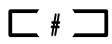







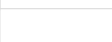
































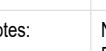



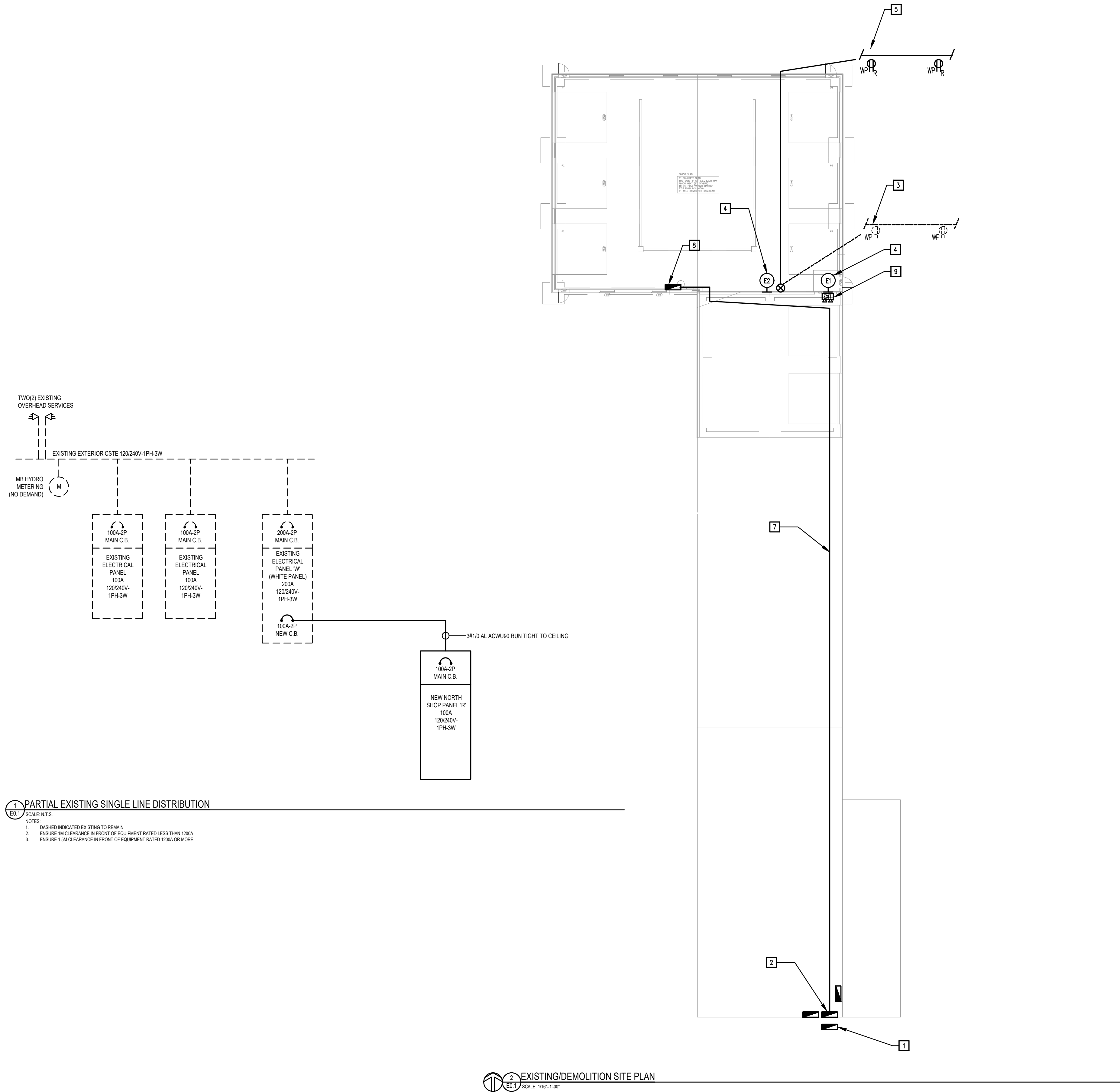


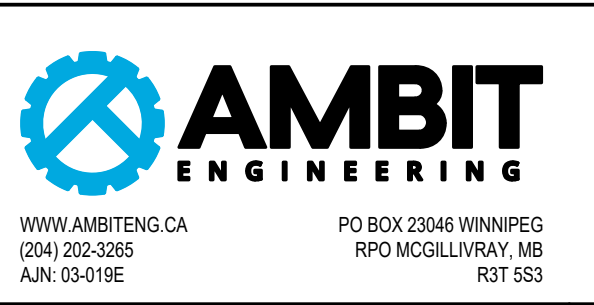
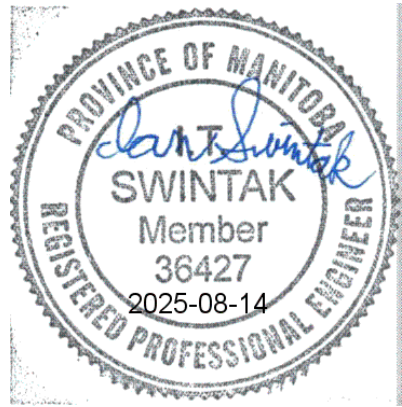
| LIGHTING | | EMERGENCY LIGHTING | | MOTORS & MECHANICAL | | FIRE ALARM | | POWER AND RECEPTACLES | | LIST OF ABBREVIATIONS | | ELECTRICAL SCOPE | |
|--|--|---|---|---|---|---|--|---|---|-----------------------|--|---|--|
|  | LINEAR LIGHT FIXTURE, TYPE "X" AS NOTED. REFER TO LUMINAIRE SCHEDULE FOR SPECIFIC MOUNTING DETAILS AND SPECIFICATION. REFER TO CIRCUITING (CCT-4) FOR CONTROLS ASSOCIATED WITH OPEN AREA LIGHTING. |  | LED DOUBLE REMOTE HEAD FIXTURE, MINIMUM 6W PER HEAD, WIRE TO EMERGENCY LIGHTING BATTERY UNIT, VOLTAGE TO MATCH BATTERY UNIT. |  | MOTOR CONNECTION, E.C. TO PROVIDE FUSIBLE DISCONNECT SWITCH TO MATCH MOTOR. COORDINATE WITH MECHANICAL FOR EXACT LOCATION. "F" INDICATES MOTOR NAME, REFER TO MOTOR SCHEDULE FOR DETAILS. |  | 120V CO ALARM CW 10 YEAR BATTERY BACKUP. |  | DUPLEX RECEPTACLE. | A | AMPS/AMPERES | <div>1.ELECTRICAL CONTRACTOR SHALL: 1.1. PROVIDE (A) COMPLETELY FULLY FUNCTIONAL ELECTRICAL SYSTEM(S) IN COMPLIANCE WITH ALL FEDERAL, PROVINCIAL, MUNICIPAL AND LOCAL REGULATIONS, BY-LAWS, CODES, AND STANDARDS ENFORCED. 1.2. PROVIDE ALL NECESSARY LABOUR, EQUIPMENT, AND MISCELLANEOUS MATERIALS REQUIRED TO COMPLETE THE WORK DESCRIBED. 1.3. BE RESPONSIBLE TO OBTAIN AND CARRY COSTS FOR ANY NECESSARY PERMITS FOR WORK DESCRIBED. 1.4. COORDINATE INSPECTIONS WITH LOCAL AUTHORITY HAVING JURISDICTIONS. 1.5. CARRY LIABILITY INSURANCE AS REQUIRED IN COMPLIANCE WITH THE CONTRACT DOCUMENTS. 1.6. COORDINATE ANY REQUIREMENTS FOR WORK DURING NONSTANDARD HOURS WITH THE GENERAL CONTRACTOR. 1.7. BE RESPONSIBLE FOR ANY LIFTING/HOISTING OF ELECTRICAL EQUIPMENT, COORDINATE LIFTING/HOISTING REQUIREMENTS WITH THE GENERAL CONTRACTOR. 2.LIGHTING 2.1.1. ELECTRICAL CONTRACTOR TO PROVIDE NEW LIGHTING FIXTURES AND CONTROLS AND EMERGENCY LIGHTING AS REQUIRED TO MEET THE DESIGN DOCUMENTS AND SPECIFICATIONS. 3.POWER 3.1. ELECTRICAL CONTRACTOR TO PROVIDE NEW DISTRIBUTION PANELS AND BREAKERS TO TO SUIT ADDITION. 3.2. CONNECTION OF MECHANICAL EQUIPMENT AS PER DESIGN DOCUMENTS 3.3. PROVISION OF RECEPTACLES AS REQUIRED TO MEET THE DESIGN DOCUMENTS AND SPECIFICATIONS. 4.EXISTING BUILDING SYSTEMS 4.1. THE ELECTRICAL DRAWINGS ARE BASED ON AVAILABLE INFORMATION AS PROVIDED BY THE CLIENT AND VISUAL, NON-DESTRUCTIVE, OBSERVATIONS OF THE SITE WHERE POSSIBLE. THE MECHANICAL CONTRACTOR SHALL EXAMINE THE SITE FOR EXISTING WORKS WHICH MAY IMPED DEMOLITION/RENOVATION/CONSTRUCTION AS INDICATED IN THE DESIGN DRAWINGS. IF ANY DISCREPANCIES ARE FOUND, REPORT TO THE CONSULTANT AND OBTAIN A WRITTEN RULING OF INTERPRETATION. 4.1.1. IF DURING THE COURSE OF RENOVATION WORKS A SITE CONDITION WOULD NOT ALLOW WORK TO PROCEED AS INDICATED IN THE CONTRACT DOCUMENTS, REPORT THE DISCREPANCY TO THE GENERAL CONTRACTOR, OBTAIN A WRITTEN RULING FROM THE CONSULTANT PRIOR TO PROCEEDING WITH RENOVATION ASPECTS WHICH ARE AFFECTED BY THIS CONDITION. 4.2. THE ELECTRICAL CONTRACTOR SHALL CAREFULLY EXAMINE THE SITE TO DETERMINE THE EXISTING BUILDING/SITE CONDITIONS PRIOR TO SUBMITTING A TENDER PRICE. NO EXTRAS WILL BE PROVIDED FOR REVISIONS RESULTING FROM EXISTING SITE CONDITIONS THAT WOULD HAVE BEEN EVIDENT FROM A SITE EXAMINATION. 5.DEMOLITION WORK 5.1. ALL UNUSED OR ABANDONED WIRING, CONDUIT, HANGERS ETC. SHALL BE APPROPRIATELY TERMINATED AND REMOVED. 5.2. ANY BREAKERS NO LONGER IN SERVICE OR HAVE NO CONNECTED LOAD SHALL BE MARKED ON THE PANEL AS "SPARE". A TYPED UPDATED PANEL SCHEDULE IS TO BE PROVIDED IN EACH PANEL WHERE CIRCUITS ARE ADDED/MODIFIED. 5.3. EQUIPMENT REMOVED IS TO BE RETURNED TO THE BUILDING OWNER/MANAGEMENT, IF EQUIPMENT IS NO LONGER REQUIRED, THE ELECTRICAL CONTRACTOR IS TO DISPOSE OF THE EXISTING EQUIPMENT. 5.4. THE ELECTRICAL CONTRACTOR SHALL SEAL OFF ANY OPENINGS MADE BY REMOVING ANY MATERIALS OR EQUIPMENT. COORDINATE ANY REQUIREMENTS TO MAINTAIN AN EXISTING FIRE RATING THROUGH THESE OPENINGS WITH THE GENERAL CONTRACTOR AND PROVIDE FIRE STOPPING AS PER THE FIRE STOPPING SECTION IN THIS SPECIFICATION. 5.5. PROVIDE BLANK COVER PLATES FOR ANY TERMINATION BOXES TO REMAIN THAT ARE CONSISTENT WITH THE EXISTING WALL FINISH. 5.6. THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY DEFICIENCIES ENCOUNTERED ON SITE AND REQUEST WRITTEN DIRECTION ON HOW TO PROCEED WITH WORK. 5.7. ALL EXISTING LUMINAIRES NOTED ON THE DRAWINGS AS TO BE REMOVED SHALL BE REMOVED AND DISPOSED OF. 5.7.1. ALL ABANDONED WIRING, CONDUIT, HANGERS ETC ASSOCIATED WITH EXISTING REMOVED LIGHTING AND CONTROLS TO BE REMOVED AND APPROPRIATELY TERMINATED. 5.7.2. ALL CIRCUITS REMOVED AS PART OF THE SCOPE OF WORK ARE TO BE PULLED BACK TO THEIR ORIGINATING PANEL AND TERMINATED APPROPRIATELY. 5.7.3. ENSURE THAT ALL EXISTING RECEPTACLES ARE RE-FED POWER IF EXISTING CONNECTIONS ARE REMOVED BY THE REMOVAL OF OTHER EXISTING COMPONENTS TO THE SATISFACTION OF THE ENGINEER. 5.7.4. NOT ALL ITEMS FOR DEMOLITION ARE NOTED. THOSE SHOWN ARE FOR REFERENCE ONLY. E.C. TO REMOVE ALL DEVICES, WIRING, PATHWAYS INTERFERING WITH DEMOLITION AND RENOVATION AS REQUIRED.</div> | |
