

**The City of Saint John**

**Request for Proposals**

**2021-082301P – ICE LIGHTS RENEWAL – TD  
STATION**

**Saint John, New Brunswick**

Request for Proposals No.: 2021-082301P – Ice Lights Renewal – TD Station

Issued: Thursday, March 25, 2021

Submission Deadline: Thursday, April 15, 2021, 4:00 p.m., ADT

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## **PART 1 – INTRODUCTION**

### **1.1 Invitation to Proponents**

- (1) This Request for Proposals (“RFP”) is an invitation by The City of Saint John (the “City”) to prospective proponents to submit proposals for lighting upgrades at TD Station as further described in Part 2 – The Deliverables (the “Deliverables”).

### **1.2 RFP Contact Person**

- (1) For the purposes of this procurement process, the “City Contact” shall be:

Chris Roberts, SCMP, CPPB  
Supervisor  
Supply Chain Management  
City of Saint John  
Email: [supplychainmanagement@saintjohn.ca](mailto:supplychainmanagement@saintjohn.ca)

### **1.3 Type of Contract for Deliverables**

- (1) The City will issue a Contract to the successful proponent for the scope of services detailed in this request for proposal.

### **1.4 No Guarantee of Volume of Work or Exclusivity of Contract**

- (1) The City makes no guarantee as to the value or volume of the Deliverables. The contract to be entered with the selected proponent will not be an exclusive contract for the provision of the described Deliverables. The City may contract with others for same or similar to the Deliverables or may obtain the same or similar to the Deliverables internally.

### **1.5 Canadian Free Trade Agreement (CFTA)**

- (1) Proponents should note that procurements falling within the scope of Chapter 5 of the Canadian Free Trade Agreement (CFTA) are subject to that chapter but that the rights and obligations of the parties shall be governed by the specific terms of this RFP. For further reference, please see the Internal Trade Secretariat website at <https://www.cfta-alec.ca/>.

**[End of Part 1]**

## PART 2 – THE DELIVERABLES

### 2.1 Description of Deliverables

- (1) This RFP is an invitation to submit offers for the turn-key solution of the complete renewal of the TD Station bowl lighting. The new lighting system shall be compliant with the QMJHL minimum standards as well as minimize the connected electrical load dedicated to the lighting system. This turn-key solution shall also replace the existing 'trade show' lighting system with new LED fixtures. Refer to Appendix E– Electrical Drawings for further information on the project scope of work. **Appendix E– Electrical Drawings is intended to be a basis of design. Any proponent has the option to change the layout as required to suit their proposed lighting system layout.**
- (2) The successful proponent is responsible for all the engineering design, supply, installation, inspection, light testing, lighting controls programming, commissioning, on-going service during the duration of the labour warranty, developing of the operational manual including all as-built drawings associated with the delivery of a complete turnkey Ice Light Renewal.

**[End of Part 2]**

## PART 3 – EVALUATION OF PROPOSALS

### 3.1 Timetable

- (1) The RFP timetable is tentative only and may be changed by the City at any time.

Issue Date of RFP	Thursday, March 25, 2021
Deadline for Questions	Wednesday, April 7, 2021, 4:00 pm, ADT
Deadline for Issuing Addenda	Thursday, April 8, 2021, 4:00 pm, ADT
Submission Deadline	Thursday, April 15, 2021, 4:00 pm, ADT
Rectification Period	3 Business Days
Anticipated Deadline for Selection of Highest Ranked Proponent	Monday, May 3, 2021

### 3.2 Submission Instructions

#### (A) **Proposals Should Be Submitted at Prescribed Location**

- (1) Proposals should be submitted at:

The City of Saint John  
Supply Chain Management, 1<sup>st</sup> Floor  
175 Rothesay Avenue  
Saint John, New Brunswick, E2J 2B4 (the “**Prescribed Location**”)

Attention: Chris Roberts, SCMP, CPPB

#### (B) **Proposals Should Be Submitted in Prescribed Manner**

- (1) Proponents should submit one (1) signed original and three (3) bound copies of the technical proposal and supporting information, and one (1) signed original copy and three (3) bound copies of the financial proposal and supporting information. Proponents should also submit one (1) electronic copy of both the technical and financial proposals on a flash drive.
- (2) The technical proposal should be sealed in an envelope, clearly indicating the proponent’s name and address and marked: “Technical Proposal: **2021-082301P – ICE LIGHTS RENEWAL – TD STATION**”.
- (3) The financial proposal should be sealed in a separate envelope, clearly indicating the proponent’s name and address and marked: “Financial Proposal: **2021-082301P – ICE LIGHTS RENEWAL – TD STATION**”.
- (4) Proposals sent by fax or email will be rejected.

**(C) Proposals Should Be Submitted on Time**

- (1) Proposals shall be submitted at the Prescribed Location on or before the Submission Deadline. Proposals submitted after the Submission Deadline will be rejected.
- (2) Immediately following the Submission Deadline, proposals will be publicly opened in the office of the City Contact, at the Prescribed Location. Only the names and addresses of the proponents will be made public.

**(D) Amendment of Proposals**

- (1) Proponents may amend their proposals prior to the Submission Deadline by submitting the amendment in a sealed package to the Prescribed Location. The sealed package shall be prominently marked with the RFP title and number and the full legal name and return address of the proponent. Any amendment should clearly indicate which part of the proposal the amendment is intended to affect.

**(E) Withdrawal of Proposals**

- (1) At any time throughout the RFP process, a proponent may withdraw a submitted proposal. To effect a withdrawal, a notice of withdrawal must be sent to the City Contact and must be signed by an authorized representative. The City is under no obligation to return withdrawn proposals.

**3.3 Stages of Proposal Evaluation**

- (1) The City will conduct the evaluation of proposals and selection of the highest ranked proponent in the following three stages described in further detail below:
  - (a) Stage I – Mandatory Requirements and Rectification
  - (b) Stage II – Evaluation of Rated Criteria and Pricing
  - (c) Stage III – Selection and Final Negotiation

**(A) Stage I – Mandatory Requirements and Rectification**

**Submission and Rectification Period**

Stage I will consist of a review to determine which proposals comply with all of the mandatory requirements. Proposals failing to satisfy the mandatory requirements as of the Submission Deadline will be provided an opportunity to rectify any deficiencies. Proposals satisfying the mandatory requirements during the Rectification Period, as described in Part 3 – Section 3.1 – Timetable will proceed to Stage II. Proposals failing to satisfy the mandatory requirements within the Rectification Period will be excluded from further consideration. The Rectification Period will begin to run from the date and time that the City issues its rectification notice to the proponents.

## **Mandatory Submission Forms**

Other than inserting the information requested on the mandatory submission forms set out in this RFP, a proponent may not make any changes to any of the forms.

### **Submission Form (Appendix A)**

Each proponent must complete the Submission Form and include it with their technical proposal. The Submission Form must be signed by an authorized representative of the proponent.

### **Pricing Form (Appendix B)**

Each proponent must complete the Pricing Form and include it with their financial proposal. The Pricing Form must be completed according to the instructions contained in the form. Fees must be provided in Canadian funds, inclusive of all costs, applicable duties, overhead, and insurance costs, except for HST/GST.

### **Reference Form (Appendix C)**

Each proponent must complete the Reference Form and include it with its technical proposal.

