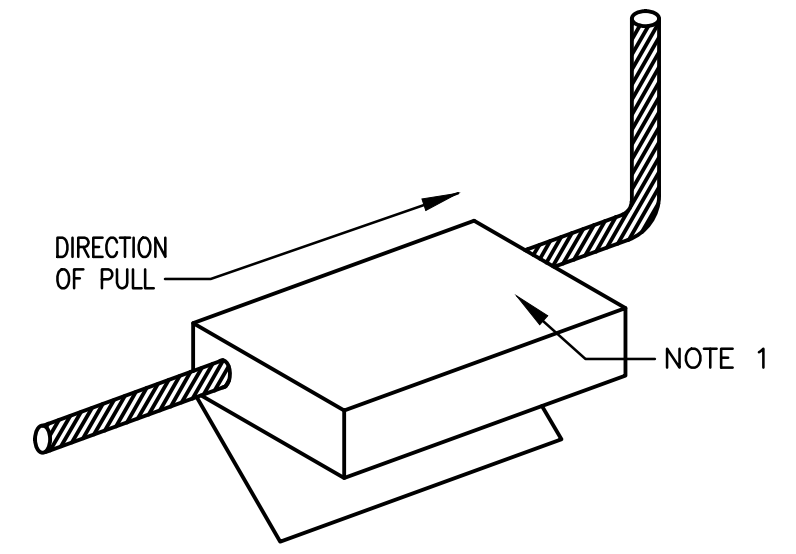
**4 COMMUNICATION DISTRIBUTION SECTION VIEW**  
E2.2 SCALE: NOT TO SCALE



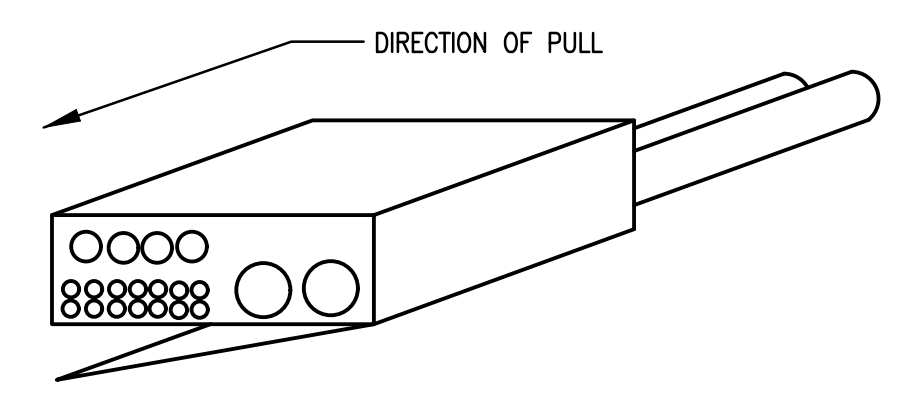
TYPICAL CONDUIT EXIT IN STRAIGHT SECTION



TYPICAL CONDUIT EXIT WITH BEND



TYPICAL CONDUIT EXIT WITH A BEND UP



TYPICAL CONDUIT EXIT WITH HORIZONTAL CONDUITS

NOTES:

- CONDUITS SHALL ONLY EXIT IN THE DIRECTION OF THE PULL. CONDUITS SHALL NEVER EXIT THE BACK, SIDES OR TOP OF A PULL BOX. CONDUIT ENDS SHALL BE ALIGNED.
- CEILING JUNCTION BOXES COMMUNICATION  
 [A] 200mm x 200mm x 200mm DEEP FOR UP TO THREE REMOTE COMMUNICATION OUTLETS.  
 [B] 300mm x 300mm x 200mm DEEP FOR REMAINING JUNCTION COMMUNICATIONS BOXES.
- CEILING JUNCTION BOXES - TELEVISION  
 [T] 200mm x 200mm x 150mm DEEP

**5 COMMUNICATION JUNCTION BOX DETAILS**  
E2.2 SCALE: NOT TO SCALE

| Revision/Revisión | Description/Description | Date/Date  |
|-------------------|-------------------------|------------|
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| 2                 | 90% REVIEW              | 2018-09-04 |
| 1                 | REVIEW                  | 2018-xx-xx |

