Sault Ste. Marie
PUC SERVICES Inc.

Distribution Line Construction Work Package

Restricted Wire Replacement Project

RFP Number: 23 07 003

CIMA+ project number: T001890A
July 21, 2023 – Revision B

PUC Services Inc.

Distribution Line Construction Work Package

Restricted Wire Replacement Project

Prepared by: _____
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Verified by: _____
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CIMA+ project number: T001890A
July 21, 2023 – Revision BB

Confidentiality and ownership

Revision and Submission Record			
Revision No.	**Reviewed by**	**Date**	**Description of Submission**
A	AC	2023-06-16	Issued for Review
B	AC	2023-07-21	Issued for Tender

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1. INTRODUCTION

1.1 Order of Precedence

For the purposes of the construction contract the following is the order of precedence to be used.

Order of precedence:

- Written confirmation from PUC Services Inc. (e.g. addendums)
- Appendices
- All other RFP Documentation
- Contract Information
- Contractors submitted documentation

In the event of a conflict or inconsistency between any of the above, the document with higher precedence shall prevail over the lower precedence document.

1.2 Invitation to Proponents

This Request for Proposals ("RFP") is an invitation by PUC Services Inc to prospective qualified proponents to submit proposals for the reconductoring and pole replacement of 7.2kV single-phase overhead line described in Part 2. THE DELIVERABLES

- Segment 3 : on Herkimer St. between Townline Rd. and Carpin Beach Rd. in Sault Ste. Marie, Ontario
- Segment 4 : OPTIONAL : on Victoria St between Herkimer St. and Cottage LN in Sault Ste. Marie, Ontario

For the purpose of this document," PUC Services Inc." will refer to Sault Ste Marie Public Utilities Commission Electricity and Water or its representative and "Proponent" will refer to the company which submit its proposal for the RFP scope of work and supply.

For the purposes of this RFP, the "PUC Services Inc. Contact" is:

Daniel Maione, EIT

Electrical Distribution Engineering Intern

PUC Services Inc. 500 Second Line E, Sault Ste Marie, ON, Canada

C: 705-989-7502 T: 705-408-2801 E: daniel.maione@ssmpuc.com

1.3 Type of Contract for Deliverables

The selected proponent will be requested to enter into negotiations for an agreement with PUC Services Inc. for the provision of the Deliverables in the form attached as APPENDIX A FORM OF AGREEMENT to the RFP. It is PUC Services Inc's intention to enter into the Form of Agreement based on that attached as APPENDIX A FORM OF AGREEMENT to the RFP with only one (1) legal entity. The term of the agreement is to be for the duration of work required to provide the Deliverables.

1.4 No Guarantee of Volume of Work or Exclusivity of Contract

PUC Services Inc. makes no guarantee of the value or volume of work to be assigned to the successful proponent. The Agreement to be negotiated with the selected proponent will not be an exclusive contract for the provision of the described Deliverables. PUC Services Inc. may contract with others for the same or similar Deliverables to those described in the RFP or may obtain the same or similar deliverables internally.

1.5 Agreement on Internal Trade

The provisions of Chapter Five of the Canadian Free Trade Agreement apply to this Proposal. For further reference, proponents can consult the website at: https://www.cfta-alec.ca/agreement-on-internal-trade/

2. THE DELIVERABLES

2.1 Description of Deliverables

The RFP is an invitation to submit proposals for the reconductoring and pole replacement of 7.2kV single-phase overhead line on Herkimer St. between Townline Rd. and Carpin Beach Rd. in Sault Ste. Marie, Ontario described in APPENDIX E RFP PARTICULARS – Section E1. THE SCOPE OF WORK.

2.2 Material Disclosures

Proponents shall refer to APPENDIX E RFP PARTICULARS – Section E3. MATERIAL DISCLOSURES

3. EVALUATION OF PROPOSALS

3.1 Timetable and Submission Instructions

Proponents shall submit their proposals according to the following timetable and instructions.

3.1.1 Timetable

Issue Date of RFP	July 25, 2023
Mandatory Site Visit	N/A
Deadline for Questions	August 9, 2023
Deadline for Issuing Addenda	August 15, 2023
Submission Deadline	August 25, 2023 before 2 PM

3.1.2 Proposals Shall Be Submitted in Prescribed Manner

Proposals shall be submitted at:

Proponents shall submit one (1) electronic copy in PDF format by email only. The maximum email size limit for PUC SERVICES INC. is 20 MB (per email received).

Daniel Maione, EIT

Electrical Distribution Engineering Intern

PUC Services Inc. 500 Second Line E, Sault Ste Marie, ON, Canada

C: 705-989-7502 T: 705-408-2801

Email : daniel.maione@ssmpuc.com

Proposals are to be prominently marked with the RFP title and number (see RFP cover), with the full legal name and return address of the proponent, and with the Submission Deadline.

3.1.3 Proposals Shall Be Submitted on Time at Prescribed Location

Proposals shall be submitted by email set out above on or before the Submission Deadline. Proposals submitted after the Submission Deadline will be rejected.

3.1.4 Withdrawing Proposals

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 PUC Services Inc. Contact and must be signed by an authorized representative. PUC Services Inc. is under no obligation to return withdrawn proposals.

3.2 Stages of Proposal Evaluation

PUC Services Inc. will conduct the evaluation of proposals in the following three (3) stages:

3.2.1 Stage I

Stage I will consist of a review to determine which proposals comply with all the mandatory requirements. Proposals failing to satisfy the mandatory requirements as of the Submission Deadline will be excluded from further consideration.

3.2.2 Stage II

Stage II will consist of a scoring by PUC Services Inc. of each qualified proposal based on the rated criteria.

3.2.3 Stage III

Stage III will consist of a Health & Safety verification of requirements and verification of that scoring category.

3.2.4 Cumulative Score

At the conclusion of stage 3, the proponents project cost submission value will be divided by the proponents total score from stages 1-3. This will provide a price per point and the lowest price per point will prove to be the best value and upon Health and Safety requirements being met, the proponent will be awarded the project.

3.3 Stage I – Mandatory Requirements - Submission

3.3.1 Submission

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

3.3.2 Email Limit

The Proponent shall limit their proposal email size to 20MB. Appendices shall be indexed and clearly identified.

3.3.3 Submission Form (APPENDIX B)

Each proposal must include a Submission Form (APPENDIX B) completed and signed by an authorized representative of the proponent.

3.3.4 Rate Form (APPENDIX C)

Each proponent must include a Rate Form (APPENDIX C) completed according to the instructions contained in the form as well as the following instructions:

+ rates shall be provided in Canadian funds, inclusive of all applicable duties and taxes except for Harmonized Sales Tax (HST), which shall be itemized separately; and
+ rates quoted by the proponent shall be all-inclusive and shall include all labour and material costs, all travel and carriage costs, salvage the existing pole line as per drawing, all insurance costs, all costs of delivery, redline drawing, transfer Streetlight, Remove existing material after the third party transfer, profit to PUC Services Inc, all costs of installation and set-up, including any pre-delivery inspection charges, and all other overhead, including any fees or other charges required by law.
+ Note that Segment 3 pricing is mandatory. Segment 4 pricing is optional and PUC Services Inc. reserves to the right to award or not award Segment 4 to the successful proponent.
+ Exclusion:
  - PUC will supply all material for the pole line construction. The contractor has to pick-up all material at PUC Services Inc. storage.
  - The Third party will transfer their own attachments but the Contractor does not have to return on site to remove the poles, guys and anchors after the third-party transfer if the transfers are done after the pole line is constructed.
  - All vegetation work (provided by PUC Services Inc.).

- Transportation of PCB contaminated transformer (at least one known in scope) from site to PUC facility. Refer to Appendix G for further information.

3.3.5 Reference Form (APPENDIX D)

Each proponent must complete the Reference Form (APPENDIX D) and include it with its proposal.

3.3.6 Hazard Assessment Form – (APPENDIX J)

Proponent must complete the hazard assessment form (Appendix J) by listing the barriers or work methods that will be used to control the hazard. They will also be required to add additional hazards found to the list and complete the description, responsibility and hazard control method. The appendix listed is meant to be a starting point and a comprehensive hazard assessment is required.

3.3.7 Other Mandatory Requirements

All qualifications and professional development initiatives are to be included as outlined in (APPENDIX E).

Other documents which shall be provided by proponent with the proposal includes:

+ a) Methodology to be used
+ b) Details of exceptions of this scope of work
+ c) Preliminary Quality Plan.
+ d) Organizational chart
+ e) Resumes of key individuals completing the work
+ f) Reference form (experience in similar projects)
+ g) Subcontractors list
+ h) Project schedule;
+ j) Rate form;

3.3.8 Review of Mandatory Requirements

Proposals satisfying the mandatory requirements as of the submission deadline will proceed to Stage II. Proposals failing to satisfy the mandatory requirements will be excluded from further consideration.

3.4 Evaluation of Rated Criteria

Proponents shall refer to APPENDIX E RFP PARTICULARS – Section E4 (RATED CRITERIA) for a breakdown of the Rated Criteria. PUC Services Inc. shall solely determine what constitutes a satisfactory proposal for the purposes of the evaluation of the rated criteria awarding a score (points).

3.5 Evaluation of Cumulative Scoring (i.e. Price-per-Point)

Proponents shall refer to the Rate Forms at APPENDIX C. The Total Project Cost in these Rate Forms will be the value used in the Evaluation.

The proponent's Total Project Cost (segment 3 and segment 4 optional) will be divided by the proponents' total score (points) from stages 1-3. This will provide a price-per-point and the lowest price-per-point will prove to be the best value and upon Health and Safety verification and all other requirements being met (Stage III), the proponent will be awarded the project.

By submitting a Proposal, the Proponent acknowledges and agrees that PUC Services Inc. has, and is hereby entitled to exercise, the sole and unfettered discretion to award the points for the evaluation of the noted criteria. By submitting a Proposal, each Proponent acknowledges and agrees that it waives any right to contest in any legal proceedings the decision of PUC Services Inc. to award points in respect of the criteria noted.

4. TERMS AND CONDITIONS OF THE RFP PROCESS

4.1 General Information and Instructions

4.1.1 Proponents to Follow Instructions

Proponents shall structure their proposals in accordance with the instructions in the RFP. Where information is requested in the RFP, any response made in a proposal shall reference the applicable section numbers of the RFP where that request was made.

4.1.2 Proposals in English

All proposals are to be in English only.

4.1.3 PUC Services Inc.'s Information in RFP Only an Estimate

PUC Services Inc. and its advisers make no representation, warranty or guarantee as to the accuracy of the information contained in the RFP or issued by way of addenda. Any quantities shown or data contained in the RFP or provided by way of addenda are estimates only and are for the sole purpose of indicating to proponents the general size of the work. It is the proponent's responsibility to avail itself of all the necessary information to prepare a proposal in response to the RFP.

4.1.4 Proponents Shall Bear Their Own Costs

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 or demonstrations.

4.1.5 Disclaimer of Liability and Indemnity

By submitting a Proposal, a Proponent agrees to:

- to be responsible for conducting its own due diligence on data and information upon which its Proposal is based.
- that it has fully satisfied itself as to its rights and the nature extended to the risks it will be assuming.
- that it has gathered all information necessary to perform all its obligations under its Proposal.
- that it is solely responsible for ensuring that it has all information necessary to prepare its Proposal and for independently verifying and informing itself with respect to any terms or conditions that may affect its Proposal.
- to hold harmless PUC Services Inc., its elected officials, officers, employees, agents or advisors and all their respective successors and assigns, from all claims, liability and costs related to all aspects of the RFP process.

- that it shall not be entitled to claim against PUC Services Inc., its elected officials, officers, employees, insurers, agents or advisors on grounds that any information, whether obtained from PUC Services Inc. or otherwise (including information made available by its elected officials, officers, employees, agents or advisors), regardless of the manner or form in which the information is provided is incorrect or insufficient.
- that PUC Services Inc. will not be responsible for any costs, expenses, losses, damages or liability incurred by the Proponent as a result of, or arising out of, preparing, submitting, or disseminating a Proposal, or for any presentations or interviews related to the Proposal, or due to PUC Services Inc. acceptance or non-acceptance of a Proposal; and
- to waive any right to contest in any proceeding, case, action or application, the right of PUC Services Inc. to negotiate with any Proponent for the Contract whom PUC Services Inc. deems, in its sole and unfettered discretion, to have submitted the Proposal most beneficial to PUC Services Inc. and acknowledges that PUC Services Inc. may negotiate and contract with any Proponent it desires. PUC Services Inc. has the right to deny any bids and also to cancel the tender without any explanations to the proponents.

4.2 Communication after Issuance of RFP

4.2.1 Proponents to Review RFP

Proponents shall promptly examine all the documents comprising the RFP, and

- shall report any errors, omissions or ambiguities; and
- may direct questions or seek additional information.

in writing by email to PUC Services Inc. Contact on or before the Deadline for Questions. All questions submitted by proponents by email to PUC Services Inc. Contact shall be deemed to be received once the email has entered into PUC Services Inc. Contact's email inbox. No such communications are to be directed to anyone other than PUC Services Inc. Contact. PUC Services Inc. is under no obligation to provide additional information. It is the responsibility of the proponent to seek clarification from PUC Services Inc. Contact on any matter it considers to be unclear. PUC Services Inc. shall not be responsible for any misunderstanding on the part of the proponent concerning the RFP or its process.

4.2.2 All New Information to Proponents by Way of Addenda

The RFP may be amended only by an addendum in accordance with this section. If PUC Services Inc., for any reason, determines that it is necessary to provide additional information relating to the RFP, such information will be communicated to all proponents by addenda. Each addendum forms an integral part of the RFP. Such addenda may contain important information, including significant changes to the RFP. Proponents are responsible for obtaining all addenda issued by PUC Services Inc. In the Submission Form (APPENDIX B), proponents shall confirm their receipt of all addenda by setting out the number of each addendum in the space provided.

4.2.3 Post-Deadline Addenda and Extension of Submission Deadline

If any addendum is issued after the Deadline for Issuing Addenda, PUC Services Inc. may at its discretion extend the Submission Deadline for a reasonable amount of time.

4.2.4 Verify, Clarify and Supplement

When evaluating responses, PUC Services Inc. 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. PUC Services Inc. may revisit and re-evaluate the proponent's response or ranking based on any such information.

4.2.5 No Incorporation by Reference

The entire content of the proponent's proposal shall 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.

4.2.6 Proposal to Be Retained by PUC Services Inc.

PUC Services Inc. will not return the proposal, or any accompanying documentation submitted by a proponent.

4.3 Negotiations, Notification and Debriefing

4.3.1 Selection of Top-Ranked Proponent

The top-ranked proponent, as established under Part 3. EVALUATION OF PROPOSALS, will receive a written invitation to enter into direct contract negotiations with PUC Services Inc.

4.3.2 Timeframe for Negotiations

PUC Services Inc. intends to conclude negotiations with the top-ranked proponent within thirty (30) days commencing from the date PUC Services Inc. invites the top-ranked proponent to enter negotiations. A proponent invited to enter into direct contract negotiations should therefore be prepared to provide requested information in a timely fashion and to conduct its negotiations expeditiously.

4.3.3 Process Rules for Negotiations

Any negotiations will be subject to the process rules contained in this Part 4. TERMS AND CONDITIONS OF THE RFP PROCESS and the Submission Form (APPENDIX B) and will not constitute a legally binding offer to enter into a contract on the part of PUC Services Inc. or the proponent. Negotiations may include requests by PUC Services Inc. for supplementary information from the proponent to verify, clarify or supplement the information provided in its proposal or to confirm the conclusions reached in the evaluation, and may include requests by PUC Services Inc. for improved pricing from the proponent.

4.3.4 Terms and Conditions

The terms and conditions found in the Form of Agreement (APPENDIX A) are to form the starting point for negotiations between PUC Services Inc. and the selected proponent.

4.3.5 Failure to Enter into Agreement

Proponents shall note that if the parties cannot execute a contract within the allotted thirty (30) days, PUC Services Inc. may invite the next-best-ranked proponent to enter into negotiations. In accordance with the process rules in this Part 4. TERMS AND CONDITIONS OF THE RFP PROCESS and the Submission Form (APPENDIX B), there will be no legally binding relationship created with any proponent prior to the execution of a written agreement. With a view to expediting contract formalization, at the midway point of the above-noted timeframe, PUC Services Inc. may elect to initiate concurrent negotiations with the next-best-ranked proponent. Once the above-noted timeframe lapses, PUC Services Inc. may discontinue further negotiations with the top-ranked proponent. This process shall continue until a contract is formalized, until there are no more proponents remaining that are eligible for negotiations or until PUC Services Inc. elects to cancel the RFP process.

4.3.6 Notification to Other Proponents

Other proponents that may become eligible for contract negotiations will be so notified at the commencement of the negotiation process.

4.3.7 Debriefing

Proponents may request a debriefing after receipt of a notification of award. All requests must be in writing or email to PUC Services Inc. Contact and must be made within fifteen (15) days of notification of award. The intent of the debriefing information session is to aid the proponent in presenting a better proposal in subsequent procurement opportunities. Any debriefing provided is not for the purpose of providing an opportunity to challenge the procurement process.

4.4 Prohibited Communications and Confidential Information

4.4.1 Prohibited Proponent Communications

The proponent shall not engage in any Conflict-of-Interest communications and shall take note of the Conflict-of-Interest declaration set out in the Submission Form (APPENDIX B). For the purposes of this Section, “Conflict of Interest” shall have the meaning ascribed to it in the Submission Form (APPENDIX B).

4.4.2 Proponent Not to Communicate with Media

A proponent may not at any time directly or indirectly communicate with the media in relation to the RFP or any contract awarded pursuant to the RFP without first obtaining the written permission of PUC Services Inc. Contact.

4.4.3 Confidential Information of PUC Services Inc.

All information provided by or obtained from PUC Services Inc. in any form in connection with the RFP either before or after the issuance of the RFP:

- is the sole property of PUC Services Inc. and must be treated as confidential.
- is not to be used for any purpose other than replying to the RFP and the performance of any subsequent Contract.
- must not be disclosed without prior written authorization from PUC Services Inc.; and
- shall be returned by the proponents to PUC Services Inc. immediately upon the request of PUC Services Inc.

4.4.4 Confidential Information of Proponent

Proponents shall note that PUC Services Inc. is subject to the Freedom of Information and Protection of Privacy Act. A proponent shall identify any information in its proposal, or any accompanying documentation supplied in confidence for which confidentiality is to be maintained by PUC Services Inc. The confidentiality of such information will be maintained by PUC Services Inc., 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 PUC Services Inc.’s advisers 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 the RFP, questions are to be submitted to PUC Services Inc. Contact.

4.4.5 Inappropriate Conduct

PUC Services Inc. may prohibit a supplier from participating in a procurement process based on past performance or based on inappropriate conduct in a prior procurement process, and such inappropriate conduct shall include but not be limited to the following:

- the submission of quotations containing misrepresentations or any other inaccurate, misleading or incomplete information.

- the refusal of the supplier to honour its pricing or other commitments made in its proposal; or
- any other conduct, situation or circumstance, as solely determined by PUC Services Inc., that constitutes inappropriate conduct.

PUC Services Inc. may also disqualify a proponent for any conduct, situation or circumstance that constitutes a Conflict of Interest in respect of this RFP process, as solely determined by PUC Services Inc. For the purposes of this Section, "Conflict of Interest" shall have the meaning ascribed to it in the Submission Form (APPENDIX B).

4.5 Procurement Process Non-binding

4.5.1 No Contract A and No Claims

The procurement process is not intended to create and shall not create a formal legally binding bidding process and shall instead be governed by the law applicable to direct commercial negotiations. For greater certainty and without limitation:

(a) the RFP shall not give rise to any Contract A-based tendering law duties or any other legal obligations arising out of any process contract or collateral contract; and

(b) neither the proponent nor PUC Services Inc. shall have the right to make any claims (in contract, tort, 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 the RFP.

4.5.2 No Contract until Execution of Written Agreement

The RFP process is intended to identify prospective vendors for the purposes of negotiating potential agreements. No legal relationship or obligation regarding the procurement of any good or service shall be created between the proponent and PUC Services Inc. by the RFP process until the successful negotiation and execution of a written agreement for the acquisition of such goods and/or services.

4.5.3 Non-binding Price Estimates

While the pricing information provided in responses will be non-binding prior to the execution of a written agreement, 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.

4.5.4 Disqualification for Misrepresentation

PUC Services Inc. may disqualify the proponent or rescind a contract subsequently entered if the proponent's response contains misrepresentations or any other inaccurate, misleading or incomplete information.

4.5.5 References and Past Performance

PUC Services Inc.'s evaluation may include information provided by the proponent's references and may also consider the proponent's past performance on previous contracts with PUC Services Inc. or other Towns.

4.5.6 Cancellation

PUC Services Inc. may cancel or amend the RFP process without liability at any time.

4.6 Governing Law and Interpretation

4.6.1 Governing Law

The terms and conditions in this Part 4. TERMS AND CONDITIONS OF THE RFP PROCESS:

- 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).
- 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
- are to be governed by and construed in accordance with the laws of the province of Ontario and the federal laws of Canada applicable therein.

APPENDIX A FORM OF AGREEMENT

Once PUC Services Inc. selects the successful submission, the Successful Proponent will be requested to negotiate the form of agreement with PUC Services Inc.

A sample form of agreement follows.

Proponents must clearly indicate, in their Proposal, any conditions in the Form of Agreement that are not acceptable and provide alternate wording as a basis of negotiation.

CONTRACT 23 07 003

THIS Contract made on this _____day of _____, 2023 _____, between:

PUC Services Inc

(hereinafter called “PUC Services Inc.”)

-and-

[INSERT NAME]

(hereinafter called “the Contractor”)

WITNESSETH, that for and in consideration of the covenants and agreements on the part of PUC Services Inc., hereinafter contained and the prices hereinafter mentioned, the Contractor for himself, his executors, administrators and assigns, covenants and agrees with PUC Services Inc., to do, furnish and perform the works, materials, matters, and things required to be done, furnished and performed, in the manner hereinafter described, in connection with the following work or works, namely:

PUC Services Inc.

Distribution Line Construction

Restricted Wire Replacement Project

(the “Work”)

in strict accordance with the plans, specifications, and general conditions of said Work hereto attached as Schedule “A”, and to deliver the same over, complete and fully finished in every particular to PUC Services Inc. on or before [insert COMPLETION DATE] (the “Completion Date”).

It is mutually agreed that the attached tender or proposal and bond of the Contractor, hereto attached as Schedule “B”, together with the plans, specifications and any special provisions herein designated and referred to are hereby made and shall be considered part of this Contract the same as if herein fully set forth.

IN CONSIDERATION WHEREOF, the Parties have agreed as follows:

1. No Work shall be provided by the Contractor until the Contract has been executed by both parties hereto.

2. The Contractor shall have complete control of the Work and shall effectively direct and supervise the Work to ensure conformance with PUC Services Inc.'s requirements. In carrying out its obligations hereunder, the Contractor shall be bound by and observe all applicable federal, provincial and municipal legislation and related regulations, which, without limiting the generality of the foregoing, shall include compliance with the provisions of the Occupational Health and Safety Act, R.S.O. 1990 and amendments thereto and Regulations thereunder ("OHS Act") or any successive legislation, and shall at all times ensure that all employees comply with the requirements of the said OHS Act and regulations thereunder. Furthermore, the Contractor shall perform all "prime contractor" duties under the OHS Act and those other duties more specifically set out and attached as Schedule "C". The Contractor shall be the general representative and agent to PUC Services Inc. for the purposes of ensuring compliance with safety regulations for its own employees. The Contractor shall bring to the attention of its own employees the provisions of the OHS Act and Regulations thereunder. The Contractor acknowledges that he is an "employer" as defined in the Ontario OHS Act. The Contractor will provide qualified employees to perform the Work required under this Contract. The Contractor will provide a representative for the management and administration of the Work required by this Contract.

3. In consideration of the proper performance by the Contractor of the Work pursuant to this Contract, and subject to verification by PUC Services Inc. of the actual Work having been provided by the Contractor, PUC Services Inc. shall pay the Contractor the amount set out in the Contractor's invoice within thirty (30) days from the date of receipt of an invoice from the Contractor. Supporting the Contractor's request for payment shall be all applicable invoices for materials, time sheets, government remittance records and such other material as PUC Services Inc., acting reasonably, may require. The Contractor shall be responsible for the payment of all income tax, Canada Pension, employment insurance and all other required payments, contributions or deductions that arise or may hereafter arise with respect to the Work performed by the Contractor under this Contract. All amounts payable by PUC Services Inc. to the Contractor for Work hereunder shall be exclusive of any Harmonized Sales Tax (HST) payable thereon and PUC Services Inc. shall, in addition to the amounts payable, pay to the Contractor all amounts of HST applicable thereon.

4. The Contractor shall provide a warranty, at its own cost and included in the price to perform the Work of this Contract, for the Work which warranty shall be for the period of [insert # of years] from the date of [insert start date of warranty period].

5. Nothing in this Contract shall be construed as:

(i) constituting either party as the agent, employer or representative of the other party;

(ii) creating a partnership; or

(iii) imposing upon either party any partnership duty, obligation or liability to the other party.

The relationship created by this Contract between PUC Services Inc. and the Contractor is that of independent contractor. The Contractor has no authority to assume or create any obligation whatsoever, expressed or implied, on behalf of or in the name of PUC Services Inc., nor to bind PUC Services Inc. in any manner whatsoever.

6. The Contractor shall be responsible for all fees, licenses, permits, filings, and all other costs incidental to the performance of the Contractor's obligations under this Contract.

7. The Contractor will report on a regular basis, as required by PUC Services Inc., on the status of the Work to be performed pursuant to this Contract. The Contractor will make available such information, including data, reports, and documents, as PUC Services Inc. may require from time to time relating to the obligations of the Contractor to allow PUC Services Inc. to evaluate the quality and progress of Work to be provided under this Contract.

8. Where PUC Services Inc. determines that the Contractor is in default of its obligations as set out in this Contract, PUC Services Inc. shall, by written Notice of Default, require the Contractor to remedy such default, at the Contractor's sole expense, within forty-eight (48) hours of the delivery of the Notice of Default to the Contractor. The Contractor shall be in compliance with PUC Services Inc.'s instructions if:

(a) the Contractor corrects the default within the time specified in the Notice of Default; or

(b) if the default cannot be corrected within the time specified in the Notice of Default,

(i) the Contractor commences the correction of the default within the time specified in the Notice of Default; and

(ii) the Contractor provides a schedule to correct default acceptable to PUC Services Inc.; and

(iii) the Contractor corrects the default within the time set out in the schedule agreed to by PUC Services Inc.

9. In the event that the default is not corrected in accordance with this clause to PUC Services Inc.'s satisfaction, or in the event of urgent circumstances where the giving of a written Notice of Default is impossible, or impracticable, as may be determined by PUC Services Inc. in its sole and unfettered discretion, PUC Services Inc. may, without prejudice to any other right that PUC Services Inc. has pursuant to this Contract, or at law;

(a) terminate the Contractor's right to continue with the performance of the Work of this Contract, in whole or in part; or

(b) terminate the Contract forthwith; or

(c) correct the default at the Contactor's expense and deduct the cost of same from any amount of monies that may be, or become, due and owing to the Contractor, or

(d) complete the Work or allow another independent contractor to provide the uncompleted portion of the Work if results are not satisfactory to PUC Services Inc. or in the event that the schedule for the performance of the Work is not being met by the Contractor.

10. The sum of all damages, expenses, fees, costs, including but not limited to solicitor and client legal costs, incurred or suffered by PUC Services Inc. as a result of the Contractor's failure to correct the default, or the termination of the Contractor's right to continue with the provision of the Work of this Contract, in whole or in part, or the termination of the Contract forthwith, shall be a debt immediately due and owing by the Contractor to PUC Services Inc. which debt may be offset by PUC Services Inc. against any monies payable to the Contractor pursuant to this Contract or any other monies payable by PUC Services Inc. to the Contractor. The exercise by PUC Services Inc. of the rights pursuant to this clause shall not limit any other remedy PUC Services Inc. may have pursuant to this Contract or at law.

11. This Contract may be terminated for convenience by PUC Services Inc. at any time by giving forty-eight (48) hours written notice of termination for convenience to the Contractor. The effective date of the termination for convenience shall be set out in the Notice of Termination for Convenience. The Contractor's right to consideration shall be limited to payment for Work provided and not previously paid for up to the effective date as set out in the Notice of Termination for Convenience. The Contractor specifically agrees that the Notice of Termination for Convenience and consideration set forth in this clause constitutes reasonable, fair and equitable notice and compensation for damages, if any, which may be suffered by the Contractor as a result of the termination for convenience of this Contract. In the event this Contract is terminated for convenience, the Contractor shall provide the Work required by this Contract up to and including the effective date set out in the Notice of Termination for Convenience and shall, upon request, provide PUC Services Inc. with a written report on the Work rendered to the time of termination for convenience. Except for any such report, the Contractor shall not provide any further Work subsequent to the effective date set out in the Notice of Termination for Convenience.

12. PUC Services Inc. shall furnish to the Contractor such information in its possession reasonably required for the proper performance of the obligations of the Contractor, and shall, in every way provide such cooperation as is reasonable in order for the Contractor to be able to perform the Work required pursuant to this Contract in a satisfactory manner. The Contractor shall be responsible to provide for the protection of any and all confidential Town records and information as required by law. Neither the Contractor, nor the Contractor's employees, shall use, copy, disclose or otherwise communicate any information not available to the general public that was gained by them in the course of the duties.

13. Without in any way limiting the liability of the Contractor under this Contract, the Contractor shall obtain and maintain in force, at the Contractor's own expense, during the existence of this Contract, or any extension thereof, and shall provide evidence of the existence of same to PUC Services Inc. prior to commencing any of the Work, the following insurance and bonds:

[insert details].

14. The Contractor and PUC Services Inc. acknowledge and agree that PUC Services Inc. shall not be liable nor responsible for any bodily or personal injury or property damage of any nature whatsoever that may be suffered or sustained by the Contractor, his employees or agents in the performance of this Contract.

15. The parties agree all reasonable efforts shall be made to resolve all disputes under this Contract by negotiation and agree to provide, without prejudice, open and timely disclosure of relevant facts, information and documents to facilitate these negotiations. The parties agree that any dispute not resolved through negotiation shall be submitted for arbitration in accordance with the provisions of the relevant arbitration legislation in the Province of Ontario. The parties hereto agree that submission of a dispute dealt with by this section shall be a condition precedent to any application or action brought before any competent court.

16. The parties acknowledge and agree that the provisions of this Contract, which, by their context, are meant to survive the termination of this Contract shall survive the termination or expiration of this Contract and shall not be merged therein or therewith.

17. No consent or waiver, express or implied, by either party to or of any breach or default by the other party in the performance by the other party of its obligations hereunder shall be deemed or construed to be a consent or waiver to or of any other breach or default in the performance of obligations hereunder by such party hereunder. Failure on the part of either party to complain of any act or failure to act of the other party or to declare the other party in default, irrespective of how long such failure continues, shall not constitute a waiver by such party of its rights hereunder.

18. For the purposes of this Contract, the addresses of the parties are:

PUC Services Inc

500 Second Line E, Sault Ste. Marie, ON P6B 4K1

Contractor:

Attention:

Address:

Any communication notice or service of documents required to be made during the course of this Contract will be good and sufficient if delivered to, or posted by prepaid registered mail addressed to, the above addresses. Notice given in any such manner shall be deemed to have been received by the party on the day of delivery or upon the 3rd day after the date of mailing provided that normal postal service is in existence at the time of mailing and for three (3) days thereafter. Any party may change its address for service from time to time upon written notice to that effect. In the event of disruption of normal postal Work, any party giving notice hereunder shall be required to deliver the same.

19. The laws of the Province of Ontario shall govern the interpretation of this Contract and the jurisdiction for any proceeding relating to any matters hereunder shall be Ontario.

20. This Contract constitutes the entire Contract between the parties hereto and the parties acknowledge and agree that there are no covenants, representations, warranties, contracts or conditions expressed or implied, collateral or otherwise forming part of or in any way affecting or relating to this Contract save as expressly set out in this Contract.

21. This Contract may not be altered or amended in any of its provisions, except where any such changes are reduced to writing and executed by the parties.

22. Time is of the essence in this Contract, and if either party shall fail to perform the covenants on its part to be performed at fixed times or alternatively within a reasonable time for the performance thereof under the terms of this Contract, the other party may elect to terminate this Contract.

23. If any term, covenant or condition of this Contract or the application thereof to any party or circumstances shall be invalid or unenforceable to any extent, the remainder of this Contract or application of such term, covenant or condition to a party or circumstance other than those to which it is held invalid or unenforceable shall not be affected thereby and each remaining term, covenant or condition of this Contract shall be valid and shall be enforceable to the fullest permitted by law. IN WITNESS WHEREOF, the Contractor has hereunto set his hand and seal as of the day and year herein mentioned, and these presents have been signed and sealed by the representatives of PUC Services Inc., on behalf of PUC Services Inc.

SIGNED, SEALED AND DELIVERED BY
THE CONTRACTOR IN THE PRESENCE OF:

_____ _____

Witness Contractor

SIGNED AND SEALED ON BEHALF OF
PUC SERVICES INC

per_____
per_____

_____
Witness

APPENDIX B SUBMISSION FORM

1. PROPONENT INFORMATION

Please fill out the following form, and name one person to be the contact for the 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 (Name and Title):	
RFP Contact Phone:	
RFP Contact Facsimile:	
RFP Contact E-mail:	

2. ACKNOWLEDGMENT OF NON-BINDING PROCUREMENT PROCESS

The proponent acknowledges that the RFP process will be governed by the terms and conditions of the 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 PUC Services Inc. and the selected proponent have executed a written contract.

3. ABILITY TO PROVIDE DELIVERABLES

The proponent has carefully examined the RFP documents and has a clear and comprehensive knowledge of the Deliverables required under the RFP. The proponent represents and warrants its ability to provide the Deliverables required under the RFP in accordance with the requirements of the RFP for the rates set out in the Rate Form and has provided a list of any subcontractors to be used to complete the proposed contract. The proponent encloses herewith as part of the proposal the mandatory forms set out below:

FORM	INITIAL TO ACKNOWLEDGE
Submission Form	
Rate Form	
Reference Form Appendix J - Identifying Hazard Controls	
Appendix L - List of Subcontractors	

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

4. NON-BINDING PRICE ESTIMATES

The proponent has submitted its rates in accordance with the instructions in the RFP and in the Rate Form set out in Appendix C. 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.

5. ADDENDA

The proponent is deemed to have read and accepted all addenda issued by PUC Services Inc. 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 is requested to confirm 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.

6. CONFLICT OF INTEREST

For the purposes of this section, the term “Conflict of Interest” means:

+ in relation to the RFP process, the proponent has an unfair advantage or engages in conduct, directly or indirectly, that may give it an unfair advantage, including but not limited to:
  - having, or having access to, confidential information of PUC Services Inc. in the preparation of its proposal that is not available to other proponents.
  - communicating with any person with a view to influencing preferred treatment in the RFP process (including but not limited to the lobbying of decision makers involved in the RFP process); or
  - engaging in conduct that compromises, or could be seen to compromise, the integrity of the RFP process; or
+ in relation to the performance of its contractual obligations contemplated in the contract that is the subject of this procurement, the proponent’s other commitments, relationships or financial interests:
  - could, or could be seen to, exercise an improper influence over the objective, unbiased and impartial exercise of its independent judgement; or
  - could, or could be seen to, compromise, impair or be incompatible with the effective performance of its contractual obligations.

If no details are set out below, the proponent will be deemed to declare that (a) there was no Conflict of Interest in preparing its proposal; and (b) there is no foreseeable Conflict of Interest in performing the contractual obligations contemplated in the RFP.

Otherwise, if the statement below applies, details must be stated below.

- The proponent declares that there is an actual or potential Conflict of Interest relating to the preparation of its proposal, and/or the proponent foresees an actual or potential Conflict of Interest in performing the contractual obligations contemplated in the RFP. If the proponent declares an actual or potential Conflict of Interest, the proponent must set out below details of the actual or potential Conflict of Interest.

Actual or Potential Conflict of Interest details :_____

_____

_____

_____

_____

7. 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 PUC Services Inc. to PUC Services Inc.'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 and Title

Date:

I have authority to bind the proponent.

APPENDIX C RATE FORM

Rev.	A			
Description	ISSUE FOR REVIEW			
Date	2023-07-25			
Client	Sault Ste Marie Public Utilities Commission Electricity and Water			
Project Number (CIMA+)	T001890A			
Project Title	Restricted Wire Replacement Project – **Segment 3 only REQUIRED**			
Description	Unit	Nb of unit	unit price	Total ($)
Wood Pole				
Pole, 45' Class 3 Wood	ea	28	$	$
Pole, 40' Class 3 Wood	ea	2	$	$
05-101	ea	15	$	$
05-102	ea	2	$	$
Framing				
01-100-15kV	ea	34	$	$
01-102-15kV	ea	4	$	$
01-103-15kV	ea	1	$	$
01-105-15kV	ea	1	$	$
01-109-15kV	ea	4	$	$
01-500 FIG 2	ea	33	$	$
01-500 FIG 4	ea	4	$	$
01-500 FIG 5	ea	4	$	$
01-500 FIG 7 (Reuse)	ea	1	$	$
01-500 FIG 8	ea	2	$	$
01-500 FIG 9	ea	1	$	$
07-101-15kV	ea	1	$	$
08-100-15kV	ea	4	$	$
10-200 FIG 1	ea	7	$	$
10-200A FIG 1	ea	3	$	$
10-200A FIG 2	ea	8	$	$
10-200A FIG 3	ea	9	$	$
Primary and secondary cable				
#2ACSR Phase + Neutral	m	3700	$	$
Anchor and guy				
06-100			$	$
Anchor 12" PISA	ea	13	$	$
Guy Strand 3/8" G180	m	231	$	$
Grounding				
09-100	ea	4	$	$
Salvage existing pole line (including transport of salvage back to PUC Facilities)				
Salvage existing pole line	lump sum	1		$
On Site Constraint (Materials and Labor)				
Mobilization & Demobilization	lump sum	1		$
Testing and Commissioning (Materials and Labor)				
Testing and Commissioning	lump sum	1		$
			TOTAL PROJECT COST	$
			HST (13%)	$
			Total Project Cost	$

Notes:
1-PUC will supply all material for the pole line construction
2-The Contractor must install all material supplied by PUC SERVICES Inc
3-The work for the streetlight transfer must be included with the primary framing
4-The above is an estimation based on the design and may vary from actuals
5-The work for the secondary triplex bus and overhead services transfer must be included with the transformer framing

Rev.	B			
Description	ISSUE FOR TENDER			
Date	2023-07-25			
Client	Sault Ste Marie Public Utilities Commission Electricity and Water			
Project Number (CIMA+)	T001890A			
Project Title	Restricted Wire Replacement Project – **Segment 4 only OPTIONAL**			
Description	Unit	Nb of unit	unit price	Total ($)
Wood Pole				
Pole, 45' Class 3 Wood	ea	21	$	$
05-101	ea	3	$	$
05-102	ea	16	$	$
Framing				
01-100-15kV	ea	22	$	$
01-101-15kV	ea	2	$	$
01-103-15kV	ea	1	$	$
01-105-15kV	ea	1	$	$
01-109-15kV	ea	1	$	$
01-500 FIG 1	ea	2	$	$
01-500 FIG 2	ea	19	$	$
01-500 FIG 7	ea	1	$	$
01-500 FIG 8	ea	1	$	$
01-500 FIG 9	ea	4	$	$
07-100-15kV	ea	3	$	$
08-100-15kV	ea	6	$	$
10-200 FIG 1	ea	7	$	$
10-200A FIG 1	ea	2	$	$
10-200A FIG 2	ea	2	$	$
10-200A FIG 3	ea	24	$	$
10-200A FIG 4	ea	3	$	$
10-400	ea	7	$	$
Primary and secondary cable				
#2ACSR Phase + Neutral	m	1750	$	$
Anchor and guy				
06-100 Anchor 12" PISA	ea	12	$	$
06-100 Guy Strand 3/8" G180	m	209	$	$
06-104 Guy Strand 3/8" G180	m	150	$	$
Grounding				
09-100 - Grounding	ea	5	$	$
Salvage existing pole line (including transport of salvage back to PUC Facilities)				
Salvage existing pole line	lump sum	1		$
On Site Constraint (Materials and Labour)				
Mobilization & Demobilization	lump sum	1		$
Testing and Commissioning (Materials and Labour)				
Testing and Commissioning	lump sum	1		$
			TOTAL PROJECT COST	$
			HST (13%)	$
			Total Project Cost	$

Notes:
1-PUC will supply all material for the pole line construction
2-The Contractor must install all material supplied by PUC SERVICES Inc
3-The work for the streetlight transfer must be included with the primary framing
4-The above is an estimation based on the design and may vary from actuals
5-The work for the secondary triplex bus and overhead services transfer must be included with the transformer framing

APPENDIX D REFERENCE FORM

Each proponent is requested to provide three (3) references from clients who have obtained similar goods or services to those requested in the RFP from the proponent in the last five (5) years. The PUC Services Inc will not be accepted as a reference.

Reference #1

Company Name:	
Company Address:	
Contact Name:	
Contact Telephone Number:	
Date Work Undertaken:	
Nature of Assignment:	

Reference #2

Company Name:	
Company Address:	
Contact Name:	
Contact Telephone Number:	
Date Work Undertaken:	
Nature of Assignment:	

Reference #3

Company Name:	
Company Address:	
Contact Name:	
Contact Telephone Number:	
Date Work Undertaken:	
Nature of Assignment:	

APPENDIX E RFP PARTICULARS

E1. THE SCOPE OF WORK

1. Scope of Work

1.1 General

Sault Ste Marie Public Utilities Commission (PUC SERVICES INC.) has a project that includes reconductoring and pole replacement of 7.2kV single-phase overhead line in two parts:

- Segment 3 - Herkimer St. between Townline Rd. and Carpin Beach Rd. in Sault Ste. Marie, Ontario.
- Segment 4 - OPTIONAL: on Victoria St between Herkimer St. and Cottage LN in Sault Ste. Marie, Ontario

The work to be carried out under this Request for Bid consists of this non-exhaustive list of activities: salvage, construction, inspection, and commissioning. Also, as a part of the work, the Contractor must provide a warranty for the completion of the 7.2kV distribution lines. The meetings and coordination with the other entities to complete pole line construction, electrical work and other activities associated shall also be included.

Work must be carried out according to standard practices and in accordance with the requirements **of** *Ontario Electric Utility Code* and PUC SERVICES INC. **Moreover, work must be in conformance with construction criteria of CSA and Ontario Regulation 22/04: Electrical Distribution Safety.** All detailed construction work must be carried out according to the standards prescribed in the specifications, the laws and the rules in force, as per the drawings and specifications, and according to the best and current practices. All permanent material and equipment supplied to the Contractor shall be new.

The Contractor referred herein shall be the Prime Contractor under OHS Regulation.

Drawings found in **Appendix E5** of this document detail typical requirements of the project.

2. Scope of Work and Supply

The Proponent's scope of work includes the following:

Without limiting the generality of paragraph 1 above, the work also encompasses transportation to the place of work, salvage of the existing pole line back to PUC facilities, installation, coordination with PUC SERVICES INC., commissioning, start-up, and field testing of all the following items and specifications, as follows:

2.1 7.2kV Distribution Line & Electrical Equipment

+ Part 1 (called Segment 3) consists of an overhead single phase, single circuit pole line consists of #6 solid copper and extends west and east along the north side of the road;

- Part 2 (called Segment 4) consists of an overhead single phase, single circuit pole line consists of #4 or #6 solid copper and extends north and south along the north side of the road.
  - (Note this part is optional and award of this part is at the discretion of PUC Services Inc).
- Pole line should be reconductored with spot pole replacements built by The Contractor. The Contractor must coordinate the construction with PUC SERVICES INC.
- The Contractor must coordinate in advance the de-energized circuit with PUC SERVICES INC as PUC will perform the steps needed to schedule de-energization of the circuit once notified.
- All structures, fittings, and any materials related to the installation of items mentioned here over:
  - Poles, conduits, cables, conductors, solid blade switches and other materials specified in the BOM shall be purchased and provided by PUC SERVICES Inc. and is not under the Contractor's responsibility. The Contractor is responsible for the transportation of the materials from the PUC SERVICES Inc. storage yard to Construction Site. Coordination with PUC SERVICES Inc.'s representative is required.

2.2 Work Included

The following work shall be performed by the Contractor:

- Mobilization and demobilization on site;
- Planning, design, set up, monitoring and removal of Temporary Traffic Control as per requirements in Ontario Traffic Manual – Book 7 – Temporary Conditions.
- Coordination meeting and project management (cost and schedule);
- Material pickup to be coordinated with PUC stores in advance. Max pickup once per day with material requisition completed a minimum 24 hours prior.
- Must coordinate the de-energized circuit with PUC SERVICES INC
- Coordination for access to the owner's properties:
  - The City;
  - Any other crossing not identified in the absence of information.
- Obtaining all other necessary permits including but not limited to Traffic Strategy, ESA and MoE soil removal;
- Installation all equipment as per the drawing
- Salvage the existing pole line and coordination with the third-party attachment;
- Transfer the streetlight;
- Restoration of the site after work "to pre-job conditions". In which before and after photo proof is required.
- All fees for flagging, hydrovacing, rig matting lay down security are to be included in the lump sum price if applicable;
- Supply of all access and support matting requirements for lay down area and work area as required;
- Before and after photos of each structure with the pole number identified on each photograph.

- Installation and inspection of all connections;
- Testing and commissioning of electrical equipment.
- Provide the Redline to PUC SERVICES Inc. 1 week after the end of work;

2.3 Permissions for Line Construction

The Contractor is responsible to provide any permissions related to the line construction. The Contractor shall advise PUC SERVICES Inc. if any permission is missing in a timely matter.

2.5 Course of Work

Distribution Line Construction shall be executed in one stage for each segment and is expected to be completed by:

- Segment 3 November 10th, 2023
- Segment 4 November 30th, 2023

2.6 Schedule

The Contractor shall submit a schedule within its offer and during the project. The Contractor shall inform PUC SERVICES Inc. of any foreseeable delays in a timely manner.

3. Equipment Supplied by PUC Services Inc.

PUC SERVICES Inc. will supply all material for the pole line.

4. Permitting by PUC Services Inc.

PUC SERVICES Inc. will apply for Municipal Consent to perform work on the City Right of Way.

5. Project Management

The Proponent will be responsible to effectively manage and execute the project through the following activities:

- Perform a contract kick-off meeting and preparation of meeting minutes (M.M).
- Perform bi-weekly progress meeting and preparation of M.M.
- Establish and continuously update an Action Log document to record all technical questions/answers/decisions taken during the project life. The Action Log document shall be reviewed during the bi-weekly progress meetings.
- Perform monthly progress report including earn values (for all important elements of the scope).
- Perform monthly cost report.
- Perform, within 10 business days after receipt of the purchase order (P.O.), a complete project execution plan (PEP), including quality and procurement activities, that elaborates

how the Contractor intends to perform the project. PEP shall be reviewed and approved by the customer.

+ Perform, within 10 business days after receipt of the P.O., a detailed project schedule. The project schedule shall be reviewed and approved by the customer. The project schedule shall be updated and reviewed during the bi-weekly progress meetings.
+ Perform, within 10 business days after receipt of the P.O., a risk assessment for the project execution, together with details of proposed mitigation measures to overcome the risks identified.

6. Change Management

The selected Proponent will follow proper change procedures during the execution of the project. The review/approval process will consist of the following steps:

+ Initiating the process by having the Proponent identify the project scope changes and their cause (change of work, detailed estimate, schedule or terms and conditions);
+ Work not authorized or agreed upon in the original contract or subsequent change orders is not guaranteed for payment if the client does not ultimately approve;
+ Discussing the trend notice with PUC Services Inc. with regards to the proposed change and its impact (during the bi-weekly progress meetings)
+ Upon agreement from PUC Services Inc., issue a change order notice to PUC Services Inc. detailing the effort and cost of the change order.
+ Documenting the scope change in a Project Trend Log and updating the project budget to reflect the revised amount.
+ Update the project schedule with proposed change.

7. Quality Assurance & Quality Control Programs

The Contractor shall indicate the type of quality assurance & quality control program they intend to use for all installation of the electrical components.

The Contractor must submit to PUC SERVICES Inc. its quality program documentation as well as any form, checklist, or plan used to achieve it, in advance of mobilization of the construction work. The Contractor shall not begin any construction work until the quality program is approved by PUC SERVICES INC. The Contractor must also submit technical change requests, any test results, and field conformity reports in a timely manner.

There shall be a hold point after structure framing and setting, stringing of conductors, and pre-energization.

8. General Requirements

8.1 General Notes

+ Proponent shall submit a project schedule showing all phases of the project execution including the pick-up of the equipment at the PUC SERVICES Inc yard to be installed.

PUC SERVICES Inc. yard:

500 Second Line E, Sault Ste Marie, ON, Canada

The number would be +1 (705) 759-6551

- Proponent shall also be responsible to validate as-built drawings and details provided by PUC Services Inc.
- Any inconsistency or conflict between this document, data sheets drawings or sketches, Government regulations, or other referenced standards discovered before or during equipment fabrication will be brought to the attention of PUC Services Inc. and or PUC Services Inc.'s expeditor for resolution, before proceeding further with the fabrication of the affected part. Unless otherwise specified, the more stringent requirement will govern.
- If Proponent cannot meet the standards, it will inform PUC Services Inc. as soon as possible for submittal of a Technical Deviation (TDN) as required in this technical specification document.
- National/International/Regulatory Standards referenced in the above documents are not attached to this requisition. The Proponent is responsible to purchase these standards, and possess, review, and comply with these required Standards.
- All measurement units will be in metric system units unless noted otherwise.
- All subcontractors engaged by Proponent must be approved by PUC Services Inc. (subcontractor list submitted via required document Appendix L)
- Proponent will manage and coordinate subcontractors' activities (vendors and suppliers) to ensure that the scope of work is performed according to PUC Services Inc.'s requirements.
- Proponent will be responsible for repair of any PUC Services Inc.'s structure and equipment damaged during the Scope of Work execution at Proponent's cost.
- Proponent will perform adequate waste management during execution of scope of work in accordance to PUC policies.
- Proponent will review their requirements for construction areas before executing the work and provide a general layout for PUC Services Inc. review and approval.
- All electrical equipment will be CSA approved and will bear the CSA approval label. If a piece of equipment does not bear the CSA approval label, the Supplier will be responsible for costs and labour required to obtain CSA approval and will supply confirming documentation. Any equipment not certified and labelled will not be accepted.
- The warranty of the pole line and equipment will start 18 months after the energization.

9. Standards, Codes & Regulations

9.1 General

The work in its entirety shall comply with the latest edition of the Ontario Electric Safety Code (OESC), Utility Standards Forum – Distribution Standards and any local codes and requirements which govern the installation of distribution lines. Where these regulations conflict, the most stringent conditions shall apply.

The Contractor has sole responsibility for obtaining all necessary code stamps, labels, or approval for the work and related equipment.

9.2 Standards & Materials

The equipment design, fabrication, materials, installation and commissioning of the work shall be in accordance with the applicable sections of the latest revision of the following standards and any other required to build the equipment in conformity with standard practice and design in North America (latest edition):

- Utility Standards Forum Distribution Standard;
- CSA (Canada Standard Association);
- All work must comply with Ontario Regulation 22/04;
- C22.2 nº 75: Thermoplastic-Industrial Wires and Cables;
- CAN/CSA C22.3-nº 1 Overhead Systems;
- CAN/CSA C22.3-nº 7 Underground Systems;
- CAN/CSA O15 Wood Utility Poles and Reinforcing Stubs;
- CAN/CSA-G12 Zinc-Coated Steel Wire Strand;
- CAN/CSA C22.3-nº 60826Design Criteria for Overhead Transmission Lines;
- CSA G4-09 Steel Wire Rope for General Purpose and for Mine Hoisting and Mine Haulage;
- American National Standards Institute/Institute of Electrical and Electronics Engineers;
- C57.13-1998 Requirements for Instrument Transformer;
- IEEE Std 81Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Ground System;
- National Energy Board Act and National Energy Board Pipeline Crossing Regulations, Part I and Part II;
- ANSI/NETA MTS-2015 Standard for Maintenance Testing Specifications for Electrical Power Equipment and Systems.

9.3 Traffic Accommodations Strategy

The Contractor shall prepare and submit Traffic Accommodation Strategy for approval to The City's Municipal Works for all the roads affected by the construction before the commencement of work.

9.4 Standard Operating Procedures (SOPs)

Relevant PUC line department Standard Operating Procedures (SOP) have been provided as Appendix K. The contractor will be required to submit their SOPs and will have to follow the more stringent SOP when comparing their own to PUCs.

10. Distribution Line

10.1 Generalities

This section applies to all the construction and connection work of the 7.2kV overhead distribution line.

Feeders overhead, 7.2kV single-phase lines with neutral according to the layouts indicated on the drawings provided with these specifications.

10.2 Existing Utilities Identification & Protection

The Contractor shall be responsible in identifying all existing utilities before construction and refresh locates as required. The utilities identified on the drawings are for reference only and as per available information received. The Contractor shall call Ontario One Call to submit a locate request to identify all existing utilities. Any provisions to protect existing utilities against damage/breakdown shall be respected. In addition, clearance requirements from existing utilities must be respected. Any conflicts with the existing utilities must be reported to PUC SERVICES Inc. immediately. If the Contractor accidentally damages any utilities by any means, the Contractor shall be responsible for the costs associated with the repair, restoration, and any additional costs associated with the damaged utilities.

The Contractor shall be responsible for locating and protecting existing utilities during construction at no additional costs.

10.3 Distribution Line Characteristics

Line characteristics shall be as follows:

- all material, equipment and framing are as per the Utility Standards Forum Standard – Distribution;
- The minimum ground clearance under maximum sag of the lowest conductor or cable must respect standard CAN/CSA C22.3-no 1;
- A single phase, a single circuit line is composed of one phase and a neutral;
- Overhead primary phase conductor size is #2 ACSR (Sparrow);
- Minimum overhead neutral conductor size shall be #2 ACSR (Sparrow).

10.4 Distribution Line Construction

10.4.1 Pole Line

On the north side of the road, there is an existing single-phase primary and neutral cable.

In case of an outage during construction, it is the responsibility of the Contractor to coordinate with PUC SERVICES INC. The Contractor must have adequate safety clearances during construction, both for the safety of the construction crew and for the protection of the existing line.

10.4.2 Storage Sites

Before construction begins, the Contractor must coordinate with PUC SERVICES Inc.'s site supervisor to determine the location of adequate storage sites. All reclamation to the storage site is to be done by the Contractor.

10.4.3 Lay down Area

Contractor shall store all materials needed for the construction in the Laydown Area if required. Contractor shall be responsible for all the materials stored in the lay-down area. Contractor is responsible for access to a site including security/fencing as required. The Contractor shall restore the site, supply and install seeding according to PUC SERVICES Inc. specification.

10.4.4 Excavation, Backfilling & Drilling

10.4.4.1 Pole

Directives on the depths of excavation and installation of Poles are mentioned in CSA and USF Section 05. According to each site ground conditions, work includes any pumping, drainage, construction and diversion of ditches or streams, dewatering or work allowing Contractor to install the various types of foundations, according to the requirements of this specification.

Backfilling around poles must be maintained at a minimum of 0.30 m above the normal level of the ground until final acceptance by PUC SERVICES INC. Backfilling material must be granular 0-20 mm or a mixture of sand and gravel. The Contractor shall use ¾" road crush for backfilling and shall be approved by PUC SERVICES Inc.'s site supervisor. Any kind of backfilling must be rammed mechanically by layers not exceeding 0.30 m in thickness, compacted to 95% of maximum density obtained by a modified proctor compaction test. The Contractor must backfill around the base of the poles immediately after their installation. All tailings to be removed, no spreading will be allowed.

In cases where the existing soil is of poor quality and the pole installation is carried out following CSA, the Contractor must demonstrate the necessity of using this type of foundation by testing the soil with a soil test probe (AB Chance probe). The recommendations report shall be signed and sealed by an engineer licensed by PEO. When in doubt, PUC SERVICES Inc. may also require that the Contractor perform soil test, at the Contractor's expense.

10.4.4.2 Pole Installation

The Contractor shall install the poles according to lines layout indicated on the drawings. Poles must be installed with precision, in accordance with alignment and according to the requirements of the specifications, with vertical tolerance of 50 mm at the base and 76 mm at the upper part. With poles being installed in proximity of a line that may be energized, provisions should be put in place to maintain minimum clearance between the pole and live line.

When installing poles in locations where civil works are not finished, the Contractor shall coordinate the poles, anchors and conductors' installation with final ground elevation and make sure all clearances shall be respected.

It is forbidden to lift the poles by the head (small end); poles shall not be lifted 5 ft from the top.

Racking to be 150 mm towards the north on any line running East/West.

Before any work starts, the Contractor must validate the existing and final ground elevation. If the Contractor finds any errors, they must advise PUC SERVICES Inc. immediately.

All poles shall be identified and numbered in a permanent way, in accordance with PUC SERVICES Inc. regulations. Labels shall be supplied by PUC SERVICES Inc. and installed by the Contractor.

10.4.4.3 Structures

The Contractor must drill only the necessary holes for the assembly. These holes shall have a nominal diameter identical to the diameter of the bolts used.

For any kind of assembly, the appropriate length of bolt shall be used in order to ensure enough exceeding part of the threaded rod to allow punching. Any bolt exceeding the nut of more than 50 mm (2") shall be cut at 15 mm of the nut and painted with a rich in zinc paint (minimum zinc 90%). The Contractor shall also carefully make sure that each nut has its washer. Any missing or damaged bolt or part shall be replaced. Counter-nuts or lock washers must be installed for the erection of the frames.

PUC SERVICES Inc. can refuse any structure that doesn't meet the engineered drawing specification, in that case, the entire frame shall be reinstalled according to their instructions and at the Contractor's expense.

Before the installation of the conductors and cables, each structure shall be verified by PUC SERVICES Inc. who shall also verify the pole's final stability.

Structures supporting major equipment such as interrupting switches, metering banks, transformers and breakers (reclosers) shall be accessible at any time by a bucket truck. Accessibility criteria: the horizontal distance between the stabilizer of the truck supported on a solid part of the ground and the pole shall be 6 m or less for a pole up to 12.2 m and 5 m or less for a pole of 13.7 m. Access roads (with culvert) shall be built by the Contractor when required to fulfill this requirement.

10.4.4.4 Guys and Anchors

Single helix (PISA 12'') anchor shall be used for the pole line. PUC SERVICES Inc. can request wrenching tests and pull test to the Contractor to determine the resistance of anchors. If resistance is not enough, work shall be redone according to PUC SERVICES Inc.'s instructions and at the Contractor's expense.

If the Contractor installs screw piles, the installation equipment must be fitted with a measuring dial to match the installation torque with the prescribed torqued on the engineering drawings.

When installing poles in locations where civil works are not finished, final ground elevation shall be considered for anchors installation.

The Contractor shall install stranded guy wire, 3/8'' nominal diameter, galvanized steel, grade 180.

The Contractor must install the guy, anchor, insulator FG guy strain, as per Utility Standards Forum – Distribution Standards.

10.4.4.5 Insulators and Accessories

All necessary precautions shall be taken to avoid notching or fissure the insulators during handling, storage and installation on the lines.

All insulators shall be shipped in packing and transported in wooden crates. The insulators shall not be unpacked before the time of their installation on the pole or crossarm.

Before installation, all insulators shall be visually checked to detect any damage. All elements shall be wiped to remove dust and dirtiness accumulated during storage and handling. Any damaged elements shall be replaced.

