

**ELECTRICAL ADDENDUM NO. E-01**

**32 Church Street, St Catherines  
Transport Canada Office Fit Up  
Job No.: 12356.107**

Date: November 16, 2016

Total Number of Pages: 1

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This Addendum becomes part of the Bid Documents and will be considered to have been included in the Tender. Additions, deletions, and revisions shall be incorporated in the Bid Documents as hereinafter described.

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**1.0 SPECIFICATIONS**

**1.1 Section: None**

**2.0 DRAWINGS:**

**2.1 Refer to Drawing E-100; E-300 and E-200 – New Power and system layout**

2.1.1 DWG. E-100 for clarifications of data/communication rack grounding, refer to note #4 revision #5.

**2.2 Refer to Drawing E-300 – New Power and system**

2.2.1 For clarification refer to added note #21 and all revision #5 to form part of this addendum.

2.2.2 For clarification based on available existing drawings there are approximately seven (7) circuits that will become available within the area of renovations. Note this can only be verified during demolition; make allowances to re-use these circuits in the new layout until otherwise noted.

**2.3 Refer to Drawing E-200 Electrical Lighting Layout**

2.3.1 Occupancy sensors switch shall be 120 volt ceiling or wall mounted complete with 180 degree 9M max, adjustable time delay minimum 10 seconds maximum 30 minutes, rated load 800W, detection motion speed 0.6- 1.5m/s. Sensors shall be finished in white.

Total Number of Pages: 3

End of Electrical Addendum E -01



# TENANT FIT-UP FOR TRANSPORT CANADA

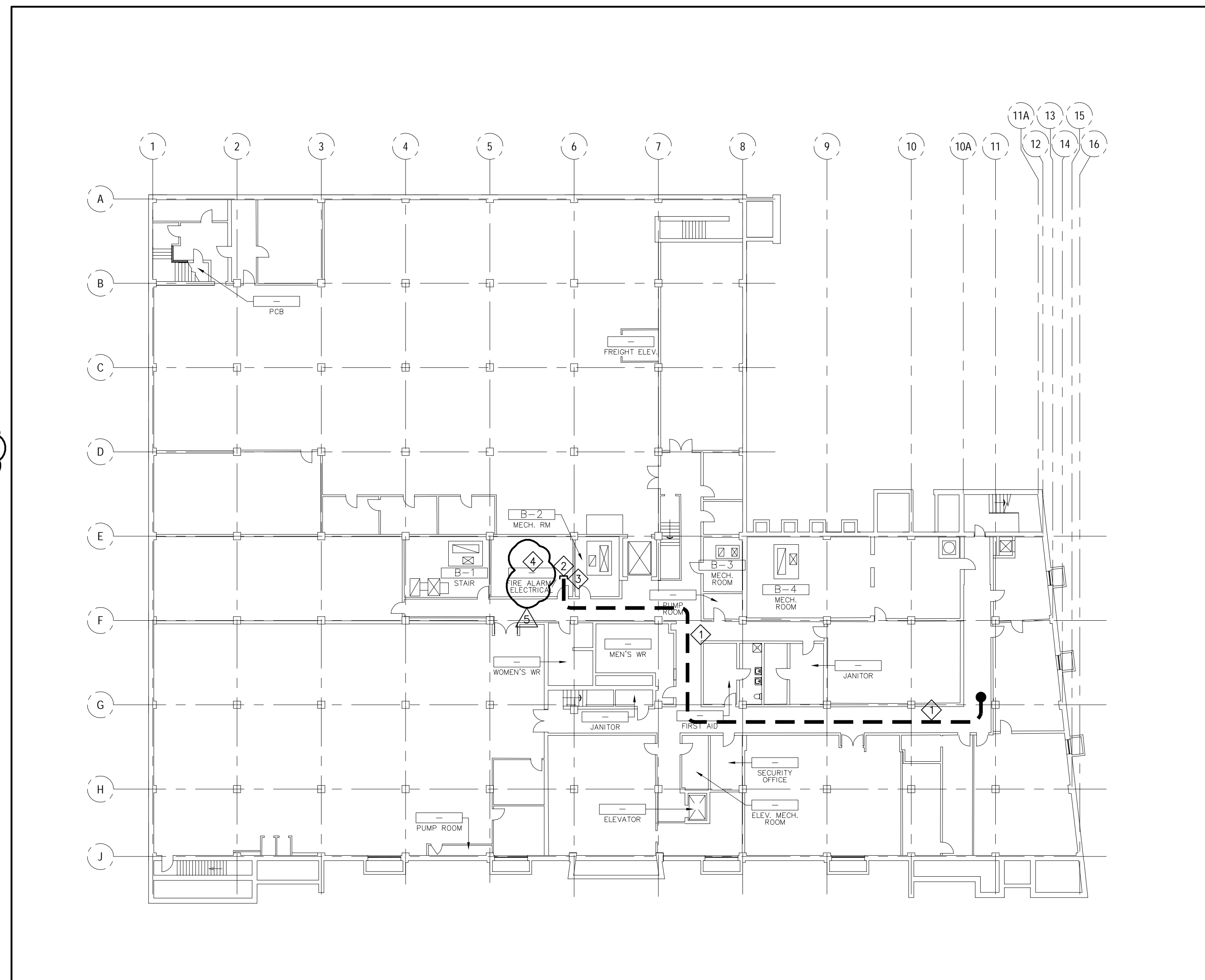
## THE LAURA SECORD BUILDING 32 CHURCH STREET, ST.CATHARINES, ONTARIO

PROJECT NUMBER: R. 077633.042



- NOTES:**
- APPROXIMATE ROUTE FOR 2" EMT CONDUIT COMPLETE WITH PULL STRING FOR DATA COMMUNICATION RACK FEED UP TO CABLE TRAY AND LAN ROOM.
  - TERMINATE CONDUIT ABOVE DATA COMMUNICATION EQUIPMENT, CO-ORDINATE EXACT LOCATION AND TERMINATION ON SITE PRIOR TO ROUGHING IN.
  - AFTER CONDUIT CABLES INSTALLATION IS COMPLETE PROVIDE SMOKE SEAL AT BOTH ENDS OF CONDUIT TO PREVENT SMOKE FROM ENTERING THE CONDUIT SYSTEM.
  - PROVIDE COMMUNICATION GROUNDING FROM BUILDING GROUND SYSTEM IN THE MAIN ELECTRICAL ROOM UP TO DATA RACK. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION.

