


# CANADA REVENUE AGENCY


## MAIL PROCESSING ROOM - 1050 NOTRE DAME AVE., SUDBURY, ON

### ELECTRICAL / TRAVAUX D'ÉLECTRICITÉ



Public Works and  
Government Services  
Canada


Travaux publics et  
services gouvernementaux  
Canada



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Contractor to verify all dimensions  
& conditions on site and immediately  
notify the departmental representative  
of all discrepancies.

1	ISSUED FOR TENDER	2017/06/30
0	ISSUED FOR REVIEW	2017/06/16
revisions	description	date

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B location drawing no.  
sur dessin no.  
C drawing no.  
dessin no.

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B

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project

project

CANADA REVENUE AGENCY  
MAIL PROCESSING ROOM

1050 NOTRE DAME AVE.,  
SUDBURY, ON.

drawing

dessin

ELECTRICAL LEGENDS,  
DRAWING LIST AND  
GENERAL NOTES

Designed By

Conçu par

Date

A.GIRARD

(yyyy/mm/dd)

Drawn By

Dessiné par

Date

A.GIRARD

(yyyy/mm/dd)

Reviewed By

Examiné par

Date

R.BOIVIN

(yyyy/mm/dd)

Approved By

Approuvé par

Date

R.BOIVIN

(yyyy/mm/dd)

Tender

Soumission

Project Manager

Administrateur de projets

Project no.

No. du projet

R.087411.001

Drawing no.

No. du dessin

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#### DEMOLITION NOTES:

- UNLESS OTHERWISE NOTED, MATERIALS FOR REMOVAL BECOME THE CONTRACTOR'S PROPERTY AND SHALL BE TAKEN FROM SITE AND DISPOSED OF IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS AND REGULATIONS.
- DISCONNECT AND MAKE SAFE ALL SYSTEMS TO BE DEMOLISHED INCLUDING PANELS, FEEDERS, BRANCH CIRCUITS AND EQUIPMENT BY OTHER DIVISIONS. COORDINATE WITH OTHER DIVISIONS.
- MAINTAIN EXISTING REMAINING CIRCUITS, SYSTEMS, ETC., WHICH PASS THROUGH AREA OF CONSTRUCTION AND IN CLOSE PROXIMITY. PROVIDE NECESSARY COMPONENTS TO MAINTAIN SYSTEMS. ENSURE COMPONENTS WILL BE CONCEALED WHEN CONSTRUCTION IS COMPLETE.
- REINSTATE IMMEDIATELY ANY REMAINING EXISTING SYSTEMS IN-ADVERTENTLY INTERRUPTED DURING CONSTRUCTION.
- THE DRAWINGS INDICATE KNOWN CONDITIONS AND MAY NOT INDICATE ALL DEMOLITION REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL VISIT THE SITE PRIOR TO TENDER SUBMISSION AND VERIFY REQUIREMENTS AND INCLUDE ALL COSTS IN TENDER.
- REMOVE REDUNDANT CONDUIT AND WIRING BACK TO SOURCE UNLESS OTHERWISE NOTED, AND MAKE SAFE.
- DEVICES FROM DEMOLITION ARE NOT TO BE REUSED UNLESS NOTED OTHERWISE. NEW DEVICES SHALL BE SUPPLIED WHERE NECESSARY.
- ALL FIRE ALARM DEVICES TO REMAIN IN OPERATION. PROTECT SMOKE DETECTORS FROM DUST EXPOSURE DURING CONSTRUCTION.
- ENSURE FIRE ALARM SYSTEM IS OPERATIONAL AT THE END OF EACH SHIFT.
- AFTER DEMOLITION WORK IS COMPLETE AND MINIMUM THREE (3) WORKING DAYS PRIOR TO PROCEEDING WITH NEW WORK, NOTIFY ENGINEER FOR INSPECTION.