## **Other Mandatory Requirements**

Each proposal must:

- (a) Be in English.
- (b) Be for the entire scope of work as described in Appendix D – Section A - The Deliverables. Incomplete proposals or proposals for only part of the Deliverables described in Appendix D shall be disqualified.

### **(B) Stage II – Evaluation of Rated Criteria and Pricing**

Stage II will consist of a scoring by the City of each qualified proposal on the basis of the rated criteria and the pricing in accordance Appendix D – Section B – Evaluation Criteria. The City intends to shortlist to up to Three (3) proponents, however, should the City deem it to be in its best interest, it may expand this number accordingly.

### **(C) Stage III – Selection and Final Negotiation**

Once the proposals have been evaluated as per Stage II, the top-ranked proponent may be selected to enter into direct negotiations.

During the negotiation, the City may provide the top-ranked proponent with any additional information and will may further information and proposal improvements. After the negotiation, the top-ranked proponent may be invited to revise its initial proposal and submit its BAFO to the City.

**[End of Part 3]**

## **PART 4 – TERMS AND CONDITIONS OF THE RFP PROCESS**

### **4.1 General Information and Instructions**

#### **(A) Proponents to Follow Instructions**

- (1) Proponents should structure their proposals in accordance with the instructions in this RFP. Where information is requested in this RFP, any response made in a proposal should reference the applicable part, section, subsection or paragraph numbers of this RFP.

#### **(B) Information in RFP Only an Estimate**

- (1) The City and its representatives shall not be liable for any information or advice or any discrepancies or errors or omissions that may be contained in this RFP or an Addenda, appendices, data, materials or documents (electronic or otherwise) attached or provided to the proponents pursuant to this RFP.
- (2) The City and its advisors make no representation, warranty or guarantee as to the accuracy of the information contained in this RFP or issued by way of addenda. Any quantities shown or data contained in this RFP or provided by way of addenda are estimates only and are for the sole purpose of indicating to proponents the general scale and scope of the work. It is the proponent's responsibility to obtain all the information necessary to prepare a proposal in response to this RFP.

#### **(C) Proponents Shall Bear Their Own Costs**

- (1) The proponent shall bear all costs associated with or incurred in the preparation and presentation of its proposal, including, if applicable, costs incurred for interviews, and/or presentations.

### **4.2 Communication after Issuance of RFP**

#### **(A) Proponents to Review RFP**

- (1) Proponents shall promptly examine all of the documents comprising this RFP, and
  - (a) Shall report any errors, omissions or ambiguities; and
  - (b) May direct questions or seek additional information in writing by email to the City Contact on or before the Deadline for Questions. All questions submitted by proponents by email to the City Contact shall be deemed to be received once the email has entered into the City Contact's email inbox. No such communications are to be directed to anyone other than the City Contact. The City is under no obligation to provide additional information, and the City shall not be responsible for any information provided by or obtained from any source other than the City Contact.



- (2) It is the responsibility of the proponent to seek clarification from the City Contact on any matter it considers to be unclear. The City shall not be responsible for any misunderstanding on the part of the proponent concerning this RFP or its process.

**(B) All New Information to Proponents by Way of Addenda**

- (1) This RFP may be amended only by an addendum in accordance with this subsection. If the City, for any reason, determines that it is necessary to provide additional information relating to this RFP, such information will be communicated to all proponents by addenda. Each addendum forms an integral part of this RFP.
- (2) Such addenda may contain important information, including significant changes to this RFP. Proponents are responsible for obtaining all addenda issued by the City. Addenda may be obtained from the City's website ([www.saintjohn.ca](http://www.saintjohn.ca)) under the menu option "Tender and Proposals". In Appendix A, proponents should confirm their receipt of all addenda by setting out the number of each addendum in the space provided.

**(C) Post-Deadline Addenda and Extension of Submission Deadline**

- (1) If any addendum is issued after the Deadline for Issuing Addenda, the City may at its discretion extend the Submission Deadline for a reasonable period of time.

**(D) Verify, Clarify and Supplement**

- (1) When evaluating responses, the City may request further information from the proponent or third parties in order to verify, clarify, or supplement the information provided in the proponent's proposal. The City may revisit and re-evaluate the proponent's response or ranking on the basis of any such information.

**(E) No Incorporation by Reference**

- (1) The entire content of the proponent's proposal should be submitted in a fixed form, and the content of websites or other external documents referred to in the proponent's proposal will not be considered to form part of its proposal.

**(F) Proposal to Be Retained by the City**

- (1) The City will not return the proposal or any accompanying documentation submitted by a proponent.

**4.3 Debriefing**

**(A) Debriefing – Following Award**

- (1) Upon written request from any proponent, the City may provide a more detailed oral debriefing either by phone or in person, as required by the proponent. The written request shall be submitted to the City Contact no later than 15 calendar days after notification of award.

- (2) The acceptance of the successful proposal shall not be discussed during a debriefing.

#### **4.4 Prohibited Conduct**

##### **(A) Proponent Not to Communicate with Media**

- (1) A proponent may not at any time directly or indirectly communicate with the media in relation to this RFP or any agreement entered into pursuant to this RFP without first obtaining the written permission of the City Contact.

##### **(B) No Lobbying**

- (1) A proponent may not, in relation to this RFP or the evaluation and selection process, engage directly or indirectly in any form of political or other lobbying whatsoever to influence the selection of the successful proponent.

##### **(C) Illegal or Unethical Conduct**

- (1) Proponents shall not engage in any illegal business practices, including but not limited to, activities such as bid-rigging, price-fixing, bribery, fraud or collusion. Proponents shall not engage in any unethical conduct, including but not limited to, other inappropriate communications, offering gifts to members of Common Council, employees, officers or other representatives of the City, deceitfulness, submitting proposals containing misrepresentations or other misleading or inaccurate information, or any other conduct that compromises or may be seen to compromise the competitive process provided for in this RFP.

##### **(D) Past Performance or Inappropriate Conduct**

- (1) The City may prohibit a proponent from participating in the procurement process based on past performance or based on inappropriate conduct in a prior procurement process.
- (2) Such inappropriate conduct shall include, but not be limited to the following:
  - (a) All the conducts as described in Part 4 – Section 4.4;
  - (b) The refusal of the proponent to honour its pricing or other commitments made in its proposal; or
  - (c) Any other conduct, situation or circumstance determined by the City, in its sole and absolute discretion, to constitute a Conflict of Interest.

#### **4.5 Confidential Information**

##### **(A) Confidential Information of City**

- (1) All information provided by or obtained from the City in any form in connection with this RFP either before or after the issuance of this RFP:

- (a) Is the sole property of the City and must be treated as confidential;
- (b) Is not to be used for any purpose other than replying to this RFP and the performance of any subsequent Contract;
- (c) Must not be disclosed by the proponent to any person, other than persons involved in the preparation of the proponent's proposal or the performance of any subsequent contract, without prior written authorization from the City; and
- (d) Shall be returned by the proponents to the City immediately upon the request of the City.

**(B) Confidential Information of Proponent**

- (1) A proponent should identify any information in its proposal or any accompanying documentation supplied in confidence for which confidentiality is to be maintained by the City. The confidentiality of such information will be maintained by the City, except as otherwise required by law or by order of a court or tribunal. Proponents are advised that their proposals will, as necessary, be disclosed, on a confidential basis, to the City's advisors retained for the purpose of evaluating or participating in the evaluation of their proposals. If a proponent has any questions about the collection and use of personal information pursuant to this RFP, questions are to be submitted to the City Contact.

