

TENDER

Tender # 2022-082302T EASTERN AND MILLIDGEVILLE WASTEWATER TREATMENT FACILITIES AND LANCASTER LAGOON – 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 # 2022-082302T EASTERN AND MILLIDGEVILLE WASTEWATER TREATMENT FACILITIES AND LANCASTER LAGOON – LIGHTING RETROFIT"

will be received until 2:30:00 pm, Tuesday, September 6th, 2022 for the supply of all materials, labor and equipment necessary to complete a lighting retrofit at the Eastern and Millidgeville Wastewater Treatment Facilities and Lancaster Lagoon 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 second-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: Monday, August 15th, 2022

TENDER

Tender # 2022-082302T

EASTERN AND MILLIDGEVILLE WASTEWATER TREATMENT FACILITIES AND LANCASTER LAGOON – 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 to complete a lighting retrofit at the Eastern and Millidgeville Wastewater Treatment Facilities and Lancaster Lagoon, as per the specifications, drawings, terms and conditions outlined in this document.

A pre-bid site visit will be held on Friday, August 19th, 2022, at 10:00:00AM. We will meet at the Front Entrance of the Eastern Wastewater Treatment Facility (see address below). We will proceed to the other facilities from there. All bidders are strongly urged to attend.

- Eastern Wastewater Treatment Facility 441 Red Head Rd
- Millidgeville Wastewater Treatment Facility 700 Woodward Ave
- Lancaster Wastewater Treatment Facility 1210 Sand Cove Rd

SPECIFICATIONS:

See Appendix A.

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:

"Tender # 2022-082302T EASTERN AND MILLIDGEVILLE WASTEWATER TREATMENT FACILITIES AND LANCASTER LAGOON – LIGHTING RETROFIT"

will be received until 2:30:00 pm, Tuesday, September 6th, 2022 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.

<u>Taxes</u>

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	Monday, August 1 ^{h,} 2022
Pre-Bid Site Visit	Friday, June 19 th , 2022 at 10:00AM ADT
Deadline for Enquiries	Thursday, August 25 th , 2022 at 4:00:00 pm, ADT
Deadline for Issuing Addenda	Tuesday, August 30 th , 2022 - 4:00:00 pm, ADT
Submission Deadline	Tuesday, September 6 th , 2022 - 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 (accountspayable@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;
- 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

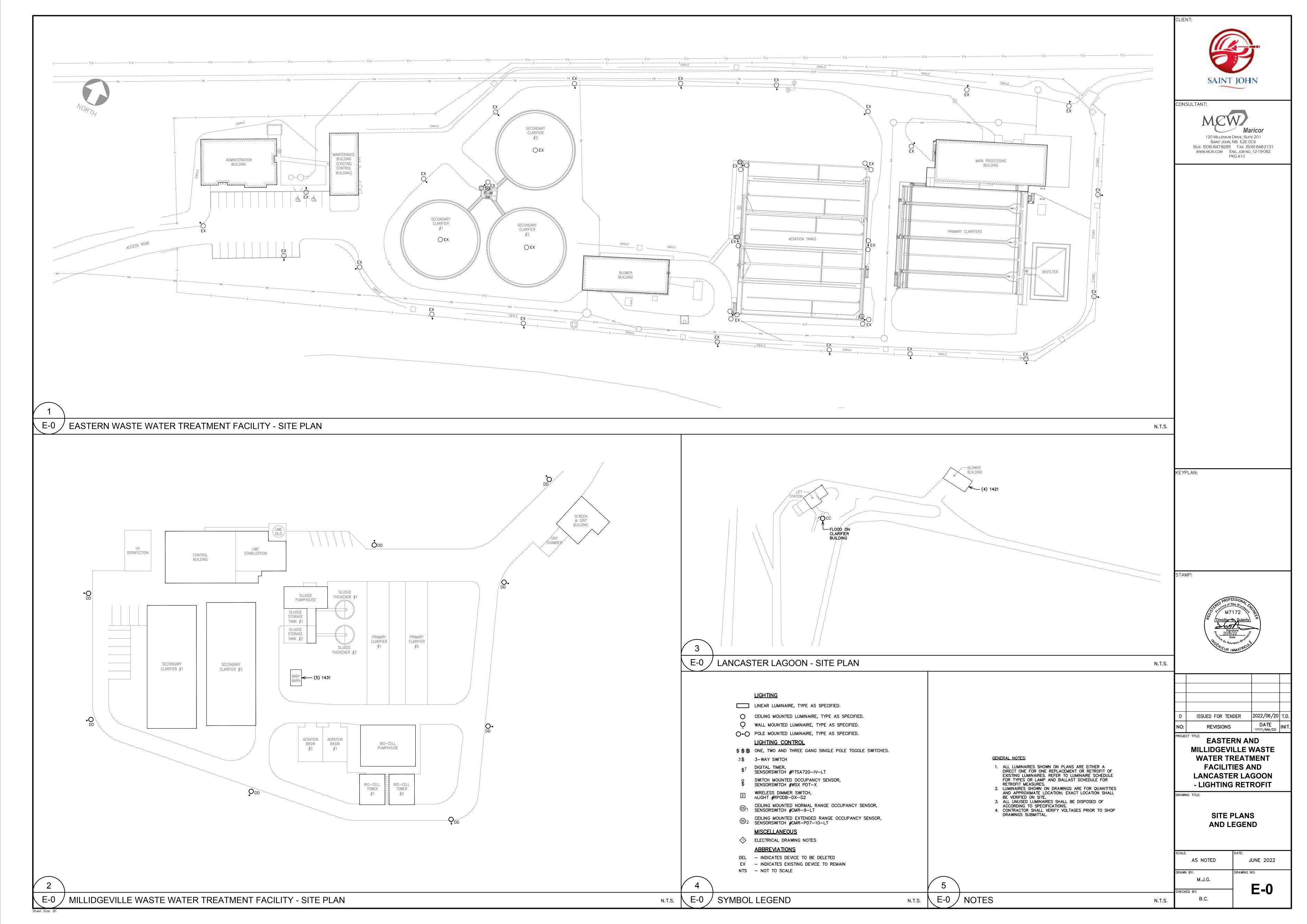
The bid submission constitutes an offer which shall remain open and irrevocable until 90 days after the submission deadline.

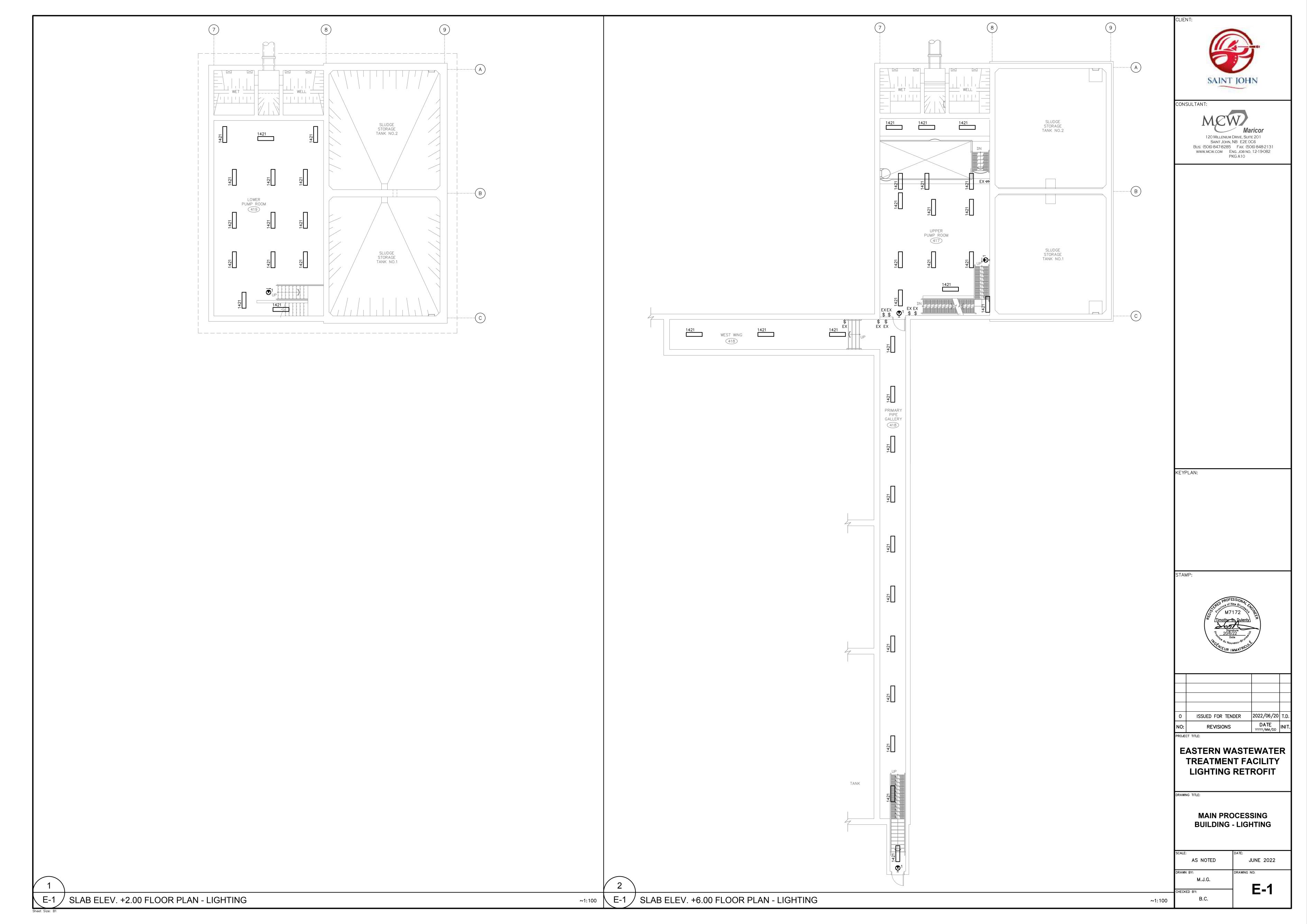
Minor Irregularities

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.