#### GENERAL NOTES:

- ELECTRICAL WORK TO BE DONE IN ACCORDANCE WITH THE ELECTRICAL SAFETY CODE OF ONTARIO, AND WITH NEW ARCHITECTURAL/INTERIOR DESIGNER'S LAYOUT (LOCATION/MOUNTING HEIGHTS). CONTRACTOR TO OBTAIN ALL NECESSARY PERMITS, PAY ALL APPLICABLE FEES AND INSPECTION COSTS.
- COORDINATE WORK WITH ALL OTHER TRADES TO AVOID INTERFERENCE.
- ENSURE ELECTRICAL COMPONENTS (E. WIRING, CONDUIT, ETC.) RELATING TO THE AREA OF WORK ARE INDEPENDENTLY SECURED TO COMPLY WITH CODE REQUIREMENTS. IT IS NOT ACCEPTABLE TO SECURE THE COMPONENTS TO DUCTWORK, DUCT WORK TO CONDUIT, OR ANY OTHER SYSTEMS.
- ENSURE ALL EXISTING CEILING MOUNTED BOXES ARE CLOSED PRIOR TO COMPLETION OF PROJECT. PROVIDE LABELLED AND COLOUR CODED COVER PLATES (E. PANEL NAME AND CIRCUIT NUMBER) AS REQUIRED.
- MINIMUM THREE (3) WORKING DAYS PRIOR TO CLOSING CEILING, NOTIFY THE ENGINEER FOR CEILING INSPECTION.

#### LIGHTING NOTES:

- CLEAN LAMPS, LENSES, INTERIOR AND VISIBLE SURFACES OF LUMINAIRES. REPLACE DEFECTIVE LAMPS, BALLAST AND DAMAGED LENSES.
- LUMINAIRES IN CONSTRUCTION AREA ARE TO BE INDEPENDENTLY SUPPORTED, INCLUDING EXISTING TO REMAIN, RELOCATED AND NEW, TO COMPLY WITH CODE REQUIREMENTS.
- ADD, RELOCATE AND CONNECT LIGHT FIXTURES TO SUIT INDICATED LAYOUT, EXTEND CONDUIT AND WIRING AS NECESSARY AND CONNECT LUMINAIRES TO EXISTING CIRCUITS. TURN OVER SURPLUS FIXTURES TO OWNER.
- WHERE AIR SUPPLY TROFFER ARE BEING RELOCATED BY MECHANICAL CONTRACTOR TO EXISTING LIGHT FIXTURE, ELECTRICAL CONTRACTOR TO COORDINATE DISCONNECTION AND RECONNECTION AS REQUIRED.
- MODIFY ALL AFFECTED (RELOCATED OR REWIRED) 347V LIGHT FIXTURES TO PROVIDE BALLAST DISCONNECTS AS PER OESC.

#### EXIT LIGHTS:

- CONNECT EXIT LIGHTS TO AC AND DC SUPPLIES.
- ADD/REMOVE DIRECTIONAL ARROWS TO SUIT FLOOR PLAN LAYOUT.
- IN OPEN AREA ENSURE THE DEVICE HAS 610mm CLEARANCE FROM ANY SPRINKLER HEAD.

#### FIRE ALARM NOTES:

- PROVIDE NEW CIRCUITS AS REQUIRED FOR AUDIBLE AND ALARM CIRCUITS.
- TEST FINAL INSTALLATION AND PROVIDE VERIFICATION OF FIRE ALARM SYSTEMS IN ACCORDANCE WITH CAN/ULC S537 LATEST EDITION. VERIFICATION REPORT SHALL INCLUDE MEASURED dB LEVELS.

#### POWER NOTES:

- ENSURE EXISTING REMAINING OUTLETS IN AFFECTED AREA ARE FUNCTIONAL.
- DO NOT MOUNT WALL OUTLETS BACK TO BACK, LEAVE MINIMUM 300mm SPACE BETWEEN OUTLETS, STAGGER OUTLETS WITHIN ALTERNATE STUD CAVITIES. DO NOT ANCHOR BACK TO BACK OUTLETS TO THE SAME STUD.

#### COMMUNICATION NOTES:

- REMOVAL OF TELECOMMUNICATION CABLEING IS BY OWNER, UNLESS OTHERWISE NOTED.
- UNLESS OTHERWISE NOTED PROVIDE PLASTER RINGS FOR OUTLETS WITH OUTLET BOXES 108mm SQUARE X 63mm DEEP EACH WITH 21mm EMPTY CONDUIT TO CEILING SPACE C/W BUSHING AND PULL STRINGS. NEW TEL AND/OR DATA CABLES, TERMINAL DEVICES AND COVER PLATES WILL BE SUPPLIED AND INSTALLED BY OTHERS.