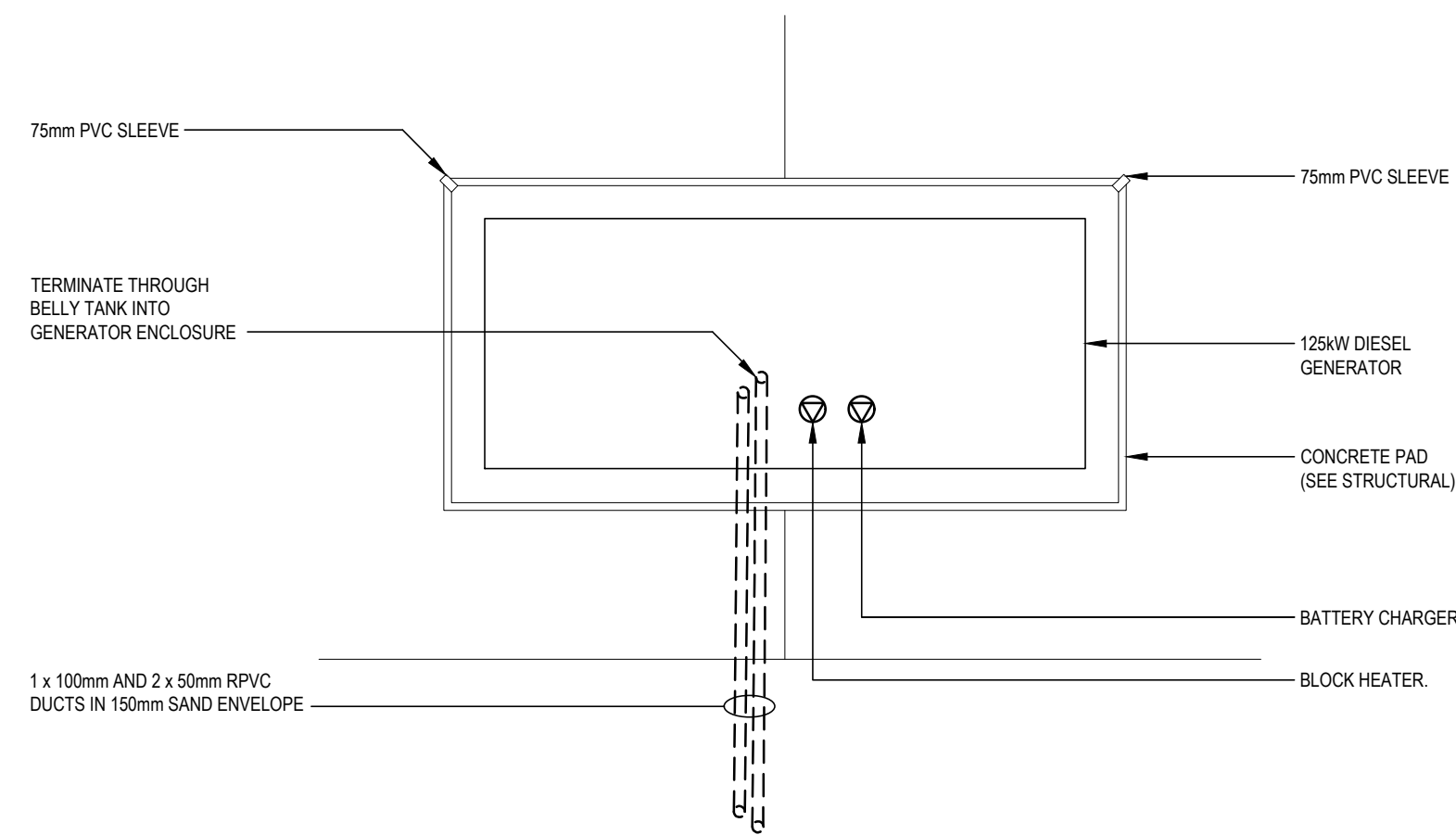
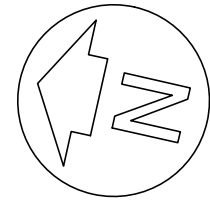
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**FIRST AND SECOND FLOOR COMMUNICATIONS LAYOUTS**