|  | CEILING LIGHT FIXTURE, TYPE "X" AS NOTED. REFER TO LUMINAIRE SCHEDULE FOR SPECIFIC MOUNTING DETAILS AND SPECIFICATION. REFER TO CIRCUITING (CCT-4) FOR CONTROLS ASSOCIATED WITH OPEN AREA LIGHTING. |  | 1224V EMERGENCY BATTERY UNIT CW LED DOUBLE HEAD FIXTURE, MINIMUM 6W PER HEAD, BATTERY SIZED TO SUIT EM LIGHTING LOAD. |  | FUSIBLE DISCONNECT SWITCH PROVIDED BY ELECTRICAL CONTRACTOR. |  | |  | GROUND FAULT CIRCUIT INTERRUPTER DUPLEX RECEPTACLE. | AP | ACCESS POINT | | |
|  | CEILING LIGHT FIXTURE, TYPE "X" AS NOTED. REFER TO LUMINAIRE SCHEDULE FOR SPECIFIC MOUNTING DETAILS AND SPECIFICATION. REFER TO CIRCUITING (CCT-4) FOR CONTROLS ASSOCIATED WITH OPEN AREA LIGHTING. |  | 1224V EMERGENCY BATTERY UNIT, BATTERY SIZED TO SUIT EM LIGHTING LOAD. |  | |  | |  | WEATHERPROOF DUPLEX RECEPTACLE. | CGT | CIRCUIT | | |
|  | WALL MOUNTED LIGHT FIXTURE, TYPE "X" AS NOTED. REFER TO LUMINAIRE SCHEDULE FOR SPECIFIC MOUNTING DETAILS AND SPECIFICATION. REFER TO CIRCUITING (CCT-4) FOR CONTROLS ASSOCIATED WITH OPEN AREA LIGHTING. |  | LED RED "EXIT" SIGN TO MATCH EXISTING. FACES AND DIRECTION TO SUIT. |  | MOTORIZED DAMPER, E.C. TO PROVIDE 120V CABLING AND POWER SUPPLY. LOW VOLTAGE BY MECHANICAL CONTRACTOR. COORDINATE PROVISION OF LOW VOLTAGE TRANSFORMER WITH MECHANICAL. |  | |  | SPECIFIC OUTLET, REFER TO PANEL SCHEDULE/INLET VOLTAGE AND AMPACITY. | CO | CARBON MONOXIDE | | |
|  | SINGLE GANG LIGHT SWITCH. |  | LED RED "EXIT" SIGN CW LED DOUBLE HEAD FIXTURE TO MATCH EXISTING. FACES AND DIRECTION TO SUIT. MINIMUM 6W PER HEAD, FIXTURE TO BE CW INTEGRAL BATTERY BACKUP. |  | DIRECT CONNECTION OF MECHANICAL PROVIDED EQUIPMENT. E.C. TO PROVIDE FUSIBLE DISCONNECT SWITCH TO MATCH MOTOR. COORDINATE WITH MECHANICAL FOR EXACT LOCATION. "F" INDICATES MOTOR NAME, REFER TO MOTOR SCHEDULE FOR DETAILS. |  | |  | SEPARATE CIRCUIT DUPLEX RECEPTACLE. | CSTE | CUSTOMER SERVICE TERMINATION ENCLOSURE | | |
|  | MULTI-GANG LIGHT SWITCH. | Notes: | WP INDICATES WEATHER-PROOF. "C" INDICATES CEILING MOUNTED. |  | |  | |  | JUNCTION BOX. | CW | COMPLETE WITH | | |
|  | CEILING MOUNTED OCCUPANCY SENSOR. | | |  | |  | |  | RECEPTACLE MOUNTED ABOVE COUNTER. | FLA | FULL LOAD AMPS | | |
|  | 3-WAY LIGHT SWITCH. | | |  | |  | |  | 20A T-SLOT DUPLEX RECEPTACLE. | FF | FORCE FLOW | | |
|  | DIMMING SWITCH, WATTAGE AND DIMMING TYPE TO SUIT LIGHT FIXTURE AND CIRCUIT. | | |  | |  | |  | ELECTRICAL PANEL. | FT | FEET | | |
|  | PHOTOCELL, WATTAGE AND TYPE TO SUIT LIGHT FIXTURE CIRCUIT. | | |  | |  | |  | CEILING MOUNTED RECEPTACLE. | HP | HORSE POWER | | |
| Notes: | NL INDICATES WIRED TO A NIGHT LIGHTING CIRCUIT. EM INDICATES WIRED TO AN EMERGENCY LIGHTING CIRCUIT. | | | Notes: | | | | Notes: | "F" INDICATES FLOOR MOUNTED. "C" INDICATES CEILING MOUNTED. "TV" INDICATES MOUNTED AT HIGH LEVEL FOR TELEVISION. CONFIRM EXACT HEIGHT WITH ARCH ELEVATIONS OR ON SITE WITH OWNER REP. "EX" INDICATES EXISTING TO REMAIN. "R" INDICATES TO BE RELOCATED. | KVA | KILO-VOLT AMPS | | |
| | | | | | | | | | | KW | KILOWATT | | |
| | | | | | | | | | | MAX | MAXIMUM | | |
| | | | | | | | | | | MBC | MANITOBA BUILDING CODE | | |
| | | | | | | | | | | MCA | MINIMUM CIRCUIT AMPACITY | | |
| | | | | | | | | | | MECB | MANITOBA ENERGY CODE FOR BUILDINGS | | |
| | | | | | | | | | | MIN | MINIMUM | | |
| | | | | | | | | | | MOCB | MAXIMUM OVERCURRENT PROTECTION | | |
| | | | | | | | | | | NBC | NATIONAL BUILDING CODE | | |
| | | | | | | | | | | NECB | NATIONAL ENERGY CODE FOR BUILDINGS | | |
| | | | | | | | | | | NFPA | NATIONAL FIRE PROTECTION ASSOCIATION | | |
| | | | | | | | | | | O.H | OVER HEAD | | |
| | | | | | | | | | | P | POLE | | |
| | | | | | | | | | | PH | PHASE (ALT. Ø) | | |
| | | | | | | | | | | PNL | PANEL | | |
| | | | | | | | | | | SPD | SURGE SUPPRESSION DEVICE | | |
| | | | | | | | | | | SM | SMOKE | | |
| | | | | | | | | | | SQ.FT. | SQUARE FEET | | |
| | | | | | | | | | | S.S | STAINLESS STEEL | | |
| | | | | | | | | | | V | VOLTS | | |
| | | | | | | | | | | VA | VOLT-AMPS | | |
| | | | | | | | | | | W | WATTS | | |
| | | | | | | | | | | WI | WITH | | |
| | | | | | | | | | | W/O | WITHOUT | | |
| | | | | | | | | | | XFMR | TRANSFORMER | | |

