

City of Saint John

TENDER

Tender # 2023-082303T SAINT JOHN POLICE HEADQUARTERS LIGHTING RETROFIT

Sealed tenders, hand delivered or couriered, addressed to Monic MacVicar, CCLP, CPPB, Supply Chain Management, 1st Floor – 175 Rothesay Avenue, Saint John, NB, E2J 2B4, and marked on the envelope:

“Tender # 2023-082303T SAINT JOHN POLICE HEADQUARTERS LIGHTING RETROFIT”

will be received until 2:30:00 pm, Tuesday, June 20th, 2023 for the supply of all materials, labor and equipment necessary to complete a lighting retrofit at the Saint John Police Headquarters in accordance with the enclosed specifications, drawings, terms and conditions.

In light of the current Covid-19 pandemic, there will be no public opening. Tenders will be opened by the Tender Opening Committee, in the first-floor boardroom, 175 Rothesay Avenue, Municipal Operations Complex, immediately following the tender closing time. **Registered bidders may attend remotely via Teams invitation.**

The lowest or any tender not necessarily accepted.

**Monic MacVicar, CCLP, CPPB
Supply Chain Management**

Issued: Tuesday, June 6th, 2023

T E N D E R
Tender # 2023-082303T
SAINT JOHN POLICE HEADQUARTERS LIGHTING RETROFIT

SCOPE OF WORK:

The City of Saint John is soliciting tenders from qualified bidders to supply all materials, labor and equipment necessary to complete a lighting retrofit at the Saint John Police Headquarters, as per the specifications, drawings, terms and conditions outlined in this document.

A pre-bid site visit will be held on Monday, June 12th, 2023, at 10:00:00AM. We will meet in the main entrance of the PHQ located at 1 Peel Plaza. All bidders are strongly urged to attend.

SPECIFICATIONS:

See Appendix A for specifications and drawings.

TERMS AND CONDITIONS

Governing Law, Trade Treaties and Policies

This procurement will be in accordance with the laws of the province of New Brunswick and the federal laws of Canada.

This procurement is also subject to the following Policies, Legislation and Internal Trade Agreement(s) including:

- Atlantic Trade and Procurement Partnership (ATAPP)
- New Brunswick Procurement Act and Regulation 2014-93
- City of Saint John Policy for the Procurement of Goods, Services and Construction

Submission Instructions

Sealed tenders, hand delivered or couriered, addressed to Monic MacVicar, CCLP, CPPB, Supply Chain Management, 1st Floor – 175 Rothesay Avenue, Saint John, NB, E2J 2B4, and marked on the envelope:

“2023-082303T
SAINT JOHN POLICE HEADQUARTERS LIGHTING RETROFIT”

will be received until 2:30:00 pm, Tuesday, June 20th, 2023 for the work contemplated in this document and in accordance with the enclosed specifications, drawings, terms and conditions.

Enquiries

Bidders shall promptly examine the bid documents and report any errors, omissions or ambiguities and may direct enquiries or seek additional information in writing by email before the deadline for enquiries to the Authorized Enquiries Contact as set out below. No such communications are to be directed to anyone other than the Authorized Enquiries Contact.

Authorized Enquiries Contact

Monic MacVicar, CCLP, CPPB
Supply Chain Management
City of Saint John
Email: supplychainmanagement@saintjohn.ca

It is the Bidder's responsibility to seek clarification from the City on any matter it considers unclear. The City shall not be responsible for any misunderstanding on the part of the Bidder concerning this bid document or its process.

The City intends to confirm receipt of a bidder's communication by way of an email or facsimile in reply. If a bidder has not received a reply, the bidder may wish to resend its communication as the lack of reply may have resulted from a technical problem. The City is under no obligation to respond to enquiries or provide additional information but may do so at its sole discretion.

Responses to inquiries may be distributed to all bidders on the invitation list as having received the bid documents as of the date the response is prepared. The source of the question will not be identified in the response. Verbal information shall not be binding upon the City. Inquiries received after the deadline for enquiries will not receive a response.

Tender to be Submitted on Prescribed Form

Bidders are to submit their tender on the prescribed form contained in this document. Failure to submit on this form may result in the disqualification of the bid.

Taxes

The bid price shall be all taxes extra. The City of Saint John shall be invoiced for and pay all applicable taxes related to this bid.

Schedule for the Bid Process

Issue Date	Tuesday, June 6 th , 2023
Pre-Bid Site Visit	Monday, June 12th, 2023 at 10:00AM ADT
Deadline for Enquiries	Tuesday, June 13 th , 2023 at 1:00:00 pm, ADT
Deadline for Issuing Addenda	Wednesday, June 14 th , 2023 at 1:00:00 pm, ADT
Submission Deadline	Tuesday, June 20 th , 2023 at 2:30:00 pm, ADT
Date of Award	TBD

The Schedule for the bid process is tentative only and may be changed by the City in its sole discretion.

Advisory Notice(s)

Periodically, the City of Saint John is required to issue clarification notices to a bid document in the form of Advisory Notices. Normally these notifications will not have a direct bearing on the cost of a project and will not influence bidding.

Bidders are responsible for obtaining all advisory notice(s) issued by the City. Advisory Notice(s) may be obtained from the City's website (www.saintjohn.ca) under the Menu option, City Hall header, then "Tender and Proposals".

Bidders are instructed to sign the Advisory Notice and return it either by fax to (506) 658-4742 or email to supplychainmanagement@saintjohn.ca prior to the closing date. Failure to comply with the instructions on an advisory may result in rejection of the bid.

Addenda

Periodically, the City of Saint John is required to issue notification of changes or corrections to a bid document by way of addenda. Normally these notifications will have direct bearing on the cost of a project and will influence bidding. Therefore, it is important that the City have assurances that bidders have in-fact received the notification(s).

Bidders are responsible for obtaining all addenda issued by the City. Addenda may be obtained from the City's website (www.saintjohn.ca) under the Menu option, City Hall header, then "Tender and Proposals".

Bidders are required to sign and include all addenda with their bid submission.

Failure to include a copy of all signed addenda with the bid submission may result in rejection of the bid regardless of whether or not the changes noted in the addendum are included in the bid submission.

Mandatory Requirements

Each submission will be evaluated to ensure that it complies with the mandatory requirements and may be rejected if it does not comply. The evaluation of mandatory requirements will confirm that:

- the submission was received prior to the applicable Submission Deadline;
- the bid submission is signed;
- the bid submission is legible;
- the bid submission does not contain a substantive qualification or conditions that are contrary to the terms of the bid document;
- the bid submission does not contain a change in price that was not initialled by the person who signed the submission; and
- the bid submission is in English;

Payment

Payment shall be based on Net 45 Days from date of invoice or receipt of goods/services, whichever is later. Invoices can either be mailed to: City of Saint John, Accounts Payable Department, P.O. Box 1971, Saint John, NB, E2L 4L1, or by email to the Accounts Payable department (accounts payable@saintjohn.ca). Vendors are to ensure invoices are not sent both ways.

Pricing

The tender prices shall include all installation wages, fringe benefits, insurance, transportation, delivery, duty, working tools, equipment costs, and any other charges incurred in order to provide required materials and/or services.

Holdback

A Hold back of 10% of all monies due to the contractor will be retained by the City until 60 days after the substantial completion date of the work, approved by the project manager, and receipt of a statutory declaration.

Substitutes

Substitute products will not be considered (where applicable).

Verbal Agreement

No verbal agreement or conversation with any officer, agent or employee of the owner either before or after execution of the contract shall effect or modify any of the terms or obligations contained in any of the documents comprising the said contract.

Fax Tenders

Tenders received by fax WILL NOT be accepted.

Late Bids

Bids received after the time and date as shown in this document shall not be considered.

Cancelation Clause

In the event that the successful bidder does not comply with the specifications and terms and conditions of this tender, at any time throughout the duration of the contract, the City of Saint John reserves the right to cancel the contract in its entirety.

Basis for Award

A The city does not limit itself to accepting the lowest, or any tender submitted, but reserves the right to award the tender in any manner deemed to be in the City's best interest. It is the City of Saint John's intention to award this agreement to one Vendor.

No guarantee

The City makes no guarantee as to the volume of the Deliverables.

Acceptance, Revocation and Rejection Of Tenders

The bidder agrees that his tender is a firm offer to supply the goods and/or services specified herein at the quoted price, and in accordance with the terms and conditions herein contained. The bidder may revoke his tender at any time prior to the time fixed for tender opening by delivering, or causing to be delivered, written notice of revocation to the designated official at the City of Saint John. Revocation will take effect from the time the notice is actually received. A notice of revocation will not be accepted after the time fixed for tender opening.

The bid shall not be restricted by a statement added to the Tender Form, or by a covering letter, or by alterations to the tender form as supplied, unless otherwise provided herein and further, a tender form that has been altered in any way may be deemed to be a non-confirming bid and, therefore, rejected. Bidders shall be allowed to attach descriptive literature; whose sole purpose is to amplify the bid.

Due Diligence

In the event that a health and safety offence is committed, the onus falls on the employer to prove that it exercised due diligence (i.e. did everything it reasonably could) in order to avoid the offence.

When hiring contractors, the City of Saint John is responsible for ensuring compliance with Health and Safety Legislation and must make sure that the appropriate accident prevention systems are implemented in the workplace.

Therefore, if any contractor is found to be working in an unsafe manner, or outside of current legislation, he will be made to stop work immediately. Any losses which may arise as a result of this work stoppage are the responsibility of the contractor.

Failure to comply with current legislation on the part of the contractor, may lead to cancellation of this contract and any bid deposits that may be in place.

Insurance

The successful contractor shall provide evidence of the following insurance coverage:

General Liability with minimum limits of two million dollars, (\$2,000,000.00). The policy shall include:

- *operations of the contractor in connection with this tender;
- *products and completed operations coverage;
- *contractual liability with respect to this tender;
- *the City of Saint John added as an additional insured;
- *a cross liability clause;
- *non-owned automobile;
- *thirty (30) days notice of cancellation of this policy "will" be given to the City of Saint John, by the insurers;

Standard automobile insurance for owned automobiles with at least the minimum limits allowed by law. This coverage is to remain in effect for the entire time frame of the contract.

WorksafeNB Certificate and Business Corporations Act Certificate

New Brunswick Tenderers shall provide to the City a WorkSafeNB certificate which confirms proper registration and good standing with WorkSafeNB and a Business Corporations Act Certificate which confirms proper registration and good standing with the Province of New Brunswick - Corporate Affairs within five (5) Working Days following the City's notice of selection.

Out-of-province Tenderers shall provide to the City a WorkSafeNB certificate which confirms proper registration and good standing with WorkSafeNB or a letter or certificate issued under the equivalent applicable legislation in the province of origin of the Tenderer confirming extension of coverage from said legislation to the Province of New Brunswick for the term of the Contract. Subject to paragraph c), out-of-province Tenderers shall also provide a Business Corporations Act Certificate which confirms proper registration and good standing with the Province of New Brunswick - Corporate Affairs within five (5) Working Days following the City's notice of selection.

Tenderers from Nova Scotia may submit the appropriate Business Corporations Act Certificate from the Province of Nova Scotia.

Reserved Rights

The City reserves the right to:

- a) Reject an unbalanced bid submission. For the purpose of this section, an unbalanced bid submission is a bid submission containing a unit price which deviates substantially from, or does not fairly represent reasonable and proper compensation for the unit of work bid or one that contains prices which appear to be so unbalanced as to adversely affect the interests of the City.

- The City reserves the right to use other bids submitted in response to this bid solicitation or for other like or similar work as a guideline in determining if a bid is unbalanced.
- b) Amend or modify the scope of the Work, and/or cancel or suspend the bid award, at any time for any reason;
 - c) Require bidders to provide additional information after the submission deadline to support or clarify their bid submission;
 - d) Not accept any or all bids;
 - e) Not accept a bid submission from a bidder who is itself, or whose principals, owners or directors are also principals, owners or directors of another entity which is, involved in litigation, arbitration or any other similar proceeding against the City;
 - f) Reject any or all bid submissions without any obligation, compensation or reimbursement to any bidder or any of its team members;
 - g) Withdraw this bid solicitation and cancel or suspend the bid process;
 - h) Extend, from time to time, any date, any time period or deadline provided in this bid solicitation (including, without limitation, the submission deadline), upon written notice to all bidders;
 - i) Assess and reject a bid submission on the basis of:
 - (i) information provided by references;
 - (ii) the bidder's past performance on previous contracts;
 - (iii) the information provided by a bidder pursuant to the City exercising its clarification rights under this bid process;
 - (iv) the bidder's experience with performing the type and scope of work specified;
 - (v) other relevant information that arises during this procurement process;
 - j) Waive formalities and accept bids which substantially comply with the requirements of this bid solicitation;
 - k) Verify with any bidder or with a third party any information set out in a bid submission;
 - l) Disqualify any bidder whose bid submission contains misrepresentations or any other inaccurate or misleading information;
 - m) Disqualify any bidder who has engaged in conduct prohibited by the bid solicitation;
 - n) Make changes, including substantial changes, to the bid solicitation provided that those changes are issued by way of addenda in the manner set out in this bid document;
 - o) Select any bidder other than the bidder whose bid submission reflects the lowest cost to the City;

- p) Cancel this procurement process at any stage, for any reason;
- q) Cancel this procurement process at any stage and issue a new bid solicitation for the same or similar deliverables;
- r) Accept any bid submission in whole or in part;
- s) Waive minor non-compliance with the mandatory requirements of the bid solicitation and accept the bid submission; or
- t) Accept a bid submission which contains the following errors:
 - (i) error in mathematics – whether this involves the extension of a unit price or an error in addition, the mistake will be corrected and the correct total will be used for evaluation purposes and will be binding on the bidder.
 - (ii) conflict between the written and numerical bid prices. In all cases, the total bid price will be corrected to reflect the written bid price, whether lump sum or unit price (where applicable).
 - (iii) failure to include the contingency allowance in the total bid price (where applicable). If the contingency allowance was not included in the addition, the bid price shall be corrected to reflect its inclusion.

and these reserved rights are in addition to any other express rights or any other rights which may be implied in the circumstances and the City shall not be liable for any expenses, costs, losses or any direct or indirect damages incurred or suffered by any bidder or any third party resulting from the City exercising any of its express or implied rights under this bid solicitation.