The accessories shall be handled in such a manner that they are not broken, scratched or damaged. The Contractor is entirely responsible for damage or loss of accessories.

All the accessories shall be mounted in places and in the way indicated by the manufacturer. All the nuts, counter-nuts, washers, cotter pins, etc. provided with the accessories, shall be assembled in their sequential and normal position. No change or omission is allowed without PUC SERVICES Inc.'s approval.

All bolts and nuts, including suspension clamps and anchoring, shall be tightened according to the manufacturer's specifications.

The Contractor must install the insulator as per Utility Standards Forum – Distribution Standards.

10.4.4.6 Conductors Installation

Conductors' sag settings shall be in conformance with CAN/CSA C22.3-Nº 1 and OESC Standards and drawing specifications. The installation of conductors shall not start before all structures are approved by PUC SERVICES INC.

Conductors shall be unrolled, lifted, supported and attached by using adequate tools having the characteristics specified by the manufacturers. The Contractor shall issue a description of its installation methods of the conductors and sleeves to PUC SERVICES Inc. for approval before the beginning of work. The Contractor shall respect all PUC SERVICES Inc.'s recommendations.

Conductors damaged by either equipment, methods used, or by a lack of protection, and which, according to the opinion of PUC SERVICES Inc., cannot be repaired with sleeves, shall be removed and replaced at Contractor's expense.

Conductors shall be installed as per the stringing chart provided. When stringing conductors, conductor tension should not exceed the one provided.

During sag measurement and adjustment, the Contractor shall make sure that excessive tensions (or efforts) are not applied on structures. The Contractor shall record the sag and tension of the installed conductor on the as-built drawings.

Conductor splices shall be made with compression type sleeves. It is not allowed to splice the line conductors at a distance shorter than 15 m of the support point.

Ground wire to be installed on the gain side of the pole and in such a way that they are not damaged during work or future maintenance and shall not obstruct climbing on the poles.

10.4.5 Grounding

All grounding to conform with drawings and to test the ground rods with the results included in the return data. Grounding procedures and testing should be performed as per Ontario's Utilities Standards Forum (USF).

The Contractor shall provide grounding means acceptable by PUC SERVICES Inc. if bad soil conditions or rock is encountered.

10.5 Distribution Line Testing & Commissioning

This Section, as well as the associated drawings describe verification and commissioning of the distribution lines and electrical apparatus included in these specifications.

The Contractor shall inspect and check the installation as well as electrical apparatus in order to show PUC SERVICES Inc. work quality and equipment status are satisfactory. Verification results shall be supplied in writing to PUC SERVICES Inc. for approval before the powering.

PUC SERVICES Inc. has the right to ask for additional verifications, if the results are incomplete, non-satisfactory or if the equipment or installation had to be replaced or modified because of a Contractor's fault. These verifications are the Contractor's responsibility.

The Contractor shall then bring into service, in coordination with PUC SERVICES Inc., the various systems or apparatuses according to the recommendations of the supplier and PUC SERVICES INC.

The Contractor is responsible for the verification and commissioning of electric lines mentioned in these specifications and drawings. They must have the qualified personnel to ensure that all the verifications, tests and adjustments were carried out and that necessary precautions were taken to ensure the staff safety and the protection of the equipment, before the powering. The Contractor shall provide all necessary testing equipment.

The verifications consist of, but are not limited to, the following:

+ Visual inspection of all the material, re-tightening of hardwares, connections and removal of hardware installed for transport;
+ Verification of the conductor's continuity;
+ Verification of phasing indications;
+ Verification and adjustment of equipment according to the instructions of the supplier or manufacturer;
+ Vertical alignment of poles and tightening of the guys;
+ Verification of Transformer Secondary Voltage;
+ Before and after pictures of all the structures with pictures containing the structure number.
+ Shall perform resistance test at every grounded structure using, fall of potential, 3-point measurement or other method appropriate for site conditions and subject to approval of PUC SERVICES INC.;
+ Perform test during pole installation and provide test results to PUC SERVICES INC.. Test reports shall include:
    - The weather at the time of measurement and amount and nature of precipitation daily for the week prior to the ground resistance test;
    - HiPot test of medium voltage equipment including power cables;
    - All testing under ANSI/NETA MTS-2015 Standard for Maintenance Testing Specifications for Electrical Power Equipment and Systems.
+ PUC Services Inc will be doing the Construction Validation Program.

11. Health & Safety Requirements

11.1 Objective

This Schedule sets out the minimum contractual Health and Safety (H&S) requirements for contractors performing work at the site. Contractors shall have the necessary H&S systems and personnel to conduct the Work in a safe, healthy and environmentally responsible manner. Contractors shall comply with all legislation in the jurisdiction where the work is conducted in addition to meeting H&S requirements in this Schedule. It is the expectation that the Contractor and its Subcontractors shall follow their Safety Management System and PUCs Contractor Management Program (CMP) in its entirety for the duration of the project.

11.2 H&S Orientation

Contractor's Forman/Site Superintendent shall, regardless of prior experience, complete the Contractor HSE Orientation form with the Engineer/Inspector prior to performing work at Site. This orientation shall address mandatory PUC SERVICES INC. H&S policies, Environmental Policy, procedures, safe work systems, standards and any Site-specific hazards.

The Contractor also needs to complete CMP pre-qualification form and provide listed information, must take PUC Contractor H&S Orientation and must be at field orientation kick-off meeting on site before completing any work in the field.

11.3 H&S Alignment

Contractor and all levels of Subcontractor shall have in place Safety Management Systems and Policies, which meet the policies and legislation for the jurisdiction in which the work is taking place prior to the commencement of any Work. Contractor shall be responsible for communicating and implementing selected policies and procedures to all Contractor and Subcontractor Workers.

11.4 Worker Competency

Contractor shall institute a program to ensure its Workers, including Workers of all levels of Subcontractor, are fully trained and currently qualified for their jobs in accordance with regulatory and industry standards and as otherwise specified in the contract. Contractor shall ensure that all workers, including Subcontractors, regardless of prior experience, demonstrate competency to their Supervisor in his or her job.

One apprentice per 4 crew is permitted. Fourth-year apprentice is the only apprentice level permitted to work within proximity of energized equipment.

Where workers are not yet fully competent to independently perform tasks assigned to them, the Contractor shall provide direct competent supervision or assign a mentor for the non-competent workers and shall implement a program to develop and track worker task proficiency. Contractor shall communicate the maximum number of new or inexperienced workers present in a work crew based on the degree of task risk, not to exceed one (1) new or inexperienced Worker for each experienced mentoring Supervisor.

An experience worker is considered someone holding a power-line technician certificate. Contractor to submit proof of competency for all hot line and splice work.

11.5 Worker's Responsibility

All Contractor Workers, including all of its Subcontractors are required to report to work in proper condition so as to perform their job in a safe and competent manner. (Fit for Duty).

No worker shall enter the site under the influence of alcohol, drugs, illicit non-prescribed drugs, or any medications that may impair a worker's ability or judgment to perform their tasks safely and efficiently. The use of alcohol, illicit drugs or similar items on the Site shall be cause for immediate and permanent removal and exclusion from all work locations and projects.

11.6 Contractor's Responsibility

Contractor shall ensure that all of its employees and Subcontractors are aware of the contents of their safety management systems that shall ensure that the work is performed in a safe and environmentally responsible manner. Contractor shall ensure that all parties are abiding and following the contents of their safety management system. Contractor's safety management system shall include aspects to assure the reliability of equipment and tools, proper methods employed by workers to conduct work tasks, responsibilities including workers and Subcontractor's responsibilities. Inspections shall be completed as outlined in the Contractor's safety management system or as agreed to in the pre-job safety meeting.

All contractors must be registered and in good standing with Comply Works.

11.7 Reporting and Investigation of Incidents

All actual and potential incidents including near misses that occur on the site shall be reported without delay to the Engineer/Safety Codes Officer before the end of the shift. Such reports may initially be verbal. However, a written report is required in all instances immediately.

A formalized investigation for Serious Injury Potential (SIP) Incident or near misses, identifying causes and corrective actions must be completed and submitted to PUC SERVICES Inc. within 5 days of the incident occurring unless an alternative timeframe has been agreed upon by PUC SERVICES Inc. safety representative.

Injured Worker(s) transported to medical facility must be accompanied by a company Supervisor or Representative other than co-worker.

Post Incident, Contractor shall assist or comply with any and all requests for investigation/incident documentation by HSE personnel.

11.8 Personal Protective Equipment (PPE)

The Contractor is responsible for ensuring that the PPE provided is appropriate for the nature of the risks and health hazard (including noise) to which a worker is exposed, and that the PPE meets all required applicable legislation and industry requirements. All workers and visitors shall be fitted with the minimum requirements: hard hats, fire retardant coveralls (High Visibility Striping), ear protection, safety glasses, gloves and steel-toed safety footwear.

All contractor PPE must comply with the more stringent of the contractor and PUCs policies.

Prior to the commencement of work, the Contractor shall have undertaken a Pre-Job Hazard Assessment, during which all items of PPE appropriate to the nature of the work are identified as meeting, as a minimum, the requirements of prevailing legislation.

Contractor shall, at all times, ensure that appropriate PPE is in good working condition and in quantities readily available to equip all Workers, including all levels of Subcontractor Workers. Further, the Contractor shall ensure that no Worker including a Subcontractor Worker, conducts work without being equipped with the appropriate PPE, and that all visitors to site are similarly equipped.

11.9 Emergency Response Preparedness

Contractor shall create the Contractor-Specific Emergency Response Plan specific to the work. The Contractor-Specific Emergency Response Plan shall, as a minimum, address the following points:

- Safe shutdown of all work activities and operating processes.
- Safe egress routes and safe muster areas.
- The identity and responsibilities of key individuals in emergency response situations.
- Designate first aid providers or rescuers; and procedures for specific responses based on the hazards identified in the pre-job hazard assessment.
- Emergency telephone numbers.

11.10 Mechanical Equipment and Motorized Vehicles

Contractor shall ensure that for all machinery, specialized equipment and motor vehicles brought on site by the Contractor or Subcontractor are calibrated, certified and maintained in accordance with the standards defined by the original equipment manufacturers and related legislation. Further, Contractor shall provide equipment, including that of all Subcontractors, in good operating condition and shall procure from the proper authorities, all necessary permits, certificates and licenses which may be required in the performance of the work.

11.11 H&S Meetings

- H&S documents

Before the Pre-job Safety meeting the Contractor must provide these documents:

1. The Contractor will be required to submit a signed Health & Safety Policy with proof of training and, a list of supporting programs to be reviewed and approved by PUC
2. Certification of Insurance
3. WSIB Certification of Clearance
4. WSIB Injury/Illness Summary Report
5. Copy of JHSC Terms of reference and signed statement attesting to compliance with OHSA & Provincial Legislation
6. List of all First Aid Supplies to be on sight during project

The Contractor will follow and strictly adhere to the PUC's H&S policies, Environmental Policy, procedures, safe work systems, standards and any Site-specific hazards and adhere to all applicable H&S and environmental laws, regulations, and guidelines.

- Pre-job Safety Meeting

At the commencement of the job, Contractor shall hold a general meeting to review the H&S aspects of the work to be performed on the project. Where practical, all Contractor Workers, including all Subcontractor Workers, should be present at this meeting. Topics to include but not limited to are, ERP, Pre-job Hazard Assessment, Near Miss and Hazard Reporting requirements, expectations and safety goals.

+ Tailboard Meeting

At the commencement of each workday Contractor Supervisor shall hold a Tailboard meeting with their work crews. This meeting needs to be documented (As per PUC Policy, use standard tailboard meeting form) and kept as a part of the project record. Such meetings shall cover:

- A review of the points raised at the pre-job General Safety Meeting.
- A description of the Work to be performed.
- Individual responsibilities for the specific Work.
- All specific actions required on a Safe Work Permit if one is issued.
- Known and potential hazards associated with the Work.
- The crew has received PUC's contractor H&S orientation and field orientation.
- Required hazard controls and who shall ensure they are in place; and
- protective measures in the event control of the hazard are compromised.

+ Task Hazard Assessment

The Contractor is responsible to ensure a hazard assessment has been completed, communicated and controls implemented for the duration of this project. The hazard assessment must be completed before work beginning and re-completed or revise as the work or hazards changes. All workers and Subcontractors are to participate in the hazard assessment process.

11.12 H&S Violations

Removal from Site

+ If, in the opinion of Engineer/Inspector, any worker is performing unsafe work practices, is not complying with applicable laws or the terms of this Contract or this Schedule, or is not competent to perform the work safely, PUC SERVICES Inc. reserves the right to request the immediate removal of the worker from the Site.

Disciplinary Action

+ Disciplinary action imposed on a worker remains at all times the responsibility and is at the discretion of Contractor. Contractor shall report all cases of disciplinary action taken against a Worker for health and safety violations to the Engineer/Inspector.

E2. PROPOSED PROJECT SCHEDULE

Proponents shall be prepared to commence within two (2) weeks of notice of award and shall commit to providing the deliverables in accordance with the project schedule. Proponents shall indicate in their proposal any amendments to the project schedule.

- Project Award – Anticipated September 8, 2023
- Project Start-up – Anticipated September 15, 2023
- Project Completion - Anticipated
  - Segement 3 November 10th, 2023
  - Segment 4 November 30th, 2023

E3. MATERIAL DISCLOSURES

The Successful Proponent will be required to complete a Health and Safety Vendor Package in accordance with PUC SERVICES INC policy.

The successful proponent must attend all PUC mandatory training including but not limited to safety awareness sessions, hazard awareness sessions, electrical awareness sessions, and contractor orientation (allow 2 days of training for all staff).

Upon the award of the contract and at their own expense, the Successful Proponent must provide the following:

- Proof and maintain valid Workers' Compensation Board (WCB) Clearance Letter throughout the contract.
- Proof of general liability insurance in the minimum amount of Two Million Dollars ($5,000,000). For all insurance policies the additionally insured must name all the following: PUC Inc., PUC Services Inc., PUC Distribution Inc., and the Corporation of the City of Sault Ste Marie.
- Proof of standard automobile insurance for all vehicles owned, licensed or leased in the minimum amount of Two Million Dollars ($2,000,000.00) inclusive per occurrence.
- Proof of non-owned vehicle insurance, for all applicable vehicles, in the minimum amount of Two Million Dollars ($2,000,000.00) inclusive per occurrence.
- Proof professional liability (Errors and Omissions) insurance in the minimum amount of Two Million Dollars ($2,000,000.00) inclusive per occurrence along with an insurer's letter setting out the number of claims, if any, presently applied against the current policy.
- Maintain the aforementioned professional liability insurance for a minimum of two (2) years after total completion of the project has been confirmed.
- A valid PUC Services Inc Business License if not exempt; and
- Complete Health and Safety Vendor Package including Contractor Safety Agreement, Vendor Pre-Qualification, and Vendor Health and Safety Program.

E4. RATED CRITERIA

The following is an overview of the categories and weighting for the rated criteria of the RFP. Proponents who do not meet a minimum threshold score for a category will not proceed to Stage III of the evaluation process. Refer to EVALUATION OF PROPOSALS for complete scoring process.

Rated Criteria category	Weighting (Points)	Minimum Threshold (Points)
Understanding of Project Scope/proposed Design/Deviations	25	20
References and Past Performance	25	15
Project Team	25	15
Health & Safety	25	20
Total Points	**100**	**70**
Cost-per-point	$ / Point	0

E5. CONSTRUCTION DRAWINGS

The following drawings are an integral part of the specifications, refer to Appendix M.

Table 1 : Construction Drawings – Segment 3

Drawing Number	Drawing Title	Description	Rev
G-300	Segment 3 Cover Sheet	Title Page, Construction Notes	1
E-301	Overhead	Plan & Pole Profiles	1
E-302	Overhead	Plan & Pole Profiles	1
E-303	Overhead	Plan & Pole Profiles	1
E-304	Overhead	Plan & Pole Profiles	1
E-305	Overhead	Plan & Pole Profiles	1

Table 2 : Construction Drawings – Segment 4

Drawing Number	Drawing Title	Description	Rev
G-400	Segment 4 Cover Sheet	Title Page, Construction Notes	B
E-401	Overhead	Plan & Pole Profiles	B
E-402	Overhead	Plan & Pole Profiles	B
E-403	Overhead	Plan & Pole Profiles	B
E-404	Overhead	Plan & Pole Profiles	B
E-405	Overhead	Pole Profiles	B

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GENERAL CONDITIONS

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GENERAL CONDITIONS

1.1 DEFINITIONS

a) The contract documents shall consist of the Scope of Work, General Conditions, Tender Information, Form of Tender, Schedule of Tender Prices, Supplementary Specifications, Drawings, Agreement and Additional Agreements including all modifications incorporated in any of the documents before the execution of the agreement.
b) The Corporation means PUC Services Inc.
c) The Engineer means the Manager of Engineering and/or his duly appointed representative.
d) The Contractor means the person or corporation to whom the contract for the Work has been awarded.
e) Sub-Contractor includes any person, firm or corporation having a contract with the Contractor for the execution of a part or parts of the Work included in the contract, and any person, firm or corporation furnishing material called for in the contract and works to a special design according to the drawings or specifications, but does not include one who merely furnishes material not so worked.
f) Other Contractor means any person, firm or corporation employed by or having a contract directly or indirectly with PUC Services Inc. other than through the Contractor.
g) Work includes the whole work, materials, matters and things required to be constructed, done or supplied, which are mentioned or referred to in the contract documents.
h) Wherever used herein, a pronoun in the masculine gender shall be considered as including the feminine gender unless the context clearly indicates otherwise.

1.2 ENGINEER'S AUTHORITY

The Engineer shall decide all questions and disputes arising out of the contract documents relating to the performance of the Work or the interpretation of such contract documents, including all questions which he is expressly authorized hereunder to determine and his decision shall be final and binding upon both parties.

1.3 DOCUMENTS

While the intention of the Contract documents is to include all labour and materials necessary for the proper execution of the Work, it is not intended that materials or Work not covered by or properly inferable from any heading, section or trade in the specifications shall be supplied unless shown on the drawings. Descriptions of materials or works in words which have well known technical or trade meanings shall be held to have such meanings.

1.4 DRAWINGS AND SPECIFICATIONS

The Engineer shall furnish to the Contractor, without charge, as many copies of all drawings and specifications as are reasonably necessary for the proper execution of the Work. The Contractor shall keep one copy of all drawings, specifications and approved shop drawings on the site, in good order, available to the Engineer.

1.5 DETAIL DRAWINGS AND INSTRUCTIONS

The Engineer shall furnish such additional instructions, by means of drawings or otherwise, as are necessary for the execution of the Work. All such additional instructions shall be consistent with the contract documents. The Work shall be executed in conformity therewith and the Contractor shall do no Work without such additional instructions. In giving such additional instructions, the Engineer shall have authority to make minor changes in the Work not inconsistent with the contract.

If either the Contractor or the Engineer so requests, they shall jointly prepare a schedule, subject to change from time to time in accordance with the progress of the Work, fixing the dates at which the various detail drawings will be required and the Engineer shall furnish such drawings in accordance with this schedule; and on like request, a schedule shall be prepared fixing the dates for the submission of shop drawings.

1.6 SHOP AND OTHER DRAWINGS

The Contractor shall furnish to the Engineer, at proper times, all shop and setting drawings or diagrams which the Engineer may deem necessary in conjunction with the carrying out of the Work. The Contractor shall make all changes in such drawings or diagrams which the Engineer may require consistent with the contract documents and shall submit sufficient copies of the revised prints to the Engineer for approval, all but two (2) of which shall be returned to the Contractor when approved by the Engineer.

When submitting such shop and setting drawings, the Contractor shall notify the Engineer in writing of changes made therein from the Engineer's drawings or specifications. The Engineer's approval of such drawings or of the revised drawings shall not relieve the Contractor from responsibility for errors made by the Contractor therein or for changes made from the Engineer's drawings or specifications not covered by the Contractor's written notification to the Engineer.

1.7 OWNERSHIP OF DRAWINGS AND MODELS

All drawings, specifications and copies thereof and all models furnished by the Engineer are the property of the Corporation. They are not to be used on other Work, and with the exception of the contract set of the drawings and specifications, are to be returned to the Corporation on request on the completion of the Work. Any models furnished by the Contractor become the property of the Corporation.

1.8 CONFORMITY WITH DRAWINGS AND SPECIFICATIONS

The Contractor shall perform all Work and shall furnish all materials and shall complete the whole of the Work in strict conformity with the plans and specifications (except to the extent that they are changed in accordance with the contract documentation.

1.9 CHANGES AND ADDITIONS

The Corporation, without invalidating the contract, may from time to time make changes by altering, adding to or deducting from the Work to be done under the

contract at any time before or during the performance of the Work. The Contractor shall, in pursuance of written orders by the Engineer to that effect, execute such changes without being entitled to any extension of time for completion. No changes shall be executed by the Contractor except pursuant to such written orders.

In respect of any such changes, the Engineer shall:

a) Determine the amount, if any, to be added or deducted from the amount due under the contract in accordance with the terms of the contract.
b) Determine the length of time by which the time for completion shall be extended or shortened.
c) Notify the Contractor in writing as to the amount and time so determined prior to the Contractor commencing such changes.

1.10 SUBSURFACE CONDITIONS

In the event that during the execution of the Work, subsurface conditions at the site are found to differ materially from those indicated in the contract documents and soil report, or otherwise represented by the Corporation or the Engineer to the Contractor, the Contractor shall promptly notify the Engineer in writing of such conditions and the Engineer shall promptly investigate such conditions, and if he finds that they differ materially and will result in an increase or decrease in the cost of, or time required for performance of the contract, the parties shall adjust their differences equitably.

1.11 SETTING OUT

The Contractor shall be responsible for setting out the Work. He shall preserve stakes and benchmark and, if they have to be replaced, he will pay the cost of replacement.

When requested by the Engineer, the Contractor shall suspend Work for a reasonable time to permit the Engineer to check the accuracy of any lines and grades, and the Contractor shall not be allowed any extra compensation for such suspension of Work.

1.12 SAMPLES

The Contractor shall furnish for the Engineer's approval such samples as the latter may reasonably require. The Work shall be in accordance with approved samples; provided that approval of any material by the Engineer shall not prevent the rejection afterwards of any portion thereof which may, in the judgment of the Engineer, be unsound or unfit for use on the Work.

1.13 MATERIAL TESTS AND MIX DESIGNS

The Contractor shall furnish for the Engineer's approval such material tests and mix designs as he may reasonably require. The cost of providing the foregoing beyond the extent called for in the specifications shall be charged to the Corporation. The Work shall be in accordance with approved material tests and mix designs.

1.14 QUALITY AND STORAGE OF MATERIALS

All materials supplied by the Contractor shall conform to the requirements of the drawings and specifications. All materials shall be new, unless otherwise specified. The Contractor shall, in advance of receipt of shipments of material, provide adequate and proper storage facilities satisfactory to the Engineer and on the receipt of such shipments shall promptly place the materials in storage except where they are incorporated forthwith in the Work. The Contractor at his own expense shall replace materials damaged while in the possession of or under the control of the Contractor.

1.15 EMPLOYEES

The Contractor and any Sub-Contractor shall employ highly qualified workers to competently perform the task assigned to them, or for any other reason not prejudicial to the proper execution of the Contractor's obligations under the contract.

All persons in the employ of the Contractor or any Sub-Contractor or other person doing or contracting to do the whole or any part of the Work contemplated by the contract, shall be paid fair wages and shall have hours of work in conformity with any Act of the Province of Ontario and any regulations under such Act that relate to wages, hours of work or other labour conditions.

1.16 SUPERINTENDENCE

The Contractor shall be responsible for and shall give adequate attention to the faithful prosecution and completion of the Work, and shall be represented on the site thereof continually during its progress by a competent superintendent and any necessary assistants, all satisfactory to the Engineer and such superintendent shall be authorized to act for or on behalf of the contract, and directions given to such superintendent shall be held to be given to the Contractor. The Superintendent shall not be changed except with the consent of the Engineer unless the superintendent proves to be unsatisfactory to the Contractor or ceases to be employed. All superintendence costs shall be included in unit pricing.

1.17 INSPECTION OF WORK

The Engineer shall at all times have access to the Work wherever it is in preparation or progress and the Contractor shall provide adequate facilities for such access and for inspection. If the specifications, the Engineer's instructions, the Law, or the procedures of any public agency require any Work to be specially tested or approved, the Contractor shall give the Engineer timely notice of its readiness for inspection and, if the inspection is by a person or persons other than the Engineer, of the date and time fixed for such inspection. Inspections by the Engineer shall be promptly made. If any such Work should be covered up without approval or consent of the Engineer, it must, if required by the Engineer, be uncovered for examination and recovered at the Contractor's expense.

The Engineer may order re-examination of questioned Work. If such Work were found in accordance with the Contract, the Corporation shall pay the cost of re-examination

and replacements. If such Work were found not in accordance with the Contract, through the fault of the Contractor, the Contractor shall pay such cost.

1.18 DEFECTIVE WORK

The Contractor shall, at any time, promptly remove from the premises any defective Work or material (as declared so by the Engineer to be totally unfit for a particular purpose) whether such defects be the result of poor workmanship, use of defective materials, damage through carelessness or other act of the Contractor, non-conformity with the contract, or otherwise, and whether or not already incorporated in the Work; and the Contractor shall promptly replace and re-execute the Work in accordance with the contract, without expense to the Corporation and shall bear the expense of making good all Work of Other Contractor's destroyed or damaged by such removal or replacement.

If the Contractor does not remove such defective materials or Work within the time fixed by written notice, the Corporation may remove them and may store such materials at the expense of the Contractor. If the Contractor does not pay the expense of such removal within five (5) days thereafter, the Corporation may, upon ten (10) days written notice and without prejudice to any other remedies he may have, sell such material at auction or a private sale and shall account for the net proceeds thereof, after deducting all the costs and expenses that should have been borne by the Contractor.

1.19 CORRECTION AFTER COMPLETION

Subject to any special provisions in the contract documents, the Contractor covenants and agrees to remedy any defects due to faulty materials or workmanship appearing within a period of one year from the date of substantial completion of the Work as set out in the Engineer's Acceptance Certificate, and shall pay for any damage to other Work resulting from that which appears within such period, and neither the final payment certificate nor payment shall relieve the Contractor from responsibility hereunder. The Corporation shall promptly give written notice of observed defects.

Should the Contractor fail to comply, or delay in complying with his obligations herein, the Corporation may after giving the Contractor seven (7) days written notice, perform the necessary corrections. In the event an emergency endangering life, the structure, or neighbouring property, arises out of such defects, the Corporation may make such immediate arrangements for emergency repairs as he deems fit and will inform the Contractor of his actions in that respect.

The cost of all repairs performed hereunder, including any costs incurred by the Corporation by reason of either the failure or delay of the Contractor in complying with his obligations herein, or the necessity of the Corporation making emergency repairs as provided for herein, shall be borne by the Contractor and shall be a debt due and owing by the Contractor to the Corporation.

Any disputes arising out of the provisions of this section may be resolved by recourse to arbitration under General Condition 2.40 hereof.

1.20 EMERGENCIES

The Engineer has authority in an emergency to stop the progress of the Work whenever in his opinion such stoppage may be necessary to ensure the safety of life, or of the structure, or neighbouring property. Such authority includes the authority to make such changes and to order, assess and award the cost of any extra works necessitated thereby to the contract or otherwise as may in the Engineer's opinion be appropriate.

1.21 OBSTRUCTIONS AND UTILITIES

Except as otherwise noted in these General Conditions, the Contractor assumes all the risks and responsibilities arising out of any obstruction encountered in the performance of the Work and any traffic conditions, including traffic conditions on any Highway or road giving access to the Working Area, and the Contractor shall not make any claim against the Owner for any delay, loss, damage or expense occasioned thereby.

Where the obstruction is an underground Utility such as cable, pipelines, sewers, or drains, or any other object, the Contractor shall be required to assume the risks and responsibilities arising out of such obstruction.

During the course of the Contract, it is the Contractors responsibility to obtain locates from Utility companies or other appropriate authorities for further information in regard to the exact location of these Utilities, to exercise the necessary care in construction operations, and to take such precautions as are necessary to safeguard the Utilities from damage.

1.22 CONTRACTOR'S LIABILITY

The Contractor, his agents and all workmen and persons employed by him or under his control including Sub-Contractors shall use due care that no person or property is injured and that no rights are infringed in the prosecution of the Work. The Contractor shall be solely responsible for all damages by whomsoever claimable, including the Corporation, in respect of any injury to persons or property of whatever description and in respect of any infringement of any right, privilege or easement whatever, occasioned in the carrying on of the Work or any part thereof, or by any neglect misfeasance or nonfeasance on the Contractor's part or on the part of any of his agents, workmen or persons employed by him or under his control including Sub-Contractors.

The Contractor shall bear the full costs thereof and shall at his own expense make temporary provisions as may be necessary to ensure the avoidance of any such damage, injury or infringement, and to secure to all persons and corporations the uninterrupted enjoyment of all their rights, in and during the performance of the Work. The Contractor shall indemnify and save harmless the Corporation from and against all claims, demands, loss, costs, damages, actions, suits, or other proceedings by whomsoever made, brought or prosecuted in any manner based upon, occasioned by, or attributed to any such damage, injury or infringement, or based upon, occasioned by or attributed to any delay occasioned to any other Contractor wholly or partly by reasons of any fault of the Contractor.

1.23 WORK HOURS

The Contractor's hours of work shall be in accordance with By-laws of the City of Sault Ste. Marie.

Without limiting the Contractor's hours of work, and for the purposes of coordinating work with PUC, the contractor is advised that normal working hours for the PUC staff is from 8:00 a.m. to 4:30 p.m., Monday to Friday, excluding the following Holidays which are observed by the Corporation:

New Year's Day, Family Day, Good Friday, Easter Monday, Victoria Day, Canada Day, Civic Holiday, Labour Day, Thanksgiving Day, Christmas Day, and Boxing Day.

1.24 INSURANCE

Prior to the commencement of any Work hereunder, the Contractor shall take out and keep in force for a period of twelve (12) months from the date of substantial completion of the Work set out in the Engineer's Acceptance Certificate, a comprehensive policy of public liability and property damage insurance acceptable to the Corporation and providing insurance coverage in respect of any one accident to the limit of $5,000,000.00 exclusive of interest and costs, against loss or damage resulting from bodily injury to or death of one or more persons and loss of or damage to property. Such policy shall name the Corporation as Additional Insured and shall protect the Corporation against all claims for all damage or injury including death to any person or persons and for damage to any property of the Corporation or any other public or private property resulting from or arising out of any act or omission on the part of the Contractor or any of his servants or agents, including Sub-Contractors, during the execution of the contract and for the maintenance period.

All liability insurance policies shall be written in such terms as to fully protect the Contractor notwithstanding his assumption of liability and his indemnity covenants under this contract. Such liability insurance shall cover premises and operations liability, contractors' contingency liability with respect to the operations of Sub-Contractors, completed operations liability, contractual liability, and automobile liability for owned, non-owned, and hired units.

The Contractor shall ensure insurance is valid and current for the duration of the contract. Contractor is responsible to provide proof of insurance if/when policy is revised. Not providing proof of insurance in no way exempts Contracts from the above requirements.

1.25 INSURANCE CLAIMS

Insurance claims or such alleged claims received by the Contractor shall be dealt with immediately by the Contractor. If a claim is settled to the satisfaction of the claimant, the Contractor shall submit to the Engineer a copy of the Claimant's release.

If the Contractor and/or his insurance company reject a claim or alleged claim, the Contractor shall report this fact in writing to the Engineer.

Should thirty (30) days elapse after the claim or alleged claim has been received by the Contractor and the Contractor is not able to report settlement or rejection of the claim he shall report to the Engineer the steps being taken with respect to the claim.

1.26 TAXES

The Contractor shall pay all government sales or excise taxes in force at the closing date fixed for the receipt of tenders, provided that any increase or decrease in such taxes not ascertainable before such date shall increase or decrease the amount due under the contract accordingly.

1.27 PERMITS, NOTICES, LAWS AND RULES

The Contractor shall apply and pay for all necessary permits and licenses required for the execution of the Work (but this shall not include the obtaining of permanent easements or rights of servitude). The Contractor shall give all necessary notices and pay all fees required by law and comply with all laws, ordinances, rules and regulations relating to the Work and to the preservation of the public health.

The Contractor shall be responsible for the safety of all workers and equipment on the project in accordance with applicable safety legislation passed by Federal, Provincial, and Local Authorities.

1.28 PATENT, COPYRIGHT AND TRADEMARK FEES

The Contractor shall pay all royalties and license fees and shall save the Corporation harmless from loss on account of suits or claims for infringement of patents, copyrights and trademarks in the doing of the Work.

1.29 USE OF PREMISES

The Contractor shall confine his apparatus, the storage of materials and the operations of his workmen to limits indicated by laws, ordinances, and permits or by direction of the Engineer and shall not unreasonably encumber the premises with his materials. The Contractor shall not load or permit to be loaded any part of the Work with a weight that will endanger its safety. The Contractor shall comply and ensure all parties on the premises comply with all applicable legislation and the Engineer's instructions regarding signs, advertisements, fires and smoking.

1.30 CLEANING UP

The Contractor shall at all times keep the premises free from accumulations of waste material or rubbish caused by his employees or Work, and at the completion of the Work he shall remove all his rubbish and all tools, equipment and surplus materials from and about the Work and shall leave the Work "broom clean" or its equivalent, unless more exactly specified. In case of dispute, the Corporation may remove the rubbish and charge the cost, as the Engineer shall determine to be just.

1.31 CUTTING, PATCHING AND DIGGING

The Contractor shall do all cutting, fitting or patching of his Work that may be required to make its several parts come together properly and fit it to receive or be received by Work of Other Contractors shown upon, or reasonably implied by the contract documents.

The Contractor shall not endanger any existing Work by cutting, digging or otherwise and shall not cut or alter the Work of any Other Contractor save with the consent of the Engineer.

1.32 DELAYS

If the Contractor is delayed in the completion of the Work by any act or neglect of the Corporation, the Engineer or any Other Contractor or any employee of any one of them or by changes ordered in the Work, then the time of completion shall be extended for such reasonable time as the Engineer may decide.

If the Contractor is delayed in the completion of the Work by labour disputes, strikes, lockouts (including lockouts decreed or recommended by a recognized Contractors' Association for its members of which the Contractor is a member), fire, unusual delay by common carriers or unavoidable casualties, the time of completion shall be extended for a period of time equal to the time lost due to such delays.

In addition and without limit to the foregoing, the time of completion shall be extended because of any cause whatsoever which in the opinion of the Engineer justifies a delay, for such reasonable length of time as the Engineer may decide. No such extension shall be made for any delay unless the contractor provides a written request to the Engineer. In the case of a continuing cause of delay only one claim shall be necessary.

The Engineer shall not, except by written direction to the Contractor or pursuant to General Conditions 2.20, stop or delay any part of the Work pending decisions of proposed changes either by himself or by the Corporation.

1.33 THE CORPORATION'S RIGHT TO DO WORK AND TO TERMINATE CONTRACT

If the Contractor neglects or fails to commence Work within seven (7) days after the date of the Engineer's order to commence, or neglects or fails to prosecute the Work properly or perform any of his obligations under this contract, the Corporation may after five (5) days written notice to the Contractor and without prejudice to any other right or remedy he may have, make good such deficiencies and may deduct the costs thereof from the payment then or thereafter due to the Contractor, provided however, that the Engineer shall approve both such action and the amount charged to the Contractor.

If the Contractor:

a) shall be adjudged a bankrupt, or make a general assignment for the benefit of his creditors, or commit any act of insolvency, or be the subject of the appointment of a receiver on account of his insolvency;

b) refuses or fails (except in cases recited in General Condition 2.32), to supply enough properly skilled workers or proper materials after having received seven (7) days' notice in writing from the Engineer to supply additional workers or materials;
c) fails to make prompt payment to Sub-Contractors or for material or labour;
d) willfully contravenes or disregards any laws or ordinances relating to the Work;
e) does not progress with the Work continuously and in such manner as to ensure, in the opinion of the Engineer, the entire completion of the Work within the time fixed for completion;
f) abandons the Work; or
g) otherwise breaches any of the provisions of the contract;

then in such event the Corporation, upon the certificate of the Engineer that sufficient cause exists to justify such action, may, without prejudice to any other right or remedy he may have, by giving the Contractor written notice, terminate the contract, take possession of the premises and of all materials, tools and appliances there on, and finish the Work by whatever method he may deem expedient, but without undue delay or expense, and the Contractor and his Surety shall in every such case be liable for all loss, damage, expense, expenditures and costs which may be incurred by reason thereof.

In the event the Corporation acts pursuant to this section, the Contractor shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the amount due to the Contractor for Work performed to the date of Termination of the Contact shall exceed the expense of finishing the Work (including compensation for the Engineer's additional services, and liquidated damages as provided for in the Agreement) such excess shall be paid to the Contractor.

If such expense shall exceed such unpaid balance, the Contractor shall pay the difference to the Corporation and same may be collected by the Corporation as a debt due and owing him. All expenses incurred by the Corporation as herein provided shall be certified by the Engineer and the Engineer's Certificate in the respect shall be binding upon the parties and shall not be subject to arbitration.

1.34 CONTRACTOR'S RIGHT TO SUSPEND WORK

If the Work should be stopped under an order of any court, or other public agency through no act or fault of the Contractor or of anyone employed by him or if the Engineer fails to issue a payment certificate in accordance with the terms of this contract in circumstances other than those in which the Engineer is entitled to withhold the certificate under this contract, or if the Corporation should fail to pay to the Contractor within twenty one (21) days of its maturing and presentation, any sum certified by the Engineer or awarded by arbitrators, then the Contractor may upon ten (10) days written notice to the Corporation and the Engineer stop Work and/or terminate this Contract without prejudice to any other right or remedy he may have, and/or material with reasonable profit and damage.

1.35 EXTENSION OF TIME IS NOT A WAIVER

Neither any extension of time for any reason beyond the date fixed herein for the completion of the contract nor the payment for any portion of the Work shall be deemed to be a waiver by the Engineer of the Corporation of any rights under contract.

1.36 SUBCONTRACTORS

The Contractor agrees that the list of names of Sub-Contractors supplied by him to the Corporation in these tender documents is the list of Sub-Contractors proposed to be used to carry out those parts of the Work noted thereon and he shall not employ any to whom the Engineer may reasonably object.

If the Engineer requires the change of any name on such list and the Work has to be awarded to a higher bidder, the contract price shall be increased by the difference between the two bids.

The Contractor shall be fully responsible to the Corporation for the acts and omissions of his Sub-Contractors and of persons directly or indirectly employed by them, as for the acts and omissions or persons directly employed by him.

In view of this responsibility, the Contractor shall not be obliged to employ as a Sub-Contractor or supplier any person or firm to whom he may reasonably object.

The Contractor agrees to bind every Sub-Contractor by the terms of the contract documents so far as they may be applicable to his Work.

Nothing contained in the contract documents shall create any contractual relation between any Sub-Contractor and the Corporation.

1.37 DISCHARGE OF LIABILITIES

The Contractor shall discharge all liabilities incurred by him for labour, materials and services, in connection with the performance of this contract on the date upon which each becomes due.

The Contractor shall cause each Sub-Contractor engaged in the performance of this contract to discharge all liabilities incurred by such Sub-Contractor for labour, materials and services in connection with the performance of this contract.

At the request of the Corporation or the Engineer, the Contractor shall furnish evidence that his liabilities and those of his Sub-Contractors have been discharged. No payment to which the Contractor is otherwise entitled under this contract shall be made so long as he or any of such Sub-Contractors are in default under this section.

1.38 SEPARATE CONTRACTS WITH OTHER CONTRACTORS

The Corporation reserves the right to let separate contracts for similar work. Such work shall have separation time or space for the purpose of defining such work as a separate project pursuant to the Occupational Health and Safety Act. If any part of the Contractor's work depends for its proper execution or result upon the Work of any other project, the Contractor shall in writing report promptly to the Corporation's

Representative any defects in the other project as may interfere with the proper execution of the Contractor's Work. Should the Contractor fail to inspect and report, he shall have no claim against the Corporation by reason of the defective or unfinished Work of the Other Contractor except as to latent defects not reasonably noticeable at the time of the commencement of the Contractor's Work.

1.39 ASSIGNMENT

Contractor shall not assign the whole or any portion of this contract without the consent of the Corporation in writing. Such consent may be withheld for any reason.

1.40 ARBITRATION

Except for those circumstances where it is provided in the Contract that the decision of the Corporation shall be final, any dispute or difference persisting after the delivery of the Corporation's decision may be referred by either party to arbitration. Arbitration will be carried out in accordance with the Arbitration Act of Ontario, S.O. 1991, as amended.

Any arbitration award shall be final and binding upon the Parties.

1.41 WORKPLACE SAFETY AND INSURANCE

The Contractor shall pay such assessments as will protect him and the Corporation from claims under the Workplace Safety & Insurance Act.

1.42 OCCUPATIONAL HEALTH AND SAFETY ACT

The Contractor shall provide a staff person on site who is knowledgeable in the obligations of the Act and will ensure requirements of the Act are fully complied with.

It is specifically drawn to the attention of the Contractor that the Occupational Health and Safety Act provides, in addition to other matters, that per Part III Section 23(1):

A Constructor shall ensure on a project undertaken by the Constructor that;

a) *The measures and procedures prescribed by this Act and the regulations are carried out on the project;*
b) *Every employer and every worker performing work on the project complies with this Act and the Regulations; and*
c) *The Health and Safety of workers on the project is protected.*

The Contractor shall indemnify and save the Corporation harmless from any additional expense that the Corporation may incur to have the Work performed as a result of the Contractor's failure to comply with the requirements of the Act and the Regulations.

The Contractor acknowledges and irrevocably accepts the duties of the Constructor as defined under the Occupational Health and Safety Act. Prior to the start of Work, the Contractor shall issue a copy of the Notice of Project to the Corporation's Representative, identifying the Contractor as the constructor, and identifying an employee of the Contractor as the supervisor.

A "Notice of Project" has been filed with the Ministry of Labour, where required. A copy

of the notice shall be provided.

The Contractor shall complete an injury report for any work-related injury incurred by a Contractor's or Sub-Contractor's employee during the performance of the Work, shall comply with the Workplace Safety and Insurance Board's reporting requirements, and shall submit a copy of the report to the PUC.

If the Contractor fails to enforce the requirements of the Occupational Health and Safety Act, the PUC authorized representative or Project Manager shall be at liberty to stop the work immediately at no cost to the PUC, until the infraction has been corrected. If further infractions occur, the PUC retains the right to remove the Contractor from this project. Stopping work due to the above shall not affect the Contractor's role as the constructor.

1.43 SAFETY ORIENTATION

The Contractor shall participate in a Standardized Safety Orientation (SSO) training session conducted by PUC Services HS&E Manager or equivalent, following award of the Contract and prior to commencement of the work. Contractor staff on site must be able to produce proof of this training whenever onsite upon request. If a course is thought to be an equivalent, the course content and proof on completion shall be sent to the Corporation for review. Determination of equivalency shall be at the sole discretion of the Corporation.

The Standardized Safety Orientation training shall include the Contractor's Supervisor and all personnel who will be on site during execution of the work. The cost for this training shall be borne by the contractor.

In addition to the above orientation, a hazard awareness session will be presented by PUC Services Inc. and it must be attended by all of the contractor's personnel who will be on site during execution of the work. The Corporation will provide one annual hazard awareness session specific orientation per year at no cost. Any additional orientations will be charged back to the Contractor at cost. **Any new staff must also receive a hazard awareness session and Standardized Safety Orientation training prior to commencing work.**

In the event that new personnel are added, their qualifications must be provided to the Corporation prior to commencing work. In addition, any changes to the qualifications must be kept current throughout the period of the contract and the Corporation must be made aware of those changes. Any deviation from this could result in the cancellation of the contract. The Corporation accepts no liability should a breach of contract occur where the Contractor fails to keep Health and Safety Qualifications current.

1.44 DISQUALIFICATION OF BIDDERS

PUC Services, in its sole discretion, may exclude a Bidder from eligibility to submit Bids or a submitted Bid may be summarily rejected and returned to a Bidder where one of the following circumstances has occurred:

a) The Bidder is or has been involved in Litigation with PUC Services, its elected

officials, officers or employees;

b) The Bidder has failed to pay an amount owed to PUC Services when due and owing;

c) There is documented evidence of poor performance, non-performance or default by the Bidder in respect to any Contract;

d) The Bidder has withdrawn its Bid on a previous Bid solicitation after Bids have been opened by PUC Services;

e) The Bidder is in breach of Official Point of Contact clause in the tender process

f) The Bidder or its personnel has demonstrated abusive behavior or threatening conduct towards PUC Services employees, their agents or representatives;

g) The Bidder has been convicted of a criminal or quasi-criminal offence including but not limited to fraud or theft; or,

h) The Bidder has been convicted of an offence pursuant to the Occupational Health and Safety Act, as amended, where the circumstances of that conviction demonstrate a disregard on the part of the Bidder for the health and safety of its workers or the general public.

For the purposes of this section, the Bidder shall be deemed to include any related entity and any partner, principal, director or officer of such Bidder as well as any other legal entity with one or more of the same partner(s), principle(s), director(s) or office(s).

APPENDIX G

PUC PROJECT SPECIFIC TERMS AND CONDITIONS

SECTION 1

PROJECT SPECIFIC TERMS AND CONDITIONS

PROJECT SPECIFIC TERMS AND CONDITIONS

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PROJECT SPECIFIC TERMS AND CONDITIONS

1.1 JURISDICTION

This agreement will be governed by and construed in accordance with the laws of Ontario.

1.2 OMISSIONS/DISCREPANCIES/RIGHT TO CLARIFY

Should a Bidder find discrepancies in or omissions from the drawings or contract documents, or should they be in doubt as to their meaning, they should notify the Corporation as specified in the Scope of Work.

The Corporation reserves the right in its sole discretion to clarify any bid after closing by seeking further information from that Bidder without becoming obligated to clarify or seek further information from any or all other Bidders.

However, Bidders are cautioned that any clarifications sought will not be an opportunity either to correct errors or to change their bids in any substantive manner.

1.3 PERFORMANCE OF WORK

The Bidder shall, before submitting their tender, satisfy themself as to the local conditions that may be encountered during construction of the work. They shall make their own estimate of the facilities and difficulties that may be encountered and the nature of the subsurface materials and conditions. They shall not claim at any time after submission of their tender that there was any misunderstanding of the terms and conditions of the Contract relating to site.

1.4 PROOF OF ABILITY

The Bidder shall be competent and capable of performing the various items of Work. The Bidder may be required to furnish statements covering experience on similar Work, list of plant available, senior personnel to be used on the Work, and such statements of his financial resources as may be found necessary.

1.5 PRIVILEDGE CLAUSE

Bidders are notified that the lowest or any tender need not be accepted by the Corporation and the Corporation reserves the right to reject any and all tenders at any time without further explanation or to accept any tender considered advantageous to the Corporation. Tenders, which contain qualifying conditions or otherwise fail to conform to these tender documents may be disqualified or rejected. The Corporation may waive any non-compliance with the tender documents, specifications or any conditions, including the timing of delivering of anything required by this tender and may at its sole discretion elect to retain for consideration tenders which are non-conforming because they do not contain the content or form required by the tender documents or because they have not complied with the process for submissions set out herein.

1.6 NEGOTIATION WITH BIDDERS

The Corporation may, prior to contract award, negotiate changes to the Scope of Work, the type of materials, the specifications or any conditions with the successful Bidder or one or more of the Bidders without having any duty or obligation to advise any other Bidder or to allow them to vary their Tender prices as a result of such changes and the Corporation shall have no liability to any other Bidder as a result of such negotiations or modifications.

1.7 RIGHT TO NEGOTIATE

Should the Corporation not receive any bid satisfactory to the Corporation in its sole discretion, the Corporation reserves the right to negotiate a contract for the whole or part of the Project with any one or more of the Bidders without becoming obligated to offer to negotiate with all Bidders.

1.8 POWER TO PAUSE

In the event the Corporation discovers Bidders have received unequal access to relevant information regarding the requirements of the Project or the Invitation to Tender/Request for Proposals, the Corporation reserves the right in its sole discretion to suspend the competitive bid process, issue new information in writing to all Bidders and then continue the competitive bid process.

In the event the Corporation chooses to suspend the bidding process, those Bidders who have submitted bids will be provided with new information and allowed an additional five (5) days to change their bids should they choose to do so or to withdraw altogether.

Thereafter, the Corporation will continue the competitive bid process with the then remaining Bidders, with all requirements as if the competitive bid process had not been suspended.

1.9 CONFIDENTIALITY

The Request for Tender is strictly confidential and proprietary to the Corporation. Your agreement to respond to the Tender indicates your agreement to the Corporation's confidentiality listing below. In addition, the information in the Request for Tender will not be shared with Other Contractors. A final decision will be made strictly on the merits of the submitted documents. The decision of the Corporation is final.

1. "Confidential Information" means information about PUC Services Inc. (the "Corporation") and its customers, customer prospects, and/or vendors that are not generally known outside of the Company, “the Contractor” will learn of in the course of carrying out the Contractor's obligations under this agreement. Confidential Information may include, without limitation:

    (1) the terms of this agreement, except as necessary to inform your legal counsel, spouse, or professional tax advisors[1] only on the condition that any disclosure by any such person shall be considered a disclosure by the Contractor and a violation of this agreement;

    (2) the Corporation's business policies, finances, and business plans;

    (3) the Corporation's financial projections, including but not limited to, annual sales forecasts and targets and any computation(s) of the market share of customers and/or customer prospects;

    (4) sales information relating to the Corporation's services;

    (5) customized software, marketing tools, and/or supplies that you will be provided access to by the Corporation and/or will create;

    (6) information, including subjective information, whether recorded or not recorded, about an individual who is a customer, customer prospect,

employee, business contact, or vendor of the Corporation if the individual is known or can be identified from either the information itself, or when that information is combined with other information ("Personal Information");[2]

(7) any list(s) of the Corporation's customers, customer prospects, business contacts, or vendors;

(8) the account terms and pricing upon which the Corporation obtains products and services from its vendors;

(9) the account terms and pricing of sales contracts between the Corporation and its customers;

(10) the proposed account terms and pricing of sales contracts between the Corporation and its customer prospects; and

(11) the techniques, methods, and strategies by which the Corporation develops, manufactures, markets, distributes, and/or sells any of its services.

2. Confidential Information shall not include information, other than Personal Information, which:

   i. becomes generally available to the public through no fault of the Contractor or breach by the Contractor of any of its obligations of confidence;

   ii. was known to the Contractor prior to receipt from the Corporation on a non-confidential basis and is not subject to another obligation of secrecy and non-use, as documented by written records possessed by the Contractor prior to its receipt from the Corporation;

   iii. is independently developed by the Contractor prior to the receipt from the Corporation, as documented by written records possessed by the Contractor; or

   iv. becomes available to the Contractor on a non-confidential basis from a source other than the Corporation that is not under other obligations of confidence.

3. Confidential Information shall be used only for the exclusive purpose of carrying out the Contractor's obligations under this Agreement. The Contractor agrees to take all steps required to preserve the secrecy of the Confidential Information and shall not disclose, either directly or indirectly, the Confidential Information to any third party or person, save and except as otherwise provided for herein or as may be authorized from time-to-time in writing, in advance, by the Corporation. The Contractor further agrees to use all necessary efforts to prevent any unauthorized acquisition or use of the Confidential Information. The Confidential Information shall not be reproduced in any form by the Contractor except as required to carry out the Contractor's obligations under this agreement. This section shall survive termination of this agreement.

4. The Contractor shall at any time upon request of the Corporation and upon termination of this agreement, immediately return to the Corporation or destroy

the Confidential Information and all copies thereof in any form whatsoever under the power or control of the Contractor. The Contractor shall provide the Corporation with a destruction certificate certifying such destruction promptly upon request.

5. The Contractor shall satisfy and comply with all applicable privacy legislation and any other statute or regulation applicable to the Confidential Information.

6. If the Contractor becomes compelled to disclose any Confidential Information of the Corporation pursuant to law, regulation or lawful order or process (collectively "Requirements") the Contractor shall provide the Corporation prompt notice of any such Requirement and shall cooperate with the Corporation in seeking to obtain any protective order or other arrangement pursuant to which the confidentiality of the Confidential Information is preserved. If such an order or arrangement is not obtained, the Contractor shall disclose only that portion of the Confidential Information as is required pursuant to such Requirements. Any such required disclosure shall not, in and of itself, change the status of the disclosed information as Confidential Information under the terms of this agreement.

7. The Corporation shall retain all ownership of all rights, including all intellectual property rights, in the Confidential Information. Neither the execution of this agreement nor the furnishing of any Confidential Information by the Corporation shall be construed as granting to the Contractor either by implication or otherwise, any interest, license or right respecting the Confidential Information, including without limitation any intellectual property right therein, now or hereinafter owned or controlled by the Corporation, other than as expressly provided for in this agreement. The Contractor shall not apply for any intellectual property rights in respect of the Confidential Information or in respect of any subject matter derived from the Confidential Information, except as may otherwise expressly be provided for or authorized by the Corporation.

[1] If the agreement contains restrictive covenants there should be a carve-out for disclosure of these where necessary to give them the effect.

[2] The definition of “Personal Information” is based on the definition in PIPEDA and OPC interpretive guidance.

1.10 NOTICE

All Notices under this Agreement shall be in writing and shall be deemed received, if properly sent to the address specified in the Invitation to Proponents section.

1.11 TENDER LEFT OPEN

The Bidder shall keep their tender open for acceptance for four (4) weeks after the closing date. Withdrawal during this period will result in forfeiture of the Tender Deposit.

1.12 SUB-CONTRACTORS

The Contractor shall submit with their tender a full list (with addresses) of the Sub-Contractors they propose to use on the project if their tender is accepted.

1.13 PAYMENT

The Corporation shall make payments on account of the contract as follows:

Within 30 days of receipt of invoice, ninety per cent (90%) of the value of the Work completed up to and including the last day of the month preceding, as invoiced by the Contractor, and approved by the Engineer, less the aggregated or previous payments.

Invoices shall be presented to the Engineer monthly or as otherwise agreed upon and shall include the percentage of Work completed from commencement of the Work based on a breakdown of the total contract price in accordance with the scope of Work.

If required by the Corporation, invoices shall be submitted with the following:

a) Certificate from the Workplace Safety & Insurance Board indicating that all assessments under the Workplace Safety & Insurance Act have been paid.
b) Statutory Declaration indicating that all payments have been made in accordance with the contract, from the date the contract commenced.

The remaining ten per cent (10%) holdback will be retained by the Corporation in accordance with the requirements of the Construction Act and will be released in accordance with the terms and conditions hereinafter provided.

1.14 ACCEPTANCE CERTIFICATE

The Acceptance Certificate will be issued by the Engineer upon satisfactory completion of all the works contained in this contract. The Acceptance Certificate will show the final contract price, the acceptance date of all the Work and the dates on which the holdbacks come due.

1.15 TERM OF CONTRACT

The Term of this Agreement shall be as stated in Appendix E Section 1 “Scope of Work”.

1.16 HOLDBACK

The Corporation shall retain the ten per cent (10%) holdback for a period not less than sixty (60) days after acceptance of the work, all in accordance with the requirements of the Construction Act.

All of the holdbacks will be released after sixty (60) days upon receipt by the Corporation of the following:

a) Substantial completion.
b) Certificate from the Workplace Safety & Insurance Board indicating that all assessments under the Workplace Safety & Insurance Act have been paid.
c) Statutory Declaration indicating that all payments have been made in accordance with the contract, from the date the contract commenced.

1.17 ACCESS

The Contractor shall provide all necessary flagmen, signs, warning lights and barricades required to direct and protect public vehicular and pedestrian traffic in accordance with the latest version of the Ontario Traffic Manual Book 7 (Temporary Conditions) and its amendments as they are issued.

1.18 NOTIFICATIONS

If streets are to be closed, or traffic restricted, the Contractor shall notify the appropriate City, Fire, and Police departments, giving at least fourteen (14) days' notice of the closing or restriction.

If bus routes are affected, the Contractor shall notify the City and Bus Company, giving at least fourteen (14) days' notice.

When streets are to be reopened or restrictions removed, the Contractor shall notify the City, Fire, Police, and Bus authorities.

1.19 HEALTH AND SAFTEY QUALIFICATIONS

The Contractor shall include supporting documentation for items 1 through 7 with the Form of Tender. Failure to do so may result in disqualification.

1. Certificate of Insurance – minimum of $5,000,000.00 Public Liability and Property Damage stating that PUC Services Inc., PUC Inc., PUC Distribution Inc., and the Corporation of the City of Sault Ste. Marie, as additional insured.
2. Workplace Safety & Insurance Board Certificate of Clearance (updated every 90 days for the duration of the contract).
3. Workplace Safety & Insurance Board, Workplace Injury Summary Report.
4. Copy of the Companies signed Health & Safety Policy, to be updated annually, as well as a copy of the supporting Health and Safety Program. The Health and Safety Program must detail corporate expectations regarding job planning including reference to tailboard meetings.
5. A copy of the companies' Joint Health and Safety Committee's Terms of Reference or other document that attests to the frequency of staff safety meetings and workplace inspections. A signed statement by the Contractor attesting to compliance with all Federal and Provincial Statutes and Regulations including but not limited to the Occupational Health and Safety Act, the Electricity Act, The Technical Standards and Safety Act, The Environmental Protection Act, and The Highway Traffic Act including all regulations under those Acts including but not limited to:
    - Regulations for Construction Projects O. Reg. 213/91
    - Regulations for Industrial Establishments O. Reg. 851
    - Hours of Service O. Reg. 555/06WHMIS O. Reg. 860
    - Electricity Distribution Safety O. Reg. 22/04
    - Safety Inspections O. Reg. 611
    - Spill Prevention and Contingency Plans O. Reg. 224/07
    - O. Reg. 406/19 Excess Soil Management O. Reg. 406/19
6. A list of all First Aid supplies to be onsite during the project. The Contractor is responsible for providing at least the minimum level of first aid equipment required by regulation applicable to the scope of Work and size of the workforce. An automated external defibrillator (AED) must be on site anytime there are more than 25 workers on site, or if advanced emergency response is more than 30 minutes away from the Work.
7. Total number of TSSA related incidents by Contractor over the past five (5) years. Quantity and type of work can be included to substantiate incidents if elected.

1.20 INCLEMENT WEATHER

Make adequate protection and take precautions at times of inclement weather. Inclement weather or extra work caused by such weather will not be accepted as reason for additional payment.

1.21 OTHER CONSTRUCTION

Other construction may be proceeding at the same time near the work of this Contract. Extend co-operation and free access to other companies and employees who may be working in this area, while maintaining safe work practices and requirements.

1.22 ADJACENT STRUCTURES AND UTILITIES

PUC Services Inc. does not guarantee the location of any utility nor will it pay any penalty if the Contractor accidentally damages any utility. The Contractor is solely responsible for the preservation of all utilities.

Any adjustment or relocation of gas, water, telephone, communications, or power utilities shall be carried out by others and the Contractor shall have no right of monetary claim for extra delay for interference caused by such adjustment or relocation.

Perform temporary and permanent support and temporary relocation and replacement of underground or overhead utilities as detailed in the General Conditions.

Others will carry out permanent relocation of underground or overhead utilities, if necessitated by coincidence of lines and grades, or both.

1.23 TREES AND SHRUBS

In addition to this Standard Specification, the following shall also apply:

Except as otherwise provided for in the Contract, the Contractor shall protect from injury all trees and shrubs on or near the line of work and on private property.

1.24 MAINTENANCE AND REPAIRS

The Contractor guarantees and agrees to maintain all of the work performed in this Contract against faulty workmanship for eighteen (18) months from the date of acceptance of the same by the Corporation's Representative.