#### COLOR CODING:

APPLICABLE TO NEW OR RELOCATED WORK UNLESS OTHERWISE NOTED.

- TO CONFORM TO CLIENT'S BUILDING CODING SYSTEM.
- COLOUR CODE CONDUITS AND BOXES.
- CODE WITH PLASTIC TAPE OR PAINT WHERE CONDUITS ENTER WALLS, CEILING, OR FLOOR AND AT 15 METER INTERVALS.
- COLORS: 25mm WIDE PRIME COLOUR AND 20mm WIDE AUXILIARY COLOUR.

SERVICE	PRIME COLOUR	AUXILIARY COLOUR
UP TO 250V	BLUE	
UP TO 600V	YELLOW	
TELECOMMUNICATION	GREEN	
FIRE ALARM	RED	
EMERGENCY VOICE	RED	BLUE
SECURITY SYSTEM	RED	YELLOW

#### OUTLETS LOCATION:

- EXACT LOCATION AND MOUNTING HEIGHTS OF OUTLETS TO BE COORDINATED WITH INTERIOR DESIGNER/ARCHITECTURAL DRAWINGS PRIOR TO ROUGH IN. REFER TO ARCHITECTURAL/DESIGNER DRAWINGS FOR MILLWORK, FURNITURE, SCREENS, COMPONENTS (I.E. TV, DRINKING FOUNTAIN, ETC.) FOR REQUIREMENTS.
- BRING TO THE ATTENTION OF THE ARCHITECT / INTERIOR DESIGNER AND ENGINEER ANY CONFLICTS OR REQUIRED CLARIFICATION.
- FAILING TO COORDINATE, THE CONTRACTOR WILL MODIFY THE INSTALLATION AT HIS EXPENSE, IF REQUIRED.

#### NOTES:

- GROUND BAR c/w CONNECTORS AS REQUIRED FOR No. 6 COPPER JUMPERS AND c/w CONNECTOR(S) FOR No. 2/0 INSULATED COPPER. PROVIDE 2/0 INSULATED COPPER CONDUCTOR, CONNECT TO BUILDING GROUND.
- GROUND BAR COPPER BUSBAR 12" (300mm) x 6" (150mm) x 1/4" (6mm) BOLTED TO SIDE OF TRAY, RACK OR WALL WITH PHENOLIC INSULATORS WITH A 2" (51mm) STANDOFF.
- CONNECTORS TO BE 2-HOLE DOUBLE CRIMP TYPE.
- COMPLY WITH J-STD-607-A-2002 - COMMERCIAL BUILDING GROUNDING AND BONDING REQUIREMENT FOR TELECOMMUNICATION.

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TYPICAL GROUND BAR DETAIL

LIGHTING FIXTURE SCHEDULE						
TYPE	DESCRIPTION	LAMPS PER FIXTURE			VOLT	MOUNTING
		QTY	TYPE	WATTS		
1	NEW 1200mmL x 145mmW x 74mmD LED WRAPAROUND FIXTURE; COLD ROLLED STEEL HOUSING; FROSTED LENS WITH LINEAR PRISMS; GLARE-FREE LIGHT OUTPUT; 4200 LUMENS; 80CRI; WHITE FINISH WITH POLYMER PLASTIC END CAPS	1	LED	45W	4000K	347V
1b	NEW 1200mmL x 145mmW x 74mmD LED WRAPAROUND FIXTURE; COLD ROLLED STEEL HOUSING; FROSTED LENS WITH LINEAR PRISMS; GLARE-FREE LIGHT OUTPUT; 4200 LUMENS; 80CRI; WHITE FINISH WITH POLYMER PLASTIC END CAPS	1	LED	45W	4000K	347V
2	NEW 1220mmL x 77mmW x 95mmD LENSED LED STRIP LIGHT FIXTURE; COLD ROLLED STEEL HOUSING; SEMI-FROSTED LENS; 3000 LUMENS; 80CRI; BAKED WHITE ENAMEL FINISH	1	LED	19W	4000K	347V
NOTES: 1. ALL ACRYLIC LENSES SHALL BE MINIMUM 0.125" THICK.						

