

## **REQUEST FOR PROPOSALS**

#### 2018 EV CHARGING STATIONS

Proposals are to be submitted to Reception prior to: 3:00 PM (15:00 hrs) Pacific Time on September 21, 2018 to the attention of:

> Paul Butterfield, Engineering Technologist District of Sooke 2205 Otter Point Road Sooke BC, V9Z 1J2 pbutterfield@sooke.ca

#### **Submission Details**

- a. Two (2) hard copies plus one (1) digital of the responses are to be in sealed envelopes or packages marked with the Respondent's Name and marked "2019 EV Charging Stations Proposal".
- b. The District reserves the right to cancel this Request for Proposal for any reason without any liability to any proponent or to waive irregularities at their own discretion.
- c. The District reserves the right to reject any or all proposals and to accept the proposal deemed most favorable to the interests of the District.
- d. The District will not entertain any claims for costs related to the preparation and/or presentation of the proposals.
- e. The District is NOT contractually bound to any matters until such time as the District has negotiated a separate contract that is totally independent of the RFP process.



#### \*PROPOSALS WILL NOT BE OPENED IN PUBLIC\*

2205 Otter Point Road, Sooke, British Columbia, Canada V9Z 1J2

#### 1. Introduction

The District of Sooke requires the services of a qualified firm to provide a proposal for the supply and installation of two (2) Level 2 Electric Vehicle (EV) chargers in one location.

The installation will be located on Eustace Road between properties 6726 and 6724 Eustace Road, as shown on the electrical design drawing included in **Appendix A**.

The purpose of the project is to procure and then install the EV chargers ready for public use.

#### 2. Proposal Guidelines

The Proponent is responsible for reviewing all site conditions prior to submitting a proposal. Proponents shall submit:

- A fee schedule for the supply and install of the two EV Chargers, as well as for all ancillary works and services;
- A price for completion of the construction work;
- A schedule detailing key project milestones such as EV charger delivery, start of construction, construction completion, etc.;
- A general description of the intended construction process, including site fencing, traffic control, and the level of impact to surrounding businesses and residents.

The Proponent is responsible for reviewing all site conditions prior to submitting a proposal. The Proponent shall clearly differentiate any optional or additional items as they relate to the project scope and the fee schedule.

#### 3. Instructions to Proponents

- Only complete submissions will be accepted. Partial submissions will not be considered. Submissions may be revised by written amendment, delivered to the location set out for delivery of submissions, before the Closing Date.
- Should the Proponent consider additional services and materials appropriate, it should be recommended in their proposal. The Proponent is to cost these additional items separately.
- The proposal may include one or more quotations, must include estimated hours and timeframe involved and a letter of introduction, including name and address of Respondent and details of potential partnerships and business agreements contemplated for the project.
- Proponents should submit two (2) original hard copies plus one (1) digital (.pdf) copy (CD/DVD/memory stick), of their Proposal.
- The Proposal shall include a cover letter signed by a person authorized to legally bind the Proponent to the statements made in the Response to this RFP.

#### 4. Project Terms of Reference

#### A. Project Background

The Provincial Government of British Columbia is committed to transitioning to a clean economy and reducing key factors that contribute to climate change. Fighting climate is a collaborative effort between individuals and governments.

The transport sector has been identified as a leading contributing factor to greenhouse gas (GHG) emissions and as such is a target for climate protection and economic action in the District of Sooke's 2017 budget.

The District of Sooke is in the position of making an important contribution to assist in climate protection. This project signals a shift toward community driven mobility decisions that support the sustainability goals of the Official Community Plan (OCP).

The installation of electric vehicle (EV) charging stations within the District of Sooke is an important investment in environmental infrastructure relating to sustainable transportation and the reduction of GHG emissions. The expansion of a public electric charging network will also support sustainable economic development activities.

#### B. Project Scope

This project requires the Proponent to supply and install two (2) pedestal Level 2 electric vehicle chargers.