| SPECIFICATION | | INSTALLATION | | FIRE ALARM | | POWER AND RECEPTACLES | | LIST OF ABBREVIATIONS | | ELECTRICAL SCOPE | |
|---|--|--|--|--|--|--|--|--|--|--|--|
| 1. GENERAL CONDITIONS | | 2.6. SEALING AND FIRE PROTECTION: | | 3.6.3. THE ENGINEER SHALL BE NOTIFIED BY THE ELECTRICAL CONTRACTOR ONCE THE WORK IS READY FOR FINAL INSPECTION PRIOR TO THE FINAL INSTALLATION OF THE CEILING OR THE PLACEMENT OF CEILING TILES. THE ENGINEER MUST BE GIVEN A MINIMUM THREE (3) DAYS NOTICE PRIOR TO THE EXPECTED INSPECTION DATE TO FACILITATE A TIMELY RESPONSE ON CERTIFICATION FOR OCCUPANCY REQUIREMENTS. | | 3.6.4. IF WORK IS NOT SUBSTANTIALLY COMPLETE FOR ANY OF THE ABOVE INSPECTIONS TO WHERE AN ADDITIONAL ENGINEERING INSPECTION OR SITE VISIT IS REQUIRED, THE COST OF THE SITE VISIT SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR. | | 11. PANELBOARDS AND BREAKERS | | 12.1. PROVIDE LOAD INCREASE DATA TO HYDRO AS REQUIRED. | |
| 1.1. THIS SPECIFICATION SHALL BE READ IN CONJUNCTION WITH ALL CHANGE ORDERS, ADDENDAS, ETC. ISSUED BY THE CONSULTANT AND FORM PART OF THE CONTRACT DOCUMENTS. WORK TO INCLUDE ALL MATERIALS AND LABOR REQUIRED TO COMPLETE THE ELECTRICAL SYSTEMS DESCRIBED IN THE DRAWINGS AND THIS SPECIFICATION. | | 2.6.1. ALL PENETRATIONS FOR CABLING, CONDUIT ETC. REQUIRED THROUGH ANY FIRE RATED ASSEMBLIES SHALL HAVE THE FIRE RATING MAINTAINED BY SUITABLE FIRE STOPPING MEASURES. | | 3.6.3. THE ENGINEER SHALL BE NOTIFIED BY THE ELECTRICAL CONTRACTOR ONCE THE WORK IS READY FOR FINAL INSPECTION PRIOR TO THE FINAL INSTALLATION OF THE CEILING OR THE PLACEMENT OF CEILING TILES. THE ENGINEER MUST BE GIVEN A MINIMUM THREE (3) DAYS NOTICE PRIOR TO THE EXPECTED INSPECTION DATE TO FACILITATE A TIMELY RESPONSE ON CERTIFICATION FOR OCCUPANCY REQUIREMENTS. | | 3.6.4. IF WORK IS NOT SUBSTANTIALLY COMPLETE FOR ANY OF THE ABOVE INSPECTIONS TO WHERE AN ADDITIONAL ENGINEERING INSPECTION OR SITE VISIT IS REQUIRED, THE COST OF THE SITE VISIT SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR. | | 11.1. PANELBOARDS SHALL BE COMPOSED OF THE NUMBER OF CIRCUIT BREAKERS WITH POLES AND TRIP RATINGS AS LISTED IN THE SCHEDULES, WHERE SPACE ONLY IS CALLED FOR, PROVIDE ALL MOUNTING BRACKETS, BUSBAR DRILLINGS, FILLER PLATES, ETC., TO FACILITATE INSTALLATION OF FUTURE BREAKERS. ALL PANELBOARDS SHALL BE SPRINKLER-PROOF AND HAVE LOCKABLE DOORS. | | | |
| 1.1.1. THE ELECTRICAL DRAWINGS AND SPECIFICATION ARE TO BE READ AND INTERPRETED IN CONJUNCTION WITH ALL OTHER DISCIPLINE DRAWINGS, CONTRACT ADDENDA, PROPOSED CHANGE NOTICES, SITE INSTRUCTIONS, OR FACSIMILE. | | 2.7. ALL CONDUIT, JUNCTION BOXES, HANGERS, CABLE TRAYS, JUNCTION BOXES, ETC. TO HAVE A GALVANIZED FINISH TO HAVE A PRIMED FINISH FOR PAINTING. COORDINATE ANY PAINTING REQUIREMENTS WITH THE GENERAL CONTRACTOR. | | 3.6.4. IF WORK IS NOT SUBSTANTIALLY COMPLETE FOR ANY OF THE ABOVE INSPECTIONS TO WHERE AN ADDITIONAL ENGINEERING INSPECTION OR SITE VISIT IS REQUIRED, THE COST OF THE SITE VISIT SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR. | | 3.6.4. IF WORK IS NOT SUBSTANTIALLY COMPLETE FOR ANY OF THE ABOVE INSPECTIONS TO WHERE AN ADDITIONAL ENGINEERING INSPECTION OR SITE VISIT IS REQUIRED, THE COST OF THE SITE VISIT SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR. | | 11.2. WHERE EXISTING PANELBOARDS ARE SHOWN TO BE REPLACED WITH NEW, CONTRACTOR SHALL RELOCATE ALL EXISTING BRANCH CIRCUITS TO NEW PANELBOARD AND PROVIDE NEW BREAKERS FOR EXISTING AND NEW CIRCUITS. | | | |
| 1.1.2. THE ELECTRICAL DRAWINGS AND SPECIFICATIONS ARE TO BE READ IN CONJUNCTION WITH ONE ANOTHER. A REQUIREMENT INDICATED ON THE DRAWINGS SHALL BE TAKEN TO BE INCLUDED AS A CONTRACTUAL OBLIGATION, WHERE INFORMATION IS CONFLICTING BETWEEN THE DRAWINGS AND SPECIFICATIONS, THE SPECIFICATIONS ARE TO BE FOLLOWED. | | 2.8. ALL PANELS OR FINISHED ELECTRICAL EQUIPMENT THAT IS SCRATCHED OR MARKED UP DURING INSTALLATION TO BE TOUCHED UP AS REQUIRED TO PROVIDE A SATISFACTORY FINISH TO THE ENGINEERS REQUIREMENTS. | | 3.6.4. IF WORK IS NOT SUBSTANTIALLY COMPLETE FOR ANY OF THE ABOVE INSPECTIONS TO WHERE AN ADDITIONAL ENGINEERING INSPECTION OR SITE VISIT IS REQUIRED, THE COST OF THE SITE VISIT SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR. | | 3.6.4. IF WORK IS NOT SUBSTANTIALLY COMPLETE FOR ANY OF THE ABOVE INSPECTIONS TO WHERE AN ADDITIONAL ENGINEERING INSPECTION OR SITE VISIT IS REQUIRED, THE COST OF THE SITE VISIT SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR. | | 11.3. BREAKERS TO BE BOLT-ON TYPE AND MEET OR EXCEED THE AVAILABLE FAULT CURRENT INDICATED ON THE SINGLE LINE DIAGRAM. 600V TO HAVE A MINIMUM OF 22KA SCIC. 120/208V TO HAVE A MINIMUM OF 14KA UNLESS OTHERWISE NOTED. BREAK | | | |