| DRAWING LIST |   |
|--------------|---|
| DRAWING NO.  | DRAWING NAME                                |
| E-100        | SITE PLAN, DRAWING LIST AND SCHEDULES       |
| E-2000       | GROUND FLOOR - DEMOLITION LAYOUT            |
| E-200        | GROUND FLOOR - NEW LIGHTING LAYOUT          |
| E-300        | GROUND FLOOR - NEW POWER AND SYSTEMS LAYOUT |



1 LOCATION PLAN - BASEMENT  
E-200 1:250

### GENERAL NOTES

- THIS DRAWING IS A MASTER LEGEND DRAWING. SOME SYMBOLS MAY NOT APPEAR WITHIN THE DOCUMENTS NOR BE APPLICABLE TO THIS PROJECT. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN A FULL UNDERSTANDING OF THIS LEGEND.
- ELECTRICAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH LATEST ARCHITECTURAL, STRUCTURAL, CIVIL AND MECHANICAL DOCUMENTS AT ALL TIMES. IT SHALL BE THE ELECTRICAL'S RESPONSIBILITY TO OBTAIN ALL LATEST DOCUMENTS PRIOR TO BID SUBMISSION AND CONSTRUCTION.
- BEFORE SUBMITTING ANY PRICE, THE CONTRACTOR SHALL VISIT THE SITE AS IDENTIFIED IN DIVISION 1 DOCUMENTS AND EXAMINE THE FOLLOWING:
  - CHECK THE EXISTING CONDITIONS AND IDENTIFY ANY LIMITATIONS.
  - CHECK THE EXISTING ELECTRICAL COMPONENTS THAT ARE TO BE REUSED (IF APPLICABLE).
  - EXAMINE THE PROPOSED WORK AGAINST THE EXISTING CONDITIONS. AFTER EXAMINING ALL THE ABOVE AGAINST THE PLANS, SPECIFICATIONS AND TERMS OF CONTRACT, THE CONTRACTOR MUST SATISFY HIMSELF THAT THE PROPOSED WORK CAN BE CARRIED OUT, OR SHALL BE MODIFIED AT NO EXTRA COST TO THE DEPARTMENT REPRESENTATIVE IN ORDER TO ACHIEVE THE INTENT OF THE SCOPE OF WORK IDENTIFIED IN THESE DOCUMENTS.
- IF THE CONTRACTOR BELIEVES LIMITATIONS AND/OR DISCREPANCIES EXIST HE MUST THEN SUBMIT IN WRITING TO THE DEPARTMENT REPRESENTATIVE IDENTIFYING THEM. CLARIFICATION WILL BE ISSUED.
- DETAILS ON ELECTRICAL DRAWINGS ARE INTENDED TO BE FOR GENERAL ARRANGEMENT ONLY. DETAILS DO NOT SHOW ALL COMPONENTS, BUT ARE MERELY A GUIDE AS TO THE ORIENTATION OF EQUIPMENT THAT IS REQUIRED TO ASSIST THE INSTALLATION.
- IF A POWER SHUT DOWN IS REQUIRED TO FACILITATE ANY INSTALLATION RELATED TO THIS PROJECT, THE CONTRACTOR SHALL SUBMIT IN WRITING TO DEPARTMENT REPRESENTATIVE IN ADVANCE FOR PERMISSION. WITHOUT PERMISSION THE WORK SHALL NOT PROCEED.
- THE CONTRACTOR SHALL COORDINATE WITH ALL TRADES AND SUB-TRADES AND SCHEDULE ALL WORK BEFORE ROUGHING IN DEVICES, CONDUIT, EQUIPMENT, ETC. TO AVOID ANY CONFLICT. IF THERE IS A INTERFERENCE, CONTRACTOR SHALL PROVIDE A DETAILED/SCALED SKETCH DRAWING OF THE INTERFERENCE, c/w A PROPOSED SOLUTION AND SUBMIT IT TO THE DEPARTMENT REPRESENTATIVE FOR REVIEW. REFER TO SPECIFICATION SECTION 26 05 01 FOR INTERFERENCE DRAWINGS REQUIREMENTS.
- THE CONTRACTOR SHALL MAKE GOOD AND MAINTAIN FIRE RATINGS OF ASSEMBLY.
  - ANY SURFACES OR FINISHES DAMAGED AS A RESULT OF ELECTRICAL ALTERATIONS OR INSTALLATIONS SHALL BE REPAIRED.
  - BACK TO BACK OUTLET INSTALLATION IS NOT ACCEPTABLE. OUTLETS MUST BE OFFSET FROM EACH OTHER A MIN. OF 6" (150mm) OR SPACE NECESSARY TO MAINTAIN NOISE CRITERIA, WHEN LOCATED ON COMMON WALL AT OPPOSITE SIDES OF THE WALL.
  - THE FOLLOWING SHALL BE USED AS A MINIMUM GUIDE WITH RESPECT TO BRANCH CIRCUIT WIRE SIZING FOR VOLTAGE DROP:  
#12 AWG TO BE USED FROM 0 TO 80FT MAXIMUM FOR PANEL BRANCH CIRCUIT RUNS.  
#10 AWG TO BE USED FROM 80 TO 180FT MAXIMUM FOR PANEL BRANCH CIRCUIT RUNS.  
#8 AWG TO BE USED FROM 180 TO 280FT MAXIMUM FOR PANEL BRANCH CIRCUIT RUNS.
  - ALL JUNCTION BOXES ARE TO BE IDENTIFIED PER THE SPECIFICATION SECTION 26 05 20. THE CONTRACTOR SHALL ENSURE ACCESS TO ALL JUNCTION BOXES ARE NOT IMPEDED.
  - INSTALL LUMINAIRES IN ELECTRICAL MECHANICAL AND SERVICE ROOMS AFTER INSTALLATION OF ALL EQUIPMENT PIPING AND DUCTWORK SO TO PROVIDE THE BEST LEVEL OF LUMINATION WITHIN THE ROOM. LUMINAIRES SHALL BE SUPPORTED FROM BUILDING STRUCTURE ONLY.
  - THE CONTRACTOR SHALL PROVIDE AUTO CAD DRAWINGS FOR REVIEW OF ALL ELECTRICAL AND DATA ROOMS PRIOR TO INSTALLATION OF ELECTRICAL SERVICES OR EQUIPMENT FOR REVIEW BY DEPARTMENT REPRESENTATIVE. REFER TO SPECIFICATIONS.
  - THE CONTRACTOR SHALL ADHERE TO ALL ACUSTIC REQUIREMENTS AND INSTALL CONDUITS AS NOTED ON DETAIL SHEET ACCORDINGLY. THE CONTRACTOR SHALL BE RESPONSIBLE TO REVIEW ARCHITECTURAL DOCUMENTS AND ASSOCIATED ACUSTIC REPORT.
  - THE CONTRACTOR SHALL TAKE NOTE OF THE DRAWING SCALES AND GOVERN HIMSELF ACCORDINGLY.
  - IF DISCREPANCIES OF INTERFERENCES ARE DISCOVERED BETWEEN DEPARTMENT REPRESENTATIVE DRAWINGS, NOTIFY THE DEPARTMENT REPRESENTATIVE IMMEDIATELY BEFORE CONTINUING WITH THE WORK AND SUPPLY/INSTALLATION OF THE AREA/ITEM IN QUESTION.
  - MOUNTING HEIGHTS OF ALL DEVICES SHALL MEET CSA-B651-12.