**4.6 Procurement Process Non-Binding**

**(A) No Contract A and No Claims**

- (1) The procurement process is not intended to create and shall not create a formal legally binding bidding process and shall instead be governed by law applicable to direct commercial negotiations.
- (2) For greater certainty and without limitation:
  - (a) Neither the proponent nor the City shall have the right to make any claims (in contract, tort, equity or otherwise) against the other with respect to the award of a contract, failure to award a contract or failure to honour a response to this RFP.

**(B) No Contract until Execution of Written Contract**

- (1) The RFP process is intended to identify the highest ranked proponent for the purposes of entering into a contract. No legal relationship or obligation regarding the procurement of any good or service shall be created between the proponent and the City by the RFP process until the issuance of a purchase order for the acquisition of such goods and/or services.

**(C) Non-Binding Price Estimates**

- (1) While the pricing information provided in responses will be non-binding prior to the issuance of a purchase order, such information will be assessed during the evaluation of the responses and the ranking of the proponents. Any inaccurate, misleading or incomplete information, including

withdrawn or altered pricing, could adversely impact any such evaluation, ranking or contract award.

**(D) Disqualification for Misrepresentation**

- (1) The City may disqualify the proponent or rescind a contract subsequently entered into if the proponent's response contains misrepresentations, omissions, or any other inaccurate, misleading or incomplete information.

**(E) Cancellation**

- (1) The City may cancel or amend the RFP process without liability at any time.

**4.7 Governing Law and Interpretation**

**A. Governing Law**

- (1) The terms and conditions in this Part 4:
  - (a) Are included for greater certainty and are intended to be interpreted broadly and separately (with no particular provision intended to limit the scope of any other provision);
  - (b) Are non-exhaustive (and shall not be construed as intending to limit the pre-existing rights of the parties to engage in pre-contractual discussions in accordance with the common law governing direct commercial negotiations); and
  - (c) Are to be governed by and construed in accordance with the laws of the province of New Brunswick and the federal laws of Canada applicable therein.

**[End of Part 4]**

## APPENDIX A– SUBMISSION FORM

**(A) Proponent Information**

Please fill out the following form, and name one person to be the contact for your response to this RFP response and for any clarifications or amendments that might be necessary.	
Full Legal Name of Proponent:	
Any Other Relevant Name under Which the Proponent Carries on Business:	
Street Address:	
City, Province/State:	
Postal Code:	
Phone Number:	
Fax Number:	
Company Website (If Any):	
RFP Contact Person and Title:	
RFP Contact Phone:	
RFP Contact Facsimile:	
RFP Contact E-mail:	

**(B) Acknowledgment of Non-Binding Procurement Process**

The proponent acknowledges that the RFP process will be governed by the terms and conditions of this RFP, and that, among other things, such terms and conditions confirm that this procurement process does not constitute a formal legally binding bidding process, and that there will be no legal relationship or obligations created until the City and the selected proponent have executed a Supply Agreement.

**(C) Ability to Provide Deliverables**

The proponent has carefully examined this RFP documents and has a clear and comprehensive knowledge of the Deliverables required under this RFP. The proponent represents and warrants its ability to provide the Deliverables required under this RFP in accordance with the requirements of this RFP for the prices set out in the Pricing Form.

**(D) Mandatory Forms**

The proponent encloses as part of the proposal the mandatory forms set out below:

FORM	INITIAL TO ACKNOWLEDGE
<b>Submission Form</b>	
<b>Pricing Form</b>	
<b>Reference Form</b>	

**Notice to proponents:** There may be forms required in this RFP other than those set out above. See the Mandatory Requirements section of this RFP for a complete listing of mandatory forms.

**(E) Non-Binding Price Estimates**

The proponent has submitted its fees in accordance with the instructions in this RFP and in the Pricing Form set out in Appendix B. The proponent confirms that the pricing information provided is accurate. The proponent acknowledges that any inaccurate, misleading or incomplete information, including withdrawn or altered pricing, could adversely impact the acceptance of its quotation or its eligibility for future work.

**(F) Addenda**

The proponent is deemed to have read and accepted all addenda issued by the City prior to the Deadline for Issuing Addenda. The onus remains on proponents to make any necessary amendments to their proposal based on the addenda. The proponent confirms that it has received all addenda by listing the addenda numbers, or, if no addenda were issued, by writing the word "None", on the following line:\_\_\_\_\_. Proponents who fail to complete this section will be deemed to have received all posted addenda.

**(G) No Prohibited Conduct**

The proponent declares that it has not engaged in any conduct prohibited by this RFP.

**(H) Disclosure of Information**

The proponent hereby agrees that any information provided in this proposal, even if it is identified as being supplied in confidence, may be disclosed where required by law or if required by order of a court or tribunal. The proponent hereby consents to the disclosure, on a confidential basis, of this proposal by the City to the City's advisers retained for the purpose of evaluating or participating in the evaluation of this proposal.

\_\_\_\_\_  
Signature of Witness

\_\_\_\_\_  
Signature of Proponent Representative

\_\_\_\_\_  
Name of Witness

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

I have the authority to bind the proponent.

## APPENDIX B – PRICING FORM

**(A) Pricing Form**

(1) Complete the following table to provide pricing for the scope of work for Proposal 2021-082301P, and **exclusive of HST/GST**.

Item	Description	Price
1	Demolition of existing luminaires as indicated including recycling.	\$
2	Supply and installation of luminaires associated with QMJHL vertical foot-candles compliance (TV Lights). Indicated in Electrical Drawings as Zone 1 Lighting Standards, Type 'A' & 'B' Fixtures.	\$
3	Supply and installation of luminaires associated with QMJHL horizontal foot-candles compliance (Over-Ice Lights). Indicated in Electrical Drawings as Zone 1 Lighting Standards, Type 'C' Fixtures.	\$
4	Supply and installation of luminaires associated with horizontal foot-candles trade show compliance. Indicated in Electrical Drawings as Zone 2 Lighting Standards, Type 'D' Fixtures.	\$
5	Supply and installation of wireless controls system	\$
6	Lighting quality commissioning to Zone 1 & Zone 2 Lighting Standards	\$
7	Controls Commissioning (Indicate whether commissioning agent is remote or on site)	\$
8	Static Scenes Programming	\$
9	Dynamic Scenes Programming	\$
Please specify Project timeline:		

Note: Please quote your net price on each of the commodity(s) F.O.B. delivered to City of Saint John.

The tendered prices for all materials to include pick-up, transportation, delivery, duty, fuel surcharge and any other charges incurred in order to provide required materials and/or services.

Additionally, provide the following Option Pricing for Review by the City:

Item	Description	Price
1	Removal of wireless controls from the contract and addition of hard-wired controls. This includes all luminaires being hardwired to a central controller. User control to be accomplished through two (2) 8-button stations and BACnet integration.	\$
Identify any extension or acceleration of project schedule as a result of this Option Pricing.		



## APPENDIX C – REFERENCE FORM

Each proponent is requested to provide three references from clients who have obtained similar goods or services to those requested in this RFP from the proponent in the last two years.