#### General Conditions:

The Proponent:

- Is responsible for the supply of all necessary equipment, including, but not limited to: tools, materials, staffing, mobilization, de-mobilization and fuel;
- Is responsible for all traffic control as required to satisfy the requirements of WorkSafeBC;
- Is responsible for the location and exposure of all relevant electrical underground utility connections within the proposed work area prior to commencing the work;
- Must remove and dispose of all excess construction material, waste material, unused fill or other debris left over from excavation or construction, and upon completion of work return the municipal ROW and surrounding area to pre-construction condition or better;
- Perform all work in accordance with acceptable industry standards;
- Shall provide all materials, expertise and labour to conduct: project management; design; and construction of both washrooms;
- Shall obtain all required permits;
- Shall secure the work areas;
- Shall minimize the disturbance to the public during installation; and
- Shall provide all warranty information in a final single package.

All work shall conform to the Master Municipal Construction Documents (MMCD) Platinum Edition Volume II, and District of Sooke Bylaw No. 404, Subdivision and Development Standards Bylaw. All references to "MMCD" in this document refer to the MMCD Platinum Edition Volume II, published in 2009.

#### General Specifications:

- 1. The EV chargers are required to have:
  - a) The capability to run on 208V or 240V;
  - b) An adjustable output current up to 30A;
  - c) Sturdy, weather resistant outer casings capable of lasting approximately ten years;
  - d) Connectivity to a location service for all EV drivers to locate via a smartphone app or the internet;
  - e) Vandal resistant features;
  - f) Customizable unit colours or graphics for marketing;
  - g) A data collection and management system via the internet;
  - h) The capability for a payment system to recover costs. The price may vary from free to a price that can be modified as desired;
  - i) An allowance for future expansion;
  - j) An extended warranty up to five years;
  - k) A maintenance plan for up to five years; and
  - I) A communication service for up to five years.
- 2. The charging station must be tested to ensure all on-site charging software and communication connections are working to the specifications of the unit;
- 3. Protect the charger installation with two bollards as shown in the electrical design drawing.

#### **Optional Items:**

The District of Sooke appreciates and encourages innovative measures that would enhance the quality, longevity, efficiency, marketing, or function of this project now and in the future. These may be related but not limited to:

- a) The applicability and/or use of solar power panels to offset the total energy use of the charger;
- b) Electric vehicle space pavement marking;
- c) Retractable cables on each charger;
- d) Other positive aspects related to enhancement or promotion.

#### C. Project Deliverables

The successful Proponent is to complete the following as part of the minimum scope of work:

- Prepare a Construction Management Plan that describes in detail how the Proponent shall manage the site, including site fencing, traffic control, staging of equipment and materials, etc.;
- Supply and install two (2) Level 2 EV chargers and all associated infrastructure as specified and designed;
- Conduct all necessary testing on the units to ensure they are safe and certified for public use;
- Prepare a package with all warranty, user information, and maintenance requirements.

#### 5. Communications and Enquiries

All enquiries regarding this RFP are to be directed in writing or by email, to the following person prior to the specified closing date/time. Information obtained from any other source is not official and should not be relied upon. Enquiries and responses will be recorded and may be distributed to all Proponents at the District of Sooke's option.

Paul Butterfield Email: <u>pbutterfield@sooke.ca</u> Telephone: 250-642-1631

#### a. Addenda

The District will post an electronic copy of the written addendum on the District of Sooke's website at <u>http://sooke.ca/municipal-hall/documents-forms/tenders-and-rfps/</u>, and on BC Bid if the District determines that an amendment is required to this RFP. Each addendum will be incorporated into and become part of the RFP. No amendment of any kind to the RFP is effective unless it is contained in a written addendum issued by the District.

#### b. Examination of Contract Documents and Site

Proponents will be deemed to have carefully examined the RFP, including all attachments, Schedules, the Contract and the Site (as applicable) prior to preparing and submitting a Proposal with respect to any and all facts which may influence the Proposal.