The Contractor agrees to carry out such repairs as may be directed by the Corporation's Representative. If after ten- (10) days' notice, they fail to carry out such repairs, the Corporation may proceed with such repairs and charge the same against the Contractor.

The Contractor agrees that emergency repairs resulting from the work performed in this Contract shall be carried out immediately at the expense of the Contractor.

1.25 CERTIFICATES AND PROOF OF TRAINING

The following documents and Certificates/Proof of training, for each employee shall be provided within five (5) business days of notification from the Contract Administrator of the Intent to Award (Individual training and proof of qualification must be included where applicable). Training must be delivered by a qualified/certified trainer.

1. Commercial Vehicle Operator Registration including:
    - Registration Certificate (for each vehicle);

- Driver Profile (for each driver);
- Vehicle Circle Check Log (example);
- Vehicle Maintenance Program (example); and
- Annual Inspection Certificate (for each vehicle).

2. Certificates/Proof of training, for each employee to show compliance with WHMIS or WHMIS after GHS regulations.
3. Certificates/Proof of training, for each employee to show compliance with traffic control for roadway work operations in accordance with the Ministry of Transportation Ontario Traffic Manual Book 7 Temporary Conditions.
4. Certificates/Proof of training, for each employee, by a valid First Aid/CPR Instructor, to show compliance with the Workplace Safety & Insurance Act showing the level of training and expiry dates.
5. Powerline Technician certificate/proof of qualification inclusive of relevant experience.
6. Hazardous material transportation license.
7. Copy of all Safety data sheets for all WHMIS related chemicals.
8. Aggressive Customers certificate/proof of training.
9. Chainsaw safety certificate/proof of training.
10. Circle check over 4500kg and under 4500kg certificate/proof of training.
11. Defensive driving (Commercial) certificate/proof of training.
12. Electrical safety high voltage certificate/proof of training.
13. EUSR rule book certificate/proof of training.
14. Fire extinguisher certificate/proof of training.
15. Hoisting and rigging certificate/proof of training.
16. Industrial noise awareness certificate/proof of training.
17. Integrated accessibility standards certificate/proof of training.
18. Job planning certificate/proof of training.
19. Ladder Handling certificate/proof of training.
20. MSD Injury Prevention certificate/proof of training.
21. Pole Top and Bucket Evacuation certificate/proof of training.
22. Ladder Rescue certificate/proof of training.
23. OHSA Basic Training certificate/proof of training.
24. Transportation of Dangerous Goods certificate/proof of training.
25. Utility Work Protection Code [Full & Recert] certificate/proof of training.
26. Working at Heights certificate/proof of training.
27. PLT Marie (Powerline Technician Journeyman/Apprentice) certificate/proof of training
28. Workplace Violence and Harassment certificate/proof of training.

In the event that new personnel or vehicles are added, their qualifications/documentation must be provided to the Corporation before either commences work. In addition, the above qualifications/documentation must be kept current throughout the period of the contract and the Corporation must be made aware of those changes. Any deviation from this could result in the cancellation of the contract. The Corporation accepts no liability should a breach of contract occur where the Contractor fails to keep Health and Safety Qualifications current.

Certificates and proof of training shall be used for evaluation of proposal only. Contractor shall remain responsible to ensure all employees are competent and qualified, and all equipment and tools are adequately maintained and registered to safely perform work. Contractor is responsible for providing primary, update, or refresher, training as needed. All worker training, skills, and designations shall be maintained in a log by the Contractor and available on-site. Verification must be provided immediately upon request of the PUC Services Inc.

1.26 PRE-CONSTRUCTION MEETING

A mandatory pre-construction meeting will be presented by the Contractor. The pre-construction meeting must be attended by all of the contractor's personnel who will be on site during execution of the work and a representative of the PUC Contract Administrator.

During the pre-construction meeting, the Contractor is responsible to ensure attendance, review established construction procedures including emergency procedures, review lines of communication, provide key contact information and provide a record of the meeting minutes to the PUC contract administrator. Any staff that is unable to attend the pre-construction meeting must receive training on emergency procedures, construction procedures, lines of communication and receive the contact information as discussed at the pre-construction meeting prior to commencing work. Pre-construction meeting shall include, at a minimum, a discussion and provision of documents of the following:

- Emergency response plan;
- List of key contacts;
- Details around communication;
- Hazard awareness;
- Details around training and on-site safety; and
- Discussion and signoff of roles and responsibilities charts as identified in PUC's Contractor Management Program.

1.27 CONSTRUCTION CLOSING MEETING

The Contractor shall participate in a closing meeting with PUC Services Inc. to complete an evaluation of the Contractor's performance. The meeting will in part assist PUC Services Inc. to determine whether or not, or under what circumstances, the Contractor may be considered for future Work. The Contractor will be provided with a written copy of the evaluation and closing meeting notes.

1.28 HAZARD AWARENESS SESSION

After formal award of the contract a hazard awareness session will be presented by PUC Services Inc. in accordance with clause 1.43 in Appendix F. This session must be attended by all of the contractor's personnel who will be on site during execution of the work. The Corporation will

provide one annual hazard awareness session specific orientation per year at no cost. Any additional orientations will be charged back to the Contractor at cost. Any new staff must also receive a hazard awareness session and Standardized Safety Orientation training with PUC Service's Health & Safety Department prior to commencing work.

SECTION 2

SUPPLEMENTARY SPECIFICATIONS

SUPPLEMENTRY SPECIFICATIONS

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SUPPLEMENTARY SPECIFICATIONS

The following Supplementary Conditions shall be considered an addendum/addition to the General Conditions.

2.1 ORDER OF PRECEDENCE

In the event of an inconsistency or conflict in the contents of the following documents, such documents shall take precedence and govern in the following descending order:

1. Appendices
2. Request for Proposal and all Remaining Documentation
3. Contract Information
4. Contractors Submitted Documentation

Later dates shall govern within each of the above categories of documents.

2.2 WORKING IN PROXIMITY

Maximum clearances are given in the chart below with reference to the Ontario Health & Safety Act (OH&SA) requirements for both personnel and equipment in respect of utilization voltages. Further information is provided by the Infrastructure Health and Safety Association – IHSA (formerly Electrical & Utility Safety Association (E&USA)). The worker should consult these relevant guidelines if not familiar with their content. Also, please refer to the requirements as provided in various specifications and standard drawings. Contractor is responsible for complying with the more stringent of OH&SA, E&USA and the standards herein.

Both OH&SA and IHSA provide guidance to assist workers in working safely in close proximity to electrical wires and equipment and to assist in applying appropriate emergency response measures in the event of electrical contact. It is the responsibility of the Vendor to ensure that work is carried out in a safe manner. Legislation requires that all related hazards are identified ahead of time and that only competent workers are allowed to work without direct supervision. A competent worker is defined as a worker who is qualified because of knowledge, training and experience to perform the work, a worker who is familiar with the OH&SA and with the provisions of the Regulations that apply to the work and a worker who has knowledge of all potential or actual danger to health or safety in the work being carried out (as defined in E&USA).

Prior to carrying out any work, a determination on whether hazards exist must be made. This should include verifying the operating voltage of the overhead and exposed lines. Workers should always consider the system as being live, having the potential to cause serious injury or death. A safe work plan must be developed ahead of time to address all related matters. Whether or not the worker is a licensed power line worker, the safe limits of approach must be adhered to and proper PPE and precautions must be taken.

The worker must also consider the age of the system in-so-far-as it may not have been designed with the clearances below in mind. A worker must be aware of these situations which must be addressed in the safe work plan.

The worker is permitted to work up to the Authorized Worker Zone when the conductor is energized to primary voltages (750V to 15kV for this project) and is permitted to work on energized conductors at secondary voltages (below 750V) if they have successfully completed a minimum 3rd year apprenticeship as a powerline technician. They are not permitted to enter beyond the Authorized Worker Zone if the conductor is energized to primary voltages and must only work on the conductors if an outage is in place.

SAFE LIMITS OF APPROACH

Maintain Maximum Clearances and Install Barriers Where Practical

	Personnel Zones *			Mobile Work Equipment *		
Voltages	O.H.S.A. Minimum	Authorized Worker	Restricted Zone	O.H.S.A.	Non-Isolated Booms	Certified Insulated A.D.
750V to 15kV	> 3.0m	> 0.9m	0.9m to 0.3m	> 3.0m	> 0.9m	> 0.3m
> 15kV to 35kV			0.9m to 0.45m			> 0.45m
> 35kV to 50kV		> 1.2m	1.2m to 0.6m		> 1.2m	
> 50kV to 150kV		> 1.5m	1.5m to 0.9m		> 2.4m	> 0.9m
> 150kV to 250kV	> 4.5m	> 2.1m	2.1m to 1.2m	> 4.5m	> 3.0m	> 1.2m
> 250kV to 550kV	> 6.0m	> 3.7m	3.7m to 2.75m	> 6.0m	> 4.6m	> 2.75m
* For detailed information relating to Limits of Approach Conditions and Restrictions, refer to Electrical Utility Safety Rule # 129 and trade specific documentation.				Cranes Power Shovels Back Hoes Mechanical Brush Cutter	RBD, Aerial Ladder, Work Platform, Uncertified Aerial Device	Certified and Tested by Certified Laboratory

Information included above is a snapshot of the Electrical Utility Safety Rules. It remains the Contractor's responsibility to ensure that the most current version of the rules are adhered to.

Outages

PUC will be responsible for coordinating all outages and customer correspondence. The Contractor must inform PUC of their project schedule, period of time that work will commence in each area and the area of which they will be conducting construction so PUC can schedule the required outage. The Contractor shall endeavour to provide PUC with as much notice as reasonably possible to schedule the outages, but not less than 48 hours.

2.3 DEDICATED OBSERVER

The Contractor is to provide a dedicated observer on site at all times. The dedicated observer (as defined by E&USA) will conduct Quality Assurance and Quality Control tasks to ensure the final product is up to standard and for safety monitoring. The dedicated observer will have authority over the workers, the site and has the ability to stop work or remove individuals from the site when deemed necessary.

2.4 TRANSPORTATION OF PCB CONTAMINATED EQUIPMENT

The contractor must take all necessary precautions to prevent the spilling of PCB contaminated oil from all transformers on site that are to be removed. Proper spill prevention equipment is to be used when handling all transformers. When it is time to remove the transformers, the contractor is to contact the address specified in the Invitation to Proponents section of the RFP 48hrs before. The contractor is to only remove the transformer and place it in a spill resistant bag provided by PUC. The transformer will be loaded onto the PUC vehicle at site and transported back to the PUC facility by PUC personnel.

2.5 ROLES AND RESPONSIBILITIES

The below is a draft roles and responsibilities chart that will be discussed and signed off during the pre-construction meeting. The responsibilities chart is as per Appendix F of PUC's Contractor Management Program.

Task	Task Description	Department	Individual	Frequency
Liaison Between PUC and Contractor/Consultant	Primary day-to-day contact between Contractor and PUC team.	Engineering	Mathew Grigg Daniel Maione	As Required
Site Audit	Review sections that have been identified as completed for field confirmation, document inspections and comparison to stamped drawing.	Line Department	Ryan Palahnuk Michael Tomas Derek Healey	Daily
Payment Certifications	Review contractor invoices and compare to site audit. Prepare recommendation for payments for Engineer approval.	Engineering	Mat Grigg	Monthly
Financial Approvals	Approvals of recommendation for payments, etc.	Engineering Others as Required	Daniel Maione As per PUC Signing Policy	Monthly
Safety Qualifications	Obtained through documents provided through contract.	Engineering/ Line Department/Health & Safety	Daniel Maione, Line Department Supervisors Health & Safety Department	Prior to work commencing
Hazard Awareness Session	Present a Hazard Awareness session to	Line Department	Matt Jakibchuk	Prior to work commencing

	the contractor specific to the hazards that may be present during their work			
Authorization of Workers	Review Contractor qualifications and authorize contractor to perform live line work up on secondary voltages and up to 0.9m on voltages up to 15kV.	Line Department	Phil Johnston	Prior to work commencing
Site Safety Representative	Conduct site specific orientation prior to work commencing. Responsible for performing site visits to Contractor crews observing safety aspects and periodically inquiring about individuals on site to ensure that they are on the list of workers provided by the individual responsible for Safety Qualifications. Take part in a representative sample of daily tailboards.	Line Department	Ryan Palahnuk Michael Tomas Derek Healey	Daily
Daily Tailboards	Responsible for completing daily tailboards with all staff on site, signing staff on and off tailboards as required.	Awarded Bidder	Awarded Bidder Site Supervisor	Daily
Contractor Supervision	Continuous supervision of crew working on site, ensuring safety and crew follows PUC's policies.	Awarded Bidder	Awarded Bidder Site Supervisor	Daily
Obtaining Holdoffs	Responsible for obtaining holdoffs from PUC as required.	Awarded Bidder	Awarded Bidder Site Supervisor	As Required

Contract Monitor	Monitor construction to ensure all workers present follow PUC Contractor Management Program requirements, PUC Health and Safety requirements, and all work is being done safely.	Line Department	Ryan Palahnuk Michael Tomas Derek Healey	Daily
Construction Verification	Complete and sign all necessary documents for construction verification	Line Department	Ryan Palahnuk Michael Tomas Derek Healey	As Required
Contract Administrator	Responsibility of administering activities associated with a contract. This may include preparing the Contract tender documents, filing a notice of project, coordinating the bid evaluation process, recommending the award of the Contract and financial, technical, Contractual, and logistical administration through the execution and closeout stages of the Contract.	Engineering	Daniel Maione	Throughout contract
Project Manager	Accountable for project delivery and the overall authority for the successful completion of a project. Responsible for assigning the Contract Monitor, conducting the Pre-Job Meeting, resolving Contractor health and safety performance	Engineering	Daniel Maione	Throughout contract

	issues, conducting the close out meeting with the Contractor and completing the Contractor Closeout Evaluation.			
Supervisor	Supervise the construction of the project and ensure all safety policies and programs are being followed. Ensuring the project plans are being followed and the project is being constructed according to the stamped design drawings.	Line Operations	Ryan Palahnuk Michael Tomas	As required

2.6 CREW REQUIREMENTS

The Contractor shall ensure all workers are qualified and competent to complete the work. PUC requires a minimum of the below qualifications of the workers. PUC reserves the right to accept/deny any worker of the Contractor.

Role	Qualifications
Team Lead	Minimum of 7 years' experience as a Journeyman Lineman
Dedicated Observer	Minimum 4th year apprentice (completed 3rd year of apprenticeship)
One Crew Individuals	1 Apprentice per crew of 4 members only

2.7 RESTORATIONS

The Contractor is responsible to perform work such manner to cause minimal disturbance to the area. Where required to excavate, restoration shall be completed by the Contractor to previous, or better conditions. The Contractor is responsible for providing before and after photos of the area upon request.

2.8 CONTRACT MONITORING

PUC will be present on site from time to time to provide the Contract Monitoring role as defined by PUC's Contractor Management Program. The Contractor shall ensure all documentation is available on site and provide a reasonable amount of time to discuss specifics with PUC's representative. PUC reserves the right to discuss specifics with all workers on site and will request so through the Contractor's lead/supervisor.

2.9 JOB PLANS

The Contractor shall complete daily job plans (tailboards) prior to commencing work each day. The tailboard shall include, at a minimum, the location of the work, date, time, weather, hazards, barriers, workers and roles. Job plans shall be available upon request and remain available for a period of 12 months beyond the completion of the work. The Sample Daily Health and Safety Plan (Appendix L in Appendix H: PUC Contractor Management Program) is to be completed every day construction is undertaken.

2.10 PROJECT CONSTRUCTION SCHEDULE

the Contractor shall provide to the Owner, prior to commencement of the Work on site, a Project Construction Schedule showing the sequence of tasks required to complete the Work. The Project Construction Schedule will include the timing, resources and special equipment required for each task in the plan. The Contractor will use the Project Construction Schedule to prepare the Project Health and Safety Plan(s) (Appendix K in Appendix H: PUC Contractor Management Program). The Contractor shall revise its Project Construction Schedule if PUC deems necessary after review.

2.11 PROJECT HEALTH AND SAFTEY PLANS

The Contractor shall provide, prior to the commencement of the Work on site, a Project Health and Safety Plan (Appendix K in Appendix H: PUC Contractor Management Program) of the contract). The Project Health and Safety Plan(s) shall identify the sequence of activities to be completed on site for the entire project term. For each activity, the plan will identify the high-risk Hazards that may be present and include a barrier analysis that identifies the intended Control Barriers, Safety Barriers, and Support Barriers (or an equivalent analysis approved by the Owner) required for each identified Hazard. The Contractor shall revise its Project Health and Safety Plan if PUC deems necessary after review.

APPENDIX H

PUC CONTRACTOR MANAGEMENT PROGRAM

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1. PURPOSE

The purpose of this program is to define the requirements and provide guidelines for the prequalification, selection, orientation, monitoring, closure and post-evaluation of the health and safety capability and performance of all Contractors, Sub-Contractors and suppliers (referred to collectively as "Contractors" throughout). Contractors are accountable for taking all necessary steps to protect Workers, visitors, the public, and the environment during the Contract with PUC Services Inc. (PUC). The objectives are to ensure the health and safety of Workers, to prevent losses due to damage of property and to ensure compliance with all rules and regulations.

2. SCOPE

This program applies to PUC Contractors and PUC Workers who engage Contractors to perform work on behalf of PUC. This applies to all types of work and activities where Contractors are engaged, including long term projects, short term projects, or one-time call-up work to meet an immediate and specific need (temporary contracted PUC employees are excluded). This document is not intended to be an all-inclusive in the management of Contracts or Contractors but rather it focuses specifically on the requirements of the health and safety aspects of the Contracted work.

3. DEFINITIONS

3.1 Competent Person

A person who is qualified because of knowledge, training and experience to organize the work and its performance, is familiar with the Occupational Health & Safety Act (OHSA) and the regulations that apply to the work and has knowledge of any potential or actual danger to health or safety in the workplace.

3.2 Contract Administrator

Is a person or persons designated by PUC who is assigned the responsibility of administering activities associated with a contract. This may include (but is not limited to) preparing the Contract tender documents, filing a notice of project with the Ministry of Labour, Immigration, Training and Skills Development (when necessary), arranging pre-bid meetings, coordinating the bid evaluation process, recommending the award of the Contract and financial, technical, Contractual, and logistical administration through the execution and closeout stages of the Contract.

3.3 Contract Monitor

Is a person or persons responsible for monitoring the Contractor, Sub-Contractor, and their Workers. They monitor the health and safety performance, providing feedback to both the Contractor and the Project Manager. The Contract Monitor will compare the Contractor's work and work methods with the standards and expectations defined in the Contract.

Qualifications for Contract Monitor, include but are not limited to:

- Knowledge related to the hazards associated with the work
- Knowledge of the procedures and hazard controls for high-risk tasks relating to the project
- Training on relevant federal, provincial, and municipal health, and safety and environmental regulations
- Supervisor training; minimum of two-day training course
- Training on the relevant PUC policies and procedures e.g. health, safety, security, or environment relating to the project
- Daily Job planning training and experience
- Crew observations training.

3.4 Contractor

Third party that is Contracted, engaged, or retained by PUC to perform work or provide services, who is not engaged in an employment Contract. This term applies to all Contractors, all Contractor Workers, and any Sub-Contractors hired by the Contractor.

3.5 Contractor Health and Safety Orientation

A high-level orientation provided to Contractors, by the PUC Health and Safety Department. The focus is on the PUC philosophy for health, safety, and environment.

3.6 Construction

Includes erection, alteration, repair, dismantling, demolition, structural maintenance, painting, land clearing, earth moving, grading, excavating, trenching, digging, boring, drilling, blasting, or concreting, the installation of any machinery or plant, and any work or undertaking in connection with a project but does not include any work or undertaking underground in a mine.

3.7 Construction Project

Includes any work which meets the definition of construction which is being performed at any location coming within the definition of project.

3.8 Constructor

A person who undertakes a project for an owner and includes an owner ho undertakes all or part of a project by himself or by more than one employer.

3.9 Consultant

Is an individual or firm hired by the PUC to provide subject matter expertise.

3.10 Employer

A person who employs one or more workers or Contracts for the services of one or more workers and includes a Contractor or Sub-Contractor who performs work or supplies services and a Contractor or Sub-Contractor who undertakes with an owner, constructor, Contractor or Sub-Contractor to perform work or supply services.

3.11 Field Orientation ("Boots on the Ground")

Orientation provided by the Project Manager or delegate, immediately prior to work commencing. This orientation takes place on site with any Contractor or Sub-Contractor who will be working on the site/project. The Project Manager or delegate will review any relevant procedures, including emergency procedures, and personal protective equipment requirements. This is required for all medium and high-risk projects lasting longer than five (5) continuous working days and annually for service Contracts.

3.12 Non-Construction Work

Is Contract work that does not meet the definition of Construction or Construction project. All non-construction work is governed by the Industrial Regulation.

3.13 Owner

A trustee, receiver, mortgagee in possession, tenant, lessee, or occupier of any lands or premises used or to be used as a workplace, and a person who acts for or on behalf of an owner as an agent or delegate.

3.14 Pre-Bid Meeting

This meeting, held at the discretion of the PUC, is for Contractors that are interested in PUC work. They are generally at the work location, to allow bidders to become familiar with the scope of work, workplace hazards and conditions. The Contractors are allowed to ask questions about the upcoming job.

3.15 Pre-Job Meeting

This meeting is conducted with the successful Contractor, by the Project Manager or delegate after award of the Contract. At the discretion of the Project Manager, a representative from the PUC Health and Safety Department may be invited. The General Scope of the Contract is reviewed, as well as hours of work, communication, administrative expectations, site safety, and emergency response. Minutes of the meeting are completed, and a copy is sent to the job/project file. The Project Manager determines the requirement for the Pre-Job Meeting.

3.16 Pre-Qualified

A Contractor that has met the minimum administrative health and safety requirements before beginning work for the PUC.

3.17 Project

A Construction Project, whether public or private, including:

- The construction of a building, bridge, structure, industrial establishment, mining plant, shaft, tunnel, caisson, trench, excavation, highway, railway, street, runway, parking lot, cofferdam, conduit, sewer, watermain, service connection, telegraph, telephone or electrical cable, pipeline, duct or well, or any combination thereof.
- The moving of a building or structure.
- Any work or undertaking, or any lands or appurtenances used in connection with construction.

3.18 Project Manager

A person or persons designated by the PUC's Department Management accountable for project delivery and the overall authority for the successful completion of a project. Their responsibilities include (but are not limited to):

- assigning the Contract Monitor(s)
- conducting the Pre-Job Meeting (Appendix E)
- resolving Contractor health and safety performance issues
- conducting the close out meeting with the Contractor and completing the Contractor Closeout Evaluation (Appendix I).

Qualifications for a Project Manager include, but are not limited to:

- Qualifications of a Contract Monitor, and
- Training/certification (or demonstrated experience – five years recommended) in Project Management.

3.19 Risk

A situation involving exposure to danger.

High Risk Work

Work that exposes Contractors to hazards such that if an incident occurs the likely outcome is a fatality or permanent disability. Examples include:

a) line construction, line clearing (within 10' of primary conductor)
b) confined space entry
c) exposure to asbestos and other designated substances
d) work around water, diving operations
e) working aloft > 10 feet, scaffolding
f) hoisting and rigging
g) shoring and major excavation.

Medium Risk Work

Work that exposes Contractors to hazards such that if an incident occurs the likely outcome is a temporary disability (broken bones, muscle, or ligament damage). Examples include:

a) plant and facilities maintenance
b) minor excavation (pole holes, cable trenching)
c) welding, carpentry, civil work (concrete, fencing).

Low Risk Work

Work that exposes Contractors to hazards such that if an incident occurs the likely outcome is a minor injury (cuts, bruises, strains). Examples include:

a) Training
b) Consulting
c) Office equipment maintenance, Office cleaning.

3.20 Service Contract

A Contract in which a Contractor is hired to perform services that are non-construction.

3.21 Sub-Contractor

Any person, firm or corporation having a Contract with a prequalified PUC Contractor for the execution of a part or parts of the work included in the Contract, and any person, firm or corporation furnishing material called for in the Contract that is worked to a special design according to the drawings or specifications but does not include one who merely furnishes material not so worked.

3.22 Supervisor

A person who has charge of a workplace or authority over a worker.

3.23 Worker

Any of the following, but does not include an inmate of a correctional institution or like institution or facility who participates inside the institution or facility in a work project or rehabilitation program.

- A person who performs work or supplies services for monetary compensation.
- A secondary school student who performs work or supplies services for no monetary compensation under a work experience program authorized by the school board that operates the school in which the student is enrolled.
- A person who performs work or supplies services for no monetary compensation under a program approved by a college of applied arts and technology, university, private career college or other post-secondary institution.

3.24 Workplace

Any land, premises, location, or thing at, upon, in or near which a worker works.

4. RESPONSIBILITIES

PUC management is ultimately responsible for the successful completion of work in their area of control and must ensure that the Contractor Health and Safety Management Program is followed. Responsibilities of the personnel involved in ensuring Contracted work is carried out in a safe and environmentally responsible manner are defined in this section. Depending on the complexity of the work and resource allocation, one individual could have multiple roles. For each project, the person or persons taking on the various roles must be clearly identified.

4.1 Contract Administration

Contract Administration is the process that leads to the awarding of a Contract and includes preparing the Contract tender documents, arranging pre-bid meetings, coordinating the bid evaluation process, and recommending the award of the Contract, as applicable.

The PUC must designate a person or persons to perform the various duties of Contract Administration, including (but not limited to) the following:

4.1.1 Complete a Project Planning Decision Tree (Appendix J), when necessary.

4.1.2 Ensure a notice of Project with the Ministry of Labour, Immigration, Training, and Skills Development when necessary is filed when necessary.

4.1.3 Ensure the Contractor is pre-qualified and that their information is current, prior to the award of the Contract.

4.1.4 Ensure the Contractor has been provided with and understands the Contractor's Health, Safety, and Environmental Obligations (Appendix A).

4.1.5 Ensure the tender documents and Contracts specify any orientation or training that the Contractor must participate in prior to commencement of the work in order to comply with the

Contractor's Health, Safety, and Environmental Obligations documents (Appendix A)

4.1.6 Ensure that Contracts clearly specify the authority, responsibilities, and obligations with regards to managing health and safety at the workplace. This would include monitoring, incident investigation and response to safety violations.

4.1.7 Ensure the Contractor Hazard Assessment Form (Appendix D) pertinent to the Work is provided to the bidders as part of the tendering documents.

4.1.8 Ensure that the completed Contractor Hazard Assessment Form (Appendix D) is reviewed as part of the bid evaluation to evaluate that the Contractor has a good understanding of this process, when required.

4.1.9 Ensure the Contractor Hazard Assessment Form (Appendix D), with the Contractor responsibilities identified, is included in the Contract, when required.

4.1.10 Ensure the Workers or agents who are assigned the duties of Project Manager and Contract Monitor have the qualifications as identified in the definitions.

4.2 Project Management

Project Management is the process that oversees the successful completion of a project and includes Field Orientation, ensures project readiness, periodic assessments, and problem resolution. The process must consider health, safety, and environmental considerations at all stages of the project.

PUC must designate a person or persons to perform the various duties of Project Manager, including (but not limited to) the following:

4.2.1 Ensure Contractor's Workers receive the Contractor Orientation delivered by the PUC Health and Safety Department, prior to working on site.

4.2.2 Conduct a Pre-Job Meeting (Appendix E), with the Contractor's representatives to discuss the site-specific health, safety, and environmental requirements of the work, when required.

4.2.3 Review the completed Contractor Hazard Assessment Form (Appendix D) which was completed by the Contractor, when required.

4.2.4 Review with the Contractor the appropriate level of health and safety planning required for the Work that has been determined by the department. Refer to the Project Planning Decision Tree (Appendix J) that is used to determine the appropriate level of planning for each project, when required.

4.2.5 For Level 1 or 2 projects (as defined the Appendix J), review the Contractor's detailed Project Health and Safety Plan for every three months of the project (Appendix K).

4.2.6 Define the monitoring schedule for the project, meeting or exceeding the minimum requirements, and appropriate for the type of work being performed. Assign a Contract Monitor if applicable for the project.

4.2.7 Conduct a minimum of one work observation per week for each project (for all medium and high-risk projects). At least one crew observation must be conducted on all projects regardless of the duration of the project (for all medium and high-risk work). When a separate Contract Monitor is assigned to a project, the Project Manager is still required to conduct one crew observation per month for that project.

4.2.8 For work lasting longer than one month, consider conducting monthly progress review meetings with the Contract Monitor and the Contractor representative that includes a review of crew observations and incidents of the Contractor and Sub-Contractors. Meeting minutes must be recorded and identify responsibility for any corrective action.

4.2.9 Following an internal review meeting the Project Manager will conduct a Contractor post-work evaluation with the Contract Monitor and the Contractor to review their overall performance during the project for all medium and high-risk projects (service contracts are to be completed at the end of the contract). The meeting must include a review of health and safety crew observations and incidents of the Contractor and Sub-Contractors. The record of the meeting (Appendix I) must include a recommendation on whether to retain them as a qualified Contractor.

4.3 Contract Monitoring

Contract Monitoring is the process that ensures Contractors, Sub-Contractors and their Workers are complying with health, safety and environmental regulations and requirements of the Contract.

4.3.1 Minimum Monitoring Requirements:

4.3.1.1 High Risk & Medium Risk Work – Weekly documented crew observations (Appendix H). by the assigned Contract Monitor.

4.3.1.2 Low Risk – Observations required for health and safety purposes will be determined as appropriate for the work being performed.

4.3.1.3 The PUC must designate a person or persons to perform the various duties of Contract Monitor, including (but not limited to) the following:

- Ensure the onsite Contractor and Sub-Contractor workers have received the Contractor Health and Safety Orientation and it is still current (within one year).
- Ensure the Contractor conducts Field Orientations (Appendix G) when required for any new personnel arriving on the workplace once the work has begun. Assess, periodically, the quality of these orientations.
- Confirm the Certificates of Qualification for Contractor's and Sub-Contractors' Workers at the workplace and verify the inspection and maintenance records for specialized equipment at the workplace.
- Assess periodically the quality of daily health and safety discussions (i.e., tailboard conference) and written Daily Job Plans (Appendix L) prepared by Contractor and Sub-Contractor Workers at the daily job planning meeting.
- Assess periodically the quality of Contractor/Sub-Contractor Worker health and safety meetings.
- Provide immediate feedback to the Contractor's Supervisor of any health and safety violations and stop the job if high-risk or medium-risk hazards are not adequately controlled.
- Maintain a log of activities, issues, and observations, and provide a weekly written report (Appendix M) to the Project Manager.

5. PROCEDURE

The procedure is divided into six stages:

5.1 Pre-Qualification of Contractors (may not apply to open tenders)

5.2 Project Planning and Tender/Request for Proposal Development

5.3 Contractor Selection

5.4 Contract Execution

5.5 Contract Closure

5.6 Contractor Evaluation

5.1 Pre-Qualification of Contractors

The pre-qualification is independent of individual Contracts and is done to ensure that only qualified Contractors are awarded work. The pre-qualification process is required for any Contractors who will be performing work at a PUC facility. PUC will designate a competent person(s) to conduct the assessment and determine if a Contractor is pre-qualified to perform work. PUC will pre-qualify both Contractors and Sub-Contractors.

5.1.1 Contractors will be sent the Contractor Pre-qualification Package, which contains Contractor Pre-Qualification Questionnaire (Appendix B), copy of the Contractor's Health, Safety and Environmental Obligations (Appendix A), and requests for various samples of documentation.

5.1.2 The Contractor completes the questionnaire and returns it to PUC along with all requested supporting information.

5.1.3 The Health and Safety Manager or their Delegate, evaluates the information supplied by the Contractor, requests additional information if required, and determines if the Contractor is qualified, guided by the PUC Contractor Pre-Qualification Evaluation Form (Appendix C). The standards are to be used as guidelines and failure to meet some of the criteria will not automatically exclude a Contractor. The Health and Safety Manager has final say on whether a Contractor is qualified.

5.1.4 Once the Health and Safety Manager or their Delegate has determined the Contractor's pre-qualification status, the PUC Health and Safety Department will update the pre-qualified database. Comments may relate to additional mentoring/monitoring by PUC that may be required on projects involving that Contractor.

The Health and Safety Department may apply restrictions on the level of risk for the work the Contractor is allowed to perform. Project Managers and Contract Monitors shall review the Contractor Pre-Qualification Evaluation Form (Appendix C) stored on the common drive to see conditions of approval.

5.1.5 The Purchasing Department will request Contractors to update at least annually, certain information, e.g. WSIB experience rating, a list of training, orders or charges by regulatory agencies (safety or environment), convictions and incident information. Purchasing is responsible to ensure WSIB and insurance remains current.

5.1.6 At any time during the contract, the Project Manager may raise concerns about using the Contractor again, or request that their pre-qualification status needs to be re-evaluated. These concerns will be brought to the attention of the Health and Safety Manager or their delegate. The Health and Safety Manager or their delegate will work with the Contractor to address any concerns. An internal notice will be sent to all PUC management regarding any decision affecting the Contractor's prequalification status. The Health and Safety Department will update the database.

5.1.7 A system will be maintained at the direction of the Health and Safety Manager or their Delegate, containing the Contractors' pre-qualification information and will provide information to those involved in Contract management.

5.1.8 Contractors completing low risk work only are not subject to completing the Contractor Pre-Qualification Evaluation Form (Appendix C). At a minimum, low risk contractors (like consultants, training providers, cleaning contractors, etc.) need to submit the following:

- A Certificate of Insurance, with a minimum of $2,000,000.00 Public Liability and Property Damage, stating that PUC Services Inc. is listed as an "Additional Insured" party. Additional coverage may be required according to the level of risk involved with the contract ($5,000,000 coverage is required for contracts on municipal roads that involve excavation of the road).
- A current, Workplace Safety & Insurance Board Certificate of Clearance. **This must be updated every 90 days**.
- A current Workplace Safety & Insurance Board Workplace Injury Summary Report.

- A copy of the contractor's current signed Health & Safety Policy attesting to compliance with the Occupational Health and Safety Act.
- A list of the relevant safety programs supporting the contractor's Health and Policy Statement when deemed appropriate by PUC H&S Department.

5.1.9 Orientation

The PUC Health and Safety Department will provide a Contractor Health and Safety Orientation to all Contractors and Sub-Contractors' Workers who are to perform work for PUC. The orientation will consist of a presentation of PUC's health and philosophy, policies, and general health and safety requirements. The orientation will be delivered annually. Records will be kept, under the direction of the Health and Safety Manager or their Delegate, tracking the orientation date. The information will be made available to those involved with Contract management and/or the Contractor.

5.2 Project Planning and Tender/Request for Proposal Development

During this phase, the scope of Contracted work is defined, the hazards associated with the work are identified and the responsibility for controlling the hazards is assigned using the Contractor Hazard Assessment Form (Appendix D) The form is included in the tender/request for proposal (RFP) documents for all medium and high-risk work.

The Project Planning and the tender/request for proposal development process may involve one or more persons as assigned by the PUC. The following steps are to be completed:

5.2.1 Define the scope of the work to be Contracted.

5.2.2 Identify the Contract Administrator.

5.2.3 Identify the Project Manager.

5.2.4 Determine PUC duties under the Occupational Health and Safety Act, as well as environmental acts and other regulations that apply to the work.

5.2.5 Determine if an Ontario Ministry of Labour, Immigration, Training and Skills Development, Notice of Project or other regulatory notice is required.

5.2.6 Determine who will be the Constructor and who is responsible to file the Notice of Project.

5.2.7 Consider the Project's impact on any existing environmental licenses (e.g. Ministry of the Environment, Ministry of Natural Resources and Forests, or permits and if any new licenses or permits are required.

5.2.8 Determine if a Pre-Start Health and Safety Review is required, (Section 7 of the Regulations for Industrial Establishments, Ontario)

5.2.9 Identify standards that the Contractor must adhere to during the execution of the Contract.

5.2.10 Identify PUC policies or procedures that apply to the work.

5.2.11 Perform a health and safety hazard assessment of the proposed Work, using the Contractor Hazard Assessment Form (Appendix D), and provide it to the bidders as part of the tender/RFP documents. The bidder must return the hazard assessment, specifying how they will control hazards if they are successful.

5.2.12 Inform the Project Manager of hazard controls, for which PUC will be responsible.

5.2.13 Issue tender/request for proposal documents to invited bidders (or open tenders).

5.2.14 Inform the bidders that, if successful, they must attend a Contractor Health and Safety Orientation with all Contractor staff and Sub-Contractor staff working on the Project. A Pre-Job Meeting (Appendix E) may be required depending on the risk level of the work.

5.3 Contractor Selection

The Contractor selection phase involves a review of the tenders/RFP, obtaining clarification, if required, and awarding the Contract. PUC will demonstrate good judgment by only selecting Contractors that:

5.3.1 Are pre-qualified (may not apply to open tenders) and whose information is current.

5.3.2 Provide satisfactory health and safety information as required, including a complete Contractor Hazard Assessment Form (Appendix D), a Contractor's Project Health and Safety Plan (Appendix K), and emergency plan, when applicable.

5.3.3 Meet the Project/Contract's health and safety expectations.

5.3.4 Are able to fulfill the technical requirements of the Contract.

5.3.5 Contractor Selection Process.

The Contract Administrator and/or Project Manager will ensure the following steps of the Contractor selection process are completed.

5.3.5.1 If required, arrange to hold a Pre-Bid Meeting at the workplace, to allow bidders to become familiar with the scope of work, workplace hazards and conditions. The Contractor Hazard Assessment Form (Appendix D) will be reviewed. Appendix D identifies which hazards the PUC will control, and which hazards the Contractor will control. The tender/RFP will be amended to include any changes identified during the Pre-Bid Meeting.

5.3.5.2 PUC will answer questions raised during the tender/proposal period, in the form of a written addendum issued to all bidders. Answers will be provided in a timely fashion and with sufficient time remaining before tender/RFP closing to allow the bidders to incorporate the requirements of the addendum in their submission. Closing date and time should be re-scheduled if a significant last-minute issue arises.

5.3.5.3 Evaluate the submissions, ensuring the bidders have provided the information requested, e.g. proof of automobile and liability insurance, WSIB Clearance Certificate, completed Hazard Assessment Form (Appendix D), Contractor's safety project plan, proof of pertinent training, specific licensing, equipment records, etc.

5.3.5.4 Conclude which bidders are:

a) Acceptable with no concerns – meets all requirements and expectations

b) Acceptable with minor concerns – meets all major requirements and expectations, but requires additional activities such as Contractor Worker training or additional monitoring to satisfy the concerns

c) Not acceptable – does not meet the requirements and expectations.

5.3.6 Award Contract

The Contract Administrator will:

5.3.6.1 Recommend to Management, the award of the Contract to the selected bidder.

5.3.6.2 Inform the Project Manager so they can coordinate the execution of the work.

5.3.6.3 Arrange for the signing of the Contract so PUC and the Contractor have a written agreement of the health and safety requirements and expectations.

5.3.6.4 Ensure Contractor has signed off acceptance of the Contractor's Health, Safety, and Environmental Obligations document.

5.3.6.5 Purchasing will inform the Contractor of the intent to award.

5.3.7 Contractor selections in the event of an emergency.

5.3.7.1 It is the PUC's preference to always hire pre-qualified Contractors for work of high or medium risk. However, it is recognized that in emergency situations it may be necessary to hire a Contractor that is not pre-qualified. In these situations, PUC will provide constant monitoring of the Contractor, and assistance with the identification of hazards, control methods and work planning. To avoid further emergency situations, the Contractor will undergo the prequalification process as soon as the emergency work is completed.

5.4 Contract Execution

The purpose of this phase is to ensure the work is performed as outlined in the Contract.

5.4.1 The Project Manager may assign a Contract Monitor and establish the monitoring frequency. At least one health and safety crew observation (Appendix H) must be conducted on all medium and high-risk projects, regardless of the duration. For work of longer duration, it is required that a minimum of one health and safety crew observation (Appendix H) per week is conducted for each project. When a separate Contract Monitor is assigned to a project, the Project Manager is still required to conduct one health and safety crew observation (Appendix H) per month for that project.

5.4.2 The Project Manager and the PUC Health and Safety Department will review the Responsibilities Chart (Appendix F) and assign department and individual responsibilities. Appendix F is a supporting tool and although it is not mandatory, it is encouraged. Frequency of crew observations shall be determined for all medium and high-risk projects. Service contract expectations for Contractor observations are depended on the frequency of use and up to the Department Manager. However, one observation should be

completed per service contract. The Project Manager and Health and Safety Manager or delegate sign off on the Responsibilities Chart (Appendix F).

5.4.3 The Contract Monitor reviews the Contract, including health and safety requirements, the completed Contractor Hazard Assessment Form (Appendix D) when required, technical specifications, and any other documents pertaining to the project. The Project Manager is responsible to ensure that the Contract Monitor has a good understanding of the Contract.

5.4.4 The Project Manager will review the appropriate level of health and safety planning required for the Work with the Contractor. The Project Planning Decision Tree (Appendix J) must be used by the operation to determine the appropriate level for all medium and high-risk work.

5.4.4.1 For Level 1 or 2 projects, the Project Manager will review the Contractor's overall Project health and safety plan (Appendix K), and the detailed plan for the project every three months.

5.4.5 The Project Manager will establish a date, time, and location for the Pre-Job Meeting (Appendix E) if required. The Contractor and any Sub-Contractor staff, Project Manager and Contract Monitor should attend and, as a minimum, the following items should be discussed:

5.4.5.1 Identify the PUC Project Manager, Contract Monitor, and the Contractor's on-site supervisor.

5.4.5.2 Inform the Contractor and any Sub-Contractor staff that PUC has a requirement where all incidents and/or near misses that occur in conjunction with the Work will be reported immediately to the PUC. A form acceptable to the PUC Health and Safety Department will be used by the Contractor and be submitted to the Contract Monitor.

5.4.5.3 Review the hazard controls that PUC has established for the Contractor when applicable.

5.4.5.4 Review the Contractor's safety project plan (Appendix K) including the site-specific hazards and controls proposed by the Contractor.

5.4.5.5 Review the Contractor's emergency response plan including a list of required emergency phone numbers, radio communication plan, etc.

5.4.5.6 Orient the Contractor's staff to the workplace, i.e. parking, washroom and lunchroom facilities, emergency equipment, site limits within which the work is to be carried out.

5.4.5.7 Verify that technical and health and safety training requirements are met.

5.4.5.8 Review the change management process, ensuring that the Project Manager is made aware of revisions, modifications or introduction of new people, procedures, hardware or environmental factors in the workplace.

5.4.5.9 Document the discussions on the Field Orientation (Appendix G) when required.

5.4.5.10 Significant changes (or a series of small changes) require:

a) An assessment of the impact of the change

b) A review of the change with all stakeholders

c) Revision of the job plan to accommodate the change

d) Approval of the change by the Project Manager

e) Communication of the approved change to groups potentially impacted.

5.4.5.11 The Contract Monitor will monitor the Contractor's work in accordance with PUC Minimum Contractor Monitoring Standards, (refer to section 5.4.1 for frequency of monitoring and duties) and ensure:

a) The observations are recorded in Velocity or on a Contractor Crew Observation Form (Appendix H).

b) Site visits in addition to the monitoring requirements will be recorded, forwarded to the Project Manager as required and maintained in the project file.

c) For Work lasting longer than one month, the Contract Monitor should have monthly progress review meetings with the Contractor representative that includes a review of health and safety observations, and incidents of the Contractor and Sub-Contractors. Meeting minutes must be recorded and identify the responsibility for any corrective action.

5.4.5.12 Ideally the Contractor will correct the deficiencies in consultation and co-operation with PUC. However, if the

Contractor does not take corrective action, the Contract Manager will first ensure management support and:

a) Decide if the deficiencies can be resolved to PUC's satisfaction.

b) Document all deficiencies and send the Contractor's Supervisor a letter requesting that all listed deficiencies are corrected within a specified time period, and that failure to initiate corrective action may result in termination of the Contract.

c) The deficiencies may require immediate action and if so, the work will be stopped until they are corrected.

d) Review the Contractor's response.

e) Terminate the Contract if necessary.

f) Identify and hire an alternative Contractor to complete the work.

5.4.5.13 Project Managers, Contract Monitors and every worker has the right and the responsibility to take immediate necessary measures, including stopping work, to address health and safety events such as the following:

a) Any injury to an Worker, Contractor, sub-Contractor, or member of the public.

b) Any occupational illness due to workplace exposures.

c) Health and safety or environmental regulatory non-compliance situations.

5.5 Contract Closure

The purpose of this phase is to ensure the work has been completed, all deficiencies have been corrected, a final evaluation of the Contractor's performance is conducted. The Contractor evaluation is entered into the health and safety management system for future selection purposes.

5.5.1 The Project Manager is responsible for the completion of the final inspection and must ensure that:

a) All deficiencies have been corrected.

b) The completed work meets the standards and expectations established in the Contract.

c) Any new hazards created because of the Contracted work are identified and action plans are developed to control the hazards.

d) Ensure all residual hazardous materials are removed from the workplace and properly disposed of.

5.5.2 The Project Manager will ensure a Contract Close-Out Meeting is held for any medium and high-risk work as well as service contracts. The Contractor Close Out and Evaluation Form (Appendix I) will be used to rate various performance outcomes. The meeting will involve the Contract Monitor and the Contractor. The meeting will include a review of the Contractor's performance during the project, and how to improve the health, safety, security, environment, quality, and efficiency of future work. The Contractor's comments and suggestions are also an important part of this close out meeting and should be considered by the Project Manager.

5.6 Contract Evaluation

The Project Manager will complete the final evaluation of the Contractor's performance and make a recommendation as to whether, or under what circumstances, the Contractor should be considered for future work. In completing the evaluation, the Project Manager should seek input from the Contract Monitor, review the Contractor Close Out and Evaluation Form (Appendix I), and Contractor Crew Observation Forms (Appendix H) to assess the Contractor. The Project Manager will give input regarding recommendation for future work, if there are any restrictions, or if follow up is required by the Health and Safety Manager or their Delegate that may affect the Contractor's prequalification status.

5.6.1 The Project Manager will distribute copies of the Contract Close Out and Evaluation Form to:

a) Health and Safety Manager or their Delegate.

b) The Contractor.

c) The Health and Safety Manager or their Delegate will record any pertinent notes in the Contractor Prequalification database, follow up on any recommendations, and file the Contract Close Out and Evaluation Form in the Contractor Prequalification file.

6 TRAINING

6.5 Any personnel involved in Contractor management is required to be trained on the Health and Safety Contractor Management Program, their role and responsibilities within the procedure, how to use the forms associated with the procedure, and how to manage the paperwork/digital entries required.

6.6 Project Managers and Contract Monitors will require mentoring until they are deemed competent to complete their roles and are signed off by the Health and Safety Manager or delegate. Crew observations training will also be required for Project Managers and Contract Monitors.

6.7 Annual refresher training will be required for any person involved in the Health and Safety Contractor Management Program.

6.8 Please refer to Contract Health Safety and Environmental Monitoring (Appendix N) for more information.

7 EXEMPTIONS

The only exemption to following the requirements of this Program would be a Project that has received special approval by the Department Vice-President, Health and Safety Department, and the President and Chief Executive Officer, using Appendix O.

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1. DEFINITIONS

1.1 Competent Person

A person who is qualified because of knowledge, training and experience to organize the work and its performance, is familiar with the Occupational Health & Safety Act (OHSA) and the regulations that apply to the work and has knowledge of any potential or actual danger to health or safety in the workplace.

1.2 Contract Administrator

Is a person or persons designated by PUC who is assigned the responsibility of administering activities associated with a contract. This may include (but is not limited to) preparing the Contract tender documents, filing a notice of project with the Ministry of Labour, Immigration, Training and Skills Development (when necessary), arranging pre-bid meetings, coordinating the bid evaluation process, recommending the award of the Contract and financial, technical, Contractual, and logistical administration through the execution and closeout stages of the Contract.

1.3 Contract Monitor

Is a person or persons responsible for monitoring the Contractor, Sub-Contractor, and their Workers. They monitor the health and safety performance, providing feedback to both the Contractor and the Project Manager. The Contract Monitor will compare the Contractor's work and work methods with the standards and expectations defined in the Contract.

Qualifications for Contract Monitor, include but are not limited to:

- Knowledge related to the hazards associated with the work
- Knowledge of the procedures and hazard controls for high-risk tasks relating to the project
- Training on relevant federal, provincial, and municipal health, and safety and environmental regulations
- Supervisor training; minimum of two-day training course
- Training on the relevant PUC policies and procedures e.g. health, safety, security, or environment relating to the project
- Daily Job planning training and experience
- Crew observations training.

1.4 Contractor

Third party that is Contracted, engaged, or retained by PUC to perform work or provide services, who is not engaged in an employment Contract. This term applies to all Contractors, all Contractor Workers, and any Sub-Contractors hired by the Contractor.

1.5 Contractor Health and Safety Orientation

A high-level orientation provided to Contractors, by the PUC Health and Safety Department. The focus is on the PUC philosophy for health, safety, and environment.

1.6 Construction

Includes erection, alteration, repair, dismantling, demolition, structural maintenance, painting, land clearing, earth moving, grading, excavating, trenching, digging, boring, drilling, blasting, or concreting, the installation of any machinery or plant, and any work or undertaking in connection with a project but does not include any work or undertaking underground in a mine.

1.7 Construction Project

Includes any work which meets the definition of construction which is being performed at any location coming within the definition of project.

1.8 Constructor

A person who undertakes a project for an owner and includes an owner who undertakes all or part of a project by himself or by more than one employer.

1.9 Consultant

Is an individual or firm hired by the PUC to provide subject matter expertise.

1.10 Employer

A person who employs one or more workers or Contracts for the services of one or more workers and includes a Contractor or Sub-Contractor who performs work or supplies services and a Contractor or Sub-Contractor who

undertakes with an owner, constructor, Contractor or Sub-Contractor to perform work or supply services.

1.11 Field Orientation ("Boots on the Ground")

Orientation provided by the Project Manager or delegate, immediately prior to work commencing. This orientation takes place on site with any Contractor or Sub-Contractor who will be working on the site/project. The Project Manager or delegate will review any relevant procedures, including emergency procedures, and personal protective equipment requirements. This is required for all medium and high-risk projects lasting longer than five (5) continuous working days and annually for service Contracts.

1.12 Non-Construction Work

Is Contract work that does not meet the definition of Construction or Construction project. All non-construction work is governed by the Industrial Regulation. PUC is deemed the employer for all non-construction work and is therefore responsible for the health and safety of all workers completing non-construction work.

1.13 Owner

A trustee, receiver, mortgagee in possession, tenant, lessee, or occupier of any lands or premises used or to be used as a workplace, and a person who acts for or on behalf of an owner as an agent or delegate.

1.14 Pre-Bid Meeting

This meeting, held at the discretion of the PUC, is for Contractors that are interested in PUC work. They are generally at the work location, to allow bidders to become familiar with the scope of work, workplace hazards and conditions. The Contractors are allowed to ask questions about the upcoming job.

1.15 Pre-Job Meeting

This meeting is conducted with the successful Contractor, by the Project Manager or delegate after award of the Contract. At the discretion of the Project Manager, a representative from the PUC Health and Safety Department may be invited. The General Scope of the Contract is reviewed, as well as hours of work, communication, administrative

expectations, site safety, and emergency response. Minutes of the meeting are completed, and a copy is sent to the job/project file.

1.16 Pre-Qualified

A Contractor that has met the minimum administrative health and safety requirements before beginning work for the PUC.

1.17 Project

A Construction Project, whether public or private, including:

- The construction of a building, bridge, structure, industrial establishment, mining plant, shaft, tunnel, caisson, trench, excavation, highway, railway, street, runway, parking lot, cofferdam, conduit, sewer, watermain, service connection, telegraph, telephone or electrical cable, pipeline, duct or well, or any combination thereof.
- The moving of a building or structure.
- Any work or undertaking, or any lands or appurtenances used in connection with construction.

1.18 Project Manager

A person or persons designated by the PUC's Department Management accountable for project delivery and the overall authority for the successful completion of a project. Their responsibilities include (but are not limited to):

- assigning the Contract Monitor(s)
- conducting the Pre-Job Meeting (Appendix E)
- resolving Contractor health and safety performance issues
- conducting the close out meeting with the Contractor and completing the Contractor Closeout Evaluation (Appendix I).

Qualifications for a Project Manager include, but are not limited to:

- Qualifications of a Contract Monitor, and
- Training/certification (or demonstrated experience – five years recommended) in Project Management.

1.19 Risk

A situation involving exposure to danger.

High Risk Work

Work that exposes Contractors to hazards such that if an incident occurs the likely outcome is a fatality or permanent disability. Examples include:

a) line construction, line clearing (within 10' of primary conductor)
b) confined space entry
c) exposure to asbestos and other designated substances
d) work around water, diving operations
e) working aloft > 10 feet, scaffolding
f) hoisting and rigging
g) shoring and major excavation.

Medium Risk Work

Work that exposes Contractors to hazards such that if an incident occurs the likely outcome is a temporary disability (broken bones, muscle, or ligament damage). Examples include:

a) plant and facilities maintenance
b) minor excavation (pole holes, cable trenching)
c) welding, carpentry, civil work (concrete, fencing).

Low Risk Work

Work that exposes Contractors to hazards such that if an incident occurs the likely outcome is a minor injury (cuts, bruises, strains). Examples include:

a) Training
b) Consulting
c) Office equipment maintenance, Office cleaning.

1.20 Service Contract

A Contract in which a Contractor is hired to perform services that are non-construction.

1.21 Sub-Contractor

Any person, firm or corporation having a Contract with a prequalified PUC Contractor for the execution of a part or parts of the work included in the Contract, and any person, firm or corporation furnishing material called for in the Contract that is worked to a special design according to the drawings

or specifications but does not include one who merely furnishes material not so worked.

1.22 Supervisor

A person who has charge of a workplace or authority over a worker.

1.23 Worker

Any of the following, but does not include an inmate of a correctional institution or like institution or facility who participates inside the institution or facility in a work project or rehabilitation program.

- A person who performs work or supplies services for monetary compensation.
- A secondary school student who performs work or supplies services for no monetary compensation under a work experience program authorized by the school board that operates the school in which the student is enrolled.
- A person who performs work or supplies services for no monetary compensation under a program approved by a college of applied arts and technology, university, private career college or other post-secondary institution.

1.24 Workplace

Any land, premises, location, or thing at, upon, in or near which a worker works.

2. OBLIGATIONS

2.1 General Expectations and Standards of Performance

2.1.1 Compliance

The Contractor shall ensure that the Work shall be carried out in compliance with these Contractor's Health, Safety and Environmental Obligations, any local procedures provided as attachments, and/or Project specific technical specifications. The Contractor shall comply with all applicable requirements of all federal, provincial, local health and safety acts and regulations, as well as any environmental legislation, regulations, rules and guidelines. The Contractor shall ensure that the Work be carried

out in compliance with such acts, regulations, rules and guidelines and that all Workers work in the manner prescribed therein and use the protective equipment, take all measures and follow all procedures required to protect Workers, members of the public, and the environment.

Unless otherwise identified in the agreement any necessary licenses, authorizations, certificates or permits required to perform the Work must be obtained by the Contractor and furnished to the Owner upon request. The Contractor shall report promptly to the Owner any situations that may include, or lead to, the reception of a notice or an order from an agency.

2.1.2 If the Contractor is unsure of a proper working procedure, the Contractor shall immediately request guidance from the Owner prior to proceeding with the Work.

2.1.3 The Contractor shall promptly and suitably correct health and safety related deficiencies and hazards, including those that could be identified by the Owner, regulatory agencies, or auditing parties. All deficiencies and hazards found shall be reported to the Owner.

2.1.4 The Contractor shall employ persons competent and efficient in their respective trades and callings. In addition to the Contractor's own disciplinary policy, the Owner is at liberty to object to, and to require, the Contractor to remove from the Workplace forthwith any person employed by the Contractor in or about the execution of the Work who, in the opinion of the Owner, conducts themselves inappropriately, is incompetent or negligent in the performance of its duties, or does not comply with applicable legislation, these Contractor's Health, Safety, and Environmental Obligations, including the Project Health and Safety Plan (Appendix K) or the Daily Job Health and Safety Plans (Appendix L). Such persons shall not be employed again at the Workplace without the prior written consent of the Owner.

2.1.5 The Contractor shall not deviate, or work contrary, to these Contractor's Health, Safety, and Environmental Obligations without written consent formally provided to the Contractor by the Owner, specific to the scope of Work for which such deviation may apply.

2.2 Processes and Programs

2.2.1 The Contractor shall establish a thorough pre-job health and safety

planning process that complies with the requirements of this document. This shall include a comprehensive Project Health and Safety Plan (Appendix K), or equivalent, and a task-specific Daily Job Health and Safety Plan (Appendix L).

2.2.2 The Contractor shall develop and maintain a minimum personal protective equipment (PPE), program that addresses standards for use, care, inspection, training, and standards for purchasing. The PPE program must meet or exceed the relevant PUC's requirements and be evaluated as part of the risk assessment process.

2.2.3 At a minimum, PUC requires a hard hat, safety glasses, and green patch/omega safety boots. Any further specifications will be communicated as needed.

2.3 Qualification and Training

2.3.1 Prior to commencement and during execution of the Work, the Contractor shall satisfy the Owner that the Contractor, its Subcontractor(s), and their Workers have the skills and knowledge to perform the Work safely and with respect to the environment.

2.3.2 The Owner may require the Contractor and its Subcontractor(s) and personnel to participate in health and safety training or orientation sessions in order to have the skills and knowledge necessary to comply with the requirements laid out through regulation and the content of this document.

2.3.3 No persons will be allowed to go to Work at the Workplace until they have completed a Contractor Health and Safety Orientation and Field Orientation.

2.3.4 The Contractor shall ensure that all Workers employed in the execution of the contract are fully briefed on and advised of the location of all electrically energized apparatus in the vicinity of the Work and that they are fully briefed and instructed on the correct and safe working procedures, including but not limited to isolating, grounding, and maintaining safe distances for work in proximity to energized equipment.

2.3.5 The Contractor shall further ensure that every on-site supervisor and every Worker understands the correct work methods to be used in

order to prevent electrical contact or encroaching on safe working distances and the procedures to be followed in case of an electrical contact.

2.3.6 The Contractor shall participate in Field Orientation (Appendix G) conducted by the Owner prior to the commencement of the Work when required. This Field Orientation is mandatory for the Contractor's and Subcontractors' supervisors and Workers who will be on the Workplace during the start-up phase of the Work. This orientation will be at an appropriate location and work specific and will identify the limits of the safe working area and all known high-risk Hazards, environmental Hazards, safety issues, and the site emergency response plan.

Afterwards, during execution of the Work at site, the contractor shall conduct Field Orientations for new Contractor and Subcontractor personnel prior to them starting to work.

2.3.7 The Contractor must provide only trained and knowledgeable Workers. The Workers must understand the safety, technical, and environmental aspects of their jobs. The Contractor is responsible for providing primary, update, or refresher, training as needed.

2.3.8 The Contractor must verify, track, and document worker training and skills. A log of worker skills, training, and designations shall be maintained by the Contractor and available on-site. Verification must be provided immediately upon request of the Owner. (i.e.: Qualified/Competent Persons, Licenses, Certifications, etc.)

2.3.9 The Contractor shall conduct site health and safety meetings with its Workers at least monthly or as requested by the Owner. The Contractor must ensure involvement in these meetings by their own senior management designated to the project. Invitation to these meetings should be extended to the Owner and applicable stakeholders within a reasonable timeframe prior to assembly. The content of these meetings should be relevant to the exposures anticipated on the project.