### LIGHTING LEGEND

- FLUORESCENT LUMINAIRE - REFER TO SCHEDULE
- INCANDESCENT, FLUORESCENT, OR HID LUMINAIRE - REFER TO SCHEDULE
- LUMINAIRE CONNECTED TO UNSWITCHED CIRCUIT
- EMERGENCY LIGHTING REMOTE HEAD(S) CEILING MOUNTED REFER TO SPECIFICATION
- EMERGENCY LIGHTING REMOTE HEAD(S) CEILING/WALL MOUNTED REFER TO SCHEDULE
- EMERGENCY LIGHTING BATTERY UNIT c/w RECEPTACLE AND HEAD(S) AS DETAILED
- SINGLE POLE, SINGLE THROW TOGGLE SWITCH  
(S) DENOTES 3-WAY, (LY) DENOTES LOW VOLTAGE,  
(M) DENOTES MASTER, (K) DENOTES KEY SWITCH
- DIMMER SWITCH (F) DENOTES FLUORESCENT DIMMER
- OCCUPANCY SENSOR - CEILING MOUNTED, NUMBER INDICATES TYPE. REFER TO SPECIFICATION
- OCCUPANCY SENSOR - WALL MOUNTED, NUMBER INDICATES TYPE. REFER TO SPECIFICATION
- TYPICAL CIRCUIT DESIGNATIONS FOR LIGHTING PANEL IS AS FOLLOWS:  
SWITCH LEG  
CIRCUIT NUMBER  
PANEL DESIGNATION
- TYPICAL CIRCUIT DESIGNATIONS FOR RELAY PANEL IS AS FOLLOWS:  
LOW VOLTAGE SWITCH LEG  
RELAY NUMBER  
RELAY PANEL DESIGNATION  
CIRCUIT NUMBER  
PANEL DESIGNATION

### SECURITY LEGEND

- SECURITY CAMERA LOCATION  
(F) DENOTES FIXED MOUNTING, (PTZ) DENOTES PAN/TILT/ZOOM (NOT USED)
- SECURITY ELECTRIC STRIKE LOCATION (NOT USED)
- SECURITY MAGNETIC LOCK (NOT USED)
- SECURITY DOOR RELEASE BUTTON LOCATION (NOT USED)
- DOOR CONTACT LOCATION (SUPPLIED AND INSTALLED BY OTHERS)

### TELECOMMUNICATION LEGEND

- VOICE OUTLET - WALL MOUNTED c/w 1" [25mm] C. BACK TO NEAREST COMMUNICATION ROOM/CLOSET OR LOCAL CABLE TRAY
- FAX/MODEM OUTLET - WALL MOUNTED c/w 1" [25mm] C. BACK TO NEAREST COMMUNICATION ROOM/CLOSET OR LOCAL CABLE TRAY
- DATA OUTLET - WALL MOUNTED c/w 1" [25mm] C. BACK TO NEAREST COMMUNICATION ROOM/CLOSET OR LOCAL CABLE TRAY
- COMBINATION TEL/DATA OUTLET - WALL MOUNTED c/w 1" [25mm] C. BACK TO NEAREST COMMUNICATION ROOM/CLOSET OR LOCAL CABLE TRAY
- VOICE/DATA CONNECTION TO FURNITURE SYSTEM, CEILING/WALL MOUNTED
- TYPICAL DESCRIPTION FOR DATA/VOICE OUTLETS  
NONE - DENOTES 1 CABLE  
(20,2V) - DENOTES QUANTITY OF DATA/VOICE CABLES
- TELEVISION OUTLET C/W SINGLE GANG BACKBOX, CONNECTORS, COVERPLATE AND 1 CABLES IN 3/4" (19mm) C. CO-ORDINATE MOUNTING HEIGHT ON SITE TO SUIT TV MOUNTING ARRANGEMENTS, RUN CABLE BACK TO THE NEAREST COMMUNICATION ROOM/CLOSET.