| DRAWING NOTES | |
|---------------|---|
| 2 | EXISTING OVERHEAD SERVICES TERMINATED IN A WALL MOUNTED EXTERIOR CSTE WITH EXTERIOR MB HYDRO METERING TO REMAIN. |
| 2 | EXISTING 200A 120/240V-1PH-3W ELECTRICAL PANEL W (WHITE PANEL) TO BE USED TO FEED NEW SUB-PANEL IN ADDITION. |
| 3 | EXISTING FENCE MOUNTED RECEPTACLES FED UNDERGROUND FROM APPROXIMATE LOCATION TO BE DISCONNECTED AND RELOCATED TO NEW FENCE LOCATION. EXTEND/REROUTE WIRING TO NEW LOCATION AS REQUIRED. |
| 4 | EXISTING EXTERIOR LIGHT FIXTURE TO BE DISCONNECTED AND RELOCATED TO NEW EXTERIOR WALL LOCATIONS. REFER TO LIGHTING LAYOUT. |
| 5 | E.C. TO RECONNECT DISCONNECTED FENCE RECEPTACLES AT NEW FENCE LOCATION. EXTEND/REROUTE WIRING TO NEW LOCATION AS REQUIRED. SITE CONFIRM FENCE LOCATION WITH OWNERS REP ON SITE. |
| 6 | PROVIDE NEW MATCHING CIRCUIT BREAKER IN EXISTING ELECTRICAL PANEL TO FEED NEW PANEL R. |
| 7 | PROPOSED ROUTING FOR NEW FEEDER CABLE TO SERVE NEW ELECTRICAL PANEL. SITE CONFIRM ROUTING TO AVOID EXISTING EQUIPMENT AS REQUIRED. |
| 8 | PROPOSED LOCATION FOR NEW ELECTRICAL PANEL R. |
| 9 | E.C. TO DISCONNECT EXISTING EXIT SIGNAGE MOUNTED ABOVE DELETED DOOR. SIGN TO BE ABOVE NEW WALL OPENING. EXTEND/REROUTE WIRING AS REQUIRED. |