2.4 Other Requirements

2.4.1 The Contractor shall ensure that all tools and equipment are checked regularly to establish that they are in proper working condition, designed to applicable safety and environmental standards, that any

defect is rectified before equipment use is resumed and that the equipment is approved for the purpose for which it is being used by the applicable governing body(s).

2.4.2 The Contractor shall make available to the Owner, upon request, all Work health and safety related documentation for review and audit.

2.4.3 The Contractor shall provide a positive, open and inclusive work environment to all Workers. Specifically, the Contractor shall strictly prohibit and have zero tolerance for workplace violence, discrimination, harassment, and bullying in the context of the Work whether on the Workplace or not.

2.4.4 The Contractor shall maintain positive and respectful relations with third parties including government agency representatives, as well as neighbours and other users of the area where the Work is taking place or areas near the Workplace.

2.4.5 The Contractor shall refer any inquiry from the public or the media related to the Work to the Owner.

2.4.6 The Contractor shall report problematic relations with third parties to the Owner without delay. In such situations, the Owner may stop the Work.

2.4.7 The Contractor shall notify the Owner immediately of any visits or inspections from regulatory agencies or governing bodies at the Project.

2.4.8 The Contractor shall participate in a closing meeting with the Owner to complete an evaluation of the Contractor's performance. The meeting will in part assist the Owner to determine whether or not, or under what circumstances, the Contractor may be considered for future Work. The Contractor will be provided with a written copy of the evaluation and closing meeting notes. (Appendix I)

2.5 Security

2.5.1 The Contractor shall comply with all PUC security policies/procedures as made available to it and as applicable to the site, Project and/or the Contractor's scope of Work.

2.5.2 Contractor must ensure compliance to all qualification requirements pertaining to the hiring and employment of Workers as outlined in

the contract.

2.5.3 Drugs and alcohol are strictly prohibited from all PUC Workplaces. No Workers will be permitted to enter a Workplace/Project if believed to be in possession of, or under the influence of, drugs or alcohol.

2.5.4 At all times, the Owner shall be able to enter the Workplace/Project in case of emergency situations.

3. PROJECT PLANNING AND MANAGEMENT

3.1 Site Hazard Assessment

3.1.1 Prior to the commencement of Work, the Owner will perform an assessment of the known high-risk Hazards associated with the Workplace (including public safety ones) that could arise during the Contractor's site mobilization and preparation, using a form equivalent to PUC Appendix D: Contractor Hazard Assessment Form. The Contractor shall complete the form to identify any additional hazards specific to the Work and describe the specific barriers and work methods to be employed to control all identified hazards and shall provide a copy to the Owner for review and comment.

3.1.2 The Contractor shall be responsible for controlling the hazards and implementing the specific barriers and work methods identified in the completed Contractor Hazard Assessment Form.

3.1.3 The Contractor shall ensure that all Hazard controls and barriers are in place and functional prior to commencement of the Work and are maintained and functional at all times until completion of the Work.

3.1.4 The Contractor is responsible for communicating the information contained within the hazard assessment to all levels of Subcontractors that they bring on site throughout the course of their Work.

3.2 Project Planning Level

3.2.1 Project Planning Decision Tree (Appendix J) or equivalent form shall be used by the Owner to determine the appropriate level of safety and environmental planning required by the Contractor for the Work.

3.2.2 Level 1 Planning: If the Project involves a prolonged outage, complex Work or Work lasting more than 20 continuous working days, the

Contractor shall prepare a Project Construction Schedule, a Project Health and Safety Plan (Appendix K) and Daily Job Health and Safety Plans (Appendix L) for medium and high-risk work.

3.2.3 Level 2 Planning: If the Project involves a brief outage, multiple crews, or Work lasting more than 5 continuous working days, the Contractor shall prepare a Project Health and Safety Plan (Appendix K) and Daily Job Health and Safety Plans (Appendix L) for medium and high-risk work.

3.2.4 Level 3 Planning: If the project does not involve any of the above, the Contractor shall prepare Daily Job Health and Safety Plans (Appendix L) for all tasks related to construction activities, Projects, maintenance, operating, switching, service work, field studies and trouble calls for all medium and high-risk work.

3.2.5 The Owner will use information gathered during the planning process to determine the appropriate level of monitoring required during the construction process.

3.3 Project Construction Schedule

3.3.1 When applicable as specified in 3.2, the Contractor shall provide to the Owner, prior to commencement of the Work on site, a Project Construction Schedule showing the sequence of tasks required to complete the Work. The Project Construction Schedule will include the timing, resources and special equipment required for each task in the plan. The Owner will review and comment on the Project Construction Schedule. The Contractor will use the Project Construction Schedule to prepare the Project Health and Safety Plan(s) (Appendix K) required as per Section 3.2.

3.4 Project Health and Safety Plans

3.4.1 When applicable as specified in Sections 3.2.2 and 3.2.3, the Contractor shall provide to the Owner, prior to the commencement of the Work on site, a Project Health and Safety Plan (Appendix K). The Project Health and Safety Plan(s) (Appendix K) shall identify the sequence of activities to be completed on site for the entire project term. If a project has multiple major phases or Contractors, then additional plans may be required at the request of the Owner. For each activity, the plan will identify the high-risk Hazards that may be present and include a barrier analysis that identifies the intended Control Barriers, Safety Barriers, and Support Barriers (or an

equivalent analysis approved by the Owner) required for each identified Hazard.

3.4.2 The Owner will review the Project Health and Safety Plan(s) (Appendix K) and may, at its sole discretion, require the Contractor to make modifications the Owner deems necessary to ensure compliance with these Contractor's Health, Safety, and Environmental Obligations (Appendix A). The Contractor shall revise its Project Health and Safety Plan(s) (Appendix K) to include any such modifications required by the Owner. The Contractor shall communicate to the Workers performing the Work, the details of any such revised Project Health and Safety Plan(s) (Appendix K) prior to the commencement of field operations at the Workplace.

3.4.3 Notwithstanding the review of the Project Health and Safety Plan(s) by the Owner, the responsibility for the accuracy, completeness, suitability, implementation and communication of such Project Health and Safety Plan(s) shall remain the exclusive responsibility of the Contractor. The Contractor shall update the Project Health and Safety Plan to address any new major tasks that may arise during the course of the Work, or at the request of the Owner.

3.4.4 The Contractor shall not make changes to the Project Health and Safety Plan(s) (Appendix K) without the prior written consent of the Owner.

3.4.5 The Project Health and Safety Plan (Appendix K) shall be posted at the Project, and available for review by all Workers and PUC workers.

3.4.6 The Contractor is responsible for drafting specific environmental plans that may relate to special case site activities that require such considerations as spill prevention control and countermeasures (SPCC), stormwater pollution prevention (SWPPP), critical habitat protection, or erosion control. These plans shall be submitted for review by the Owner prior to the start of Work.

3.4.7 The Contractor shall ensure that the Project Health and Safety Plan(s) (Appendix K) is (are) fully implemented and complied with at all times during execution of the Work on site.

3.5 Daily Job Health and Safety Plans

3.5.1 At the start of each work shift and prior to commencement of any Work on Site, each of the Contractor's work crews shall prepare a Daily Health and Safety Job Plan (Appendix L), where all individual workers and working crews assess the critical health and safety

hazards pertaining to the Work shift. The Contractor shall provide the Owner with a copy of all Daily Health and Safety Job Plans upon request.

3.5.2 The Daily Health and Safety Job Plan (Appendix L) shall identify the sequence of tasks to be completed and the high-risk hazards and medium-risk Hazards that may be present related to each task, and the applicable control methods needed to complete the Work safely. The plan should include a barrier analysis that identifies the control barriers, safety barriers and support barriers required for each hazard. If the work conditions change at any time giving rise to new safety and/or environmental issues, the Contractor shall stop, reassess, and revise the Daily Health and Safety Job Plan (Appendix L), and communicate it to all affected Workers, before executing any more Work.

3.5.3 Daily Health and Safety Job Plans (Appendix L) must be communicated to all Workers associated with the task each day. Every Worker shall adhere to the requirements of each applicable Daily Health and Safety Job Plan (Appendix L).

3.5.4 The Contractor is responsible to provide training to all designated site supervision in how to prepare quality Daily Health and Safety Job Plans for any project involving high and medium-risk Work.

3.6 Project Specific Health and Safety Plans and Programs

3.6.1 Product Transport and Delivery Systems and Waste Management

a) The Contractor shall have, and administer, a hazard communication program that meets applicable municipal, provincial and federal regulations.

b) When the Contractor is shipping to or from the Workplace, or planning to use at the Workplace, any product which is categorized as a hazardous material or dangerous good, the Contractor shall conform to the relevant municipal, provincial, federal legislation and regulations pertaining to such materials. All such materials and their transport containers and/or vehicles shall be properly identified with the required warning labels.

c) The Contractor shall maintain at the Workplace and provide the Owner with one copy of the Safety Data Sheet for each hazardous material brought on to a Workplace.

d) Upon completion of the Work or when a particular product is no longer required on site, whichever shall occur first, the Contractor shall remove all remaining quantities of the product and all empty

containers.

e) Hazardous waste or dangerous goods shall not be disposed of through the Owner's waste management system (unless requested to do so by the Owner) or on the Owner's or third party's property. The Contractor is responsible for ensuring waste material is disposed of in accordance with all applicable laws and regulation, and ensuring the material goes to appropriate waste disposal sites.

f) Hazardous material, waste, or dangerous goods shall not be left on site or with the Owner without the prior written consent of the Owner.

g) Product delivery systems, including but not limited to, containers, valves, pumps, pipes, hoses, nozzles and vents, shall be in good working order and without leaks.

h) The Contractor shall provide overflow prevention or protection for fuel or oil storage containers.

i) The Contractor shall provide effective secondary containment to address possible overflow discharge during mobile refueling operations.

j) The Contractor shall ensure that all waste material be separated into hazardous and non-hazardous waste. Each waste type shall be disposed of in compliance with municipal, provincial or federal requirements. In some jurisdictions, certificates of classification and proof of disposal for all waste shall be available for review.

3.6.2 Industrial Hygiene

a) For any projects that require Level 1 or 2 planning, or at the request of the Owner, the Contractor must evaluate the project site for possible health hazards that may be present after mobilization. Considerations for testing and working with, or around these substances shall be considered. Hazards to consider include, but are not limited to, lead, asbestos, silica, mercury, polychlorinated biphenyls (PCB's), Radon, volatile organic compounds (VOC's), oxygen enrichment/deficiency, sulfur dioxide, carbon monoxide, mold, hexavalent chromium, etc.

b) The Contractor is responsible to establish a hearing conservation program identifying capability to perform audiometric testing, and identification of tasks, or areas, where protection may be required due to their planned Work.

3.6.3 Traffic Control

a) For any projects that require Level 1 or 2 planning, or upon request of the Owner, the Contractor shall prepare a site plan that includes all structures, meeting areas, access roads, drop-off locations, and vehicle parking areas. The plan must be updated as Workplace conditions change. This plan must be made available for review by the Owner.

b) A Traffic Control Plan as per Book 7 of the Ontario Highway Traffic Act may be required if the Project will involve heavy vehicle traffic, shared roadways with pedestrian traffic, or backing of vehicles. This plan will be developed by the Contractor and shall address roadway marking, personal protective equipment, physical barriers, signage, speed control, the use of flaggers/spotters, and communication.

c) All vehicles at Workplace must be in good working order with current vehicle inspections for safety and mechanical conditions. All vehicles must be operable per original equipment manufacturers specifications.

d) All vehicles with a gross vehicle weight rating above greater than 10,000lbs (4,500kg) must have backup alarms installed. Dedicated personnel are required to assist in backing vehicles up in any circumstance where a drivers line of sight is obstructed.

e) Drivers must hold the applicable license for the equiptment they intend to operate per municipal, provincial, or federal regulation.

f) All persons in vehicles must wear seatbelts at all times the vehicle is in use.

g) The use of handheld cellular devices is prohibited for all persons operating a vehicle within the scope of the project.

3.7 Crew Observations

3.7.1 The Owner may conduct regular crew observations of the Work at the Owner's discretion. The Contractor shall ensure that the Workers cooperate with the Owner during such observations.

4. INCIDENTS, EMERGENCY PREVENTION, AND RESPONSE

4.1 Incident Response and Reporting

4.1.1 In the event of an Incident resulting in an injury to a Worker, a member of the public, or in the event of a potentially high-risk health and safety incident, the Contractor shall:

a) Stop Work;
b) Secure the Workplace to ensure protection of Workers, the environment or the public with respect to the investigation;
c) Report the Incident immediately to the Owner;
d) Provide notice to the proper authorities.

4.1.2 The Contractor shall complete a thorough investigation of any incident occurring during performance of the Work, whether or not the Incident resulted in an occupational injury or illness to a Contractor's Worker, an Owner's worker or member of the public, in property damage, in damage to the natural environment. The Contractor shall provide the Owner with a detailed written report of its findings within 24 hours.

4.1.3 The Contractor shall assist the Owner in any investigation the Owner may undertake related to any incident, and in the implementation of any action plans relating to the incident. This may include making workers and/or Subcontractors available for interviews, conferencing, or training.

4.2 Emergencies, Spills, and Emergency Preparedness

4.2.1 The Owner has the authority and the Contractor has the obligation to stop the Work whenever, in the opinion of either party, such stoppage may be necessary to ensure the safety of a life, or any equipment, structure or property, or the protection of the environment. This includes the authority to make changes and to order the Contractor, or a Subcontractor, to stop working. The Contractor shall notify the Owner immediately upon stoppage of Work due to a health and safety concern.

4.2.2 The Contractor shall have available on site at all times a list of emergency phone numbers and the means to make emergency calls.

4.2.3 The Contractor shall ensure that spill kits are available at all times and are located within the areas where a spill could occur. The spill kits shall be appropriate in content for the materials that could be spilled on site and appropriate for the area the spill may lead to

(soil, water, etc.). Small kits shall be available in mobile equipment such as pick-up trucks.

4.2.4 The Contractor shall immediately report to the Owner any spill and take appropriate actions to contain and clean up the spill. The Contractor shall complete an Incident report after a spill.

4.2.5 The Contractor shall ensure that areas or equipment that present risk of leaks or spill be protected. This protection shall include, but is not limited to, the following: spill containment systems for oils, fuels and chemical storage and transfer areas; spill containment systems under stationary equipment such as generators, pumps, heavy operating equipment, and compressors.

4.2.6 The Contractor will comply with all emergency procedures relating to the Workplace and is responsible for ensuring all of its Workers are familiar with such procedures and participate in relevant exercises and training as required.

4.2.7 The Contractor may be required to develop and maintain an emergency response plan (ERP) for possible emergencies at the project according to their scope of Work and/or caused by their own activities. The plans shall, at a minimum, encompass responses for fire, evacuation, and oil/petrol/chemical spill, but should also include the following whenever applicable:

a) Medical;
b) Inclement weather;
c) Public Safety;
d) Confined space rescue;
e) Fall rescue.

4.2.8 All workers who have responsibilities within an emergency response plan must be trained in their duties.

4.2.9 Emergency response plans must also ensure that a system is established to ensure that the Contractor's Workers record their attendance on site in order that their numbers can be satisfactorily accounted for in the event of fire or other emergency and that adequate and suitable firefighting equipment is made available.

4.2.10 The Contractor is responsible for providing at least the minimum level of first aid equipment required by regulation applicable to the scope of Work and size of the workforce.

4.2.11 The Contractor is responsible to provide at least one person trained

in first aid and cardiopulmonary resuscitation (CPR) for every 10 Workers on-site, or anytime a project will last longer than one week. An automated external defibrillator (AED) must be on site anytime there are more than 25 workers on site, or if advanced emergency response is more than 30 minutes away from the Work.

4.3 Fire Prevention and Protection

4.3.1 The Contractor shall comply with all laws, by-laws and regulations and with the instructions of the Owner with respect to fires and prevention of fires.

4.3.2 The Contractor shall provide and maintain portable fire extinguishing equipment and such equipment shall remain at the Workplace until all Work is completed and accepted by the Owner.

4.3.3 The Contractor shall comply with all fire prevention requirements of the municipality and the Owner and shall have at all times personnel at the Workplace who are experienced in the use of the prescribed equipment.

4.3.4 The Contractor shall report immediately any escaped fires to the local municipality and to the Owner.

5. ACTIVITIES WITH ADDITIONAL REQUIREMENTS

5.1 Work in Proximity to Energized Electrical Equipment

5.1.1 For any Work involving energized electrical equipment, **regardless of the voltage, the first alternative shall always be to isolate, test and de-energize equipment.**

5.1.2 All Workers must be qualified pursuant to industry practices and have been trained on the specific procedure prior to performing any Work in Proximity to Energized Equipment (see definition below).

5.1.3 "Work in Proximity to Energized Electrical Equipment" is Work where a person, or conducting tools, equipment or other objects are within the minimum clearance distance to energized electrical equipment, or are physically capable of, through unintentional movement, encroaching on the minimum clearance distance to energized electrical equipment.

5.1.4 The "Minimum Clearance Distance" to energized electrical equipment is established by the regulatory requirements for the various voltage levels for qualified Workers, unqualified Workers, and equipment.

5.1.5 If it is not possible to de-energize the electrical equipment, the Workers, conductive tools, equipment or materials must be kept outside of the Minimum Clearance Distance to energized electrical equipment. The positioning of Workers, conductive tools, equipment or materials must take into consideration any planned action, equipment failure, and unintentional movement that may result in encroachment on the Minimum Clearance Distance.

5.1.6 For any Work that may encroach on the minimum clearance distance to energized electrical equipment, physical control barriers must be applied to prevent accidental electrical contact and a qualified dedicated observer must be present at all times.

Examples of physical control barriers include items that provide complete protection from electricity independent of the worker, these include voltage rated insulated cables, insulated sticks, and insulated blankets. Rubber gloves and insulated tools are *not* considered physical barriers because they don't provide complete protection.

5.2 Work on Energized Electrical Equipment

5.2.1 No Work on energized electrical equipment is allowed unless a specific written consent has been granted by the Owner following a formal request by the Contractor. Such request, which must include work specific procedures and barriers, must be submitted at least one month prior to the Work to be done. The Owner may not approve the Work to be conducted on energized equipment above 600 volts.

5.2.2 "Work on Energized Electrical Equipment" is Work where contact is made with an energized conductor or equipment.

Limits of Approach

Maintain Maximum Clearances and Install Barriers Where Practical

	Personnel Zones			Mobile Work Equipment		
Voltages	OHSA Minimum	Authorized Worker	Restricted Zone	OHSA	Non-Insulated Boom	Certified Insulated Aerial Device
750 V to 15 kV	> 3.0 m (10 ft.)	> 0.9 m (3 ft.)	0.9 m to 0.3 m (3 ft. to 1 ft.)	> 3.0 m (10 ft.)	> 0.9 m (3 ft.)	> 0.3 m (1 ft.)
> 15 kV to 35 kV			0.9 m to 0.45 m (3 ft. to 1.5 ft.)			> 0.45 m (1.5 ft.)
> 35 kV to 50 kV		> 1.2 m (4 ft.)	1.2 m to 0.6 m (4 ft. to 2 ft.)		> 1.2 m (4 ft.)	
> 50 kV to 150 kV		> 1.5 m (5 ft.)	1.5 m to 0.9 m (5 ft. to 3 ft.)		> 2.4 m (8 ft.)	> 0.9 m (3 ft.)
> 150 kV to 250 kV	> 4.5 m (15 ft.)	> 2.1 m (7 ft.)	2.1 m to 1.2 m (7 ft. to 4 ft.)	> 4.5 m (15 ft.)	> 3.0 m (10 ft.)	> 1.2 m (4 ft.)
> 250 kV to 550 kV	> 6.0 m (20 ft.)	> 3.7 m (12 ft.)	3.7 m to 2.75 m (12 ft. to 9 ft.)	> 6.0 m (20 ft.)	> 4.6 m (15 ft.)	> 2.75 m (9 ft.)
SYMBOLS ≤ less than or equal to > greater than < less than				cranes, power shovels back-hoes, mech. brush cutter	RDB, aerial ladder, work platform, uncertified aerial device	certified and tested by ***certified laboratory***

***Rule 129 of the Electrical Utility Safety Rules**

5.3 Use of Heavy Operation Equipment

5.3.1 "Heavy Operating Equipment" is equipment used for construction, maintenance or transport activities, and includes but is not limited to bulldozers, mobile cranes, overhead fixed cranes, excavators, front end loaders, tractors, forklifts, manlifts, bucket trucks, digger derrick trucks, tractor trailers, dump trucks, compaction rollers, helicopters, etc.

5.3.2 The Contractor shall ensure that operators of Heavy Operating Equipment have up-to-date licenses to operate the Heavy Operating Equipment as per the regulatory requirements.

5.3.3 The Contractor shall ensure that operators have received training within a structured program on the safe operation of the Heavy Operating Equipment and have a thorough understanding of the operating limitations of the specific equipment to be operated.

5.3.4 The Contractor shall ensure that orientation is provided to all operators on the safe operation of any Heavy Operating Equipment that is new to the Workplace prior to the equipment being used on site.

5.3.5 The Contractor shall ensure that inspection and maintenance is performed as per the manufacturer's requirements for any Heavy Operating Equipment the Contractor use to perform the Work and that inspection and maintenance records are maintained.

5.3.6 Operators shall conduct pre-use checks on all Heavy Operating Equipment prior to performing Work with the equipment. Pre-use checklists shall be used by the operators and records shall be maintained.

5.3.7 Operators shall prepare a separate Daily Health and Safety Job Plan (Appendix L). The Daily Health and Safety Job Plan (Appendix L) shall include the details on the use of the equipment such as vehicle setup, stabilization, work zone protection, rigging requirements, the operating limitations of the Heavy Operating Equipment and minimum clearance distances to energized electrical equipment. The Operator's Daily Health and Safety Job Plan (Appendix L) shall be reviewed with the other Workers on site prior to the start of Work.

5.3.8 All Work requiring the use of mobile Heavy Operating Equipment near electrical supporting structures, such as towers, poles and guy wires, shall comply with the following conditions, except for Work performed by qualified powerline Workers on transmission and distribution circuits. In addition:

a) Operators shall ensure that the mobile Heavy Operating Equipment is maintained at a minimum safe working distance from any electrical supporting structure.

b) A safe work zone shall be established around the electrical supporting structure. The perimeter of the zone and the structure shall be marked with cones, flags or caution tape. These visual aids shall be attached or positioned so the operator of the equipment has good visual contact with them while working in the area of the electrical supporting structures.

c) If the above conditions cannot be met, a documented work procedure shall be approved by the Owner.

5.4 Climbing and Working at Height

5.4.1 The Contractor must have a fall protection and prevention program established and applicable to the Workplace. This program must meet the standards Fall protection measures must be taken whenever there is a potential for a high-risk health and safety incident involving gravitational energy such as a Worker(s):

a) falling an elevated position;

b) falling into water or other liquid;

c) falling into or onto a hazardous substance or object;

d) falling through an opening on a work surface.

5.4.2 For all temporary and permanent work structures, equipment and installations, where conditions such as of the ones above exist, the first alternative is to change the design in order to eliminate the hazard. If it is not practical to implement design changes, the second alternative must be to implement fall prevention measures such as a guardrail system or travel restraint system. In the cases where neither design changes nor the implementation of fall prevention measures are practical, the third alternative must be to implement a fall restricting or a fall arrest system.

5.4.3 Whenever there is a possibility of objects falling from a work platform onto persons below, an adequate safe work zone must be established to ensure that Workers are not exposed to falling objects. The work zone should be delineated with caution tape or monitored by a dedicated observer. The work platform must have kick plates installed and the Workers should tie off the tools and equipment whenever possible.

5.5 Welding, Cutting, and Hot Work

5.5.1 Hot Work operations, or "Hot Work" shall be considered any temporary operation that involves open flame, extreme heat and / or sparks. This includes but is not limited to: electric welding; air arcing; grinding; disc cutting; high temperature heating; open flame burning; brazing; soldering; and hot patch roofing.

5.5.2 Before initiating any Hot Work the Contractor is required to complete an initial job assessment by means of a Daily Health and

Safety Job Plan (Appendix L) and Hot Work permit. Both document templates must be reviewed and approved by the Owner.

5.5.3 Hot Work permits must be maintained at the location of Hot Work operations and maintained by the crew leader.

5.5.4 In addition to complying with all applicable municipal, provincial and federal regulations, all Hot Work activities will require the use of a designated fire watch. This person must be trained in their duties, identified on the permit, and at the Work location full time while Hot Work is underway then, at minimum, 30 minutes after completion of Work.

5.6 Cranes, Hoisting, and Rigging

5.6.1 The Contractor must have a formal hoisting and rigging program that defines the requirements for all types of lifts using cranes or hoisting equipment. The program requirements must include, but are not limited to, the following:

a) Roles and responsibilities related to hoisting and rigging, for the Contractor's Project Manager, safety personnel, hoisting/erection crew supervisor, crane/derrick/hoist operator, signalperson, riggers, and applicable qualified/Competent Persons assigned to such operations. (e.g. designated engineer or consultant);

b) Training records and retraining schedules/documentation for all staff assigned responsibilities in the Contractor's hoisting and rigging program;

c) Lift assessment and lift approval process including identification criteria for lifts in need of review by a professional engineer;

d) Crane inspection process, documentation, and frequency;

e) A drawing showing the anticipated location of the hoisting equipment, structures, utilities, public and site traffic, and other operations within 150% of the crane's boom length, proposed travel of the lift, and expected delivery entry/exit points along with staging of support vehicles/equipment and materials;

f) Criteria related to lifting or hoisting to include in Daily Health and Safety Job Plans (Appendix L);

g) Loading and offloading of craning/hoisting equipment, crane walking, fueling, and storage;

h) Crane assembly and disassembly;

i) Crane/derrick/ levelling, stabilization, and if appropriate (e.g. on a barge) securing;

j) Establishing a safe work zone around craning/hoisting activities, this will include identification of the cranes range of motion, and possible drop areas;

k) Communication/signaling requirements during hoisting or moving of materials and equipment;

l) Inspection and maintenance (including documentation) of all hoisting and rigging equipment, e.g. cranes, derricks, slings, spreaders, and other rigging devices;

m) Pre-lift meetings/discussions;

n) Working in the vicinity of hazards, e.g. overhead or underground utilities, manholes, structures, traffic;

o) Selection, inspection, storage, and maintenance of rigging equipment;

p) Environmental aspects, e.g. wind speed, visibility, lightning.

5.6.2 The Contractor's hoisting and rigging program must define critical lifts and their requirements in accordance with all municipal, provincial and federal regulation for cranes and rigging.

Scenarios that will meet this definition include a lift in which the load requires exceptional care in handling due to the potential for:

a) Two or more cranes used to lift a load, and/or

b) Any load greater than **75%** of the rated capacity of a mobile crane, tower crane, or hoist, and/or

c) Not more than the rated capacity of fixed overhead crane permanently installed at a facility.

5.6.3 In addition to compliance with critical lift guidelines based on municipal, provincial and federal regulation, and descriptions within this document, Contractors must identify high-risk lift activities that will take place on a project. A high-risk lift activity may be defined should it meet one or more of the following conditions:

a) Any lift that may be subject to adverse weather conditions or high wind loads;

b) If load weights or the center of gravity are difficult to determine;

c) Loss of control may result in catastrophic damage to a structure's integrity, or the health and safety of occupants or neighbours;

d) The potential release of hazardous substances into the environment;

e) Lifting of Workers with a crane or hoist;

f) When utilizing chain-falls or other dynamic rigging with the intention of altering the rigging configuration and/or center of gravity while a load is suspended;

g) A lift where any part of the equipment within the swing radius may become closer than 20' to electrical lines;

h) Lifts in poor soil/ground conditions;

i) Loss of an irreplaceable or un-repairable item that would jeopardize future operations, the safety of a facility, or result in delay to schedule or other serious program impact;

j) Significant financial impact to the extent it would affect Facilities/project commitments

k) When specifically requested by the Owner.

5.6.4 All lifts that meet criteria for critical or high-risk Work and will require a lift plan to be completed by the Contractors designated qualified person. The Contractor will define the format and content of this plan though it must address the following elements:

a) Description of lift;

b) Crane(s) involved in the lift activity and the equipment specifications;

c) Drawing for the lift that identify:
   - Location of lifting equipment
   - Lift height
   - Load radius
   - Boom length & angle
   - Size & weight of the load
   - Flight path of load
   - Rigging specifications and attachment points
   - Percent of crane's rated capacity

d) Personnel involved;

e) Communication method;

f) Ground conditions;

g) Required environmental conditions to safely perform lift;

h) Pre-lift inspection procedures;

i) Procedures for lifting Workers (when applicable)

j) Procedures for keeping unwanted persons from crossing below suspended loads.

5.6.5 The Contractor's hoisting and rigging program must define the requirements for a licensed professional engineer to review the lift plan prior to a lift. At a minimum, the Contractor's hoisting and rigging program shall require an engineer review for the following:

a) For any lift meeting the criteria of a critical lift

b) When rigging components are altered or used in a way that is different from manufacturers specification

c) When rigging components are site or shop fabricated

d) When the sling angle is lower than 45% for an eye bolt and 30% for other lifts

e) When structural members are used for hoisting and the strength of the anchor points cannot be ensured

f) When specifically requested in the work plan or by the Owner

Note: The engineer shall be knowledgeable of the requirements applicable to cranes, hoisting devices and rigging hardware identified in the applicable regulations and industry standards and be responsible for interpreting standards, codes, regulations, instructions and procedures.

5.7 Use of Chainsaws and Brushsaws

5.7.1 When using a chainsaw or brushsaw for Work in which members of the public may have access to the Workplace, a safe work zone of 5 meters (16 feet) shall be established and delineated with caution tape or cones. The requirement to use caution tape does not necessarily apply to all right-of-way maintenance work; its use to be determined during the Site Hazard Assessment done prior to commencement of the Work on site.

5.7.2 When using a chainsaw or brushsaw for minor construction and bucking work, a safe work zone of 3 meters (10 feet) shall be established and marked with cones or caution tapes and monitored by a dedicated observer.

5.7.3 When using a chainsaw or brushsaw for felling small or large trees on level ground, a safe work zone shall be maintained at a minimum twice the height of tree being felled.

5.7.4 All Workers performing Work involving the use of chainsaws or brushsaws shall be trained and qualified for the type of work performed. The training shall include classroom sessions on the safe use of chainsaws or brushsaws, the use of personal protective equipment, and practical application related to the type of Work performed.

5.7.5 All Workers who use a chainsaw or brushsaw for clearing of electrical right of way (ROW) or Line Work shall have basic electrical awareness training.

5.7.6 When using a chainsaw or brushsaw the following PPE will be required as a minimum:

(a) Leg protection (including back calf)
(b) Gloves
(c) Head
(d) Eye
(e) Long sleeves

5.8 Utility Locates

5.8.1 The Contractor shall arrange with the appropriate utility authorities for the stake out of all underground utilities and service connections that may be affected by the Work. The Contractor shall be responsible for any damage done to the underground utilities by the Contractor's forces during construction. The Contractor shall also be responsible for any damage done to the service connections. The Contractor shall attend such meetings with the Contract Administrator and the utility authorities as may be required by the Contract Administrator to ensure coordination of activities among the Contractor and the utility authorities for each utility affected by the Contract.

5.8.2 In the case of damage to, or interference with any utilities, pole lines, pipelines, conduits, farm tiles, or other public or privately owned works or property, the Contractor shall immediately notify the Owner and the Contract Administrator of the location and details of such damage or interference.

5.8.3 Except as otherwise noted in the Contractor's health, safety and environmental obligations document (Appendix A), the Contractor assumes all the risks and responsibilities arising out of any obstruction encountered in the performance of the Work and any traffic conditions, including traffic conditions on any Highway or road giving access to the Workplace, and the Contractor shall not

make any claim against the PUC for any delay, loss, damage or expense occasioned thereby.

5.8.4 Where the obstruction is an underground utility such as cable, pipelines, sewers, or drains, or any other object, the Contractor shall be required to assume the risks and responsibilities arising out of such obstruction.

5.8.5 During the course of the Contract, it is the Contractor's responsibility to obtain locates from utility companies or other appropriate authorities for further information in regard to the exact location of these Utilities, to exercise the necessary care in construction operations, and to take such precautions as are necessary to safeguard the Utilities from damage.

5.8.6 Existing gas mains, where identified through locates or encountered in the excavation and trenching operations shall be protected at all times and extreme caution shall be taken when digging within close proximity to any gas main.

5.8.7 Excavation work carried out within the vicinity of the existing gas mains shall be carried out in accordance with Enbridge Gas' Specification for Excavation, Cover, and Clearance. The Contractor shall also comply with the document "Third Party Requirements in the Vicinity of Natural Gas Facilities" which will be made available to the Contractor upon request.

5.8.8 The cost for the protection and support of gas mains shall be borne by the Contractor. Backfill and bedding shall be placed using proper placement and compaction procedures to the satisfaction of the utility representative involved.

5.8.9 When underground Bell lines become exposed during construction it is the responsibility of the Contractor to ensure that the lines are reinstalled to an acceptable depth of bury complete with bedding sand cover. The cost of bedding sand and reinstallation of the Bell lines shall be included in the tender price for the appropriate item and shall be full compensation for any relocation, reinstallation and sand cover to the satisfaction of the utility company.

5.8.10 Under no circumstances shall the Contractor move, support, or otherwise contact overhead wires, including low voltage wires, or any other above ground PUC distribution electrical facilities. With the exception of the support of electrical ducts, subject to approval

by PUC, no contact shall be allowed of buried PUC electrical facilities.

5.8.11 Should the Contractor's work potentially encroach on the Occupational Health and Safety Act's limits of approach to overhead wires, the Contractor shall implement one or more of the following options, listed in order of preference:

a) Modify work to maintain a safe distance and eliminate potential for contact as stated in and spelled out by any applicable Codes or Regulations.

b) If the Contractor can demonstrate to the PUC's Representative that the work cannot reasonably be modified consistent with the above, the Contractor and the PUC's Representative shall work in conjunction to evaluate alternatives to eliminate the hazard, reduce the hazard to a safe level, or implement an appropriate system of barriers. The Contractor's Representative would initiate this request through the PUC representative. If modification to the distribution facility is required for work to proceed safely, the Contractor's Representative shall give PUC sufficient lead time to mobilize the necessary crews.

5.8.12 These costs are deemed to be included in the unit prices bid for the related items and no separate or additional payment will be made for this work.

5.9 Work Around Pressurized Watermains

5.9.1 Contractors excavating or working in the vicinity of live watermains can present hazards if proper precautions to control pressurized watermains are not in place. This will be discussed in the Pre-Job Meeting. The PUC will de-pressurize the watermain to allow the contractor to work around it, based on the Contractor's job plan.

5.9.2 PUC is responsible to de-pressurize a watermain whenever a contractor is required to work in close proximity to it.

5.9.4 PUC will require the Contractor to submit a LOTO policy / procedure prior to work commencing. Contractors are required to submit a process to determine safe limits of approach for waterworks. The determination as to the safe limit of approach to a watermain is an engineering decision. The limit varies with soil type and pipe

diameter.

5.9.5 Contractors may be required to address special provisions for shoring and thrust restraint for pressure pipes for review.

Please provide all requested information, complete the questionnaire in its entirety and return, *with all requested supporting documents*, for review. Prequalification is a requirement before performing contract work for PUC. Please email all information to contractor.management@ssmpuc.com

BUSINESS CONTACT INFORMATION			
Company Name:			
Mailing Address:		**City:**	
Province:		**Postal Code:**	
Phone Number:		**Fax:**	
Name of Contact:		**Email:**	

Type of Work Prequalifying for:

- ☐ Asbestos Abatement
- ☐ Audio Visual
- ☐ Chainsaw
- ☐ Communications
- ☐ Computer Electronics
- ☐ Concrete
- ☐ Construction
- ☐ Construction Materials
- ☐ Consultants
- ☐ Cranes/Hoisting
- ☐ Demolition
- ☐ Directional Drilling
- ☐ Doors/Windows
- ☐ Electrical
- ☐ Elevators
- ☐ Fire/Life Safety
- ☐ Floor/Ceiling
- ☐ Forklift
- ☐ Furniture/Fixtures
- ☐ Insulation
- ☐ Janitorial/Cleaning
- ☐ Landscaping/Snow
- ☐ Machine Shop
- ☐ Marketing
- ☐ Masonry
- ☐ Mechanical
- ☐ Millwork/Carpentry
- ☐ Office Supply/Equipment
- ☐ Paint
- ☐ Paving
- ☐ Pest Control
- ☐ Plumbing
- ☐ Roofing
- ☐ Security/Surveillance
- ☐ Signage
- ☐ Vac Truck
- ☐ Waste Management
- ☐ Welding
- ☐ Other: _____

Training Programs: Does your company have a worker safety training program?

☐ Yes ☐ No

If yes, please indicate applicable training programs (list others):

☐ Incident Investigations	☐ Explosive Fasten Tools	☐ Regulations for Construction Projects
☐ Asbestos	☐ First Aid/CPR	☐ Regulations for Industrial Establishments
☐ Chainsaw	☐ Forklift	☐ Rescue
☐ Confined Spaces	☐ Fuel Dispensing	☐ Respirator
☐ Cranes/Hoisting	☐ Housekeeping	☐ Scaffolding
☐ Cutting and Welding	☐ Ladders	☐ Signs/Barricades
☐ Designated Substances	☐ Lockout/Tagout	☐ Traffic Control
☐ Electrical	☐ Occupational Health & Safety Act	☐ Transportation of Dangerous Goods
☐ Elevated Work Platforms	☐ Personal Protective Equipment	☐ WHMIS
☐ Emergency Procedures	☐ Power Line Awareness	☐ Workplace Inspections
☐ Excavation/Trenching/Digging	☐ Propane Handling	☐ Other (Please List) _____

Do you have a safety training program for lead hands or Supervisors?

☐ Yes ☐ No

If yes, does your training program include formal instruction in the following:

☐ Incident Investigations	☐ New Worker Orientation	☐ Site Supervision
☐ Emergency Procedures	☐ Occupational Health & Safety Act/Regulations	☐ Toolbox/Tailgate Meetings
☐ Fire Protection and Prevention	☐ Safe Work Practices	☐ Other (Please List) _____
☐ First Aid Procedures	☐ Safety Supervision	

#	Required Certification	Provided
1	H&S Awareness Training – please provide certificates	☐
2	WHIMIS for all workers – please provide certificates	☐
3	First Aid & CPR – please provide certificates for any workers who could be the designated rep on site	☐
4	Book 7 Traffic Control Training – please provide certificates for workers that would require it on site	☐
5	Working at Heights Training – please provide certificates for any work that would be required to work at heights	☐

#	Required Documentation		
	WORKPLACE SAFETY AND INSURANCE BOARD	**Y**	**N**
1	PUC requires a report from the Worker's Safety & Insurance Board, or equivalent that contains your company's injury/illness statistics, numbers of lost time injuries, modified/restricted workdays, number of workers, etc. Have you provided a copy of this report for the past three calendar years?	☐	☐
	HISTORY		
2	Has your company received any written Environmental orders or citations relating to environmental laws/regulations in your area? **If yes,** provide a copy/explanation and a summary of corrective efforts taken to prevent recurrence	☐	☐
3	Has your company received any written health & safety orders or citations from the Ministry of Labour, Immigration, Training and Skills Development in your area? **If yes,** please attach an explanation or a copy of the nature of each order to comply, conviction and/or citation and include any corrective action or mitigation measures taken.	☐	☐

4	INCIDENT HISTORY	LAST YEAR	2 YEARS PRIOR	3 YEARS PRIOR
	Total Work Hours			
	Number of incidents requiring medical attention			
	Number of lost time incidents			
	Total number of days lost due to injury			
	Number of fatalities			

	POLICIES/PROCEDURES/MANAGED SYSTEM	Y	N
5	Please provide a copy of your health and safety policy.	☐	☐
6	Does your company have a written environmental policy? If yes, provide a copy.	☐	☐
7	Does your company have a system to manage health & safety and environment? Please provide a copy of the program's Table of Contents or a sampling of copies of the procedures.	☐	☐
8	Do you have a Joint Health and Safety Committee (JHSC) in place? If yes please attach meeting minutes. Legally, they have to be recorded.	☐	☐
9	Does your company have a Workplace Violence and Harassment Policy? If yes, provide a copy.	☐	☐
10	Does your company conduct regular meetings that discuss health & safety, environment? If yes, provide a copy of at least two attendance rosters from the meetings, as well as topics discussed.	☐	☐
11	Does your company perform pre job hazard analyses and/or job planning that identify hazards and appropriate barriers to control energy? If yes, provide a copy of two or three completed examples.	☐	☐
12	Does your company conduct tailboard/toolbox talks before daily activities? If yes, provide a copy of two or three completed examples?	☐	☐
13	Do your company's new hire orientations include a review of your health and safety, environment program? Please provide a copy of the orientation outline.	☐	☐
14	Does your company provide training (health, safety, environment, technical/ trades) to workers? If yes, provide a copy of the training matrix (list of courses and who receives training).	☐	☐
15	Technical/trades training certificates/licenses/professional registrations - please provide sampling of copies to us. You will be asked for completed records prior to commencing work.	☐	☐
16	Does your company have a sub-contractor pre-qualification procedure? If yes, please include a copy of procedure.	☐	☐
17	Does your company do accident/incident investigations that help identify the root causes of incidents, and ways to prevent reoccurrence? If yes, please provide a copy of your policy/procedure	☐	☐
18	Does your company conduct driver's license checks and ensure they remain in good standing?	☐	☐

19	Does your company conduct criminal background checks for workers hired to perform duties?	☐	☐
20	Does your company have any specific environmental licenses covering your work, or certifications, i.e., International Standard? If yes, please provide a copy of each	☐	☐
21	To provide further clarification on any of the above responses or additional information, have you included separate attachments/supporting documents? If yes, specify which ones.	☐	☐

_____ _____

Signature **Date**

CONTRACTOR INFORMATION:

Company Name:
Phone #:
Contact Name:
Email:

Type of Contract Work: (e.g., Danger Tree Removal)

☐ Asbestos Abatement
☐ Audio Visual
☐ Chainsaw
☐ Communications
☐ Computer Electronics
☐ Concrete
☐ Construction
☐ Construction Materials
☐ Consultants
☐ Cranes/hoisting
☐ Demolition
☐ Directional Drilling
☐ Doors/Windows
☐ Electrical
☐ Elevators
☐ Fire/Life Safety
☐ Floor/Ceiling
☐ Forklift
☐ Furniture/fixtures
☐ Insulation
☐ Janitorial/Cleaning
☐ Landscaping/Snow
☐ Machine Shop
☐ Marketing
☐ Masonry
☐ Mechanical
☐ Millwork/Carpentry
☐ Office Supply/Equipment
☐ Paint
☐ Paving
☐ Pest Control
☐ Plumbing
☐ Roofing
☐ Security/Surveillance
☐ Signage
☐ Transportation/Moving
☐ Trucks
☐ Waste Management
☐ Welding
☐ Vac Truck

☐ Other:_____

Records on File:

☐ Book 7 Training
☐ COVID Policy
☐ Confined Space Training (if applicable)
☐ Crane Operator Training (if applicable)
☐ Electrical Awareness
☐ Environmental Policy
☐ First Aid/CPR Records
☐ Health & Safety Policy
☐ Job Planning Examples
☐ Joint Health & Safety Committee
☐ Liability Insurance
☐ New Hire Orientation
☐ Supervisor Training Certificates
☐ Trades Training Certificates pertinent to company's work
☐ WHMIS Training Records
☐ Working at Heights Training
☐ Workplace Violence and Harassment
☐ WSIB Experience Rating

CONTRACTOR PREQUALIFICATION PROCESS EVALUATION

WSIB:

Firm#	Account #

Other Records on File:

ADMIN USE:

☐ Contractor Database Updated

CONTRACTOR PRE-QUALIFICATION:

(Please fill in details below regarding contractor's qualifications for specified type of work.)

Assessment Frequency:
Assessment Date:
Assessed By:
Pre-Qualified?
If yes, level of hazard:

ASSESSMENT NOTES:

PUC must fulfill the duties associated with contractor management including reviewing of job plans, on site awareness/orientation, crew observations, verifications of training records, etc.

Hazard	Describe the specific hazard present and rank the hazard as high, medium, or low	PUC or Contractor Responsibility to Control	Describe the specific barriers or work methods to control the hazard
Gravity (falling from a height, falling objects)			
Electrical (contact, backfeed, induction, static charge)			
Mechanical (craning, rigging failure)			
Kinetic (vehicle, rotating shafts)			
Chemical (designated substances, confined space)			
Thermal (hot, heat stroke, cold, frostbite)			
Pressure/Tension (pneumatic tools, hydraulic, water, gas, cable release)			
Water (working around, diving)			
Noise (chronic exposure to >85 decibels, impact noise, extreme, loud noise)			
Radiant (sunburns, snow blindness, welding, fibre optics, electrical flash)			
Biological (bacteria, virus, sewage)			
Body Mechanics (slips/trips, bumps, shift work, aging)			
Other			

Description	Discussed	
GENERAL H&S RULES & INFORMATION	**Yes**	**N/A (Provide Details)**
PPE: Safety footwear must be worn 'gate to gate'; workers must wear hard hats and safety glasses with side shields	☐	☐
Other PPE required available, inspected & in good order (i.e., fall protection, confined space, arc flash, etc.)	☐	☐
Smoking is prohibited inside buildings & vehicles – review designated smoking area, butt disposal.	☐	☐
No alcohol and/or illicit substance will be tolerated at Workplace. The contractor/contract worker or its workers deemed to be under the influence of alcohol and/or any illicit substance will be escorted off the site and may be prohibited from further access.	☐	☐
Review access doors, where workers are allowed to go, cameras in place	☐	☐
Review local site instructions for contractors, designated areas they are allowed/restricted areas, respect "yellow tape" areas, etc.	☐	☐
Access roads to site, speed limits, watch out for other traffic/users of roads	☐	☐
Review authorized parking area, use of "backing in", approved areas to deliver and store materials	☐	☐
Practice good housekeeping; ensure regular garbage and scrap removal, work areas clean and free of obstacles	☐	☐
Review location of First Aid Kit, AED, fire extinguishers, fire plan	☐	☐
Review site specific emergency response/communication plan - project personnel contact phone #'s, radio communication instruction, emergency 24/7 contact, evacuation routes/muster location, directions to site to provide to emergency response, etc.	☐	☐
Location and access to washrooms and lunchrooms, drinking water	☐	☐
Review site security, protocol for locking gates, doors, not giving access to unauthorized people, protection of public	☐	☐
Check contractor Orientation records/cards for all Contractor & Sub-contractor staff and ensure up to date	☐	☐
Review communication plan with members of the public; concerns to be brought to the contractor site supervisor & the PUC representative who follows up if required	☐	☐
Contractor to notify PUC contact if site visit or inspection by regulatory agency (i.e. MLSTD or MECP.) & provide copy of report or notice	☐	☐
General Discussion on abilities of work force. (Including Sub-Contractors) All must be authorized to perform the assigned role by their respective employers. (heavy equipment operators, first aid, working at heights etc.)	☐	☐
Verify appropriate licenses for workers/subcontractors. (e.g., Driver's License, electrician, plumber, welder, crane operator, engineer)	☐	☐
Discussion prescribed job specific training (confined space, working at heights, elevated work platform, power actuated tools, chainsaws,)	☐	☐
Work Area Protection-Contractor to ensure adequate barriers to protect workers and the public for inherent hazards (Book 7 standard for traffic)	☐	☐

All tools and equipment must be in good condition, appropriate for use and inspected before use. Ladders must be heavy duty (grade 1 minimum), CSA and fiberglass. Electric tools must be CSA, 3 prong or double insulated – GFCI is required outdoors or in wet environments.	☐	☐
Lockout Tagout / Work protection. Must be in conformance with PUC Program – Control of Hazardous energy.	☐	☐
Overhead lifting- Rigging must be appropriately rated and CSA. All equipment must be inspected before use. Loads shall not exceed the rated load.	☐	☐
Designated Substances – Provide any hazardous building material surveys workers may be exposed to. Ensure workers are aware of safe handling procedures and potential health effects	☐	☐
Live electrical work >600v must follow Electrical Utility Safety Rules. Live electrical work <600v is prohibited without a live electrical work permit.	☐	☐
Use of plant tools, material, equipment – prohibited without permission	☐	☐
EXPECTATIONS OF CONTRACTORS	**Yes**	**N/A (Provide Details)**
The contractor is responsible for conducting site specific orientations for any new workers and subcontractors after this initial orientation.	☐	☐
Review Hazard Assessment including all potential and actual H&S risks	☐	☐
Awareness of all permits and certificates for the work, safety & environmental	☐	☐
Review pertinent H&S laws, regulations, acts and rules that apply to the work	☐	☐
Conform to incident reporting requirements, H&S&E (including those involving members of the Public)	☐	☐
Review all PUC H&S and technical procedures that apply to the work (**document specific procedures reviewed in section below**)	☐	☐
Provide written Job Plans/JSAs	☐	☐
Hold monthly H&S meetings	☐	☐
Hold daily tailboard/job box meetings (and when work changes)	☐	☐
Perform weekly inspections	☐	☐
Utilize effective equipment grounding	☐	☐
Ensure required staff current in LOTO training and any requirements for Lock Out Tag Out	☐	☐
WHMIS: check training and conform to hazardous material requirements including providing SDS for any controlled product	☐	☐
Spill kits – confirm who is supplying, the location	☐	☐
Permits & training qualifications for any Transportation of Dangerous Goods or Hazardous Waste	☐	☐
Review waste collection, separation and disposal including any permits/licenses required	☐	☐
Review the confined space entry procedure	☐	☐
Review contractor's welding/cutting/grinding procedures	☐	☐
Review any work at height and approved tie off points	☐	☐

For a contractor working alone	☐	☐
- provide an off-hour shift schedule and a list of worker names	☐	☐
- orient the contractor location in relation to rest of the plant (stairways, elevator, fire cabinets, phone, etc)	☐	☐
Review site specific emergency response/communication plan i.e., project personnel contact phone #'s, radio communication instruction, emergency 24/7 contact, evacuation routes/muster location, directions to site to provide to emergency response, etc.	☐	☐
Review hazard assessment including all potential and actual H&S risks – repetitive?	☐	☐
OTHER ITEMS DISCUSSED		
CONTRACTOR CONCERNS, QUESTIONS, FOLLOW UP		

Names of People Met With	Signatures	Date

I shall comply with PUC rules, regulations, and procedures and with applicable provincial regulations.

Contractor	Date

PUC Project Manager	PUC Contract Monitor

Task	Task Description	Department	Individual	Frequency
Liability Insurance	Ensure documents are up to date coverage is proper (company listed and coverage amount).			
WSIB Clearance Certificate	Ensure clearance certificate remains valid during execution of work.			
H&S Pre-Qualification Evaluation	Ensure H&S contractor evaluation is completed, and contractor is approved for specific type of work.			
Electrical Awareness	Ensure Contractor Workers attend Electrical Awareness session prior to working at site.			
Contractor Orientation	Ensure all contractor workers working at site have obtained a H&S contractor orientation prior to working. H&S will provide the orientation, but Project Manager/Contract Monitor must confirm workers at site have attended prior to working.			

Task	Task Description	Department	Individual	Frequency
Safety Qualifications	Ensure trade training certificates pertinent to work are obtained prior to work beginning.			
Hazard Assessment Form	Contractor to complete hazard assessment form prior to completing work. To be approved by PUC			
Pre-Job Meeting	Hold meeting between Project Manager or Delegate and Contractor to review hazard assessment form and hours of work, communication, administrative expectations, site safety, emergency response.			
Project Planning	Review project plans, if applicable and ensure contractor following them as approved by PUC.			
Daily Job Planning	Complete daily job planning prior to work beginning.			

Task	Task Description	Department	Individual	Frequency
Daily Responsibilities	Confirm all pre-use inspections on equipment/tools are completed prior to work beginning and all appropriate PPE is worn and in good condition.			
Crew Observations	Perform Formal Crew Observations, complete Appendix H Contractor Crew Observation Form			
Contractor Supervision	Continuous supervision of crew working at workplace, ensuring safety and crew follows PUC's policies. (if need identified by H&S)			
Contract Monitoring	Monitor crews on the pre-decided schedule, completing crew observations as has been pre-determined for the project			
COVID Policy and Attestation	Responsible to ensure COVID policy is completed and kept current. Responsible to have all workers attest COVID compliance daily, prior to commencing work.			

Task	Task Description	Department	Individual	Frequency
Contractor Evaluation	Formal Contractor close out forms (evaluation of work) to be completed following completion of the project			
Other				
Other				

Reviewed and Accepted by:

Department	Name	Date	Signature

To be completed by the Project Manager or delegate. Documentation is retained by the Contract Administrator. Refer to Contractor Safety Program for details on administration.

Contractor_____ Date_____

Project/Services_____

PUC Representative(s)_____

HSE Monitor_____

Field Orientation Checklist	Yes	N/A (Provide Details)
1. Designated Contractor's Site Supervisor (*Competent Person*) Name:	☐	☐
2. Incidents: (Report all injuries or near misses immediately)	☐	☐
3. Copies of SDSs for all products brought on site	☐	☐
4. Tailboard and Crew Observations (dependent on risk level)	☐	☐
5. Scope of orientation (limited to the project listed above)	☐	☐
6. Visitors (Not permitted without permission of the PUC representative)	☐	☐
7. General Discussion on abilities of work force. (Including Sub-Contractors) All must be authorized to perform the assigned role by their respective employers. (Heavy equipment operators, first aid, working at heights etc.)	☐	☐
8. Verify appropriate licenses for employees/subcontractors. (eg. Driver's license, electrician, plumber, welder, crane operator, engineer)	☐	☐

9. Discussion re: prescribed job specific training (confined space, working at heights, elevated work platform, power actuated tools, chainsaws,)	☐	☐
10. Work Area Protection-Contractor to ensure adequate barriers to protect workers and the public for inherent hazards (Book 7 standard for traffic)	☐	☐
11. All tools and equipment must be in good condition, appropriate for use and inspected before use. Ladders must be heavy duty (grade 1 minimum), CSA and fiberglass. Electric tools must be CSA, 3 prong or double insulated – GFCI is required outdoors or in wet environments.	☐	☐
12. Lockout Tagout / Work protection. Must be in conformance with PUC Program – Control of Hazardous Energy.	☐	☐
13. Overhead lifting- Rigging must be appropriately rated and CSA. All equipment must be inspected before use. Loads shall not exceed the rated load.	☐	☐
14. Designated Substances – Provide any hazardous building material surveys workers may be exposed to. Ensure workers are aware of safe handling procedures and potential health effects.	☐	☐
15. Personal protective equipment – Contractor is responsible to provide any required PPE for their workers – Workers must wear any PPE as required	☐	☐
16. Respiratory protection – Must be appropriate for hazard	☐	☐
17. Live electrical work >600v must follow Electrical Utility Safety Rules	☐	☐
18. Live electrical work <600v is prohibited without a Live Electrical Work Permit	☐	☐

19. Emergency Plan – Effective communication method required - Report all fires and spills immediately – review the location of fire extinguishers	☐	☐
Section D - FACILITY REVIEW		
20. Identify points of entry / exit / parking /travel / speed / smoking area	☐	☐
21. Work area designation / identify any restricted areas	☐	☐
22. Discuss rest room, lunch area	☐	☐
23. Discuss emergency procedures, phone numbers, evacuation, alarms, reporting	☐	☐
24. Employee conduct. (horseplay, theft, substance abuse)	☐	☐
25. Use of plant tools, material, equipment – prohibited without permission	☐	☐
26. Housekeeping – Keep work area organized and clear of rubbish	☐	☐
27. Waste –Construction waste to be disposed of in accordance with local, provincial or federal requirements	☐	☐

Section F - COMMENTS

Contractors to PUC Services are responsible for training their employees and subcontractors and ensure that all employees understand and comply with Occupational Health and Safety Act and regulations as well as PUC's safety policies and procedures. Employees and subcontractors must receive this training prior to reporting to work with PUC.