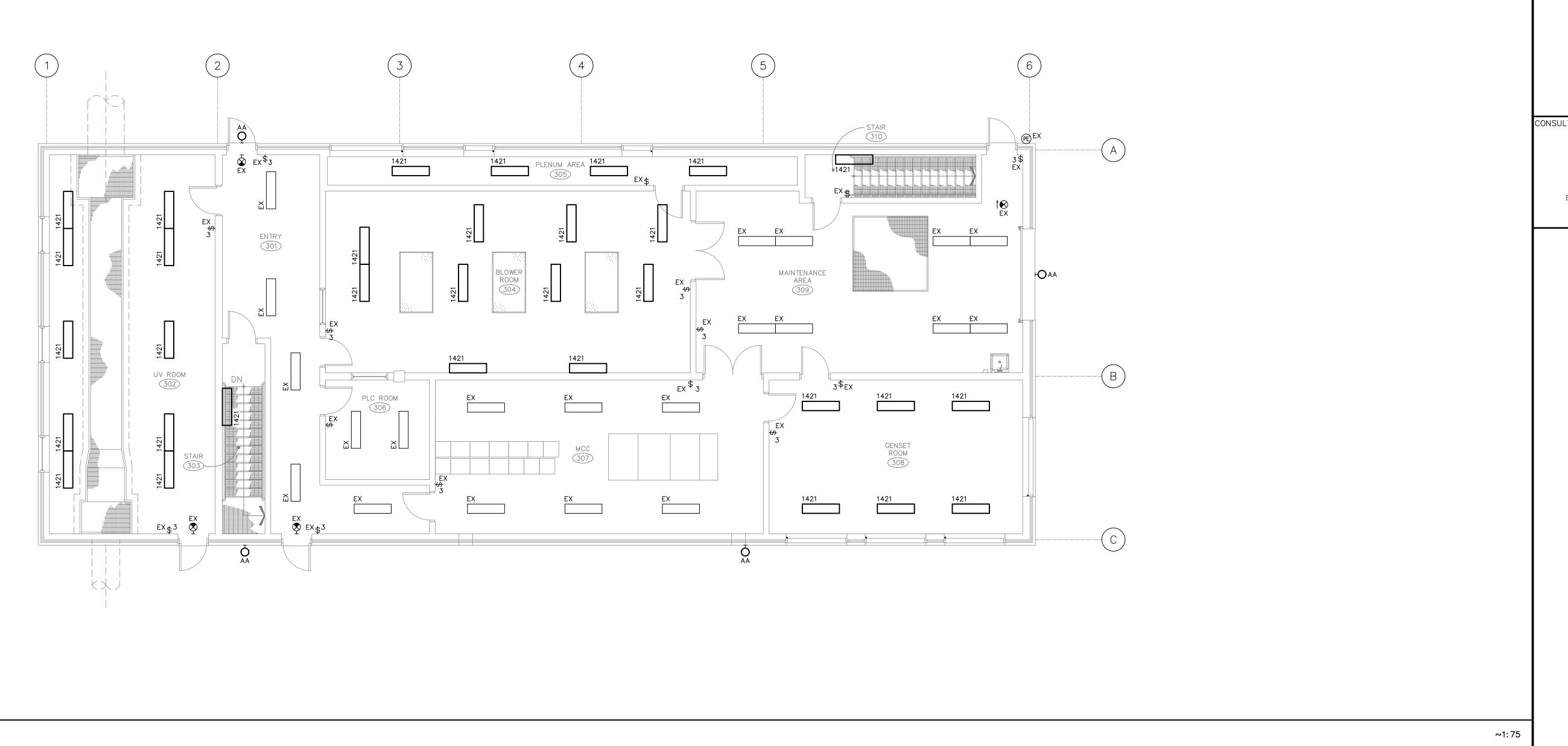
APPENDIX A – SPECIFICATIONS

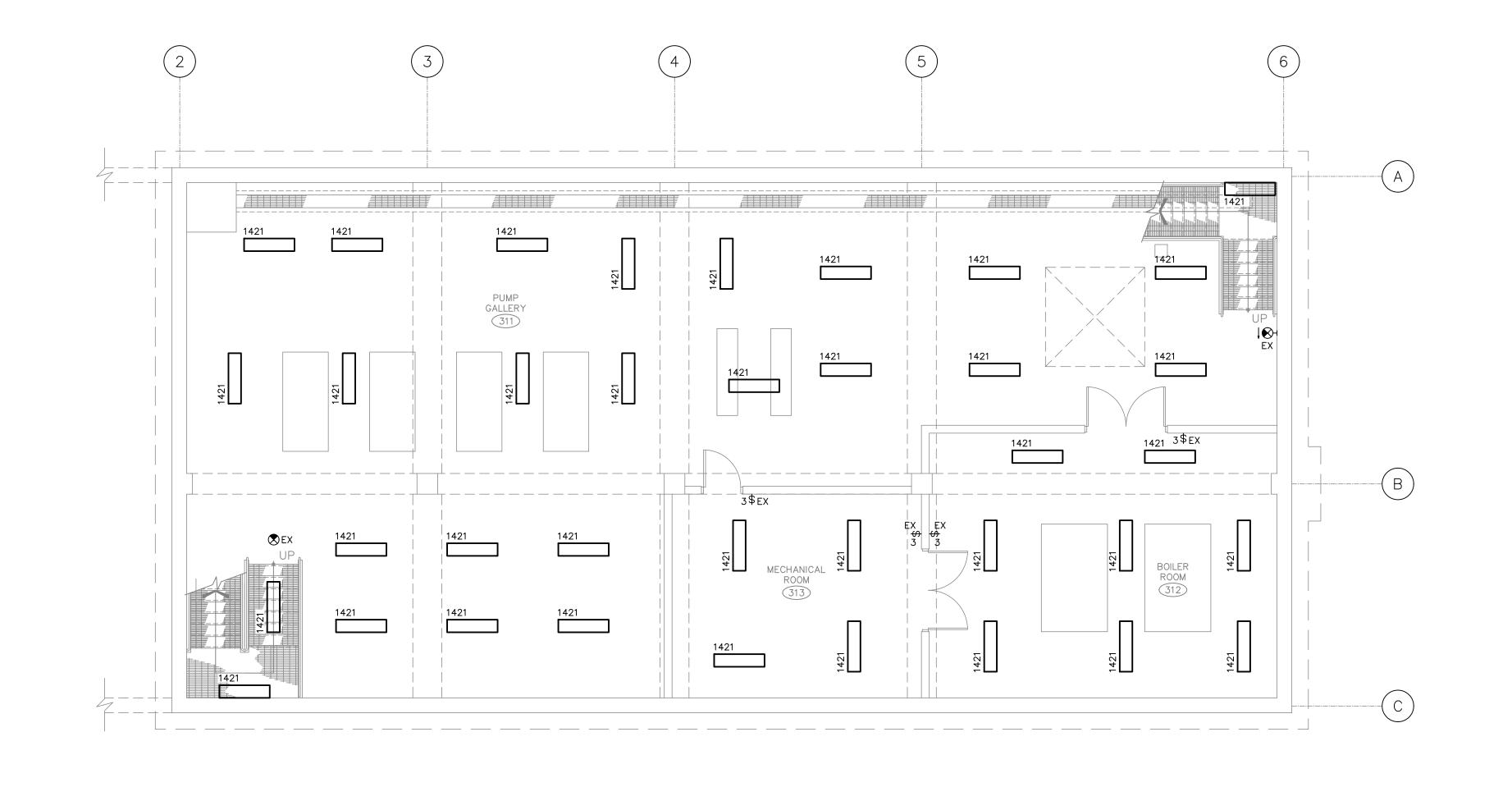
TENDER No. 2022-082302T
EASTERN AND MILLIDGEVILLE WASTEWATER TREATMENT FACILITIES AND LANCASTER LAGOON –
LIGHTING RETROFIT











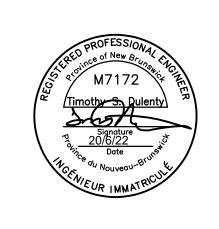


Maricor

120 MILLENIUM DRIVE, SUITE 201
SAINT JOHN, NB E2E 0C6
BUS: (506) 847-8285 FAX: (506) 848-2131
WWW.MCW.COM ENG. JOB NO. 12-19-082
PKG A10

YPLAN:

STAMP:



0	ISSUED FOR TENDER	2022/06/20	T.D.
NO:	REVISIONS	DATE YYYY/MM/DD	INIT
PROJECT	TITLE:		

EASTERN WASTEWATER
TREATMENT FACILITY
LIGHTING RETROFIT

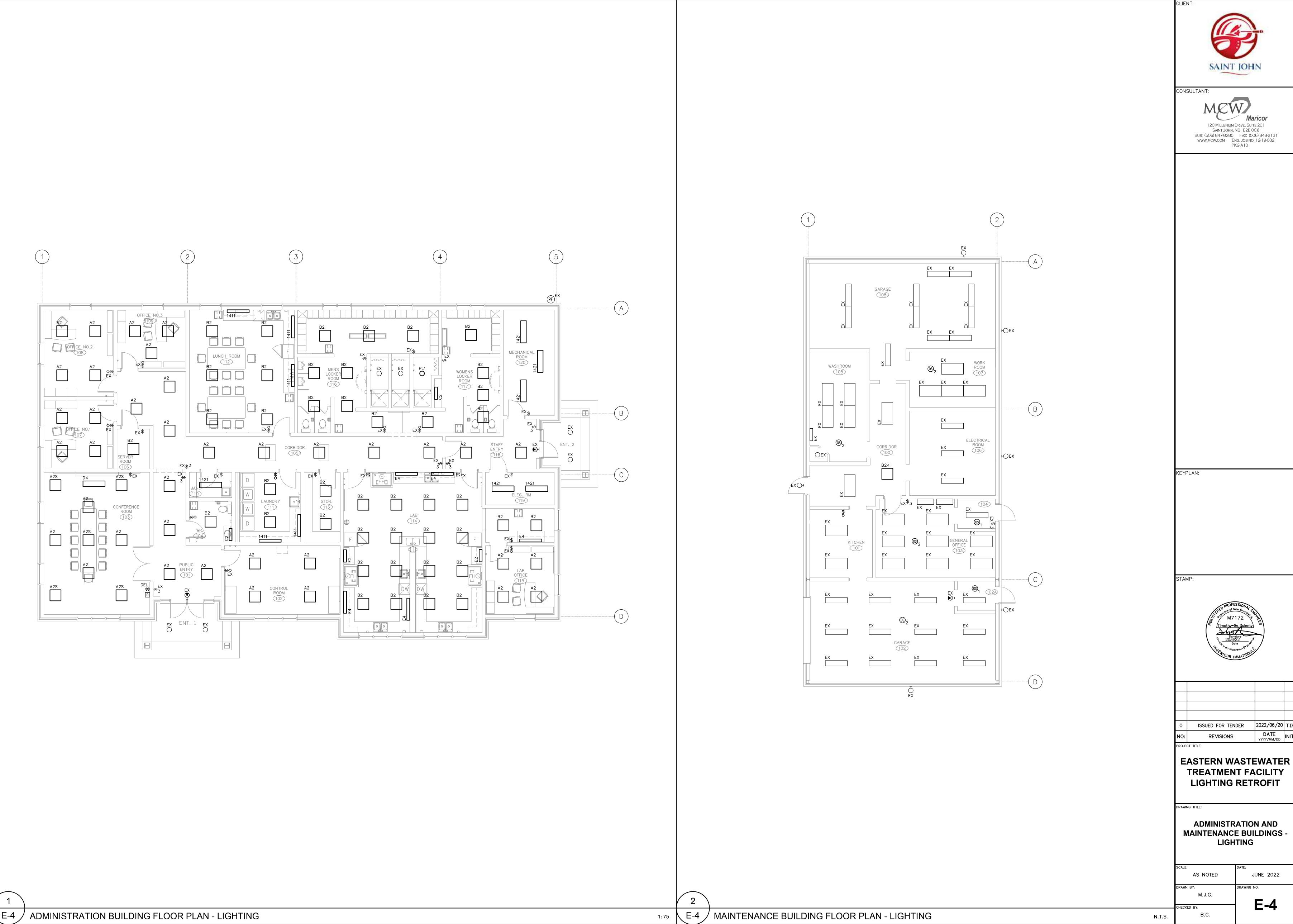
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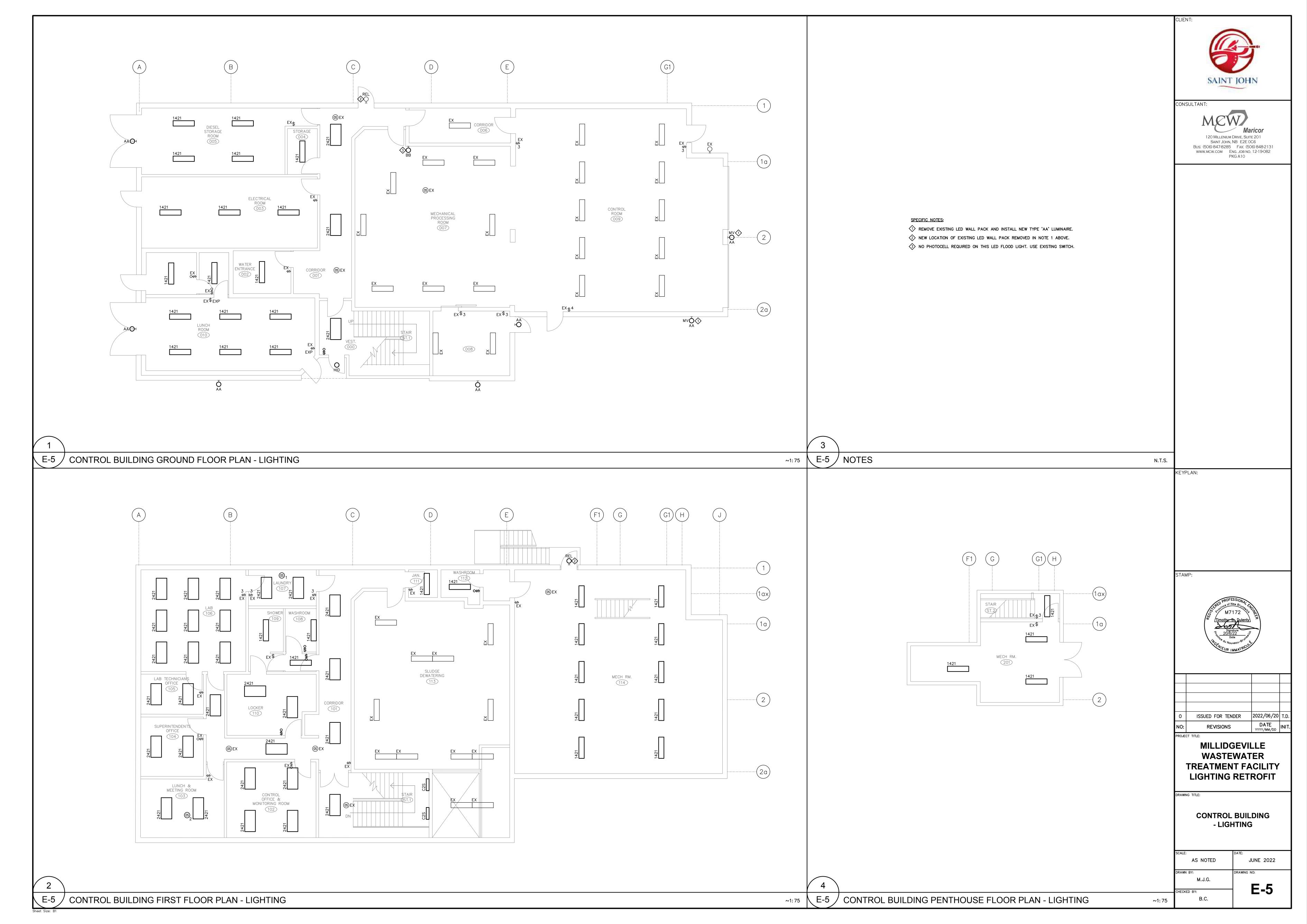
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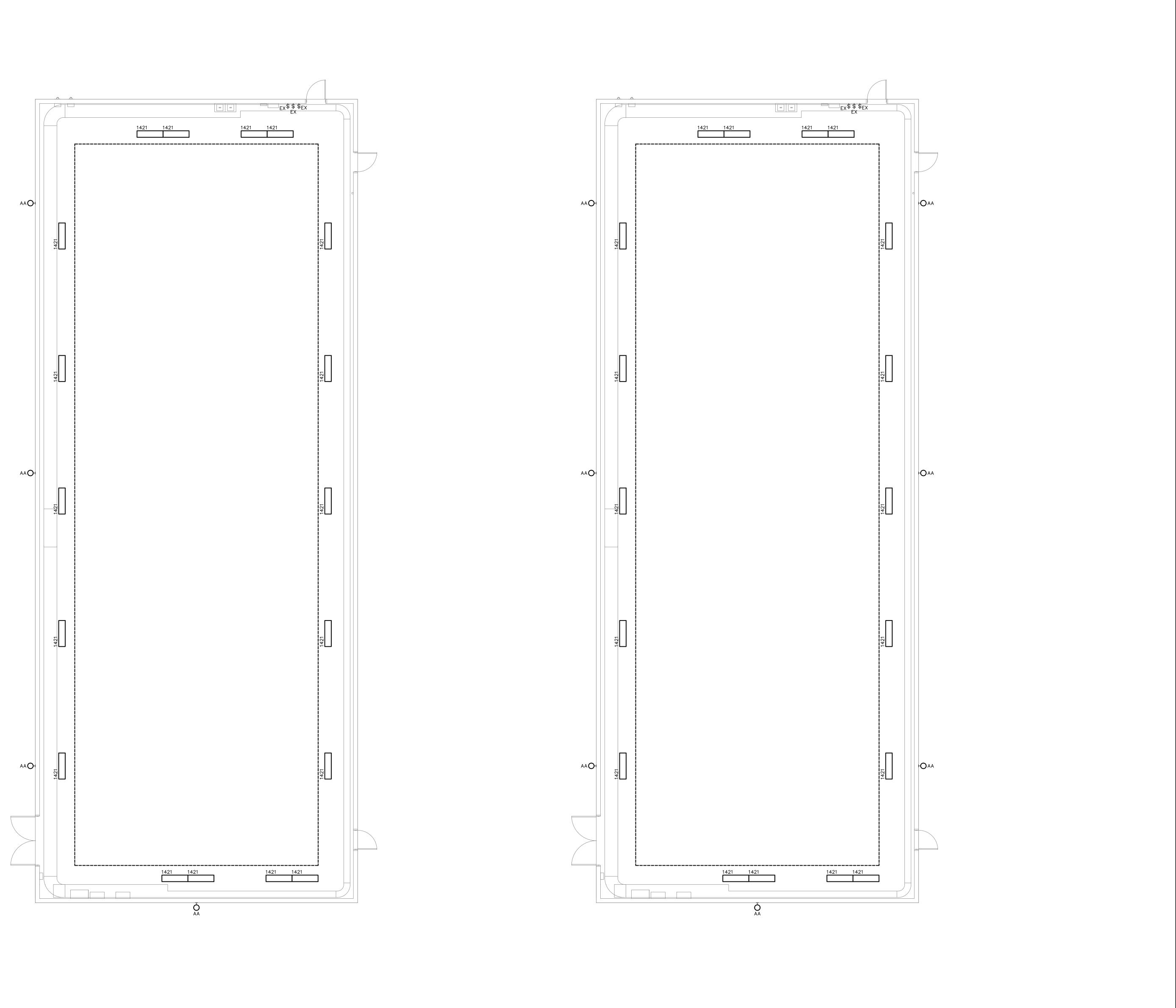
BLOWER BUILDING -LIGHTING

DATE:
JUNE 2022
DRAWING NO:
H E-3 I

UPPER LEVEL FLOOR PLAN - LIGHTING







SAINT JOHN

Maricor

120 Millenium Drive, Suite 201
SAINT JOHN, NB E2E 0C6
Bus: (506) 847-8285 FAX: (506) 848-2131
WWW.MCW.COM ENG. JOB NO. 12-19-082
PKG A10

KEYPLAN:

STAMP



0	ISSUED FOR TENDER	2022/06/20	T.
NO:	REVISIONS	DATE YYYY/MM/DD	INI
PROJE	CT TITLE:		

MILLIDGEVILLE
WASTEWATER
TREATMENT FACILITY
LIGHTING RETROFIT

DRAWING TITL

SECONDARY CLARIFIERS #1 AND #2 - LIGHTING

AS NOTED

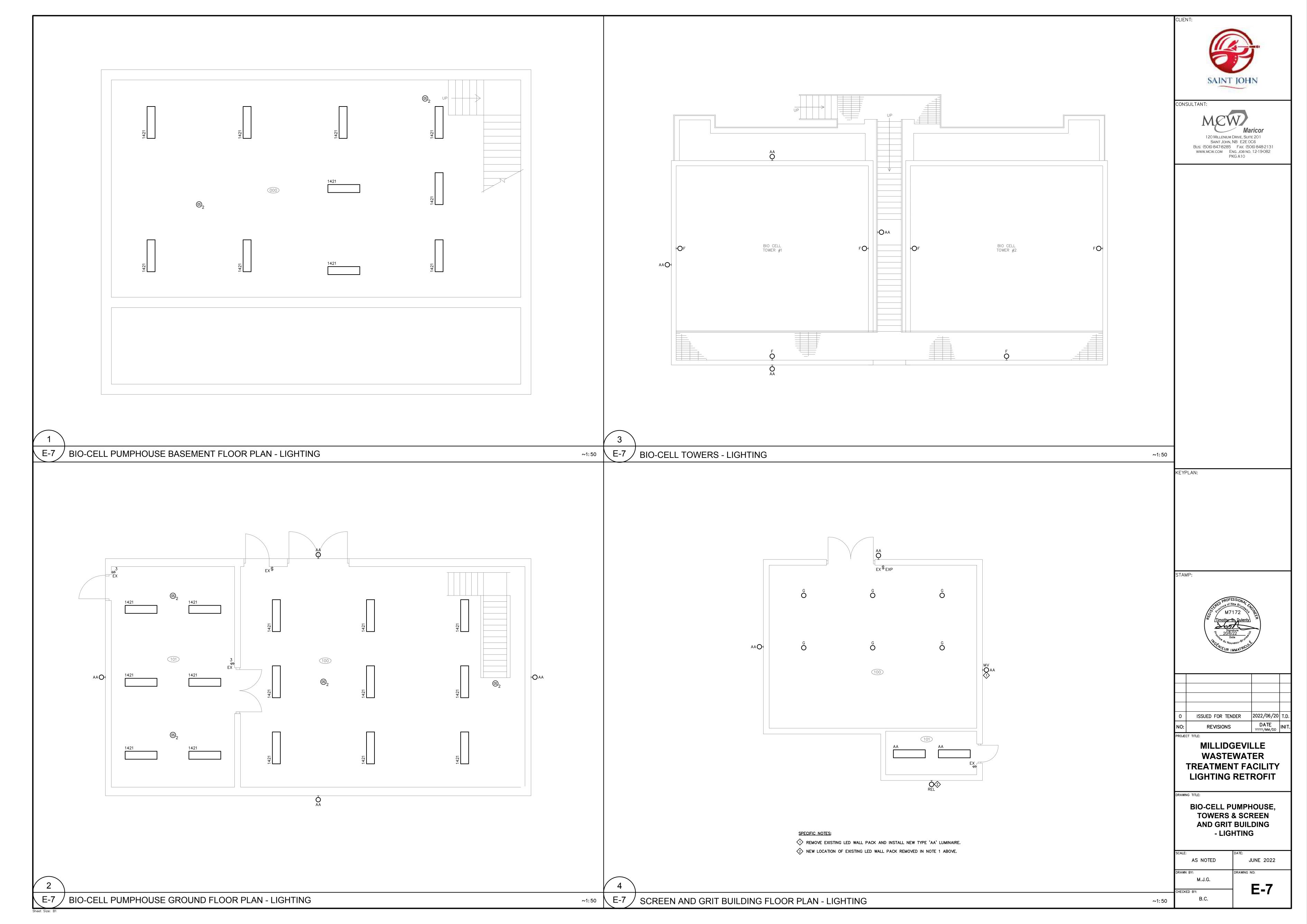
JUNE 2022

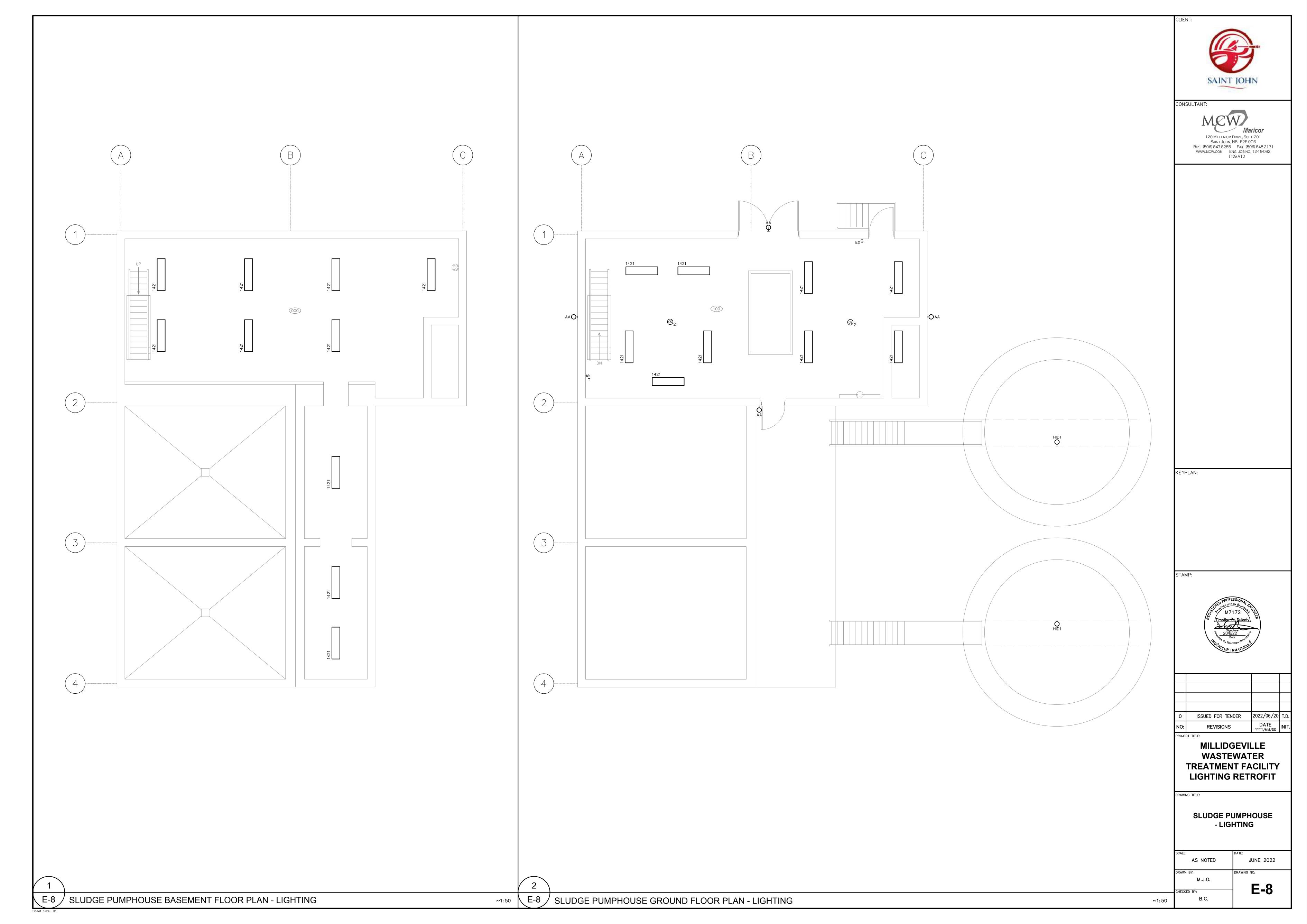
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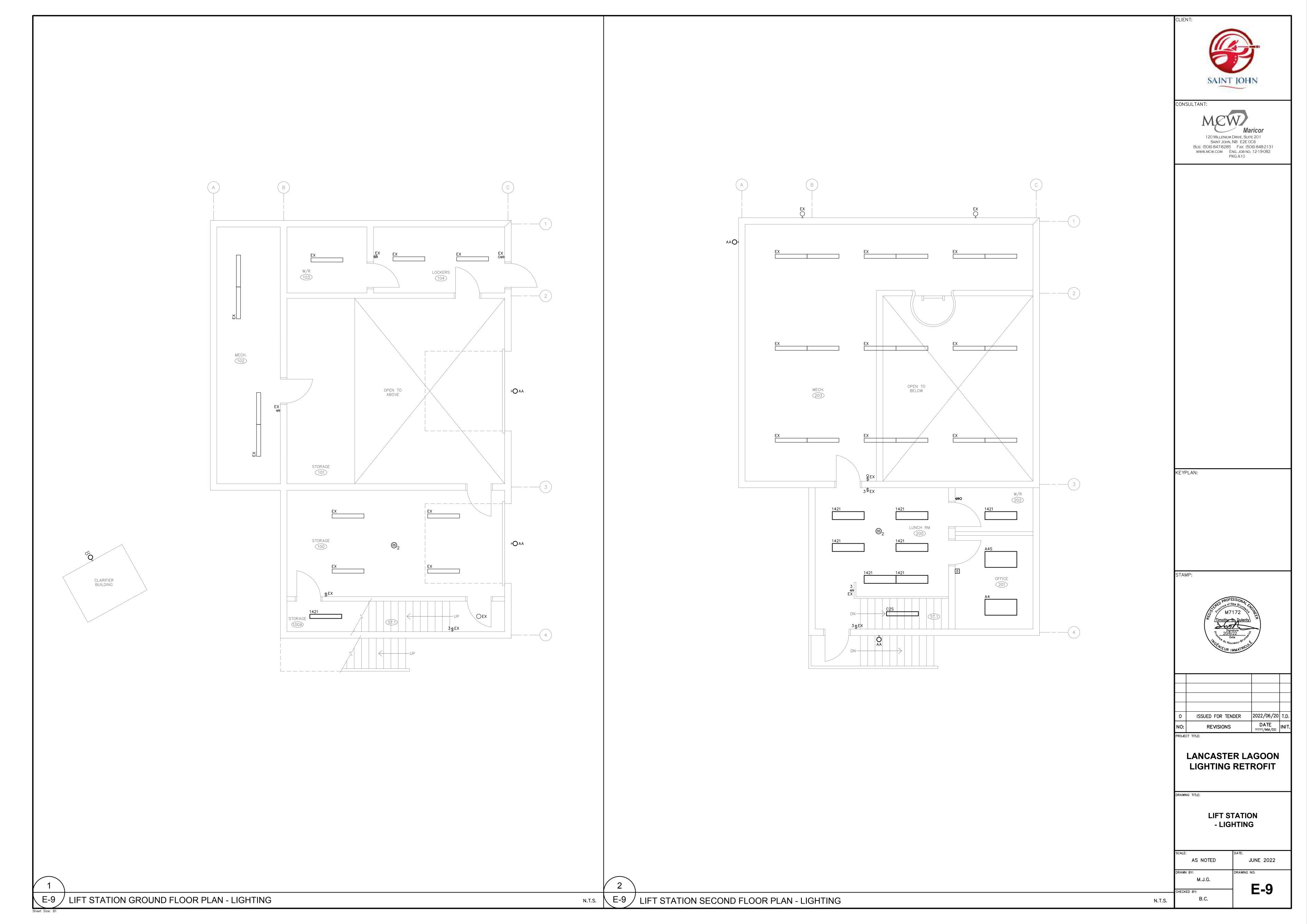
M.J.G.