#### c. Error in Proposal

No proposal shall be altered, amended, or withdrawn **AFTER** the closing date and time of the RFP. Negligence on the part of the Proponent in preparing the Proposal confers no right for withdrawal of the Proposal after it has been opened.

While the District has made considerable efforts to ensure an accurate representation of information in each respective RFP, the information contained in the RFP is supplied solely as a guideline for the Proponent and is not necessarily comprehensive or exhaustive. Nothing in a District RFP is intended to relieve the Proponent from forming their own opinions and conclusions in respect of the matters addressed in the RFP.

#### d. Withdrawal of Proposals

The Proponent may withdraw their Proposal at any time **PRIOR TO** the Proposal Closing Time by submitting a written withdrawal letter to the District's Development Services Department and the Proposal will be returned.

#### e. Ownership of Proposals

All Proposals, including attachments and any documentation, submitted to and accepted by the District in response to this RFP become the property of the District.

#### 6. Fees

The fee schedule for the work is to be submitted along with the work program. The rates and total fees for each consultant must be identified in the fee schedule.

Any anticipated expenses are to be identified in the proposal. The fee proposed will be considered the maximum upset fee by the District, and any expenditures beyond that amount will require approval by the District, and will only be considered for increases in the scope of work proposed by or agreed to in advance by the District.

#### 7. Payment

Payment for the work will be made upon completion of the project, satisfactory to the District.

#### 8. Evaluation and Selection Criteria

The Request for Proposal is used to select a Proponent, who will have demonstrated a capability to commence and complete the work described within the time frame specified and according to the following criteria, provided that this list is not exhaustive, or set out in any particular order of priority.

Proposals shall be evaluated to determine the best value offered to the District using the following criteria:

- The Respondent must have or be able to have, prior to commencement of the project, a valid and current District of Sooke Business License.
- The Respondent's business and technical reputation and capabilities and the experience of its personnel.
- The Respondent's strategy to deliver the Project on or ahead of schedule, and experience and reputation in delivering similar projects on or ahead of schedule.
- Methodology and approach (understanding of service objectives and outcomes).
- Resources and pricing structure (staff, equipment).
- The Respondent's financial capability to undertake the Project.
- Proposal is clear and logical and shows value for money to the District and demonstrates capabilities that make his/her services uniquely qualified to provide the requested services including any innovative approaches successfully used with other clients.

#### 9. Negotiation

By submitting a Proposal, a Proponent accepts that a contract may be concluded upon notification by the District with the Proponent. The District reserves the right to negotiate. If the parties, after having bargained in good faith, are unable to conclude a contract, the District and the Proponent will be released without penalty or further obligations other than any surviving obligations regarding confidentiality and the District may, at its discretion, contact the Proponent of the next best rated Proposal and attempt to conclude a contract with it, and so on until a contract is concluded.

#### **10. General Terms and Conditions**

#### a. Right of the District to Cancel the RFP Process

The District is not bound to select a preferred Proponent or accept any Proposal and reserves the right in its sole discretion to postpone or cancel this RFP at any time for any

reason whatsoever in accordance with the District's judgement of its best interest and to proceed with the Services in some other manner separate from this RFP process.

#### b. Acceptance and Rejection of Proposals

This RFP does not commit the District, in any way, to select the preferred Proponent, or to proceed to negotiations for a contract, or to award any contract.

The District reserves the right to:

- i. Accept a Proposal which is not the lowest priced;
- ii. Reject any and all Proposals, including without limitation the lowest priced Proposal, even if the lowest priced Proposal conforms in all aspects with the RFP;
- iii. Reject any Proposal at any time prior to execution of an Agreement;
- iv. Assess the ability of the Proponent to perform the contract and may reject any Proposal where, in the District's sole estimation, the personnel and/or resources of the Proponent are insufficient;
- v. Amend or revise the RFP by Addenda up to the specified closing date and time;
- vi. Reduce the Scope of Services required within the RFP and negotiate the price to reflect such change after award of an Agreement; and
- vii. Award an Agreement to the Proponent other than the one with the most points, if, in its sole determination, another Proposal is determined to be the Best Value to the District, taking into consideration the price and evaluation criteria of the RFP.