### Reference #1

<b>Company Name:</b>	
<b>Company Address:</b>	
<b>Contact Name:</b>	
<b>Contact Telephone Number:</b>	
<b>Date Work Undertaken:</b>	
<b>Nature of Assignment:</b>	

### Reference #2

<b>Company Name:</b>	
<b>Company Address:</b>	
<b>Contact Name:</b>	
<b>Contact Telephone Number:</b>	
<b>Date Work Undertaken:</b>	
<b>Nature of Assignment:</b>	

### Reference #3

<b>Company Name:</b>	
<b>Company Address:</b>	
<b>Contact Name:</b>	
<b>Contact Telephone Number:</b>	
<b>Date Work Undertaken:</b>	
<b>Nature of Assignment:</b>	

## APPENDIX D – RFP PARTICULARS

### (A) The Deliverables

#### (1) SCOPE

The City of Saint John is soliciting proposals from qualified providers for the following services:

- Proponent shall provide a turn-key solution for the supply and installation of a new LED lighting system and controls system as indicated in Appendix E – Electrical Drawings. This includes but is not limited to all labour, materials, equipment, accessories, programming, commissioning, etc. as required to complete Work.
- Proponent shall provide demolition services for removal of the existing over-ice lighting as indicated in Appendix E – Electrical Drawings.
- Proponent shall ensure all luminaires associated with ice-lighting (Basis of Design Fixtures ‘A’, ‘B’, ‘C’) are in compliance with the QMJHL lighting standards. Refer to Appendix F – QMJHL Ice Lighting Standards for further information.

#### (2) BID SUBMITTALS

The proponent shall submit with their bid package the following items:

- Plan view layout of the lighting fixtures. Indicate proposed locations for each fixture.
- Lighting calculations demonstrating the ‘Zone 1’ and ‘Zone 2’ Lighting Standards as indicated on the Appendix E – Electrical Drawings have been achieved. This lighting calculation can be outputs from lighting software such as AGI.
- Shadow rendering indicating the maximum player shadowing deemed acceptable with the proposed lighting system layout. Shadow rendering shall be submitted in accordance with Appendix E – Electrical Drawings. The following figure 2.1 indicates the level of player shadowing deemed acceptable:



- Warranty information. Minimum warranty held by the installation contractor shall be 1-year parts and labour. Lighting manufacturer shall provide parts and labour warranty for 10-years. Additional warranty available is of interest to the City.
- Shop drawings for all major equipment proposed for installation with their lighting system,

- this includes but is not limited to the following:
- Light fixtures
  - Controls components
  - Life cycle cost of the lighting system including the following variables:
    - 10-year term
    - Discount Rate: 4%
    - Utility annual escalation rate: 2%
    - Operations and Maintenance annual escalation rate: 2%
    - Utility Pricing:
      - \$0.0746 / kWh
      - \$8.86 / kW (True Demand Cost)
    - Hours of Operation:
      - Zone 1 Standards: 150 running hrs / yr
      - Zone 2 Standards: 400 running hrs / yr
      - Maintenance Levels (30 FCs within Zone 2 boundaries): 2,080 hrs / yr

**NOTE: SHOP DRAWINGS AND WARRANTY INFORMATION FOR ALL COMPONENTS OF THE NEW LIGHTING SYSTEM ARE TO BE PROVIDED AS PART OF YOUR PROPOSAL.**

**(3) DURATION**

This project has a completion date of August 14<sup>th</sup>, 2021.

**(4) PAYMENT**

Contractor will submit progress claims for review and approval by the City complete with 15% holdback. Holdback to be released following substantial completion. Payment shall be based on Net 45 Days from date of invoice or receipt of goods, 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](mailto:accountspayable@saintjohn.ca)). Vendors are to ensure invoices are not sent both ways.

**(5) FREIGHT AND DELIVERY**

Please quote your net price on each of the commodity(s) F.O.B. delivered to City of Saint John..

The tender prices for all materials and/or services include pick-up, transportation, delivery, duty, fuel surcharge and any other charges incurred in order to provide required materials and/or services.

**(6) SPECIFICATION SHEETS AND WARRANTY**

Specification sheets along with warranty information and any limiting conditions are to be submitted with the proposal.

**(7) TERMINATION OF THE CONTRACT**

The City reserves the right to terminate the contract at any time during the course of this agreement. In such an event, payment will be made only for the product received up to the time of termination.

**(8) BASIS FOR AWARD**

The City does not bind itself to accept the lowest or any proposal submitted, but reserves the right to accept any proposal deemed to be in its best interest. The City also reserves the right to split this contract between two or more bidders based upon the overall best value to the City.

**(9) RESERVED RIGHTS**

The City reserves the right to:

- a) Reject an unbalanced Proposal. For the purpose of this section, an unbalanced Proposal is a Proposal 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 Proposals submitted in response to other like or similar Requests for Proposals as a guideline in determining if a bid is unbalanced.
- b) Amend or modify the scope of a project, and/or cancel or suspend the Bid Solicitation at any time for any reason.
- c) Require proponents to provide additional information after the Closing Date for the Bid Solicitation to support or clarify their bids.

- d) Not accept any or all bids.
- e) Not accept a bid from a bidder who is involved in litigation, arbitration or any other similar proceeding against the City.
- f) Reject any or all bids without any obligation, compensation or reimbursement to any bidder or any of its team members.
- g) Withdraw a Bid Solicitation and cancel or suspend the Bid Solicitation process.
- h) Extend, from time to time, any date, any time period or deadline provided in a Bid Solicitation (including, without limitation, the Bid Solicitation Closing Date), upon written notice to all bidders.
  - i) Assess and reject a bid on the basis of
    - i. Information provided by references;
    - ii. The bidder's past performance on previous contracts;
    - iii. Information provided by a bidder pursuant to the City exercising its clarification rights under the Bid Solicitation process;
    - iv. The bidder's experience with performing the type and scope of work specified including the bidder's experience;
    - v. Other relevant information that arises during a Bid Solicitation process.
- j) Waive formalities and accept bids which substantially comply with the requirements of the Bid Solicitation.
- k) Verify with any bidder or with a third party any information set out in a bid.
- l) Disqualify any bidder whose bid contains misrepresentations or any other inaccurate or misleading information.
- m) Disqualify any bidder who has engaged in conduct prohibited by the Bid Solicitation documents.
- n) Make changes including substantial changes to the bid documents provided that those changes are issued by way of an addendum in the manner set out in the Bid Solicitation documents.
- o) Select any bidder other than the bidder whose bid reflects the lowest cost to the City.
- p) Cancel a Bid Solicitation process at any stage.
- q) Cancel a Bid Solicitation process at any stage and issue a new Bid Solicitation for the same or similar deliverable.
- r) Accept any bid in whole or in part.

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 a Bid Solicitation.

**(10) LIMITATION OF LIABILITY AND WAIVER**

In every Bid Solicitation, the City shall draft the documents such that each bidder, by submitting a bid, agrees that:

- a) Neither the City nor any of its employees, agents, advisers or representatives will be liable, under any circumstances, for any claims arising out of a Bid Solicitation process including but not limited to costs of preparation of the bid, loss of profits, loss of opportunity or any other claim.
- b) The bidder waives any claim for any compensation of any kind whatsoever including claims for costs of preparation of the bid, 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 the Bid Solicitation process, and the bidder shall be deemed to have agreed to waive such right or claim.

## (B) Evaluation Criteria

- (1) The following is an overview of the categories and weighting for the rated criteria relevant to the evaluation of proposals under this RFP.