### POWER LEGEND

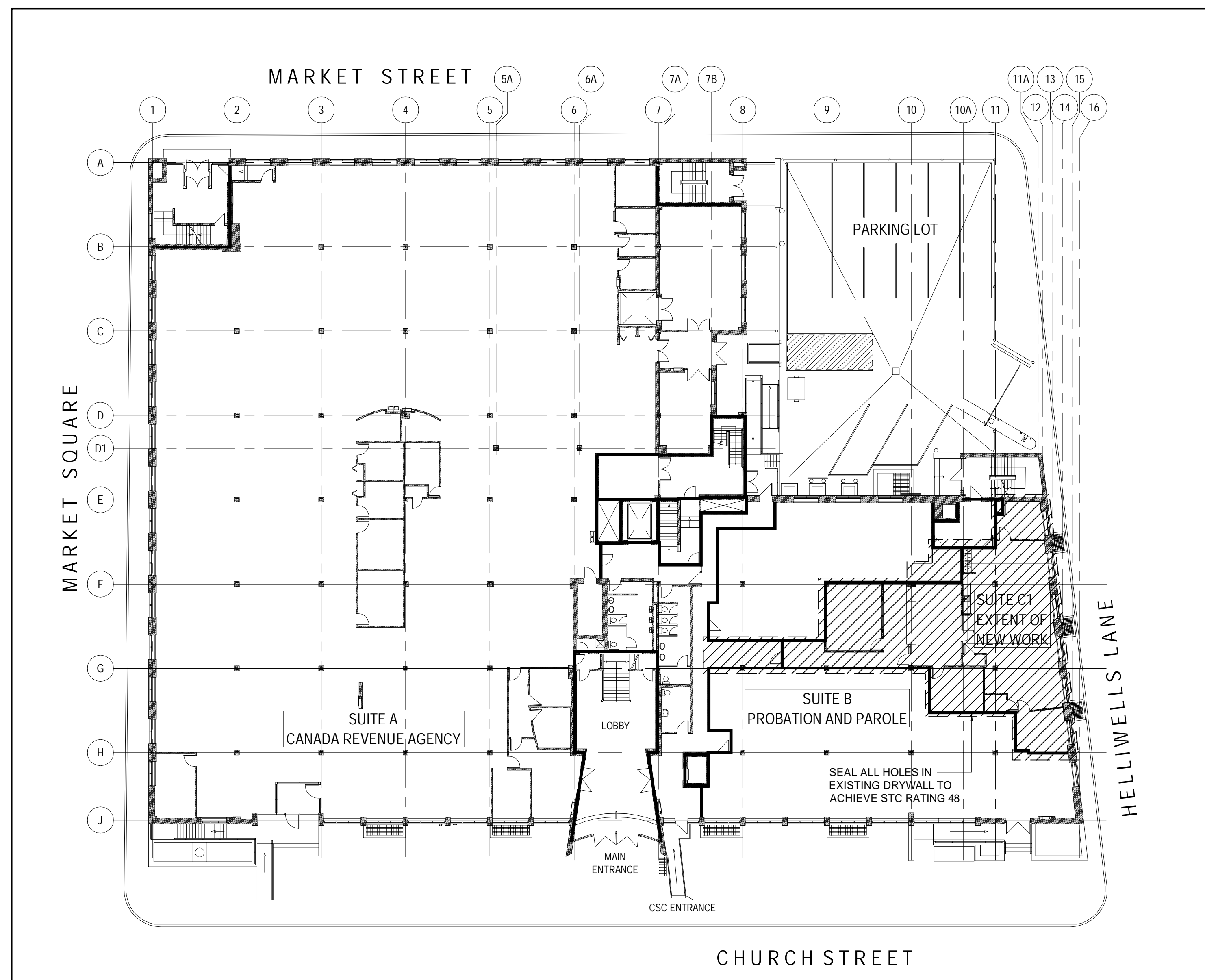
- 15A-125V 2P-3W GROUNDED DUPLEX RECEPTACLE, WALL MOUNTED
- 15A-125V 2P-3W ISOLATED GROUND DUPLEX RECEPTACLE, WALL MOUNTED (SS-DENOTES SURGE SUPPRESSION TYPE).
- 15A-125V 2P-3W GROUNDED DUPLEX RECEPTACLE, WALL MOUNTED 150mm ABOVE COUNTER TOP
- 15A-125V 2P-3W GROUNDED TWO (2) GANGED RECEPTACLES (QUADRUPLEX), WALL MOUNTED
- POWER AND DATA MOUNTMENT SURFACE MOUNTED ON FLOOR, c/w 15A-125V 2P-3W GROUNDED DUPLEX RECEPTACLE
- 120V CONNECTION TO EQUIPMENT
- 208V, 1PH CONNECTION TO EQUIPMENT
- 600V, 3PH CONNECTION TO EQUIPMENT
- DISCONNECT SWITCH
- SERVICE POLE
- PANELBOARD, RECESSED/SURFACE MOUNTED. REFER TO PANEL SCHEDULES.
- TYPICAL DESIGNATIONS FOR POWER PANEL ARE AS FOLLOWS:  
FLOOR (B=BASEMENT, 1=GROUND FLOOR, 2=SECOND FLOOR, S=SITE)  
DESIGNATION (A-Z = NORMAL POWER, E-X=EMERGENCY POWER)  
VOLTAGE (2=120/208V, 4=277/480V, 6=347/600V)  
MS - DENOTES MAIN SWITCHBOARD  
DP - DENOTES DISTRIBUTION PANEL  
MCC - DENOTES MOTOR CONTROL CENTRE  
LP - DENOTES LIGHTING PANEL  
PP - DENOTES POWER/RECEPTACLE PANEL  
RP - DENOTES RELAY PANEL

### MISCELLANEOUS LEGEND

- GF1 DENOTES GROUNDED FAULT INTERRUPTER.
- MW DENOTES MOUNTED IN MILLWORK
- CH DENOTES DEVICE MOUNTED 150mm ABOVE COUNTER TOP.
- TL DENOTES TWMST LOCK RECEPTACLE
- JUNCTION BOX
- DOOR BELL PUSH BUTTON - WALL MOUNTED
- DOOR BELL BUZZER - WALL MOUNTED
- DENOTES MECHANICAL EQUIPMENT
- E DENOTES EXISTING ITEM TO REMAIN
- R DENOTES EXISTING ITEM TO BE REMOVED
- ER DENOTES EXISTING ITEM TO BE RELOCATED
- RE DENOTES EXISTING ITEM IN RELOCATED POSITION
- RW DENOTES EXISTING DEVICE PROVIDED WITH NEW WIRING
- HIDDEN LINE DENOTES EXISTING ITEM UNLESS OTHERWISE NOTED
- 120 VOLT ON-OFF SWITCH TIMER SUPPLIED BY MECHANICAL AND INSTALLED BY THE CONTRACTOR
- PUBLIC ADDRESS SPEAKER - CEILING MOUNTED