By submitting a bid, the bidder authorizes the collection by the City of the information set out at paragraph i) in the manner contemplated in that subparagraph.

Limitation of Liability and Waiver

Each bidder, by submitting a bid, agrees that:

- a) Neither the City nor any of its employees, agents, advisors or representatives will be liable, under any circumstances, for any Claim arising out of this procurement process including but not limited to costs of preparation of the bid submission, loss of profits, loss of opportunity or for any other Claim; and
- b) The bidder waives any Claim for any compensation of any kind whatsoever, including Claims for cost of preparation of the bid submission, loss of profit or loss of opportunity by reason of the City's decision to not accept the bid submitted by the bidder, to award a Contract to any other bidder or to cancel this procurement process, and the bidder shall be deemed to have agreed to waive such right or Claim.

Validity Period

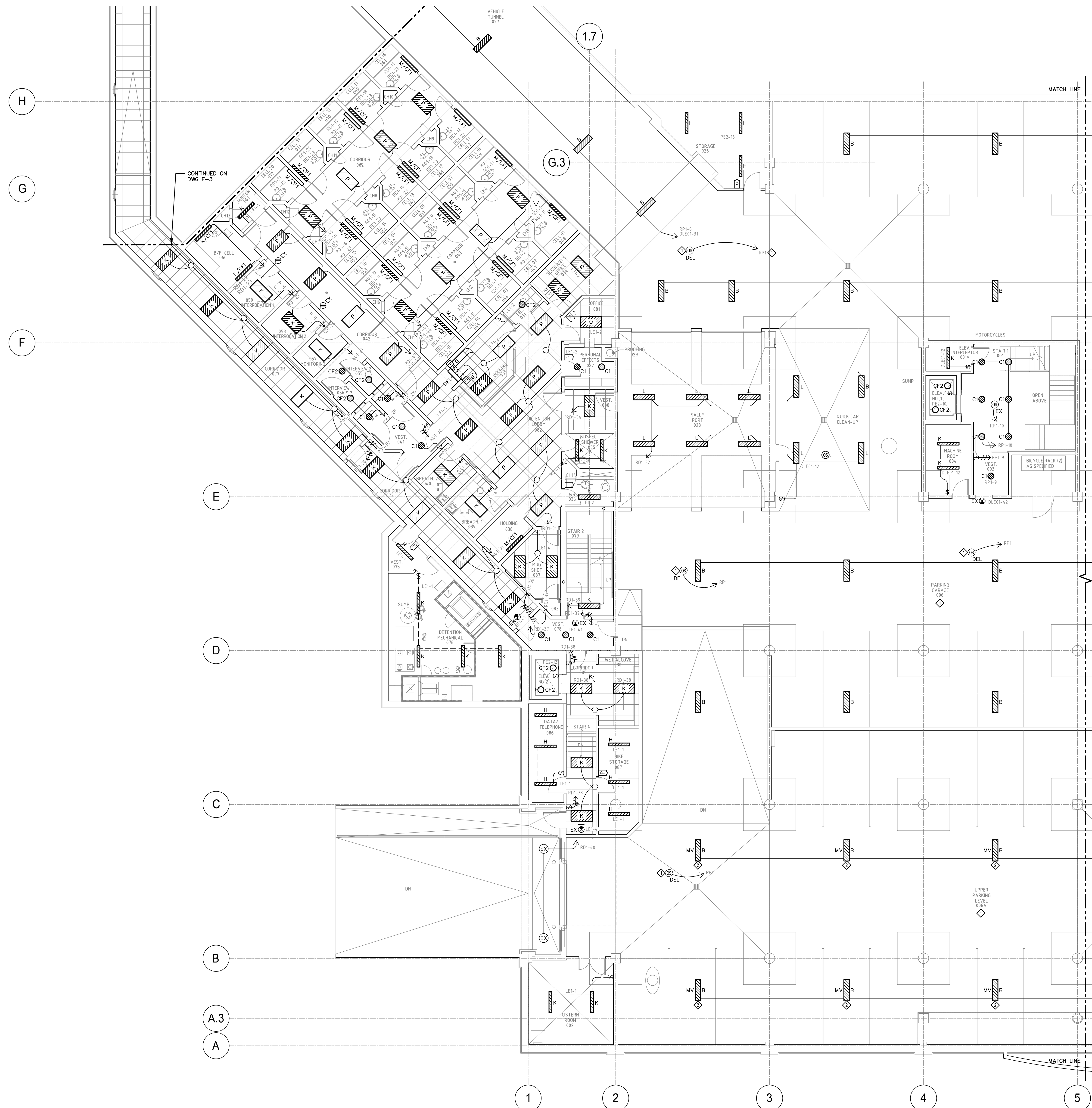
The bid submission constitutes an offer which shall remain open and irrevocable until 90 days after the submission deadline.

Minor Irregularities

The City of Saint John reserves the right to waive minor non-compliances in accordance with Section 120 of the Province of New Brunswick's Regulation 2014-93 under the Procurement Act.

APPENDIX A – SPECIFICATIONS

**TENDER No. 2023-082303T
SAINT JOHN POLICE HEADQUARTERS LIGHTING RETROFIT**



- GENERAL NOTES**
- ALL EXISTING SWITCHING, OCCUPANCY SENSORS, EXIT SIGNS AND LUMINAIRES NOT SHOWN ON DRAWINGS SHALL REMAIN (UNLESS NOTED OTHERWISE).
 - IN ROOMS WHERE LUMINAIRES ARE REMOVED AND EMERGENCY CIRCUITS OR UNSWITCHED NIGHT LIGHTS EXIST, ENSURE THAT EMERGENCY CIRCUITS REMAIN AND ALL EXISTING NIGHT LIGHT LUMINAIRES REMAIN UNSWITCHED. RE-FEED REMAINING LUMINAIRES AS REQUIRED.
 - EXISTING LIGHT SWITCHES TO REMAIN WHETHER THE ROOM HAS AN OCCUPANCY SENSOR OR NOT. SWITCH USED TO OVERRIDE SENSOR.
 - ADJUST SENSITIVITY ON OCCUPANCY SENSORS TO PICK-UP PEOPLE ENTERING A ROOM, BUT NOT WALKING IN BY A CORRIDOR OR ANOTHER ROOM.
 - CONTRACTOR TO VERIFY VOLTAGES PRIOR TO SHOP DRAWING SUBMITTAL.
 - ALL NEW AND RETROFITTED LUMINAIRES SHALL BE COMPLETE WITH A LOCAL MEANS OF DISCONNECT SUCH AS THE STA-KON LUMINAIRE QUICK DISCONNECT BY THOMAS & BETTS, OR APPROVED EQUAL.
 - LUMINAIRES SHOWN ON DRAWINGS ARE FOR QUANTITIES AND APPROXIMATE LOCATION; EXACT LOCATIONS SHALL BE VERIFIED ON SITE.
 - VERIFY PHYSICAL SIZE OF EXISTING LUMINAIRES TO BE RETROFITTED PRIOR TO ORDERING NEW REPLACEMENT MATERIAL TO ENSURE A COMPLETE AND WORKING SYSTEM.
 - EXISTING LUMINAIRES BEING RETROFITTED SHALL BE THOROUGHLY CLEANED INCLUDING BOTH SIDES OF LENSES AND LOUVERS AS WELL AS INSIDE AND OUTSIDE OF LUMINAIRE FRAME/BODY USING A DAMP CLOTH TO REMOVE DUST AND RESIDUE.
 - EXISTING BALLAST COVERS MUST, AT TRADE CONTRACTORS OPTION, BE COMPLETELY CLEANED OF ANY TAR OR REPLACED WITH A NEW UNIT OF THE SAME CONSTRUCTION AT NO EXTRA COST.
 - ALL NEW AND RETROFITTED LUMINAIRES SHOWN ON FLOOR PLANS ARE A DIRECT ONE FOR ONE REPLACEMENT EXCEPT THOSE INDICATED BY DIAMOND NOTE ◊ AS DESCRIBED IN THE SPECIFIC NOTES.
 - ALL CIRCUITS (IE: DLE01-31) WIRING, SWITCHING AND RELAYS (IE: RP1-6) SHOWN ON DRAWINGS ARE FOR CLARIFICATION ONLY. EXACT CIRCUIT NUMBERS, WIRING, SWITCHING AND RELAY NUMBERS SHALL BE VERIFIED ON SITE.
 - ELECTRICAL CONTRACTOR SHALL PERFORM A POWER SHUT-DOWN OF EACH FACILITY TO ENSURE THE SAFETY OF THE OPERATION OF THE LUMINAIRES CONTROLLED BY LOW VOLTAGE SWITCHES ON EMERGENCY POWER WILL OPERATE DURING A POWER OUTAGE. SWITCHES MUST BE IN THE "OFF" POSITION WHEN THE EXERCISE IS PERFORMED. COORDINATE SHUT-DOWN WITH FIRE HOUSE CHIEF.

- SPECIFIC NOTES**
- DISCONNECT AND REMOVE 'RP1' OCCUPANCY SENSORS IN PARKING GARAGE 006/006A AND REMOVE LOW VOLTAGE CONTROL WIRING BACK TO RELAY PANEL 'RP1' IN ELECTRICAL SUB-STATION ROOM 024. PROVIDE NEW MASTER SWITCH (VERIFY VOLTAGE) ADJACENT TO RELAY PANEL 'RP1' TO ACTIVATE RELAYS RP1-1, 2, 3, 4, 5, 6, 7 AND 8 LIGHTING CONTROL ZONES. LABEL AS "MASTER LIGHTING, PARKING AREA" AND PROVIDE LOCKING COVER OVER SWITCH. REFER TO WIRING SCHEMATIC ON DETAIL 3, DRAWING E-2.
 - RELOCATE EXISTING VAPOUR PROOF LUMINAIRES TO SHOOT HOUSE, ROOM 019, AND RETROFIT THEM WITH TYPE 'L' MEASURE. INSTALL NEW TYPE 'B' LUMINAIRES AS SHOWN ON PLAN.

2
E-1 NOTES

N.T.S.

- LIGHTING**
- LINEAR LUMINAIRE, TYPE AS SPECIFIED. HATCHING DENOTES CONNECTED TO EMERGENCY/NIGHT LIGHTING CIRCUIT.
 - CEILING MOUNTED LUMINAIRE, REFER TO LUMINAIRE SCHEDULE FOR TYPE.
 - WALL MOUNTED LUMINAIRE, REFER TO LUMINAIRE SCHEDULE FOR TYPE.
 - EXISTING LED EXIT SIGN TO REMAIN. CEILING MOUNT OR WALL MOUNTED AS INDICATED, NUMBER OF FACES AND DIRECTIONAL ARROWS AS SHOWN.
- LIGHTING CONTROL**
- EXISTING 15A, 120V SINGLE POLE SWITCH TO REMAIN:
 - 3 - INDICATES 3-WAY
 - 4 - INDICATES 4-WAY
 - 3,4,b, D,L,P - INDICATES DIMMER
 - L - INDICATES LOW VOLTAGE
 - P - INDICATES C/W PILOT LIGHT
 - EXISTING 120V OCCUPANCY SENSOR WALL SWITCH TO REMAIN:
 - D - INDICATES DUAL TECHNOLOGY
 - P - INDICATES PIR
 - 2 - INDICATES DUAL RELAY
 - EXISTING WALL MOUNTED OCCUPANCY SENSOR TO REMAIN:
 - D - INDICATES DUAL TECHNOLOGY
 - EXISTING OCCUPANCY SENSOR POWER PACK TO REMAIN
 - EXISTING DIMMING CONTROL PANEL TO REMAIN
 - EXISTING DIMMING CONTROL UNIT, 6 ZONE, TO REMAIN
 - EXISTING DIMMING CONTROL UNIT, 16 ZONE, TO REMAIN
 - EXISTING LIGHTING CONTROL TO REMAIN
 - EXISTING LED DRIVER TO REMAIN
 - EXISTING PHOTO-ELECTRIC CONTROLLER TO REMAIN
 - EXISTING TIME CLOCK TO REMAIN
 - CEILING MOUNTED, LINE VOLTAGE, STANDARD RANGE, 360° DUAL TECHNOLOGY OCCUPANCY SENSOR:
 - SENSORSWITCH #CMR-PDT-9-LT
 - ON/OFF PHOTOCELL SENSOR:
 - SENSORSWITCH #CMR-PC
 - 120V LINE POWERED, SINGLE POLE WIRELESS DIMMER SWITCH:
 - RLIGHT #RPODLA-DX-MVOLT-XX-G2
 - COLOR TO MATCH EXISTING.

- EQUIPMENT CONNECTIONS AND CONTROLS**
- EXISTING JUNCTION BOX
 - EXISTING SQUARE JUNCTION BOX
 - EXISTING WIRING CONCEALED IN WALL OR CEILING:
 - SLASHES - INDICATE NUMBER OF WIRES
 - NO SLASHES - INDICATE 2 CONDUCTORS
 - EXISTING LOW VOLTAGE WIRING
 - EXISTING 2#12 DC WIRING
 - EXISTING HOME RUN
 - EXISTING WIRING UP
 - EXISTING WIRING DOWN
- MISCELLANEOUS**
- ELECTRICAL DRAWING NOTES
- ABBREVIATIONS**
- DEL - INDICATES LUMINAIRE OR DEVICE TO BE DELETED, PROVIDE BLANK COVERPLATE TO MATCH
 - EX - INDICATES EXISTING LUMINAIRE OR DEVICE TO REMAIN
 - LTG - LIGHTING
 - MV - INDICATES EXISTING LUMINAIRE OR DEVICE TO BE MOVED
 - NIC - NOT IN CONTRACT
 - NTS - NOT TO SCALE
 - REL - INDICATES EXISTING LUMINAIRE OR DEVICE IN RELOCATED LOCATION.

3
E-1 LEGEND

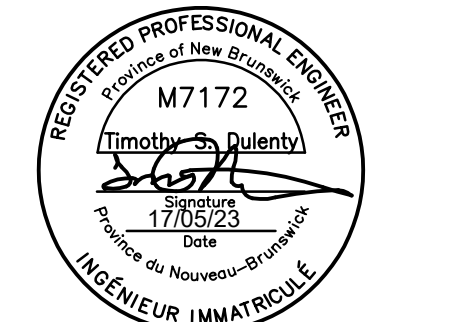
N.T.S.