HECKED BY:

B.C.







		LAMP AND BALLAS	г ѕсн	EDULE		
TYPE	MANUFACTURER	DESCRIPTION	VOLTAGE	MOUNTING	LAMP	NOTES
HID1	SYLVANIA #LED18HID840-4/CS- 1/SKU	SCREW-IN HID STYLE LED REPLACEMENT LAMP COMPLETE WITH DRIVER TO BY-PASS EXISTING BALLAST FOR A COMPLETE WORKING SYSTEM. 360DEGREE OMNI DIRECTIONAL DESIGN. MINIMUM 80CRI, RATED L70/50,000 HRS.	120	SCREW INTO EXISTING MEDIUM BASE SOCKET	18W 2600 LUMENS 4000K L70/50,000 HRS	1,3
PL1	LIGHT EFFICIENT DESIGN #LED-7320-40K-G3	PLUG-IN COMPACT FLUORESCENT STYLE LED REPLACEMENT LAMP. PLUG AND PLAY TECHNOLOGY ALLOWS USE OF EXISTING ELECTRONIC BALLAST. SUITABLE FOR DAMP ENVIRONMENTS AND SEMI-ENCLOSED LUMINAIRES. 360 DEGREE OMNI DIRECTIONAL DESIGN.	120	PLUG INTO EXISTING 4-PIN G/GX24q SOCKET	10W 1600 LUMENS 4000K L70/50,000 HRS	1,3
1411	SYLVANIA LAMP# LED10T8/L48/DIM/841/SUB/G8 SYLVANIA BALLAST# QHE1X32T8/UNV-ISN-SC	1xT8 - 1220mm GLASS LED TUBE AND NORMAL BALLAST FACTOR INSTANT START ELECTRONIC BALLAST. MAXIMUM 10% THD. 5 YEAR MANUFACTURER WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	10W 1600 LUMENS 4000K L70/50000 HRS	1,2
1421	SYLVANIA LAMP# LED10T8/L48/DIM/841/SUB/G8 SYLVANIA BALLAST# QHE2X32T8/UNV-ISN-SC	2xT8 - 1220mm GLASS LED TUBES AND NORMAL BALLAST FACTOR INSTANT START ELECTRONIC BALLAST, MAXIMUM 10% THD. 5 YEAR MANUFACTURER WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	10W 1600 LUMENS (PER LAMP) 4000K L70/50000 HRS	1,2
1431	SYLVANIA LAMP# LED10T8/L48/DIM/841/SUB/G8 SYLVANIA BALLAST# QHE2X32T8/UNV-ISN-SC	3xT8 - 1220mm GLASS LED TUBES AND NORMAL BALLAST FACTOR INSTANT START ELECTRONIC BALLAST, MAXIMUM 10% THD. 5 YEAR MANUFACTURER WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	10W 1600 LUMENS (PER LAMP) 4000K L70/50000 HRS	1,2
1841T	SYLVANIA LAMP# LED10T8/L48/DIM/841/SUB/G8 SYLVANIA BALLAST# QHE2X32T8/UNV-ISN-SC	4xT8 - 1220mm GLASS LED TUBES AND NORMAL BALLAST FACTOR INSTANT START ELECTRONIC BALLAST, MAXIMUM 10% THD. 5 YEAR MANUFACTURER WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	10W 1600 LUMENS (PER LAMP) 4000K L70/50000 HRS	1,2
2421	SYLVANIA LAMP# LED10T8/L48/DIM/841/SUB/G8 SYLVANIA BALLAST# QHE3X32T8/UNV-ISN-SC	2xT8 - 1220mm GLASS LED TUBE AND NORMAL BALLAST FACTOR INSTANT START ELECTRONIC BALLAST, MAXIMUM 10% THD. 5 YEAR MANUFACTURER WARRANTY.	120	INSTALL IN EXISTING LUMINAIRE	10W 1600 LUMENS (PER LAMP) 4000K L70/50000 HRS	1,2

2. SUPPLY AND INSTALL NEW MEDIUM G13 BI-PIN, LOW PROFILE, SLIDE-ON, TURN TYPE, SHUNTED, QUICK CONNECT STANDARD FLUORESCENT LAMP

CONTRACTOR TO ENSURE RETROFIT LAMP IS COMPATIBLE WITH THE LUMINAIRE/BALLAST PRIOR TO SHOP DRAWING SUBMITTAL.

		LUMINAIRE SCHEDU	JLE			
TYPE	MANUFACTURER	DESCRIPTION	VOLTAGE	MOUNTING	LAMP/SOURCE	NOTES
A2	LITHONIA #2BLT2-33L-SDSMT- 120-EZ1-LP840- NLTAIR2-RIO	610mm × 610mm RECESSED VOLUMETRIC LED LUMINAIRE WITH INTEGRAL T-BAR CLIPS AND SQUARE SMOOTH ACRYLIC FROSTED CENTER DIFFUSER. 0-10 VOLT DIMMING DRIVER DIMS TO 10%.	120	RECESSED	27W ~3340 LUMENS 4000K 80 CRI	4
A2S	LITHONIA #2BLT2-33L-SDSMT- 120-EZ1-LP840- NLTAIR2-RES7PDT	610mm x 610mm RECESSED VOLUMETRIC LED LUMINAIRE WITH INTEGRAL T-BAR CLIPS AND SQUARE SMOOTH ACRYLIC FROSTED CENTER DIFFUSER. c/w INTEGRATED DUAL TECHNOLOGY SENSOR AND 0-10 VOLT DIMMING DRIVER DIMS TO 10%.	120	RECESSED	27W ~3340 LUMENS 4000K 80 CRI	4
A4	LITHONIA #2BLT4-40L-SDSMT- EZ1-LP840-NLTAIR2-RIO	1220mm x 610mm RECESSED VOLUMETRIC LED LUMINAIRE WITH INTEGRAL T-BAR CLIPS AND SQUARE SMOOTH ACRYLIC FROSTED CENTER DIFFUSER. 0-10 VOLT DIMMING DRIVER DIMS TO 10%.	120	RECESSED	32W ~4000 LUMENS 4000K 80 CRI	4
A4S	LITHONIA #2BLT4-40L-SDSMT- EZ1-LP840-NLTAIR2- RES7PDT	1220mm x 610mm RECESSED VOLUMETRIC LED LUMINAIRE WITH INTEGRAL T-BAR CLIPS AND SQUARE SMOOTH ACRYLIC FROSTED CENTER DIFFUSER. c/w INTEGRATED DUAL TECHNOLOGY SENSOR AND 0-10 VOLT DIMMING DRIVER DIMS TO 10%.	120	RECESSED	32W ~4000 LUMENS 4000K 80 CRI	4
B2	LITHONIA #CPANL-2X2- 24/33/44LM-40K-M4	610mm x 610mm LED SWITCHABLE LUMEN FLAT PANEL LUMINAIRE WITH INTERNAL DRIVER AND DEEP DRAWN BACKPLATE WITH INTEGRAL T-BAR CLIPS. LOW PROFILE SEAMLESS ALUMINUM FRAME AND SATIN WHITE LENS.	120	RECESSED	28W ~3300 LUMENS 4000K 80 CRI	1,4
B2K	LITHONIA #2GTL-2'-33L-A12125- EZ1-LP840	610mm x 610mm RECESSED LED TROFFER WITH .125" THICK K12 ACRYLIC LENS AND 22 GAUGE, COLD—ROLLED FLUSH STEEL WHITE HOUSING COMPLETE WITH T—BAR CLIPS.0—10 VOLT DIMMING DRIVER DIMS TO 10%.	120	RECESSED	29W ~3494 LUMENS 4000K 80 CRI	4
C2	LITHONIA #BLWP2-33L-SMSMT-120- EZ1-LP840-NLTAIR2-FA0	610mm LINEAR SURFACE MOUNTED LED WRAP/WALL BRACKET c/w FIELD ADJUSTABLE LUMEN OUTPUT MODULE. 0-10 VOLT DIMMING DRIVER DIMS TO 10%. MINIMUM 80 CRI, RATED L80/60,000HRS.	120	WALL MOUNTED	30W ~3345 LUMENS 4000K 80 CRI	2,4
C2S	LITHONIA #BLWP2-33L-SMSMT-120- EZ1-LP840-NLTAIR2- RES7PDT-FAO	610mm LINEAR SURFACE MOUNTED LED WRAP/WALL BRACKET c/w INTEGRATED DUAL TECHNOLOGY SENSOR AND FIELD ADJUSTABLE LUMEN OUTPUT MODULE. 0-10 VOLT DIMMING DRIVER DIMS TO 10%. MINIMUM 80 CRI, RATED L80/60,000HRS.	120	WALL MOUNTED	30W ~3345 LUMENS 4000K 80 CRI	2,4
D4	MARK LIGHTING #CHSL-1X4-G15-80CRI- 40K-3000LM-MNML-1SD- DARK-120-NLIGHT	305mm x 1220mm RECESSED WALL WASH LED LUMINAIRE. EXTRUDED ALUMINUM HOUSING, HIGH REFLECTANCE MATTE WHITE FINISH c/w 1 SIDED DIRECTIONAL GRADIENT.	120	RECESSED	26W ~2817 LUMENS 4000K 80 CRI	4
E2	LITHONIA #UCEL-24IN-30K-90CRI- WH	610mm LINEAR DIMMABLE LED DIRECT WIRED UNDERCOUNTER ACCENT LIGHT WITH WHITE ACRYLIC DIFFUSER. LOW PROFILE STEEL HOUSING, WHITE ENAMEL FINISH c/w HARDWARE FOR SURFACE MOUNTING.	120	SURFACE MOUNTED	10W ~742 LUMENS 3000K 90 CRI	4
E4	LITHONIA #UCEL-48IN-30K-90CRI- WH	1220mm LINEAR DIMMABLE LED DIRECT WIRED UNDERCOUNTER ACCENT LIGHT WITH WHITE ACRYLIC DIFFUSER. LOW PROFILE STEEL HOUSING, WHITE ENAMEL FINISH c/w HARDWARE FOR SURFACE MOUNTING.	120	SURFACE MOUNTED	20W ~1603 LUMENS 3000K 90 CRI	4
F	CROUSE-HINDS #VMVL-9-J-R3-UNV1- S891	HAZARDOUS LOCATION LED LUMINAIRE. SEALED AND GASKETTED TO PROTECT AGAINST WATER. DIE—CAST ALUMINUM HOUSING, DIFFUSED GLASS LENS, TYPE III OPTICS.	120	POLE MOUNTED	73W ~9234 LUMENS 5000K 70 CRI	3,4
G	CROUSE-HINDS #VMVL-9-J-UNV1-S891	HAZARDOUS LOCATION LED LUMINAIRE. SEALED AND GASKETTED TO PROTECT AGAINST WATER. DIE—CAST ALUMINUM HOUSING, DIFFUSED GLASS LENS, TYPE V OPTICS.	120	POLE MOUNTED	73W ~9234 LUMENS 5000K 70 CRI	4
AA	LITHONIA #TWX2 LED-ALO-40K- XVOLT-PE-DDBXD	WALL MOUNTED EXTERIOR LED WALL PACK. TWO-PIECE DIE-CAST ALUMINUM HOUSING. DOOR WITH BOROSILICATE GLASS REFRACTOR. HOUSING IS COMPLETELY SEALED (IP65). BUTTON TYPE PHOTOCELL AND FIELD ADJUSTABLE LUMEN OUTPUT.	120	WALL MOUNTED	42W ~5650 LUMENS 40K 70 CRI	4,5
BB	LITHONIA #DSXF1 LED-P2-40K- WFL-MVOLT-PE-DDBXD	EXTERIOR LED FLOODLIGHT. RUGGED DIE—CAST ALUMINUM CONSTRUCTION WITH INTEGRAL HEAT SINK FINS. IP66 RATING. ZINC—INFUSED THERMOSET POWDER COAT FINISH TO RESIST CORROSION AND WEATHERING. BUTTON TYPE PHOTOCELL.	120	WALL MOUNTED	42W ~5573 LUMENS 4000K 70 CRI	4
СС	LITHONIA #DSXF3 LED-6-P4-50K- 70CRI-WFR-MVOLT-IS- UBV-DDBXD	EXTERIOR LED FLOODLIGHT. RUGGED DIE—CAST ALUMINUM CONSTRUCTION WITH INTEGRAL HEAT SINK FINS. IP66 RATED. EXTERIOR PAINTED PARTS ZINC—INFUSED THERMOSET POWDER COAT FINISH TO RESIST CORROSION AND WEATHERING.	120	WALL MOUNTED	189W ~26363 LUMENS 5000K 70 CRI	4
DD	LITHONIA #DSX1LED-P3-40K-T4M- SPA-KMA8 DNAXD U- NLTAIR2-PIRHN-PIRH-DNAXD	POLE MOUNTED LED LUMINAIRE. RUGGED SINGLE PIECE DIE-CAST ALUMINUM HOUSING WITH INTEGRAL HEAT SINK FINS. ZINC-INFUSED THERMOSET BLACK POWDER COAT FINISH. NIGHT TIME FRIENDLY. 0-10 VOLT DIMMING DRIVER DIMS TO 10%.	120	POLE MOUNTED	102W ~12309 LUMENS 4000K 70 CRI	4
⊗ ₁ ⊗ ₁ ⊗ ₁	READY-LITE #RP-X-W-U	UNIVERSAL MOUNT, UNIVERSAL VOLTAGE LED PICTOGRAM SINGLE OR DOUBLE FACE EXIT SIGN. ONE—PIECE UV STABILIZED WHITE THERMOPLASTIC HOUSING.	120VAC/ 12VDC	UNIVERSAL MOUNT	2W	-
$\bigotimes_2 \bigotimes_2 \bigotimes_2 \bigotimes_2 \bigotimes_2 \bigotimes_2 \bigotimes_2 \bigotimes_2 \bigotimes_2 \bigotimes_2 $	READY-LITE #RS-X-W-U	UNIVERSAL MOUNT, UNIVERSAL VOLTAGE LED PICTOGRAM SINGLE OR DOUBLE FACE EXIT SIGN. FACTORY STEEL HOUSING COLD—ROLLED METAL CONSTRUCTION HOUSING AND WHITE BORDER.	120VAC/ 12VDC	UNIVERSAL MOUNT	2W	-