### FIRE ALARM LEGEND

- FIRE ALARM MANUAL PULLSTATION
- FIRE ALARM STROBE LIGHT - WALL MOUNTED
- FIRE ALARM STROBE LIGHT - CEILING MOUNTED
- FIRE ALARM SPEAKER/STROBE LIGHT - WALL MOUNTED
- FIRE ALARM SPEAKER/STROBE LIGHT - CEILING MOUNTED
- FIRE ALARM BELL - WALL MOUNTED
- IONIZATION SMOKE DETECTOR CEILING MOUNTED
- IONIZATION SMOKE DETECTOR WALL MOUNTED



2 GROUND FLOOR - KEY PLAN  
E-100 1:250



### PROJECT NORTH

| 05       | ISSUED FOR ADDENDUM E-01  | 2016-11-15 |
|----------|---------------------------|------------|
| 04       | ISSUED FOR TENDER         | 2016-10-11 |
| 03       | ISSUED FOR TENDER REVIEW  | 2016-09-02 |
| 02       | ISSUED FOR 99% SUBMISSION | 2016-07-26 |
| 01       | ISSUED FOR 66% PROGRESS   | 2016-06-09 |
| revision |                           | date       |

Do not scale drawings.  
Verify all dimensions and conditions on site and immediately notify the departmental representative of all discrepancies.

- A Detail No.  
B drawing no. - where detail required  
C drawing no. - where detailed  
drawing title  
titre du dessin

RENOVATION AND FIT UP FOR  
FOR TRANSPORT CANADA  
32 CHURCH STREET  
ST. CATHARINES, ONTARIO

SITE PLAN AND DRAWING LIST AND  
SCHEDULES

drawn by  
dessiné par SH

designed by  
conçu par AO

approved by  
approuvé par AO/DS

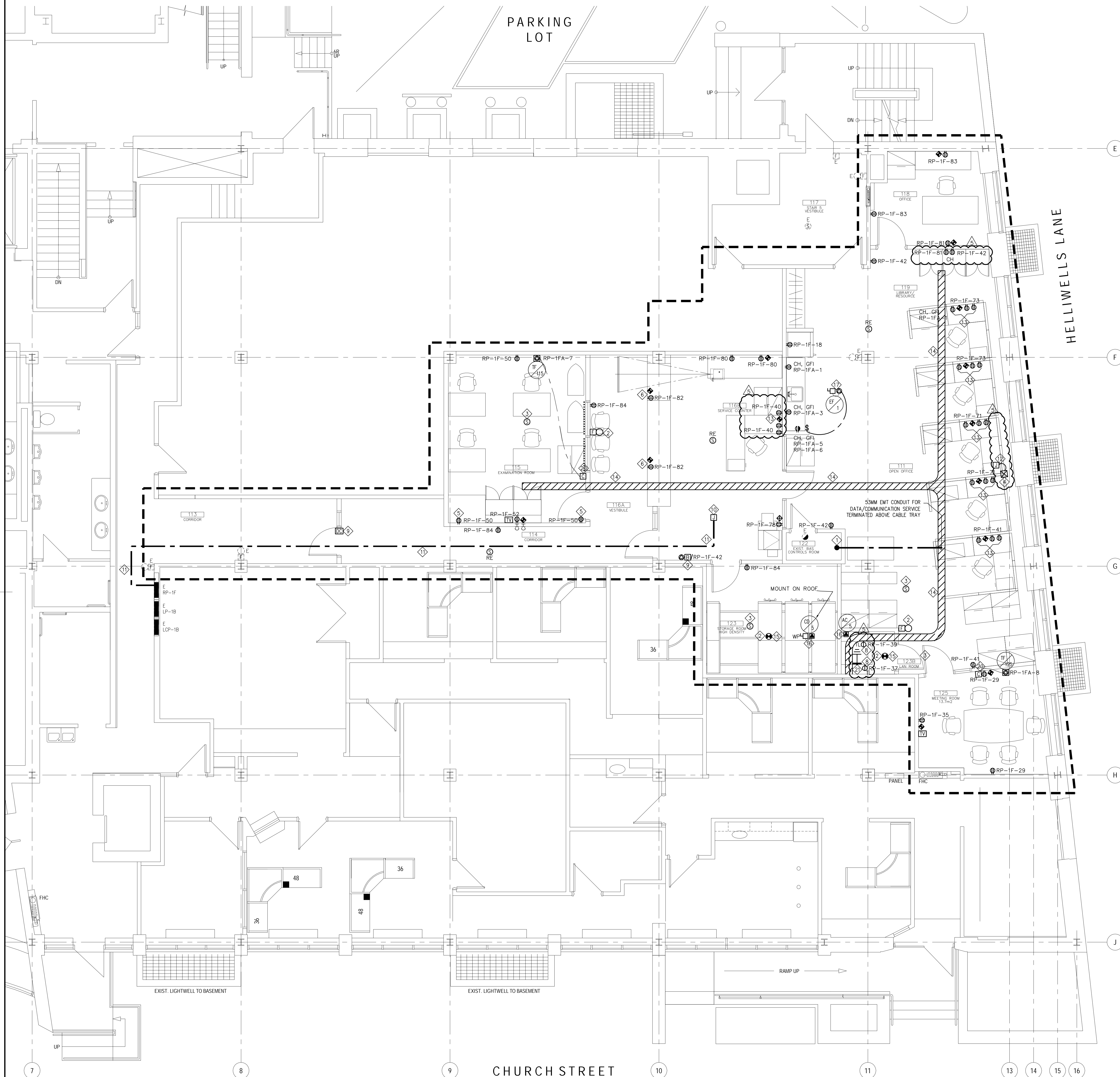
big  
afre project manager  
administrateur  
de projets