| PANEL: W (WHITE EXISTING PANEL) | | | | | | AMPACITY: 200A |
|--|-------------------------|---------|-----|---------|-----------------------------|-------------------------|
| LOCATION: SOUTH SHOP | | | | | | VOLTAGE: 120/240-1PH-3W |
| FED FROM: CSTE | | | | | | MOUNTING: SURFACE |
| MINIMUM BREAKER AND PANEL SCC RATING: EXISTING | | | | | | MINIMUM CIRCUITS: 40 |
| CCT# | CIRCUIT DESCRIPTION | BREAKER | BUS | BREAKER | CIRCUIT DESCRIPTION | CCT# |
| 1 | SPACE | | A | 100A-2P | EXISTING NORTH SHOP PANEL | 2 |
| 3 | SPACE | | B | | | 4 |
| 5 | SPACE | | A | | | 6 |
| 7 | SPACE | | B | | | 8 |
| 9 | WEST STORAGE SHED | 100A-2P | A | | SPACE | 10 |
| 11 | | | B | | SPACE | 12 |
| 13 | | | A | | SPACE | 14 |
| 15 | | | B | | SPACE | 16 |
| 17 | EXISTING HOT WATER TANK | 20A-1P | A | 60A-2P | EXISTING FURNACE IN OFFICE | 18 |
| 19 | SPACE | | B | | | 20 |
| 21 | SPACE | | A | | | 22 |
| 23 | SPACE | | B | | | 24 |
| 25 | SPACE | | A | | SPACE | 26 |
| 27 | SPACE | | B | | SPACE | 28 |
| 29 | SPACE | | A | | SPACE | 30 |
| 31 | SPACE | | B | | SPACE | 32 |
| 33 | SPACE | | A | 100A-2P | NEW NORTH SHOP AREA PANEL R | 34 |
| 35 | SPACE | | B | | | 36 |
| 37 | SPACE | | A | | | 38 |
| 39 | SPACE | | B | | | 40 |