NOTES:

LIGHTING SCHEDULES

NOTES:

VERIFY EXISTING VOLTAGE PRIOR TO SHOP DRAWING SUBMITTAL.

HOLDERS. LEVITON #23351 OR APPROVED EQUAL.

. ADJUST LUMINAIRE TO MEDIUM OUTPUT SETTING (3300 LUMENS) UPON INSTALLATION.

ADJUST LUMINAIRE TO MEDIUM OUTPUT SETTING (3300 LUMENS) UPON INSTALL ADJUST LUMINAIRE FIELD ADJUSTABLE LUMEN OUTPUT MODULE TO 'STEP 3'. PROVIDE NEW GALVANIZED MOUNTING POLES TO SUIT EXISTING CONDITIONS.

4. VERIFY EXISTING VOLTAGE ON SITE PRIOR TO SHOP DRAWING SUBMITTAL.

5. ADJUST LUMINAIRE FIELD ADJUSTABLE LUMEN OUTPUT MODULE TO 'STEP 6'.

1. GENERAL REQUIREMENTS

1.1. THESE ELECTRICAL SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH: GENERAL REQUIREMENTS, ELECTRICAL DRAWINGS AND OTHER CONTRACT

1.2. SCOPE OF WORK

1.2.1. THIS 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.

1.3. CODES AND STANDARDS
1.3.1. 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.

1.4. PERMIT AND BY-LAWS

1.4.1. OBTAIN PERMITS AND CERTIFICATIONS PRIOR TO START OF WORK.
SUBMIT DRAWINGS TO INSPECTION AUTHORITY. COORDINATE SERVICES
WITH SAINT JOHN ENERGY. PAY ALL ASSOCIATED FEES.

1.4.2. ALL WORK PERFORMED BY THIS CONTRACTOR SHALL BE DONE IN
ACCORDANCE WITH ALL APPLICABLE CODES, LOCAL BY-LAWS,

STANDARDS AND THEIR AMENDMENTS.

1.5.1. PRIOR TO TENDER CLOSE, THIS CONTRACTOR SHALL VISIT SITE AND FAMILIARIZE THEMSELVES WITH THE EXISTING SITE CONDITIONS AND VOLTAGES. 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

1.6. COORDINATION OF WORK

1.6.1. THIS CONTRACTOR SHALL COORDINATE THEIR WORK WITH THE GENERAL CONTRACTOR AND WITH ALL OTHER SUB—CONTRACTORS.
1.6.2. SCHEDULE AND PERFORM ALL WORK IN EXISTING PREMISES WITH OWNER SO AS NOT TO INTERFERE WITH NORMAL OPERATIONS OF BUILDING OCCUPANTS. ANY DISRUPTIVE WORK SHALL BE SCHEDULED

OUTSIDE OPERATING HOURS AND AS APPROVED BY OWNER.

1.6.3. COOPERATE 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 CONTRACT'S WORK TO ENGINEER IMMEDIATELY.
 1.6.4. WHERE WORK IS CARRIED OUT IN EXISTING PREMISES, NOTIFY OWNER AT LEAST 72 HOURS IN ADVANCE OF ANY NECESSARY

1.7. GUARANTEE

1.7.1. 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.

INTERRUPTIONS IN SERVICES OR ACCESS.

1.8. DRAWINGS

1.8.1. 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 THIS CONTRACTOR. THESE DRAWINGS SHALL BE KEPT ON SITE DURING CONSTRUCTION, UPDATED, AND MADE AVAILABLE FOR REVIEW BY ENGINEER, IF REQUESTED.

EXTRA WORK

1.9.1. NO ALLOWANCE SHALL BE MADE BEYOND CONTRACT PRICE UNLESS
CONTRACTOR RECEIVES SIGNED APPROVAL IN ACCORDANCE WITH
GENERAL CONDITIONS.

1.10. CUTTING, PATCHING AND FIRESTOPPING
1.10.1. 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.

1.11. SHOP DRAWINGS

1.11.1. 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.

1.11.2. 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.

1.11.3. SHOP DRAWINGS REQUIRED FOR: LUMINAIRES, LAMPS, BALLASTS,

1.11.3. 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. INCLUDE WIRING SINGLE LINE AND SCHEMATIC DIAGRAMS WHERE APPLICABLE.

1.11.4. ALL MATERIAL SUPPLIED SHALL BE NEW AND CARRY C.S.A. CERTIFICATION OR OTHER CERTIFICATIONS APPROVED BY LOCAL

1.12. CLEANING UP
1.12.1. THIS CONTRACTOR SHALL, AT ALL TIMES, KEEP THE SITE NEAT,
CLEAN AND FREE FROM ACCUMULATION OF WASTE MATERIALS.

INSPECTION AUTHORITY

1.13. OPERATION AND MAINTENANCE INSTRUCTIONS
1.13.1. 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 OPERATION AND MAINTENANCE INSTRUCTIONS, TOGETHER WITH ALL APPROVED SHOP DRAWINGS AND SPARE PARTS LIST FASTENED IN A BINDER, SHALL BE SUBMITTED TO THE OWNER. MANUALS COMPLETE

BINDER, 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

- TECHNICAL DATA, PRODUCT DATA, SUPPLEMENTED BY BULLETINS, DESCRIPTIONS OF ITEMS, AND PARTS LISTS. ADVERTISING OR SALES LITERATURE IS NOT ACCEPTABLE.

- WIRING AND SCHEMATIC DIAGRAMS AND PERFORMANCE CURVES.

- NAME AND ADDRESS OF LOCAL SUPPLIERS.

- COPY OF REVIEWED SHOP DRAWINGS.

- COPY OF ALL TEST CERTIFICATES.

- WARRANTY CERTIFICATE.