CONSULTANT:
M&W Maricor
 120 MILLENNIUM DRIVE, SUITE 201
 SAINT JOHN, NB E2E 0C6
 BUS: (506) 847-9295 FAX: (506) 848-2131
 WWW.MCW.COM ENG. JOB NO. 1222-076
 PKG A13C

KEYPLAN:

CLIENT:

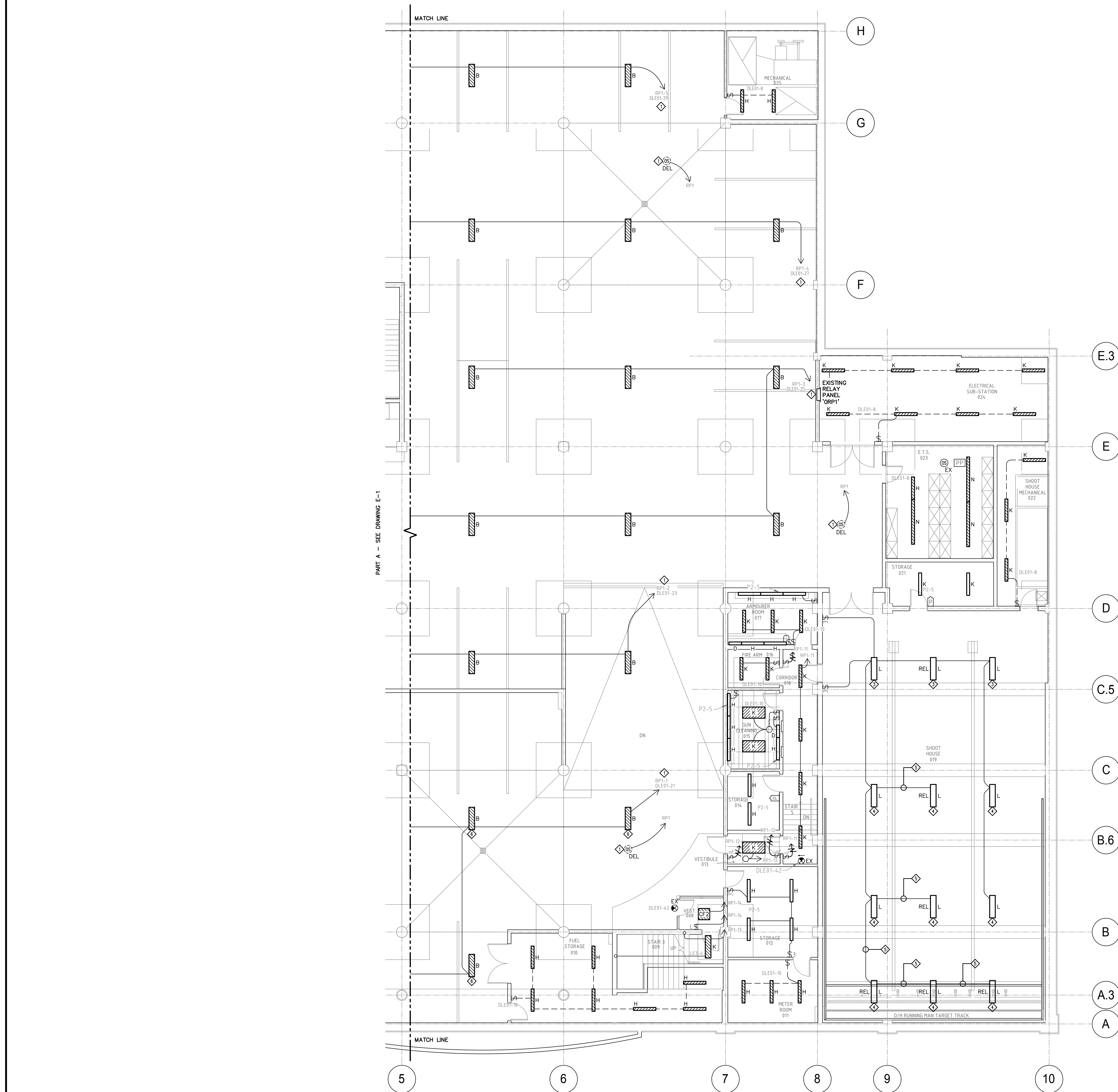
STAMP:

 0 ISSUED FOR TENDER 2023/05/17 T.D.
 NO. REVISIONS DATE YYYY/MM/DD INIT.
 PROJECT TITLE:
**CITY OF SAINT JOHN
 POLICE HEADQUARTERS
 LIGHTING RETROFIT**

DRAWING TITLE:
**GROUND FLOOR PART A
 LIGHTING**

SCALE: AS NOTED DATE: MAY 2023
 DRAWN BY: M.J.G. DRAWING NO:
 CHECKED BY: B.C. **E-1**
 OF 6

1
E-1 GROUND FLOOR PART A - LIGHTING

~1:100



SPECIFIC NOTES:

- ◇ DISCONNECT AND REMOVE 'RP1' OCCUPANCY SENSORS IN PARKING GARAGE 006/006A AND REMOVE LOW VOLTAGE CONTROL WIRING BACK TO RELAY PANEL 'ORP1' IN ELECTRICAL SUB-STATION ROOM 024. PROVIDE NEW MASTER SWITCH (VERIFY VOLTAGE) ADJACENT TO RELAY PANEL 'ORP1' TO ACTIVATE RELAYS RP1-1, 2, 3, 4, 5, 6, 7 AND 8 LIGHTING CONTROL ZONES. LABEL AS "MASTER LIGHTING, PARKING AREA" AND PROVIDE LOCKING COVER OVER SWITCH. REFER TO WIRING SCHEMATIC ON DETAIL 3, DRAWING E-2.
- ◇ RELOCATE EXISTING VAPOUR PROOF LUMINAIRES TO SHOOT HOUSE, ROOM 019 AND RETROFIT THEM WITH TYPE 'L' MEASURE. INSTALL NEW TYPE 'B' LUMINAIRES AS SHOWN ON PLANS.
- ◇ SUSPEND LUMINAIRES FLUSH WITH UNDERSIDE OF DUCTWORK.
- ◇ LOWER (9) EXISTING LUMINAIRES FLUSH WITH UNDERSIDE OF RAKER BEAMS. PROVIDE STEMS AS REQUIRED.
- ◇ PROVIDE NEW EMT CONDUIT AND WIRING FOR RELOCATED LUMINAIRES.
- ◇ TURN OVER EXISTING LUMINAIRES TO CITY OF SAINT JOHN FOR ATTIC STOCK.

2

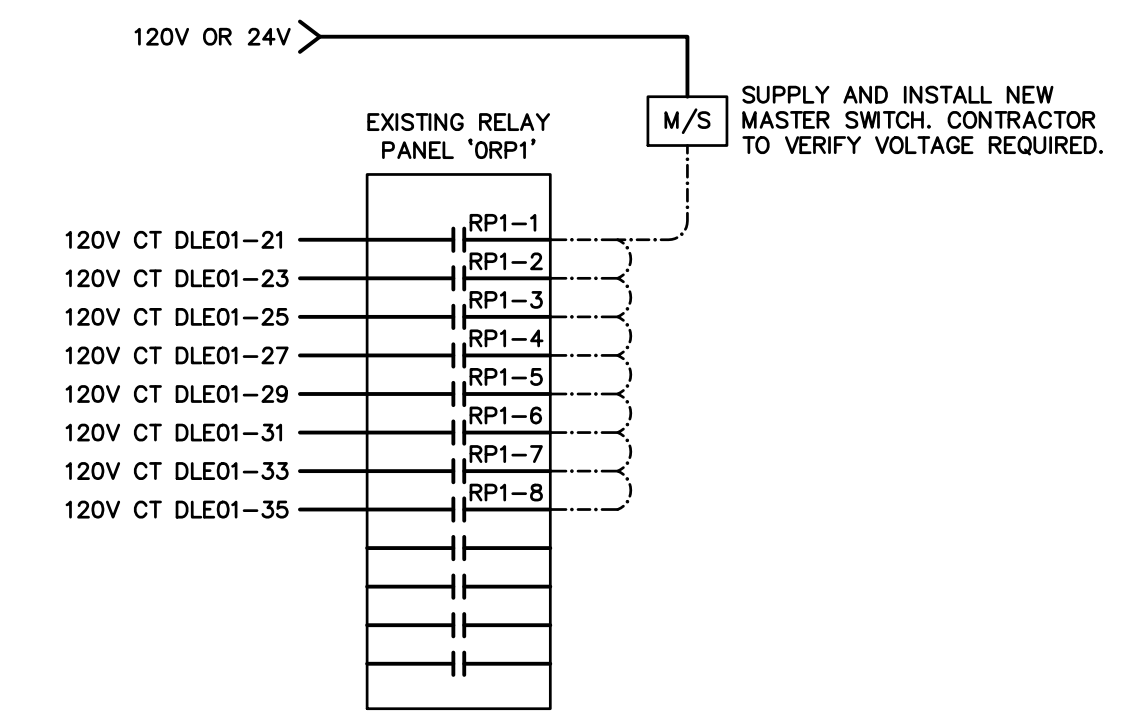
E-2 NOTES

N.T.S.

3

E-2 PARKING GARAGE MASTER SWITCH LTG CONTROL DETAIL

N.T.S.



CLIENT:

CONSULTANT:

120 MILLENIUM DRIVE, SUITE 201
 SAINT JOHN, NB E2E 0C6
 BUS: (506) 847-6295 FAX: (506) 848-2131
 WWW.MCW.COM ENG. JOB NO. 1222-076
 PKG A13C

KEYPLAN:

STAMP:

0	ISSUED FOR TENDER	2023/05/17	T.D.
NO:	REVISIONS	DATE	INIT.
		YYYY/MM/DD	

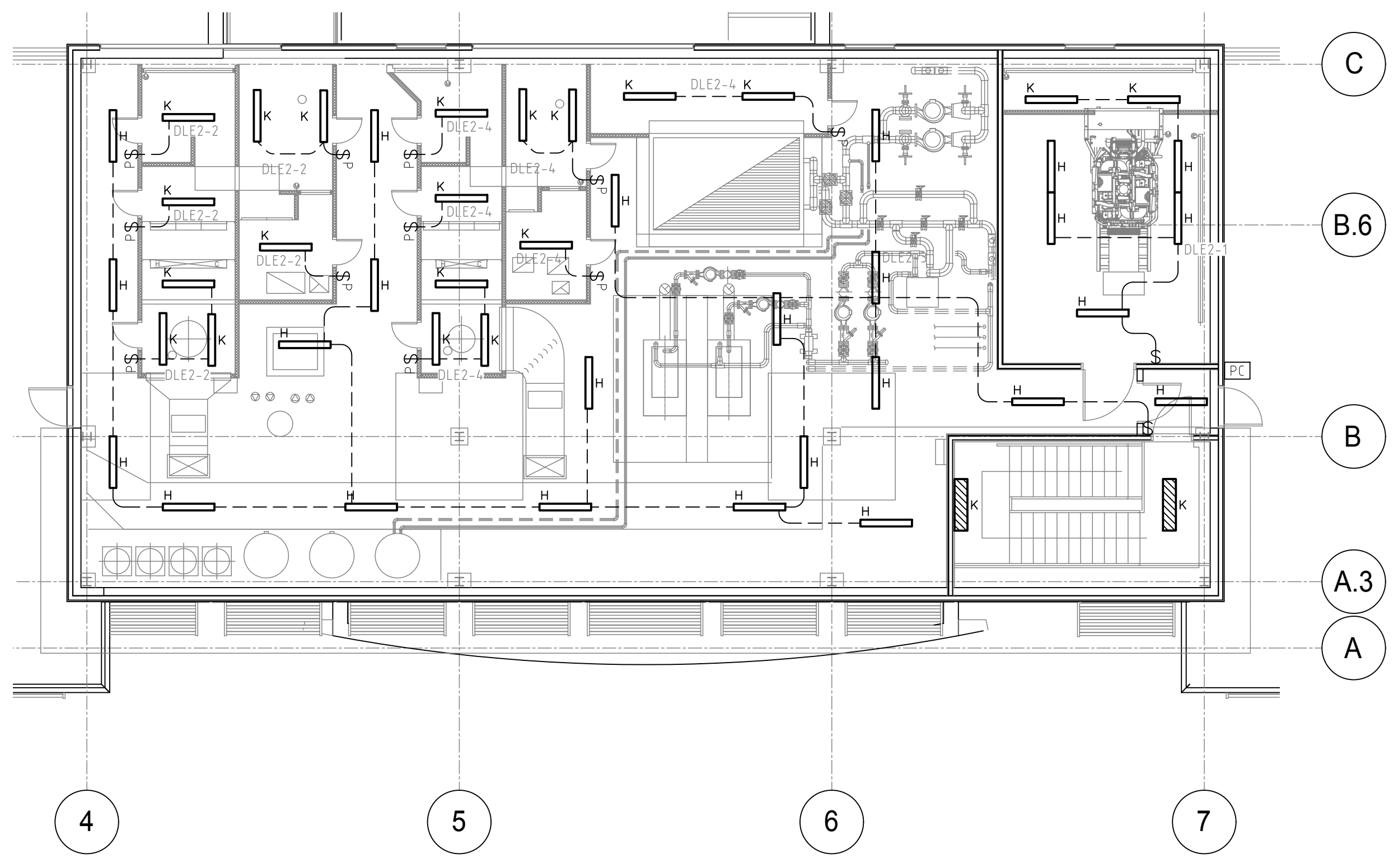
PROJECT TITLE:

**CITY OF SAINT JOHN
 POLICE HEADQUARTERS
 LIGHTING RETROFIT**

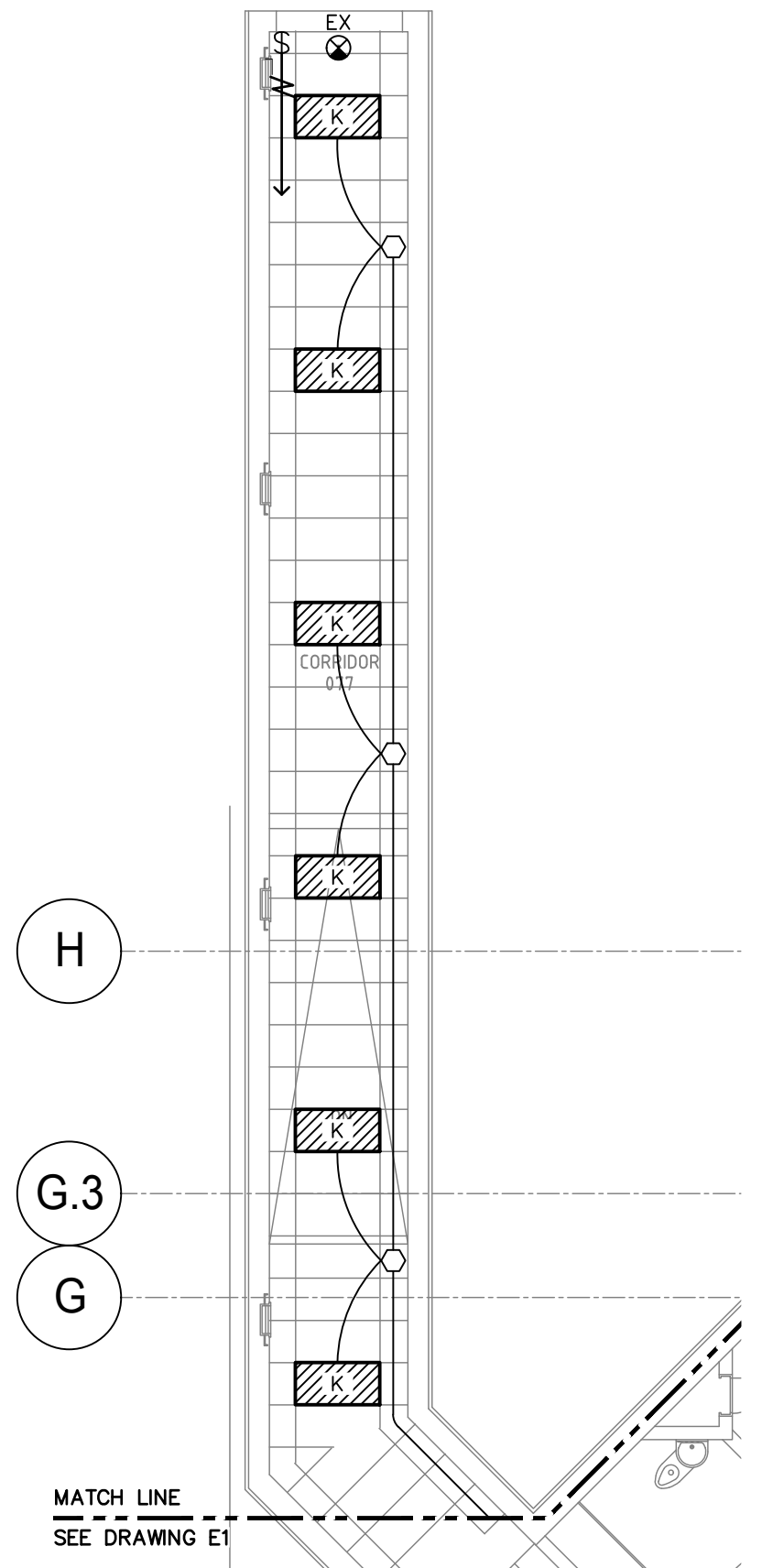
DRAWING TITLE:

**GROUND FLOOR PART B
 LIGHTING**

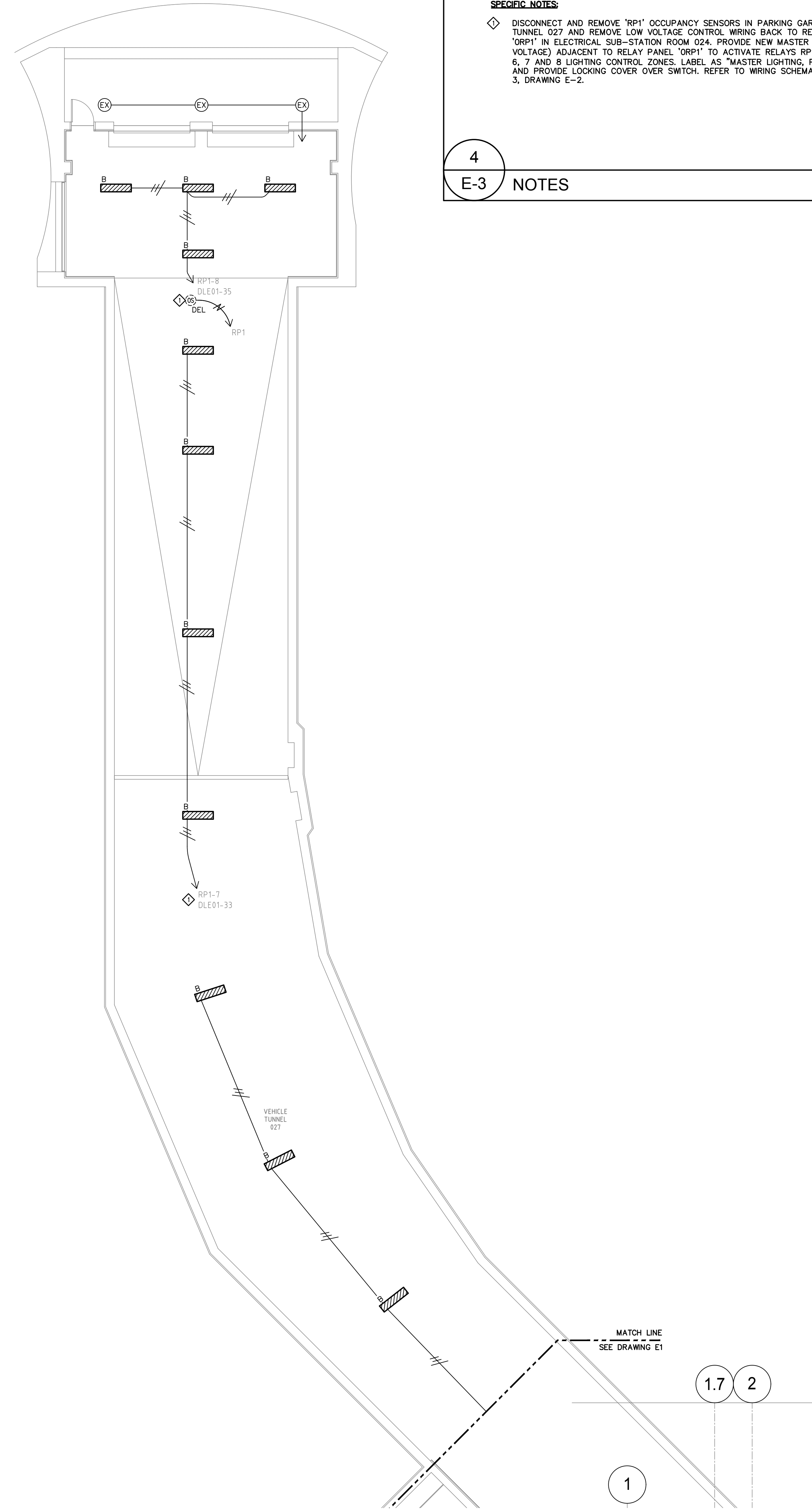
SCALE:	AS NOTED	DATE:	MAY 2023
DRAWN BY:	M.J.G.	DRAWING NO.:	E-2
CHECKED BY:	B.C.		OF 6



1
E-3 PENTHOUSE - LIGHTING ~1:100



2
E-3 GROUND FLOOR CORRIDOR - LIGHTING ~1:100



3
E-3 VEHICLE TUNNEL - LIGHTING ~1:100

SPECIFIC NOTES
 ◆ DISCONNECT AND REMOVE 'RP1' OCCUPANCY SENSORS IN PARKING GARAGE VEHICLE TUNNEL 027 AND REMOVE LOW VOLTAGE CONTROL WIRING BACK TO RELAY PANEL 'ORP1' IN ELECTRICAL SUB-STATION ROOM 024. PROVIDE NEW MASTER SWITCH (VERIFY VOLTAGE) ADJACENT TO RELAY PANEL 'ORP1' TO ACTIVATE RELAYS RP1-1, 2, 3, 4, 5, 6, 7 AND 8 LIGHTING CONTROL ZONES. LABEL AS "MASTER LIGHTING, PARKING AREA" AND PROVIDE LOCKING COVER OVER SWITCH. REFER TO WIRING SCHEMATIC ON DETAIL 3, DRAWING E-2.

4
E-3 NOTES

N.T.S.

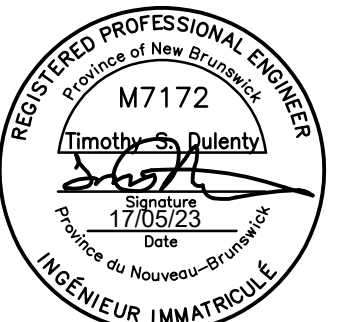
CLIENT:

 SAINT JOHN

CONSULTANT:

 120 MILLENIUM DRIVE, SUITE 201
 SAINT JOHN, NB E2E 0C6
 BUS: (506) 847-6285 FAX: (506) 848-2131
 WWW.MCW.COM ENG. JOB NO. 1222-076
 PKG A13C

KEYPLAN:

STAMP:


0	ISSUED FOR TENDER	2023/05/17	T.D.
NO:	REVISIONS	DATE	INIT.
		YYYY/MM/DD	

PROJECT TITLE:
**CITY OF SAINT JOHN
 POLICE HEADQUARTERS
 LIGHTING RETROFIT**

DRAWING TITLE:
**PARTIAL FLOOR PLANS
 LIGHTING**

SCALE:	AS NOTED	DATE:	MAY 2023
DRAWN BY:	M.J.G.	DRAWING NO.:	E-3
CHECKED BY:	B.C.		OF 6

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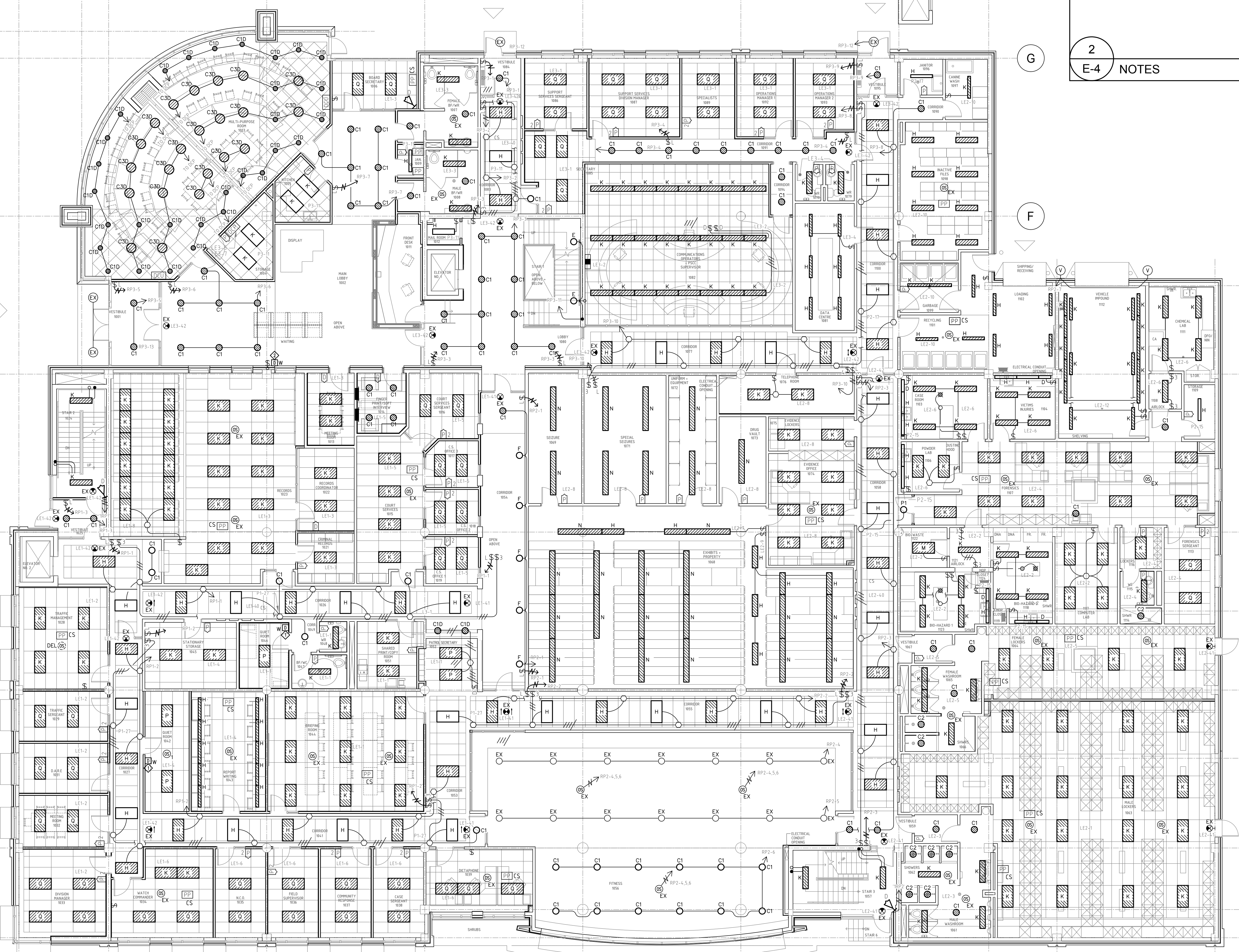
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SPECIFIC NOTES:

- ◇ REMOVE EXISTING SWITCH MOUNTED LINE VOLTAGE OCCUPANCY SENSOR AND INSTALL A NEW SWITCH MOUNTED DIMMER AS SPECIFIED.
- ◇ REMOVE EXISTING SWITCH MOUNTED DIMMER CONTROLLING DOWNLIGHTS 'C10' LOCATED IN MAIN LOBBY 1002 CEILING AND INSTALL A CEILING MOUNTED LIGHT LEVEL SENSOR AND A NEW SWITCH MOUNTED DIMMER AS SPECIFIED.