| 2 | ISSUED FOR CONSTRUCTION | 2025 08 14 |
|----------|-------------------------|------------|
| 1 | ISSUED FOR CONSTRUCTION | 2025 07 25 |
| 0 | ISSUED FOR CONSTRUCTION | 2025 06 26 |
| REVISION | ISSUED FOR | DATE |



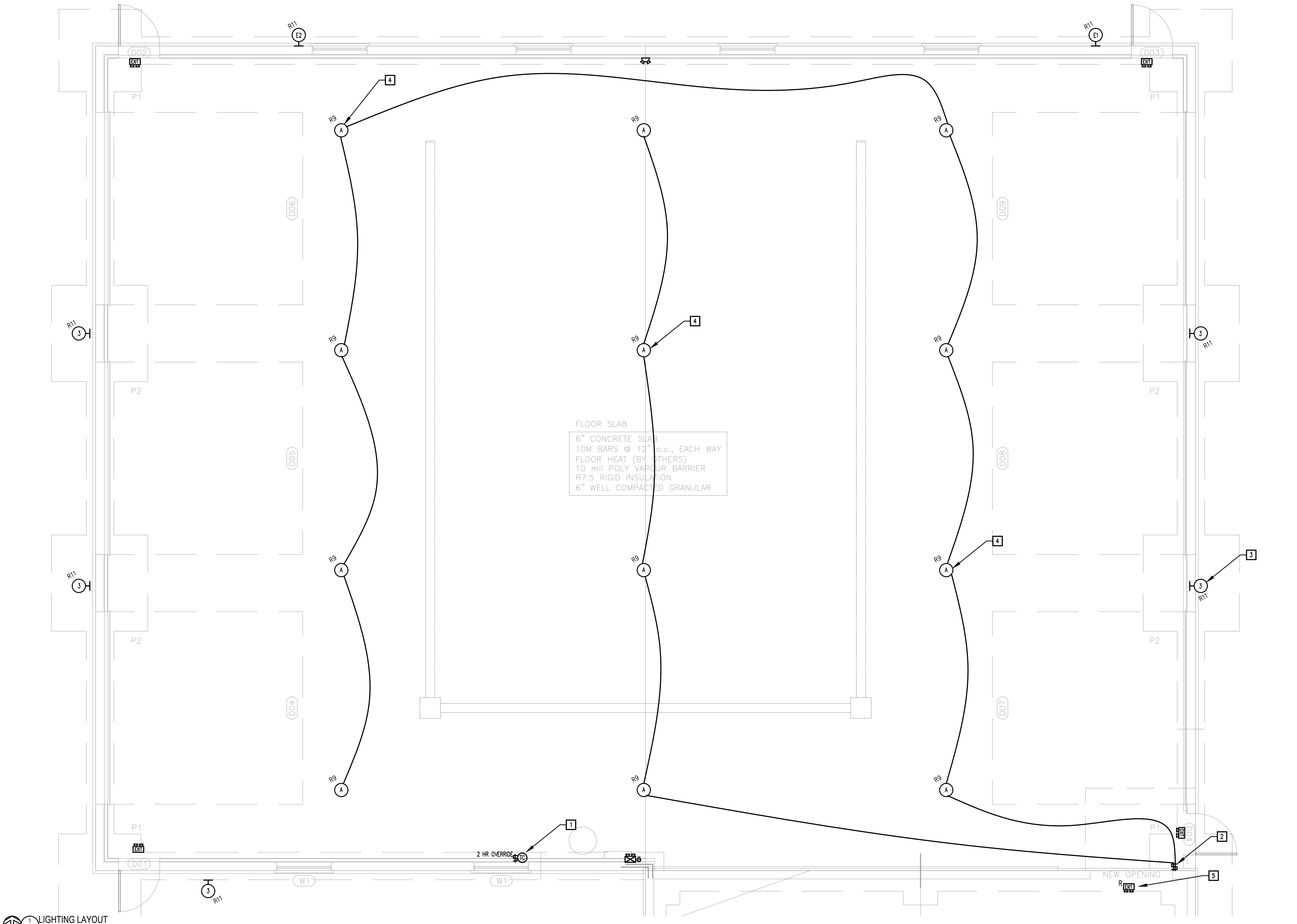
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CITY OF MORDEN
PUBLIC WORKS BUILDING ADDITION - 234 COCHLAN DRIVE, MORDEN, MB

ELECTRICAL SITE PLAN

| | | |
|------------------|-------------------|-----------------------|
| DRAWN M.M. | CHECKED I.T.S. | DRAWING # E0.1 |
| DESIGN I.T.S. | SHEET 2 OF 4 | |



| LUMINAIRE SCHEDULE | | | | | | | | |
|--------------------|--|--------------|--------------|-------------------------------|----------|--------------|---------|---|
| TAG | DESCRIPTION | MOUNTING | MANUFACTURER | MODEL NO. | LAMPS | COLOUR TEMP. | VOLTAGE | OPTIONS/COMMENTS |
| A | LED ROUND HIGH BAY | SUSPENDED | LITHONIA | CPB AL013 UVOLT SWW9 B0CR DWH | 120W LED | 4000K | UVOLT | ALTERNATE FIXTURE IS ACCEPTABLE AS LONG AS REQUIRED NECB WATTAGES ARE MET AND ACCEPTABLE BY OWNER |
| 3 | NEW OVERHEAD DOOR EXTERIOR FIXTURE | WALL MOUNTED | - | MATCH EXISTING | LED | - | - | MATCH WITH EXISTING WALL MOUNTED EXTERIOR FIXTURE |
| E1 | EXISTING MAN DOOR EXTERIOR FIXTURE | WALL MOUNTED | - | EXISTINGRELOCATED | - | - | - | |
| E2 | EXISTING WALL MOUNTED EXTERIOR FIXTURE | WALL MOUNTED | - | EXISTINGRELOCATED | - | - | - | |