Under no circumstances shall the District be obligated to award an Agreement solely on the basis of proposed price.

The District may accept or waive a minor and inconsequential irregularity, or where applicable to do so, the District may, as a condition of acceptance of the Proposal, request a Proponent to correct a minor or inconsequential irregularity with no change in the Proposal.

The determination of what is or is not a minor or inconsequential irregularity, the determination of whether to accept, waive, or require correction of an irregularity and the final determination of the validity, will be the sole discretion of the District of Sooke.

#### c. No Claim for Compensation

Proponents are solely responsible for their own expenses in preparing and submitting Proposals, and for any meetings, negotiations, or discussions with the District or its representatives and consultants, relating to or arising from this RFP. The District and its representatives, agents, consultants and advisors will not be liable to any Proponent for any claims, whether for costs, expense, losses or damages, or loss of anticipated profits, or for any other matter whatsoever, incurred by the Proponent in preparing and submitting a Proposal, or participating in negotiations for a Contract, or other activity related to or arising out of this RFP. Proponents agree that by participating in the RFP process, and or submitting a Proposal, they have no claim for compensation.

#### d. No Contract

By submitting a Proposal and participating in the process as outlined in this RFP, Proponents expressly agree that no contract of any kind, if formed under, or arises from this RFP, exists prior to the signing of a formal written Contract.

#### e. Conflict of Interest

Proponents shall disclose in their Proposals any actual or potential Conflict of Interest and existing business relationships it may have with the District, its elected officials, appointed officials or employees.

#### f. Business License

The successful Proponent will be required to hold a valid District of Sooke business license for the duration of the project. The Proponent will be required to produce a copy of the business license on or before commencement of the project.

#### g. Solicitation of Council Members and District Staff

Proponents and their agents will not contact any member of the District Council or District Staff with respect to this RFP, other than the District Representative named in this document or authorized by Development Services, at any time.

#### h. Confidentiality and Freedom of Information

The District will retain all Proposals and they will not be returned to the Proponent except for any unopened Financial Proposals. All submissions will be held in confidence by the District. The District is bound by the *Freedom of Information and Protection of Privacy Act* (British Columbia) and all documents submitted to the District will be subject to provisions of this legislation.

All of the information contained within the RFP, including supplementary information provided electronically, is for the exclusive use of the Consultant team for the RFP preparation purposes only and is not to be made publicly available in any manner. The Consultant team shall not discuss this project with any member of the public at any time, for any reason whatsoever, without the prior written approval of the District of Sooke.

#### i. Consulting Services Agreement

A Consulting Services Agreement will be required between the District of Sooke and the successful proponent.

#### j. Sub-Consulting

Using a Sub-Consultant is acceptable provided the Sub-Consultant is clearly identified in the Proposal. This includes a joint submission by two Proponents having no formal corporate links. However, in this case, one of these Proponents must be prepared to take overall responsibility for successful performance of the Contract and this should be clearly defined in the Proposal.

Sub-consulting to any firm or individual who's current or past corporate or other interests may, in the District's opinion; give rise to a conflict of interest in connection with this project will

not be permitted. This includes, but is not limited to, any firm or individual involved in the preparation of this Request for Proposal.

Where applicable, the names of approved Sub-Consultants listed in the Proposal will be included in the Contract. No additional Sub-Consultants will be added or other changes made, to the list in the Contract without written consent of the District's Director of Development Services.