project date  
date du projet 2016.10.11

project no.  
no. du projet R.077633.042

drawing no.  
dessinée no. E-100



**NOTES:**

1. CORE FOR DATA/COMMUNICATION FIBRE CONDUIT THROUGH SLAB TO ELECTRICAL ROOM.
2. CONNECT NEW FIRE ALARM DEVICES TO EXISTING ZONE CIRCUIT SERVING THE AREA OF TRANSPORT CANADA FIT-UP.
3. PROVIDE NEW P.A. SPEAKERS TO MATCH EXISTING BASE BUILDING TYPE.
4. POWER/DATA COMMUNICATION SERVICE POLE PROVIDED AND INSTALLED BY SYSTEM FURNITURE SUPPLIER/INSTALLER. THE CONTRACTOR SHALL PROVIDE AND INSTALL WIRING VIA SERVICE POLE THROUGH TO DEVICES.
5. RECEPTACLE MOUNTED HIGH ON WALL JUST BELOW CEILING. VERIFY MOUNTING HEIGHT AND LOCATION ON SITE PRIOR TO ROUGHING-IN.
6. DEVICES MOUNTED IN MILLWORK. CO-ORDINATE EXACT LOCATION AND MOUNTING ARRANGEMENT ON SITE WITH MILLWORK INSTALLER AND CLIENT PRIOR TO ROUGHING-IN.
7. NOT USED.
8. TWIST LOCK RECEPTACLES FOR DATA RACK. MOUNT RECEPTACLES AT TOP OF RACK CO-ORDINATE EXACT LOCATION AND MOUNTING ARRANGEMENTS ON SITE PRIOR TO ROUGHING-IN.
9. DOOR CONTACT SUPPLY AND INSTALLED BY DOOR HARDWARE SUPPLIER/INSTALLER. PROVIDE LOW VOLTAGE WIRING FROM DOOR CONTACT TO BELL/CHIME AS REQUIRED AND CONNECT TO FORM A COMPLETE SYSTEM. THE BELL/CHIME SHALL BE BASED ON "HEATH ZENITH SERIES" CHIME MODEL #57/M-C FINISHED IN WHITE DECORATIVE LINEAR COVER. TRANSFORMER MODEL #122C-A. PROVIDE SHOP DRAWINGS OF BELL/CHIME SYSTEM FOR FINAL PRODUCT CHOICE. BELL/CHIME SHALL BE PROVIDED BY THE CONTRACTOR. THE SYSTEM SHALL BE WIRED SUCH THAT UPON OPENING OF THE DOOR THE BELL/CHIME WILL OPERATE TO ALERT STAFF THAT SOME ONE HAS ENTERED THE SPACE.
10. PROVIDE ZONE POWER TO JUNCTION BOX ABOVE CEILING AND SIZED AS REQUIRED FOR CIRCUITS DISTRIBUTION WITHIN TRANSPORT CANADA SUITE. CO-ORDINATE EXACT LOCATION ON SITE PRIOR TO ROUGHING-IN.
11. PROVIDE 2 x 41MM EMT CONDUITS ABOVE CEILING AND TERMINATE IN EXISTING PANEL RP-1F AS INDICATED. CO-ORDINATE EXACT ROUT ON SITE PRIOR TO ROUGHING-IN.
12. THE CONTRACTOR SHALL PROVIDE ABOVE CEILING JUNCTION BOXES FOR POWER BRANCH CIRCUITS VIA SERVICE POLE FOR SYSTEM FURNITURE RECEPTACLES. ALLOW FOR FLEXIBLE CONDUIT CONNECTION FROM JUNCTION BOX TO SERVICE POLE.
13. DEVICES IN SYSTEM FURNITURE TO BE MOUNTED ABOVE DESK. EXACT MOUNTING HEIGHT TO BE CO-ORDINATED WITH FURNITURE SUPPLIER.
14. 12" WIDE X 4 HIGH BASKET CABLE TRAY FOR VOICE AND DATA/COMMUNICATION WIRING MOUNTED ABOVE CEILING. THE CONTRACTOR IS RESPONSIBLE FOR CO-ORDINATING EXACT LOCATION AND ROUTE ON SITE WITH ALL TRADES PRIOR TO ROUGHING-IN. ALL TRADES SHALL CO-ORDINATE THEIR WORK ON SITE SUCH THAT ANY INTERFERENCES ARE ELIMINATED.
15. PROVIDE NEW FIRE ALARM SMOKE DETECTOR TO MATCH BASE BUILDING STANDARD AND CONNECT TO EXISTING INITIATING ZONE CIRCUIT SERVING THE AREA. CO-ORDINATE MOUNTING ARRANGEMENTS ON SITE TO ELIMINATE DETECTOR INTERFERENCES.
16. PROVIDE A 20A-2P BREAKER IN EXISTING RP-1F TO MATCH EXISTING AND FEED CD-5 LOCATED ON ROOF WITH 2 #12RW90 IN 19MM EMT CONDUIT. ALLOW FOR INTER CONNECTING CD-5 AND AC-5 WITH 2 #12 RW90 IN 19MM EMT CONDUIT. CO-ORDINATE EXACT LOCATION ON SITE WITH THE CONTRACTOR PRIOR TO ROUGHING-IN.
17. PROVIDE A 15A-1P BREAKER IN EXISTING RP-1F TO MATCH EXISTING AND FEED EF-1 WITH 2 #12 RW90 IN 19MM EMT CONDUIT. VERIFY EXACT LOCATION OF EF-1 ON SITE PRIOR TO ROUGHING-IN.
18. ENSURE THAT ALL MISCELLANEOUS LOW VOLTAGE WIRING IS PROPERLY SUPPORTED FROM BUILDING STRUCTURE VIA "J-HOOKS" AND NOT LAY ON CEILING TILES/GRID SYSTEM. FOR EXAMPLE VOICE AND DATA/COMMUNICATION WIRING FROM WALL/PARTITIONS OR SERVICE POLE TO CABLE TRAY SHALL BE SUPPORTED BY "J-HOOKS".
19. UNLESS OTHERWISE NOTED IN THE SPECIFICATION ALL RECEPTACLES, THERMOSTATS, FIRE ALARM DEVICES, CARD READERS AND DOOR OPERATOR PUSH BUTTONS SHALL BE MOUNTED AT A MINIMUM OF 400MM A.F.F. ALL OTHER DEVICES NOT COVERED SHALL BE MOUNTED AT A MAXIMUM OF 1200MM A.F.F.
20. LINE VOLTAGE ON/OFF SWITCH COMPLETE WITH TIMER SUPPLIED BY THE CONTRACTOR AND INSTALLED BY THE CONTRACTOR. ALL WIRING AND TERMINATIONS TO TF-115 AND TF-125 SHALL BE PROVIDED BY THE CONTRACTOR. CO-ORDINATE EXACT LOCATION OF SWITCH/TIMER ON SITE WITH THE CONTRACTOR PRIOR TO ROUGHING-IN CONDUIT AND WIRING.
21. DATA RACK GROUNDING BAR MOUNTED ON DATA/RACK REFER TO SPECIFICATIONS FOR ADDITIONAL DETAILS AND CO-ORDINATE EXACT MOUNTING ARRANGEMENTS ON SITE PRIOR TO ROUGHING-IN.