Notes:

- 1) PROVIDE PHOTOCELL CONTROL FOR ALL OUTDOOR LUMINAIRES
- 2) EXACT TAPE LIGHT LENGTHS TO BE SITE CONFIRMED. REFER TO ARCHITECTURAL FOR MOUNTING LOCATIONS.
- 3) ALL FIXTURES TO BE EFFICIENCY MANITOBA APPROVED. FOR RENOVATIONS CHANGING FLUORESCENT FIXTURES TO LED, E.C. TO APPLY FOR EFFICIENCY MANITOBA REBATE ON OWNERS BEHALF.
- 4) PROVIDE TIMECLOCK CONTROL FOR LIGHTING NOT CONTROLLED FROM OCCUPANCY SENSORS TO MEET MANITOBA ENERGY CODE. PROVIDE 2 HOUR OVERRIDE ADJACENT TO ELECTRICAL PANEL UNLESS SHOWN ELSEWHERE ON DRAWINGS
- 5) ALL LED LIGHTS TO BE MINIMUM 80 CRI


| DRAWING NOTES | |
|---------------|---|
| 1 | E.C. TO PROVIDE TIMECLOCK C/W 2HR OVERRIDE SWITCH TO MEET 2020 ENERGY CODE REQUIREMENTS FOR SCHEDULED OFF. |
| 3 | LIGHTING TO HAVE BI-LEVEL CONTROLS AND BE RESTRICTED TO MANUAL ON TO MEET 2020 ENERGY CODE REQUIREMENTS. |
| 3 | UTILIZE EXISTING PHOTOCELL CONTROL AS PRACTICABLE. PROVIDE NEW MATCHING CONTROLS LOCATED NEAR EXISTING AS REQUIRED TO TRY AND MATCH FUNCTIONALITY. TYPICAL FOR ALL NEW EXTERIOR LIGHTING. |
| 4 | FIXTURES TO BE MOUNTED AS TIGHT TO THE CEILING AS PRACTICABLE WHILE BEING AT SAME HEIGHT. SITE CONFIRM EXACT HEIGHT. (TYPICAL) |
| 5 | E.C. TO RELOCATE EXISTING EXIT SIGNAGE MOUNTED ABOVE DELETED DOOR TO BE ABOVE NEW WALL OPENING. EXTEND/REROUTE WIRING AS REQUIRED. |

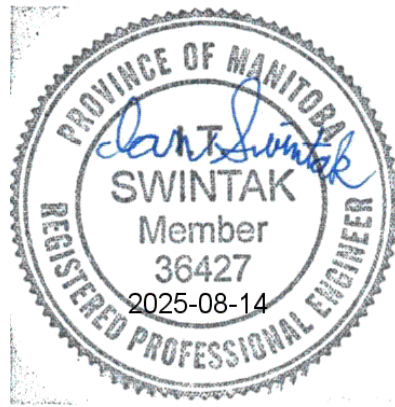
1 LIGHTING LAYOUT
E1.0 SCALE: 1/8"=1'-0"


2 LPD & LIGHTING CONTROLS MATRIX
E1.0 SCALE: NTS


Notes:

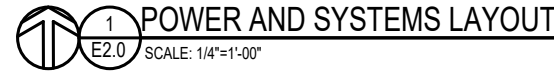
- 1) LIGHTING LAYOUTS TO BE COMPLIANT WITH THE MAXIMUM LIGHTING DENSITY REQUIREMENTS STIPULATED IN THE NATIONAL ENERGY CODE FOR BUILDINGS (NECB) 2020 AS DEFINED FOR EACH SPACE PER ABOVE.
- 2) PROPOSED LIGHTING LAYOUTS ARE INTENDED TO BE COMPLIANT WITH THESE DENSITY REQUIREMENTS AND CONTROLS AS OUTLINED BASED ON BOTH THE MATRIX AND OTHER OVERRIDING CODE ARTICLES. ALL ALTERNATE FIXTURES AND LAYOUTS PROPOSED BY CONTRACTORS BIDDING OR EXECUTING THE WORK ASSOCIATED WITH THESE DRAWINGS ARE REQUIRED TO SUBMIT LIGHTING DENSITY CALCULATIONS AND CONTROL STRATEGIES IN A TABULAR BREAKDOWN FOR THEIR ALTERNATIVES INDICATING THEY REMAIN COMPLIANCE WITH NECB 2020.
- 3) NO SPACES NEED CONFORM WITH LIGHTING CONTROL MATRIX ITEM #1 (TOP LIGHTING CONTROL) AS NO SPACES HAVE SKYLIGHTS PER NECB ARTICLE 4.2.2.1 (1)

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GEOSCIENTISTS
MANITOBA**
Certificate of Authorization
Ambit Engineering Inc.
No. 7984

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| <div>Steckley Consulting Engineers INC</div> <div>1-915 Navigator Road Winkler MB R6W 0A7 204-325-5114 admin@steckley.ca steckley.ca</div> <p><small>All drawings and related documents as instruments of service are the property of the Engineer and must be returned upon request. No reproduction in whole or in part shall be made without prior written permission of the Engineer and when so made shall bear their name. This is a print of a document that has been electronically authenticated with technology authorized by EGM. The original is in electronic form. Any printed version can be relied upon as a true copy of the original when supplied by the original author. Bearing images of the professional seal and digital signature or when printed from the digitally signed electronic file. This page shall only be trusted as authenticated if it remains part of the complete document set containing the Engineer's digital signature.</small></p> | | |
| CITY OF MORDEN PUBLIC WORKS BUILDING ADDITION - 234 COCHLAN DRIVE, MORDEN, MB | | |
| LIGHTING LAYOUT | | |
| DRAWN M.M. | CHECKED I.T.S. | DRAWING # E1.0 |
| DESIGN I.T.S. | SHEET 3 OF 4 | |