<b>STAGE II OF EVALUATION PROCESS</b>	<b>SCORING (POINTS)</b>
<b>Quality and Completeness:</b> <ul style="list-style-type: none"><li>• <b>Has the proponent addressed all of the needs identified?</b></li><li>• <b>Is the proposal presented in an organized and professional manner? Have SPEC Sheets and WARRANTY information been submitted.</b></li></ul>	10
<b>Specifications and Quality:</b> <ul style="list-style-type: none"><li>• <b>Meet/exceed Specifications outlined (Spec Sheets).</b></li><li>• <b>Warranty Information provided.</b></li><li>• <b>Delivery timeframe.</b></li><li>• <b>Life cycle costing calculation</b></li></ul>	40
<b>Cost:</b> <ul style="list-style-type: none"><li>• <b>Cost will be a factor, however, neither the only factor nor the determined factor, in the evaluation of the proposals.</b></li><li>• <b>The financial proposal shall include:</b><ul style="list-style-type: none"><li>○ <b>Pricing Form</b></li></ul></li></ul>	50
<b>TOTAL POINTS FOR STAGE II</b>	<b>100</b>

## **(C) Submission Requirements**

(1) Proponents should include the following information in respect of each of the rated criteria:

(a) Quality and completeness – 10 Points

- i. Has the proponent addressed all of the needs identified and is the proposal presented in an organized and professional manner, have all bid submittal requirements been provided?

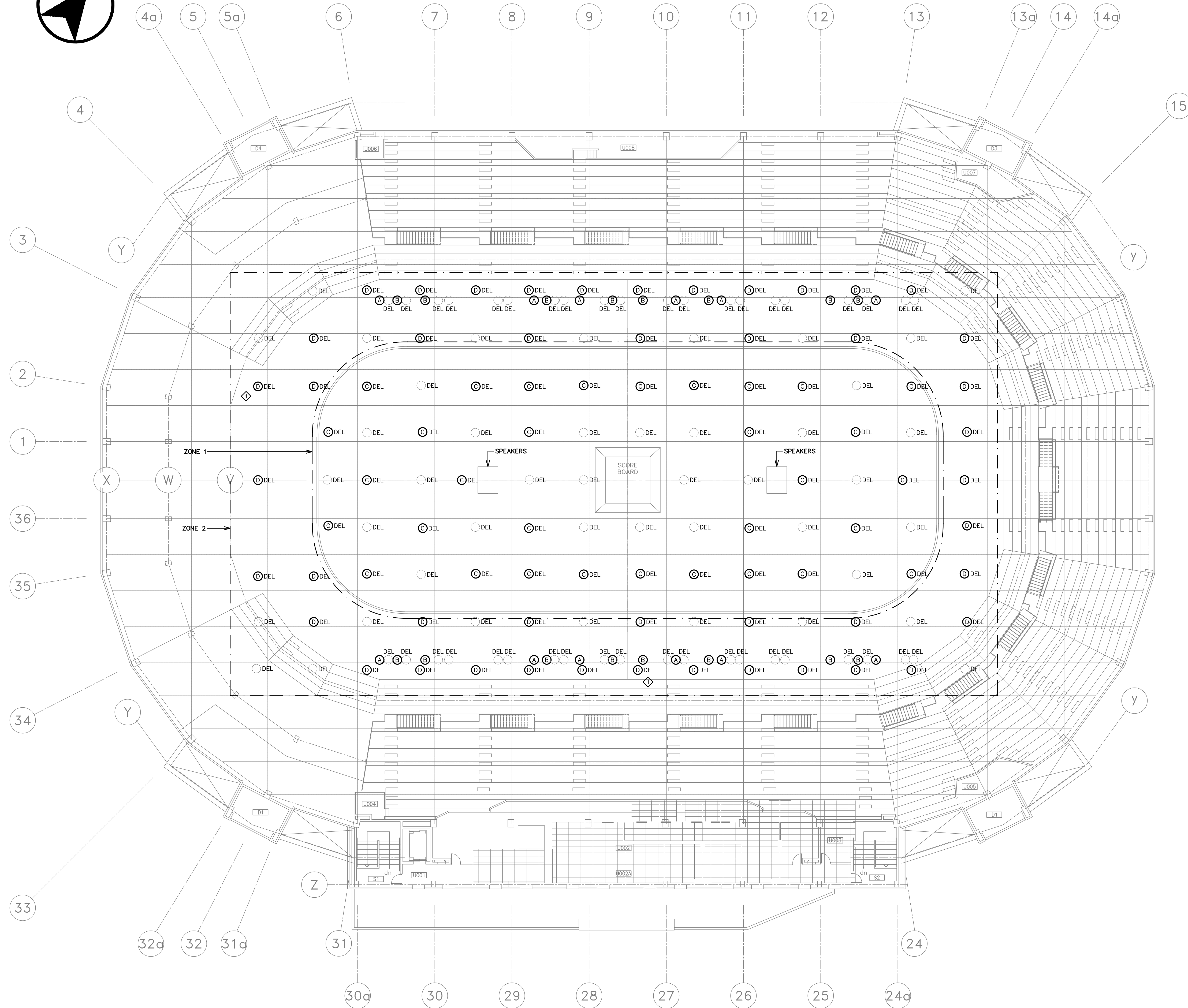
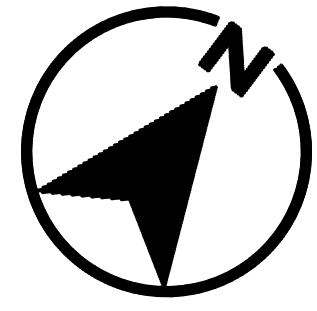
(b) Specifications and Quality – 40 Points

- i. Meet/exceed specifications outlined;
- ii. Warranty information;
- iii. Project timeline
- iv. Life cycle costing calculations

(c) Cost (Financial Proposal) – 50 Points

- i. completed Pricing Form as provided in Appendix B;
- ii. proposed cost for the Deliverables, as described in Appendix D – Part A – The Deliverables;





- LIGHTING**
- DEL EXISTING H.I.D. LUMINAIRE TO BE REMOVED AND DISPOSED OF.
  - NEW LED LUMINAIRE, TYPE AS SPECIFIED.
  - ⊙ DEL DENOTES REMOVE EXISTING LUMINAIRE AND INSTALL NEW LUMINAIRE AS NOTED.
- MISCELLANEOUS**
- ◇ ELECTRICAL DRAWING NOTES