**St. Catharines - Transport Canada Office**Job No: **12096**Voltage: **120 / 208**PhWire: **3/4**Fed from: **Existing Power Panel PP****Panel Schedule****RP-1F (EXISTING)**Panel:  
Date: August 29, 2016

Panel Mains:

Mounting: Surface

Tub Type: Double

Location: Corridor

Main Breaker:

| BRKR   | * | DESCRIPTION                       | C [W] | d [I] | D [W] | cc [I] | D [W] | d [I] | C [W] | DESCRIPTION | * BRKR                             |        |
|--------|---|-----------------------------------|-------|-------|-------|--------|-------|-------|-------|-------------|------------------------------------|--------|
| 15A-1P |   | General Corridor Receptacles      | 500   | 0.6   | 300   | 1      | a     | 2     | 300   | 0.6         | Receptacles 149                    | 15A-1P |
| 15A-1P |   | General Corridor Receptacles      | 500   | 0.6   | 300   | 3      | b     | 4     | 300   | 0.6         | Receptacles 149                    | 15A-1P |
| 15A-1P |   | General Corridor Receptacles      | 500   | 0.6   | 300   | 5      | c     | 6     | 300   | 0.6         | Receptacles 145, 146               | 15A-1P |
| 15A-1P |   | General 102 Receptacles           | 500   | 0.6   | 300   | 7      | a     | 8     | 300   | 0.6         | Receptacles 150                    | 15A-1P |
| 15A-1P |   | EF-1-1 144                        | 500   | 0.6   | 300   | 9      | b     | 10    | 300   | 0.6         | Receptacles 151, 152               | 15A-1P |
| 15A-1P |   | EF-1-2 162                        | 500   | 0.6   | 300   | 11     | c     | 12    | 300   | 0.6         | Fridge 148                         | 15A-1P |
| 15A-1P |   | Floor Receptacles 149             | 500   | 0.6   | 300   | 13     | a     | 14    | 600   | 0.6         | Split recept 148                   | 15A-1P |
| 15A-1P |   | Floor Receptacles 149             | 500   | 0.6   | 300   | 15     | b     | 16    | 600   | 0.6         | Split recept 148                   | 15A-1P |
| 15A-1P |   | Floor Receptacles 149             | 500   | 0.6   | 300   | 17     | c     | 18    | 0     | 0.6         | (Tran. Can.) Refrigerator          | 15A-1P |
| 15A-1P |   | Floor Receptacles 149             | 500   | 0.6   | 300   | 19     | a     | 20    | 300   | 0.6         | DH Split C                         | 15A-1P |
| 15A-1P |   | Floor Receptacles 150             | 500   | 0.6   | 300   | 21     | b     | 22    | 300   | 0.6         | DH 101, 141                        | 15A-1P |
| 15A-1P |   | Floor Receptacles 150             | 500   | 0.6   | 300   | 23     | c     | 24    | 0     | 0.6         | (Tran. Can.) Rm. 115               | 15A-1P |
| 15A-1P |   | Floor Receptacles 151             | 500   | 0.6   | 300   | 25     | a     | 26    | 300   | 0.6         | 500 Parking Gate                   | 15A-1P |
| 15A-1P |   | Floor Receptacles 151             | 500   | 0.6   | 300   | 27     | b     | 28    | 300   | 0.6         | 500 Unval & Lave                   | 15A-1P |
| 15A-1P |   | (Tran. Can.) Recept. Rm. 125      | 0     | 0     | 0     | 29     | c     | 30    | 300   | 0.6         | 500 Drinking Fountain              | 15A-1P |
| 15A-1P |   | Training room projector           | 500   | 0.6   | 300   | 31     | a     | 32    | 300   | 0.6         | 500 Booster Fan 148                | 15A-1P |
| 15A-1P |   | AC Unit in entrance               | 500   | 0.6   | 300   | 33     | b     | 34    | 300   | 0.6         | 500 Booster Fan 144, 151           | 15A-1P |
| 15A-1P |   | (Tran. Can.) TV. Recept. Rm. 125  | 0     | 0     | 0     | 35     | a     | 36    | 300   | 0.6         | 500 Photocopier 144                | 15A-1P |
| 20A-1P |   | (Tran. Can.) Cable Tray Recept.   | 0     | 0     | 0     | 37     | a     | 38    | 0     | 0.6         | (Tran. Can.) Microwave             | 15A-1P |
| 20A-1P |   | (Tran. Can.) Cable Tray Recept.   | 0     | 0     | 0     | 39     | b     | 40    | 0     | 0.6         | (Tran. Can.) Kitchen + Recept.     | 15A-1P |
| 15A-1P |   | (Tran. Can.) 1 V.Wrsth. + Recept. | 0     | 0     | 0     | 41     | c     | 42    | 0     | 0.6         | (Tran. Can.) 1 BARRIS + 3 Recept.  | 15A-1P |
| 15A-1P |   | Printer                           | 600   | 0.5   | 300   | 43     | a     | 44    | 300   | 0.6         | 500 WorkStation 173, 176           | 15A-1P |
| 15A-1P |   | WorkStation 160                   | 500   | 0.6   | 300   | 45     | b     | 46    | 300   | 0.6         | 500 WorkStation 174, 175           | 15A-1P |
| 15A-1P |   | Printer                           | 600   | 0.5   | 300   | 47     | c     | 48    | 300   | 0.6         | 500 WorkStation 173, 174, 175, 176 | 15A-1P |
| 15A-1P |   | WorkStation 162, 163              | 500   | 0.6   | 300   | 49     | a     | 50    | 0     | 0.6         | (Tran. Can.) Rm. 115               | 15A-1P |
| 15A-1P |   | WorkStation 161, 162, 163, 164    | 500   | 0.6   | 300   | 51     | b     | 52    | 0     | 0.6         | (Tran. Can.) Rm. 115 TV            | 15A-1P |
| 15A-1P |   | WorkStation 161, 164              | 500   | 0.6   | 300   | 53     | c     | 54    | 300   | 0.6         | 500 WorkStation 177, 178, 179, 180 | 15A-1P |
| 15A-1P |   | WorkStation 166, 167              | 500   | 0.6   | 300   | 55     | a     | 56    | 300   | 0.6         | 500 WorkStation 179                | 15A-1P |
| 15A-1P |   | WorkStation 166, 167              | 500   | 0.6   | 300   | 57     | b     | 58    | 300   | 0.6         | 500 WorkStation 177, 178, 179, 180 | 15A-1P |
| 15A-1P |   | WorkStation 165, 166, 167, 168    | 500   | 0.6   | 300   | 59     | c     | 60    | 300   | 0.6         | 500 WorkStation 181, 182           | 15A-1P |
| 15A-1P |   | WorkStation 165, 168              | 500   | 0.6   | 300   | 61     | a     | 62    | 300   | 0.6         | 500 WorkStation 181, 182           | 15A-1P |
| 15A-1P |   | WorkStation 169, 170              | 500   | 0.6   | 300   | 63     | b     | 64    | 300   | 0.6         | 500 WorkStation 183                | 15A-1P |
| 15A-1P |   | WorkStation 169, 170              | 500   | 0.6   | 300   | 65     | c     | 66    | 300   | 0.6         | 500 WorkStation 183                | 15A-1P |
| 15A-1P |   | WorkStation 171, 172              | 500   | 0.6   | 300   | 67     | a     | 68    | 300   | 0.6         | 500 Building Control               | 15A-1P |
| 15A-1P |   | WorkStation 171, 172              | 500   | 0.6   | 300   | 69     | b     | 70    | 480   | 0.6         | 800 DO                             | 15A-1P |
| 15A-1P |   | (Tran. Can.) 2 V.Wrsth.           | 0     | 0     | 0     | 71     | c     | 72    | 480   | 0.6         | 800 DO                             | 15A-1P |
| 15A-1P |   | (Tran. Can.) 2 V.Wrsth.           | 0     | 0     | 0     | 73     | a     | 74    | 300   | 0.6         | 500 Photocopier 148                | 15A-1P |
| 15A-1P |   | Motorized Wall Opener             | 500   | 0.6   | 300   | 75     | b     | 76    | 300   | 0.6         | 500 Recept on Poster R/C           | 15A-1P |
| 15A-1P |   | Projector                         | 500   | 0.6   | 300   | 77     | c     | 78    | 0     | 0.6         | (Tran. Can.) Copier                | 15A-1P |
| 15A-1P |   | A/U Receptacles                   | 500   | 0.6   | 300   | 79     | a     | 80    | 0     | 0.6         | (Tran. Can.) 2 Recept.             | 15A-1P |
| 15A-1P |   | (Tran. Can.) Office 118           | 0     | 0     | 0     | 81     | b     | 82    | 0     | 0.6         | (Tran. Can.) Service Counter       | 15A-1P |
| 15A-1P |   | (Tran. Can.) Office 118           | 0     | 0     | 0     | 83     | c     | 84    | 0     | 0.6         | (Tran. Can.) 3 Recept.             | 15A-1P |