2
E-4 NOTES

CLIENT:

SAINT JOHN

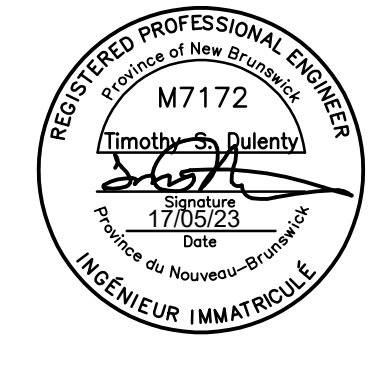
CONSULTANT:

McW Maricor
 120 MILLENIUM DRIVE, SUITE 201
 SAINT JOHN, NB E2E 0C6
 BUS: (506) 847-6295 FAX: (506) 849-2131
 WWW.MCW.COM ENG. JOB NO. 1222-076
 PKG A13C

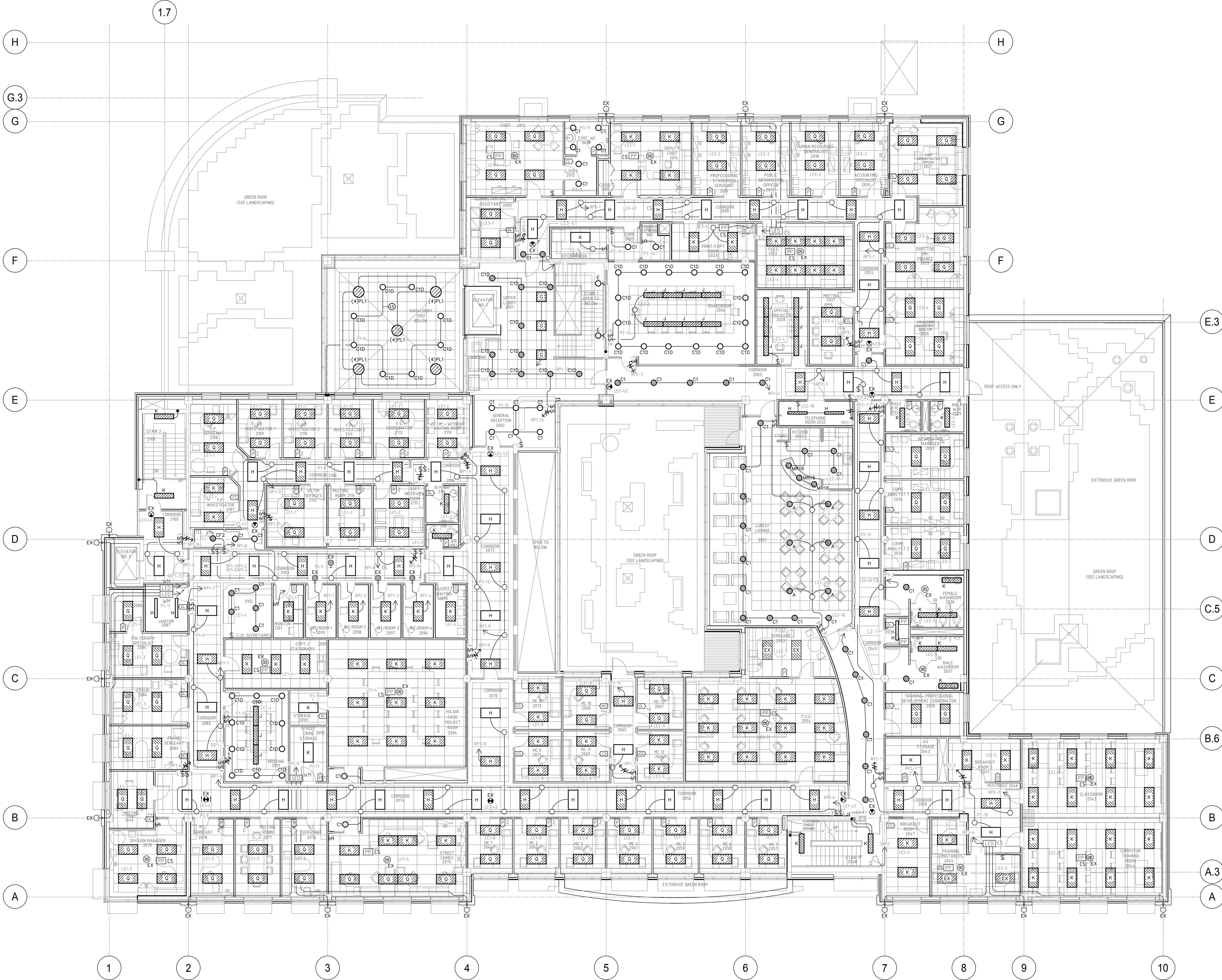
N.T.S.

KEYPLAN:

STAMP:



0	ISSUED FOR TENDER	2023/05/17	T.D.
NO.	REVISIONS	DATE	INIT.
PROJECT TITLE:			
CITY OF SAINT JOHN POLICE HEADQUARTERS LIGHTING RETROFIT			
DRAWING TITLE:			
FIRST FLOOR LIGHTING			
SCALE:	AS NOTED	DATE:	MAY 2023
DRAWN BY:	M.J.G.	DRAWING NO.:	E-4
CHECKED BY:	B.C.		OF 6



LUMINAIRE SCHEDULE

TYPE	MANUFACTURER	DESCRIPTION	VOLTAGE	MOUNTING	LAMP/SOURCE	NOTES
A	MORA HALO SLIM #380-24-120-40-120-120-6-WC	STEM MOUNTED 24" DIAMETER DECORATIVE LED LUMINAIRE. BALLAST FROSTED POLYCARBONATE FINISH SHADE WITH 18" STEM AND 6" TWISTED BLACK COVER WITH WHITE CANOPY COVER. 5 YEAR WARRANTY.	120	SUSPEND AT EXISTING HEIGHT AND LOCATION	16W 1200 LUMENS 4000K	1
B	EELIGHTING #VIB2-4-3470-SM1030NIT	4' LINEAR LED VAPOUR TIGHT LUMINAIRE. LIGHT GRAY POLYCARBONATE HOUSING WITH PC/UV FROSTED ETCHED POLYCARBONATE LENS. STAINLESS STEEL CLIPS. DIMMABLE OCCUPANCY SENSOR. 0-10V STANDARD DIMMING. RATED IP65, L70/180,000 HRS.	120/347	SURFACE TO CEILING	50W 8169 LUMENS 4000K 90 CRI	1,3,5
C1	LITHONIA #LBR6-ALD2-SW1-AR-TW-LSS-WD-MVOLT-UGZ	6" LED DIMMABLE DOWNLIGHT RETROFIT KIT WITH ADJUSTABLE LUMEN OUTPUT AND SELECTABLE COLOR TEMPERATURE. CLEAR REFLECTOR COLOR WITH SEMI-SPECULAR REFLECTOR FINISH, WHITE PAINTED FLANGE. WIDE DISTRIBUTION. RATED FOR L80/60,000HRS.	120	INSTALL IN EXISTING DOWNLIGHT HOUSING	19W 1859 LUMENS 4000K 90 CRI	1,2
C1D	LITHONIA #LBR6-25LM-AR-TW-LSS-WD-MVOLT-UGZ1-NL2R2	6" DIAMETER RECESSED LED DIMMABLE DOWNLIGHT RETROFIT KIT WITH FIXED LUMEN OUTPUT. SPUN STEEL, CLEAR REFLECTOR COLOR WITH SEMI-SPECULAR REFLECTOR FINISH, WHITE PAINTED FLANGE AND SPRING CLIPS. WIDE DISTRIBUTION. RATED FOR L80/60,000HRS.	120	INSTALL IN EXISTING DOWNLIGHT HOUSING	32W 2982 LUMENS 4000K 90 CRI	1,2
C2	JUNG #APD26-DB-AQL010-SWMSW-90CR-MVOLT-Z110-WMH	6" DIAMETER RECESSED LED DIMMABLE DOWNLIGHT RETROFIT KIT WITH ADJUSTABLE LUMEN OUTPUT AND SELECTABLE COLOR TEMPERATURE. GALVANIZED STEEL FRAME, WHITE DOWNLIGHT Baffle WITH WHITE TRIM RING AND SPRING CLIPS. RATED FOR 50,000HRS.	120	INSTALL IN EXISTING DOWNLIGHT HOUSING	15W 1200 LUMENS 4000K 90 CRI	1,2
C3D	LITHONIA #LBR6-30LM-AR-TW-LSS-WD-MVOLT-UGZ1-NL2R2	6" DIAMETER RECESSED LED DIMMABLE DOWNLIGHT RETROFIT KIT WITH FIXED LUMEN OUTPUT. SPUN STEEL, CLEAR REFLECTOR COLOR WITH SEMI-SPECULAR REFLECTOR FINISH, WHITE PAINTED FLANGE AND SPRING CLIPS. WIDE DISTRIBUTION. RATED FOR L80/60,000HRS.	120	INSTALL IN EXISTING DOWNLIGHT HOUSING	38W 3260 LUMENS 4000K 90 CRI	1,2
D (121115)	PHILIPS LAMP #8175E/22-840/F10/G/DM10/1 ADVANCE BALLAST #CNZS28N35M	1x75-2" GLASS LED TUBES AND NORMAL BALLAST FACTOR PROGRAM START ELECTRONIC BALLAST. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	8W 1050 LUMENS 4000K L70/50,000 HRS	1
E (122115)	PHILIPS LAMP #8175E/22-840/F10/G/DM10/1 ADVANCE BALLAST #CNZS28N35M	2x75-2" GLASS LED TUBES AND NORMAL BALLAST FACTOR PROGRAM START ELECTRONIC BALLAST. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	8W 1050 LUMENS 4000K L70/50,000 HRS	1
F (122118)	PHILIPS LAMP #8.518/COR/24-840/MF11/G/DM10/1 ADVANCE BALLAST #G0P2P32SC	2x78-2" PLASTIC LED TUBES AND NORMAL BALLAST FACTOR PROGRAM START ELECTRONIC BALLASTS. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	7W 1200 LUMENS 4000K L70/70,000 HRS	1
G (134215H)	PHILIPS LAMP #11TSH/34-840/F14/G/DM10/1 ADVANCE BALLAST (2)#CNZS28N35M	4x78-30" GLASS LED TUBES AND TWO (2) NORMAL BALLAST FACTOR PROGRAM START ELECTRONIC BALLASTS. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	11W 1400 LUMENS 4000K L70/50,000 HRS	1
H (141115)	PHILIPS LAMP #1475E/46-840/F21/G/DM10/1 ADVANCE BALLAST #CNZS28N35M	1x75-4" GLASS LED TUBE AND NORMAL BALLAST FACTOR PROGRAM START ELECTRONIC BALLAST. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	14W 2100 LUMENS 4000K L70/50,000 HRS	1
J (141115D)	PHILIPS LAMP #1475E/46/840/F21/G/DM10/1 ADVANCE BALLAST #EZ2S28035M	1x75-4" DIMMABLE GLASS LED TUBE AND NORMAL BALLAST FACTOR, MARK 10, POWERLINE PROGRAM START ELECTRONIC DIMMING BALLAST. DIMMING RANGE 100-1%. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	14W 2100 LUMENS 4000K L70/50,000 HRS	1
K (142115)	PHILIPS LAMP #1475E/46-840/F21/G/DM10/1 ADVANCE BALLAST #CNZS28N35M	2x75-4" GLASS LED TUBES AND NORMAL BALLAST FACTOR PROGRAM START ELECTRONIC BALLAST. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	14W 2100 LUMENS 4000K L70/50,000 HRS	1
L (142115H)	PHILIPS LAMP #2475H/COR46-840/F35/G/DM10/1 ADVANCE BALLAST #CNZS5490CN35M	2x75-4" GLASS LED TUBES AND NORMAL BALLAST FACTOR PROGRAM START ELECTRONIC BALLAST. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	24W 3500 LUMENS 4000K L70/50,000 HRS	1
M (143215)	PHILIPS LAMP #1475E/46-840/F21/G/DM10/1 ADVANCE BALLAST (2)#CNZS28N35M	3x75-4" GLASS LED TUBES AND TWO (2) NORMAL BALLAST FACTOR PROGRAM START ELECTRONIC BALLASTS. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	14W 2100 LUMENS 4000K L70/50,000 HRS	1
N (182115)	PHILIPS LAMP #1475E/46-840/F21/G/DM10/1 ADVANCE BALLAST #CNZS28N35M	2x75-4" GLASS LED TUBES TANDEM MOUNTED WITH ONE (1) NORMAL BALLAST FACTOR PROGRAM START ELECTRONIC BALLAST IN AN 8" LUMINAIRE. <10% THD. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	14W 2100 LUMENS 4000K L70/50,000 HRS	1
P (242115D)	PHILIPS LAMP #1475E/46/840/F21/G/DM10/1 ADVANCE BALLAST #EZ2S28035M	2x75-4" DIMMABLE GLASS LED TUBES AND NORMAL BALLAST FACTOR, MARK 10, POWERLINE PROGRAM START ELECTRONIC DIMMING BALLAST. DIMMING RANGE 100-1%. 5 YEAR MANUFACTURER'S WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	14W 2100 LUMENS 4000K L70/50,000 HRS	1
Q	LITHONIA #ZRL74-30L-SLD-LP835	2'x4" RECESSED VOLUMETRIC LED LUMINAIRE WITH T-BAR CLIPS. RUGGED ONE-PIECE COLD ROLLED STEEL REFLECTOR ASSEMBLY. ARTISTIC PRESAINTED REAR COVER. STEP-LEVEL DIMMING DRIVER DIMS TO 50%. PLENUM ACCESSIBLE LED BOARDS AND DRIVERS. RATED L90/60,000HRS.	SEE NOTE 1	RECESSED IN T-BAR CEILING	29W 3303 LUMENS 4000K 90 CRI	1,3
CF1	EKO LAMP #3.5WP/LA/B/827/U/GX23/H	PLUG-IN COMPACT FLUORESCENT STYLE LED REPLACEMENT LAMP. TYPE A/B BYPASS EXISTING BALLAST. SUITABLE FOR DAMP ENVIRONMENTS AND SEMI-ENCLOSED LUMINAIRES. MINIMUM 80CRI, RATED L70/50,000 HRS.	120	PLUG INTO EXISTING CELL NIGHT LIGHT 2-PIN GX23/G240 BASE	3.5W 350 LUMENS L70/50,000 HRS	1,2
CF2	EKO LAMP #9.5WP/LA/A/840/UD/G240/G	PLUG-IN COMPACT FLUORESCENT STYLE LED REPLACEMENT LAMP FOR USE WITH NEW ELECTRONIC BALLAST. SUITABLE FOR DAMP ENVIRONMENTS AND SEMI-ENCLOSED LUMINAIRES. 360 OMNI-DIRECTIONAL DESIGN. MINIMUM 80CRI, RATED L70/50,000 HRS.	120	PLUG INTO EXISTING 4-PIN GX24Q BASE	9.5W 1250 LUMENS 4000K L70/50,000 HRS	1,2
MR16	PHILIPS #78MR16/PER/940/F35/DIM/EC/12V/10/FIB	PLUG-IN MR16 STYLE LOW VOLTAGE LED REFLECTOR REPLACEMENT LAMP COMPLETE WITH RETROFIT PIN BASE AND DRIVER FOR EXISTING LOW VOLTAGE TRANSFORMER FOR A COMPLETE WORKING SYSTEM. LUMINOUS FLUX DESIGN COMPARABLE TO 50W HALOGEN LAMP. NO UV, MERCURY FREE AND NEARLY RADIATION IN THE 35 DEGREE LIGHT BEAM. MINIMUM 80CRI, RATED L70/25,000 HRS.	120	PLUG INTO EXISTING GU5.3 BASE	7.8W 540 LUMENS 4000K L70/25,000 HRS	1,2
(4)JPL1	PHILIPS #16.5W/L-COR/22-840/F23/P/4P/DM10/1 ADVANCE BALLAST (2)#CNZTTP405G35M	4x2' LINEAR PLUG-IN COMPACT FLUORESCENT STYLE DIMMABLE LED REPLACEMENT LAMPS FOR USE WITH NEW ELECTRONIC BALLAST. SUITABLE FOR DAMP ENVIRONMENTS AND SEMI-ENCLOSED LUMINAIRES. 160 DEGREE DIRECTIONAL DESIGN. MINIMUM 80CRI, RATED L70/50,000 HRS.	120	PLUG INTO EXISTING 4-PIN 2011 BASE	16.5W 2300 LUMENS 4000K L70/50,000 HRS	1,2,4