1.14. DISPOSALS
1.14.1. 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

.15. DEMOLITION

1.15.1. DISCONNECT AND REMOVE ALL DEVICES, COMPONENTS, EQUIPMENT AND EXPOSED RACEWAYS, WIRES AND CABLES, BACK TO SOURCE OF SUPPLY, MADE REDUNDANT BY THIS WORK INCLUDING THOSE WITHIN WALLS AND SUSPENDED CEILINGS. MAKE SAFE ANY REMAINING LIVE CONNECTIONS. LEAVE POLYPROPYLENE PULL CORD IN EACH EMPTY CONDUIT. TAG EACH EMT CONDUIT AT EACH END WITH LOCATION OF OTHER END.

1.15.2. ELECTRICAL CONTRACTOR SHALL ENSURE ELECTRICAL CONTINUITY TO

1.15.3. RELOCATE EXISTING WIRING, RACEWAYS, FIXTURES AND DEVICES AS REQUIRED TO MAINTAIN REASONABLE ACCESSIBILITY AND TO FACILITATE INSTALLATION OF TOTAL PROJECT WORK.
1.15.4. REVIEW LOADING ON EACH AFFECTED CIRCUIT PRIOR TO START OF CONSTRUCTION AND ADJUST AS REQUIRED.

1.15.5. WHERE NEW DRYWALL COVERS EXISTING JUNCTION OR PULL BOXES, INSTALL ACCESS HATCHES.

1.15.6. 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

2. BASIC MATERIAL AND METHODS

JURISDICTION.

EXISTING DEVICES REMAINING.

2.1. EQUIPMENT AND PROPERTY
2.1.1. ANY ALTERNATE PRODUCT PROPOSED SHALL MEET SAME STANDARDS
AS PRODUCT SPECIFIED BUT SHALL BE CONSIDERED ACCEPTABLE

MINIMIZE DANGER AT SITE OR DURING DISPOSAL.

ONLY IF APPROVED PRIOR TO INSTALLATION BY ENGINEER. SUCH APPROVAL WILL NOT BE UNREASONABLY WITHHELD.

2.1.2. 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 AND CAPABLE OF PROPER OPERATION.

2.1.3. REUSE EXISTING PRODUCTS WHICH MEET SPECIFICATIONS WHEREVER PRACTICABLE.
2.1.4. CLEAN VISIBLE PORTIONS OF ALL DEVICES AND COVER PLATES AS RECOMMENDED BY MANUFACTURER TO RESTORE FACTORY FINISH.
2.1.5. 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.

2.1.6. ARRANGE DELIVERIES AND STORAGE WITH OWNER AND AUTHORITIES HAVING JURISDICTION AS APPROPRIATE. PROTECT NEW AND REUSED MATERIALS FROM ABUSE. DAMAGE AND ENVIRONMENTAL CONDITIONS

FOREGOING, FOLLOW MANUFACTURER'S RECOMMENDATIONS.

WHICH THEY ARE NOT INTENDED TO WITHSTAND. NOTWITHSTANDING

2.2. WIRING METHODS

2.2.1. FOR POWER WIRING, MAINTAIN PHASE SEQUENCE AND COLOR CODING THROUGHOUT. COLOR CODING TO CSA C22.1.
2.2.2. LOCATE, DIMENSION AND MAKE ELECTRICAL SERVICES OPENINGS. PROVIDE NECESSARY SLEEVES. ESCUTCHEONS AND COVERS.

2.2.3. DRILL AND PROVIDE ANCHORS AS REQUIRED FOR EXPANSION BOLTS,

HANGER RODS, BRACKETS AND SUPPORTS.

2.3. TESTING
2.3.1. MEGGER CIRCUITS UP TO 350V WITH A 500V INSTRUMENT.

2.3.2. MEGGER CIRCUITS BETWEEN 350V TO 600V WITH A 1000V INSTRUMENT.
2.3.3. CHECK RESISTANCE TO GROUND BEFORE ENERGIZING ANY PART OF THE WORK.
2.3.4. TEST ALL LUMINAIRES, CONTROLS, WIRING DEVICES, ELECTRIC HEATERS, CIRCUIT BREAKERS, DISCONNECT SWITCHES, MOTOR

OPERATION AND ABSENCE OF SHORTS OR GROUNDS.

2.3.5. PUT EQUIPMENT AND SYSTEMS IN SERVICE AS MAY BE REQUESTED BY ENGINEER FOR TRIAL USE PROVIDED NO HAZARD OR DAMAGE WILL RESULT NOR GUARANTEES VOIDED.

2.3.6. MEASURE PHASE VOLTAGES AT LOADS AND ADJUST TRANSFORMER TAPS TO ACHIEVE A LOAD VOLTAGE OF 115-120V.

STARTERS, AND EMERGENCY LIGHTING UNIT EQUIPMENT FOR CORRECT

3. CONDUIT AND FITTINGS

3.1. EMT CONDUIT WITH SET SCREW CONNECTORS THROUGHOUT UNLESS NOTED OTHERWISE.

3.2. ALL EMPTY CONDUITS SHALL BE COMPLETE WITH PULL CORD.

3.3. SUPPORT ALL BOXES INDEPENDENTLY OF CONNECTING CONDUITS.3.4. 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.

3.5. DO NOT USE WIRE LASHING OR PERFORATED STRAPPING TO SUPPORT OR SECURE RACEWAYS (OR CABLES).

3.6. PROVIDE ADEQUATE SUPPORT FOR RACEWAYS (AND CABLES) DROPPED VERTICALLY TO EQUIPMENT, WHERE THERE IS NO WALL SUPPORT.

3.7. FASTEN EXPOSED CONDUIT (OR CABLES) TO BUILDING CONSTRUCTION OR SUPPORT SYSTEM USING ONE OR TWO HOLE STEEL STRAPS.

3.8. INSTALL CONNECTORS ON SURFACE CONDUITS, SO THAT SCREW HEADS DO NOT POSE A DANGER TO OCCUPANTS.

4. WIRE AND CABLE

4.1. ALL WRING 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.

4.2. ALL EXPOSED WIRING SHALL BE RUN PARALLEL TO BUILDING LINES (SERVICE AREAS ONLY).

4.3. ALL EXPOSED WIRING ON FINISHED DRYWALL SHALL BE RUN IN NON-METALLIC RACEWAY (WREMOLD OR APPROVED EQUAL).

4. WIRING:

4.4.1. ARMOURED CABLE (BX) SHALL NOT BE USED.

4.4.2. USE FLEXIBLE CONDUIT C/W ANTI-SHORT BUSHINGS FOR LUMINAIRE DROPS IN T-BAR CEILINGS, MECHANICAL EQUIPMENT AND IN WALLS WHERE CONDUIT IS NOT POSSIBLE.

4.4.3. RW90 IN EMT CONDUIT, C/W STEEL SET-SCREW CONNECTORS AND COUPLINGS
4.4.4. CONDUCTORS; #12 RW90, 600V, CU, MINIMUM, IN EMT CONDUIT.
4.5. ASSURE THAT ALL CONDUCTORS ARE SIZED FOR MAXIMUM VOLTAGE DROP:

4.5.2. PANEL FEEDERS — MAX. 2%
4.5.3. DISTRIBUTION — MAX. 1%
4.6. ALL SOLID COPPER CONDUCTORS WITH THERMOPLASTIC INSULATION (TYPE RW90, 600V) BRANCH WIRING SHALL BE MINIMUM #12 AWG (MAXIMUM 70)

RW90, 600V) BRANCH WIRING 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%. #8 AWG AND LARGER CONDUCTORS SHALL BE STRANDED COPPER. USE CONNECTORS, CLAMPS AND SUPPORTS TO SUIT.

5. OUTLET. PULL & JUNCTION BOXES

4.5.1. BRANCH CIRCUITS - MAX. 2%

5.1. 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 TILE RINGS AS REQUIRED.

5.2. PROVIDE 4"(100mm) SQUARE OR OCTAGONAL OUTLET BOXES FOR FLUSH LIGHTING FIXTURES.

5.3. PROVIDE WELDED STEEL JUNCTION/PULL BOXES WITH HINGED COVERS FOR SURFACE MOUNTING AS REQUIRED TO FACILITATE CONDUCTOR INSTALLATION. GENERALLY SUCH 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. ENSURE ALL JUNCTION/PULL BOXES ARE ACCESSIBLE WHEN ALL WORK IS COMPLETE.

5.4. SUPPORT ALL BOXES INDEPENDENTLY OF CONNECTING CONDUITS.

. <u>WIRING DEVICES</u> 6.1. EQUIPMENT MOUNTING HEIGHT IS FROM FINISHED FLOOR TO EQUIPMENT

CENTERLINE UNLESS SPECIFIED OR INDICATED OTHERWISE.

6.2. IF EQUIPMENT MOUNTING HEIGHT IS NOT INDICATED, VERIFY WITH

ENGINEER BEFORE PROCEEDING WITH INSTALLATION.

6.3. INSTALL ELECTRICAL EQUIPMENT AT FOLLOWING HEIGHTS UNLESS

6.3.1. LOCAL SWITCHES: MATCH EXISTING
6.3.2. WALL MOUNTED EXIT LIGHTS: 98" (2450mm), 12" (300mm) ABOVE DOOR FRAME, 9' (2700mm) GYM
6.3.3. WALL MOUNTED OCCUPANCY SENSORS: 98" (2450mm)

INDICATED OTHERWISE (REFER ALSO TO ARCHITECTURAL DRAWINGS);

6.4. SWITCHES: TOGGLE TYPE 15A & 20A, 347V OR 120V AS INDICATED, SINGLE POLE, 3—WAY MANUALLY OPERATED SPECIFICATION GRADE AS INDICATED. COLOR: MATCH EXISTING.

6.5. ACCEPTABLE SWITCH MANUFACTURERS: COOPER, BRYANT, HUBBELL, LEVITON, PASS AND SEYMOUR.

LEVITON, PASS AND SEYMOUR.

6.6. ACCEPTABLE SENSOR MANUFACTURERS: SENSORSWITCH, WATTSTOPPER,

LEVITON, HUBBELL.

6.7. PROVIDE COVER PLATES FROM ONE MANUFACTURER FOR EACH TYPE OR ASSEMBLY OF OUTLETS THROUGHOUT PROJECT. OPENINGS TO SUIT TYPE AND CANCING OF DEVICES COLOR AND STYLE TO MATCH EXISTING

AND GANGING OF DEVICES. COLOR AND STYLE TO MATCH EXISTING.