- GENERAL NOTES:**
- LOCATION OF LUMINAIRES SHOWN ARE APPROXIMATE.
  - ALL MANUFACTURERS SHALL PROVIDE A COMPLETE CALCULATION SHOWING ALL PARAMETERS LISTED IN THE "LIGHTING STANDARDS" TABLE HAVE BEEN MET. MANUFACTURERS SHALL ALSO PROVIDE A SHADOW RENDERING TO DEMONSTRATE THE SHADOWS PRESENT ON THE ICE SURFACE FOR A TYPICAL 6ft PERSON. PROVIDE SHADOW RENDERING IN 10 DIFFERENT LOCATIONS ACROSS THE ICE SURFACE.
  - REUSE EXISTING CIRCUITS (CONFIRM VOLTAGE), 3/4" R/S CONDUIT STEM AND CABTIRE CABLE. EXTEND EXISTING 3/4" R/S STEM TO ACCOMMODATE NEW LUMINAIRE SUSPENSION HEIGHTS. THREAD CONDUIT INTO NEW LUMINAIRE.
  - SUPPLY AND INSTALL TWO (2) 8 BUTTON, SYNAPSE #WSW-08-PS WIRELESS SWITCHES, ONE (1) IN MAINTENANCE OFFICE LOCATED ON ARENA LEVEL AND ONE (1) IN PRESS BOX LOCATED ON THE CONCOURSE LEVEL. PROVIDE 120V POWER TO POWER SUPPLY. CONTRACTOR TO CONFIRM PROPOSED SWITCHING LOCATIONS WITH SITE REPRESENTATIVE.
  - SUPPLY AND INSTALL ONE (1) SYNAPSE #CBSW-450-001E-DB ENCLOSED CENTRAL BASE STATION EQUIPPED WITH DYNAMIC SCENE CAPABILITIES. PROVIDE 120V POWER CIRCUIT. LOCATE IN MAINTENANCE OFFICE LOCATED ON ARENA LEVEL. CONTRACTOR TO CONFIRM PROPOSED LOCATION WITH SITE REPRESENTATIVE. CONTRACTOR TO ALLOW FOR PROGRAMMING OF EIGHT (8) STATIC SCENES AND FOUR (4) DYNAMIC SCENES. COORDINATE SCENE REQUIREMENTS WITH OWNER'S REPRESENTATIVE.
  - SUPPLY AND INSTALL ONE (1) SYNAPSE #BMS-GW-002 GATEWAY. PROVIDE ETHERNET CONNECTION FOR GATEWAY INTEGRATION WITH BUILDING AUTOMATION SYSTEM. CONTRACTOR TO CONFIRM INSTALLATION LOCATION WITH SITE REPRESENTATIVE.
  - EXISTING CIRCUITING AND RECEPTACLES FOR DELETED LUMINAIRES SHALL REMAIN. WHERE NO NEW LUMINAIRE IS RE-INSTALLED, LABEL ASSOCIATED DOUGLAS RELAY AS "SPARE".

- SPECIFIC NOTES:**
- ◇ INSTALL NEW LUMINAIRES AT THIS LOCATION. USE AN EXISTING STEM AND CABTIRE FROM A DELETED LUMINAIRE AND CONNECT TO EXISTING DECK MOUNTED OUTLET. NO LUMINAIRE IN THIS LOCATION PRESENTLY.

2

E-1 SYMBOL LEGEND AND NOTES

N.T.S.

ZONE 1 LIGHTING STANDARDS	
LIGHTING SPECIFICATIONS	LIGHTING REQUIREMENTS
FIELD OF PLAY - TRUE HORIZONTAL MIN (fc)	160 fc MINIMUM AVERAGE MAINTAINED
HORIZONTAL UNIFORMITY RATIO	1 : 1.35 MAX
ICE TO DASHER SHADOW RATIO	1 : 0.75 OF ICE HORIZONTAL LEVEL
ICE TO PENALTY BOX RATIO	1 : 0.75 MIN
ICE TO BENCHES RATIO	1 : 0.75 MIN
COLOR TEMPERATURE UNIFORMITY IN KELVIN	5600K +/- 200 DEGREES KELVIN
COEFFICIENT OF VARIANCE	< 0.15
TELEVISION LIGHTING CONSISTENCY INDEX	≥ 75
COLOR RENDERING INDEX	> 80
GLARE RATING	< 40 UNIFIED GLARE RATING
UNIFORMITY GRADIENT CALCULATION	1 : 1.35
STROBOSCOPIC FLICKER	< 4%

ZONE 2 LIGHTING STANDARDS	
LIGHTING SPECIFICATIONS	LIGHTING REQUIREMENTS
TRADE SHOW REQUIREMENTS	50 fc MINIMUM AVERAGE MAINTAINED

3

E-1 LIGHTING STANDARDS

N.T.S.

LUMINAIRE SCHEDULE						
TYPE	MANUFACTURER	DESCRIPTION	VOLTAGE	MOUNTING	LAMP	NOTES
A	EPHESUS# EPH-LS-08-0320L-BLK-57-80-3S-C04-HV-AM-LY-A3-HEG-BP-ST	LED ENTERTAINMENT LUMINAIRE, TYPE 3S NEMA 3 OPTICS, HYBRID REFLECTOR, FULLY ADJUSTABLE, PRE-AIMABLE TWO PIECE ASSEMBLY, WIRELESS AIR MESH CONTROLS.	347	MOUNTED TO SIDE OF BEAM	320W ~55419 LUMENS 5700K 80 CRI	1,2
B	EPHESUS# EPH-LS-08-0320L-BLK-57-80-4S-C04-HV-AM-LY-A3-HEG-BP-ST	LED ENTERTAINMENT LUMINAIRE, TYPE 4S NEMA 4 OPTICS, HYBRID REFLECTOR, FULLY ADJUSTABLE, PRE-AIMABLE TWO PIECE ASSEMBLY, WIRELESS AIR MESH CONTROLS.	347	MOUNTED TO SIDE OF BEAM	320W ~55419 LUMENS 5700K 80 CRI	1,2
C	EPHESUS# EPH-LS-08-0640L-BLK-57-80-5S-C04-HV-AM-LP-A6-HEG-BP-ST	LED ENTERTAINMENT LUMINAIRE, TYPE 5S NEMA 5 OPTICS, HYBRID REFLECTOR, FULLY ADJUSTABLE, PRE-AIMABLE TWO PIECE ASSEMBLY, WIRELESS AIR MESH CONTROLS.	347	STEM MOUNTED	640W ~92929 LUMENS 5700K 80 CRI	1,3
D	METALLUX# SLED-L05-36-N-347-L857-CD-2-BLK-TC8-PCA/347-U-SLED-SA23-U/DM10-220	LED ROUND HIGH BAY LUMINAIRE, DIE-CAST ALUMINUM HOUSING, ALUMINUM SHROUD, HIGH-IMPACT POLYCARBONATE OPTICS COMPLETE WITH 347V STEP-DOWN TRANSFORMER AND WIRELESS 120V CONTROLLER.	347/120	STEM MOUNTED	334W ~36789 LUMENS 5700K 80 CRI	1,3,4

**NOTES:**

- VERIFY VOLTAGE PRIOR TO SHOP DRAWING SUBMITTAL.
- MOUNT TV LIGHTS TO SIDE OF BEAM.
- BOTTOM OF LUMINAIRES SHALL BE FLUSH WITH BOTTOM OF STEEL. EXTEND EXISTING STEMS TO SUIT, REFER TO GENERAL NOTE 3 ON DETAIL 2 OF THIS DRAWING.
- SUPPLY AN INTEGRAL 347V-120V STEP DOWN TRANSFORMER AND WIRELESS LIGHTING CONTROLLER INTEGRATED WITH CENTRAL AIR MESH CONTROLS.

4

E-1 LUMINAIRE SCHEDULE

N.T.S.