- NOTES:
- VERIFY EXISTING VOLTAGE PRIOR TO SHOP DRAWING SUBMITTAL.
 - CONTRACTOR TO ENSURE RETROFIT LAMP IS COMPATIBLE WITH THE LUMINAIRE.
 - SUPPLY TWO SPARE DRIVERS FOR ATTIC STOCK.
 - NUMBER IN PARENTHESES DENOTES QUANTITY OF LAMPS.
 - CONTRACTOR TO PROVIDE DLC PRODUCT I.D. # ON SHOP DRAWINGS.

1. GENERAL REQUIREMENTS

- THESE ELECTRICAL SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH GENERAL REQUIREMENTS, ELECTRICAL DRAWINGS AND OTHER CONTRACT DOCUMENTS.
- SCOPE OF WORK
 - THE CONTRACTOR SHALL PROVIDE ALL LABOUR, MATERIALS, EQUIPMENT AND SERVICES NECESSARY FOR THE INSTALLATION OF COMPLETELY FINISHED, TESTED, BALANCED AND PROPERLY OPERATING ELECTRICAL SYSTEMS AS SPECIFIED HEREIN AND AS INDICATED ON DRAWINGS. THE INTENT IS TO PROVIDE FOR FINISHED WORK COMPLETE IN ALL ESSENTIALS AS CALLED FOR BY THE CONTRACT DOCUMENTS, IN A MANNER CONSISTENT WITH GOOD WORKMANSHIP.
- CODES AND STANDARDS
 - ALL WORK SHALL BE DONE IN ACCORDANCE WITH CSA C22.1-21, CANADIAN ELECTRICAL CODE, PART 1 (2021 EDITION) AND THE NATIONAL BUILDING CODE OF CANADA 2015.
- PERMIT AND BY-LAWS
 - OBTAIN PERMITS AND CERTIFICATIONS PRIOR TO START OF WORK. SUBMIT DRAWINGS TO INSPECTION AUTHORITY. COORDINATE SERVICES WITH SAINT JOHN ENERGY. PAY ALL ASSOCIATED FEES.
 - ALL WORK PERFORMED BY THIS CONTRACTOR SHALL BE DONE IN ACCORDANCE WITH ALL APPLICABLE CODES, LOCAL BY-LAWS, STANDARDS AND THEIR AMENDMENTS.
- SITE VISIT
 - PRIOR TO TENDER CLOSE, THIS CONTRACTOR SHALL VISIT SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING SUB-CONTRACTORS. NO ALLOWANCE SHALL BE MADE FOR PROBLEMS THAT MAY ARISE DUE TO LACK OF KNOWLEDGE OF EXISTING CONDITIONS THAT COULD REASONABLY HAVE BEEN ASCERTAINED BY A CAREFUL INSPECTION.
- COORDINATION OF WORK
 - THIS CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE GENERAL CONTRACTOR AND WITH ALL OTHER SUB-CONTRACTORS. SCHEDULE AND PERFORM ALL WORK IN EXISTING PREMISES WITH OWNER SO AS NOT TO INTERFERE WITH NORMAL OPERATIONS OF BUILDING OCCUPANTS. ANY DEFECTIVE WORK SHALL BE SCHEDULED OUTSIDE OPERATING HOURS AND AS APPROVED BY OWNER.
 - COORDINATE WITH OTHER TRADES, OWNER AND OWNER'S FORCES IN CARRYING OUT WORK. REPORT ANY DEFICIENCIES OR DEFECTS IN WORK PERFORMED BY OTHERS THAT AFFECT THIS CONTRACTOR'S WORK TO ENGINEER IMMEDIATELY.
 - WHERE WORK IS CARRIED OUT IN EXISTING PREMISES, NOTIFY OWNER AT LEAST 72 HOURS IN ADVANCE OF ANY NECESSARY INTERRUPTIONS IN SERVICES OR ACCESS.
- GUARANTEE
 - THIS CONTRACTOR SHALL PROVIDE, IN WRITING, A GUARANTEE COVERING ALL LABOR AND MATERIAL FOR A PERIOD OF ONE YEAR FROM DATE OF SUBSTANTIAL COMPLETION. REPAIR AND MAKE GOOD ALL DEFECTS DURING THE GUARANTEE PERIOD, INCLUDING ANY DAMAGE TO BUILDING INCURRED AS A RESULT OF FAILURE OF ELECTRICAL WORK AND/OR EQUIPMENT INSTALLED.
- DRAWINGS
 - ELECTRICAL DRAWINGS ARE DIAGRAMMATIC ONLY. MAINTAIN ONE SET OF PLANS ON WHICH SHALL BE CLEARLY NOTED ALL CHANGES OR DEVIATIONS FROM THE CONTRACT, AND SUBMIT THEM AT THE END OF THE PROJECT MARKED "AS-BUILT" SIGNED AND DATED BY THE CONTRACTOR. THESE DRAWINGS SHALL BE KEPT ON SITE DURING CONSTRUCTION, UPDATED, AND MADE AVAILABLE FOR REVIEW BY ENGINEER, IF REQUESTED.
- EXTRA WORK
 - NO ALLOWANCE SHALL BE MADE BEYOND CONTRACT PRICE UNLESS CONTRACTOR RECEIVES SIGNED APPROVAL IN ACCORDANCE WITH GENERAL CONDITIONS.
- CUTTING, PATCHING AND FIRESTOPPING
 - ALL CUTTING, PATCHING AND FIRESTOPPING SHALL BE THE RESPONSIBILITY OF THE ELECTRICAL CONTRACTOR. THIS CONTRACTOR SHALL LOCATE THE EXACT DIMENSIONS AND POSITIONS OF OPENINGS AND HOLES WHERE CUTTING IS REQUIRED.
- SHOP DRAWINGS
 - THIS CONTRACTOR SHALL SUBMIT SHOP DRAWINGS IN ACCORDANCE WITH THE GENERAL REQUIREMENTS. WORK SHALL NOT PROCEED AND EQUIPMENT/MATERIAL SHALL NOT BE ORDERED UNTIL THE SHOP DRAWINGS HAVE BEEN RETURNED STAMPED AND SIGNED. THIS REVIEW DOES NOT RELIEVE THE CONTRACTOR OF THE OBLIGATION OF CHECKING THE DRAWINGS THEMSELVES OR FURNISHING THE MATERIALS SPECIFIED.
 - WHEN SUBMITTED, SHOP DRAWING MUST BEAR CONTRACTOR'S STAMP REPRESENTING THAT THEY HAVE DETERMINED AND VERIFIED ALL VOLTAGES, FIELD MEASUREMENTS, FIELD CONSTRUCTION CRITERIA, MATERIALS, CATALOGUE NUMBERS AND SIMILAR DATA AND THAT THEY HAVE CHECKED AND COORDINATED EACH SHOP DRAWING WITH REQUIREMENTS OF WORK AS INDICATED ON DRAWINGS AND SPECIFICATIONS.
 - SHOP DRAWINGS REQUIRED FOR: LUMINAIRES, LAMPS, BALLASTS, CONTROLS AND WIRING DEVICES. INFORMATION REQUIRED: MANUFACTURER, MODEL, DIMENSIONS, CONSTRUCTION DETAILS, ACCESSORIES, INSTALLATION DETAILS, CAPACITIES, PERFORMANCE DATA, FINISHES, INCLUDING WIRING SINGLE LINE AND SCHEMATIC DIAGRAMS WHERE APPLICABLE.
 - ALL MATERIAL SUPPLIED SHALL BE NEW AND CARRY C.S.A. CERTIFICATION OR OTHER CERTIFICATIONS APPROVED BY LOCAL INSPECTION AUTHORITY.
- CLEANING UP
 - THIS CONTRACTOR SHALL, AT ALL TIMES, KEEP THE SITE NEAT, CLEAN AND FREE FROM ACCUMULATION OF WASTE MATERIALS.
- OPERATION AND MAINTENANCE INSTRUCTIONS
 - THIS CONTRACTOR SHALL INSTRUCT THE OWNER IN OPERATION AND MAINTENANCE OF ALL EQUIPMENT AND SYSTEMS INSTALLED SUCH AS DIMMING SYSTEM AND LIGHTING CONTROL SYSTEM. ALL CONTROL FEATURES SHALL BE THOROUGHLY EXPLAINED. THREE COPIES OF APPROVED OPERATION AND MAINTENANCE INSTRUCTIONS, TOGETHER WITH ALL APPROVED SHOP DRAWINGS AND SPARE PARTS LIST FASTENED IN A BINDER, AND ONE ELECTRONIC COPY, SHALL BE SUBMITTED TO THE OWNER. MANUALS COMPLETE WITH:
 - DETAILS OF DESIGN ELEMENTS, CONSTRUCTION FEATURES, COMPONENT FUNCTION AND MAINTENANCE REQUIREMENTS, TO PERMIT EFFECTIVE START-UP, OPERATION, MAINTENANCE, REPAIR, MODIFICATION, EXTENSION AND EXPANSION OF ANY PORTION OR FEATURE OF INSTALLATION.
 - TECHNICAL DATA, PRODUCT DATA, SUPPLEMENTED BY BULLETINS, DESCRIPTIONS OF ITEMS, AND PARTS LISTS. ADVERTISING OR SALES LITERATURE IS NOT ACCEPTABLE.
 - WRITING AND SCHEMATIC DIAGRAMS AND PERFORMANCE CURVES.
 - NAME AND ADDRESS OF LOCAL SUPPLIERS.
 - COPY OF REVIEWED SHOP DRAWINGS.
 - COPY OF ALL TEST CERTIFICATES.
 - WARRANTY CERTIFICATE.
 - PROVIDE ONE HARD COPY OF THE OPERATION AND MAINTENANCE MANUAL TO THE ENGINEER FOR REVIEW PRIOR TO SUBMISSION TO OWNER.
- DISPOSALS
 - ADVISE OWNER OF AVAILABILITY OF SURPLUS MATERIAL. TURN OVER ITEMS REQUESTED BY OWNER AND DISPOSE OF REMAINDER IN ACCORDANCE WITH ALL BY LAWS AND LOCAL AUTHORITIES HAVING JURISDICTION.
- DEMOLITION
 - DISCONNECT AND REMOVE ALL DEVICES, COMPONENTS, EQUIPMENT AND EXPOSED RACEWAYS, WIRES AND CABLES, BACK TO SOURCE OF SUPPLY, MARK REDUNDANT BY THIS WORK INCLUDING THOSE WITHIN WALLS AND SUSPENDED CEILINGS. MAKE SAFE ANY REMAINING LIVE CONNECTIONS. LEAVE POLYPROPYLENE PULL COILS IN EACH EMPTY CONDUIT. TAG EACH EMT CONDUIT AT EACH END WITH LOCATION OF OTHER END.
 - ELECTRICAL CONTRACTOR SHALL ENSURE ELECTRICAL CONTINUITY TO EXISTING DEVICES REMAINING.
 - RELOCATE EXISTING WIRING, RACEWAYS, FIXTURES AND DEVICES AS REQUIRED TO MAINTAIN REASONABLE ACCESSIBILITY AND FACILITATE INSTALLATION OF TOTAL PROJECT WORK.
 - REVIEW LOADING ON EACH AFFECTED CIRCUIT PRIOR TO START OF CONSTRUCTION AND ADJUST AS REQUIRED.
 - WHERE NEW DRYWALL COVERS EXISTING JUNCTION OR PULL BOXES, INSTALL ACCESS HATCHES.
 - REMOVE CONTAMINATED OR DANGEROUS MATERIALS AS DEFINED BY AUTHORITIES HAVING JURISDICTION RELATING TO ENVIRONMENTAL PROTECTION FROM SITE AND DISPOSE OF IN A SAFE MANNER TO MINIMIZE DANGER AT SITE OR DURING DISPOSAL.