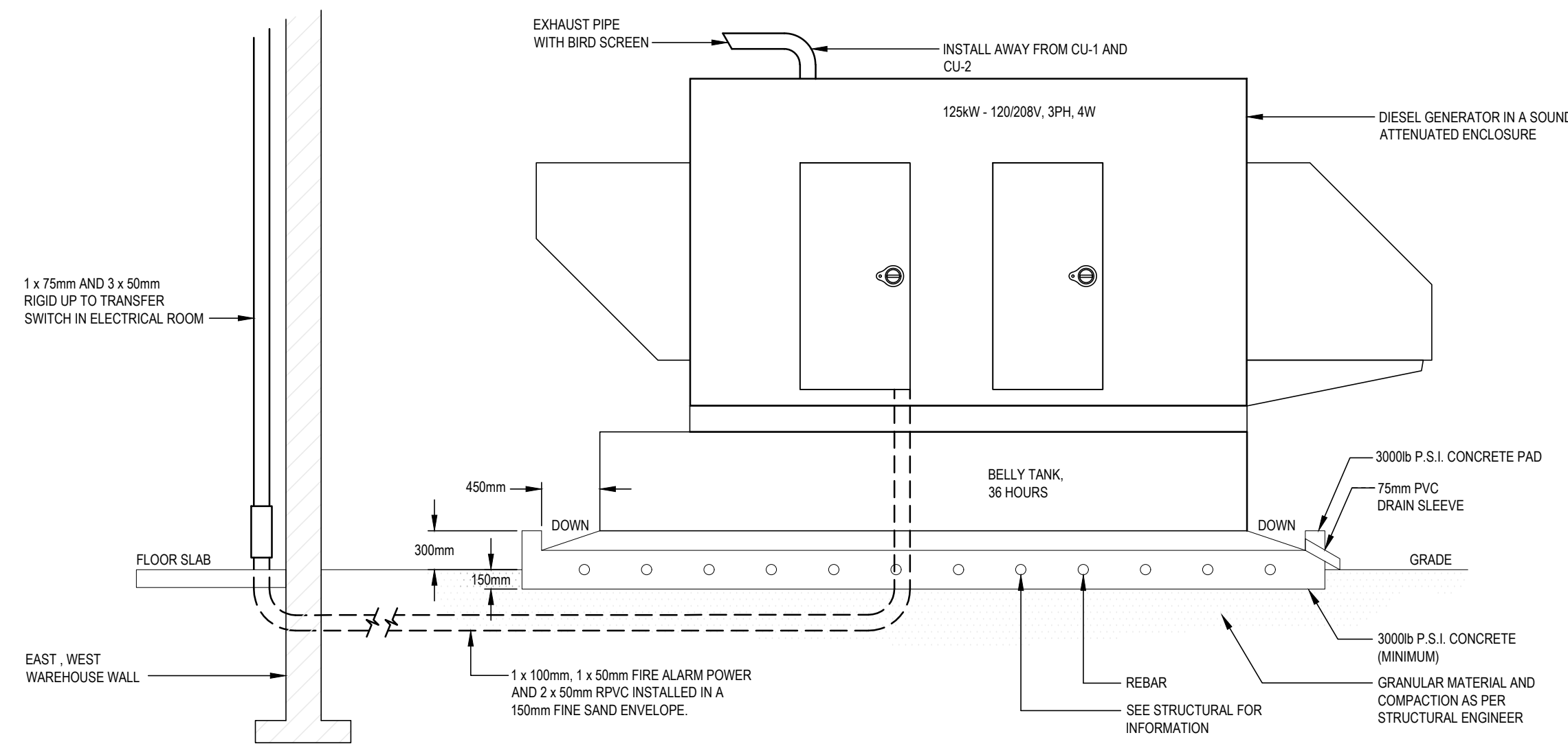
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|---------------------------|----------------|-------------------------------|
| 2017567                   | E2.2           |                               |



NOTES:

- MINIMUM 1m CLEARANCE ON ALL SIDES OF GENERATOR.