6.8. SHEET STEEL UTILITY BOX COVERS FOR WIRING DEVICES INSTALLED IN SURFACE—MOUNTED UTILITY BOXES ('FS' TYPE).

6.9. THERMOPLASTIC COVER PLATES FOR WIRING DEVICES MOUNTED IN A FLUSH-MOUNTED OUTLET BOX. COLOR: TO MATCH DEVICE.6.10. PROVIDE SURFACE MOUNTED NON-METALLIC RACEWAY FOR EXPOSED RUNS

WHERE INDICATED WITH ALL NECESSARY FITTINGS. PAINT TO MATCH

SUPPORTING SURFACES. ACCEPTABLE MANUFACTURERS: HUBBELL, WIREMOLD.

6.11. WIRING DEVICES IN LEGEND ARE INTENDED TO SET A STANDARD BELOW

WHICH EQUIPMENT WILL NOT BE ACCEPTED.

6.12. MOUNTING HEIGHTS TO MATCH EXISTING IN RENOVATED AREAS.

6.13. LOCATE LIGHT SWITCHES AS INDICATED. VERIFY EXACT LOCATIONS WITH OWNER PRIOR TO ROUGHING—IN.

7. GROUNDING

7.1. 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.

7.2. MAKE GROUNDING CONNECTIONS IN RADIAL CONFIGURATION ONLY, WITH CONNECTIONS TERMINATING AT SINGLE GROUNDING POINT. AVOID LOOP CONNECTIONS.

7.3. 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.

8. PANELBOARDS

8.1. UPDATE REVISED PANEL DIRECTORIES AT END OF CONSTRUCTION.

9. LIGHTING (SEE LUMINAIRE SCHEDULE AND LEGEND)

9.1. PROVIDE LUMINAIRES AS INDICATED ON THE LUMINAIRE SCHEDULE AND/OR AS SPECIFIED UNDER THIS SECTION. THESE SHALL BE, 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.

9.2. 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 BASE 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".

9.3. 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).

9.4. ALL LUMINAIRES WHICH ARE LOCATED IN SUSPENDED CEILINGS SHALL BE INDEPENDENTLY SUPPORTED BY APPROVED CHAINS, WHICH SHALL ALLOW THE LUMINAIRES TO BE SUPPORTED INDEPENDENT OF THE CEILING SYSTEM. A 1'x4' (304mmx1220mm) FLUORESCENT LUMINAIRE SHALL BE SUPPORTED WITH TWO (2) CHAINS AND A 2'x4' (610mmx1220mm) LUMINAIRE SHALL BE SUPPORTED WITH FOUR (4) CHAINS TO THE ROOF STRUCTURE OR SLAB ABOVE. ANCHOR CHAINS TO JOIST AND BRIDGING WHERE POSSIBLE. WHEN CONNECTING TO STEEL DECK, ANCHOR TO SIDE FLUTES. (CONFIRM CONNECTIONS TO DECK WITH STRUCTURAL ENGINEER PRIOR TO INSTALLATION).

9.5. THIS CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL LIGHTING NOT BEING RE-USED UNDER NEW WORK WHETHER SHOWN ON DRAWING OR NOT.

9.6. ALIGN LUMINAIRES MOUNTED IN CONTINUOUS ROWS TO FORM STRAIGHT UNINTERRUPTED LINE.

9.7. ACCEPTABLE MANUFACTURERS: COOPER, PHILIPS, CREE, LITHONIA.

9.8. ATTIC STOCK
9.8.1. PROVIDE LISTED SPARE PARTS FOR EACH DIFFERENT RETROFIT TYPE:
9.8.1.1. BALLASTS (120V); 6 OR 5% WHICHEVER IS GREATER.
9.8.1.2. BALLASTS (347V); 6 OR 5% WHICHEVER IS GREATER.

9.8.1.2. BALLASTS (34/V); 6 OR 5% WHICHEVER IS GREATER.
9.8.1.3. T8 LAMPS; 12 OR 5% WHICHEVER IS GREATER.
9.8.1.4. SCREW—IN LED LAMPS; 6 OR 5% WHICHEVER IS GREATER.
9.8.1.5. SCREW—IN A19 LAMPS; 6 OR 5% WHICHEVER IS GREATER.

10. LIGHTING CONTROL DEVICES

10.1. 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.

10.2. IT IS THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO ARRANGE A PRE-INSTALLATION MEETING WITH THE MANUFACTURER'S FACTORY AUTHORIZED REPRESENTATIVE, AT THE OWNER'S FACILITY, TO VERIFY PLACEMENT OF SENSORS AND INSTALLATION CRITERIA.

10.3. 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.

10.4. REFER TO SENSOR MANUFACTURER'S SPECIFICATION FOR PRODUCT SPECIFIC INFORMATION.

10.5. SENSORS INSTALLED IN FINISHED AREAS SHALL BE MOUNTED TO FINISHED CEILING. FEED SENSOR THROUGH FINISHED CEILING TO AN OUTLET BOX SUPPORTED FROM STRUCTURAL SYSTEM.

10.6. 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 MEMBERS.

10.7. 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.

10.8. ELECTRICAL CONTRACTOR SHALL UTILIZE THE LIGHT LEVEL FUNCTION ON THE SENSOR IN AREAS WHERE AMBIENT LIGHT IS PRESENT.
10.9. WALL MOUNTED SENSORS SHALL BE FASTENED TO WALL WITH MANUFACTURER'S RECOMMENDED BRACKET. MOUNT SENSOR 8" FROM

CEILING UNLESS NOTED OTHERWISE ON DRAWINGS.

10.10.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

10.11. EXTEND HOT WIRE AS REQUIRED FOR SENSOR'S POWER PACKS. WIRING TO MATCH EXISTING. EXTEND HOT WIRE TO SENSORS WITH BUILT-IN POWER

10.12.PROVIDE POWER PACK QUANTITIES AS REQUIRED TO MEET

MANUFACTURER'S RECOMMENDATIONS.

10.13.CEILING MOUNTED ULTRASONIC SENSORS SHALL NOT BE INSTALLED WITHIN

4' (1200mm) OF AN AIR SUPPLY DIFFUSER.

10.14.FACTORY REPRESENTATIVE FOR COMMISSIONING

10.14.1. 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.

10.14.2. 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

10.14.3. 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

11. QUALITY ASSURANCE

SENSORS.

SYSTEM.

11.1. ALL COMPONENTS SHALL BE CSA AND/OR ULC APPROVED/LISTED AND LABELED.11.2. WARRANTIES:

11.2.1. LED LUMINAIRES SHALL BE PROVIDED WITH A FIVE (5) YEAR WARRANTY COVERING LED'S, DRIVERS, PARTS AND COMPONENTS.

12.1. UNDER NO CIRCUMSTANCES SHALL WORK OCCUR ON ENERGIZED CIRCUITS.

SAINT JOHN

CONSULTANT:



KEYPLAN:

STAMP



0	ISSUED FOR TENDER	2022/06/20	T.[
NO:	REVISIONS	DATE YYYY/MM/DD	INI

EASTERN AND
MILLIDGEVILLE WASTE
WATER TREATMENT
FACILITIES AND
LANCASTER LAGOON

ING TITLE:

B.C.

LIGHTING SCHEDULES AND SPECIFICATIONS

- LIGHTING RETROFIT

SOMEL.	DATE:
AS NOTED	JUNE 2022
DRAWN BY:	DRAWING NO:
M.J.G.	
	
CHECKED BY:	L-1V

SPECIFICATIONS N.T.S.

APPENDIX B – FORM OF TENDER

TENDER No. 2022-082302T
EASTERN AND MILLIDGEVILLE WASTEWATER TREATMENT FACILITIES AND LANCASTER LAGOON –
LIGHTING RETROFIT

FORM OF TENDER

2022-082302T

EASTERN AND MILLIDGEVILLE WASTEWATER TREATMENT FACILITIES AND LANCASTER LAGOON – 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 for all 3 Locations (All Taxes Extra)

Total for Eastern Wastewater Treatment Facility:	\$ All Taxes Extra
Total for Millidgeville Wastewater Treatment Facility	y: \$ All Taxes Extra
Cost for Lancaster Wastewater Treatment Facility:	\$ All Taxes Extra
_	nt John, NB prepaid. The tender pricing shall include nsportation, delivery, duty, working tools, equipment ovide 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. 2022-082302T EASTERN AND MILLIDGEVILLE WASTEWATER TREATMENT FACILITIES AND LANCASTER LAGOON – 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"		

Spec	fications) called the "Owner" or the "City"
	AND
herei	n (and in the Specifications) called the "Contractor".
WITN	IESSETH: 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:2022-082302T
	Title: Eastern & Millidgeville Wastewater Treatment Facilities and Lancaster Lagoon – 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 thanNA
CON.	TRACT 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:2022-082302T

City of Saint John, New Brunswick,

<u>Lighting Retrofit</u>

<u>Drawings</u>	
E-0	Site Plan & Legend
E-1	Main Processing Building – Lighting
E-2	Main Processing Building Floor Plans – Lighting
E-3	Blower Building - Lighting
E-4	Administration and Maintenance Buildings – Lighting
E-5	Control Building – Lighting
E-6	Secondary Clarifiers #1 & #2 – Lighting
E-7	Bio-Cell Pumphouse, Towers & Screen and Grit Building – Lighting
E-8	Sludge Pumphouse – Lighting
E-9	Lift Station – Lighting
E-10	Lighting Schedules and Specifications

Title: Eastern & Millidgeville Wastewater Treatment Facilities and Lancaster Lagoon

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.

EXECUTION OF AGREEMENT

In Witness Whereof the parties hereto have executed this Agreement.

) SIGNED, SEALED AND DELIVERED
) this,,,
)) by) (Contractor))
(Witness))) (Signature))
(Name and Title))) (Name and Title)
))
))
) PLACE SEAL HERE
))
) SIGNED, SEALED AND DELIVERED)
) this, day of,,,
) by THE CITY OF SAINT JOHN.))
))
)) COMMON CLERK)
)))

AFFIDAVIT OF CORPORATE EXECUTION

CANA	ADA
PRO\	VINCE OF NEW BRUNSWICK
CITY	OF SAINT JOHN
l,	, of the
	County of, and Province of New Brunswick
MAKE	E OATH AND SAY:
(1)	THAT I am the of, and
	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
	Company and was affixed to the said instrument by me and by order of the Board of Directors of the
	Company.
SWO	RN TO BEFORE ME at the)
of))
in the) Province of)
this _) day of A.D.,)
 COMI	MISSIONER OF OATHS CONTRACTOR
	1

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