Representative(s) Signatures

Name	Date	Company	Signature

PUC Representative(s) Signatures

Name	Date	Signature

Specific Work Location:			
Observer:		**Date:**	
Description of Work/Job Task:			
Risk Ranking of Task Being Observed:	☐ High	☐ Medium	☐ Low
Owner ☐ **Constructor** ☐			
Contractor and/or Crew Leader:	**Crew Members:**		
Job Plan: (available, well written/communicated, hazards properly identified, effective barriers identified, SOP, Other Procedures)	☐ Acceptable ☐ Needs Improvement ☐ N/A		
Hazardous Energy Source Control: (Gravity, Electrical, Mechanical, Kinetic, Chemical, Other)	☐ Acceptable ☐ Needs Improvement ☐ N/A		
Work/Job Site Set-Up: (Housekeeping, Work Area identified and protected, Ladder set-up, vehicle set-up)	☐ Acceptable ☐ Needs Improvement ☐ N/A		
Personal Protective Equipment: (hard hat, eye/face protection, hearing protection, safety shoes, rubber gloves/sleeves, fall protection)	☐ Acceptable ☐ Needs Improvement ☐ N/A		
Work Methods: (entry permits, rigging/crane operation, ergonomics, welding, work from height/climbing)	☐ Acceptable ☐ Needs Improvement ☐ N/A		

Public Safety Considerations: (protection of members of the public)	☐ Acceptable ☐ Needs Improvement ☐ N/A
Environmental Protection: (storage and transfer of oil & chemical, waste classification, storage & disposal, availability of spill kits)	☐ Acceptable ☐ Needs Improvement ☐ N/A
Heavy Equipment:	☐ Acceptable ☐ Needs Improvement ☐ N/A
Traffic Control: (traffic control plan, signs, cones, barriers)	☐ Acceptable ☐ Needs Improvement ☐ N/A
Additional Comments:	**Attendees Initials:**

Corrective Action/Follow-up Required		
Recommendation	**Responsibility**	**Target Date**

Please Print Clearly				
	Contract Title			
	Contractor Name			
		PO #	Vendor #	DD/MM/YYYY
	Contract Administrator			
	Project Manager			
	Contract Monitor			
	Contract #			

	TECHNICAL PERFORMANCE	*Yes*	*No*	*N/A*
	Was the technical specification understood and adhered to?	☐	☐	☐
	Did the company utilize qualified personnel?	☐	☐	☐
	Were regulatory requirements met?	☐	☐	☐
	Were the technical exceptions submitted minimal?	☐	☐	☐
	Did the work conform to PUC design?	☐	☐	☐
	Was the Contractor's design engineer readily available?	☐	☐	☐
	Did the Contractor effectively resolve design changes?	☐	☐	☐
	Were PUC processes/procedures and Quality Assurance requirements adhered to?	☐	☐	☐
	Were proactive QA/QC measures taken?	☐	☐	☐
	Did quality plans/inspection reports/test plans meet PUC requirements?	☐	☐	☐
	Did the Contractor deliver a quality finished product?	☐	☐	☐
	Did the Contractor provide as-built drawings, manuals, and records?	☐	☐	☐
	PROJECT MANAGEMENT	*Yes*	*No*	*N/A*
	Did the Contractor supervise, manage, and control the work satisfactorily?	☐	☐	☐

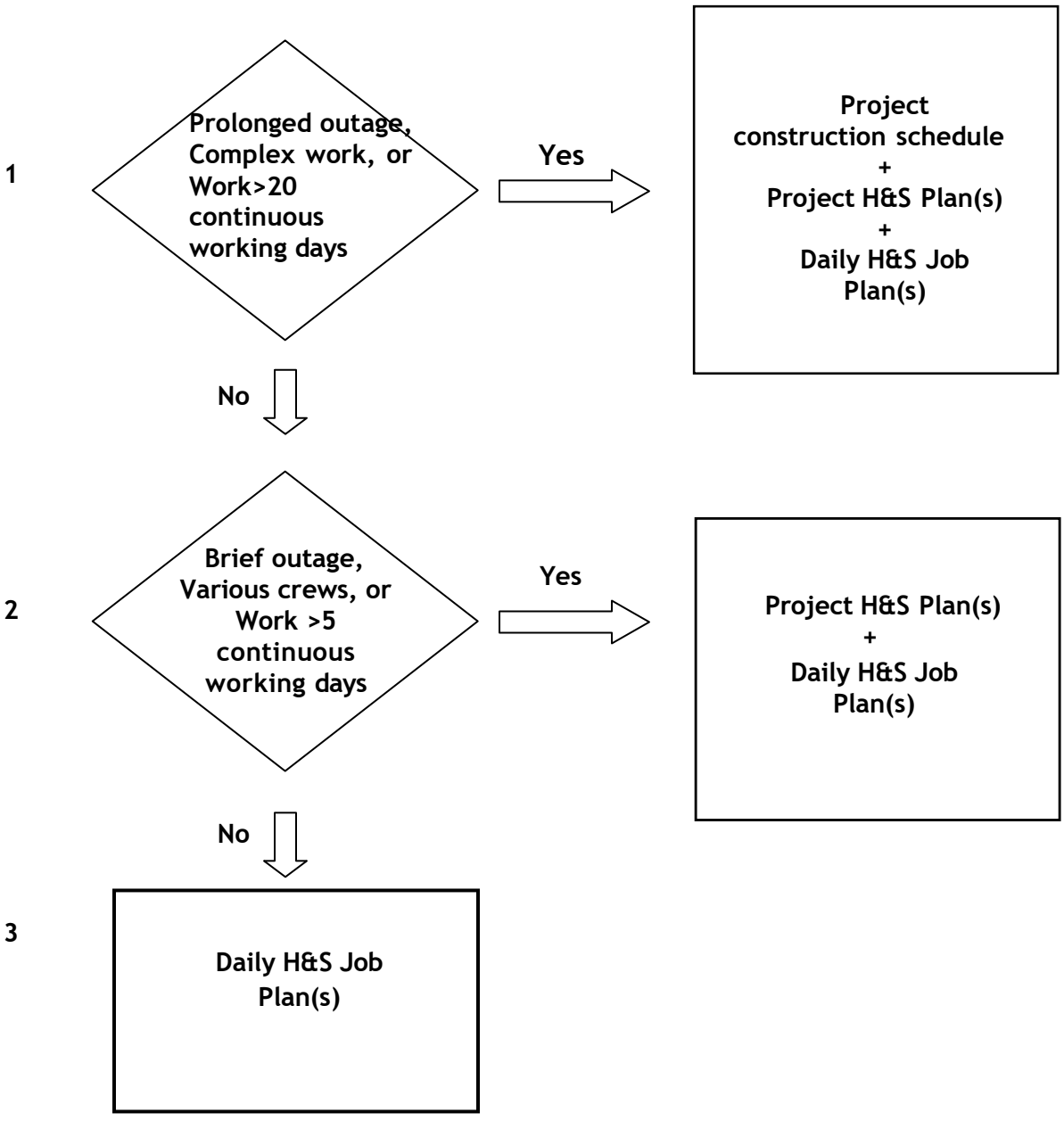
	Was the Contractor's site Supervisor effective?	☐	☐	☐
	Did the Contractor exhibit appropriate change, schedule, cost control?	☐	☐	☐
	Was the handling of change orders satisfactory?	☐	☐	☐
	Were submittals received per schedule?	☐	☐	☐
	Was subcontractor's work well coordinated?	☐	☐	☐
	Were there any incident investigations and, if so, was the Contractor's response acceptable?	☐	☐	☐
	Please submit data for			
	Number of non-conformances	#_____		
	Did the Contractor and PUC interface well?	☐	☐	☐
	Did the company demonstrate good management of trades, suppliers, and subcontractors?	☐	☐	☐
	FINANCIAL	*Yes*	*No*	*N/A*
	Were the accounting, billing, and reporting procedures managed effectively (i.e., time sheets, invoices)?	☐	☐	☐
	Were there cost overruns?	☐	☐	☐
	If so, indicate percentage over original agreement (also indicate in PUC comments main causes of delays, changes in scope, by who - PUC or contractor)	%_____		
	If warranty work was necessary, was it managed effectively?	☐	☐	☐
	SAFETY	*Yes*	*No*	*NA*
	Was the safety program established appropriate for the work?	☐	☐	☐
	Was the Contractor's job planning satisfactory?	☐	☐	☐
	Was the Contractor supportive and involved during the PUC job site inspections?	☐	☐	☐
	Were appropriate OHSA regulations applied at the job site?	☐	☐	☐
	Were appropriate IHSA safety rules or policies applied at the job site?	☐	☐	☐
	If changes were made to the scope of the contract, did the Contractor recognize and act upon any new risks or hazards?	☐	☐	☐
	If areas of improvement were identified or safety concerns were brought to the Safety representative, was the response satisfactory?	☐	☐	☐

	Did the primary Contractor ensure all subcontractors were in compliance with established job safety requirements?	☐	☐	☐
	Were there any Safety Violations, MLTSD orders to comply, or changes documented and, if so, was the Contractor's response acceptable?	☐	☐	☐
	Did the Contractor complete safety activities (tailboards, safety meetings, etc)? Did the Contractor utilize JSAs, pre-job briefings?	☐	☐	☐
	Was the Contractor's equipment maintained in safe and good working condition?	☐	☐	☐
	Did the Contractor establish and maintain good housekeeping at the job site?	☐	☐	☐
	Was PPE readily available and used on the job site (hard hats, safety glasses/vests, fall protection, etc)?	☐	☐	☐
	Was there any negative impact or concerns with Public Safety?	☐	☐	☐
	Please submit data for the following stats for this project	*Submitted*		
	Lost Time Injuries (LTIs)	☐		
	Total Hours Worked	☐		
	Number of Reported Injuries (not incl. LTIs)	☐		
	Number of MLTSD orders to comply	☐		
	ENVIRONMENT	*Yes*	*No*	*N/A*
	Was there any negative impact to PUC reputation?	☐	☐	☐
	Was an environmental program established for the work?	☐	☐	☐
	Was the environmental program established appropriate for the work?	☐	☐	☐
	Was there conformance with Contractual Environmental Requirements including Certificate of Approval conditions?	☐	☐	☐
	Was there a complete and effective Contractor's environmental program based on performance?	☐	☐	☐
	Did the Contractor establish and maintain good storage, handling, labeling practices, and housekeeping for all hazardous and designated substances?	☐	☐	☐
	Were there any significant environmental impacts or field orders and where applicable were they reported to PUC? Provide details regarding charges, citations, or adverse effects	☐	☐	☐
	Were the Contractor's personnel cooperative in correcting deficiencies?	☐	☐	☐

	PUC Comments: **Contractor's Comments:**

FUTURE RECOMMENDATIONS - Contractor Recommended for Future Work:	
Yes, with no restrictions	By:
Yes, with restrictions; suggested restrictions	
Not until terms are met as follows	
Status of pre-qualification to be re-evaluated? ***Provide details to H&S for any follow up required***	Yes No

Planning Level



The Project Manager has the primary responsibility to ensure that a project plan is prepared. The project plan should be prepared by a team that includes the Project Manager(s), Contractor(s) and Contractor Monitor(s).

Approvals

Date:	Project:	Contractor Monitor:	
		Project Manager:	
Contractor:		Health and Safety Department:	Department Manager:

Task/Job Steps	Major Hazards	Risk (H, M, L)	Control Barriers 1-Eliminate the hazard 2-Minimize energy to a safe level 3-Install physical barrier	Safety Barriers 4-Wear PPE 5-Intsall warning device 6-Minimize chance of error	Support Barriers 7-Written procedures 8-Training 9-Supervision/Designated observer

Task/Job Steps	Major Hazards	Risk (H, M, L)	Control Barriers 1-Eliminate the hazard 2-Minimize energy to a safe level 3-Physical barrier	Safety Barriers 4-PPE 5-Warning device 6-Minimize chance of error	Support Barriers 7-Written procedures 8-Training 9-Designated observer

Task/Job Steps	Major Hazards	Risk (H, M, L)	Control Barriers 1-Eliminate the hazard 2-Minimize energy to a safe level 3-Physical barrier	Safety Barriers 4-PPE 5-Warning device 6-Minimize chance of error	Support Barriers 7-Written procedures 8-Training 9-Designated observer

Project:	
Signatures	**Date**
Subcontractor:	
Contractor:	
Contractor Monitor:	
Project Manager:	
Health and Safety Department:	
Department Manager:	

IF CONDITIONS CHANGE…REVIEW AND REVISE THE PLAN.

Date:	Work Location:
Work Order#	Task:

	Job Steps	Major Hazards	Rating H/M/L	Control Barriers (Rating = 1 - 3)	Safety Barriers (Rating = 4 - 6)	Support (Rating = 7 - 9)
1						
2						
3						
4						
5						
6						
7						

CONTROL BARRIERS	SAFETY BARRIERS	SUPPORT BARRIERS
1. Eliminate Hazard	4. Wear PPE	7. Written procedures
2. Minimize to safe level	5. Install Warning Device	8. Training
3. Install Physical Barrier	6. Minimize chance of error	9. Supervision/Designated observer

CONTINUOUSLY MONITOR

****

IF CONDITIONS CHANGE REVIEW & REVISE PLAN

HAZARDOUS ENERGY IDENTIFICATION LIST			
Gravity	**Electrical**	**Mechanical (Pressure)**	**Motor Vehicle (Kinetic)**
Falling from heights	Authorization	Equipment Failure	Road Conditions
Falling objects / structures	Unknown voltage (+-750 V)	Moving/rotating/swing	Traffic Conditions
Excavation failure	Touch / Step / Flash	Tension / Pressure / Vacuum	Reversing
Hoisting	Dist Generation/Induct/Static	Stored Energy	Excessive Speeds / Volume
Slip / Trip	Inadvertent Equipment Contact		Stability / Ground conditions
Ergonomic	**Environmental**	**Chemical**	**Other**
Pressure points	Hazardous Atmosphere	Caustic / Acidic	Public Safety / pedestrians / bikes
Awkward Position	Heat / Cold / Rain / Wind / Sun	Flammable / Explosive	Animals / Changing Conditions
Over exertion	Noise / Housekeeping	Gaseous / liquids / powders	
Repetitive or Static	Visibility / Lighting	Containment	
		Sharps	

DATE	CREW MEMBERS	SIGNATURES	DOCUMENTER	FIRST AIDER	SIGNALER	OBSERVER	JOURNEYMAN	OPERATOR	LEAD HAND	H&S REP

EMERGENCY PLAN:	
EXACT LOCATION FOR EMERGENCY AID:	

When unplanned changes occur - **STOP** - Re-evaluate hazards and barriers - Document how changes are communicated below

DATE:	TIME:
How did we communicate the change?	

Crew Initials:											

Weekly Report		Job #	Date:
Remarks:			
Period of Report:			
Contractor Workers		Subcontractor Name	Number of People
Monday Tuesday Wednesday Thursday Friday			
Saturday			
Sunday			
Items of Work:			Percent Complete
Deliveries		Equipment on Site:	
SAFETY and/or ENVIRONMENTAL Incidents:			
Remarks/Concerns/Accomplishments:			
Supervisor Signature:			

Weekly Workplace Inspection

Project Details

Project:					
Trade:	☐ H&S Rep	☐ Civil	☐ Mechanical	☐ Electrical	☐ Other
Inspector:					
Date of Inspection:					

Numbers on Project

Workers on Crew:	
Sub-Contractors on Project:	

General Hazard Overview

S - Satisfactory		***U - Unsatisfactory***		***N/A - Not Applicable***
Housekeeping		Hoisting/Rigging		
Personal Protective Equipment (PPE)		Excavation/Trenching		
Fall Protection		Heavy/Mobile Equipment		
Scaffolds and Ladders		Cranes		
Electrical Safety/Energy Control		Aerial Work Platforms		
Confined Space		Tools/Equipment		
Fire Safety		Hazardous Materials		
Welding/Cutting		General Project Safety		

Corrective Action Plan

Date Observed	Hazard *(Low, Medium, High)*	Description	Corrective Action	Company	Individual Responsible

Name: **Date:**	**Signed:**

Team Daily Attendance Log

BY SIGNING OUT, YOU ACKNOWLEDGE THAT YOU REPORTED ANY INCIDENT TO YOUR SUPERVISOR AND THAT YOUR WORKPLACE HAS BEEN LEFT IN A CLEAN AND SAFE MANNER

Date	Name (Print)	Company	Time In	Time Out	Signature	Covid-19 Symptom Sign-off

Daily Report		Job #	Date:
Weather: Sunny ☐ Cloudy ☐ Windy ☐ Rain ☐ Snow ☐			
Temperature Range: High: to Low: Humidex:			
Remarks:			
Contractor Workers		**Subcontractor**	**Number of Workers**
Total:		**Total Subs:**	
Deliveries:		**Equipment:**	
Daily Progress:			
Schedule Issues (i.e. Contractor's Workers Availability):			
SAFETY and/or ENVIRONMENTAL Incidents:			
Remarks/Concerns/Accomplishments:			
Supervisor Signature:			

Project Plan		
Expectation	**Contract Monitor shall**	
Contract Monitor familiar with the Project Plan.	Read and understand the Project Plan. Will also know what major step(s) are being worked on each day.	
Contract Monitor reviews the conditions column for upcoming work.	Ensure the conditions are met prior to the applicable task.	
Daily Job Plan & Tailboard		
Expectation	**Contract Monitor shall**	
Contract Monitor understands and is conversant with job planning principles, including barrier principles, barrier categorization, risk management principles and application.	Review daily job plan and offer guidance as required.	
Contract Monitor can identify quality issues and coach/correct the issue.	Correct and coach the contractor when quality issues with the Daily Job Plan are observed.	
Contract Monitor spot checks and ask contractor crew members what the tasks are they are performing and what barriers they are using.	Ensure all workers understand their assigned tasks, the hazards on the worksite and barriers to be used and their effectiveness.	
When procedures are referenced in the job plan those applicable sections are reviewed at the tailboard.	Ensure that when a procedure is used as a barrier that the applicable sections of the procedure are reviewed at the daily tailboard.	

Daily Job Plan & Tailboard Con't		
Expectation	**Contract Monitor shall**	
Contract Monitor assesses daily tailboard meeting quality.	Ensure the contractors workers actively participates in and provides input to the Daily Job Plan and daily tailboard meeting.	
Other		
Safety Procedures		
Expectation	**Contract Monitor shall**	
PUC Project Manager to provide applicable PUC procedures to Contractor to maintain a binder of these procedures at the workplace.	Ensure applicable PUC procedures are at workplace and available.	
Contractor reviews applicable safety procedures with workers onsite.	Ensure that the Contractor reviews safety procedures with workers working on site.	
Contractor refers to PUC safety procedures and references them in their daily job plan.	Ensure that the Contractor understands what PUC's safety procedure expectations are when referencing them on a job safety plan.	
Stop work if high hazard procedures are not being implemented.	Enforce procedure application with the Contractor and assist with answering questions.	

Contractor Safety Orientations & Training		
Expectation	**Contract Monitor shall**	
Contractors shall provide orientation for all Contractor's and Sub-contractors workers that work on the project. At times as a Monitor you may be asked to assist with providing this orientation.	Verify the contractor provides the project orientation for all workers on site.	
Contractor provides skilled, trained and competent workers to the job site. Contractor provides a list of workers that have trades/occupations that have been certified. Contractor designates competent persons for high-risk tasks such as scaffold, fall protection, confined space etc.	Verify that the Contractor supplies competent workers to the job site, including: • Adequately Trained (appropriate job skills) • Sufficiently Experienced (relevant work experience) • Suitably Qualified (certified trade skills) • Certifications and licenses present for certain pieces of heavy equipment (forklifts, lulls, cranes) Verify a list is on site along with copies of certifications and qualifications/competencies.	
Contractor provides employees that are trained in Occupational Health and Safety Act requirements.	Confirm the Contractor knows the regulatory health and safety training requirements for their employees, and that their employees receive required refresher training. Confirm the company retains health and safety, and trades training records for their employees, and ensure the document/system includes: • Worker Identification • Date of Training • Name of Trainer Method Used to Verify Understanding.	

Contractor Crew Observations		
Expectation	**Contract Monitor shall**	
Contractor would have a Crew Observation program or equivalent for Supervisors to perform and coach Workers. Monitor Workers for safe behaviors and unsafe behaviors and to correct any issues. This is primary – in hopes that the contractor is able to find and correct health and safety issues.	Verify the Contractor is performing work observations to ensure effectiveness in workers meeting safety expectations. Verify that… • That they have attended a PUC Contractor Orientation • Minimum training requirements for the task being completed • Number of observations completed daily/weekly • Details of any changes being implemented to improve • Workers report unsafe acts and conditions • Workers intervene and correct unsafe acts and conditions • Reported unsafe acts and conditions are investigated and corrected	

The Contract Monitor to perform frequent crew observations of contractor's employees and document the crew observations. This is secondary – and will be conducted regardless of whether the Contractor has a program. Frequency of work observations to be set by the Project Manager but must meet expected minimal targets of program.	Complete crew observations. Communicate findings to the Contractor's workplace supervision and PUC Project Manager. Provide immediate feedback to the Contractor's supervisor of any health and safety violations and stop the Work if high-risk or medium-risk Hazards are not adequately controlled.	
WHMIS/Hazardous Substances		
Expectation	**Contract Monitor shall**	
Contractor to have a WHMIS procedure, SDS Sheets on site for the chemicals being used, containers labeled, and workers trained.	Ensure the Contractor has an effective WHMIS program on site with SDS sheets present, containers labeled, staff trained, and materials properly stored.	

PPE		
Expectation	**Contract Monitor shall**	
All Contractor's workers are wearing proper PPE for the job and utilizing it correctly.	Ensure Contractor's workers are wearing the proper PPE for the tasks and wearing it correctly. Coach the workers on proper PPE use when issues are observed. Ensure PPE is inspected and maintained, and pre-use inspections are performed as required.	
Emergency Response Rescue Plan & First Aid		
Expectation	**Contract Monitor shall**	
Contractor to prepare rescue plans for confined space rescue, water rescue and fall rescue as applicable.	Ensure the rescue plan is completed, rescue equipment described is present, on hand and immediately available for use in an emergency.	
Contractor to provide workers that are trained in first aid/CPR/AED use (list of workers is preferred).	Ensure a list of workers trained in CPR/First aid/AED is present.	
Emergency Response Rescue Plan & First Aid Con't		
Expectation	**Contract HSE Monitor shall**	
Contractor to provide adequate number of first aid kits to worksite.	Ensure first aid kits are on site and available.	

Contractor to conduct drills or practice sessions on high-risk rescues/emergencies (ex. confined space, fall protection).	Ensure appropriate drills are conducted pre-job or pre-project.	
Incident Reporting and Investigations		
Expectation	**Contract Monitor shall**	
Contractor clearly understands PUC's expectations for reporting incidents, near misses, spills, and injuries	Verify and monitor that the contractor clearly understands PUC's expectations for reporting incidents, near misses, spills, and injuries.	
Contract Monitor participates in event investigations.	Assist with event investigations as directed by the Project Manager	

H&S Meetings		
Expectation	**Contract Monitor shall**	
Contractor holds safety meetings for Workers as set forth by the project requirements.	Confirm safety meetings are held for Workers. Confirm that the meetings are of sufficient quality.	
Regulatory Knowledge and Enforcement		
Expectation	**Contract Monitor shall**	
Workplace conditions and work practices are compliant with applicable laws, standards, and PUC procedures.	Actively analyze worksite conditions and practices and coach contractor supervisor. This may be achieved with site evaluations using checklists or procedures.	
The Contractor designates competent persons for various high-risk tasks (ex. scaffold, fall protection, confined space).	Ensure the Contractor maintains a list of competent persons and that competent persons are workplace when conducting the applicable task (ex. scaffold, fall protection, confined space).	

Public Safety		
Expectation	**Contract Monitor shall**	
All risks to the public are controlled and related barriers are comprehensive, including site warnings, traffic control devices, public access measures, equipment/public segregation, noise mitigation, overhead work.	Ensure the Contractor inspects public safety measures periodically and enforces public safety rules per the site's project plan. Ensure the Contractor includes public safety on the daily job plan.	
Environment		
Expectation	**Contract Monitor shall**	
Contractor to provide spill prevention/protection equipment is onsite and staff are competent in its use.	Verify spill containment, cleanup kits and competent staff are available for spill events.	
Contractor is compliant with all permits and regulations, if applicable.	Verify permit conditions and legal compliance if applicable.	

Worksite & Equipment Inspections		
Expectation	**Contract Monitor shall**	
Contractor to perform periodic workplace inspections to check for safety hazards and safety compliance issues.	Verify that the contractor conducts workplace inspections and audits to ensure compliance with safety regulations, compliance with procedures and workplace hazards. Confirm deficiencies are documented and tracked to completion. Confirm the company has basic safety related procedures including housekeeping, unsafe conditions reporting and materials/equipment standards.	
Worksite & Equipment Inspections Con't		
Expectation	**Contract Monitor shall**	
Contractor's workers conduct pre-use inspections on vehicles heavy equipment, cranes, and other equipment.	Verify the contractor: • conducts inspections on operating equipment (cranes, forklifts, aerial work platforms) • maintains operating equipment in compliance with the regulatory requirements • maintains the applicable equipment inspection and maintenance certification records • ensures all safety guards are installed, fire extinguisher, first aid kits, warning labels, spill kits are present if required	

Additional Key Expectations		
Expectation	**Contract Monitor shall**	
Weekly Report	Maintain a log of activities, issues, and observations, and provide a weekly written report to the Project Manager.	
Other		
Other		
Other		

Project Description:
Reason for request:
H&S Control Measures taken for Project:
Requestor: Date:
Departmental VP Approval: Date:
H&S Approval: Date:
CEO Approval: Date:

This document has been created to identify the roles of each party under the contract. All construction work on the project will be completed primarily by a contractor with regulatory system operation and oversight of connections and commissioning done by PUC. The project will be completed under the Ministry of Labour Construction Projects Regulation. The Contractor is assuming the role of the Constructor under the Occupational Health and Safety Act. The contract roles of each party are identified below.

Contract Roles

Name	Company	Project Role	Phone	Email

APPENDIX J

PUC CONTRACTOR MANAGEMENT PROGRAM APPENDIX D

Hazard	Describe the specific hazard present and rank the hazard as high, medium, or low	PUC or Contractor Responsibility to Control (assumed to be day to day, not during initial bid review, vetting, and orientations)	Describe the specific barriers or work methods to control the hazard **TAILBOARDS & JOB PLANS**
Gravity (falling from a height, falling objects)	Working Aloft – High Drop zones – High	Contractor	
Electrical (contact, backfeed, induction, static charge)	Energized 7.2kV and 120/240V, Customer – High Backfeed from generation - High	Contractor & PUC	PUC: Isolation and de-energization (Work permit per UWPC) as required. Contractor:
Mechanical (craning, rigging failure)	Unknown weights and loads, Trucks tipping over causing damage or injury (area has poor ground conditions and vehicle stability could be a concern), Crane making electrical contact. High	Contractor	
Kinetic (vehicle, rotating shafts)	Traffic, Excavator moving/turning, Pinch/crush points, PTO's/winches/wire, rope reels, chainsaws – Ie. Spinning, moving, and/or sharp items. High	Contractor	
Chemical (designated substances, confined space)	Transformers with PCB oil, Hydraulic oil High and low	Contractor & PUC	PUC: Transport and handle, Spill response plan, Spill kit, PPE. Contractor:
Thermal (hot, heat stroke, cold, frostbite)	Working in conditions that are too hot or cold, Dehydration High and Medium	Contractor	

Pressure/Tension (pneumatic tools, hydraulic, water, gas, cable release)	Hydraulic oil under pressure – possible hydraulic injection injuries, Excavation in proximity to natural gas pipelines, Tension stringing for installation/removal – getting caught in the "bite" or uncontrolled release of wire tension/force High	Contractor	
Water (working around, diving)	Observe depth and flow of water in ditches, Work area adjacent to river High	Contractor	
Noise (chronic exposure to >85 decibels, impact noise, extreme, loud noise)	Loud equipment (Chainsaws, trucks, stringing equipment, excavators, etc.) Medium	Contractor	
Radiant (sunburns, snow blindness, welding, fibre optics, electrical flash)	Sunburn, snow blindness, electrical flash. High to Medium	Contractor	
Biological (bacteria, virus, sewage)	Mosquitoes/WNV, Lack of washroom facilities Medium	Contractor	
Body Mechanics (slips/trips, bumps, shift work, aging)	Strains, slips/trips/falls Medium	Contractor	
Other **Excavation**	Trench or hole collapse, Equipment use on site (excavator or vac truck	Contractor	

APPENDIX K

PUC SOPS

PUC SERVICES	**Line Operations** **Standard Operating Procedure**
	Table of Contents

1. Purpose

The purpose of this procedure is to provide an adequate measured response to power outages during severe weather conditions. This will be achieved by placing additional operational staff on standby in anticipation of **severe weather conditions.**

This procedure has been developed in support of PUC Distribution's Emergency Preparedness Plan.

2. Scope

This SOP applies to Line Operations, Stations and Water Treatment Plant Operations.

3. Definitions

Qualified Staff; Line Operations - Any Lead Hand, Work Planner or staff listed on the 4-12 schedule.

4. Procedure

4.1 System Operator/WTP Operator are alerted to **severe weather warnings** that will impact PUC's service territory in the form of an electronic alert by Environment Canada via the Weather Network. The System Operator/WTP Operator will inform the Managers of Stations and Line Operations (or Supervisor "on call" if after hours) ASAP of the imminent severe weather condition.

4.2 The managers and supervisors will consult to discuss the impact of the weather condition and determine if additional staff will be placed on standby.

4.3 Line department supervisors will look for up to 4 qualified staff to volunteer for standby for a minimum period of 16 hours after their regular day shift to a maximum of 72 hours in the case of a weekend. These volunteers will form up to 2 additional trouble trucks to compliment the 2 lineman already on standby. The crew compliment will be comprised of competent line staff in alignment with 4-12 booking and line department policy.

4.4 Lead hands and Work Planners may volunteer for the standby shifts. All staff placed on standby will receive standby pay as defined in the Collective Agreement. In the absence of qualified volunteers the department supervisors will assign the standby shifts. As a default the Line department supervisors will assign next available staff based on the posted rotation of the 4-12 schedule. The System Operator/WTP

Operator will be notified of the additional staff on standby by the Line Department supervisor.

4.5 The System Operator or WTP Operator will gauge the intensity of the weather condition and when necessary, call out the appropriate staff starting with the 4-12 crew and then the additional staff on standby as needed. As a general rule if all volunteers on standby have been called out than the System Operator/WTP Operator will inform the supervisors on call for Line Operations and Stations. The supervisors will be responsible for the coordination of the restoration efforts for their respective areas.

Note: If the severe weather intensifies full crew compliments should be organized to better deal with restoration efforts. These severe weather conditions likely cause large scale outages which could put the Emergency Preparedness Plan into effect. Appropriate management staff would be contacted to initiate the plan and assume their respective roles.

References: I:\Outage Management\Operations Emergency Planning\PUC Distribution IESO EPP

Approved:	Manager Line Operations	Date
	Phil Johnston	2023-01-12

Revision History:

NOTE: A red line on the right side of document indicates a change		
Revision #	**Date**	**Description**
1	2014–07-22	Original revisions were not captured, but were made on 2014-07-22.
Review	2017-11-30	SOP reviewed by staff and signed off by new Manager Al Cannard. No changes made.
2	2023-01-12	SOP reviewed by Phil Johnston. Minor changes to section 4.3 and link update to Emergency Preparedness Plan.

1. Purpose

This procedure shall be used when the installation of temporary bypass jumpers is required to feed, on a temporary basis, an electric service which is experiencing an underground fault condition.

2. Scope

This SOP is applicable to Underground Residential Distribution specifically for 120/240 volt UG services, and shall be followed by all Line Department staff.

3. Responsibility

The installation of temporary bypass jumpers is a function of the Line Department and the appropriateness of their use is generally determined by a Lead Hand or competent powerline technician.

4. Procedure

Note: where reasonably possible the faulted service should be isolated before installation of bypass jumpers.

4.1 Prepare job plan/tailboard as per PUC policy and OHSA regulations taking into consideration any relevant hazards and specifically any shock or arc flash hazards that may be present. Ensure the use of appropriate Personal Protective Equipment and safety barriers throughout the procedure. (Rubber gloves, face shield, FR clothing)

4.2 Investigate cause of the failure using normal and acceptable troubleshooting procedures i.e. customer contact, visual checks of mechanical / electrical connections, voltage checks, Super Beast load test, etc.

4.3 If readily accessible, disconnect the line side end of the faulted service.

4.4 **If disconnection at handbox is not a viable option, consider transformer isolation / service interruption to avoid shock and arc flash hazard.** (Faulted service and host service will often be fed from the same transformer.)

4.5 Having exhausted all reasonable means of isolation, remove meter and cover plate at faulted service and cover line side meter jaws and lugs with air seal or other adequate barrier.

4.6 Remove knockout from bottom of meter base. If there is no suitable knockout available, drill a 7/8” hole in the bottom or lower side of the meter base using a stepped bit provided in the kit.

4.7 Install and connect **Load** end Bypass jumper neutral conductor to neutral lug in meter base via knock out hole with appropriate connector. Remove air seal (barrier).

4.8 Install **Load** end Bypass adapter and meter and install seals to prevent tampering.

4.9 Remove meter and cover plate at host service and cover line side meter jaws and lugs with air seal or other adequate barrier.

4.10 Remove Knockout from bottom of meter base. If there is no suitable knockout available, drill a 7/8" hole in the bottom or lower side of the meter base using a stepped bit provided in the kit.

4.11 Install and connect **Source** end Bypass jumper neutral conductor to neutral lug in meter base via knock out hole with appropriate connector. Remove air seal (barrier).

4.12 Install **Source** end Bypass adapter and meter and install seals to prevent tampering. Confirm proper voltage levels to services.

4.13 Route and secure temporary cables to avoid damage from vehicle traffic and eliminate tripping hazards. Install cable wrap warning flags in appropriate/conspicuous locations along cable path and place traffic cones or barriers as necessary.

4.14 Complete Field Work Record indicating the required follow-up and notify Water Treatment Plant Operator of Bypass Jumper connection details.

4.15 Once permanent repairs have been completed the procedure can be reversed to remove the Temporary Bypass Jumpers. Ensure knockout holes are covered with tamper proof knockout plugs provided in kit.

5. Approved Equipment

Only the following equipment is approved for use in temporary service bypass applications. No substitutes are permitted.

1. Temporary Bypass Jumpers c/w meter socket (Cat# AND120A Source and Load units).
2. #6-1c 1045 str Vutron JKT 600v 90c UL CSA conductor.
3. T&B ½" weatherproof strain relief clamps.
4. 1 1/4" X ½" Reducing Washer
5. Hoffman ½" weatherproof/tamperproof KO plugs
6. Stepped Drill bit or 7/8" Hole Saw c/w 3/8" hole saw arbor

6. References

Please refer to the most recent revision of USF standard PUC10-500-C

Approved:	Manager Line Operations	Date
	Phil Johnston	2022-01-12

Revision History:

NOTE: A red line on the right side of document indicates a change		
Revision #	**Date**	**Description**
1	2012–11-22	Original revisions were not captured, but were made on 2012-11-22.
Review Only	2017-10-26	Review took place at Safety/Ops meeting to ensure the SOP still reflects current practices. No revisions made.
Review Only	2023-01-12	Review with Phil Johnston, current dept manager to ensure the SOP still reflects current practices. No revisions made.

1. Purpose

A number of conductor breakage incidents have occurred in the industry on certain types of copper conductor.

There are several reasons for this problem; many installations of these conductors are many years old: over-tensioning; poor quality control in original production; pitting due to tree contact; phase-to-phase contact. All these reasons have contributed to the problem.

Special restrictions are required because the problems with these conductors increase the danger of a conductor breaking during live line work.

2. Scope

This procedure applied to live line work on all No. 6 Copper Conductors **when they are used as primary line conductors**.

This procedure does not apply where these conductors are used as drop leads, ground leads, or in other non-tension applications.

For the remainder of this document, No. 6 Copper Conductor will be referred to as ***"Restricted Conductor"***.

3. Definitions

Restricted Conductor – No. 6 Copper Conductor used to carry a primary voltage. (greater than 750volts.)

4. Procedure

General:

- Prior to working on live restricted conductor; the conductor shall be examined for signs of damage at tie wires and connectors, and for a general indication of its condition.
- If there is any doubt as to its condition, no live line work is to be attempted.
- Live line work on restricted conductors must not take place at night, or under unfavourable weather conditions such as ice storms, high winds, etc.
- When live line work is undertaken on restricted conductors, personnel on the ground shall stay well clear of the falling path of the conductor. Such conditions as wind direction, and line angle shall be considered when determining the falling path.
- Poles with energized restricted conductors shall ***not*** be climbed.

Conditions

- Transferring of live conductors may take place providing that the conductor has been visually inspected and the transfer is to an insulator at the approximate height of the existing insulator, and that there is sufficient slack in the conductor. Care should be taken to avoid increasing the tension on the conductor.
- When installing or removing a hot line clamp, the conductor shall be gripped and temporary jumpered on either side of the clamp. Further tightening or initial loosening will be permitted by hand using rubber gloves, line covers and other personal protective equipment as required.

Approved:	Manager Line Operations	Date
	Al Cannard	2017-09-28

Revision History:

NOTE: A red line on the right side of document indicates a change

Revision #	Date	Description
1	2010–04-21	Original revisions were not captured, but were made on 2010-04-21.
Review Only	2017-09-28	Review took place at Safety/Ops meeting to ensure the SOP still reflects current practices. No revisions made.

1. Purpose

Power quality issues occur from time-to-time in PUC's distribution system that may warrant various types of corrective actions on behalf of the LDC. Power quality issues have historically been identified by the impacted customer/s but through advancements in technology such as AMI data (smart meters), the LDC now has the ability to monitor and correct such issues as voltage variations before customers actually complain. This Standard Operating Procedure deals specifically with voltage variation issues outside the acceptable limits of CSA Standard CAN3-C235 (see *Appendix F* herein). The SOP provides direction to staff with regard to tap change procedures on distribution transformers to correct voltage variation outside the industry standard.

2. Scope

This SOP shall be followed by all Line Operations staff.

3. Definitions

AMI - Advanced Metering Infrastructure

FWR - Field Work Record

4. Procedure

Where the results of an internal investigation regarding a voltage variation issue (including confirmation of AMI voltage data) recommends distribution transformer tap changing as the corrective action, the following steps should be performed:

1. A Customer Service Order should be created anytime a distribution transformer needs to be adjusted off its normal tap position (100%) because of a voltage variation complaint. A CSO should confirm the specific problem reported (high/low voltage), and identify the Tx company number, KVA rating, primary/secondary voltage, civic location, pole number, etc. for the transformer requiring tap change.

2. Inform customers of planned outage. This may be accommodated by door to door communication since the outage duration for such corrective action should be less than 30 minutes in entirety. Large commercial customers require more in depth outage planning by supervisor, planner or designate.

3. Field crew should first record voltage at customer's service entrance to confirm it is outside acceptable limits and also record the voltage and existing tap position at the transformer (ex. 100% tap position) on the FWR.

4. If outside acceptable limits, isolate Tx, confirm isolation with secondary voltage check and adjust tap position to achieve the acceptable voltage range. NOTE: AMI voltage data is considered to be the most accurate information. Actions should be based on AMI data unless there is a significant difference in field measurements.

5. Re-energize TX and again record voltage at customer's service entrance to confirm it is within the acceptable limits and also record the voltage and final tap position at the transformer (ex. 105% tap position) after the corrective action.

6. All voltage measurements and tap change positions to be recorded on the accompanying FWR.

7. If this corrective action was based on a specific customer complaint then follow up with that customer by the line crew should be attempted and recorded on FWR ("confirmed customer is satisfied with corrective action")

8. Supervisors will ensure that the completed FWR is stamped "return to" the GIS and Records Technician (Electric) for GIS updating and routed as per usual.

9. The GIS and Records Technician (Electric) will compile and maintain information on all transformers that have tap positions adjusted from the normal 100% tap position. These records should include the dates of the corrective action.

5. Appendix

APPENDIX F: CSA STANDARD VOLTAGE REQUIREMENTS - PUC Distribution Inc. Conditions of Service

CSA Standard Voltage Requirements CAN3-C235

Recommended Voltage Variation Limits for Circuits up to 1000 V, at Service Entrance

Voltage Variation Limited Application at Service Entrance

Nominal System Voltages	Operating Conditions			
	Extreme Low	Normal		Extreme High
Single Phase				
120/240	106/212	110/220	125/250	127/254
240	212	220	250	254
480	424	440	500	508
600	530	550	625	635
3-phase, 4-wire				
120/208Y	110/190	112/194	125/216	127/220
240/416Y	220/380	224/388	250/432	254/440
277/480Y	245/424	254/440	288/500	293/508
347/600Y	306/530	318/550	360/625	367/635
3-phase, 3-wire				
240	212	220	250	254
480	424	440	500	508
600	530	550	625	635

Revision History:

NOTE: A red line on the right side of document indicates a change		
Revision #	**Date**	**Description**
0	2014–09-23	Original version issued on 2014-09-23.
Review Only	2017-07-27	Review took place at Safety/Ops meeting to ensure the SOP still reflects current practices. No revisions made.

1. Purpose

To provide a work environment whereby employees will not be subjected to any acts of physical violence, threats of bodily harm or intimidation while performing their duties, wherever those duties are performed.

2. Scope

This procedure applies to all Line Operations staff that may have a work-related incident with an aggressive or threatening customer or member of the public.

3. Definitions

CSO: Customer Service Order
Tickler: a warning statement appearing on a CSO.

4. Responsibilities

4.1. Staff:

Staff share the responsibility to ensure that their work environment is free from violence, threats of violence, and intimidation.

Staff are expected to treat all other employees, customers and members of the public, professionally and respectfully at all times. This includes rejecting any form of violence, threats, or intimidation from verbal abuse to physical violence.

Staff are expected not to engage in violence which has arisen out of a workplace incident.

Staff are to report all workplace confrontations, threats or violence to their Supervisor.

Staff have the right to refuse un-safe work, have the option to perform the task with a co-worker “buddy system” or have a Police Escort when warranted.

4.2. Supervisor:

If necessary, review Tab 06 11(Workplace Violence Program).

Document any workplace violence incident as per the Workplace Violence Program using Appendix B "Incident Report/ Notification" form. (Springboard Folder: Health, Safety & Environment, Health and Safety Forms – PUC, 2025437: Incident Report/Notification Form (Electronic)

Consult with Department Manager and Human Resource Manager to determine an appropriate preventative measure.

As a minimum a workplace violence incident should be assessed to determine if a notification (tickler) should be directed to the customer's account in the Customer Information System (NorthStar).This is a required field in the reporting form above.

5. Procedure - General

In general, Line Department staff may become involved in incidents with aggressive or angry customers and/or members of the public. In these situations, crew leaders or senior staff members should attempt to understand the customer's concerns/complaints and effectively communicate the purpose of the work they are performing. As outlined above in Section 4, this communication should be done in a non-aggressive and respectful manner.

If a customer/member of the public becomes aggressive in any manner (verbal abuse and/or threatening body language) avoid confrontation, communicate that you will escalate the concern to your Supervisor, calmly excuse yourself and leave the immediate area. At your earliest opportunity, report the incident to your Supervisor.

6. Procedure - Specific

6.1. Disconnect/Reconnect/ Collections for Arrears (CSO Ticklers):

Review the CSO to identify if the customer has been flagged with a history of violence or threats. This information is displayed as a warning screen (Tickler) in the Customer Information System (NorthStar). This will determine your next steps.

Note: After normal business hours the WTP operators will confirm whether any warnings (ticklers) on customer accounts exist and communicate this to the Line staff prior to dispatching a collections order to line staff. In turn Line staff should confirm that WTP operators have reviewed the customer's account in Northstar to ensure no warnings (ticklers) exist in the event you are dispatched without a copy of the CSO.

6.1.1 Known Threats

If staff believe there is a risk of violence based on the hazards identified on the Harris tickler, then staff should contact their immediate Supervisor. The Supervisor will determine a course of action which may involve deferral of work, or police escort as an example.

6.1.2 No Known Threats

If there is no history on the customer account in the Customer Information System (NorthStar) than staff should proceed with the CSO orders as indicated. Follow these precautions since disconnect/reconnects for arrears can potentially be associated with disgruntled customers.

- When disconnecting for arrears, respectfully communicate the purpose of your visit and explain your orders to the customer. Hand deliver any written communication on behalf of Finance. Disconnect unless full payment is provided.

- When reconnecting after arrears or collecting monies after regular hours, use the buddy system:
  One employee will approach the customer's premise,
  The other employee will remain at a safe distance but in view of the coworker (witness).
- When approaching a customer's premises be aware of the surroundings and look for potential hazards (i.e. entrance is hidden, aggressive or threatening homeowner, aggressive dog, etc.).
- Plan an escape route.

- Communicate to the customer in a respectful manner that you are here to assist them in restoring their power.
- Do not enter the customer's home unless necessary to complete the connection.
- Where an on line payment has been made get an official printed confirmation that a payment has been made in amount owing.
- Where a cash collection is required use the CSO information (or direction from Finance) to collect the amount owing prior to reconnection. Use the supplied receipt book to issue a receipt to the customer for the amount paid. Deliver cash and receipt to PUC and insert in the cash lock box located in the Line Office.

Should you believe your safety is threatened do not proceed with the order and contact your Supervisor immediately.

7. References

- Health and Safety Manual - Tab 02 03 Workplace Violence Policy Tab 02 03 Workplace Violence Policy.pdf
- Health and Safety Manual - Tab 02 03 Workplace Violence Policy I:\HEALTH and SAFETY MANUAL\Tab 06 11 Workplace Violence Program 2014.pdf

Approved:	Manager Line Operations	Date
	Gary Aitken	2016-09-27

Appendix A – Sample of CSO with Tickler Warning & Receipt

13-09-2016 PUC SERVICES INC.
1
Page:1 **Reprint**

C U S T O M E R S E R V I C E O R D E R

Customer : 106537 Landlord :
Account : 36106-01 MARY M A BRENNAN
Service : 768 AIRPORT RD
Sault Ste. Mari SAULT STE MARIE ON P6A 5K6
Cyc/Rte/Walk: 840 1 750 Note: ADDED TICKLER RE:DOG Lot/Plan:
NetCodeElec : E Keys :
Elec.MetrLoc: 9049 Transformer Location :
Warning : AGGRESSIVE DOG LOOSE/CUST WAS VERBALLY ABUSIVE TO PUC STAFF

Order Code : GSAFTY-PERSONNAL SAFETY CONCERN No: 716450 Sch.D:26-05-2014
Caller : MARY M A BRENNAN Priority :
Created By : jrobert on 26-05-2014 09:49 Phone : (705)779-2713
Call Status : C COMPLETE Assigned To :

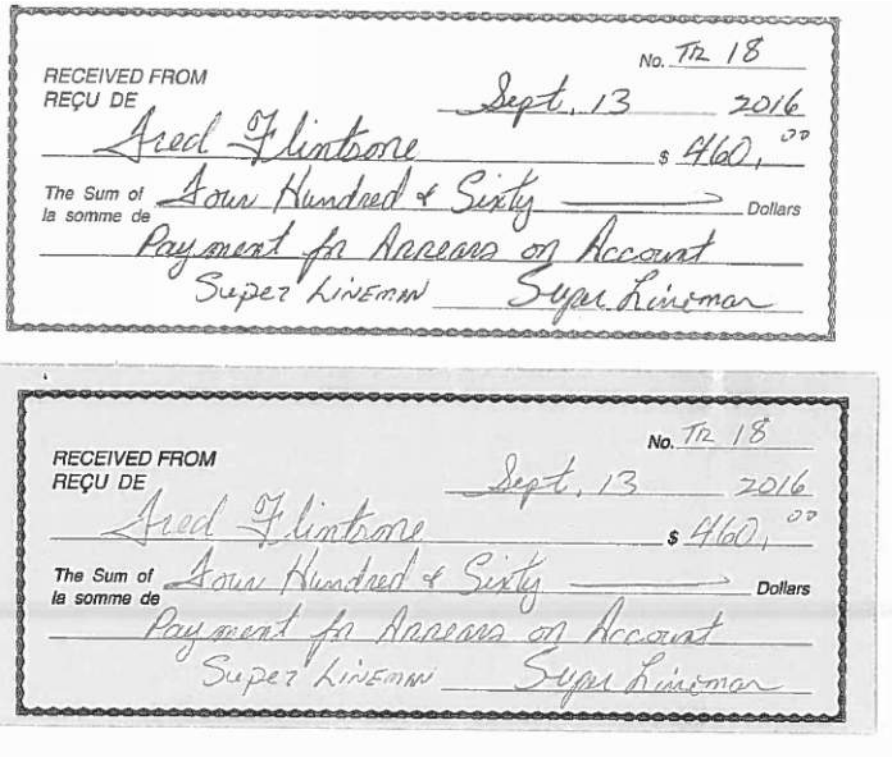
----------SCHEDULED NOTES----------

LINE DEPT WAS HERE ON MAY 7 (4-12) TO RECONNECT
CUSTOMER WAS VERBALLY ABUSIVE TO STAFF AND THERE WAS AN
ANGRY AND AGGRESSIVE DOG LOOSE

Date: _____ Signature:_____

Order _____ Service _____ Cost _____ Records _____ Input _____

----------COMPLETION NOTES----------
COMMENTS AND TICKLER ADDED - J.ROBERT



No. TR 18

RECEIVED FROM
REÇU DE Fred Flintsone Sept. 13 2016

$ 460.00

The Sum of
la somme de Four Hundred & Sixty Dollars

Payment for Arrears on Account

Super Linesman Super Lineman

No. TR 18

RECEIVED FROM
REÇU DE Fred Flintsone Sept. 13 2016

$ 460.00

The Sum of
la somme de Four Hundred & Sixty Dollars

Payment for Arrears on Account

Super Linesman Super Lineman

1. **Purpose**
   The purpose of this Standard Operating Procedure (SOP) is to ensure that staff consider isolation and de-energization as the most effective barrier to protect themselves from electrical contacts.

2. **Scope**
   This SOP shall apply to work by PUC Services staff on PUC's distribution system (< or = to 35 kV) or the municipal streetlight system while in proximity to any transmission circuits.

3. **Definitions**

   Transmission Circuits- Circuits carrying nominal voltages in excess of 50kV.

   UWPC- Utility Work Protection Code

   Qualified Staff – PLT journeypersons or apprentices that have successfully completed 2nd year of the PLT Apprenticeship program.

   Emergency- A situation that requires immediate action to prevent serious adverse effects on the health and safety of employees, the public or the environment. An emergency may be the result of uncontrolled explosions, fires, releases of hazardous materials or natural disasters.

4. **<u>Procedure for Work in Proximity to Transmission Circuits</u>**

   4.1 **General; other than the exceptions described in 4.4 below,** PUC does ***not authorize*** any of its workers to encroach within 10' of equipment energized above a nominal voltage of 35kV and 15' above a nominal voltage of 150kv. This would be consistent with the OHSA minimum (safe limits of approach for personnel and mobile work equipment) as defined in EUSR rule # 129. If your work plan may cause you, your equipment, tools or material to encroach within OHSA minimum of equipment energized above a nominal voltage of 35kV you will, ***in consultation with your department supervisor***, follow the procedures outlined in 4.2 or 4.3 below.

4.2 ***De- Energized Transmission Circuits***

1. Obtain authorization for work from PUC Line Supervisor and owner of transmission circuit. Apply to PUC system operator for a work permit in accordance with UWPC.
2. PUC system operator will obtain a supporting guarantee with de-energization from the controlling authority of the foreign organization.
3. PUC system operator issues PC2 work permit.
4. Crew may proceed with work plan and allow encroachment to the de-energized transmission circuit up to a limit of 6" in order to minimize potential mechanical damage to the transmission circuit.

   NOTE: In addition to other UWPC requirements, it is the holder's responsibility to ensure that adequate de-energization is accomplished as per UWPC rule #7.021and EUSR# 119.

4.3 *Unplanned Work in Proximity to Energized Transmission Circuits*

When unplanned work must be performed and de-energization under 4.2 is not possible within a reasonable timeline, encroachment up to the limits of approach for an *authorized worker* (excluding the restricted zone) will be allowed provided the following steps are taken;

1. Obtain authorization for work from owner of the transmission circuit.
2. A documented tailboard including job steps plan will be reviewed and approved by Line Supervisor.
3. PUC Line Supervisor shall attend and remain on site until all work in proximity to the energized transmission circuit is complete.
4. A dedicated observer will be assigned for this work.
5. Vehicle and worker positioning should be such as to minimize any inadvertent movement that may cause encroachment of the safe limits of approach.
6. Validate approximate clearances from an aerial perspective on site according to the proposed setup.

Exceptions to 4.1 Above

4.4 Emergency Work in Proximity to Energized Transmission Circuits

This specific exception to 4.1 above will only be in the case of emergencies and in accordance with EUSR rule # 111 (3)(4) which state;

Should an emergency make it necessary to deviate from these safety rules, the worker(s) performing the work shall take every precaution reasonable in the circumstances to protect all workers and the general public by maintaining a safe work environment.

If a worker takes immediate action in an emergency to safe guard life or property, it must be followed promptly with a report to his/her supervisor, stating the actions taken and the reasons for it.

Appendix A – EUSR Rule 129 Limits of Approach (Authorized Worker)

For Authorized Workers:

- Only ***authorized workers*** or ***workers*** under the continuous direction of an ***authorized worker*** may approach, work or allow material or conductive tools to approach exposed ***energized*** electrical ***apparatus*** to limits stated.
- In planning the task to be performed, consideration must be given to the ***worker***'s position in relation to the exposed ***energized apparatus*** such that movements of the ***worker***'s body or conductive tools, material or vegetation will not result in any encroachment upon these limits.

LIMITS OF APPROACH
Maintain Maximum Clearances and Install Barriers Where Practical

	Personnel Zones			Mobile Work Equipment		
Voltages	OHSA Minimum	Authorized Worker	Restricted Zone	OHSA	Non-Insulated Booms	Certified Insulated A.D.
750V to 15kV	>3.0m (10 ft.)	>0.9m (3 ft.)	0.9m to 0.3m (3 ft. to 1ft.)	>3.0m (10 ft.)	>0.9m (3 ft.)	>0.3m (1 ft.)
>15kV to 35kV			0.9m to 0.45m (3 ft. to 1.5 ft.)			>0.45m (1.5 ft.)
>35kV to 50kV		>1.2m (4 ft.)	1.2m to 0.6m (4 ft. to 2 ft.)		>1.2m (4 ft.)	
>50kV to 150kV		>1.5m (5 ft.)	1.5m to 0.9m (5 ft. to 3 ft.)		>2.4m (8 ft.)	>0.9m (3 ft.)
>150kV to 250kV	>4.5m (15 ft.)	>2.1m (7 ft.)	2.1m to 1.2m (7 ft. to 4 ft.)	>4.5m (15 ft.)	>3m (10 ft.)	>1.2m (4 ft.)
>250kV to 550kV	>6.0m (20 ft.)	>3.7m (12 ft.)	3.7m to 2.75m (12 ft. to 9 ft.)	>6.0m (20 ft.)	>4.6m (15 ft.)	>2.75m (9 ft.)
SYMBOLS ≤ less than or equal to > greater than < less than				cranes, power shovels, back hoes, mech. brush cutter	RBD, aerial ladder, work platform, uncertified aerial device	certified and tested by ***certified laboratory***

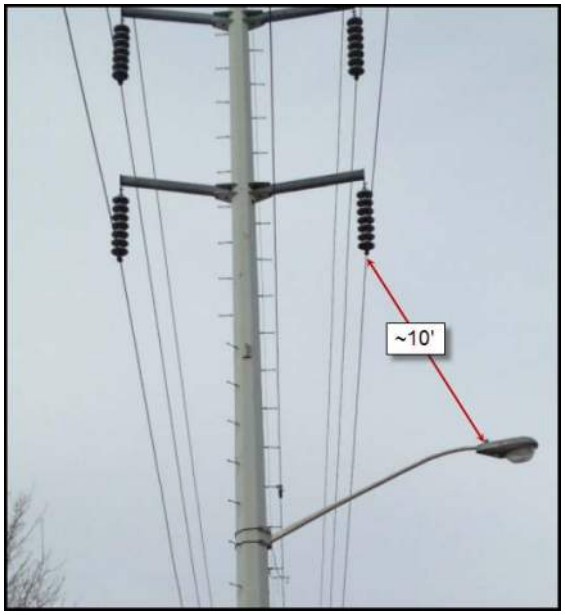
Approved:	Manager Line Operations	Date
	Gary Kilian	Jan. 26, 2016

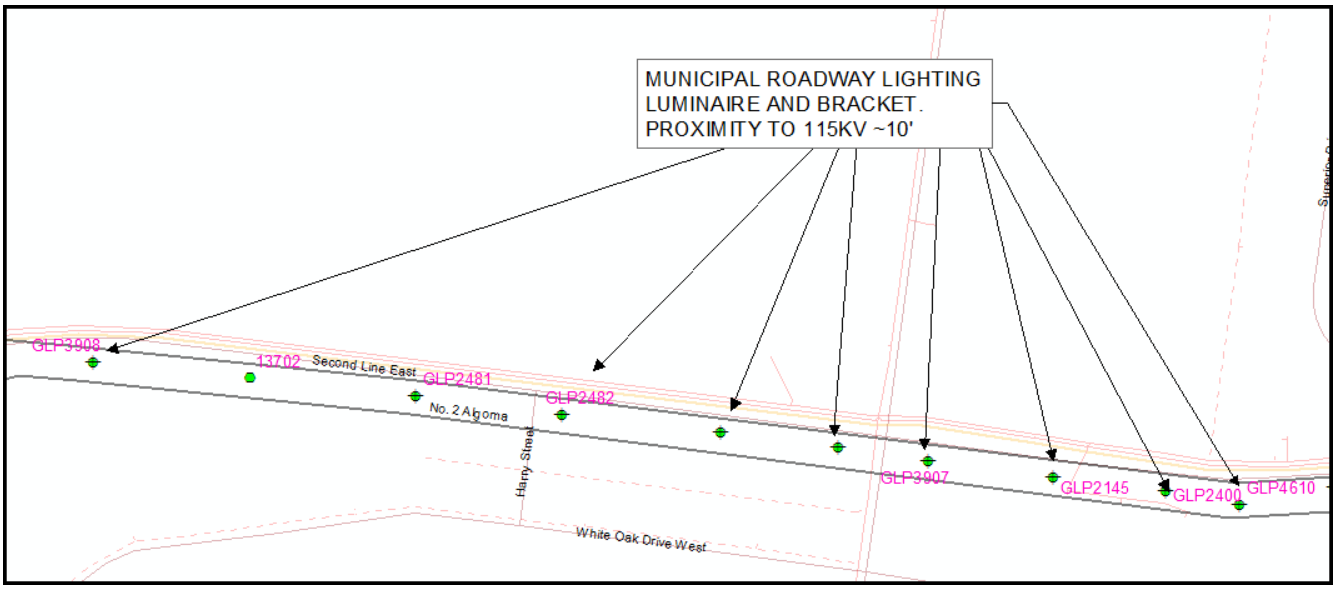
Proximity limits 10'or less

1- Municipal Street lights mounted on GLPT structures with proximity limits within 10' to transmission 115 KV CCTS

Second Line East (Sackville Rd. to Carmen's Way)

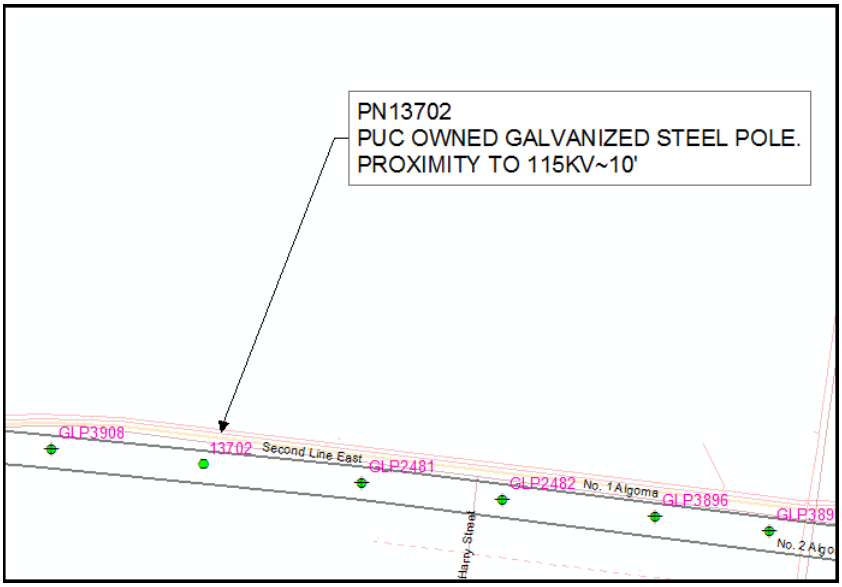
- GLP4610
- GLP2400
- GLP2145
- GLP3907
- GLP3898
- GLP3896
- GLP2482
- GLP3908





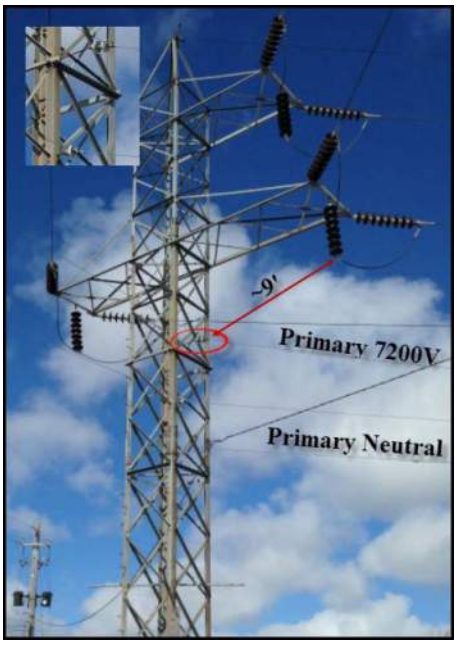
2- PUC Owned galvanized steel pole PN13702

- Proximity to 115KV~10’