#### k. Insurance

Except as may be otherwise expressly approved by the District in writing, the Proponent will, without limiting its obligations or liabilities herein and at its own expense, provide and maintain the following insurances with insurers licensed in British Columbia and in forms and amounts acceptable to the District:

- i. Professional Liability Insurance (Errors and Omissions) coverage of a minimum of \$500,000 per occurrence, \$1,000,000 aggregate.
- ii. Comprehensive Liability Insurance with not less than \$5,000,000 coverage per occurrence, together with a Standard Non-Owned Automobile Liability. The District must be named as an additional insured on this policy and the policy shall contain a cross-liability clause.
- iii. The successful consultant must also provide the District with a certificate issued by the insurer(s) as evidence of the coverage required on or before commencement of the project.
- iv. Each policy of insurance required under this agreement shall be maintained during the continuance of this agreement and shall not be capable of cancellation unless 30 days' notice is first given to the District.
- v. The successful consultant must ensure that every sub-consultant provides and maintains insurance substantially in accordance with the requirements of this agreement. The successful consultant shall be as fully responsible to the District for acts and omissions of sub-consultants and of persons employed directly or indirectly by them as for acts and omissions of persons directly employed by the consultant.

The foregoing insurance shall be primary and not require the sharing of any loss by any insurer of the District.

The successful Proponent shall provide the District with evidence of all required insurance prior to the commencement of the Services. When requested by the District, the Proponent shall provide certified copies of required policies.

#### I. Safety

The successful Proponent shall:

- i. Hold a valid WorkSafeBC registration number for the duration of the project.
- ii. Produce a copy of a Worksafe BC registration number on or before commencement of the project.
- iii. Comply with Occupational Health and Safety Regulations.
- iv. In the event of a multiple employer workplace (i.e. Field work requiring survey, geotechnical investigation, traffic control etc.) be the designated

prime contractor, and fulfil the prime contractor's responsibilities as defined in:

1. WorkSafeBC Occupational Health and Safety Regulation, Notice of Project, Section 20.2, and Coordination of Multiple Employer Workplaces, Section 20.3;

2. Workers Compensation Act (RSBC 1996), Coordination at multipleemployer workplaces, Section 118, Subsections (1) & (2);

3. General Requirements; Section 3.10 Worksafe BC.

#### m. Contractor is "Prime Contractor"

The Contractor to the Contract (if awarded) will be designated and assumes the responsibility as the **Prime Contractor** per WorkSafe BC OH&S Regulations, Section 20.2 **Notice of Project** and 20.3 **Coordination of Multiple-Employer Workplaces**, Subsections (1) and (2). The Proponent should also understand the general duties of the Owner as defined in the Workers' Compensation Act, Section 119 **General Duties of Owner.** The Proponent should have the necessary qualification and be willing to accept the responsibilities as **Prime Contractor** for this Contract.

#### n. Time is of the Essence

Time is of the essence for the Contract, if awarded.

#### o. Governing Law

This agreement shall be governed by the laws of the Province of British Columbia.

#### p. Local Preference

Preference will be given to Proponents located within the region of Sooke where quality, service, and price are equivalent. This will include any of the Proponent's proposed sub-consultants, if applicable.

#### q. Litigation Clause

The District may, in its absolute discretion, reject a Proposal submitted by a Proponent, if the Proponent, or any officer or director of the Proponent is or has been engaged either directly or indirectly through another corporation in legal action against the District, its elected or appointed officers and employees in relation to:

- i. Any other contract for works or services; or
- ii. Any matter arising from the District's exercise of its powers, duties; or functions under the *Local Government Act, Community Charter* or another enactment,

within five years of the date of this Request for Proposal.