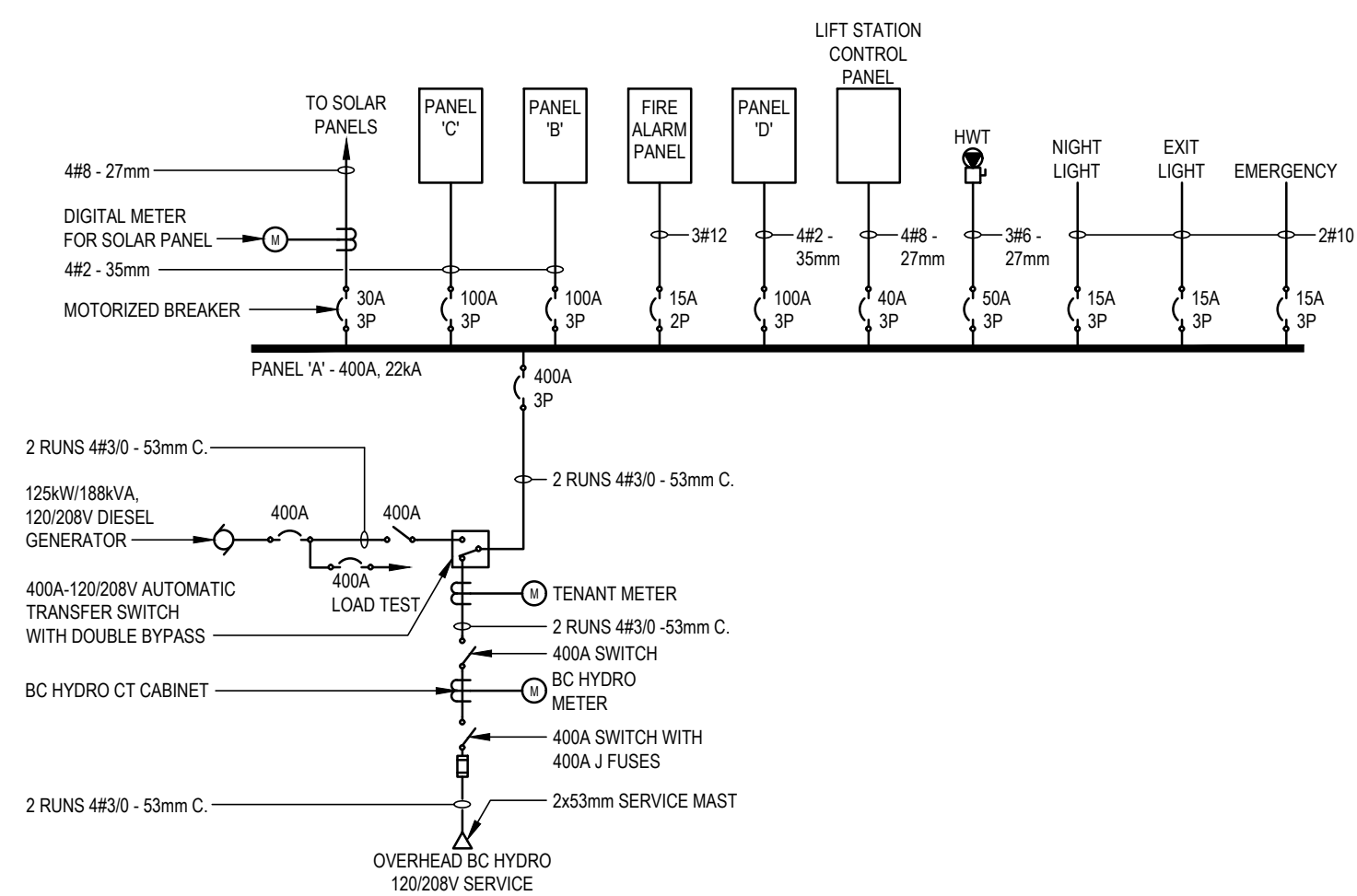
**1 GENERATOR PLAN**  
E3.0 SCALE: NOT TO SCALE



NOTES:

- AFTER APPROVAL OF GENERATOR SHOP DRAWING, THE CONTRACTOR TO OBTAIN THE SERVICE OF A STRUCTURAL ENGINEER TO DESIGN THE PAD AND PROVIDE CALCULATIONS FOR THE RESTRAINT OF ELECTRICAL EQUIPMENT. SUBMIT A SIGNED AND SEALED LETTER FROM THE STRUCTURAL ENGINEER REGARDING SEISMIC ACCEPTANCE.
- CONCRETE PAD TO SLOPE AWAY FROM GENERATOR TO THE ENCLOSED PERIMETER AND SLOPE TO ONE CORNER WITH A 75mm P.V.C. DRAIN SLEEVE.