1

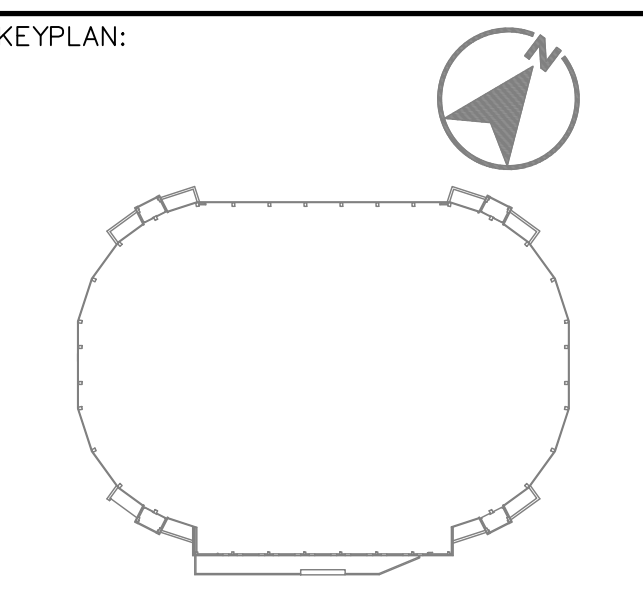
E-1 ARENA ICE LIGHTING - NEW WORK

Sheet Size: B1

1:200



CLIENT:  
SAINT JOHN  
CONSULTANT:  
**M&W** Maricor  
120 MILLENIUM DRIVE, SUITE 201  
SAINT JOHN, NB E2E 0C6  
BUS: (506) 847-6285 FAX: (506) 849-2131  
WWW.MCW.COM ENG. JOB NO. 12.19.082  
PKG A3



STAMP:  
**PRELIMINARY ONLY FOR INFORMATION**

NO.	ISSUED FOR PRICING	2021/01/29	T.D.
	REVISIONS	DATE	INIT.

PROJECT TITLE:  
**CITY OF SAINT JOHN  
MBDER PKG #A3  
TD STATION  
LIGHTING RETROFIT**

DRAWING TITLE:  
**ELECTRICAL  
ICE LIGHTING -  
NEW WORK**

SCALE: AS NOTED DATE: JANUARY 2021  
DRAWN BY: M.J.G. DRAWING NO:  
CHECKED BY: B.C. **E-1**




- 1. GENERAL REQUIREMENTS**
- 1.1. THESE ELECTRICAL SPECIFICATIONS SHALL BE READ IN CONJUNCTION WITH: FRONT-END CONTRACT DOCUMENTS, ELECTRICAL DRAWINGS AND OTHER CONTRACT DOCUMENTS.
- 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 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, THIS CONTRACTOR IS CONSIDERED THE GENERAL CONTRACTOR AND IS RESPONSIBLE TO CARRYING ANY AND ALL SUB-TRADES REQUIRED TO COMPLETE WORK.
- 1.3. CODES AND STANDARDS
- 1.3.1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH CSA C22.1-18, CANADIAN ELECTRICAL CODE, PART 1. (2018 EDITION) AND THE NATIONAL BUILDING CODE OF CANADA 2010.
- 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. SITE VISIT
- 1.5.1. PRIOR TO SOLICITATION, 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 INSPECTION.
- 1.6. COORDINATION OF WORK
- 1.6.1. 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.
- 1.6.2. COOPERATE WITH OWNER AND OWNER'S FORCES IN CARRYING OUT WORK. REPORT ANY DEFICIENCIES OR DEFECTS IN WORK PREVIOUSLY PERFORMED BY OTHERS THAT AFFECT THIS CONTRACTOR'S WORK TO ENGINEER IMMEDIATELY.
- 1.6.3. WHERE WORK IS CARRIED OUT IN EXISTING PREMISES, NOTIFY OWNER AT LEAST 72 HOURS IN ADVANCE OF ANY NECESSARY INTERRUPTIONS IN SERVICES OR ACCESS.
- 1.7. WARRANTY
- 1.7.1. THIS CONTRACTOR SHALL PROVIDE, IN WRITING, WARRANTY FOR ONE (1) YEAR FROM DATE OF SUBSTANTIAL COMPLETION. REPAIR AND MAKE GOOD ALL DEFECTS DURING THE WARRANTY PERIOD, INCLUDING ANY DAMAGE TO BUILDING INCURRED AS A RESULT OF FAILURE OF ELECTRICAL WORK AND/OR EQUIPMENT INSTALLED.
- 1.7.2. LUMINAIRE MANUFACTURER SHALL PROVIDE WARRANTY FOR TEN (10) YEARS PARTS AND LABOUR. REPAIR AND MAKE GOOD ALL DEFECTS DURING THE WARRANTY PERIOD, INCLUDING ANY DAMAGE TO BUILDING INCURRED AS A RESULT OF FAILURE OF ELECTRICAL WORK AND/OR EQUIPMENT INSTALLED.
- 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.
- 1.9. EXTRA WORK
- 1.9.1. NO ALLOWANCE SHALL BE MADE BEYOND CONTRACT PRICE UNLESS CONTRACTOR RECEIVES SIGNED APPROVAL FROM ENGINEER.
- 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 DRAWINGS 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, 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. ALL MATERIAL SUPPLIED SHALL BE NEW AND CARRY C.S.A. CERTIFICATION OR OTHER CERTIFICATIONS APPROVED BY LOCAL INSPECTION AUTHORITY.
- 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.
- 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 WITH:
  - DETAILS OF DESIGN ELEMENTS, CONSTRUCTION FEATURES, COMPONENT FUNCTION AND MAINTENANCE REQUIREMENTS, 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.
  - 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 JURISDICTION.
- 1.15. DEMOLITION
- 1.15.1. DISCONNECT AND REMOVE ALL DEVICES, COMPONENTS AND EQUIPMENT MADE REDUNDANT UNDER THIS CONTRACT. 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 EXISTING DEVICES REMAINING.
- 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 MINIMIZE DANGER AT SITE OR DURING DISPOSAL.
- 2. BASIC MATERIAL AND METHODS**
- 2.1. EQUIPMENT AND PROPERTY
- 2.1.1. 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.
- 2.1.2. REUSE EXISTING PRODUCTS WHICH MEET SPECIFICATIONS WHEREVER PRACTICABLE.
- 2.1.3. 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.
- 2.1.4. 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.
- 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, CIRCUIT BREAKERS, AND DISCONNECT SWITCHES FOR CORRECT 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.
- 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 OR 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 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.
- 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 (WIREMOLD OR APPROVED EQUAL).
- 4.4. WIRING:
- 4.4.1. ARMORED 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 COURLINGS.
- 4.4.4. CONDUCTORS; #12 RW90, 600V, CU, MINIMUM, IN EMT CONDUIT.
- 4.5. ASSURE THAT ALL CONDUCTORS ARE SIZED FOR MAXIMUM VOLTAGE DROP:
- 4.5.1. BRANCH CIRCUITS - MAX. 2%
- 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' [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**
- 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.
- 6. WIRING DEVICES**
- 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. SHEET STEEL UTILITY BOX COVERS FOR WIRING DEVICES INSTALLED IN SURFACE-MOUNTED UTILITY BOXES ("FS" TYPE).
- 6.4. THERMOPLASTIC COVER PLATES FOR WIRING DEVICES MOUNTED IN A FLUSH-MOUNTED OUTLET BOX. COLOR: TO MATCH DEVICE.
- 6.5. PROVIDE SURFACE MOUNTED NON-METALLIC RACEWAY FOR EXPOSED RUNS WHERE INDICATED WITH ALL NECESSARY FITTINGS, PAINT TO MATCH SUPPORTING SURFACES. ACCEPTABLE MANUFACTURERS: HUBBELL, WIREMOLD.