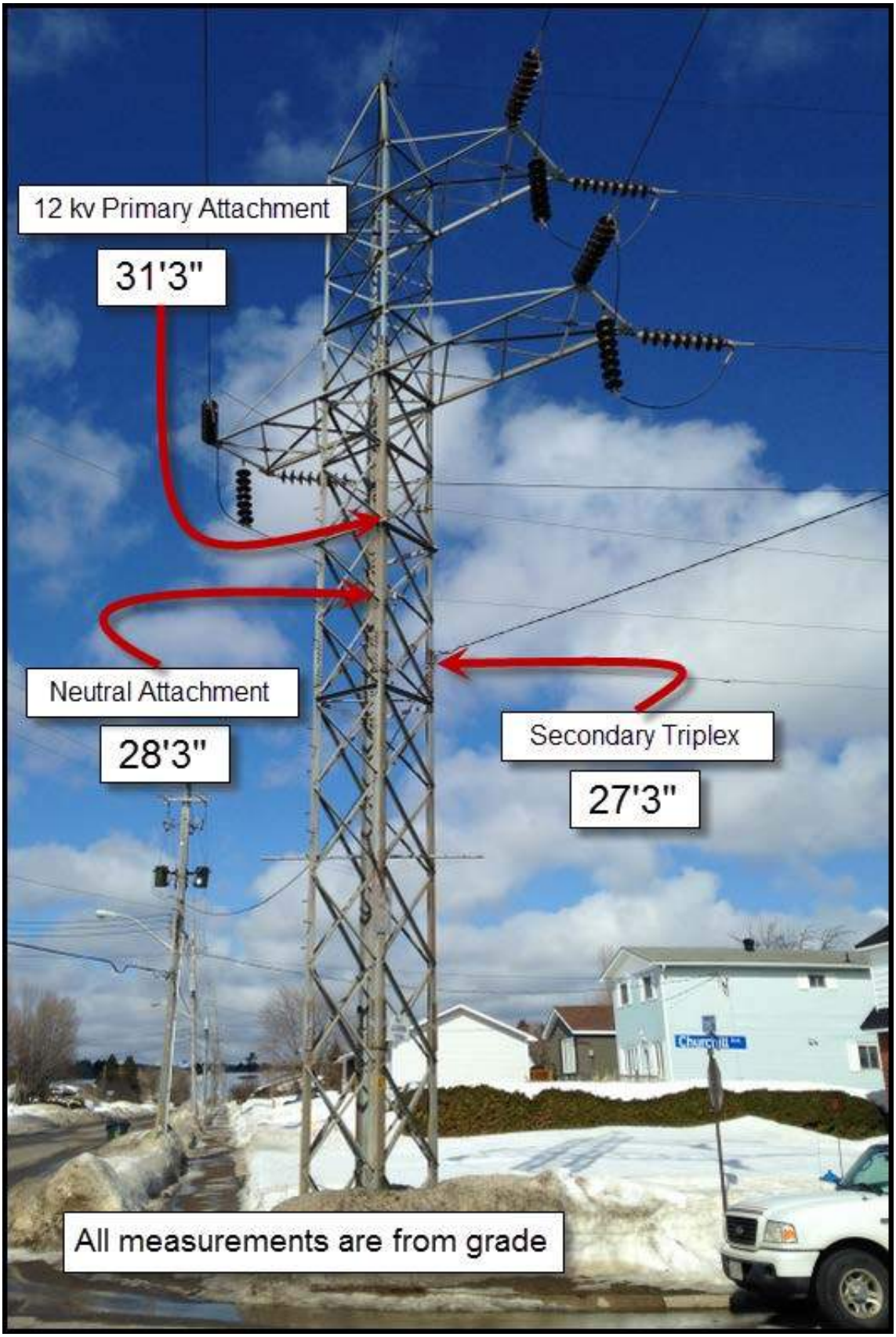


3- Primary conductor attached to GLPT Structure. GLP3538

- Primary proximity limits less than 10’

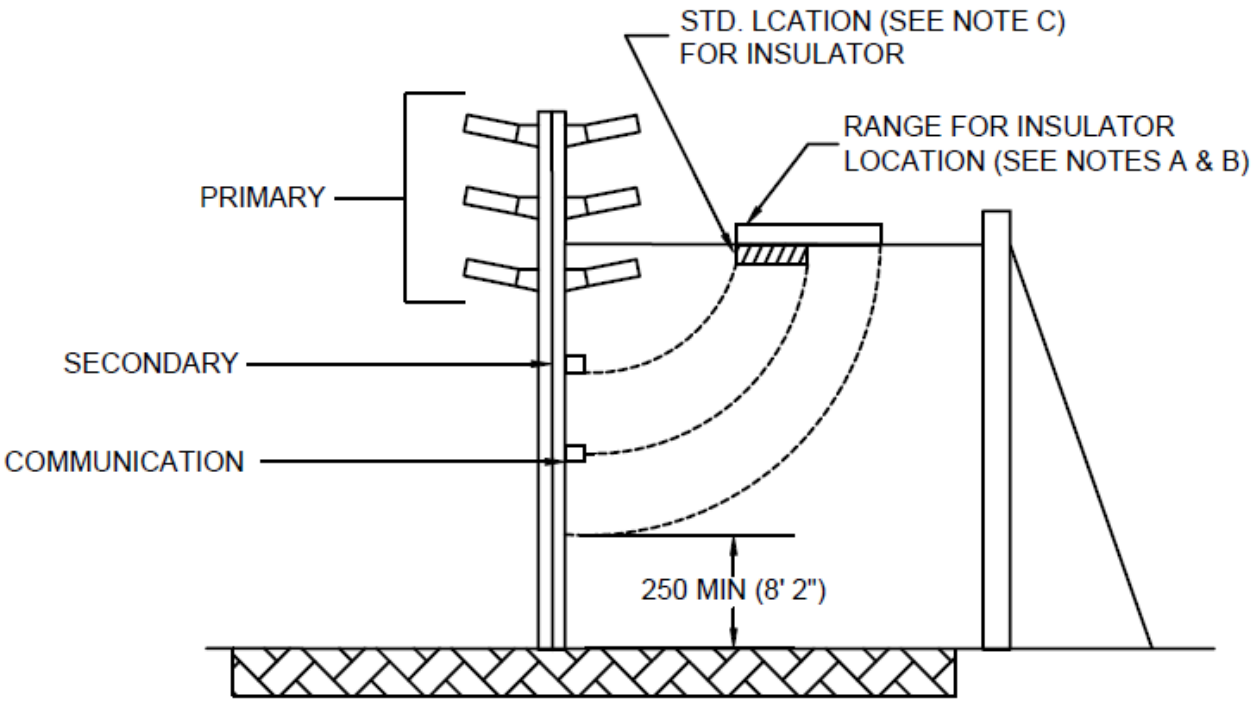


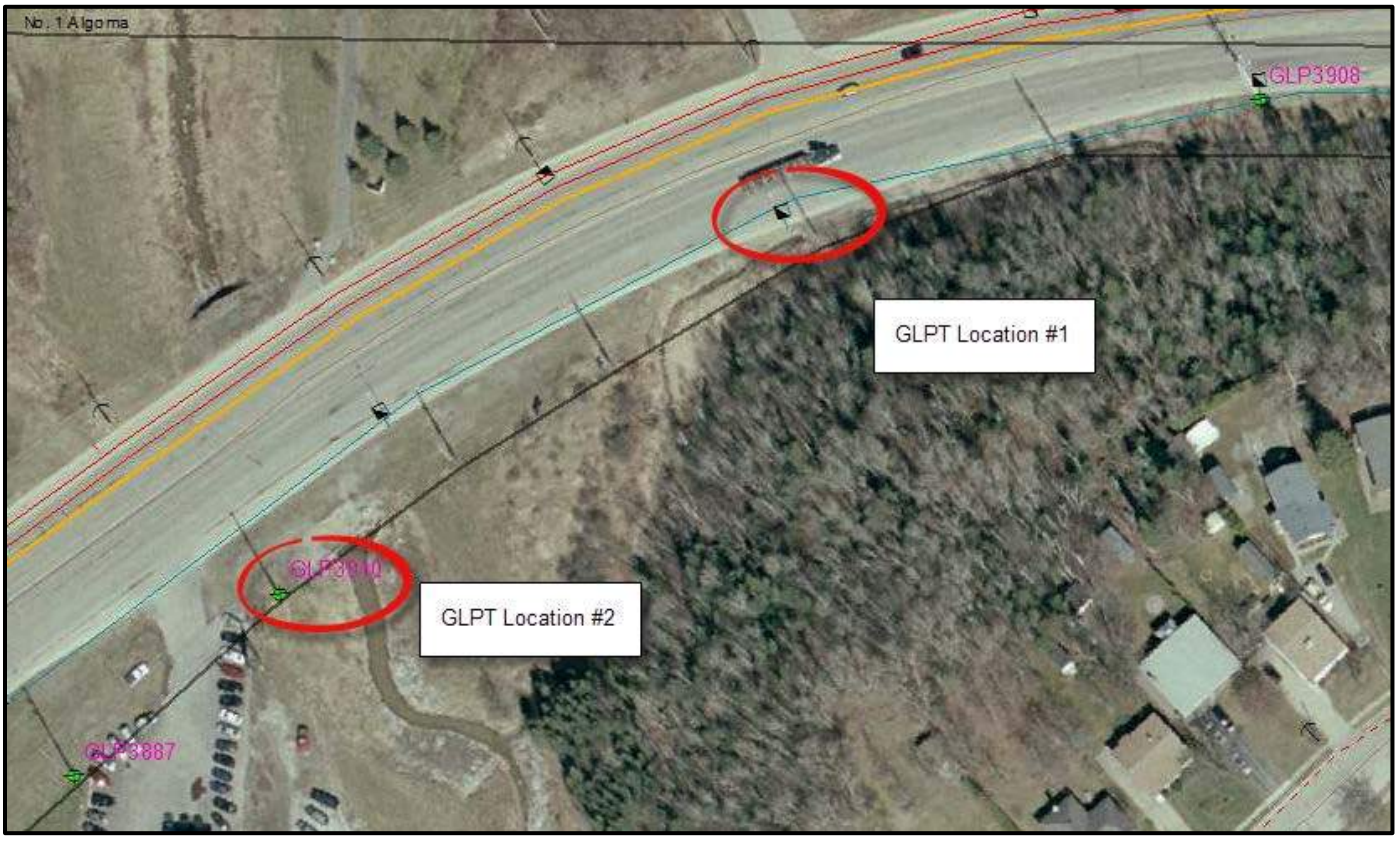
Clearance issues may be rectified through line redesign or structure reframing.



GLPT *Safety Awareness*

Guy strain insulators do not appear to be in correct location as per USF standard 06-105. May require verification to transmission standards.





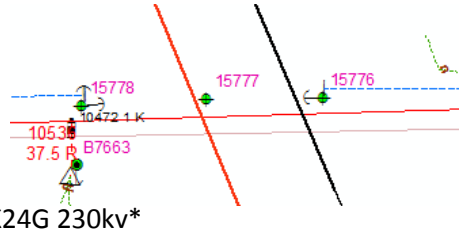

Location #1
Current Guy Strain
Insulator location


Location #2
Current Guy Strain
Insulator location
GLP 3910

Areas where PUC distribution CCTS intersect with GLPT CCTS (Perpendicular crossing, parallel, Interspaced/Attached,)

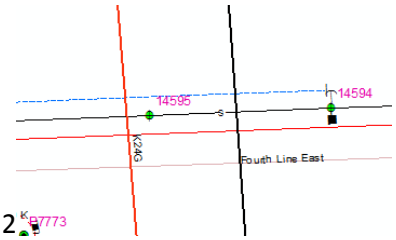
1- Fifth Line East (Perpendicular crossing) *No. 3 Sault 115kv & K24G 230kv*

- CCT 1601 (12kv)
- 3 Phase Cross arm framing



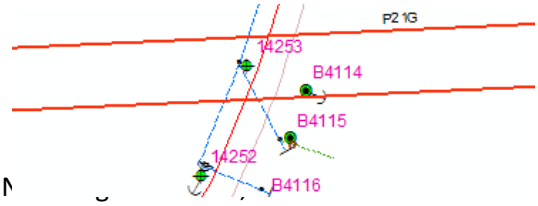
2- Fourth Line East (Perpendicular crossing) *No. 3 Sault 115kv & K24G 230kv*

- CCT 1601 (12kv)
- 3 Phase Cross arm framing



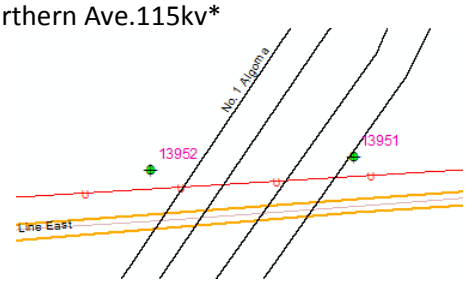
3- Old Garden River Rd. (Perpendicular crossing) * K21G 230kv & K24G 2

- CCT 1603 (12kv)
- 3 Phase Cross arm framing



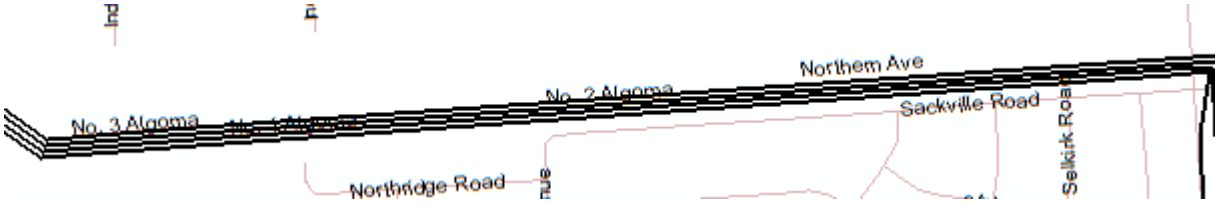
4- Third Line East (Perpendicular crossing) *No. 1 Algoma 115kv, N
No. 3 Algoma115kv, & Northern Ave.115kv*

- CCT TA7 & CCT TA10 (35kv)
- 3 phase bundled Hendrix cable



5- Sackville Rd. Second Line to Third Line (parallel) *No. 1 Algoma 115kv, No. 2 Algoma 115kv,
No. 3 Algoma115kv, & Northern Ave.115kv*

- CCT 1604 (12kv)& TA10 (35kv)
- 3 Phase Armless framing

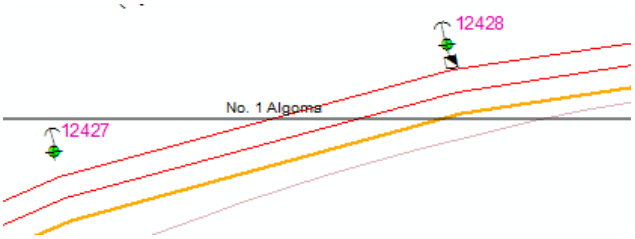


6- Northern Ave. to Fort Creek (attached to structure) *No. 1 Algoma 115kv & No. 2 Algoma 115kv*

- Municipal street lights mounted on GLPT structures
- GLP4609, GLP4615, GLP4610, GLP2400, GLP2145, GLP3907, GLP3898, GLP3896, GLP2482, GLP2481, GLP3908,

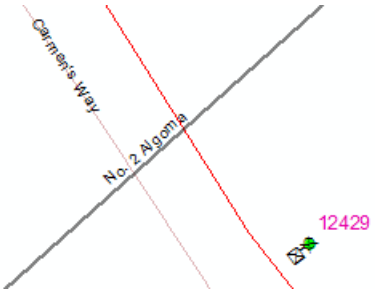
7-Second Line East @ Fort Creek (Perpendicular crossing) *No. 1 Algoma 115kv*

- CCT1301 (12kv) & CCT1302 (12kv) & TA10 (35kv)
- 3 Phase Armless framing



8- Carmen's Way (south of Second Line East) (Perpendicular crossing) *No. 2 Algoma 115kv*

- CCT1302 (12kv)
- 3 Phase Armless framing

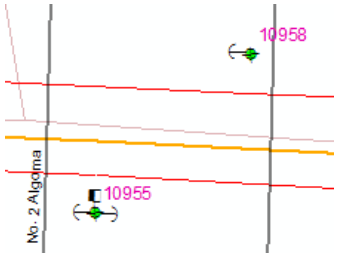


9- Short St. @ Bainbridge (parallel) *No. 2 Algoma 115kv*

- CCT 1303 (12kv)
- Single Phase

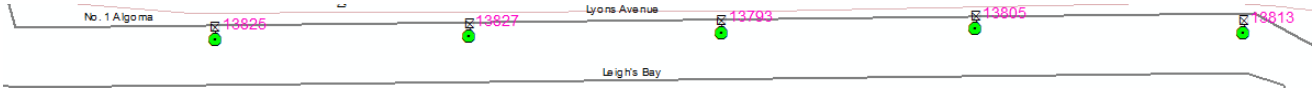
10- Conmee Ave. @ Lennox Ave. (Perpendicular crossing) *No. 1 Algoma 115kv & No. 2 Algoma 115kv*

- CCT1303 (12kv) & CCT1304 (12kv) & TA10 (35kv)
- 3 Phase Cross arm framing



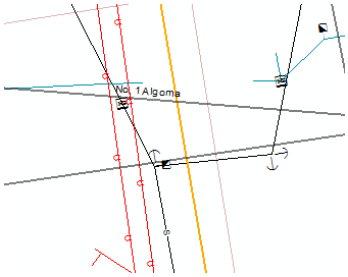
11- Lyons Ave. (Patrick St. to Farwell Terr.)(Parallel) *No. 1 Algoma 115kv & Leigh's Bay 115kv*

- Municipal street light poles parallel to transmission cct.
- Proximity greater than 10'



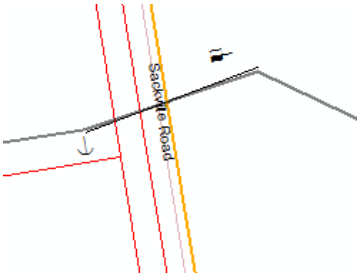
12- Sackville Rd. (South of Second Line) (Perpendicular crossing) *No. 1 Algoma 115kv & No. 2 Algoma 115kv*

- TA9 (35kv)
- 3 Phase Armless framing



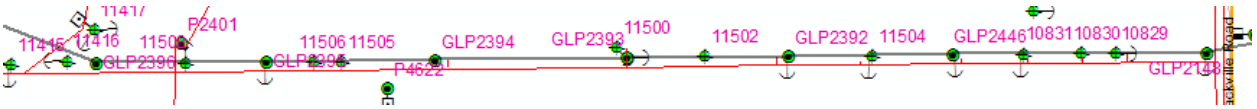
13- Sackville Rd. (Perpendicular crossing) *No. 3 Algoma 115kv*

- TA9 (35kv)& CCT2002 (12kv)
- 3 Phase Armless framing



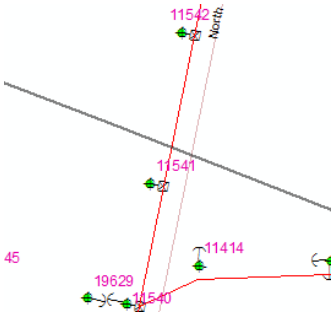
14- White Oak Dr. (Rear right of way) (Interspaced/Attached)*No. 3 Algoma 115kv*

- Interspaced poles, support hardware also on GLPT structures
- CCT2002 (12kv)
- 3 Phase Cross arm framing



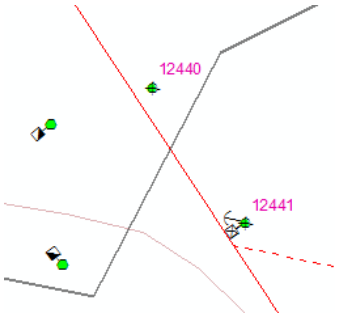
15- North St. (north of Bainbridge) (Perpendicular crossing) *No. 3 Algoma 115kv*

- CCT2001 (12kv)
- 3 Phase Cross arm framing



16- John St. (@ Carmen's Way) (Perpendicular crossing) *No. 3 Algoma 115kv*

- CCT1302 (12kv)
- 3 Phase Cross arm framing

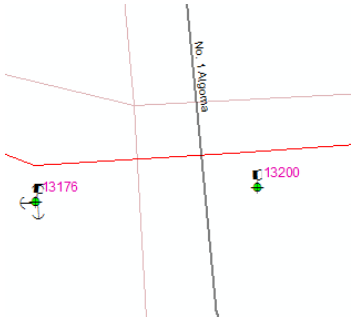


17- Hudson St. (Cathcart – Queen) (Parallel/Attached) *Hudson Street 115kv & No.1 Clergue 115kv*

- Municipal Street lights mounted on GLPT structures (GLP1099, GLP322, GLP272, GLP273)
- Municipal Street lights below Transmission CCT's (00043, 00044)
- Proximity to 115kv greater than 15'

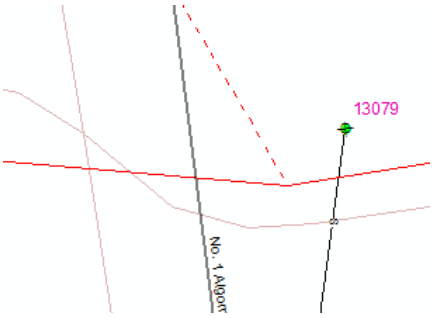
18- Wallace Terr. @ Farwell Terr. (Perpendicular crossing) *No. 1 Algoma 115kv*

- CCT1303 (12kv)
- 3 Phase Cross arm framing



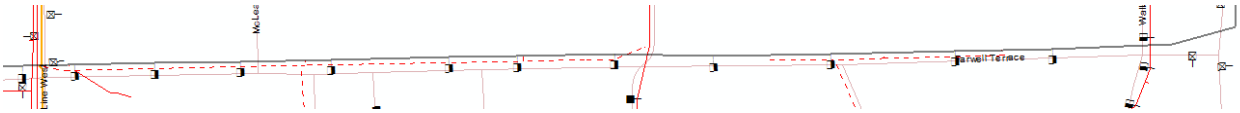
19- Farwell Terr. @ Henrietta.) (Perpendicular crossing) *No. 1 Algoma 115kv*

- CCT1303 (12kv)
- 3 Phase Cross arm framing



20- Farwell Terr. (Second Line W. to Wallace Terr. (Interspaced/Attached) *No. 1 Algoma 115kv*

- Interspaced poles, support hardware also on GLPT structures
- CCT 1302 (12kv) CCT 1303 (12kv)
- 1 Phase

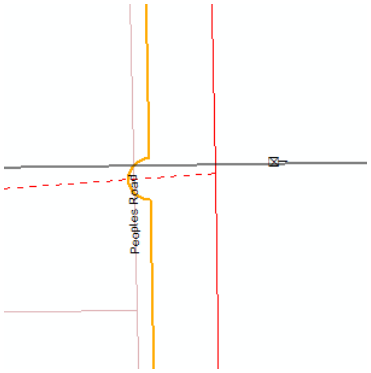


21- Churchill Ave. (Farwell Terr. to Peoples Rd.) (Interspaced/Attached) *No. 1 Algoma 115kv*

- Interspaced poles, support hardware also on GLPT structures
- CCT 1301 (12kv)
- 1 Phase

22- Peoples Rd. @ Churchill Ave. (Perpendicular crossing) *No. 1 Algoma 115kv*

- TA10 (35kv) & CCT1301 (12kv)
- 3 Phase Armless framing



1. Purpose

Pole replacement is a frequent occurrence on PUC's Distribution System. Many of these poles are joint use with other utilities which can cause delays in the removal of the old pole due to the requirement of the third-party transferring their plant to the new pole. Having a consistent process for third-party transfers is essential to ensure that old pole butts are removed in a timely manner.

The purpose of this SOP is to describe the process to be used to request transfer of third-party plant, track the status of third-party transfers and organize the removal of pole butts when poles are replaced.

2. Scope

This procedure identifies the process of requesting and tracking third-party transfers as well as issuing work instructions for removing pole butts after third-party transfers are complete. It provides a detailed description of the roles and responsibilities of staff in Line Operations and Operations Assistant.

3. Process

Refer to Appendix A – Third Party Transfers - Pole Removal Process – Level 2 Process Map, to assist in understanding the relationship of the steps below.

Springboard Training Reference Documents

SOP Step	Responsibility	File Name	TE #
53-006-2	Ops Assistant	Third Party Transfer Entries	2028685
53-006-3	Ops Assistant	Outstanding Transfers (monthly)	2028683
53-006-13	Planner	Manage database and Cayenta WO	2028737

Below is a detailed description of the process map located in Appendix A1. It is each individual's responsibility to ensure all tasks identified to them are completed. To aid in understanding one's responsibilities, refer to the training reference documents in Springboard listed above.

The database which will be referred to throughout this process is the Pole Pull Database (Third Party Transfer). It can be found in the following location:
I:\Third Party Transfers\Pole Pull Database (Third Party Transfers).accdb
Note: Only specific users have been set up with access to the database to maintain its integrity.

53-006-1 The Operations Assistant:

Receives information that Third Party Transfer is required, has been completed or requires review (FWR, Pole Change Report or other correspondence).

a. Third Party Transfer is required – Create record in database as per 53-006-2.
b. Third Party Transfer has been completed.
    i. Search the database for the appropriate pole# or address, and update the Transfer Complete Date for the third party.
c. Pole has been pulled. No transfers required.
    i. If correspondence indicates that a pole has been pulled, follow steps outlined in 53-006-02 “b” and “c”.
    ii. Fill in the Completed By and Completed Date section on the database.
    iii. Sign initials on the FWR that the pole pull database has been updated.
d. Pole Change Report – Received monthly from Operations Assistant.
    i. Search Pole Pull Database for each pole listed on the report. New poles do not need to be searched.
    ii. Note all omissions from the database on the report.
    iii. Send to Line Ops Planner for follow up.
    iv. Add missing poles to database once confirmed by Planner. Those that are ready to pull – Ensure the status changes to “Ready to Pull” by selecting “Yes” next to any third party, and a Completion date.

53-006-2 The Operations Assistant:

Fill in Third Party Transfer Record form in database and advise Third Party of Transfer.

[See Springboard Reference List for Steps]

a. If any applicable boxes are checked on the field work record, or if any other correspondence is received, the Operations Assistant will update this information into the Pole Pull Database (Third Party Transfers).
   Note: The FWR may include multiple locations which, each pole must be entered as separate records.
b. Search the Pole Pull Database for the applicable pole # and/or location to ensure that it is not a duplicate record. If it has not already been entered, add the Address, closest cross-street, pole #, date reported, indicate if it is a rear lot and select the appropriate priority if it has been indicated.
   *If this information is not all included on the FWR or was not provided by any other means, the Operations Assistant shall utilize the GIS and/or Google maps to find this information.
c. If the record has already been added, ensure that all information is listed as noted in step b. Update as needed.
d. In the Date Reported field, enter the date on the FWR or the date that you were notified of the transfer.
e. If the transfer is required due to an accident, fill in the Accident (Y/N), Originating WO and Incident No. fields. Ensure to provide this information to appropriate Third Parties.
f. Enter “Yes” beside each applicable Third Party who requires transfer.
g. Include any work instructions, restoration details or additional location information listed on the Field Work Record or that has been provided.

h. Send an email to the required Third Party using Outlook Third Party Transfers "Quick link" advising of the required transfer. (See Appendix C)
i. Enter "today's date" beside each applicable Third Party who requires transfer after sending the quick link email.
j. Sign your initials on the FWR that the pole pull database has been updated.

53-006-3 The Operations Assistant:

Sends Report to Third Parties advising of outstanding Plant Transfers (monthly). [See Springboard Reference List for Steps]

a. On a monthly basis (first Monday of the month), the Operations Assistant will run each Outstanding Transfers Report and issue using the Outstanding Transfers "Quick Link" set up on Outlook to the required parties for each Third Party.
b. After the reports have been sent, run the "Transfer Notification Not Made" report in the database. Update any missing "Date Contacted" fields on the main for with today's date. Note: Once the date has been filled in, these records will disappear from this report.

53-006-4 Third Party to:

Receive information and transfer plant to new pole.

a. Transfer plant to new pole.
b. Contact PUC with any information regarding a delay in work

53-006-5 Third Party to:

Inform PUC that plant has been transferred to new pole.

a. Send an email to the Operations Assistant and Line Planner advising of the completed transfers.

53-006-6 The Operations Assistant to:

Receives information from Third Party that plant has been transferred.

a. Updates the Third Party Transfer Record Form on the Pole Pull Database with the date which the transfer has been completed.

53-006-7 The Planner:

Receive list of omissions in Pole Change Report from Operations Assistant.

a. Determine if the pole should be in the pole pull database.
    i. New poles will not be added.
    ii. Conduct site visits and review of FWR's in Engineering as required.
b. Provide list to the Operations Assistant to update the database if updates are required.
    i. Include: Pole #, Location, who requires transfer or if pole ready to pull.

53-006-8 The Planner:

Does a plant inspection and finds a pole that still has plant on it.

a. Compile list of outstanding transfers discovered during annual plant inspection.
    i. Provide list to the Operations Assistant to update the database.

53-006-9 The Line Department Supervisor to:

Observe or receive customer call that pole still has plant on it or pole needs to be pulled.

Assess and Email Operations Assistant/CC Clerk with follow up.

a. Supervisor will assess or request Planner to assess the priority of the pole in question.
    i. Check to see if the pole has been tracked in database.
    ii. If pole has already been added to the database, it will be placed in a higher priority if customer complaint was received.
    iii. Add note to work instructions indicating date and nature of complaint.
    iv. Based on the assessment, the database will be updated, an explanation will be given to the customer, third party will be contacted to advise of urgency of transfer and North Star call will be logged.
b. Provide list to the Operations Assistant to update the database if required.

53-006-10 The Lead Hand to:

Line Crew replaces pole.

a. Lead Hand receives work order package and executes work.
b. Replace Pole.

53-006-11 The Lead Hand to:

Provide Third Party Transfer Information to Operations Assistant.

a. When a pole is replaced, if removal cannot be facilitated due to third party plant being attached to it, then the Lead Hand will provide the closest civic address, pole #, transfer instructions and the third parties who require transfer to the Operations Assistant by means of FWR
   Note: Multiple poles can be listed on a single FWR if the same Third Party transfers are required for each.

53-006-12 The Planner to:

Create monthly poles to pull Work Order in Cayenta.

a. Reviews the Pole Pull Database on which poles are ready to pull.
b. Creates monthly work order in Cayenta by adding a line to the annual work order that has been set up for tracking.
c. The status of the WO should be “APPROVED”

53-006-13 The Planner to:

Manage database for pole pulling and Cayenta Work Order.
[See Springboard Reference List for Steps]

a. Open the Pole Pull Database.
b. Review the Poles Ready to Pull (rear and/or front lots) report and determine poles to assign. Review entry date, or comments that may indicate if it is a high priority.
c. Open the “Assign Monthly Work Order” Form on the Planner tab and add the appropriate work order and line item to each pole to be pulled in the Pole Pulling WO column.

d. Open the "Monthly Pole Pulling List" and select the appropriate Work Order # from the drop down list.
e. Print the report.

53-006-14 The Planner to:

Prepare Work Order Package & File

a. In Cayenta, change the status of the Work Order Line to "ISSUED".
b. Print Cayenta work order and stamp Field Copy.
c. Attach the Monthly poles ready to pull report from Pole Pull Database.
d. Create a folder.
e. Add Work Order to Line Schedule spreadsheet. Set status to "READY".
f. Provide Work Order package to Line Supervisor for scheduling.

53-006-15 The Line Department/Supervisor to:

Schedule and assign work to crew.

a. Change the status of the Work Order Line to "SCH" in Cayenta.
b. Schedule work in Line Scheduler and change status to "SCHEDULED".
c. Pull Work Order package from filing cabinet and put in the appropriate Lead Hand's slot.
d. On the date that work is to begin, change the status in Cayenta and Line scheduler to "WIP".

53-006-16 The Lead Hand to:

Receives monthly WO package with poles ready to pull list and pulls poles.

a. Lead Hand receives work order package and executes work.
b. Fill out Restoration Report for each pole location that requires restoration.

53-006-17 The Lead Hand to:

Fills out FWR's and returns completed monthly poles ready to pull list to Supervisor.

a. Fill out FWR listing the pole #'s that have been pulled along with the WO and Line # from the Work Order package.
b. Return completed pole list to Supervisor along with signed off work order line.
c. If the pole cannot be pulled, this information should be recorded on the Monthly Pole Pulling List and returned to the Supervisor.

53-006-18 The Line Department Supervisor to:

Review Daily Paperwork

a. Forward Pole Pulling Work Order package to Planner

53-006-19 The Planner to:

Update the Pole Pull Database.

a. Search the database for the appropriate record, and add the Completed Date and Completed By field with the name of the Lead Hand who completed the pole pulling.
b. Recycle the Pole Pulling List and forward FWR & field copy of WO back to Supervisor.
c. Change status in Line Schedule to "COMPLETE"

53-006-20 The Line Department Supervisor to:

Close Work Order line in Cayenta.

a. Supervisor to Close the appropriate Work Order Line in Cayenta
b. Photocopy Field Copy of Work Order and put in the Closed Work Order binder.
c. Change status of WO to CLOSED on Line Schedule
d. Forward Field Copy to Engineering
e. Forward FWR to Operations Assistant

4. Appendices

Appendix A – Line Operations Pole Removal Process - Process Map
Appendix B – Pole Pull Database (Third Party Transfer) Main Form
Appendix C – Quick Link Email: Transfer Services

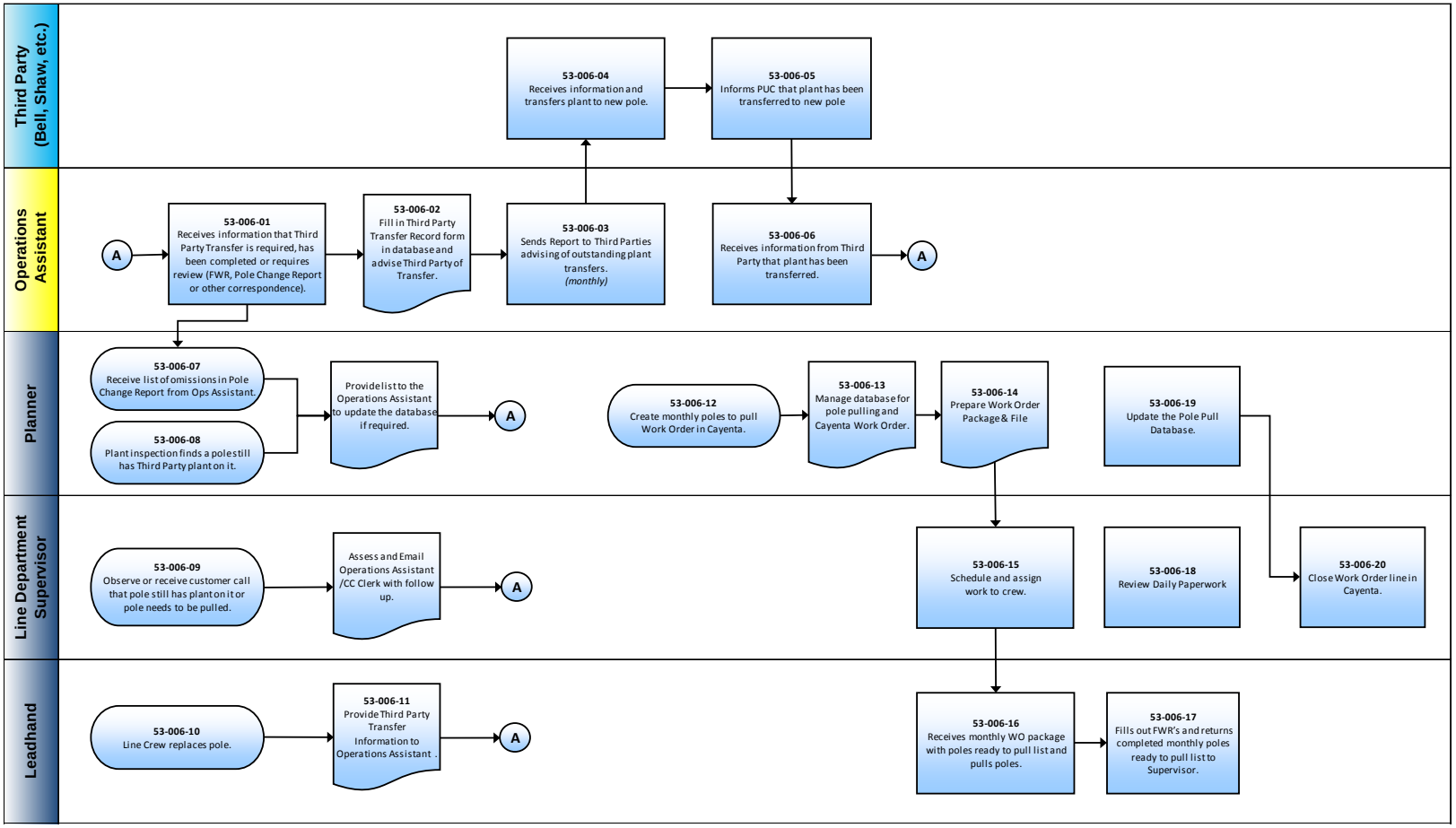
Approved:	Manager Line Operations	Date
	Al Cannard	2017-10-30

Revision History:

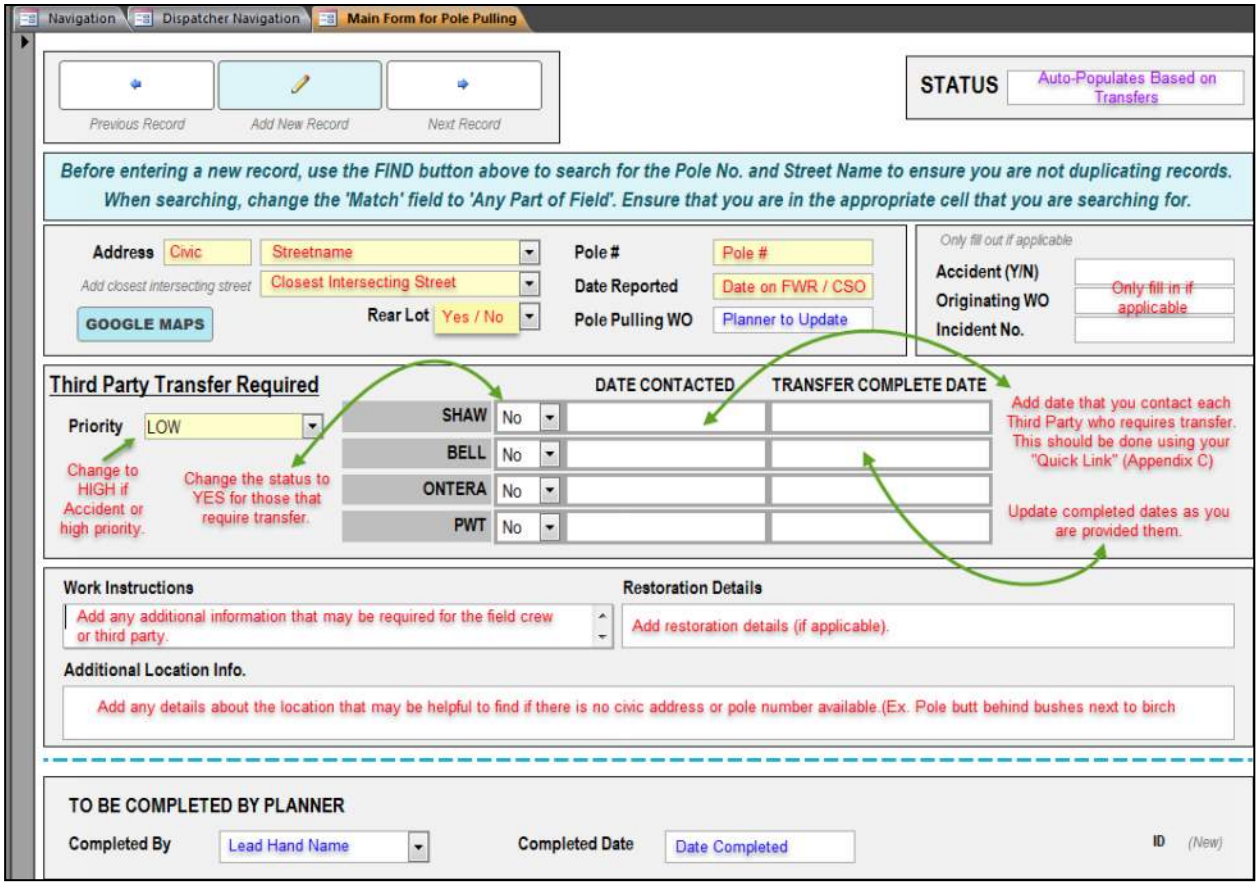
NOTE: A red line on the right side of document indicates a change		
Revision #	**Date**	**Description**
1	2017-10-30	Removed reference to Dispatch position. Operations Assistant is now handling these responsibilities. Red lines not added.

Appendix A – Pole Removal Process - Process Map and Details

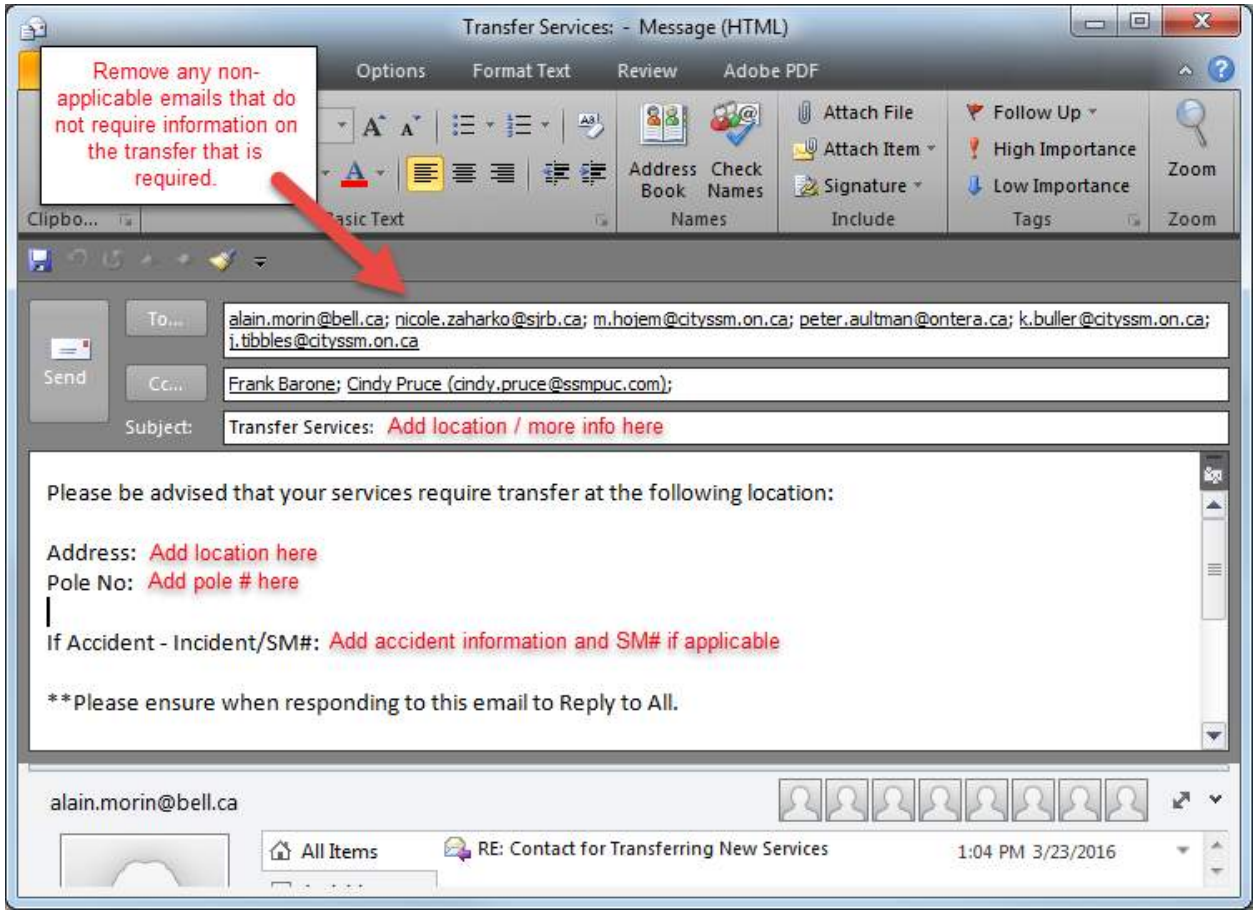
Third Party Transfers - Pole Removal Process - Level 2 Process Map



Appendix B – Pole Pull Database (Third Party Transfer) Main Entry Form



Appendix C – Quick Link Email: Transfer Services



1. Purpose

The majority of work performed in Line Operations requires the use of standard or specialized tools. This procedure has been developed to ensure that the proper tool is available to the Line Operations staff in good working order when required.

2. Scope

This procedure applies to all the staff in Line Operations, for all the tools purchased that are designed for the performance of work on the Electrical Distribution system. It does not apply to individual worker's tools, fall protection equipment, vehicles, trailers, or office equipment.

3. Definitions

Tool – A device used in Line Operations to perform work, it has a unique ID number (LO number) in the Line Ops Tools Database.

Parts – Material that is used to repair a tool or maintain the distribution system. Parts are not given a unique ID number (LO number), but are tracked in the Line Ops Tools Database.

Worker – Any Line Operations staff member who uses a tool to perform work. A Worker includes, Powerline Apprentices, Powerline Technicians, Lead Hands and Work Planners.

Owner – Any Line Operations staff member who has been assigned the responsibility of ensuring that a tool is maintained in good working order and is stored in its place.

Supervisor – Line Operations Supervisors

Manager – Line Operations Manager

Tool Committee Member – A Line Operations worker who has been elected by his peers, or assigned by a Supervisor, if no one stands for nomination, to represent them regarding department tool issues.

4. Responsibility

All staff members in Line Operations have a role to play in the use, maintenance and management of tools within the department.

Specific responsibilities are outlined as follows:

Workers are responsible:

a) To use tools for their intended or accepted purpose in a responsible manner and to return them to their place after use in good working order.
b) To perform regular tool maintenance as per their training as Powerline Technicians (Appendix C).
c) To inform their Supervisor of any lost or damaged tools of which they become aware.

Owners are responsible:

a) To ensure that all the tools, on/in the truck or storage area, that are under their control are being maintained, properly used and returned after use.
b) To inform their Supervisor of any lost or damaged tools of which they become aware.

Supervisors are responsible:

a) To replace missing tools and arrange for repair of damaged tools.
b) Ensure that the Line Ops tools database is updated and administered to provide accurate data.
c) To determine the reason why a tool is missing or damaged, when they receive a missing or damaged tool report.
d) To document the details of an investigation, if an individual is responsible for the missing or damaged tool and it is found that the cause is negligence or improper use.
e) To provide training, mentoring or constructive discipline when behaviors that cause the preventable damage or loss of the tools persist.

The Manager is responsible:

a) For the overall department tool budget and authorization of all tool purchases for the department as well as the overall responsibility of ensuring the proper use and care of company tools assigned to the department.

Tool Committee Members are responsible:

a) To provide feedback to Supervisors and Manager regarding the effectiveness of the tool management SOP.
b) To conduct research and make recommendations for tool purchases and improvements to the tool management SOP.
c) To assist the Supervisor with other tool related tasks as required.
d) To participate in regular tool committee meetings and share minutes at the monthly Line Operations meeting.

5. Procedure

5.1. General

All tools shall:

- Be treated with respect
- Be returned to their regular storage place, in good working order, after use
- Be used only for their intended or accepted purpose
- Be tracked in the Line Ops Tools Database
- Be painted the color designated to their normal storage place. Be issued a unique asset identification number to be referred to as the "LO number" (**L**ine **O**ps **number**), this number shall be stamped or engraved on all major tools.

5.2. Existing Tools and Parts

All existing tools shall:

- Be inventoried and entered into the Line Ops Tools Database
- Be assigned a unique identification number referred to as the LO number.
- Be painted the color that is designated to their regular storage place
- Be permanently marked (stamped or engraved when possible) with their LO number if it is classified as a major tool

All existing Parts shall:

- Be inventoried and entered into the Line Ops Tools Database for tracking purposes

5.3. New Tools and Parts

When a new tool or part that is not currently owned by Line Operations is required or desired:

- A "Tool Request Form" (Appendix B) shall be filled out by the worker making the request and submitted to a Supervisor
- The Supervisor shall initiate the assessment process to determine whether or not the tool/part should be purchased
- A cost benefit analysis will be conducted regardless of purchase price
- Research by the requester or the tool committee may be required to gather enough information for management to approve the request
- If the cost of the tool/part is less than $100 the Supervisor may give final approval and initiate the purchase of the tool/part
- If the cost of the tool is more than $100 the Manager must approve the purchase of the tool/part
- If the tool is costly enough it may have to be requested through the budget procedure
- If a request for a tool or part is denied by a Supervisor then a worker may resubmit the denied request to the Manager

- When the new tool/part is received it shall be issued in accordance with section 5.10 or stored in accordance with section 5.9.

5.4. Lost Tools

When a Worker or Owner becomes aware that a tool has been lost they shall:

- Perform a thorough search for the missing tool
- Fill out a ”Lost or Damaged Tool Form” (Appendix A) and submit it to their Supervisor if the tool cannot be found
- Borrow a tool in accordance with section 5.6.1 if the tool is required immediately

The Supervisor shall:

- Issue a new tool in accordance with section 5.9. If a spare one is available or arrange for one to be borrowed in accordance with section 5.6.1.

5.5. Damaged Tools

If a worker attempts to use a tool and it is found to be damaged they shall:

- Fill out a lost or damaged tool form and submit it to their Supervisor
- Repair the damaged tool if they are competent to do so (see Appendix C)
- If the tool cannot be immediately repaired, fill out a green caution tag detailing the repairs required and attach it to the tool
- Deliver the tool to the repair facility or holding place as directed by the Supervisor
- Borrow a tool in accordance with section 5.6.1 if the tool is required immediately

The Supervisor shall:

- Issue a new tool in accordance with section 5.9. if the tool is not repairable and retire the damaged tool in accordance with section 5.10
- Arrange for repair of the tool and provide the worker with a spare if one is available or arrange for one to be borrowed in accordance with section 5.6.1. Change the status of the tool to “Sent for Repair” in the Line Ops Tools Database
- Ensure the repaired and spare tools are returned to their normal storage places and that the Line Ops Tools Database is updated, when the tool is repaired

5.6. Borrowing Tools

5.6.1. For Use at Work

If a worker borrows a tool from another truck because the required tool is not available on the trucks assigned to him that day due to loss, damage or not being issued, then the worker shall:

- Fill out a yellow borrowed tool tag and hang it from the steering wheel of the truck that the tool was borrowed from.

If a worker borrows a common tool from the Line Shop or Truck Garage then the worker shall:

- Fill out the Tool Log Book for the normal storage place that the tool was borrowed from.

If a worker borrows a tool from a Line Ops Storage Room (Tickle Trunk) then the Supervisor will note it on the white board on the back of the door.
Note: *If the borrower is from another department the above procedures apply.*

5.6.2. For Use at Home

If a worker or employee from another department wishes to borrow a tool for personal use outside the workplace he/she must receive approval from a Supervisor and sign it out in the “borrowed tools book” in the Line office as well as filling out the tag or log book as described in section 5.6.1.

5.6.3. Return of Tools

When the tool is returned it must be in good working order and the appropriate book updated, white board erased or tag disposed of.

5.6.4. Receiving Tools or Parts

When new tools or parts are received in Line Operations the Supervisor shall ensure that they are issued or stored and that they are entered into the Line Ops Tools Database.

5.7. Storing Tools or Parts

If a tool, that is not stores inventory, is stored as a spare then it shall:

- Be assigned an LO number
- Left unpainted and placed in a Line Ops storage room
- Be marked with its LO number if it is a major tool
- Have its status set to “Spare” and its normal storage place updated in the Line Ops Database

If a part, that is not stores inventory, is stored as a spare then it shall:

- Be placed in a Line Ops storage room or designated storage place
- Have the quantity of the part on hand counted and updated in the Line Ops Database.

5.8. Issuing Tools or Parts

If a tool, that **is not** stores inventory, is permanently issued to replace a lost or retired tool it shall:

- Have its status changed to “In Service” and its normal storage place updated in the Line Ops Database.
- Be painted by a tool committee member the colour that is designated to its regular storage place.

If a tool, that **is** stores inventory, is permanently issued to replace a lost or retired tool it shall:

- Be assigned an LO number.
- Have its status set to “In Service” and its normal storage place updated in the Line Ops Database.
- Be permanently marked with its LO number
- Be painted by a tool committee member the color that is designated to its regular storage place.

If a part, that is not stores inventory, is issued for use it shall be documented on a “LO Parts Issued form” (Appendix D) and forwarded to the Supervisor.

The Supervisor shall ensure that the Line Ops Tools Database is updated when parts are used and that the agreed upon minimum number of parts are available in their normal storage place.

5.9. Retiring Tools or Parts

If a tool has reached the end of its useful service life or it is damaged and unrepairable (but not lost) it shall be removed from service and have its status set to “Retired” in the Line Ops Database

6. Monitoring

6.1. Owner

The owner shall monitor and inventory the tools under his control as often as is necessary to fulfil their responsibilities and achieve the purpose of this SOP.

6.2. Supervisor

The Supervisor shall conduct quarterly tool and parts inventory surveys:

- The survey should occur on an inclement weather day if possible but must be conducted on the first day of each scheduled crew rotation; January, May and September of each year.
- Each owner will be given a printed list of tools and parts under his control and will report any lost tools as per section 5.5
- Workers will be divided into teams so that all trucks and storage rooms can be surveyed in a timely manner

The Supervisor shall also conduct random tool inventory surveys (using the printed list) and random tool spot checks (during crew visits) as required to achieve the purpose of this SOP.

6.3. Manager

The Manager shall audit, make recommendations and assign duties as necessary to achieve the purpose of this SOP.

7. Appendixes

Appendix A: Lost or Damaged Tool Form
Appendix B: Tool Request Form
Appendix C: PLT Tool Maintenance Skill Set
Appendix D: LO Parts Issued Form
Appendix E: Borrowed Tools Tag
Appendix F: Process Maps

Appendix A – Lost or Damaged Tool Form

Lost or Damaged Tool Reporting

INSTRUCTIONS

Complete Form (shaded fields are required). Attach suppporting documents if requried.

Once completed, forward to Supervisor for review / follow up.

TOOL INFORMATION

LO#:

Description:

Truck/Room	Bin/Cabinet	Shelf	Drawer/Divider

Reported By:

Reported To:

Date Reported:

1) CHECK IF TOOL WAS LOST OR DAMAGED

☐ Lost ☐ Damaged

2) WAS LOSS OR DAMAGE DUE OR NEGLIGENCE OR ABUSE?

☐ YES ☐ NO

3) REASON FOR LOSS / DAMAGE: _____

SUPERVISOR INVESTIGATION

DISCOVERIES: _____

CONCLUSIONS / FOLLOW UP _____

Supevisor Signature _____ Date _____

FOLLOW UP

To be completed by Supervisor

Purchase Requisition Required

☐ YES ☐ NO

Signature: _____

To be completed by Admin Assistant

Purchase Requisition Created

☐ YES PR # _____

PO # _____

Tool Database Updated

☐ YES LO # _____

☐ Painted

☐ Engraved

Date _____ Completed By _____

Appendix B – Tool Request Form

Tool Request Form

PUC SERVICES

INSTRUCTIONS

Complete Form (shaded fields are required). Attach suppporting documents if requried.

Once completed, forward to Supervisor for review / follow up.

PRODUCT INFO

Requested By: | Received By:

Date Requested: | Date Received:

Description

Make | Model No. | Supplier

Quote No. | Cost / Estimate | *attach quote to this request form

REASON FOR PURCHASE

☐ Replacement ☐ New Truck #:

Reason for Purchase: _____

BENEFITS	COSTS

Tool comittee research required: ☐ YES ☐ NO Additional documentation attached: ☐ YES ☐ NO

APPROVAL

		Name	Date
☐ APPROVED	Approved By:		
☐ DENIED	Denied/Deffered By:		
☐ DEFERRED	Reason: _____		

FOLLOW UP

To be completed by Supervisor

Purchase Requisition Required

☐ YES ☐ NO

Signature:

To be completed by Admin Assistant

Purchase Requisition Created

☐ YES PR #

PO #

Tool Database Updated

☐ YES LO #

Date

Completed By

Appendix C - PLT Tool Maintenance Skill Set

PLT Tool Maintenance Skill Set

As part of a PLT's trade skill set, is is expected that they will perform the following duties outlined below. This will be a living document and will be revised as required.

TASKS / SKILLS

1. Ground Testing - Calibration
2. Clean, Lubricate, Repair Tools as Required
3. Chainsaw Maintenance
4. Miscellaneous Repair of Tools

Appendix D – LO Parts Issued Form

LO Parts Issued Form

INSTRUCTIONS

This form is to be filled in for NON-Stores inventory parts being issued.

Once completed, forward to Admin Assistant to update database and check min/max levels.

Supervisor to confirm if a purchase requisition is to be issued to increase stock.

PART INFORMATION

Part Name

Part No.

Quantity Used

ISSUING INFORMATION

Received By:

Date Received:

FOLLOW UP

To be completed by Admin Assistant

MIN

MAX

Quantity on Hand Updated

☐ YES

Purchase Requisition Created

☐ YES PR #

PO #

Date

Completed By

To be completed by Supervisor

Purchase Requisition Required

☐ YES ☐ NO

Signature:

Appendix E – Borrowed Tools Tag

NOTICE

THE FOLLOWING TOOLS HAVE BEEN BORROWED

DATE: _____

BORROWER: _____

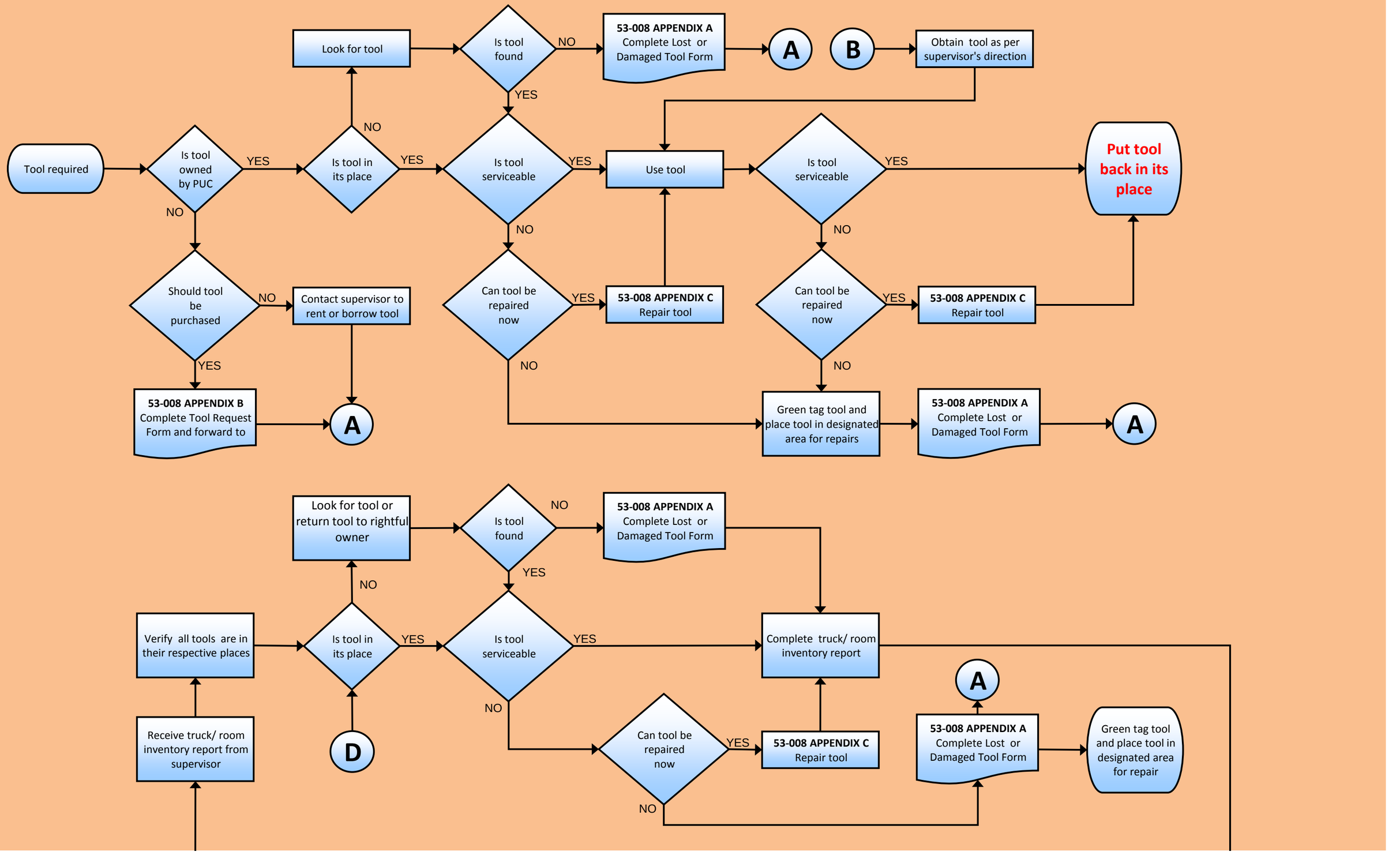
TRUCK #: _____

TOOL DESCRIPTION	LO#

Form #85

Line Operations Tool Management Plan - Level 2 Process Map

Workers



Tool inventory required

Create truck/ room inventory report from Database

Receive completed truck/ room inventory report

Review completed truck/ room inventory report

Forward reports to Admin Assistant for entry into Database

Line Supervisor

Tool is lost or damaged

Receives Lost or Damage Tool Form from Worker

Is tool required now

NO

YES

Provide spare, rental or where to borrow

B

Due to neglect or abuse

NO

YES

Investigate

Provide training, mentoring or discipline

Is tool lost

YES

NO

Arrange to have tool repaired

Determine if tool is to be replaced and order replacement

Change status in database

A

New tool is requested

Receives Tool Request Form from Worker

Is total <$1000

YES

NO

Is total cost <$100

YES

NO

Does supervisor approve

YES

NO

Order Tool

C

Is budget approval received

YES

NO

Does manager approve

YES

NO

Tool committee research, tendering if required

C

Tool request denied

New tool is received

Obtain LO# and update database

Engrave major tools

Issue tool to owner or place in storage

Paint issued tools

B

Tool Committee

Monthly tool committee meeting

Review new tool requests and denied requests

Perform research, source suppliers, obtain quotes, etc.