2. BASIC MATERIAL AND METHODS

- EQUIPMENT AND PROPERTY
 - ANY ALTERNATE PRODUCT PROPOSED SHALL MEET SAME STANDARDS AS PRODUCT SPECIFIED BUT SHALL BE CONSIDERED ACCEPTABLE ONLY IF APPROVED PRIOR TO INSTALLATION BY ENGINEER. SUCH APPROVAL WILL NOT BE UNREASONABLY WITHHELD.
 - SPECIFIED PRODUCTS PROVIDED BY THIS CONTRACTOR SHALL BE NEW AND CAPABLE OF PROPER OPERATION. UNSPECIFIED PRODUCTS PROVIDED SHALL BE OF QUALITY BEST SUITED TO THEIR PURPOSE. CSA OR LOCAL INSPECTION AUTHORITY APPROVED EQUIPMENT OF PROPER OPERATION.
 - REUSE EXISTING PRODUCTS WHICH MEET SPECIFICATIONS WHEREVER PRACTICABLE.
 - CLEAN VISIBLE PORTIONS OF ALL DEVICES AND COVER PLATES AS RECOMMENDED BY MANUFACTURER TO RESTORE FACTORY FINISH.
 - PROTECT WORK AND OWNER'S PROPERTY FROM DAMAGE THAT MAY ARISE AS A RESULT OF THIS CONTRACTOR'S PERFORMANCE OF WORK. PROMPTLY MAKE GOOD ANY DAMAGES TO WORK AND OWNER'S PROPERTY ARISING FROM THIS CONTRACTOR'S PERFORMANCE OF WORK.

- ARRANGE DELIVERIES AND STORAGE WITH OWNER AND AUTHORITIES HAVING JURISDICTION AS APPROPRIATE. PROTECT NEW AND REUSED MATERIALS FROM ABUSE, DAMAGE AND ENVIRONMENTAL CONDITIONS WHICH THEY ARE NOT INTENDED TO WITHSTAND, NOTWITHSTANDING FOREGOING, FOLLOW MANUFACTURER'S RECOMMENDATIONS.
- WIRING METHODS
 - FOR POWER WIRING, MAINTAIN PHASE SEQUENCE AND COLOR CODING THROUGHOUT. COLOR CODING TO CSA C22.1.
 - LOCATE, DIMENSION AND MAKE ELECTRICAL SERVICES OPENINGS.
 - DRILL AND PROVIDE ANCHORS AS REQUIRED FOR EXPANSION BOLTS, HANGER RODS, BRACKETS AND SUPPORTS.
- TESTING
 - MEGGER CIRCUITS UP TO 350V WITH A 50V INSTRUMENT.
 - MEGGER CIRCUITS BETWEEN 350V TO 600V WITH A 1000V INSTRUMENT.
 - CANADIAN RESISTANCE TO GROUND BEFORE ENERGIZING ANY PART OF THE WORK.
 - TEST ALL LUMINAIRES, CONTROLS, CIRCUIT BREAKERS, AND EMERGENCY LIGHTING UNIT EQUIPMENT FOR CORRECT OPERATION AND ABSENCE OF SHORTS OR GROUNDS.
 - PUT EQUIPMENT AND SYSTEMS IN SERVICE AS MAY BE REQUESTED BY ENGINEER FOR TRIAL USE. PROVIDED NO HAZARDOUS DAMAGE WILL RESULT NOR GUARANTEES VOIDED.
 - MEASURE PHASE VOLTAGES AT LOADS AND ADJUST TRANSFORMER TAPS TO ACHIEVE A LOAD VOLTAGE OF 115-120V.
- CONDUIT AND FITTINGS
 - WHERE NEW FEEDERS ARE REQUIRED, EMT CONDUIT WITH STEEL SET-SCREW CONNECTORS AND COUPLINGS SHALL BE USED THROUGHOUT UNLESS NOTED OTHERWISE.
 - ALL EMPTY CONDUITS SHALL BE COMPLETE WITH PULL CORD.
 - SUPPORT ALL BOXES INDEPENDENTLY OF CONNECTING CONDUITS.
 - DO NOT USE SUPPORTS OR EQUIPMENT INSTALLED FOR OTHER TRADES FOR CONDUIT (OR CABLE) SUPPORT, EXCEPT WITH PERMISSION OF OTHER TRADES AND APPROVAL OF ENGINEER.
 - DO NOT USE WIRE LASHING OR PERFORATED STRAPPING TO SUPPORT OR SECURE RACEWAYS (OR CABLES).
 - PROVIDE ADEQUATE SUPPORT FOR RACEWAYS (AND CABLES) DROPPED VERTICALLY TO ENTRANCE WHERE THERE IS NO WALL SUPPORT.
 - FASTEN EXPOSED CONDUIT (OR CABLES) TO BUILDING CONSTRUCTION OR SUPPORT SYSTEM USING ONE OR TWO HOLE STEEL STRAPS.
 - INSTALL CONNECTORS ON SURFACE CONDUITS, SO THAT SCREW HEADS DO NOT POSE A DANGER TO OCCUPANTS.
- WIRE AND CABLE
 - ALL WIRING SHALL BE RUN IN CONDUIT CONCEALED IN FINISHED AREAS AND SHALL BE RUN PARALLEL TO BUILDING LINES. NO HORIZONTAL CONDUITS SHALL BE RUN IN WALLS.
 - ALL EXPOSED WIRING SHALL BE RUN PARALLEL TO BUILDING LINES (SERVICE AREAS OR).
 - ALL EXPOSED WIRING ON FINISHED DRYWALL SHALL BE RUN IN NON-METALLIC RACEWAY (WREMHOLD OR APPROVED EQUAL).
 - WIRING:
 - ARMoured CABLE (BX) SHALL NOT BE USED.
 - USE FLEXIBLE CONDUIT C/W ANTI-SHORT BUSHINGS FOR LUMINAIRE DROPS IN T-BAR CEILINGS, MECHANICAL EQUIPMENT AND IN WALLS WHERE CONDUIT IS NOT FEASIBLE.
 - RW90 IN EMT CONDUIT, C/W STEEL SET-SCREW CONNECTORS AND COUPLINGS.
 - CONDUCTORS: #12 RW90, 600V, CU, MINIMUM, IN EMT CONDUIT.
 - ASSURE THAT ALL CONDUCTORS ARE SIZED FOR MAXIMUM VOLTAGE DROP:
 - BRANCH CIRCUITS - MAX. 2%
 - PANEL FEEDERS - MAX. 2%
 - DISTRIBUTION - MAX. 1%
 - ALL SOLID COPPER WIRING WITH THERMOPLASTIC INSULATION (TYPE RW90, 600V) BRANCH CIRCUITS SHALL BE MINIMUM #12 AWG (MAXIMUM 70' [21.4m]); #10 AWG (MAXIMUM 120' [36.6m]); FOR RUNS EXCEEDING 120' [36.6m] VOLTAGE DROP SHALL BE CALCULATED AT THE MAXIMUM OF 2% #12 AWG AND LARGER CONDUCTORS SHALL BE STRANDED COPPER. USE CONNECTORS, CLAMPS AND SUPPORTS TO SUIT.
- OUTLET, PULL & JUNCTION BOXES
 - PROVIDE ELECTRO-GALVANIZED STEEL SINGLE OR MULTIPLE GANG BOXES FOR FLUSH INSTALLATION FOR ALL DEVICES AS INDICATED. BOXES SHALL BE CODE GAUGE AND SIZED TO MEET THE CANADIAN ELECTRICAL CODE REQUIREMENTS. EQUIP ALL BOXES WITH EXTENSION AND TIE RINGS AS REQUIRED.
 - PROVIDE 4(100mm) SQUARE OR OCTAGONAL OUTLET BOXES FOR FLUSH LIGHTING FIXTURES.
 - PROVIDE WELDED STEEL JUNCTION/PULL BOXES WITH HINGED COVERS FOR SURFACE MOUNTING AS REQUIRED TO FACILITATE CONDUCTOR INSTALLATION. (OR CABLE) BOXES WILL BE LOCATED SO AS NOT TO EXCEED 100' (30.5m) OF CONDUIT RUN AND 2-90 DEGREE BENDS BETWEEN PULL BOXES. PROVIDE ADDITIONAL JUNCTION/PULL BOXES AS REQUIRED TO ENSURE ALL JUNCTION/PULL BOXES ARE ACCESSIBLE WHEN ALL WORK IS COMPLETE.
 - SUPPORT ALL BOXES INDEPENDENTLY OF CONNECTING CONDUITS.
- WIRING DEVICES
 - EQUIPMENT MOUNTING HEIGHT IS FROM FINISHED FLOOR TO EQUIPMENT CENTERLINE UNLESS SPECIFIED OR INDICATED OTHERWISE.
 - IF EQUIPMENT MOUNTING HEIGHT IS NOT INDICATED, VERIFY WITH ENGINEER BEFORE PROCEEDING WITH INSTALLATION.
 - INSTALL ELECTRICAL EQUIPMENT AT FOLLOWING HEIGHTS UNLESS INDICATED OTHERWISE:
 - SINGLE SWITCHES: MATCH EXISTING
 - WALL MOUNTED EXT LIGHTS: 98" (2450mm), 12" (300mm) ABOVE DOOR FRAME, 9" (2700mm) GYM
 - WALL MOUNTED OCCUPANCY SENSORS: 98" (2450mm)
 - SWITCHES: TOGGLE TYPE 15A & 20A, 347V OR 240V AS INDICATED, SENSITIVE TO LIFE. 3-WAY SWITCHES: OPERATING SPECIFICATION GRADE AS INDICATED. COLOR AND TYPE TO MATCH EXISTING.
 - ACCEPTABLE SWITCH MANUFACTURERS: COOPER, BRYANT, HUBBELL, LEVITON, PASS AND SEYMOUR.
 - ACCEPTABLE SENSOR MANUFACTURERS: SENSORSWITCH, WATTSTOPPER, LEVITON, HUBBELL.
 - PROVIDE COVER PLATES FROM ONE MANUFACTURER FOR EACH TYPE OR ASSEMBLY OF OUTLETS THROUGHOUT PROJECT. OPENINGS TO SUIT TYPE AND GAGING OF DEVICES, COLOR AND STYLE TO MATCH EXISTING.
 - STEEL UTILITY BOX COVERS FOR WIRING DEVICES INSTALLED IN SURFACE-MOUNTED UTILITY BOXES ("F" TYPE).
 - THERMOPLASTIC COVER PLATES FOR WIRING DEVICES MOUNTED IN A FLUSH-MOUNTED OUTLET BOX, COLOR: TO MATCH DEVICE.
 - PROVIDE SURFACE MOUNTED NON-METALLIC RACEWAY FOR EXPOSED RUNS WHERE INDICATED WITH ALL NECESSARY FITTINGS. PAINT TO MATCH SUPPORTING SURFACES. ACCEPTABLE MANUFACTURERS: HUBBELL, WREMHOLD.
 - WIRING DEVICES IN LEGEND ARE INTENDED TO SET A STANDARD BELOW WHICH EQUIPMENT WILL NOT BE ACCEPTED.
 - MOUNTING HEIGHTS TO MATCH EXISTING AREAS.
 - LOCATE NEW LIGHT SWITCHES AS INDICATED. VERIFY EXACT LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.
- GROUNDING
 - THE ENTIRE ELECTRICAL SYSTEM, AS PERTAINS TO THIS INSTALLATION, SHALL BE GROUNDED IN ACCORDANCE WITH THE CANADIAN ELECTRICAL CODE SECTION 10 AND LOCAL AUTHORITY HAVING JURISDICTION OVER INSTALLATION.
 - MAKE GROUNDING CONNECTIONS IN RADIAL CONFIGURATION ONLY, WITH CONNECTIONS TERMINATING AT SINGLE GROUNDING POINT. AVOID LOOP CONNECTIONS.
 - ALL METAL PIPING SUCH AS, BUT NOT LIMITED TO, WATER, SEWAGE AND GAS, SHALL BE BONDED WITH MINIMUM #6 AWG TO THE MAIN SYSTEM GROUND.
- PANELBOARDS
 - UPDATE REWired PANEL DIRECTORIES AT END OF CONSTRUCTION WITH NEW TYPE WRITTEN DIRECTORIES.
 - ALL CIRCUITS WHICH BECOME REDUNDANT BY THIS WORK SHALL BE MARKED "SPARE".