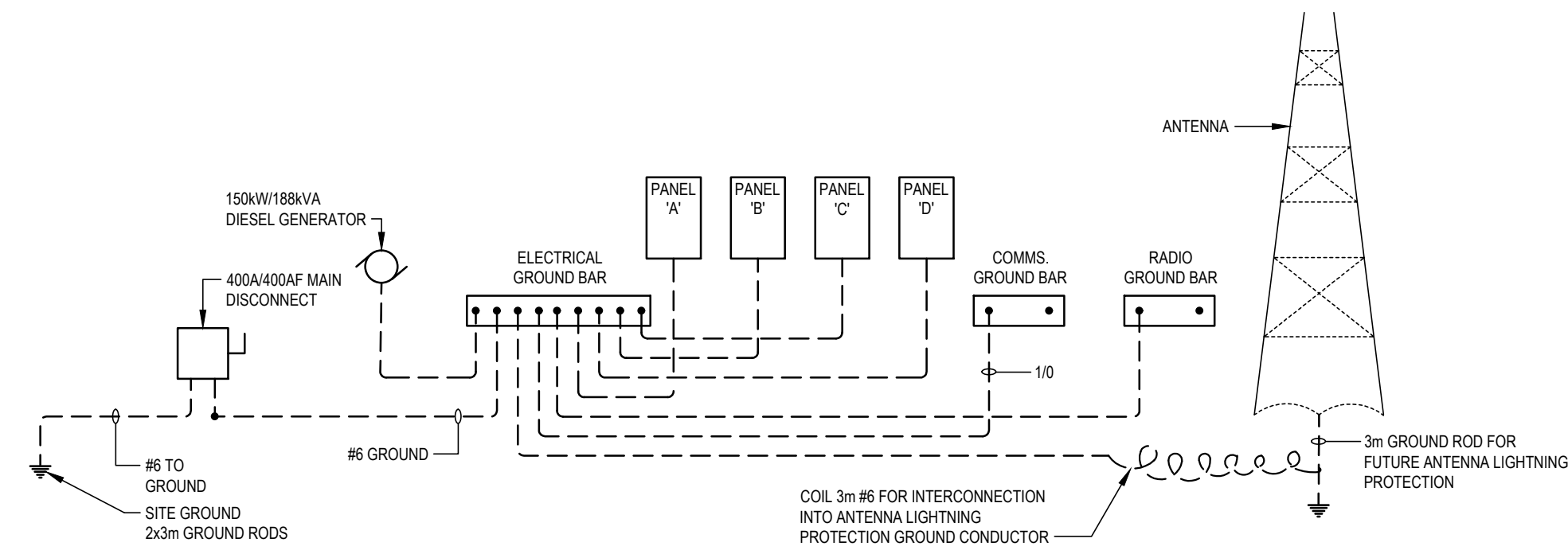
**2 GENERATOR ELEVATION DETAIL**  
E3.0 SCALE: NOT TO SCALE



NOTE:

- PROVIDE A COMBINATION SHUNT TRIP AND MOTORIZED 30A 3P BREAKER FOR SOLAR PANEL. LOSS OF POWER THE BREAKER TO OPEN. RETURN OF POWER THE BREAKER TO CLOSE.

**3 ELECTRICAL DISTRIBUTION SYSTEM**  
E3.0 SCALE: NOT TO SCALE



**4 GROUNDING DETAIL (#6 MINIMUM)**  
E3.0 SCALE: NOT TO SCALE

|   |             |            |
|---|-------------|------------|
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| 1 | REVIEW      | 2018-xx-xx |

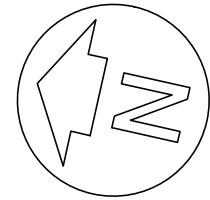
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**DETAILS**

|   |                               |                                  |
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|---|-------------------------------|----------------------------------|