Share information with and obtain feedback from workers

Assist manager with prioritization of tool purchases

Provide suggestions for continuous improvement of tool management

Receive tool task from supervisor

Perform task

Provide information to admin assistant for database updates

Tool Owner

Perform periodic tool inpections

Verify all tools are in their respective places

D

Admin Assistant

Receive information

Update the database

Create/ track PO's

File paper documents

1. Purpose

The purpose of this procedure is to provide workers with a process to adequately assess the physical and electrical hazards associated with cables in Electric Manholes prior to starting any work in order to reduce the risk of personal injury.

2. Scope

This procedure applies to all PUC Services Inc. employees who are required to enter PUC-owned Electric Manholes.

3. Definitions:

Absolute Temperature (T) – actual measured temperature in degrees Celsius.

Emissivity – a material's ability to emit thermal radiation. Emissivity is the ratio of the heat emitted by a surface compared to that reflected and/or transmitted. A material's emissivity can range from a theoretical 0.00 (completely not-emitting) to an equally-theoretical 1.00 (completely emitting). To take a temperature measurement of an object, the worker will refer to an emissivity table to choose the emissivity value of the object, which is then entered into the infrared (IR) camera.

Partial Discharge Inspection – A non-destructive and predictive method of assessing the condition of the XLPE and Butyl Rubber cable or splice only, by detecting electrical stress and converting it to a decibel (dB) reading using a Partial Discharge Detector (Model PDS4C15 ndb Technologies).

Temperature Rise (∆T) – Temperature difference between the referenced part and the attached cable.

Thermograph Inspection – A non-destructive and predictive method of assessing the condition of electrical XLPE cable or splice. The IR camera (Flir Model E 8 or equivalent) detects thermal energy, and electronically converts it into a visible image and data.

Visual Inspection – A visual inspection of the physical condition of the Electric Manholes and distribution system component inside the Electric Manhole.

XLPE/LC – Extruded dielectric insulated cable with a longitudinally applied corrugated tape (LACT) copper shield. The cable is typically insulated with tree retardant cross linked polyethylene (TRXLPE). It may also refer to as "plastic" cable with an "LC" shield.

4. Roles/Responsibilities/Accountabilities

4.1 Line Operations Manager

4.1.1 Ensure supervisors are trained on this procedure and implement all the requirements.

4.1.2 Ensure resources, equipment and tools required to implement this procedure are made available.

4.1.3 Ensure communication of tasks/activities as outlined in this procedure is included in the training and follow the performance-based methodology.

4.1.4 Coordinate the design and delivery of the training for all applicable employees with input from the subject matter expert(s).

4.1.5 Maintain a record of training for all applicable employees.

4.1.6 Ensure Leadership Members have access to training data.

4.1.7 Annually review this procedure and make updates as necessary for continual improvement.

4.1.8 Perform an annual audit to ensure conformance with this procedure.

4.1.9 Arrange for the services of a Third Party Contractor to perform an inspection and calibration of the partial discharge scanners every 3 years.

4.1.10 Arrange for the services of a Third Party Contractor to perform an inspection and calibration on the IR cameras every year.

4.1.11 Maintain inspection and calibration records for the IR camera and the partial discharge scanner.

4.2 Supervisors

4.2.1 Identify all Lead Hands and workers who are, or may be, required to enter Electric Manholes and ensure they are trained in and adhere to the requirements of this procedure.

4.2.2 Retain the original and forward a copy to the planner all Electric Manhole Inspection Forms marked with defects for follow up work orders.

4.2.3 If no defects are found, include the original Electric Manhole Inspection Form with the Line Department Tailboard Plan document and the Confined Space Entry Permit and file them together in the Confined Space Permit Binder.

4.3 Lead Hand

4.3.1 Immediately communicate to the Supervisor, if a defect in the cables or Electric Manhole is identified.

4.3.2 Lead Hands are responsible for addressing the hazard, as quickly as possible, and determine an action plan to mitigate the risk to the workers involved in the entry. Provide the completed Electric Manhole Inspection Form(s) to the Supervisor at the end of each shift, along with the Line Department Tailboard Plan and the Confined Space Entry Permit.

4.3.3 If defects have been noted on the Electric Manhole Inspection Form, attach related IR pictures to the Electric Manhole Inspection Form and note a detailed description of the defect on a FWR for follow up maintenance work.

4.4 Workers

4.4.1 Adhere to the requirements of this procedure and participate in all training.

4.4.2 Complete the Electric Manhole Inspection Form during the inspection of the Electric Manhole, and ensure it is dated and signed.

4.4.3 Promptly report hazards to the Lead Hand and/or the Supervisor for the purpose of updating records and to initiate corrective actions to eliminate or control the identified hazard.

4.4.4 Ensure all tools and equipment required by this procedure are in good working condition before use. Do not use defective or damaged equipment.

4.4.5 Ensure all completed forms are provided to the Supervisor at the end of each shift.

4.5 Line Operations Planner

4.5.1 Maintain the Underground Maintenance Report database for vaults and Electric Manholes.

5. Considerations and Controls

5.1 This procedure requires all Electric Manhole entries follow the Confined Space Entry Program (Tab 04-03), in addition to the requirements of this procedure.

5.2. A hold-off on the appropriate feeders, must be in place prior to entering an Electric Manhole with energized apparatus.

5.3. If hazards are identified, adequate actions must be taken to control these hazards. These identified hazards and the barriers/controls to mitigate risk must be documented in the Line Department Tailboard Plan as per the Tailboard and Job Planning procedure Tab 03-24.

5.4. Inspection and the required documentation must be completed upon initial entry and prior to starting any work in the Electric Manhole.

5.5. Thermographic scanning and partial discharge detection must be carried out while the cable is energized and carrying load.

5.6. This inspection procedure, assessment and Electric Manhole Inspection Form (refer to Appendix A) must be completed for all Electrical Manhole entries.

5.7. Ensure that any risk that cannot be eliminated or mitigated to an acceptable level, is identified and reported to the Supervisor. Do not proceed with work inside the Electric Manhole until control measures have been implemented.

5.8. The IR camera and the partial discharge scanner shall be inspected and calibrated as per the manufacturers recommendation by an approved third party (the original equipment supplier in most cases) to verify that the equipment is accurate and functioning as intended. The Third Party shall affix a valid inspection and calibration sticker.

6. Procedures

6.1 Confined Space Entry Assessment

6.1.1. Prior to entering a cable chamber, follow the procedures outlined in the Confined Space Entry & Rescue Procedure (PRC-1810-037).

6.2 Order of Inspection Upon Entering the Cable Chamber

6.2.1. Inspection of the cable chamber shall take place in the following order:

6.2.1.1. Visual inspection.

6.2.1.2. Infrared inspection.

6.2.1.3. Partial discharge inspection.

6.3 Entry into the Cable Chamber (Visual Inspection)

6.3.1. Upon entering the cable chamber check and document the identified hazards on the Cable Chamber Inspection Form (FRM-1810-038). This includes checking the floor or walls for oil or compound; bare conductor; bonding/grounding sleeves, which are split, disfigured, physical damage to cable, swollen cables, collapsed cables; and any other potential hazards listed on the Electric Manhole Inspection form .

6.3.2. Check for structural hazards, which include abnormal conditions with the racking, damaged concrete, and other potential structural hazards.

6.3.3. If any of the following conditions are encountered, exit the Electric Manhole immediately and notify the immediate supervisor:

6.3.3.1. Energized exposed primary,

6.3.3.2. Visible damaged XLPE splice (refer to Appendix B),

.

6.4 Infrared Camera Setup & Inspection

6.4.1. If it is safe to remain in the cable chamber after completing the initial visual assessment, proceed with setting up the infrared camera.

6.4.2. Set up the infrared camera before performing any scan to ensure accurate scanning and imaging. Check and perform the following:

6.4.2.1. Ensure the lens cap is open

6.4.2.2. Check that the battery is charged,

6.4.2.3. Turn the camera ON,

6.4.2.4. Allow 5 minutes for camera to auto calibrate for best image quality and accuracy.

6.4.3. Confirm that the infrared camera settings for emissivity are as follows:

6.4.3.1. 0.95 for black electrical tape and cable jackets,

6.4.3.2. 0.95 for rubber cable accessories, and

6.4.4. On cables, splices and equipment where Thermal Imaging Reflection can cause erroneous readings (Raychem zippers) place a non-reflective cloth over any reflective surfaces prior to scanning.

6.4.5. Scan all cables, splices and devices with the infrared camera and document the readings in the comments section of the Electric Manhole Inspection Form. Using this form, select the type of cable (Butyl Rubber or XLPE) that was scanned and the temperature in degrees Celsius (°C).

6.4.5.1. When using the camera get as close as possible to the cable, while still abiding by the safe limits of approach as specified in Rule 129 of the Electrical Utility Safety Rules (EUSR).

6.4.5.2. For joints or splices, the cable on both sides shall be included in the image for differential temperature identification. For terminations, the cable and the connecting equipment shall be included in the image for differential temperature identification.

6.4.5.3. Document each splice temperature, including feeder number or circuit I.D., and phase colour if present on the Electric Manhole Inspection Form.

6.4.6. If any of the following conditions are encountered, **exit the cable chamber immediately:**

6.4.6.1. An absolute temperature (T) reading > **50°C** on any neutral connection of any XLPE cable, splice or device in cable chamber (refer to Appendix B),

6.4.6.2. For XLPE cable/splices only, a Temperature rise (△T) is ≥ 3°C above ambient temperature in body of the splice (refer to Appendix B).

6.4.7. If hazard is identified (as per the criteria outlined in section 6.4.6.), print a thermographic image of the defect/concern and attach it to the Electric Manhole Inspection Form.

6.5 Partial Discharge Scanner Setup & Inspection

6.5.1. If the infrared camera scan does not identify a hazardous condition as outlined in section 6.4.6., proceed with the partial discharge detector.

6.5.2. The partial discharge scanner can only be used for XLPE and Butyl Rubber insulated cables.

6.5.3. All appropriate personal protective equipment, including rubber gloves rated for the voltage of the cable being tested, must be worn during the operation of the partial discharge scanner.

6.5.4. Ensure that the partial discharge scanner is turned ON.

6.5.5. Ensure that the battery level indicator on the partial discharge scanner is green, indicating it is fully charged.

6.5.6. Scan all XLPE splices and attached cables that are located inside of the cable chamber with the partial discharge detector. Document all readings on the Electric Manhole Inspection Form in the comments section of the form.

6.5.7. Move the partial discharge scanner along the cable and joint, while observing the dB level indicator lights. A normal ambient noise level translates into a 3 to 6 dB range in the readings along the cable or splice. The displayed dB level will rise higher (more than 10 dB higher than the average along the same cable) when the partial discharge scanner is in proximity of the potential fault.

6.5.8. For XLPE cables/splices only, if the difference in the partial discharge scanner reading is ≥ 10 dB above the average reading for that cable (refer to Appendix C), then exit the cable chamber immediately and notify the immediate supervisor.

7. Training and Awareness

7.1 All employees and their respective supervisors who enter cable chambers will receive training on this procedure and other related requirement that are associated with entering the cable chambers.

7.2 Refresher training shall be performed every 3 years.

7.3 Training shall be provided by Line Operations Staff Members

7.4 Manager of Line Operations will maintain records of training for all applicable employees.

8. Monitoring/Measurement/Audit

8.1 This procedure will be reviewed annually by EHS to identify areas of continual improvement.

8.2 EHS shall perform an annual audit to ensure conformance with this procedure.

8.3 All test equipment has been calibrated as per the manufacturer's recommendations.

9. References

9.1 Tab 03-24 Confined Space Entry Program

9.2 Tab 04-23 Tailboards and Job Planning

9.3 Tailboard Form

9.4 Electric Manhole Inspection Form

9.5 Electrical Utility Safety Rules (EUSR)

10. Appendices

Appendix A – Electric Manhole Inspection Form

Appendix B – Examples of Area to Scan with Thermography and Partial Discharge Tools

Appendix C – Pictures of XLPE splice covered with non-reflective cloth

Appendix D - Cable Condition Assessment Form

Approved:	Manager Line Operations	Date
	Al Cannard	2019-07-19

Revision History:

NOTE: A red line on the right side of document indicates a change.		
Revision #	**Date**	**Description**
0	July 19, 2019	Final copy is being issued. Staff have been given a chance to review and provide feedback before final issue.

Appendix A – Electric Manhole Inspection Form

PUC SERVICES	Electrical Manhole Inspection Form				9/27/2018	
					Page _____ of _____.	
			LOCATION			
Manhole No.						
Street Address						
Location On Property	(IE. Side Walk, Street, Intersection, Boulivard)					
Direction From Civic						
			Cables/Joints/Splices/Hazards			
Circuit #			Circuit Voltage			
Phase Color						
Conductor Size			Insulation Type	☐ XLPE	☐ BUTYL	
Racking Installed	☐ YES	☐ NO	BLRs Installed	☑ YES	☐ NO	
Bonding Installed	☐ YES	☐ NO	Absolute Temp °C		IR Δ Temp	
Splices Installed	☐ YES	☐ NO	Ambient PD (dB)		PD Δ (dB)	
Circuit #			Circuit Voltage			
Phase Color						
Conductor Size			Insulation Type	☐ XLPE	☐ BUTYL	
Racking Installed	☐ YES	☐ NO	BLRs Installed	☐ YES	☐ NO	
Bonding Installed	☐ YES	☐ NO	Absolute Temp °C		IR Δ Temp	
Splices Installed	☐ YES	☐ NO	Ambient PD (dB)		PD Δ (dB)	
Circuit #			Circuit Voltage			
Phase Color						
Conductor Size			Insulation Type	☐ XLPE	☐ BUTYL	
Racking Installed	☐ YES	☐ NO	BLRs Installed	☐ YES	☐ NO	
Bonding Installed	☐ YES	☐ NO	Absolute Temp °C		IR Δ Temp	
Splices Installed	☐ YES	☐ NO	Ambient PD (dB)		PD Δ (dB)	
Circuit #			Circuit Voltage			
Phase Color						
Conductor Size			Insulation Type	☐ XLPE	☐ BUTYL	
Racking Installed	☐ YES	☐ NO	BLRs Installed	☐ YES	☐ NO	
Bonding Installed	☐ YES	☐ NO	Absolute Temp °C		IR Δ Temp	
Splices Installed	☐ YES	☐ NO	Ambient PD (dB)		PD Δ (dB)	
Comments On Identified Hazards:						

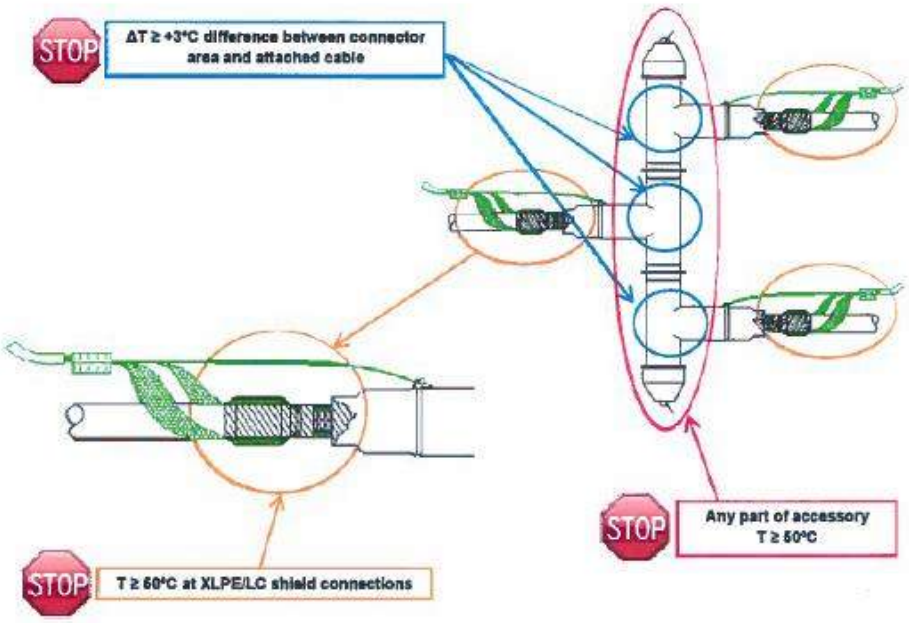
Appendix B –Examples of Area to Scan with Thermography and Partial Discharge Tools

Examples of Thermograph and Partial Discharge Tools

Temperature vs Risk Chart

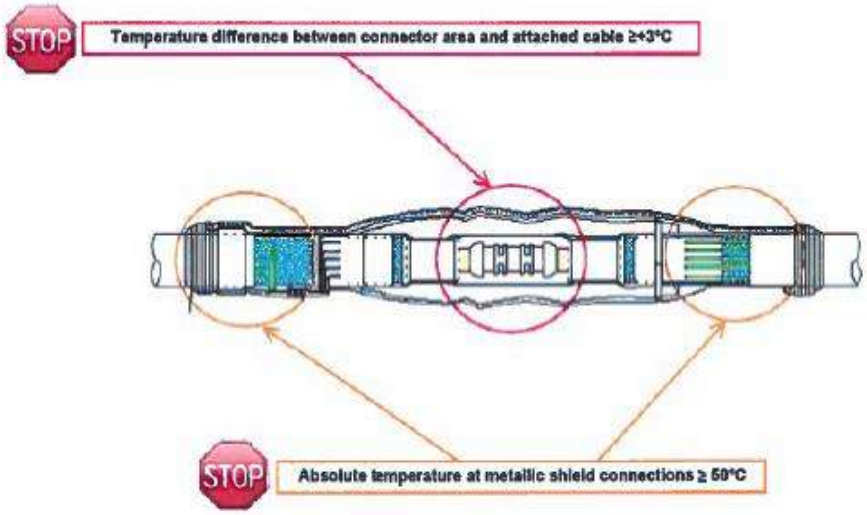
PILC Joint	Separable Insulated Connectors	XLPE/ PILC Transition Splice	XLPE Taped Straight Joint	XLPE Kit Straight Splice
Above 70° anywhere on Joint	Above 50° any part of body	Above 70° anywhere on Lead portion of Joint	Above 50° at shield connection	Above 50° at shield connection
	Above 50° at shield connection	Above 50° at shield connection	ΔT ≥ +3°C difference between connector area and attached cable	ΔT ≥ +3°C difference between connector area and attached cable
	ΔT ≥ +3°C difference between connector area and attached cable			

PROCEDURES FOR INSPECTING
CABLE CHAMBER (THERMOGRAPHY)



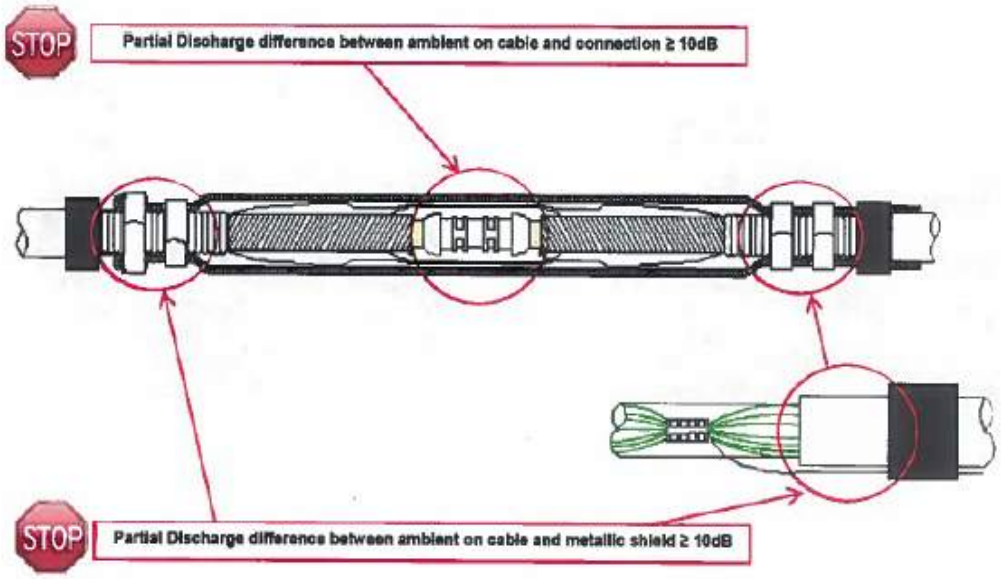
600 Amp Separable Insulated Connectors (T-body wye-splices)

PROCEDURES FOR INSPECTING CABLE CHAMBER (THERMOGRAPHY)



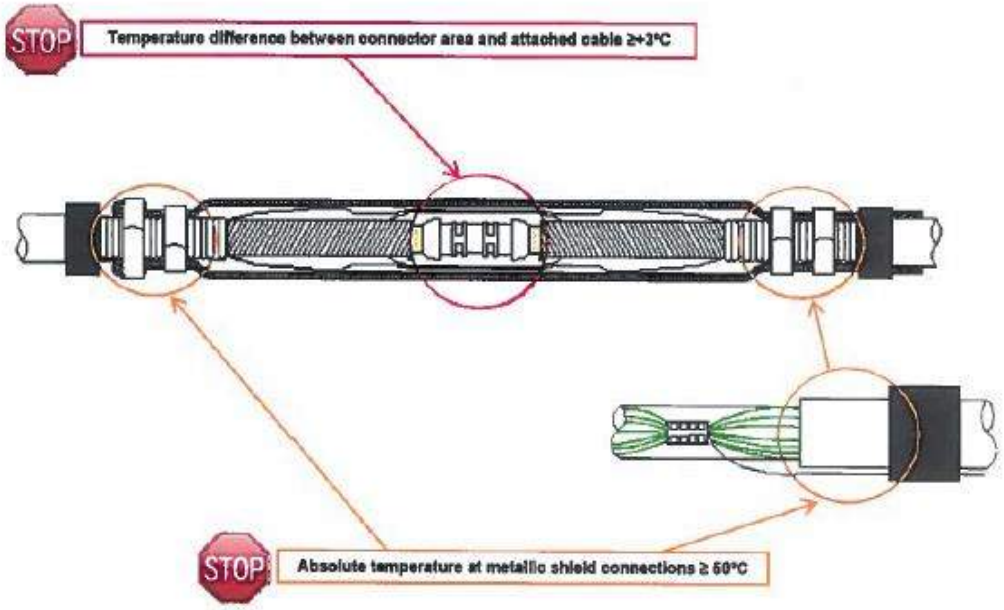
XLPE TAPED STRAIGHT JOINT

PROCEDURES FOR INSPECTING
CABLE CHAMBER (PARTIAL DISCHARGE)



XLPE KIT STRAIGHT SPLICE

PROCEDURES FOR INSPECTING
CABLE CHAMBER (THERMOGRAPHY)

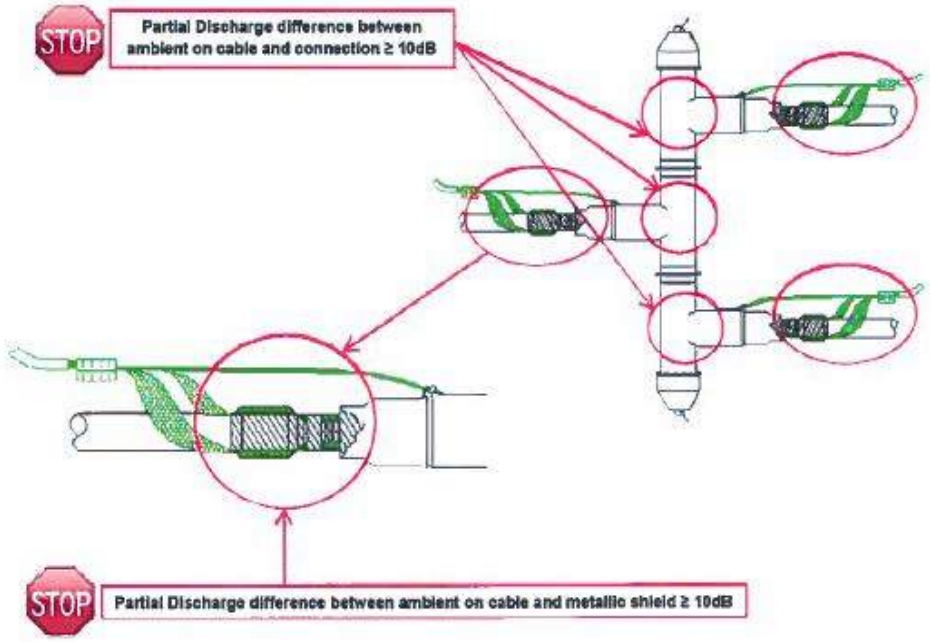


XLPE KIT STRAIGHT SPLICE

Risk vs Partial Discharge (Electrical Stress)

PILC Joint	Separable Insulated Connectors	XLPE/ PILC Transition Splice	XLPE Taped Straight Joint	XLPE Kit Straight Splice
Do Not use.	≥ 10dB Partial Discharge Difference between ambient on cable and mechanical connection.	Do not use on Lead portion of Joint	≥ 10dB Partial Discharge Difference between ambient on cable and splice connection.	≥ 10dB Partial Discharge Difference between ambient on cable and splice connection.
	≥ 10dB Partial Discharge Difference between ambient on cable and shield connection.	≥ 10dB Partial Discharge Difference between ambient on cable and shield connection.	≥ 10dB Partial Discharge Difference between ambient on cable and shield connection.	≥ 10dB Partial Discharge Difference between ambient on cable and shield connection.

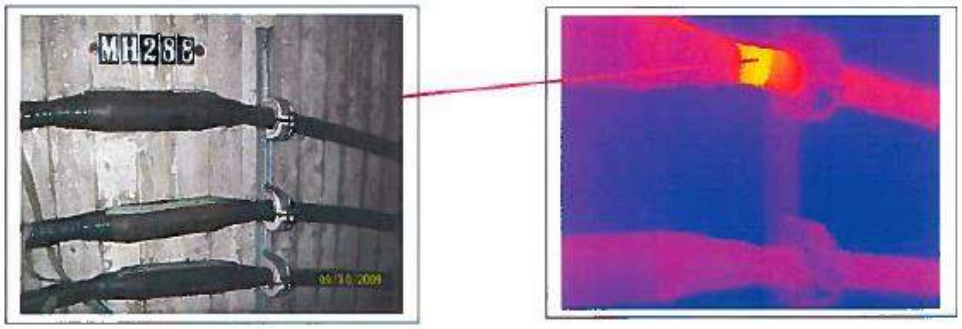
PROCEDURES FOR INSPECTING CABLE CHAMBER (PARTIAL DISCHARGE)



600 Amp Separable Insulated Connectors (T-body wye-splices)

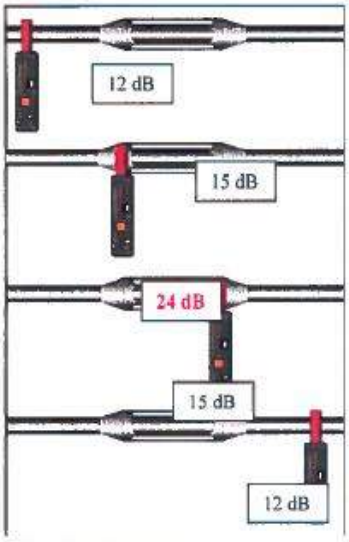
Thermograph Image

Example Thermograph Image
Ambient temp 18.0°C identified location temp 25.0°C



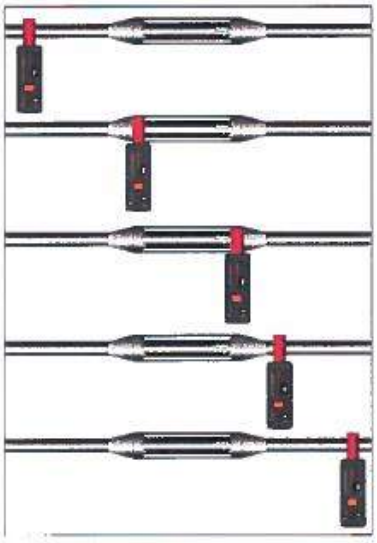
Example: of a 12dB ambient noise splice

Without defect



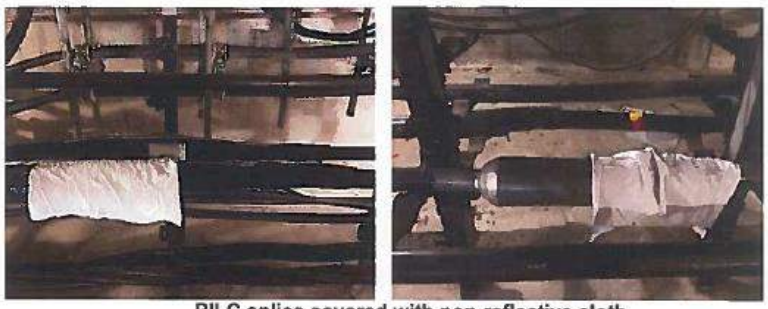
Example: of a 24dB noise spike in splice

With defect

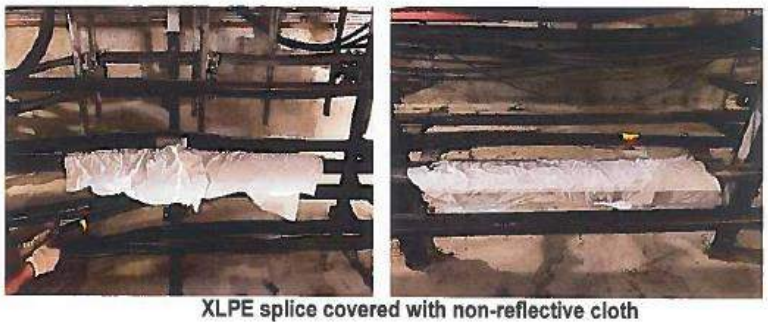


Appendix C – Pictures of XLPE Splice Covered with Non-Reflective Cloth

– Pictures of XLPE splice covered with non-reflective cloth PILC splice covered with non-reflective cloth



PILC splice covered with non-reflective cloth



XLPE splice covered with non-reflective cloth

Appendix D - Cable Condition Assessment Form

PUC SERVICES		Cable Condition Assessment Form	27-09-2018
Date Of Inspection		Inspection Expires 1 Month From Inspection Date	Page ____ of ____ .
LOCATION			
Manhole No.			
Street Address			
Location On Property	(IE. Side Walk, Street, Intersection,Boulivard)		
Confined Space Entry Permit Numbers	(List All Entry Permit Numbers, The Last Number Beeing The Most Current)		

Cables/Joints/Splices/Hazards

Circuit #			Circuit Voltage				
Phase Color			Elbow Connection	☐ YES	☐ LOAD BREAK		
Conductor Size			Insulation Type	☐ XLPE	☐ BUTYL		
Racking Installed	☐ YES	☐ NO	BLRs Installed	☐ YES	☐ NO		
Bonding Installed	☐ YES	☐ NO	Absolute Temp ºC		IR Δ Temp		
Splices Installed	☐ YES	☐ NO	Ambient PD (dB)		PD Δ (dB)		
Circuit #			Circuit Voltage				
Phase Color			Elbow Connection	☐ YES	☐ LOAD BREAK		
Conductor Size			Insulation Type	☐ XLPE	☐ BUTYL		
Racking Installed	☐ YES	☐ NO	BLRs Installed	☐ YES	☐ NO		
Bonding Installed	☐ YES	☐ NO	Absolute Temp ºC		IR Δ Temp		
Splices Installed	☐ YES	☐ NO	Ambient PD (dB)		PD Δ (dB)		
Circuit #			Circuit Voltage				
Phase Color			Elbow Connection	☐ YES	☐ LOAD BREAK		
Conductor Size			Insulation Type	☐ XLPE	☐ BUTYL		
Racking Installed	☐ YES	☐ NO	BLRs Installed	☐ YES	☐ NO		
Bonding Installed	☐ YES	☐ NO	Absolute Temp ºC		IR Δ Temp		
Splices Installed	☐ YES	☐ NO	Ambient PD (dB)		PD Δ (dB)		
Circuit #			Circuit Voltage				
Phase Color			Elbow Connection	☐ YES	☐ LOAD BREAK		
Conductor Size			Insulation Type	☐ XLPE	☐ BUTYL		
Racking Installed	☐ YES	☐ NO	BLRs Installed	☐ YES	☐ NO		
Bonding Installed	☐ YES	☐ NO	Absolute Temp ºC		IR Δ Temp		
Splices Installed	☐ YES	☐ NO	Ambient PD (dB)		PD Δ (dB)		
Comments On Identified Hazards:							

1. Purpose

The purpose of this document is to outline the expectations of staff when encountering damaged or defective equipment.

2. Scope

This procedure applies to all staff in Line Operations. This document applies to tagging of tools and equipment approved for use on the Electrical Distribution System.

3. Definitions

Tool - A device used in Line Operations to perform work, has a unique ID number (LO number) in the Line Ops Tool Database.

Distribution Equipment – Equipment designed and approved for use in PUCs electrical distribution system.

Caution Tag - A green and white striped tag is used to identify defective equipment and/or control the operation of equipment or devices that could result in damage to equipment or impairment of service. This unnumbered Caution Tag has space to record the reason for the tag placement on the tag itself.

Series Caution Tag - Series numbered Caution Tags are used with a Caution Tag Record to record the reason for tag placement.

Responsibility

All staff members in Line Operations are responsible for ensuring no defective tools or equipment are left untagged.

Workers are responsible:

i. To inspect the tools and equipment prior to use.
ii. To ensure the proper distribution equipment or tool was selected for the task at hand.
iii. To immediately report and tag with a caution tag any defective tools.
iv. To immediately report and tag faulty distribution equipment with a series numbered caution tag.

Supervisors are responsible:

i. To provide training and ensure compliance with the tagging of defective equipment policy.
ii. To access the appropriateness of repairing or destroying the tagged equipment or tool.

4. Procedure

4.1 Damaged Tool

Damaged tools must be tagged immediately with an IHSA caution tag. Refer to SOP #53-008 (Tool Management Plan) for specific instructions relating to damaged or defective tools.

4.2 Damaged Equipment

Damaged or defective electrical equipment must be tagged immediately with an IHSA green caution tag. This equipment must be reported to the Line Operation Supervisor. The Supervisor will determine if the tagged equipment can be safely repaired. Equipment that cannot be safely repaired will be disposed of. Equipment that was determined to be scrapped shall be disposed of with a tag still in place.

4.3 Series Caution Tag

Series numbered Caution Tags are used with a Caution Tag Record to record the reason for tag placement.

Faulty equipment that has been identified as system impactive must be tagged with a series caution tag. The controlling authority will note and log the tag location, equipment restriction as well as any other pertinent information. Example of system impactive equipment would be a PMH that cannot be operated.

4.4 Tag Placement

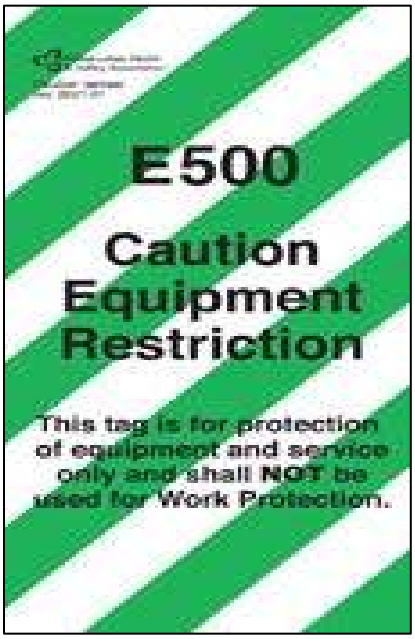
From IHSA

1. Get permission from the controlling authority of the equipment being tagged.
2. Complete the Caution Tag or Caution Tag record according to instructions on the tag or form.
3. Use non-conducting material to attach the tag.
4. Attach the tag in a conspicuous place, indicating clearly that it is prohibited to operate the tagged device.

5. Appendix

Appendix A: Caution Tag

Appendix B:
Series Caution Tag example



Approved:	Manager	Date
	Phil Johnston	January 27, 2021

Revision History:

NOTE: A red line on the right side of document indicates a change.		
Revision #	**Date**	**Description**
0	2021-01-27	Issued as follow up recommendation from incident report.

1. Purpose

The purpose of this document is to outline the expectations of staff when performing disconnection or reconnection of service lines.

2. Scope

This procedure applies to all staff in Line Operations. This document applies to all service line disconnect and reconnect activities.

3. Definitions

Meter Base – CSA Approved Electrical encloser which houses the electric meter and associated conductors.

Line Side – This represents the LDC portion of the meter base. Also, for underground residential installations this represents the demarcation point of ownership.

Load Side – This represents the customer owned portion of the meter base.

ESA – Electrical Safety Authority. A not-for-profit organization that oversees the Ontario electrical safety code, electrical distribution system safety, licensing of contractors and product safety.

4. Responsibility

All staff members in Line Operations are responsible for ensuring all dis

Workers are responsible:

i. To inspect electric service installations prior to reconnection.
ii. To ensure ESA authorization has been received prior to reconnection.
iii. To communicate with homeowner and or contractor that the service will now be reconnected.
iv. To report unsafe installations to ESA.

Supervisors are responsible:

i. To provide training to staff and ensure compliance with this SOP as well as Regulation 22-04 and OESC.
ii. To review ESA bulletins with staff in a timely fashion.

5. Procedure

5.1 Reconnection or New Connection of 200amp or less Self-Contained Metering

Staff may be called upon to reconnect a service after repairs, arrears, or upgrades. Staff will also be assigned service order to install new service lines, electric meter and leave on. Whether the assignment is a new connection or reconnection staff must ensure the following prior to energizing:

i. Confirm ESA authorization for the correct address, unit number and meter number. If unsure if ESA authorization has been received contact a Line Supervisor for further direction.
ii. Perform visual inspection of the service to ensure no obvious safety concerns. Staff should look at point of attachments, condition of conduit and meter base.
iii. Staff must remove the electric meter from the meter base to perform an inspection inside the meter base. Staff must confirm all conductors have been terminated appropriately.
iv. Ensure homeowner and electrical contractors are aware the service will now be energized. Staff will confirm the main switch is open prior to energizing.
v. Staff can now energize the service with the meter removed. Staff must test and document the as left voltages.
vi. The electric meter can now be re-installed and sealed in place.

5.2 New Connection of 400amp or larger single phase or three phase installations.

Due to the variety and complexity of transformer rated single phase or 3 phase metering installations Line Operations staff will not energize these installations without metering staff present. Line Operations Supervisor will schedule metering staff to be onsite prior to energizing.

5.3 Reconnection of 400amp or larger single phase or three phase installations.

Line Operations staff may be called upon to re-energize 400 amp-single phase installation as well as three phase installations of any ampacity. These installations will follow the same procedure outlined in Procedure 5.1, with a metering staff member present. Metering staff will provide an inspection of the metering and associated metering equipment prior to energizing. Metering will also assist with identifying the appropriate location for potential testing within the metering installation.

5.4 Disconnection of services operating at less than 750V

Staff will be called upon to provide disconnection of services to homes or businesses for a variety of reasons. Staff must disconnect the requested service and confirm an absence of potential. For 200-amp services staff must remove the electric meter and test for potential on the line side conductors. Staff must document the potential values (O Volts) on the Field work Record. More complex installations such as a single phase 400-amp services will require voltage readings taken from within the metering enclosure where line conductors have been terminated. If staff are unable to perform a potential test a Line Supervisor must be contacted. In the event a potential test can not be completed the homeowner or electrician must be made aware that the service has not been proven disconnected and no work can commence.

Approved:	Manager	Date
	Phil Johnston	Feb 24 2021

Revision History:

NOTE: A red line on the right side of document indicates a change.		
Revision #	**Date**	**Description**
0	24-Feb-21	Issued as follow up recommendation from incident report IR20049

APPENDIX L

LIST OF SUBCONTRACTORS

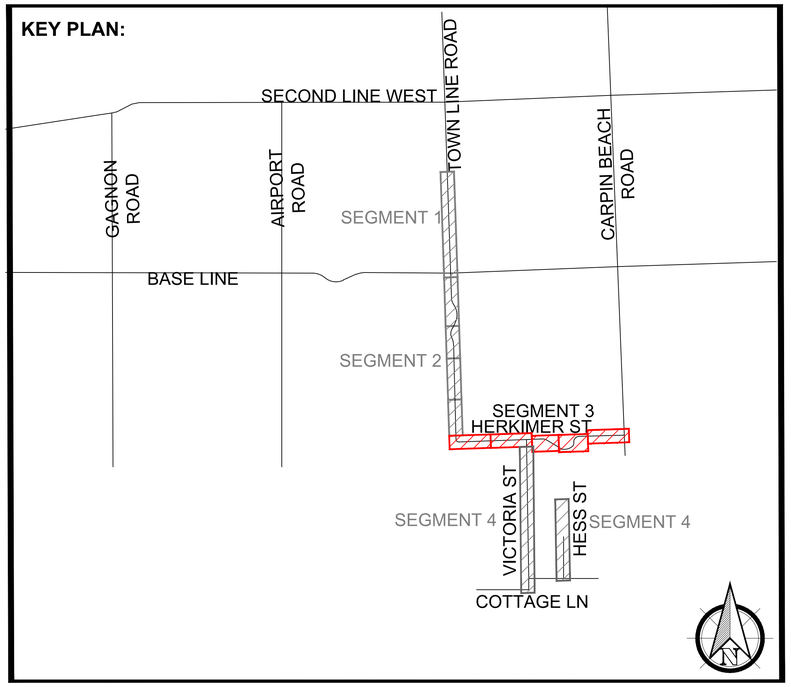
Appendix L- List of Subcontractors

Subcontractor	Address	Description of Work of Sub

APPENDIX M

CONSTRUCTION DRAWIN

KEY PLAN:



TOWN LINE RD SEGMENT 3 (HERKIMER ST.)
(BASELINE TO CARPIN BEACH RD)
SAULT STE. MARIE, ONTARIO

4096 Meadowbrook Drive, Unit 112
London, ON, N6L 1G4
Canada
Telephone: (519) 203-1222

SEGMENT 3 DRAWING INDEX

PROJECT DESCRIPTION AND WORK INSTRUCTIONS:

REMOVAL AND REPLACEMENT OF APPROXIMATELY 1850m (PHASE & NEUTRAL) OF RESTRICTED #4 OR #6 COPPER WIRE ON HERKIMER STREET (TOWN LINE RD SEGMENT 3 OF 4).

INSTALL: 1

- INSTALL APPROXIMATELY 3700m (LINEAL) OF NEW #2ACSR CONDUCTOR FOR PRIMARY PHASE AND NEUTRAL
- INSTALL 50m OF #2AL TRIPLEX BUS
- INSTALL 26 NEW 45' CLASS 3 WOOD POLES AND 2 IF DEEMED UNSAFE POLE
- INSTALL 2 NEW 40' CLASS 3 WOOD POLES
- INSTALL 13 NEW 12” PISA ANCHORS
- INSTALL 21 NEW PRIMARY DOWN GUYS OR/ AND SECONDARY DOWN GUY
- INSTALL 1 NEW SPAN GUY
- INSTALL 4 -25KVA 7200V-120/240V TRANSFORMERS

REFRAME:

- REFRAME 14 EXISTING POLES TO MATCH THE NEW PROPOSED FRAMING

REMOVE:

- REMOVE APPROXIMATELY 1850m (PHASE & NEUTRAL) OF RESTRICTED #4 OR #6 COPPER WIRE
- REMOVE 27 EXISTING 35' AND 40' POLES
- REMOVE 15 EXISTING GUYS AND ANCHORS
- REMOVE 1 EXISTING POLE MOUNT TRANSFORMERS

TRANSFER TO NEW POLES: 1

- TRANSFER APPROXIMATELY 400m OF EXISTING SECONDARY TRIPLEX BUS
- TRANSFER 3 EXISTING OVERHEAD SERVICES
- TRANSFER 10 EXISTING STREETLIGHTS AS PER PUC-11-103-B

TREE TRIMMING:

- ESTIMATED DISTANCE (LINEAL METERS) OF REQUIRED TREE TRIMMING = 550m FOR LINE CLEARANCE.
- TRIMMING AROUND THE BASE OF POLES MAY ALSO BE REQUIRED TO FACILITATE ACCESS FOR INSTALLATION. THIS REQUIREMENT WILL BE LEFT TO THE DISCRETION OF SSMPUC.

WORK INSTRUCTIONS:

1. THE DESIGN DRAWINGS DEPICT THE INSTALLATION IN ITS FINAL CONFIGURATION. NO REMOVALS HAVE BEEN DETAILED ON THE DRAWINGS.
2. THE EXTENT OF TREE TRIMMING REQUIRED PRIOR TO THE WORK COMMENCING WILL BE LEFT TO THE DISCRETION OF THE FIELD FOREMAN, BUT AN ESTIMATE HAS BEEN PROVIDED ABOVE.
3. DIMENSIONS SHOWN ON POLE PROFILES INDICATE THE PROPOSED HEIGHTS ABOVE GRADE FOR ALL ATTACHMENTS FOR FUTURE REFERENCE. POLE DRILLING FOR ATTACHMENTS SHALL BE AS PER USF STANDARDS.
4. ALL GUY LEAD LENGTHS ARE STATED FROM THE CENTER OF THE POLE +/- 10%. FIELD CONDITIONS REQUIRING GUY LEADS TO BE INCREASED ABOVE THE VALUES SPECIFIED SHOULD BE NOTED FOR AS BUILT DRAWINGS, BUT DO NOT REQUIRE A DESIGN REVIEW BY THE ENGINEER.

STAMPS:

CERTIFICATE OF APPROVAL

THIS INSTALLATION WORK COVERED BY THIS DOCUMENT MEETS THE SAFETY EQUIREMENTS OF SECTION 4 OF ONTARIO REGULATION 22/04

NAME OF P. ENG. : MARC PICHE

C OF A NUMBER : 100099553

C OF A NAME: CIMA CANADA INC.

SIGNATURE :

DATE : 2023, JUNE 21

MARC ANDRE PICHE — 100099553 — PROFESSIONAL ENGINEER — PROVINCE OF ONTARIO — 2023 jun 21

No.	Date	Description	By
1	2023/06/21	ISSUED FOR CONSTRUCTION	MP
0	2022/12/21	ISSUED FOR CONSTRUCTION	REL
A	2022/11/21	ISSUED FOR CLIENT REVIEW	REL

ENGINEER:
CIMA+
T: 519-203-1222
112-4096 Meadowbrook Drive, London, ON N6L 1G4 CANADA
DISCIPLINE: ELECTRICAL

CLIENT: SAULT STE. MARIE PUC
PROJECT NAME: TOWN LINE ROAD SEGMENT 3 HERKIMER STREET SAULT STE. MARIE, ONTARIO
SHEET TITLE: SEGMENT 3 COVER SHEET

DRAFTER: K.LAPIER	SCALE: N.T.S.
DESIGNER: R.E.LAPIER	DATE: 2022/11/11
APPROVER: R.E.LAPIER	APPROVER:
PROJECT No: C16-00222	DRAWING No: G-300
SHEET No: 1 of 6	

FRAMING NOTES:
EP53 (P16782):
EX 40' C4 Wood (2003)
01-109-15kV
01-500 FIG 8 (#2ACSR N - #2ACSR N SLACK)
10-200A FIG 3
06-100 PRI & SEC DGs TO 12"PISA AT 6.0m LEAD

FRAMING NOTES:
EP1 (P16784):
EX 40' C4 Wood (2003)
01-109-15kV
01-500 FIG 5 (#2ACSR N - #2ACSR N SLACK)
10-200A FIG 2
EX PRI SG TO B5587
EX ANCHOR AT 4.5m LEAD

FRAMING NOTES:
NP2 (P16785):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-109-15kV
07-101-15kV
01-500 FIG 8
10-200 FIG 1
EX PRI SG TO B5584
EX ANCHOR AT 4.5m LEAD

FRAMING NOTES:
EP3 (P16786):
EX 40' C4 Wood (2008)
01-100-15kV
01-500 FIG 2
10-200 FIG 1

FRAMING NOTES:
EP4 (P16787):
EX 40' C4 Wood (2017)
01-100-15kV
01-500 FIG 2
10-200 FIG 1

FRAMING NOTES:
EP5 (P16788):
EX 45' C4 Wood (2008)
01-100-15kV
08-100-15KV (T5387, 10KVA, 7200-120/240V, Yϕ)
01-500 FIG 2
10-200 FIG 1
09-100 GND

FRAMING NOTES:
EP6 (P16789):
EX 40' C4 Wood (2008)
01-100-15kV
01-500 FIG 2
10-200A FIG 2
06-100 SEC DG TO 12"PISA
AT 3.0m LEAD

FRAMING NOTES:
EP7 (P16790):
EX 40' C4 Wood (2007)
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
EP8 (P16791):
EX 40' C4 Wood (2006)
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
NP9 (P16792):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2

LEGEND

Symbol	Description	Symbol	Description
— UG —	EXISTING OVERHEAD SERVICE	○	EXISTING POLE TO REMAIN
— UG —	EXISTING UNDERGROUND SERVICE	⊗	EXISTING POLE TO BE REMOVED
— — —	EXISTING PRIMARY (SIZE AS NOTED)	●	PROPOSED NEW POLE
— — —	PROPOSED PRIMARY (SIZE AS NOTED)		EXISTING STREETLIGHT
F10651, 100K	PRIMARY FUSE (SIZE AS NOTED)		PROPOSED OR TRANSFERRED STREETLIGHT
16752	EXISTING SSMPUC POLE NUMBERS		EXISTING DG/ANCHOR
NP18	PROJECT DESIGNATED POLE NUMBERS		PROPOSED DG/ANCHOR
B####	EXISTING BELL POLE NUMBERS	<42.2m>	SPAN DISTANCE
		— EX SG —	EXISTING SPAN GUY
		— SGX1 —	PROPOSED SPAN GUY

KEY PLAN:

STAMPS:

CERTIFICATE OF APPROVAL
THIS INSTALLATION WORK COVERED BY THIS DOCUMENT MEETS THE SAFETY EQUIREMENTS OF SECTION 4 OF ONTARIO REGULATION 22/04
NAME OF P. ENG. : MARC PICHE
C OF A NUMBER : 100099553
C OF A NAME: CIMA CANADA INC.
SIGNATURE :
DATE : 2023, JUNE 21

LICENSED PROFESSIONAL ENGINEER M. PICHÉ 100174419 PROVINCE OF ONTARIO 2023 juin 21

No.	Date	Description	By
1	2023/06/21	ISSUED FOR CONSTRUCTION	MP
0	2022/12/21	ISSUED FOR CONSTRUCTION	REL
A	2022/11/21	ISSUED FOR CLIENT REVIEW	REL

ENGINEER: CIMA+
T: 519-203-1222
112-4096 Meadowbrook Drive, London, ON N6L 1G4 CANADA

DISCIPLINE: ELECTRICAL

CLIENT: SAULT STE. MARIE PUC
PROJECT NAME: TOWN LINE ROAD - SEGMENT 3 (HERKIMER STREET)
SHEET TITLE: PLAN & POLE PROFILES

DRAFTER: K.LAPIER
SCALE: 1:500 @ 24"X36" PLOT
DESIGNER: R.E.LAPIER
DATE: 2022/11/11
APPROVER: R.E.LAPIER
APPROVER:
PROJECT No: C16-00222
DRAWING No: E-301
SHEET No: 2 of 6

FRAMING NOTES:
NP10 (P16793):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
NP11 (P16794):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
NP12 (P16795):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
EP13 (P16796):
EX 40' C3 Wood (2017)
01-100-15kV
01-500 FIG 2
EXISTING WOODPECKER DAMAGE. REPLACE WITH 45' C3 POLE IF DEEMED UNSAFE

FRAMING NOTES:
NP14 (P16797):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
NP15 (P16798):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
NP16:
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-105-15kV
01-500 FIG 9
10-200A FIG 3 (#2 TRPLX)
06-100 PRI & SEC DGs TO 12"PISA AT 5.0m LEAD
TRANSFER EX STREETLIGHT FROM P16799 TO NP16

FRAMING NOTES:
NP17 (P16801):
PROP 45' C3 Wood
05-101 DITCH SET AS REQ'D
01-100-15kV
08-100-15KV (T2, 25KVA, 7200-120/240V, Yϕ) 1
01-500 FIG 2
10-200A FIG 3 (#2 TRPLX TO NP16)
10-200A-FIG 3 (1/0 TRPLX SERVICE)
06-100 SEC DG TO 12"PISA AT 5.0m LEAD
09-100 GND

FRAMING NOTES:
NP18 (P16802):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2

KEY PLAN:

STAMPS:

CERTIFICATE OF APPROVAL
THIS INSTALLATION WORK COVERED BY THIS DOCUMENT MEETS THE SAFETY EQUIREMENTS OF SECTION 4 OF ONTARIO REGULATION 22/04
NAME OF P. ENG. : MARC PICHE
C OF A NUMBER : 100099553
C OF A NAME: CIMA CANADA INC.
SIGNATURE :
DATE : 2023, JUNE 21

LICENSED PROFESSIONAL ENGINEER M. PICHÉ 100174419 PROVINCE OF ONTARIO
2023 juin 21

No.	Date	Description	By
1	2023/06/21	ISSUED FOR CONSTRUCTION	MP
0	2022/12/21	ISSUED FOR CONSTRUCTION	REL
A	2022/11/21	ISSUED FOR CLIENT REVIEW	REL

ENGINEER:
CIMA+
T: 519-203-1222
112-4096 Meadowbrook Drive, London, ON N6L 1G4 CANADA

DISCIPLINE: ELECTRICAL

CLIENT: SAULT STE. MARIE PUC
PROJECT NAME: TOWN LINE ROAD - SEGMENT 3 (HERKIMER STREET)
SHEET TITLE: PLAN & POLE PROFILES

DRAFTER: K.LAPIER	SCALE: 1:500 @ 24"X36" PLOT
DESIGNER: R.E.LAPIER	DATE: 2022/11/11
APPROVER: R.E.LAPIER	APPROVER:
PROJECT No: C16-00222	DRAWING No: E-302
SHEET No: 3 of 6	

TITLEBLOCK 24x36 HORZ ENG 3.0
PRINT DATE: 2023/06/21 / PAPER SIZE: ARCH expand D (24.00 x 36.00 Inches)
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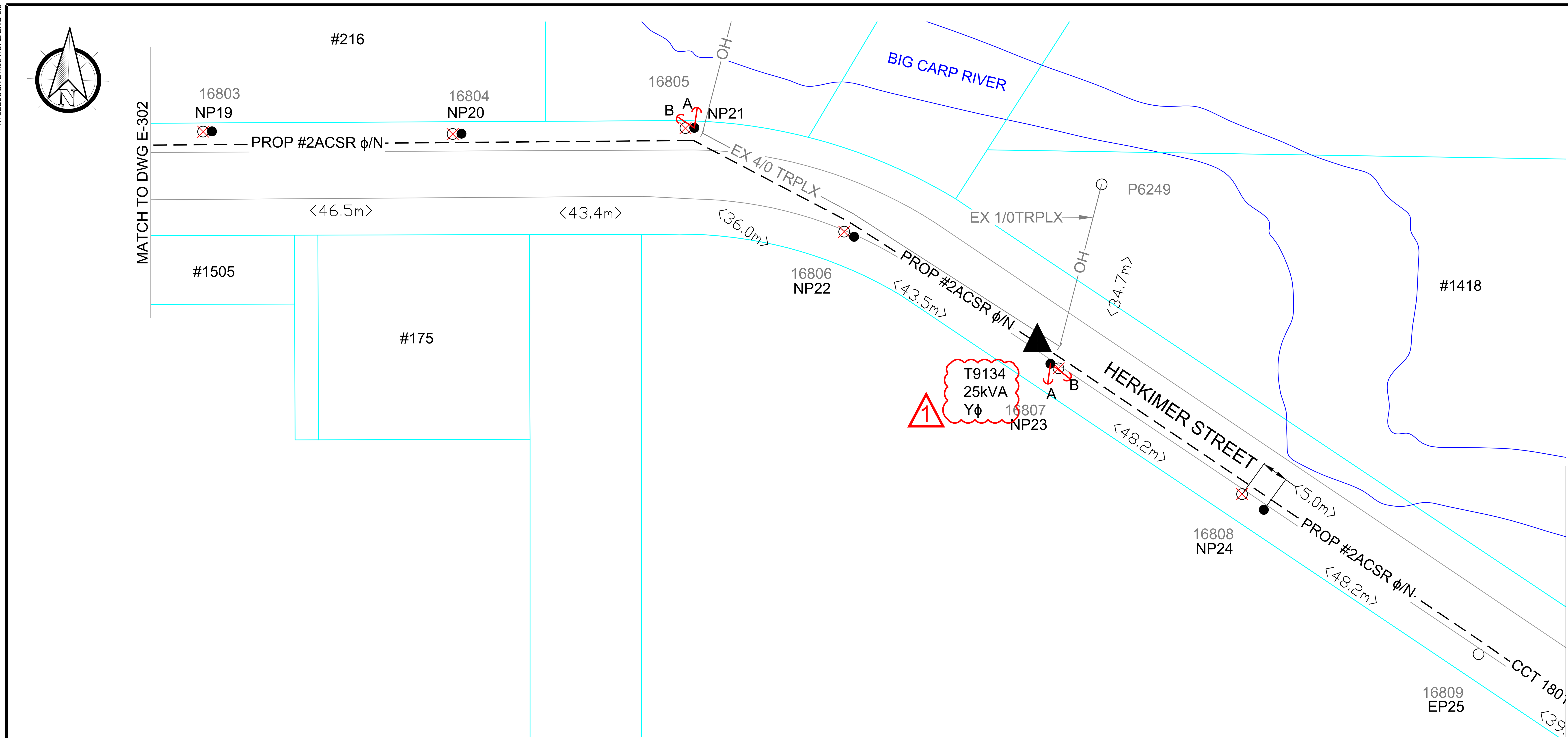