9. LIGHTING (SEE LUMINAIRE SCHEDULE AND LEGEND)

- PROVIDE LUMINAIRES AS INDICATED ON THE LUMINAIRE SCHEDULE AND/OR AS SPECIFIED UNDER THIS SECTION. COMPLETE WITH ALL NECESSARY PLASTER FRAMES, HANGERS, DRIVERS, LED BOARDS, LUMEN OUTPUT, COLOUR TEMPERATURE, CRI, LAMPS, BALLASTS, LOUVERS, DIFFUSERS, CANOPIES, SUPPORTS, BRACKETS, AND REQUIRED HARDWARE FOR A COMPLETE AND FINISHED INSTALLATION. LUMINAIRES IN SCHEDULE AND LEGEND ARE INTENDED TO SET A STANDARD BELOW WHICH EQUIPMENT WILL NOT BE ACCEPTED.
 - CONTRACTOR SHALL INCLUDE IN HIS TENDER, THE LUMINAIRE(S) THAT ARE BEING SPECIFIED. IF AN ALTERNATE MANUFACTURER IS NAMED, IT IS MANDATORY THAT THE LUMINAIRE BE EQUIVALENT IN ALL RESPECTS, I.E. SAME LENS, EQUIVALENT FRAME, PERFORMANCE, PAINT FINISH, DRIVERS AND LED'S, CONSTRUCTION QUALITY, ETC. ALTERNATE MANUFACTURERS OR ALTERNATE LUMINAIRE TYPES MUST BE OFFERED AS AN ALTERNATIVE ONLY TO THE BASIC BID, WITH A SEPARATE PRICE STATED IN THE TENDER. LOW BIDDER WILL BE DETERMINED ON THE BASIS OF THE SPECIFIED ITEMS, NOT ON "ALTERNATE SAVINGS".
 - POSITION LIGHTS AS INDICATED. ADJUST LOCATIONS OF LUMINAIRES TO SUIT CEILING GRID AS INDICATED. ADVISE ENGINEER IF LOCATIONS SHOWN TO CHANGE MORE THAN 6"(150mm).
 - ALL LUMINAIRES WHICH ARE LOCATED IN SUSPENDED CEILINGS SHALL BE INDEPENDENTLY SUPPORTED BY APPROVED CHAINS, WHICH SHALL ALLOW THE LUMINAIRE(S) TO BE SUPPORTED INDEPENDENT OF THE CEILING SYSTEM. A 1"x4" (254mmx127mm) FLUORESCENT LUMINAIRE SHALL BE SUPPORTED WITH TWO (2) CHAINS AND A 2"x4" (51mmx127mm) LUMINAIRE SHALL BE SUPPORTED WITH FOUR (4) CHAINS TO THE ROOF STRUCTURE OR SLAB ABOVE. ANCHOR CHAINS TO JOIST AND BRIDGEWHERE POSSIBLE. WHEN CONNECTING TO STEEL DECK, ANCHOR TO SIDE FLUTES (CONFIRM CONNECTIONS TO DECK WITH STRUCTURAL ENGINEER PRIOR TO INSTALLATION) WITH BREAK-IT FASTENERS.
 - LUMINAIRES SHOWN ON DRAWINGS ARE A (1) FOR (1) REPLACEMENT, UNLESS NOTED OTHERWISE.
 - THIS CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL LIGHTING NOT BEING RE-USED UNDER NEW WORK WHETHER SHOWN ON DRAWING OR NOT.
 - ALIGN LUMINAIRES MOUNTED IN CONTINUOUS ROWS TO FORM STRAIGHT UNINTERRUPTED LINE.
 - ACCEPTABLE MANUFACTURERS: COOPER, PHILIPS, CREE, LITHONIA.
 - ATTIC STOCK
 - PROVIDE LISTED SPARE PARTS FOR EACH DIFFERENT RETROFIT OR LAMP TYPE:
 - BALLASTS (120V); 3 OR 5% WHICHEVER IS GREATER.
 - T8 LED LAMPS; 6 OR 5% WHICHEVER IS GREATER.
 - T5 LED LAMPS; 12 OR 5% WHICHEVER IS GREATER.
 - T4HO LED LAMPS; 12 OR 5% WHICHEVER IS GREATER.
 - H.I.D. STYLE LED REPLACEMENT LAMPS; 3 OR 5% WHICHEVER IS GREATER.
 - PLUG-IN CFL STYLE LED REPLACEMENT LAMPS; 3 OR 5% WHICHEVER IS GREATER.
 - PLUG-IN INCANDESCENT STYLE (MR16); 3 OR 5% WHICHEVER IS GREATER.
 - TWO (2) SPARE LED DRIVERS AS NOTED IN LUMINAIRE SCHEDULE.
- LIGHTING CONTROL DEVICES
 - IT SHALL BE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO LOCATE AND AIM SENSORS IN THE CORRECT LOCATION REQUIRED FOR COMPLETE AND PROPER VOLUMETRIC COVERAGE WITHIN THE RANGE OF COVERAGE (S) OF CONTROLLED AREAS PER THE MANUFACTURER'S RECOMMENDATIONS. ROOM SHALL HAVE NINETY (90) TO ONE HUNDRED (100) PERCENT COVERAGE TO COMPLETELY COVER THE CONTROLLED AREA TO ACCOMMODATE ALL OCCUPANCY HABITS OF SINGLE OR MULTIPLE OCCUPANTS AT ANY LOCATION WITHIN THE ROOM(S). THE LOCATIONS AND QUANTITIES OF SENSORS SHOWN ON THE DRAWINGS ARE DIAGRAMMATIC AND INDICATE ONLY THE ROOMS WHICH ARE TO BE PROVIDED WITH SENSORS. THE ELECTRICAL CONTRACTOR SHALL PROVIDE ADDITIONAL SENSORS IF REQUIRED TO PROPERLY AND COMPLETELY COVER THE RESPECTIVE ROOM.
 - IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO ARRANGE A PRE-INSTALLATION MEETING WITH THE MANUFACTURER'S FACTORY AUTHORIZED REPRESENTATIVE TO VISIT THE OWNER'S FACILITY, TO VERIFY PLACEMENT OF SENSORS AND INSTALLATION CRITERIA.
 - PROPER JUDGEMENT MUST BE EXERCISED IN EXECUTING THE INSTALLATION SO AS TO ENSURE THE BEST POSSIBLE INSTALLATION IN THE AVAILABLE SPACE AND TO OVERCOME LOCAL DIFFICULTIES DUE TO SPACE LIMITATIONS OR INTERFERENCE OF STRUCTURAL, OR FURNITURE COMPONENTS. THE ELECTRICAL CONTRACTOR SHALL ALSO PROVIDE, AT THE OWNER'S FACILITY, THE TRAINING NECESSARY TO FAMILIARIZE THE OWNER'S PERSONNEL WITH THE OPERATION, USE, ADJUSTMENT AND PROBLEM SOLVING DIAGNOSIS OF THE OCCUPANCY SENSING DEVICES AND SYSTEMS.
 - REFER TO SENIOR MANUFACTURER'S SPECIFICATION FOR PRODUCT SPECIFIC INFORMATION.
 - SENSORS INSTALLED IN FINISHED AREAS SHALL BE MOUNTED TO FINISHED CEILING. FEELER SENSOR THROUGH FINISHED CEILING TO AN OUTLET BOX SUPPORTED FROM STRUCTURAL SYSTEM.
 - SENSORS INSTALLED IN OPEN CEILING AREAS SUCH AS GYMNASIUMS AND UTILITY ROOMS SHALL BE MOUNTED TO A JUNCTION BOX MOUNTED TO A NEW STEEL STRUT WHICH SHALL BE SECURED TO THE UNDERSIDE OF STRUCTURAL MEMBER.
 - WIRE EXISTING SWITCHES IN SERIES WITH SENSORS. ALL EXISTING SWITCHES SHALL BE POWERED FROM THE SECONDARY SIDE OF THE POWER PACK. SWITCH MUST CONTROL THE LIGHTING LOAD, NOT THE POWER PACK.
 - ELECTRICAL CONTRACTOR SHALL UTILIZE THE LIGHT LEVEL FUNCTION ON THE SENSOR IN AREAS WHERE AMBIENT LIGHT IS PRESENT.
 - WALL MOUNTED SENSORS SHALL BE FASTENED TO WALL WITH MANUFACTURER'S RECOMMENDED BRACKET. MOUNT SENSOR 8" FROM CEILING UNLESS NOTED OTHERWISE ON DRAWINGS.
 - MOUNT SWITCH SENSOR IN SWITCH BOX. REMOVE EXISTING SWITCH AND REUSE EXISTING WIRING WHEREVER POSSIBLE. ENSURE SENSOR IS COMPATIBLE TO EXISTING VOLTAGE FOR A FULL AND COMPLETE WORKING SYSTEM.
 - EXTEND HOT WIRE AS REQUIRED FOR SENSOR'S POWER PACKS. WIRING TO MATCH EXISTING. EXTEND HOT WIRE TO SENSORS WITH BUILT-IN POWER PACKS.
 - PROVIDE POWER PACK QUANTITIES AS REQUIRED TO MEET MANUFACTURER'S RECOMMENDATIONS.
 - CEILING MOUNTED ULTRASONIC SENSORS SHALL NOT BE INSTALLED WITHIN 4' (1200mm) OF AN AIR SUPPLY DIFFUSER.
 - FACTORY REPRESENTATIVE FOR COMMISSIONING
 - UPON COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL BE COMPLETELY COMMISSIONED BY THE MANUFACTURER'S FACTORY AUTHORIZED TECHNICIAN WHO WILL VERIFY ALL ADJUSTMENTS AND SENSOR PLACEMENTS TO ENSURE A TROUBLE-FREE, OCCUPANCY-BASED LIGHTING CONTROL SYSTEM.
 - THE ELECTRICAL CONTRACTOR SHALL PROVIDE BOTH THE MANUFACTURER AND THE CONSULTANT WITH TEN WORKING DAYS WRITTEN NOTICE OF THE SCHEDULED COMMISSIONING DATE. UPON COMPLETION OF THE SYSTEM FINE TUNING THE FACTORY AUTHORIZED TECHNICIAN SHALL PROVIDE THE PROPER TRAINING TO THE OWNER'S PERSONNEL IN THE ADJUSTMENT AND MAINTENANCE OF THE SENSORS.
 - A SIGNED LETTER FROM THE FACTORY AUTHORIZED TECHNICIAN MUST BE PROVIDED STATING THE DATE OF TRAINING AND THE NAMES OF THE PERSONNEL WHO WERE PRESENT TO RECEIVE THE TRAINING. INSERT THE SIGNED LETTER IN THE OPERATIONS AND MAINTENANCE MANUALS.
- QUALITY ASSURANCE
 - ALL COMPONENTS SHALL BE CSA AND/OR ULC APPROVED/LISTED AND LABELED.
 - ALL COMPONENTS SHALL BE DLC AND/OR ENERGY STAR APPROVED/LISTED AND LABELED.
 - WARRANTIES:
 - LED LUMINAIRES, T5 AND T8 LED LAMPS AND ELECTRONIC BALLASTS SHALL BE PROVIDED WITH A MINIMUM FIVE (5) YEAR WARRANTY COVERING BUT NOT LIMITED TO: LED'S, DRIVERS, PARTS AND COMPONENTS.
- SAFETY
 - UNDER NO CIRCUMSTANCES SHALL WORK OCCUR ON ENERGIZED CIRCUITS.

CLIENT:

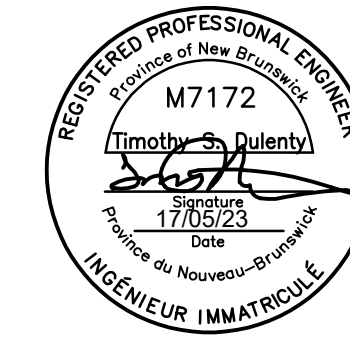


CONSULTANT:



KEYPLAN:

STAMP:



NO:

ISSUED FOR TENDER

APPENDIX B – FORM OF TENDER

**TENDER No. 2023-082303T
SAINT JOHN POLICE HEADQUARTERS LIGHTING RETROFIT**

FORM OF TENDER

2023-082303T

SAINT JOHN POLICE HEADQUARTERS LIGHTING RETROFIT

The undersigned bidder has carefully examined the specifications and scope of work, and also visited the premises to become familiar with the conditions, character and extent of work.

The undersigned bidder has determined the quality and quantity of labour, materials and equipment required, and has the capability to comply with the terms and conditions herein described.

The undersigned bidder further agrees to provide all necessary equipment, tools, labour and materials which are necessary to complete the work in accordance with the contract and agrees to accept, therefore, in payment in full, in accordance with the terms, conditions, specifications, and drawings, the sum of:

\$ _____
Total Cost (All Taxes Extra)

*Pricing is to be bid in Canadian Funds and FOB Saint John, NB prepaid. The tender pricing shall include all installation wages, fringe benefits, insurance, transportation, delivery, duty, working tools, equipment costs, and any other charges incurred in order to provide required materials and/or services.

COMPANY:	SIGNATURE: _____
E-MAIL:	NAME: _____ (print)
Date:	Tel # Fax #
H.S.T. Reg.#	Remarks:

APPENDIX C – FORM OF AGREEMENT

**TENDER No. 2023-082303T
SAINT JOHN POLICE HEADQUARTERS LIGHTING RETROFIT**

AGREEMENT BETWEEN OWNER AND CONTRACTOR

THIS AGREEMENT made in triplicate between **THE CITY OF SAINT JOHN** herein (and in the Specifications) called the "Owner" or the "City"

AND

_____ herein (and in the Specifications) called the "Contractor".

WITNESSETH: That the Owner and the Contractor agree as follows:

- (a) The Contractor shall provide all the materials and perform all the work shown on the drawings and described in the Contract Specifications titled:
Contract No: 2023-082303T
Title: Saint John Police Headquarters Lighting Retrofit
- (b) The Contractor shall do and fulfill everything indicated by this Agreement; and
- (c) The Contractor shall Substantially Complete the Work no later than NA .

CONTRACT DOCUMENTS

General Specifications

General Specifications, City of Saint John, New Brunswick, with all applicable divisions, as updated and as listed in the Table of Contents of the Contract Specifications.

Contract Specifications

Contract specifications for

Contract No: 2023-082303T

Title: Saint John Police Headquarters Lighting Retrofit

City of Saint John, New Brunswick,

Drawings

- E-1 Saint John Police Headquarters Ground Floor Part A Lighting
- E-2 Saint John Police Headquarters Ground Floor Part B Lighting
- E-3 Saint John Police Headquarters Partial Floor Plans Lighting
- E-4 Saint John Police Headquarters First Floor Lighting
- E-5 Saint John Police Headquarters Second Floor Lighting
- E-6 Saint John Police Headquarters Luminaire Schedule and Specifications

ADDENDA

The Contractor agrees that he has received addenda to inclusive, and that the tender price includes the provisions set out in the addenda.

CONTRACT PRICE

The Owner shall pay to the Contractor, in lawful money of Canada for the performance of the Contract, the amounts determined for each of the items of work completed at the unit prices as listed in the Schedule of Quantities and Unit Prices, plus applicable taxes, submitted with the tender, which is to be attached with this Agreement, for the total tender price of:

If the Engineer orders in writing the performance of any work not covered by the drawings or included in the specifications that cannot be classified as coming under any of the contract units and for which a unit price can be agreed upon, then such additional work shall be paid for as described under the General Administration of Contract, Division 6.

PAYMENT

The Owner shall pay on account of thereof upon the Engineer's Certificate, as invoiced by the Contractor and approved by the Engineer, in the manner described in the Specifications.

AGREEMENT DOCUMENTS

The General Administration of Contract, Division 6 and the aforesaid Specifications and Drawings are all to be read into and form part of this Agreement and the whole shall constitute the Contract between the parties and it shall inure to the benefit of and be binding upon them and their successors, executors, administrators, and subject to the General Administration of Contract, their assigns.

AFFIDAVIT OF CORPORATE EXECUTION

CANADA

PROVINCE OF NEW BRUNSWICK

CITY OF SAINT JOHN

I, _____, of the _____

in the County of _____, and Province of New Brunswick

MAKE OATH AND SAY:

(1) THAT I am the _____ of _____, and _____ is the _____ of the said Company, as such I am/we are duly authorized officer(s) of the said Company to execute the foregoing instrument.

(2) THAT the signature _____ subscribed to the within instrument is my signature and in my own proper handwriting and that the signature _____ so subscribed is his signature made thereto by him in my presence.

(3) THAT the Seal affixed to the said instrument purporting to be the Corporate Seal of the said _____ is the Corporate Seal of the said Company and was affixed to the said instrument by me and by order of the Board of Directors of the Company.

SWORN TO BEFORE ME at the _____)

)

of _____)

)

in the Province of _____)

)

this _____ day of _____ A.D., _____)

)

_____)

)

COMMISSIONER OF OATHS

CONTRACTOR

)

Note: The blank spaces are to be filled in with the name or names of the signing officer(s).