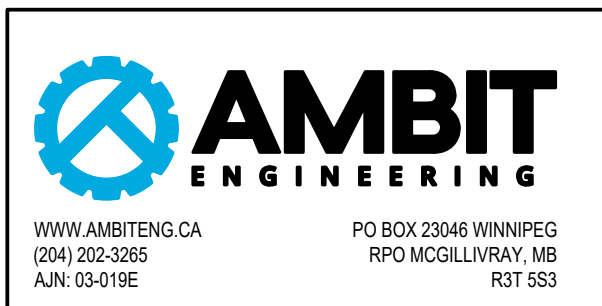
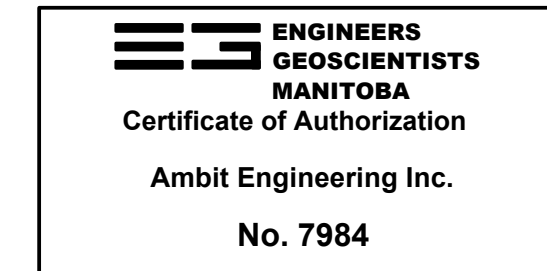
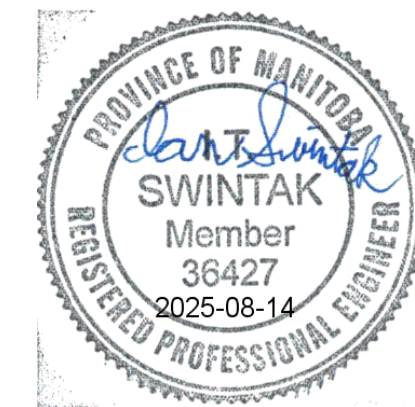


| MOTOR SCHEDULE | | | | | | | | | |
|----------------|--------------------------|------------|---------|-----------------|-----------------|-------|---------------|---------|------------------|
| TAG | DESCRIPTION | LOCATION | VOLTAGE | LOAD (MCA, RWI) | CIRCUIT BREAKER | COND. | INSTALL NOTES | STARTER | OPTIONS/COMMENTS |
| JH-1 | UNIT HEATER | SHOP SPACE | 120V-1Ø | 4.2 A | 15A-1P | #12 | 1 | - | |
| JH-2 | UNIT HEATER | SHOP SPACE | 120V-1Ø | 4.2 A | 15A-1P | #12 | 1 | - | |
| JH-3 | UNIT HEATER | SHOP SPACE | 120V-1Ø | 4.2 A | 15A-1P | #12 | 1 | - | |
| B-1 | BOILER | SHOP SPACE | 120V-1Ø | 127W | 15A-1P | #12 | 1 | - | |
| P-1 | BOLER PUMP | SHOP SPACE | 120V-1Ø | 1ØHP | 15A-1P | #12 | 1 | - | |
| P-2 | BOLER PUMP | SHOP SPACE | 120V-1Ø | 1ØHP | 15A-1P | #12 | 1 | - | |
| FS-1 | BOLER PUMP | SHOP SPACE | 120V-1Ø | 50W | 15A-1P | #12 | 1 | - | |
| EX-1 | EXHAUST FAN | SHOP SPACE | 120V-1Ø | 1/2 HP | 2ØA-1P | #12 | 1 | - | |
| RV-1 | HEAT RECOVERY VENTILATOR | SHOP SPACE | 120V-1Ø | 23.5MCA | 3ØA-1P | #1Ø | 1 | - | |


TALL NOTES:
 WIRE AND CONNECT EQUIPMENT AS REQUIRED. CONFIRM IF FED WITH RECEPTACLE OR DIRECT FED. CONFIRM EXACT EQUIPMENT LOCATION WITH MECHANICAL CONTRACTOR/SUPPLIER PRIOR TO ROUGH-IN.
 WIRE SPLIT SYSTEM INTERIOR UNIT FROM EXTERIOR UNIT AS REQUIRED.
 PROVIDE MAGNETIC STARTER.
 PROVIDE MANUAL STARTER COW OVERCURRENT PROTECTION.
 UTILIZE VFD RATED CABLE FEEDING EQUIPMENT FROM VFD.
 WIRE TO ON/OFF SWITCH.
 WIRE TO LOCAL AREA LIGHTING CONTROLS.

GENERAL NOTES:
 WIRE AND CONNECT MECHANICAL EQUIPMENT AS REQUIRED. REFER TO MECHANICAL FOR CONTROLS SEQUENCE.
 E.G. TO PROVIDE DISCONNECT SWITCHES AS REQUIRED.
 CONFIRM ELECTRICAL REQUIREMENTS WITH NAMEPLATE OF EQUIPMENT PRIOR TO ROUGH-IN. MODIFY BREAKER/RECONNECT AND CONDUCTORS AS REQUIRED TO MATCH ALL LINE VOLTAGE WIRING IN ELECTRICAL CONTRACTOR LOW VOLTAGE WIRING IN MECHANICAL CONTRACTOR UNLESS OTHERWISE NOTED. COORDINATE EXACT SCHED WITH MECHANICAL CONTRACTOR.
 REFER TO ARCHITECTURAL/INTERIOR DESIGN FOR ELEVATION OF RECEPTACLES AND KITCHEN EQUIPMENT.

| DRAWING NOTES | |
|---------------|---|
| 1 | WIRE AND CONNECT OVERHEAD DOOR OPERATOR AND ALL ASSOCIATED CONTROLS AS REQUIRED. |
| 2 | E.C. TO WIRE AND CO AND NO2 DETECTOR/CONTROLS SYSTEMS PROVIDED BY MECHANICAL. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL ON SITE. |
| 3 | CONFIRM BREAKER AND WIRE SIZE WITH EQUIPMENT SUPPLIER PRIOR TO ORDERING EQUIPMENT. |



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CITY OF MORDEN

PUBLIC WORKS BUILDING ADDITION - 234 COCHLAN DRIVE, MORDEN, MB

ELECTRICAL POWER AND SYSTEMS LAYOUT

| | | | | |
|---------|--------|---------|--------|-----------|
| DRAWING | M.M. | CHECKED | I.T.S. | DRAWING # |
| DESIGN | I.T.S. | SHEET | 4 OF 4 | E2.0 |