| Q#       | DESCRIPTION             | EQUIPMENT LOCATION | LOAD |      |    | VOLTS | PHASE | UNIT   |       |         | STARTER |       |         | DISC.  |       |         | CONTROL |       |         | SUPPLY PANEL |      |     | WIRE & CONDUIT |     |     | NOTE |     |     |
|----------|-------------------------|--------------------|------|------|----|-------|-------|--------|-------|---------|---------|-------|---------|--------|-------|---------|---------|-------|---------|--------------|------|-----|----------------|-----|-----|------|-----|-----|
|          |                         |                    | MCA  | KW   | HP |       |       | SUPPLY | MONIT | CONNECT | SUPPLY  | MONIT | CONNECT | SUPPLY | MONIT | CONNECT | SUPPLY  | MONIT | CONNECT | PANEL #      | LOC. | AMP | P              | CCT | NO. |      | NO. | NO. |
|          |                         |                    |      |      |    |       |       |        |       |         |         |       |         |        |       |         |         |       |         |              |      |     |                |     |     |      |     |     |
| BB-114   | BASE BOARD              | 114                |      | 0.3  |    | 120   | 1     | M      | M     | E       | -       | -     | -       | -      | -     | M       | M       | M     | DDC     |              |      |     | 12             | 2   | 16  | 3    |     |     |
| BB-116-1 | BASE BOARD              | 116 S              |      | 0.5  |    | 120   | 1     | M      | M     | E       | -       | -     | -       | -      | -     | M       | M       | M     | DDC     |              |      |     | 12             | 2   | 16  | 5    |     |     |
| BB-116-2 | BASE BOARD              | 116 N              |      | 0.5  |    | 120   | 1     | M      | M     | E       | -       | -     | -       | -      | -     | M       | M       | M     | DDC     |              |      |     | 12             | 2   | 16  | 5    |     |     |
| BB-120   | BASE BOARD              | 120                |      | 1.0  |    | 120   | 1     | M      | M     | E       | -       | -     | -       | -      | -     | M       | M       | M     | DDC     |              |      |     | 12             | 2   | 16  | 10   |     |     |
| BB-123   | BASE BOARD              | 123                |      | 0.3  |    | 120   | 1     | M      | M     | E       | -       | -     | -       | -      | -     | M       | M       | M     | DDC     |              |      |     | 12             | 2   | 16  | 3    |     |     |
| FF-102   | FORCE FLOW              | 102                |      | 3.0  |    | 208   | 1     | M      | M     | E       | M       | M     | M       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 12  | 3   | 21   | 14  |     |
| FF-124   | FORCE FLOW              | 124                |      | 2.0  |    | 208   | 1     | M      | M     | E       | M       | M     | M       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 12  | 3   | 21   | 10  |     |
| UH-126-1 | UNIT HEATER             | 126 W              |      | 7.5  |    | 208   | 3     | M      | M     | E       | M       | M     | M       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 10  | 4   | 21   | 20  |     |
| UH-126-2 | UNIT HEATER             | 126 E              |      | 7.5  |    | 208   | 3     | M      | M     | E       | M       | M     | M       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 10  | 4   | 21   | 20  |     |
| TF-115   | WASHROOM TRANSFER FAN   | 115                |      | FRAC |    | 120   | 1     | M      | M     | E       | E       | E     | E       | TS     | E     | E       | E       | M     | M       | M            | DDC  |     |                |     | 12  | 2    | 16  |     |
| EF-126   | WORK SHOP EXHAUST       | 126                |      | 1/3  |    | 120   | 1     | M      | M     | E       | E       | E     | E       | TS     | E     | E       | E       | M     | M       | M            | DDC  |     |                |     | 12  | 2    | 16  |     |
| EF-126A  | ELECTRICAL ROOM EXHAUST | 126A               |      | 1/3  |    | 120   | 1     | M      | M     | E       | E       | E     | E       | TS     | E     | E       | E       | M     | M       | M            | DDC  |     |                |     | 12  | 2    | 16  |     |
| EF-205   | FITNESS EXHAUST         | 205                |      | FRAC |    | 120   | 1     | M      | M     | E       | E       | E     | E       | TS     | E     | E       | E       | M     | M       | M            | DDC  |     |                |     | 12  | 2    | 16  |     |
| RH-1     | RANGE HOOD              | 203                |      | FRAC |    | 120   | 1     | M      | M     | E       | E       | E     | E       | TS     | E     | E       | E       | M     | M       | M            | DDC  |     |                |     | 12  | 2    | 16  |     |
| CU-1     | VRF CONDENSING          | EXTERIOR           | 43   |      |    | 208   | 3     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       |              |      |     | 6              | 4   | 25  |      |     |     |
| MCU-1    | VRF CONTROL UNIT        | 126                |      |      |    | 208   | 1     | M      | M     | E       | -       | -     | -       | E      | E     | E       | M       | M     | M       |              |      |     | 12             | 4   | 21  |      |     |     |
| MCU-2    | VRF CONTROL UNIT        | 126                |      |      |    | 208   | 1     | M      | M     | E       | -       | -     | -       | E      | E     | E       | M       | M     | M       |              |      |     | 12             | 3   | 16  |      |     |     |
| MCU-3    | VRF CONTROL UNIT        | 126                |      |      |    | 208   | 1     | M      | M     | E       | -       | -     | -       | E      | E     | E       | M       | M     | M       |              |      |     | 12             | 3   | 16  |      |     |     |
| HP-101   | VRF HEAT PUMP           | 101                | 2.5  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       |              |      |     | 12             | 3   | 16  | 12   |     |     |
| HP-106   | VRF HEAT PUMP           | 106                | 3.6  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       |              |      |     | 10             | 3   | 21  | 17   |     |     |
| HP-107   | VRF HEAT PUMP           | 107                | 0.7  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       |              |      |     | 12             | 3   | 16  | 3    |     |     |
| HP-126B  | VRF HEAT PUMP           | 126B               | 3.5  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       |              |      |     | 10             | 3   | 21  | 17   |     |     |
| HP-201   | VRF HEAT PUMP           | 201                | 2.9  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       |              |      |     | 12             | 3   | 16  | 14   |     |     |
| HP-202   | VRF HEAT PUMP           | 202                | 2.9  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       |              |      |     | 12             | 3   | 16  | 14   |     |     |
| HP-205   | VRF HEAT PUMP           | 205                | 2.5  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 12  | 2   | 16   | 12  |     |
| HP-207   | VRF HEAT PUMP           | 207                | 0.8  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 12  | 2   | 16   |     |     |
| HP-208   | VRF HEAT PUMP           | 208                | 0.8  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 12  | 2   | 16   |     |     |
| HP-209   | VRF HEAT PUMP           | 209                | 0.8  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 12  | 2   | 16   |     |     |
| HP-210   | VRF HEAT PUMP           | 210                | 0.8  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 12  | 2   | 16   |     |     |
| HP-211   | VRF HEAT PUMP           | 211                | 0.8  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 12  | 2   | 16   |     |     |
| HP-212   | VRF HEAT PUMP           | 212                | 2.5  |      |    | 208   | 1     | M      | M     | E       | M       | M     | E       | E      | E     | E       | M       | M     | M       | DDC          |      |     |                | 12  | 2   | 16   |     |     |
| HRV-1    | HEAT RECOVERY           | OUTDOOR EXHAUST    |      |      |    | 1     | 208   | 3      | M     | M       | E       | M     | M       | M      | E     | E       | E       | M     | M       | M            | DDC  |     |                |     | 12  | 4    | 21  |     |
| PDHWR    | HOT WATER RECIRCULATION | 114                |      | FRAC |    | 120   | 1     | M      | M     | E       | -       | -     | -       | E      | E     | E       | M       | M     | M       |              |      |     | 12             | 2   | 13  |      |     |     |
| TDHW     | HOT WATER TANK          | 114                |      | 12   |    | 208   | 3     | M      | M     | E       | -       | -     | -       | E      | E     | E       | M       | M     | M       |              |      |     | 10             | 4   | 25  |      |     |     |