CONNECTED 'A' 12300 W  
CONNECTED 'B' 12300 W  
CONNECTED 'C' 9300 W

7200 W DEMAND 'A'  
7380 W DEMAND 'B'  
5580 W DEMAND 'C'

Notes: Existing Loads shown are assumptions as there is no site measurement

Remarks:

|                      |      |    |
|----------------------|------|----|
| TOTAL DEMAND/AMPS    | 56.0 | A  |
| TOTAL CONNECTED LOAD | 33.8 | KW |
| TOTAL DEMAND LOAD    | 20.2 | KW |



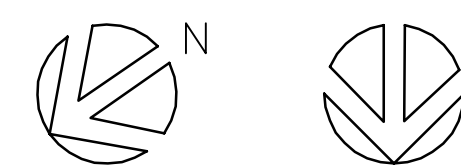
Public Works and  
Government Services Canada  
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Ontario Region  
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12356.107

ENG. STAMP



PROJECT NORTH

|          |                           |            |
|----------|---------------------------|------------|
| 05       | ISSUED FOR ADDENDUM E-01  | 2016-11-15 |
| 04       | ISSUED FOR TENDER         | 2016-10-11 |
| 03       | ISSUED FOR TENDER REVIEW  | 2016-09-02 |
| 02       | ISSUED FOR 99% SUBMISSION | 2016-07-26 |
| 01       | ISSUED FOR 66% PROGRESS   | 2016-06-09 |
| revision |                           | date       |

Do not scale drawings.  
Verify all dimensions and conditions on site and immediately  
notify the departmental representative of all discrepancies.

|   |                                     |                              |
|---|-------------------------------------|------------------------------|
| A | Detail No.                          | No. du détail                |
| B | drawing no. - where detail required | dessin no. - où détail exigé |
| C | drawing no. - where detailed        | dessin no. - où détaillé     |

project title  
titre du projet  
**RENOVATION AND FIT UP FOR  
FOR TRANSPORT CANADA**  
32 CHURCH STREET  
ST. CATHARINES, ONTARIO

drawing title  
titre du dessin  
**GROUND FLOOR - NEW POWER AND  
SYSTEMS LAYOUT**

drawn by  
dessiné par  
SH

designed by  
conçu par  
AO

approved by  
approuvé par  
AO/DS

big  
afire  
project manager  
administrateur  
de projets

project date  
date du projet  
2016.10.11

project no.  
no. du projet  
R.077633.042

drawing no.  
dessinée no.  
E-300