LINETYPE LEGEND	
SYMBOL	DESCRIPTION
—————	NEW WORK
—————	EXISTING
-----	DEMOLITION
-----	ARCHITECTURAL GRID LINES
.....	CEILING GRID

DRAWING LIST	
DRAWING	DESCRIPTION
E1	ELECTRICAL LEGENDS, DRAWING LIST AND GENERAL NOTES
E2	LIGHTING AND FIRE ALARM DEMOLITION WORK
E3	LIGHTING AND FIRE ALARM NEW WORK
E4	POWER AND SYSTEMS - DEMOLITION WORK
E5	POWER AND SYSTEMS - NEW WORK
E6	POWER DISTRIBUTION NEW WORK

ELECTRICAL LEGEND	
SYMBOL	DESCRIPTION
	CEILING MOUNTED LIGHT FIXTURE
	LIGHT FIXTURE CONNECTED TO NIGHT LIGHT CIRCUIT
	RECESSED DOWN LIGHT FIXTURE, TYPE AS INDICATED
	RECESSED DOWN LIGHT FIXTURE CONNECTED TO NIGHT LIGHT CIRCUIT
	WALL MOUNTED LIGHT SWITCH
	DIMMER LIGHT SWITCH
	3-WAY LIGHT SWITCH
	WALL MOUNTED OCCUPANCY SENSOR SWITCH
	CEILING OCCUPANCY SENSOR
	CEILING MOUNTED EXIT LIGHT WITH DIRECTIONAL ARROWS AS INDICATED
	WALL MOUNTED EXIT LIGHT WITH DIRECTIONAL ARROWS AS INDICATED
	FIRE ALARM BELL
	FIRE ALARM HEAT DETECTOR
	FIRE ALARM SMOKE DETECTOR
	FIRE ALARM PULL STATION
	15A, 120V WALL MOUNTED DUPLEX RECEPTACLE
	15A, 120V DEDICATED DUPLEX RECEPTACLE
	15A, 120V DUPLEX RECEPTACLE - INSTALLED OVER COUNTER
	5-20R RECEPTACLE - INSTALLED OVER COUNTER
	5-20R RECEPTACLE
	15A, 120V HALF SWITCH RECEPTACLE
	SURFACE MOUNT DUPLEX RECEPTACLE
	SPECIAL TYPE RECEPTACLE, TYPE AS SHOWN
	FURNITURE POLE
	DUAL CHANNEL SERVICE POLE FOR POWER AND COMMUNICATIONS
	SINGLE CHANNEL SERVICE POLE FOR COMPRESSED AIR HOSE
	FLOOR MONUMENT
	JUNCTION BOX
	FLEXIBLE CONDUIT CONNECTION
	MANUAL MOTOR STARTER - CSA CERTIFIED AS A DISCONNECTING MEANS AND LOCKABLE IN THE "OFF" POSITION
	SINGLE PHASE ELECTRIC MOTOR
	SPEED SWITCH
	DISCONNECT SWITCH
	SURFACE MOUNTED ELECTRICAL PANEL
	RECESS MOUNTED ELECTRICAL PANEL
	VOICE AND/OR DATA OUTLET BOX
	CABLEVISION OUTLET
	REQUEST TO EXIT
	CARD READER
	ELECTRIC STRIKE
	DOOR CONTACT (PROVIDED BY SECURITY CONTRACTOR C/W WIRING)
	SECURITY MOTION SENSOR
	BARRIER-FREE DOOR OPERATOR C/W PUSHBUTTONS

ABBREVIATION LEGEND	
ABBREVIATION	DESCRIPTION
B	BLANK WALL PLATE
C	CEILING MOUNTED
E	EXISTING, TO REMAIN
ER	EXISTING, TO BE RELOCATED
EN	EXISTING, SHOWN IN NEW LOCATION
GFI	GROUND FAULT INTERRUPTER
R	EXISTING, TO BE DISCONNECTED AND REMOVED
OC	INSTALLED OVER COUNTER TOP
F	FLOOR MOUNTED
N	NEW