**LOAD CALCULATION**  
VICTORIA SAR STATION

TOTAL BUILDING AREA  
ADMINISTRATION = 2745 SQ.FT  
BOAT AREA = 930 SQ.FT  
RESIDENTIAL = 2745 SQ.FT  
6420 SQ.FT

ADMINISTRATION  
2745 SQ.FT @ 5.0W/SQ.FT = 13.725KW  
BOAT AREA  
930 SQ.FT @ 2.5W/SQ.FT = 2.325KW  
RESIDENTIAL  
2745 SQ.FT @ 5.0W/SQ.FT = 13.725KW  
930 SQ.FT @ 2.5W/SQ.FT = 2.325KW  
930 SQ.FT @ 1.00KW = 0.930KW  
SUBTOTAL = 22.55KW

ADDITIONAL  
ELECTRIC RANGE = 6.00KW  
HOT WATER TANK = 12.00KW  
ELECTRIC HEAT = 25.00KW  
MECHANICAL = 37.00KW  
COAST GUARD = 5.00KW  
SUBTOTAL = 85.00KW

GRAND TOTAL = 22.55 + 85.00 = 107.55KW /360V = 298.7A

**FIRE ALARM SCHEDULE**

| ZONE | AREA                   | DEVICES      |
|------|------------------------|--------------|
| Z1   | MAIN FLOOR             | MANUAL/SMOKE |
| Z2   | SECOND FLOOR           | MANUAL/SMOKE |
| Z3   | ELECTRICAL ROOM        | MANUAL/SMOKE |
| Z4   | IT ROOM                | MANUAL/SMOKE |
| Z5   | INCOMING SPRINKLER     | FLOW         |
| Z6   | MAIN FLOOR SPRINKLER   | FLOW         |
| Z7   | SECOND FLOOR SPRINKLER | FLOW         |
| Z8   | REMOTE GENERATOR       | TROUBLE      |
| Z9   | REMOTE GENERATOR       | RUNNING      |
| Z10  | SPRINKLER PRESSURE     | PRESSURE     |
| Z11  | SPRINKLER              | GATE         |
| Z12  | MAIN FLOOR DAMPERS     | -            |
| Z13  | SECOND FLOOR DAMPERS   | -            |
| Z14  | HRV-1 SUPPLY           | SMOKE        |
| Z15  | HRV-1 RETURN           | SMOKE        |

**PANELBOARD SCHEDULE**

JOB NO./NAME : 1-18-121 / VICTORIA SAR  
PANEL : 'A'  
SYSTEM : 120/208V  
TYPE : CDP  
LOCATION : ELECTRICAL ROOM  
MOUNTING : RECESSED  
NO. CIRCUITS : 42  
BUS SIZE : 200A  
SYM. FAULT RATING : 22

| DESCRIPTION                 | BRK | POLE | CCT | POLE | BRK | DESCRIPTION      |
|-----------------------------|-----|------|-----|------|-----|------------------|
| MAIN BREAKER                | 600 | 3    | 01  | 02   | 3   | PANEL 'B'        |
|                             |     |      | 03  | 04   |     |                  |
|                             |     |      | 05  | 06   |     |                  |
| I.T. AIR CONDITIONER 3.5 kW | 30  | 3    | 07  | 08   | 3   | PANEL 'C'        |
|                             |     |      | 09  | 10   |     |                  |
|                             |     |      | 11  | 12   |     |                  |
| HP-1 14.1kW                 | 50  | 3    | 13  | 14   | 3   | HP-2             |
|                             |     |      | 15  | 16   |     |                  |
|                             |     |      | 17  | 18   |     |                  |
| T-DHW 12kW                  | 70  | 3    | 19  | 20   | 3   | UH-126a          |
|                             |     |      | 21  | 22   |     |                  |
|                             |     |      | 23  | 24   |     |                  |
| FIRE ALARM PANEL            | 15  | 2    | 25  | 26   | 3   | UH-126b          |
|                             |     |      | 27  | 28   |     |                  |
| ANNUNCIATOR                 | 15  | 1    | 29  | 30   |     |                  |
| SPARE                       | 15  | 1    | 31  | 32   | 1   | MOTORIZED DAMPER |
| SPARE                       | 15  | 1    | 33  | 34   | 1   | SPARE            |
|                             |     |      | 35  | 36   |     |                  |
|                             |     |      | 37  | 38   |     |                  |
|                             |     |      | 39  | 40   |     |                  |
|                             |     |      | 41  | 42   |     |                  |