- 6.6. WIRING DEVICES IN LEGEND ARE INTENDED TO SET A STANDARD BELOW WHICH EQUIPMENT WILL NOT BE ACCEPTED.
- 6.7. MOUNTING HEIGHTS TO MATCH EXISTING.
- 6.8. LOCATE DEVICES 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.
- 8. PANELBOARDS**
- 8.1. UPDATE REVISED PANEL DIRECTORIES AT END OF CONSTRUCTION.
- 8.2. EXISTING DOUGLAS RELAY SYSTEM IS TO REMAIN. LABEL ALL UN-USED RELAYS AS "SPARE".
- 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 HANGERS, DRIVERS, LED BOARDS, LUMEN OUTPUT, COLOUR TEMPERATURE, CRF, TLO, 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.
- 9.3. THIS CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL LIGHTING EQUIPMENT INSTALLED UNDER NEW WORK WHETHER SHOWN ON DRAWING OR NOT. REFER TO SECTION 1.14.1 PRIOR TO DISPOSAL.
- 9.4. SUPPLY TWO (2) SPARE LED DRIVERS PER FIXTURE TYPE, TRANSFORMERS AND DIM10-220 WIRELESS CONTROLLERS.
- 9.5. ACCEPTABLE MANUFACTURERS: COOPER, SIGNIFY, ACUITY BRANDS, MUSCO, CREC
- 10. LIGHTING CONTROLS**
- 10.1. THIS CONTRACTOR SHALL PROVIDE A LIGHTING CONTROL SYSTEM ALLOWING EACH FIXTURE TO BE CONTROLLED INDEPENDENTLY INCLUDING ENABLE/DISABLE AND DIMMING SET POINT. THE CONTROL SYSTEM SHALL ALLOW FOR MINIMUM EIGHT (8) DIFFERENT PRE-PROGRAMMED SCENES WHICH ARE USER-DEFINABLE AND ADJUSTABLE. THE CONTROL SYSTEM SHALL ALSO ALLOW FOR Bacnet INTEGRATION WITH THE DELTA BUILDING AUTOMATION SYSTEM. Bacnet POINTS SHALL BE READ/WRITE COMPATIBLE INCLUDING ENABLE/DISABLE AND DIMMING SETPOINTS ON A PER FIXTURE BASIS. THIS CONTRACTOR IS NOT RESPONSIBLE FOR THE Bacnet INTEGRATION INTO THE EXISTING DELTA BAS BUT IS RESPONSIBLE FOR WORKING WITH THE OWNER'S REPRESENTATIVE TO SEE A SUCCESSFUL INTEGRATION.
- 10.2. 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 STRUCTURE 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 LIGHTING CONTROLS SYSTEMS.
- 10.3. LOCATION OF CONTROL DEVICES SHALL BE COORDINATED WITH USER PRIOR TO ROUGH-IN.
- 10.4. WALL MOUNTED DEVICES SHALL BE FASTENED TO WALL WITH MANUFACTURER'S RECOMMENDED BRACKET. MOUNT WHERE DIRECTED BY USER.
- 10.5. RECESS NEW SWITCH BOXES INTO WALL TO ACCOMMODATE NEW POWER SUPPLY AND WIRELESS SWITCH. FISH WIRE AND CABLE IN WALL TO PROVIDE 120V POWER FROM NEAREST SOURCE WITH ADEQUATE AMPACITY.
- 10.6. PROVIDE POWER PACK QUANTITIES AS REQUIRED TO MEET MANUFACTURER'S RECOMMENDATIONS.
- 10.7. FACTORY REPRESENTATIVE FOR COMMISSIONING
- 10.7.1. UPON COMPLETION OF THE INSTALLATION, THE SYSTEM SHALL BE COMPLETELY COMMISSIONED BY THE MANUFACTURER'S FACTORY AUTHORIZED TECHNICIAN WHO WILL VERIFY ALL ADJUSTMENTS AND DEVICE PLACEMENTS TO ENSURE A TROUBLE-FREE LIGHTING CONTROL SYSTEM.
- 10.7.2. 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 CONTROL SYSTEM.
- 10.7.3. 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
- 10.7. WHEN THE NEW SYSTEM HAS BEEN FULLY COMMISSIONED AND IS OPERATING AS INTENDED, THIS CONTRACTOR SHALL BE RESPONSIBLE FOR TRAINING SITE PERSONNEL FOR THE FOLLOWING MINIMUM REQUIREMENTS:
- 10.7.1.1. USE OF STATIC SCENES VERSUS DYNAMIC SCENES
- 10.7.1.2. MODIFICATION OF STATIC SCENES
- 10.7.1.3. MODIFICATION OF DYNAMIC SCENES
- 11. QUALITY ASSURANCE**
- 11.1. ALL COMPONENTS SHALL BE CSA AND/OR ULC APPROVED/LISTED AND LABELED.
- 11.2. WARRANTIES:
- 11.2.1. IN COMPLIANCE WITH RFP SOLICITATION DOCUMENT.
- 12. SAFETY**
- 12.1. UNDER NO CIRCUMSTANCES SHALL WORK OCCUR ON ENERGIZED CIRCUITS.

CLIENT:

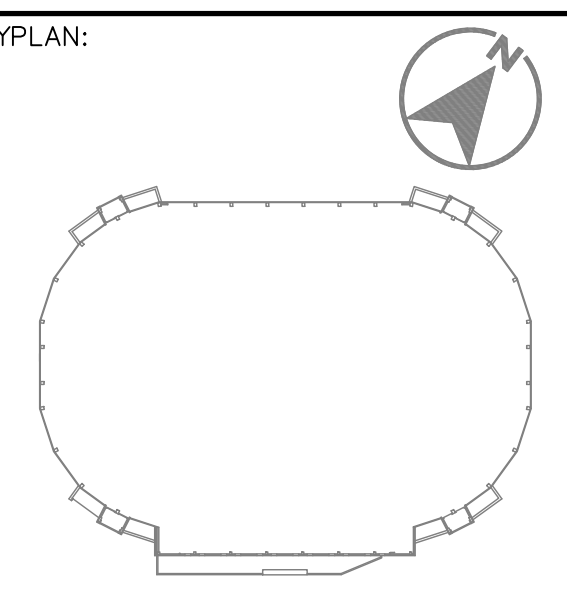


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KEYPLAN:



STAMP:

**PRELIMINARY ONLY FOR INFORMATION**

NO.	ISSUED FOR PRICING	2021/01/29	T.D.
0	REVISIONS	DATE	YYYY/MM/DD

PROJECT TITLE:

**CITY OF SAINT JOHN  
MBDR PKG #A3  
TD STATION  
LIGHTING RETROFIT**

DRAWING TITLE:

**ELECTRICAL  
SPECIFICATIONS**

SCALE:	AS NOTED	DATE:	JANUARY 2021
DRAWN BY:	M.J.G.	DRAWING NO.:	<b>E-2</b>
CHECKED BY:	B.C.		





## Lighting Standards

Lighting Specifications	Lighting Requirements
Field of play – True Horizontal Min (fc)	160 fc minimum average maintained
Horizontal Uniformity Ratio	1 : 1.35 max
Ice to Dasher Shadow Ratio	1 : 0.75 of ice horizontal level
Ice to Penalty Box Ratio	1 : 0.75 min
Ice to Benches Ratio	1 : 0.75 min
Color Temperature Uniformity in Kelvin	5600K +/- 200 degrees Kelvin
Coefficient of Variance	< 0.15
Television Lightning Consistency Index	≥ 75
Color Rendering Index	> 80 for LED
Glare Rating	< 40 Unified Glare Rating
Uniformity Gradient Calculation	1 : 1.35
Stroboscopic Flicker	< 4%