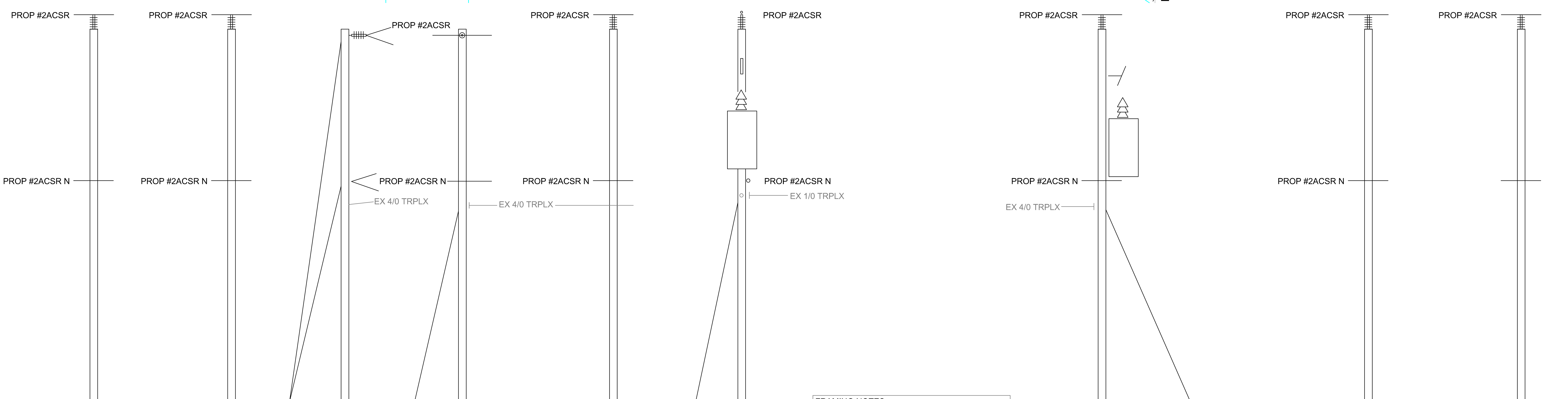

NP19 (NORTH) | NP20 (NORTH) | 5.5m(A) | NP21 (EAST) | 3.0m(B) | NP21 (NORTH) | NP22 (NORTH) | 3.0m | NP23 (NW) | NP23 (NE) | 3.0m | NP24 (NE) | EP25 (NE)

FRAMING NOTES:
NP19 (P16803):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
NP20 (P16804):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
NP21 (P16805): ANGLE=36DEG
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-102-15kV
01-500 FIG 4
10-200A FIG 2 (4/0TRPLX)
06-100 PRI & SEC DGs TO 12"PISA AT 5.5m LEAD (A)
06-100 SEC DG TO 12"PISA AT 3.0m LEAD (B)

FRAMING NOTES:
NP22 (P16806):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2
10-200 FIG 1 (4/0 TRPLX)

FRAMING NOTES:
NP23 (P16807):
PROP 45' C3 Wood
01-100-15kV
08-100-15KV (T9134, 25KVA, 7200-120/240V, Yϕ) 1
TRANSFER EX TX TO NEW POLE
01-500 FIG 2
10-200A FIG 3 (4/0 TRPLX TO NP22)
10-200A-FIG 3 (1/0 TRPLX SERVICE)
06-100 SEC DG TO 12"PISA AT 3.0m LEAD (A)
06-100 SEC DG TO 12"PISA AT 3.0m LEAD (B)
09-100 GND

FRAMING NOTES:
NP24 (P16808):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
SET NP 5.0m SE OF EX P16808
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
EP25 (P16809):
EX 40' C4 Wood (2007)
01-100-15kV
01-500 FIG 2
EXISTING WOODPECKER DAMAGE.
REPLACE WITH 45' C3 POLE IF DEEMED UNSAFE

KEY PLAN:

STAMPS:

CERTIFICATE OF APPROVAL
THIS INSTALLATION WORK COVERED BY THIS DOCUMENT MEETS THE SAFETY EQUIREMENTS OF SECTION 4 OF ONTARIO REGULATION 22/04
NAME OF P. ENG.: MARC PICHE
C OF A NUMBER : 100099553
C OF A NAME: CIMA CANADA INC.
SIGNATURE :
DATE : 2023, JUNE 21

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No.	Date	Description	By
1	2023/06/21	ISSUED FOR CONSTRUCTION	MP
0	2022/12/21	ISSUED FOR CONSTRUCTION	REL
A	2022/11/21	ISSUED FOR CLIENT REVIEW	REL

ENGINEER:
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T: 519-203-1222
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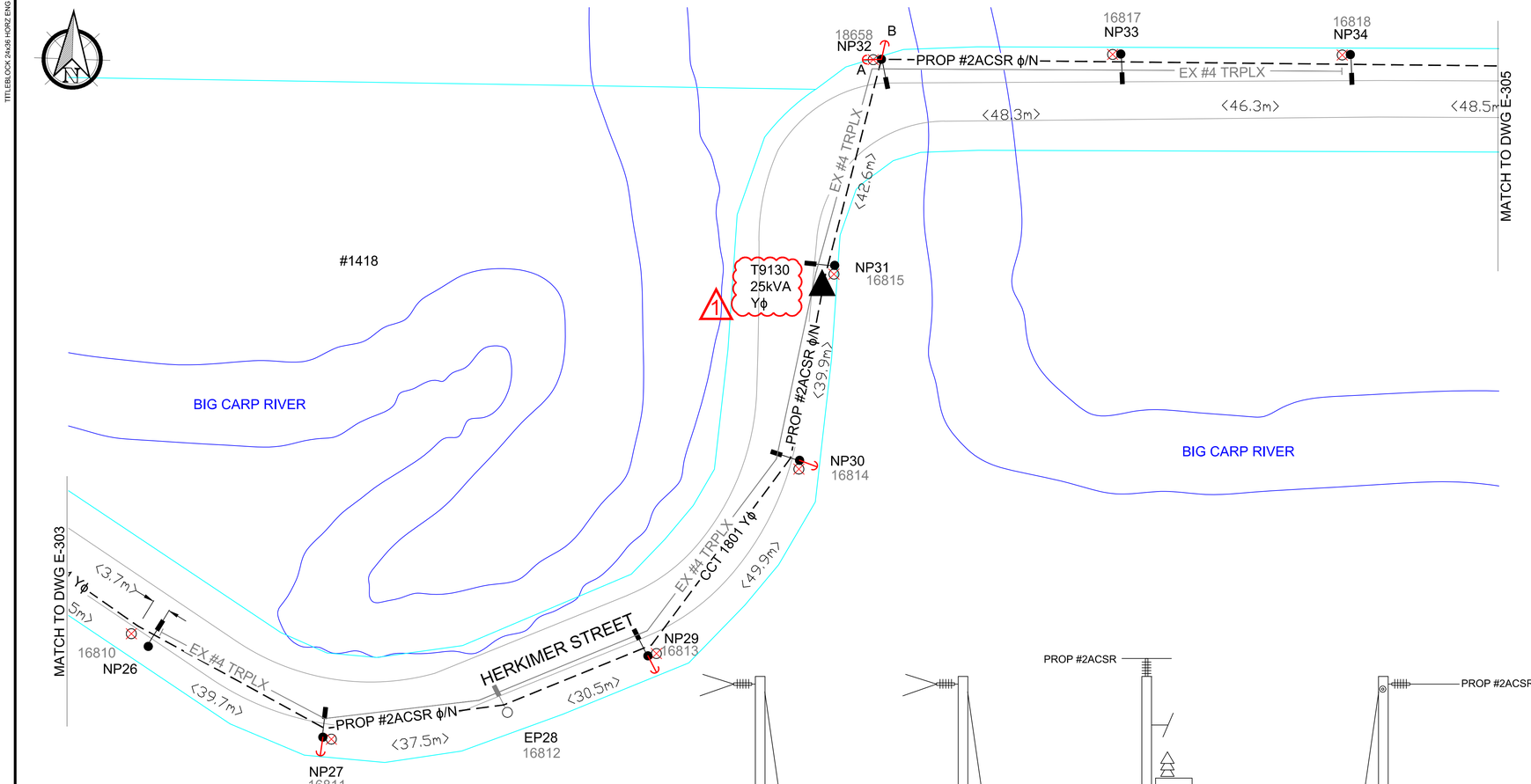
DISCIPLINE: ELECTRICAL

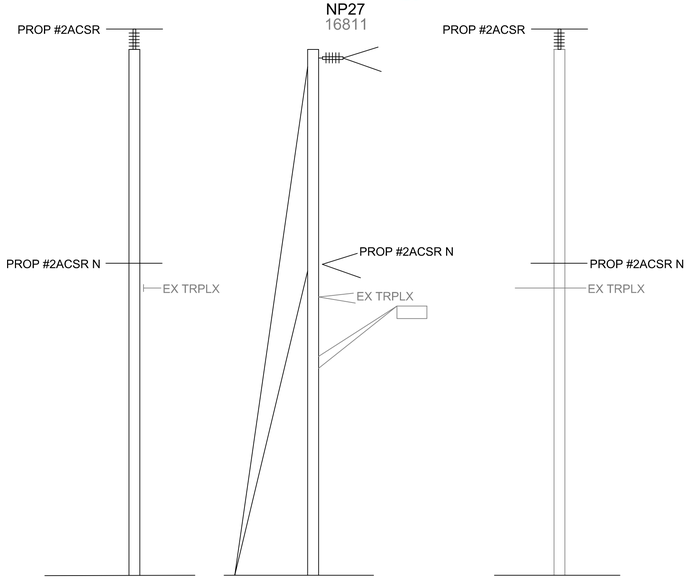
CLIENT: SAULT STE. MARIE PUC

PROJECT NAME: TOWN LINE ROAD - SEGMENT 3 (HERKIMER STREET)

SHEET TITLE: PLAN & POLE PROFILES

DRAFTER: K.LAPIER
SCALE: 1:500 @ 24"X36" PLOT
DESIGNER: R.E.LAPIER
DATE: 2022/11/11
APPROVER: R.E.LAPIER
APPROVER:
PROJECT No: C16-00222
DRAWING No: E-303
SHEET No: 4 of 6

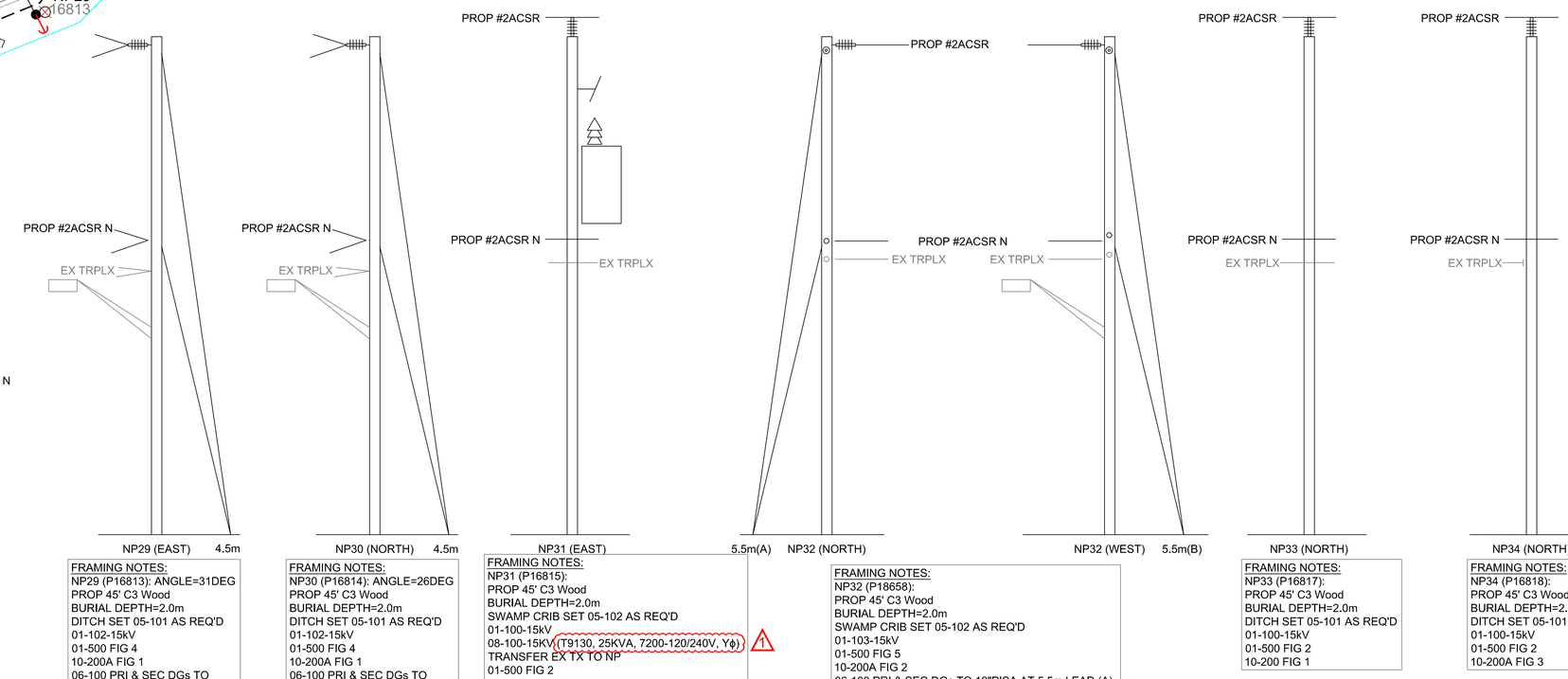




FRAMING NOTES:
NP26 (P16810):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
SET NP 3.7m SE OF P16810
01-100-15kV
01-500 FIG 2
10-200A FIG 3
TRANSFER STREETLIGHT

FRAMING NOTES:
NP27 (P16811): ANGLE=36DEG
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-102-15kV
10-200A FIG 1
06-100 PRI & SEC DGs TO 12"PISA AT 4.5m LEAD
TRANSFER STREETLIGHT

FRAMING NOTES:
EP28 (P16812):
EX 40' C4 Wood (2005)
01-100-15kV
01-500 FIG 2
10-200 FIG 1



FRAMING NOTES:
NP29 (P16813): ANGLE=31DEG
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-102-15kV
01-500 FIG 4
10-200A FIG 1
06-100 PRI & SEC DGs TO 12"PISA AT 4.5m LEAD
TRANSFER STREETLIGHT

FRAMING NOTES:
NP30 (P16814): ANGLE=26DEG
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-102-15kV
01-500 FIG 4
10-200A FIG 1
06-100 PRI & SEC DGs TO 12"PISA AT 4.5m LEAD
TRANSFER STREETLIGHT

FRAMING NOTES:
NP31 (P16815):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
SWAMP CRIB SET 05-102 AS REQ'D
01-100-15kV
08-100-15kV (T9130, 25KVA, 7200-120/240V, Yϕ)
TRANSFER EX TX TO NP
01-500 FIG 2
10-200A FIG 3
09-100 GND
TRANSFER STREETLIGHT
1

FRAMING NOTES:
NP32 (P18658):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
SWAMP CRIB SET 05-102 AS REQ'D
01-103-15kV
01-500 FIG 5
10-200A FIG 2
06-100 PRI & SEC DGs TO 12"PISA AT 5.5m LEAD (A)
06-100 PRI & SEC DGs TO 12"PISA AT 5.5M LEAD (B)
TRANSFER STREETLIGHT

FRAMING NOTES:
NP33 (P16817):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2
10-200 FIG 1

FRAMING NOTES:
NP34 (P16818):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
01-500 FIG 2
10-200A FIG 3

KEY PLAN:

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C OF A NAME: CIMA CANADA INC.
SIGNATURE :
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1	2023/06/21	ISSUED FOR CONSTRUCTION	MP
0	2022/12/21	ISSUED FOR CONSTRUCTION	REL
A	2022/11/21	ISSUED FOR CLIENT REVIEW	REL

ENGINEER:
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112-4096 Meadowbrook Drive, London, ON N6L 1G4 CANADA

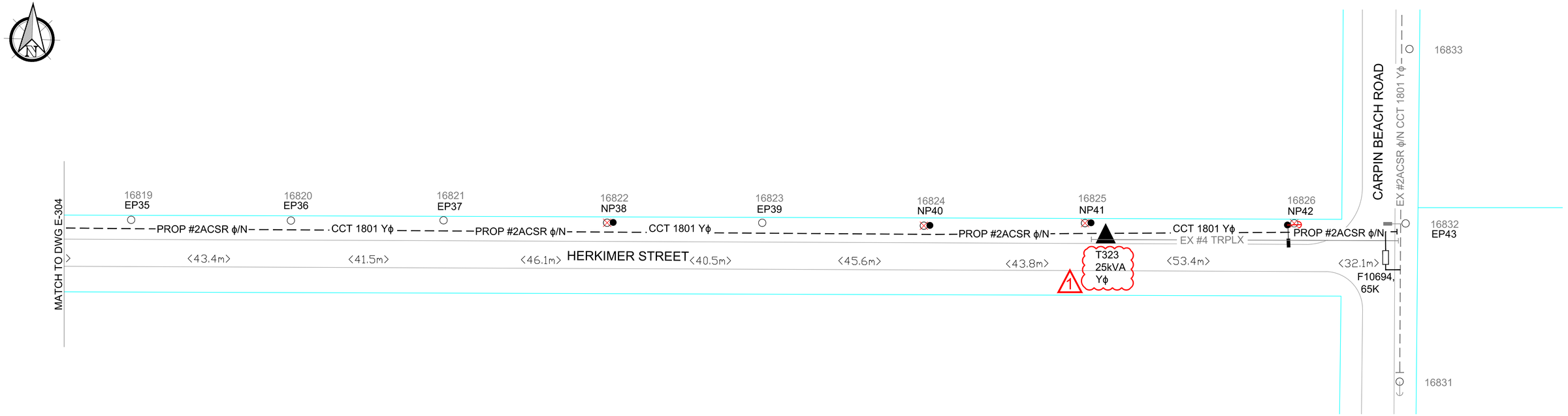
DISCIPLINE:
ELECTRICAL

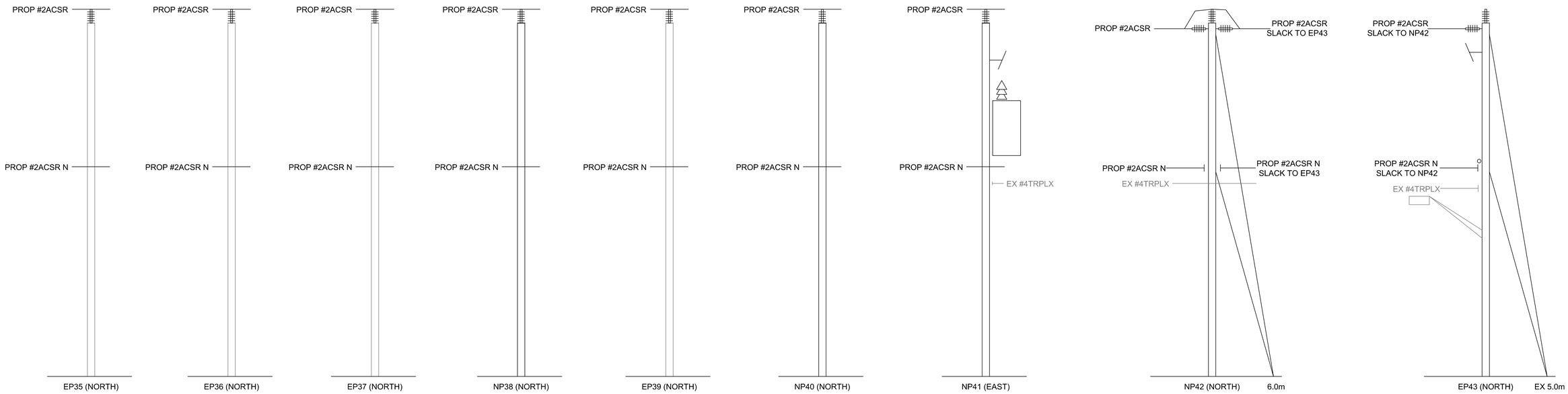
CLIENT:
SAULT STE. MARIE PUC

PROJECT NAME:
TOWN LINE ROAD - SECTION 3
(HERKIMER STREET TO CARPIN BEACH ROAD)

SHEET TITLE:
PLAN & POLE PROFILES

DRAFTER: K.LAPIER	SCALE: 1:500 @ 24"X36" PLOT
DESIGNER: R.E.LAPIER	DATE: 2022/11/11
APPROVER: R.E.LAPIER	APPROVER:
PROJECT No: C16-00222	DRAWING No: E-304
SHEET No: 5 of 6	





FRAMING NOTES:
EP35 (P16819):
EX 40' C4 Wood (2006)
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
EP36 (P16820):
EX 40' C4 Wood (2004)
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
EP37 (P16821):
EX 40' C4 Wood (2004)
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
NP38 (P16822):
PROP 40' C3 Wood
BURIAL DEPTH=1.8m
05-101 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
EP39 (P16823):
EX 40' C4 Wood (2004)
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
NP40 (P16824):
PROP 40' C3 Wood
BURIAL DEPTH=1.8m
05-101 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2

FRAMING NOTES:
NP41 (P16825):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
DITCH SET 05-101 AS REQ'D
01-100-15kV
08-100-15kV (T323, 25KVA, 7200-120/240V, Yϕ) 1
TRANSFER EX TX TO NP
01-500 FIG 2
10-200A FIG 3
09-100 GND

FRAMING NOTES:
NP42 (P16826):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-101 DITCH SET AS REQ'D
01-109-15kV
01-500 FIG 8
10-200 FIG 1
06-100 PRI & SEC DGs TO 12"PISA AT 6.0m LEAD
TRANSFER STREETLIGHT

FRAMING NOTES:
EP43 (P16832):
EX 45' C3 Wood (2018)
EX 01-100-15KV (EX #2ACSR)
EX 07-101-15KV
EX 01-500 FIG 2 (EX #2ACSR N)
EX 01-500 FIG 7 (REUSE)
EX 10-200A FIG 3 (SEC DE)
EX GUYING TO REMAIN

KEY PLAN:

STAMPS:

CERTIFICATE OF APPROVAL
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NAME OF P. ENG. : MARC PICHE
C OF A NUMBER : 100099553
C OF A NAME: CIMA CANADA INC.
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No.	Date	Description	By
1	2023/06/21	ISSUED FOR CONSTRUCTION	MP
0	2022/12/21	ISSUED FOR CONSTRUCTION	REL
A	2022/11/21	ISSUED FOR CLIENT REVIEW	REL

ENGINEER:
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DISCIPLINE: ELECTRICAL

CLIENT: SAULT STE. MARIE PUC
PROJECT NAME: TOWN LINE ROAD - SEGMENT 3 (HERKIMER STREET)
SHEET TITLE: PLAN & POLE PROFILES

DRAFTER: K.LAPIER	SCALE: 1:500 @ 24"X 36" PLOT
DESIGNER: R.E.LAPIER	DATE: 2022/11/11
APPROVER: R.E.LAPIER	APPROVER:
PROJECT No: C16-00222	DRAWING No: E-305
SHEET No: 5 of 6	

PRINT DATE: 2023/06/21 / PAPER SIZE: ARCH expand D (24.00 x 36.00 Inches)
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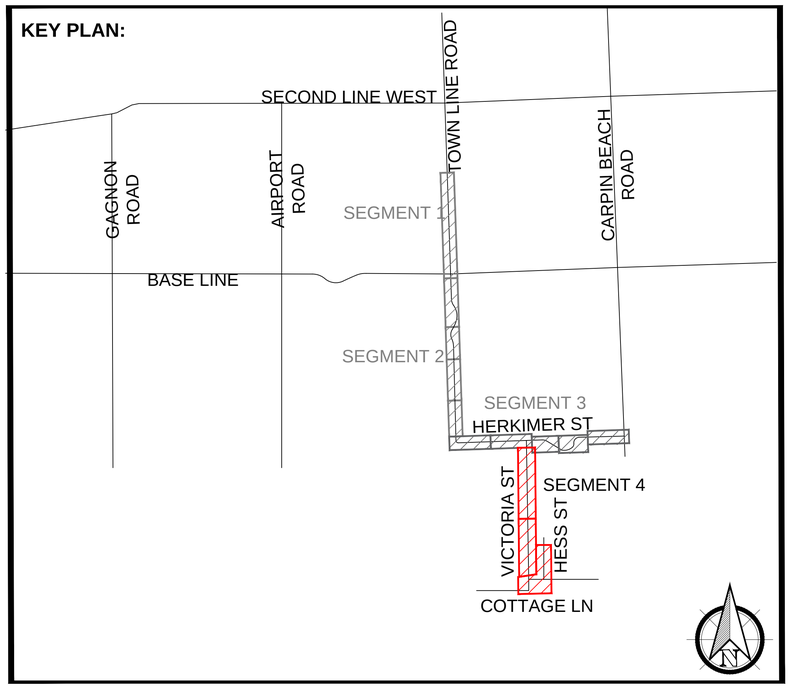
KEY PLAN:



TOWN LINE RD SEGMENT 4 (VICTORIA ST.) (HERKIMER ST. TO COTTAGE LN. AND HESS ST) SAULT STE. MARIE, ONTARIO

4096 Meadowbrook Drive, Unit 112
London, ON, N6L 1G4
Canada
Telephone: (519) 203-1222

TECHNICAL CONTACT
ASHLEY RIST, P.ENG.
Ashley.Rist@cima.ca
1-519-317-1757

SEGMENT 4 DRAWING INDEX

PROJECT DESCRIPTION AND WORK INSTRUCTIONS:

REMOVAL AND REPLACEMENT OF APPROXIMATELY 1750m (PHASE & NEUTRAL) OF RESTRICTED #4 OR #6 COPPER WIRE ON VICTORIA STREET AND HESS ST.

INSTALL:
- INSTALL APPROXIMATELY 1750M OF NEW #2ACSR CONDUCTOR FOR PRIMARY PHASE AND NEUTRAL
- INSTALL 21 NEW 45' CLASS 3 WOOD POLES
- INSTALL 10 NEW 12” PISA ANCHORS
- INSTALL 7 NEW PRIMARY DOWN GUYS
- INSTALL 10 SECONDARY DOWN GUYS
- INSTALL 4 NEW SPAN GUYS
- INSTALL 2 - 25KVA 7200V-120/240V TRANSFORMERS
- INSTALL 5 - 50KVA 7200V-120/240V TRANSFORMERS

REFRAME:
- REFRAME 4 EXISTING POLES TO MATCH THE NEW PROPOSED FRAMING

REMOVE:
- REMOVE APPROXIMATELY 1750M (PHASE & NEUTRAL) OF RESTRICTED #4 OR #6 COPPER WIRE
- REMOVE 21 EXISTING 35' AND 40' POLES
- REMOVE 11 EXISTING GUYS AND ANCHORS
- REMOVE 7 EXISTING POLE MOUNT TRANSFORMERS

TRANSFER TO NEW POLES:
- TRANSFER 7 EXISTING UNDERGROUND SERVICES
- TRANSFER 15 EXISTING OVERHEAD SERVICES
- TRANSFER 19 EXISTING STREETLIGHTS AS PER PUC-11-103-B

TREE TRIMMING:
- ESTIMATED DISTANCE (LINEAL METERS) OF REQUIRED TREE TRIMMING = 200m FOR LINE CLEARANCE.
- TRIMMING AROUND THE BASE OF POLES MAY ALSO BE REQUIRED TO FACILITATE ACCESS FOR INSTALLATION. THIS REQUIREMENT WILL BE LEFT TO THE DISCRETION OF SSMPUC.

WORK INSTRUCTIONS:

1. THE DESIGN DRAWINGS DEPICT THE INSTALLATION IN ITS FINAL CONFIGURATION. NO REMOVALS HAVE BEEN DETAILED ON THE DRAWINGS.
2. THE EXTENT OF TREE TRIMMING REQUIRED PRIOR TO THE WORK COMMENCING WILL BE LEFT TO THE DISCRETION OF THE FIELD FOREMAN, BUT AN ESTIMATE HAS BEEN PROVIDED ABOVE.
3. DIMENSIONS SHOWN ON POLE PROFILES INDICATE THE PROPOSED HEIGHTS ABOVE GRADE FOR ALL ATTACHMENTS FOR FUTURE REFERENCE. POLE DRILLING FOR ATTACHMENTS SHALL BE AS PER USF STANDARDS.
4. ALL GUY LEAD LENGTHS ARE STATED FROM THE CENTER OF THE POLE +/- 10%. FIELD CONDITIONS REQUIRING GUY LEADS TO BE INCREASED ABOVE THE VALUES SPECIFIED SHOULD BE NOTED FOR AS BUILT DRAWINGS, BUT DO NOT REQUIRE A DESIGN REVIEW BY THE ENGINEER.
5. STRING CONDUCTOR ACCORDING TO USF SECTION 03: TABLE 03-02.

STAMPS:
REGISTERED PROFESSIONAL ENGINEER — A. RIST — 100185130 — 2023.03.15 — PROVINCE OF ONTARIO

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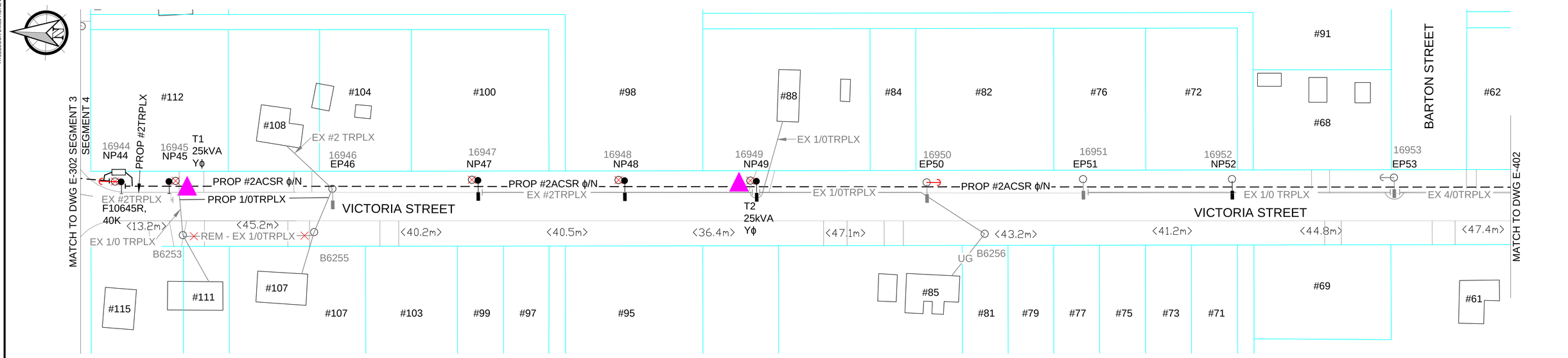
NAME OF P.ENG.: ASHLEY RIST
SIGNATURE:
DATE: MARCH 15, 2023

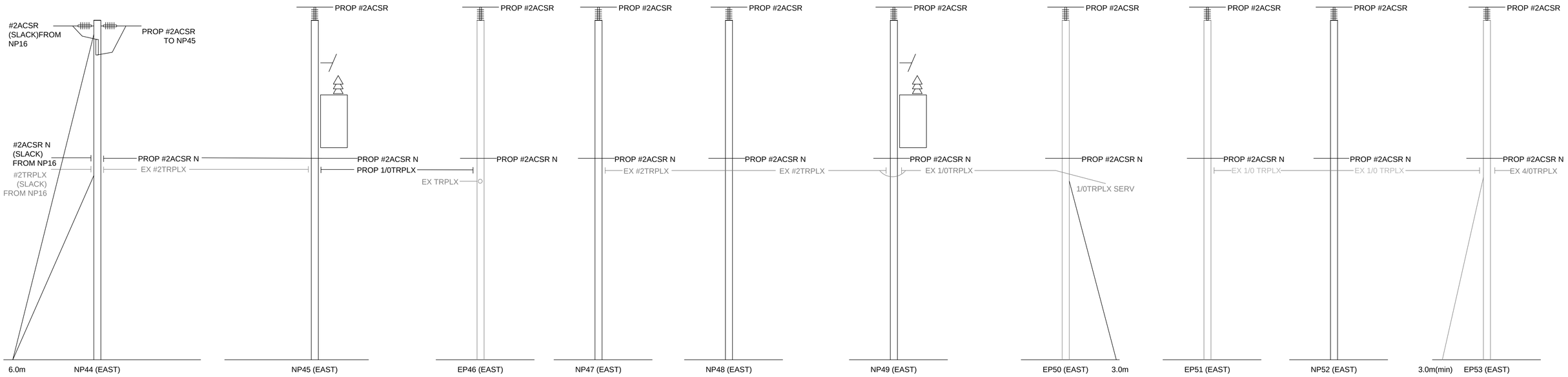
No.	Date	Description	By
B	2023/03/15	ISSUED FOR CONSTRUCTION	AR
A	2023/02/07	ISSUED FOR CLIENT REVIEW	AR

ENGINEER: CIMA+ T: 519-203-1222 112-4096 Meadowbrook Drive, London, ON N6L 1G4 CANADA
DISCIPLINE: ELECTRICAL

CLIENT: SAULT STE. MARIE PUC
PROJECT NAME: TOWN LINE RD SEGMENT 4 VICTORIA ST. & HESS ST. SAULT STE. MARIE, ONTARIO
SHEET TITLE: SEGMENT 4 COVER SHEET

DRAFTER: R.E.LAPIER	SCALE: N.T.S.
DESIGNER: A.RIST	DATE: 2023/03/15
APPROVER: A.RIST	APPROVER:
PROJECT No: C16-00222	DRAWING No: G-400
SHEET No: 1 of 5	





FRAMING NOTES:
NP44 (P16944):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-101 DITCH SET AS REQ'D
07-101-15kV
01-500 FIG 8 (#2ACSR N SLACK - #2ACSR N)
10-200A FIG 3 TRANSFER 1X OH SERVICE
06-100 PRI & SEC DGs TO 12"PISA AT 6.0m LEAD
TRANSFER STREETLIGHT

FRAMING NOTES:
NP45 (P16945):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-101 DITCH SET AS REQ'D
01-100-15kV
08-100-15kV (T1, 25kVA, 7200-120/240V, Yϕ)
01-500 FIG 2
10-200A FIG 3 TRANSFER 1X OH SERVICE
09-100 GND
TRANSFER STREETLIGHT

FRAMING NOTES:
EP46 (P16946):
EX 40' C4 Wood (2008)
01-100-15kV
01-500 FIG 2
10-200A FIG 2

FRAMING NOTES:
NP47 (P16947):
PROP 45' C3 WOOD
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2
10-200A FIG 3
TRANSFER STREETLIGHT

FRAMING NOTES:
NP48 (P16948):
PROP 45' C3 WOOD
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2
10-200 FIG 1
TRANSFER STREETLIGHT

FRAMING NOTES:
NP49 (P16949):
PROP 45' C3 WOOD
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
08-100-15kV (T2, 25kVA, 7200-120/240V, Yϕ)
01-500 FIG 2
10-200A FIG 4
10-200A FIG 3 TRANSFER 1X OH SERVICE
09-100 GND
TRANSFER STREETLIGHT

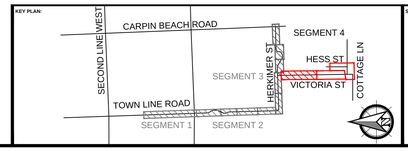
FRAMING NOTES:
EP50 (P16950):
EX 40' C4 WOOD (2007)
01-100-15kV
01-500 FIG 2
10-200A FIG 2 TRANSFER 1X OH SERVICE
06-100 SEC DG TO 12"PISA AT 3.0m LEAD

FRAMING NOTES:
EP51 (P16951):
EX 40' C4 WOOD (2003)
01-100-15kV
01-500 FIG 2
10-200A FIG 3

FRAMING NOTES:
NP52 (P16952):
PROP 45' C3 WOOD
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2
10-200 FIG 1
TRANSFER STREETLIGHT

FRAMING NOTES:
EP53 (P16953):
EX 40' C4 WOOD (2003)
01-100-15kV
01-500 FIG 2
10-200 FIG 1

KEY PLAN:



STAMPS:

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B	2023/03/15	ISSUED FOR CONSTRUCTION	AR
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ENGINEER:
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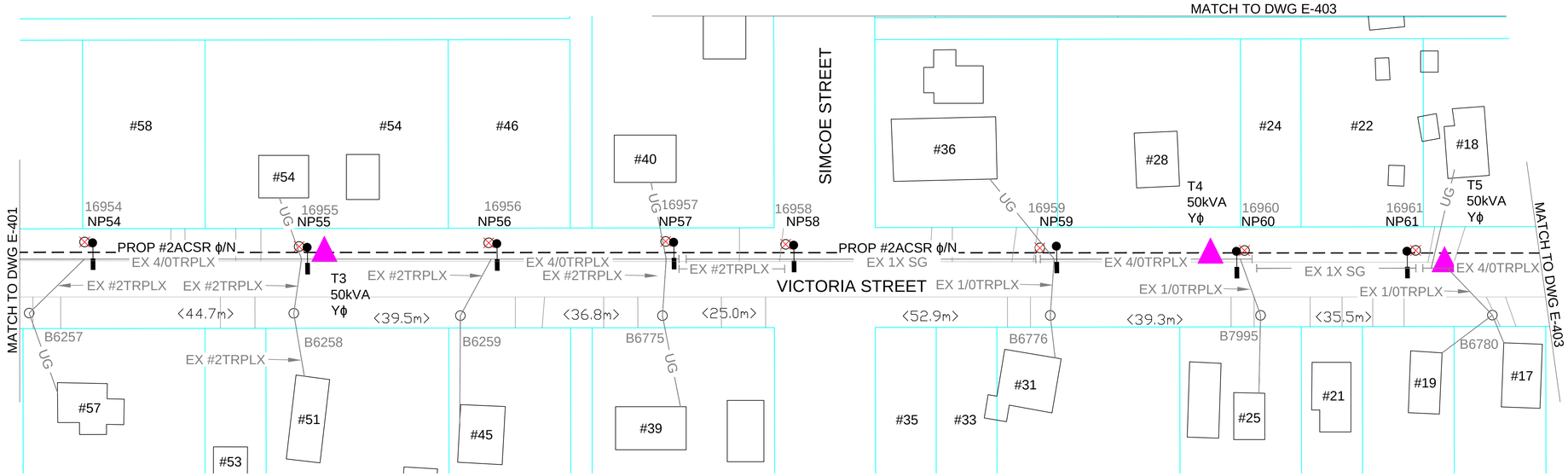
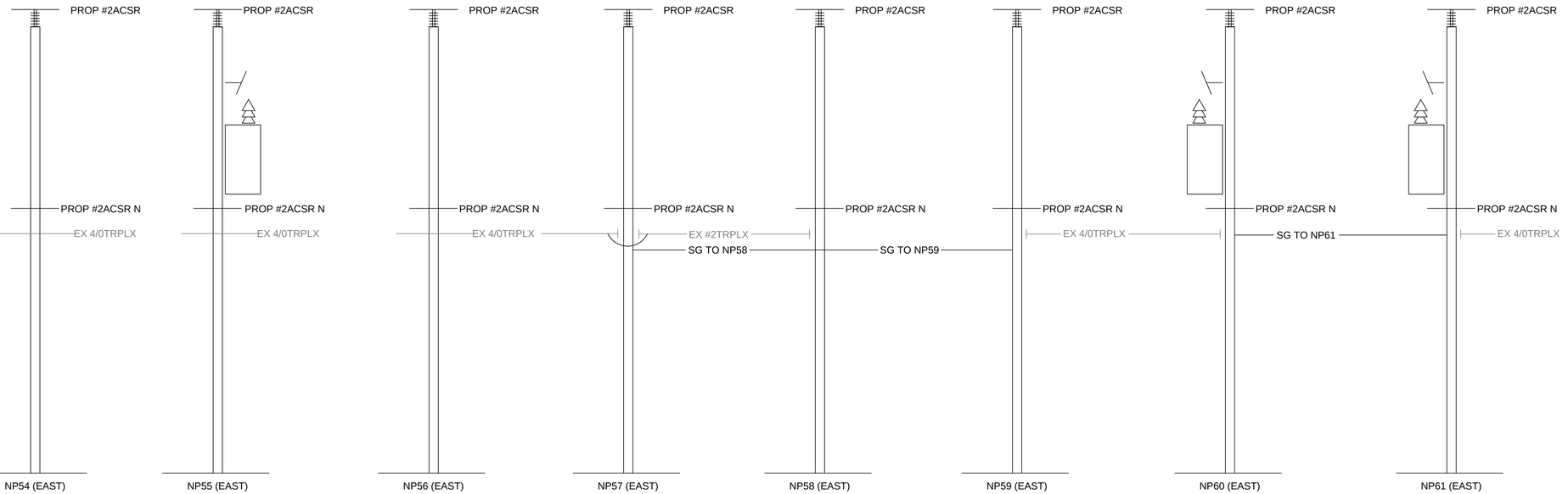
112-4096 Meadowbrook Drive, London, ON N6L 1G4 CANADA
DISCIPLINE:
ELECTRICAL

CLIENT: SAULT STE. MARIE PUC
PROJECT NAME: TOWN LINE RD SEGMENT 4
VICTORIA ST & HESS ST.
SAULT STE. MARIE, ONTARIO
SHEET TITLE: PLAN & POLE PROFILES

DRAFTER: R.E.LAPIER	SCALE: 1:500 @ 24"X36" PLOT
DESIGNER: A.RIST	DATE: 2023/03/15
APPROVER: A.RIST	APPROVER:
PROJECT No: C16-00222	DRAWING No: E-401
SHEET No: 2 of 5	





FRAMING NOTES:
NP54 (P16954):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2
10-200 FIG 1
10-200A FIG 3 TRANSFER 1X OH SERVICE
TRANSFER STREETLIGHT

FRAMING NOTES:
NP55 (P16955):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
08-100-15kV (T3, 50kVA, 7200-120/240V, Yϕ)
01-500 FIG 2
10-200 FIG 1
10-200A FIG 3 TRANSFER OH SERVICE
10-400 TRANSFER 1X UG SERVICE
09-100 GND
TRANSFER STREETLIGHT

FRAMING NOTES:
NP56 (P16956):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2
10-200 FIG 1
10-200A FIG 3 TRANSFER 1X OH SERVICE
TRANSFER STREETLIGHT

FRAMING NOTES:
NP57 (P16957):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2
10-200A FIG 4
10-200A FIG 3 TRANSFER 1X OH SERVICE
10-400 TRANSFER 1X UG SERVICE
06-104 SG TO NP58
TRANSFER STREETLIGHT

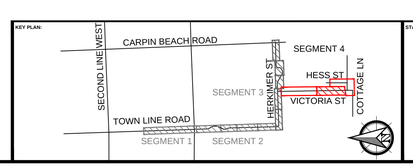
FRAMING NOTES:
NP58 (P16958):
PROP 45' C3 Wood
INSTALL 1m SOUTH OF EXISTING
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2 NEUTRAL
01-500 FIG 2 SPAN GUY
10-200A FIG 3
10-400 TRANSFER 1X UG SERVICE WITH SPLICE
TRANSFER STREETLIGHT

FRAMING NOTES:
NP59 (P16959):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2
10-200A FIG 3 X2 (DE AND OH SERVICE)
10-400 TRANSFER 1X UG SERVICE
06-104 SG FROM NP58
TRANSFER STREETLIGHT

FRAMING NOTES:
NP60 (P16960):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2
08-100-15kV (T4, 50kVA, 7200-120/240V, Yϕ)
10-200A FIG 3 X2 (DE AND OH SERVICE)
06-104 SG TO NP61
09-100 GND
TRANSFER STREETLIGHT

FRAMING NOTES:
NP61 (P16961):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 2
08-100-15kV (T5, 50kVA, 7200-120/240V, Yϕ)
10-200A FIG 3 X2 (DE AND OH SERVICE)
10-400 TRANSFER 1X UG SERVICE
06-104 SG FROM NP60
09-100 GND
TRANSFER STREETLIGHT

KEY PLAN:



STAMPS:

REGISTERED PROFESSIONAL ENGINEER
A. RIST
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2023.03.15
PROVINCE OF ONTARIO

CERTIFICATE OF APPROVAL

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NAME OF P.ENG.: ASHLEY RIST
SIGNATURE:
DATE: MARCH 15, 2023

No.	Date	Description	By
B	2023/03/15	ISSUED FOR CONSTRUCTION	AR
A	2023/02/07	ISSUED FOR CLIENT REVIEW	AR

ENGINEER:
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T: 519-203-1222
112-4096 Meadowbrook Drive, London, ON N6L 1G4 CANADA

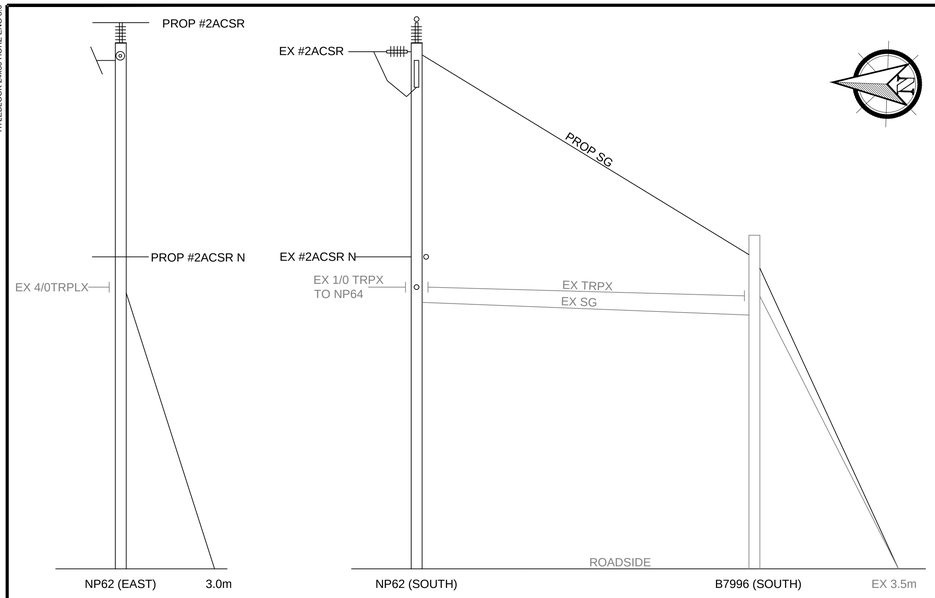
DISCIPLINE: ELECTRICAL

CLIENT: SAULT STE. MARIE PUC

PROJECT NAME: TOWN LINE RD SEGMENT 4
VICTORIA ST. & HESS ST.
SAULT STE. MARIE, ONTARIO

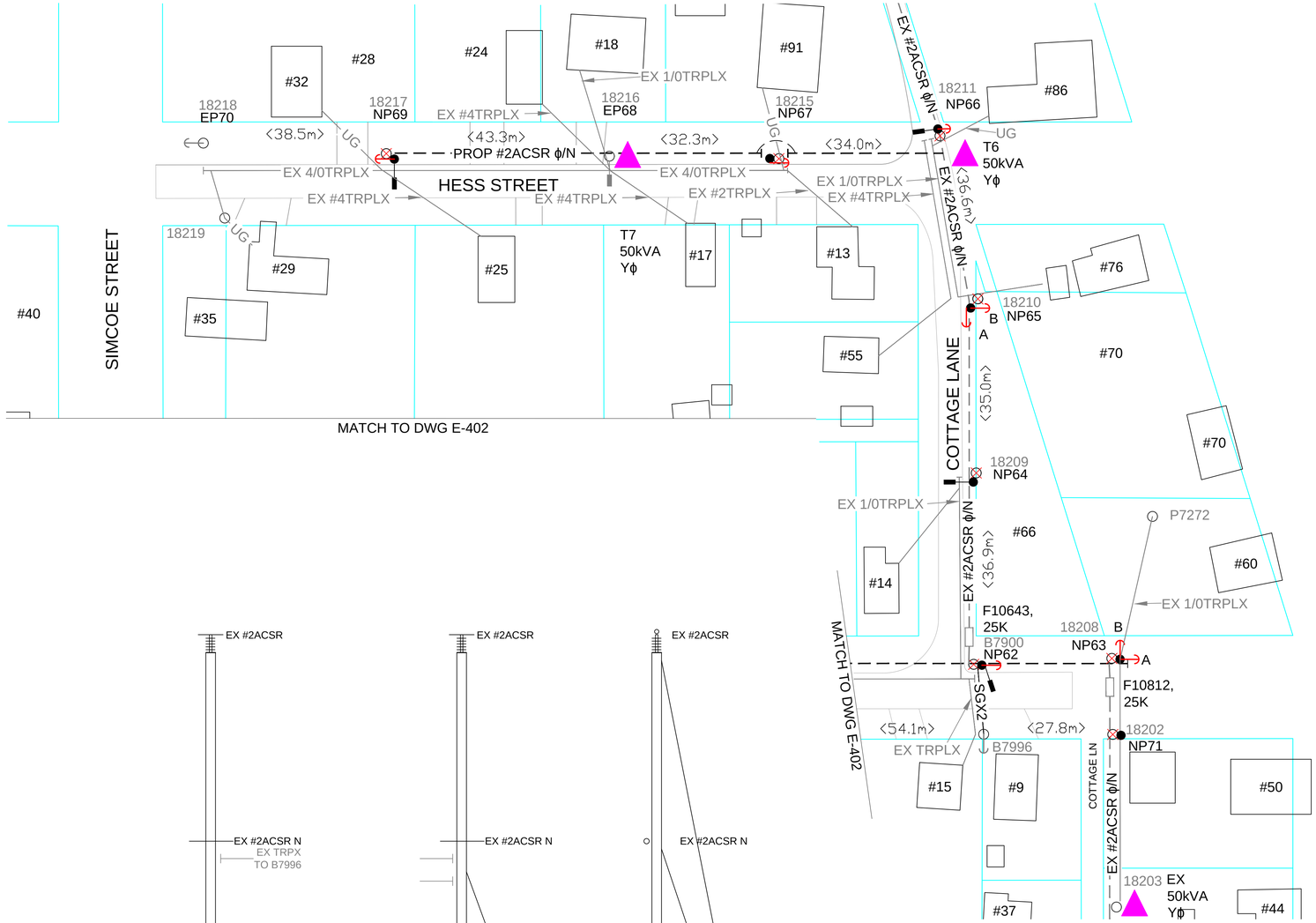
SHEET TITLE: PLAN & POLE PROFILES

DRAFTER: R.E.LAPIER	SCALE: 1:500 @ 24"X36" PLOT
DESIGNER: A.RIST	DATE: 2023/03/15
APPROVER: A.RIST	APPROVER:
PROJECT No: C16-00222	DRAWING No: E-402
SHEET No: 3 of 5	



FRAMING NOTES:
NP62 (B7900):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
07-100-15kV
01-500 FIG 9 (TAP TO NP64)
10-200A FIG 3 (DE FROM NP61)
10-200A FIG 4 (DE TO B7996, DE TO NP64)
06-104 PRI & SEC SG TO B7996
TRANSFER STREETLIGHT

FRAMING NOTES:
B7996:
EX 35' C4 WOOD
06-100
2x 06-104



FRAMING NOTES:
NP63 (P18208):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-103-15kV
07-100-15kV
01-500 FIG 9
10-200A FIG 1

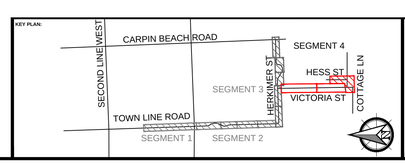
FRAMING NOTES CONTINUED:
TRANSFER STREETLIGHT

FRAMING NOTES:
NP64 (P18209):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 1
10-200A FIG 3 (DE FROM NP62)
TRANSFER 1X OH SERVICE
TRANSFER STREETLIGHT

FRAMING NOTES:
NP65 (P18210):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-101-15kV
01-500 FIG 1
10-200A FIG 3 (1/0TRPLX DE FROM NP66) TRANSFER 1X OH SERVICE
10-200A FIG 3 (#4TRPLX DE FROM NP66) TRANSFER 1X OH SERVICE
06-100 SEC DG TO 12"PISA AT 3.0m LEAD (A)
06-100 PRI & SEC DGS TO 12"PISA AT 4.0m LEAD(B)

FOR NP66, NP67,
EP68, NP69, EP70,
AND NP71
POLE PROFILES SEE
DRAWING E-404

KEY PLAN:



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ENGINEER:
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T: 519-203-1222
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DISCIPLINE: ELECTRICAL

CLIENT: SAULT STE. MARIE PUC
PROJECT NAME: TOWN LINE RD SEGMENT 4
VICTORIA ST. & HESS ST.
SAULT STE. MARIE, ONTARIO
SHEET TITLE: PLAN & POLE PROFILES

DRAFTER: R.E.LAPIER	SCALE: 1:500 @ 24"X36" PLOT
DESIGNER: A.RIST	DATE: 2023/03/15
APPROVER: A.RIST	APPROVER:
PROJECT No: C16-00222	DRAWING No: E-403
SHEET No: 4 of 5	

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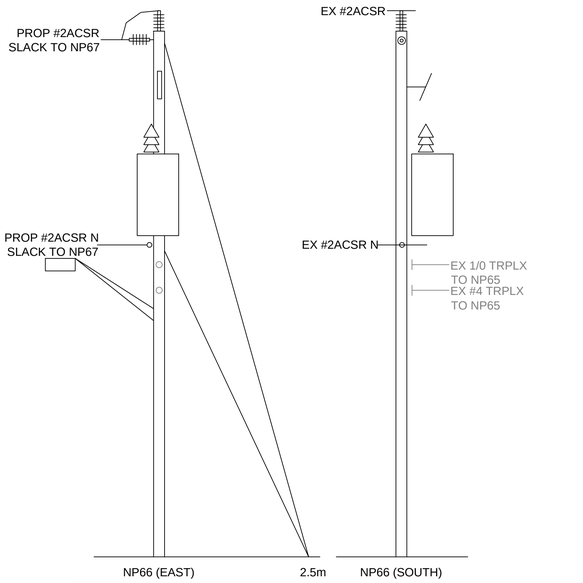
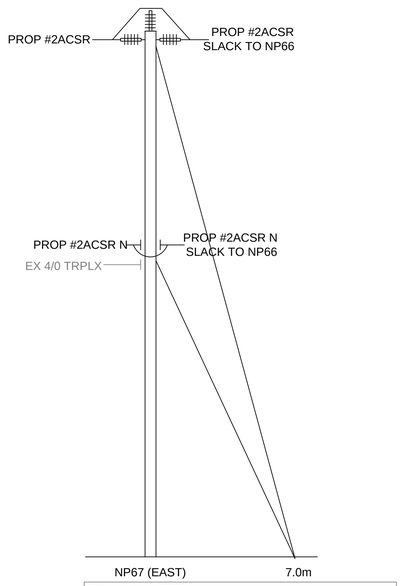
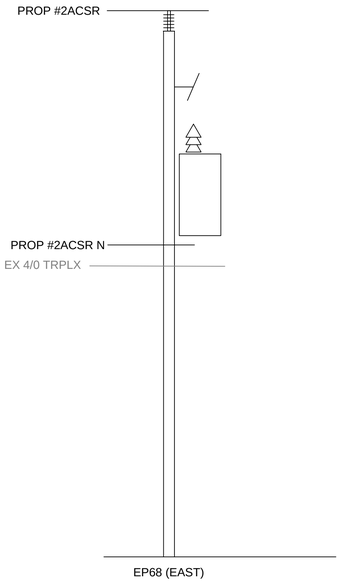


FRAMING NOTES:
NP66 (P18211):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
01-100-15kV
01-105-15KV
08-100-15KV (T6, 50kVA, 7200-120/240V, Yϕ)
01-500 FIG 9 (TAP TO NP67)
2x 10-200A FIG 3 (DE FROM NP65)

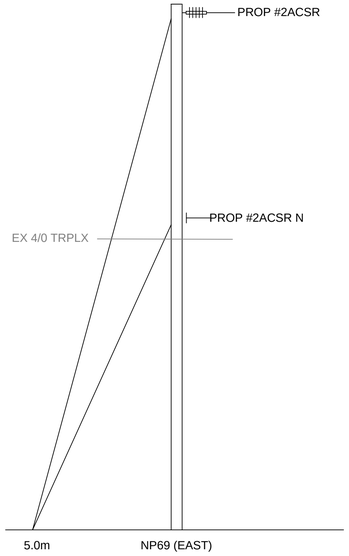
FRAMING NOTES CONTINUED:
06-100 PRI & SEC DGS TO 12"PISA AT
2.5m LEAD
TRANSFER STREETLIGHT



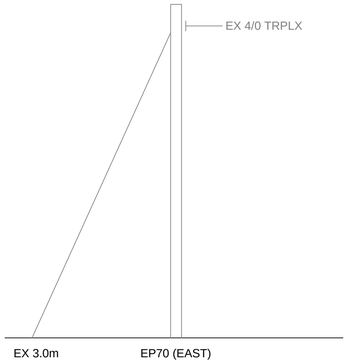
FRAMING NOTES:
NP67 (P18215):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
01-109-15kV
01-500 FIG 9
10-200A FIG 3 (DE FROM EP68)
06-100 PRI & SEC DGS TO 12"PISA AT 7.0m LEAD
10-200A FIG 3 TRANSFER 1X OH SERVICE
10-400 TRANSFER 1X UG SERVICE



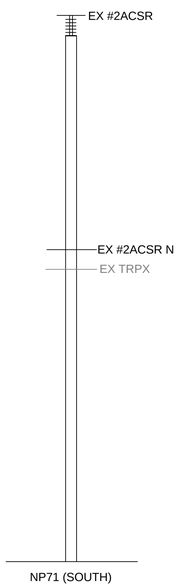
FRAMING NOTES:
EP68 (P18216):
EX 45' C4 WOOD (2007)
01-100-15kV
EX 08-100-15KV (T7, 50KVA, 7200V-120/240V, Yϕ)
01-500 FIG 2
10-200A FIG 1 TRANSFER 3X OH SERVICE



FRAMING NOTES:
NP69 (P18217):
PROP 45' C3 WOOD
BURIAL DEPTH=2.0m
05-101 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 7
10-200A FIG 1
10-200A FIG 3 TRANSFER 1X OH SERVICE
10-400 TRANSFER 1X UG SERVICE
06-100 PRI & SEC DGS TO 12"PISA AT 5.0m LEAD
TRANSFER STREETLIGHT

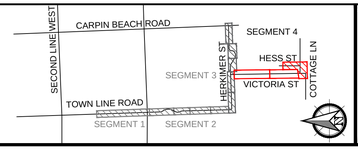


FRAMING NOTES:
EP70 (P18218):
EX 35' C4 WOOD (2007)
10-200A FIG 3 (4/0 TRPLX DE FROM NP69)
10-200A FIG 3 TRANSFER 1X OH SERVICE
10-400 TRANSFER 1X UG SERVICE
06-100 PRI & SEC DGS TO 12"PISA AT 3.0m LEAD



FRAMING NOTES:
NP71 (P18203):
PROP 45' C3 Wood
BURIAL DEPTH=2.0m
05-102 DITCH SET AS REQ'D
01-100-15kV
01-500 FIG 1
10-200A FIG 3

KEY PLAN:



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DRAFTER: R.E.LAPIER	SCALE: 1:500 @ 24"X36" PLOT
DESIGNER: A.RIST	DATE: 2023/03/15
APPROVER: A.RIST	APPROVER:
PROJECT No: C16-00222	DRAWING No: E-404
SHEET No: 5 of 5	