\* GFCI Breaker  
\*\* Arc Fault Breaker

**PANELBOARD SCHEDULE**

JOB NO./NAME : 1-18-121 / VICTORIA SAR  
PANEL : 'B'  
SYSTEM : 120/208V  
TYPE : NLAB  
LOCATION : CORRIDOR 125  
MOUNTING : RECESSED  
NO. CIRCUITS : 60  
BUS SIZE : 200A  
SYM. FAULT RATING : 10,000A

| DESCRIPTION       | BRK | POLE | CCT | POLE | BRK | DESCRIPTION     |
|-------------------|-----|------|-----|------|-----|-----------------|
| LIGHTS            | 15  | 1    | 01  | 02   | 1   | LIGHTS          |
| LIGHTS            | 15  | 1    | 03  | 04   | 1   | LIGHTS          |
| RECEPTACLES       | 20  | 1    | 05  | 06   | 1   | RECEPTACLES     |
| RECEPTACLES       | 20  | 1    | 07  | 08   | 1   | RECEPTACLES     |
| RECEPTACLES       | 20  | 1    | 09  | 10   | 1   | RECEPTACLES     |
| RECEPTACLES       | 20  | 1    | 11  | 12   | 1   | RECEPTACLES     |
| RECEPTACLES       | 20  | 1    | 13  | 14   | 1   | RECEPTACLES     |
| RECEPTACLES       | 20  | 1    | 15  | 16   | 1   | EXTERIOR LIGHTS |
| RECEPTACLES       | 20  | 1    | 17  | 18   | 2   | HP-101          |
| BB114,116-2,116-1 | 20  | 1    | 19  | 20   |     |                 |
| B3, 123, 120      | 15  | 1    | 21  | 22   | 2   | EF-102          |
| EF-126            | 15  | 2    | 23  | 24   |     |                 |
|                   |     |      | 25  | 26   | 1   | TF-115          |
| HOT WATER REC     | 15  | 1    | 27  | 28   | 2   | HP-106          |
| HP-212            | 15  | 2    | 29  | 30   |     |                 |
|                   |     |      | 31  | 32   | 2   | HP-107          |
| DDC               | 15  | 1    | 33  | 34   |     |                 |
| SPARE             | 15  | 1    | 35  | 36   | 1   | BOOT DRYER      |
| SPARE             | 15  | 1    | 37  | 38   | 1   | GLOVE DRYER     |
|                   |     |      | 39  | 40   |     |                 |
|                   |     |      | 41  | 42   |     |                 |
|                   |     |      | 43  | 44   |     |                 |
|                   |     |      | 45  | 46   |     |                 |
|                   |     |      | 47  | 48   |     |                 |
|                   |     |      | 49  | 50   |     |                 |
|                   |     |      | 51  | 52   |     |                 |
|                   |     |      | 53  | 54   |     |                 |
|                   |     |      | 55  | 56   |     |                 |
|                   |     |      | 57  | 58   |     |                 |
|                   |     |      | 59  | 60   |     |                 |

\* GFCI Breaker  
\*\* Arc Fault Breaker

**PANELBOARD SCHEDULE**

JOB NO./NAME : 1-18-121 / VICTORIA SAR  
PANEL : 'C'  
SYSTEM : 120/208V  
TYPE : NLAB  
LOCATION : CORRIDOR 214  
MOUNTING : RECESSED  
NO. CIRCUITS : 42  
BUS SIZE : 200A  
SYM. FAULT RATING : 10,000A

| DESCRIPTION | BRK | POLE | CCT | POLE | BRK | DESCRIPTION |
|-------------|-----|------|-----|------|-----|-------------|
| LIGHTING    | 15  | 1    | 01  | 02   | 1   | LIGHTING    |
| LIGHTING    | 15  | 1    | 03  | 04   | 1   | LIGHTING    |
| FRIDGE      | 15  | 1    | 05  | 06   | 1   | RECEPTACLES |
| FRIDGE      | 15  | 1    | 07  | 08   | 1   | RECEPTACLES |
| RECEPTACLES | 15  | 1    | 09  | 10   | 1   | RECEPTACLES |
| RECEPTACLES | 15  | 1    | 11  | 12   | 1   | RECEPTACLES |
| WASHER      | 15  | 1    | 13  | 14   | 1   | RECEPTACLES |
| DRYER       | 30  | 2    | 15  | 16   | 2   | HP-201      |
|             |     |      | 15  | 16   | 2   | HP-201      |