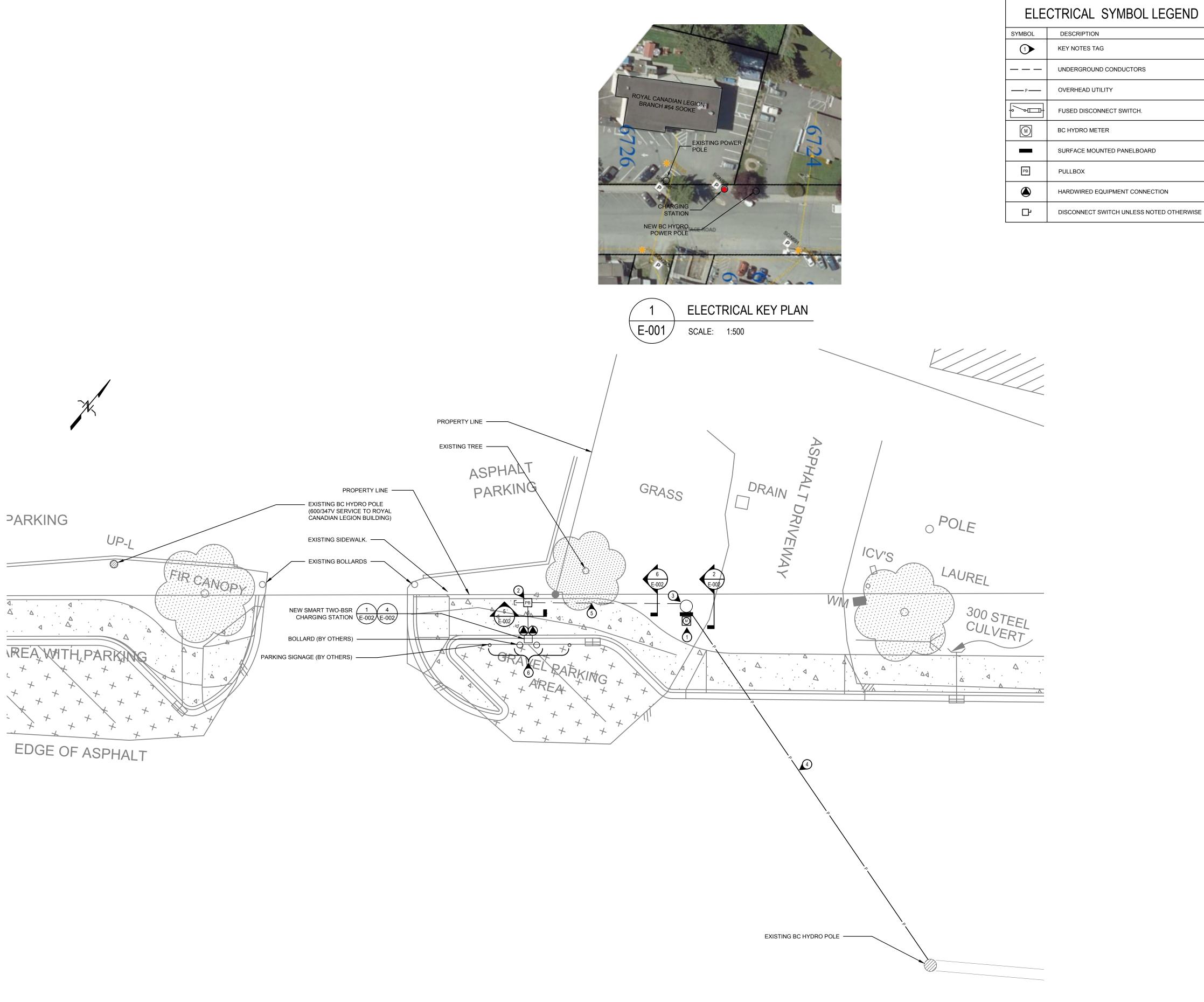
In determining whether to reject a Proposal under this clause, the District will consider whether the litigation is likely to affect the Proponent's ability to work with the District, its consultants and representatives and whether the District's experience with the Proponent indicates that the District is likely to incur increased staff and legal costs in the administration of a Contract if it is awarded to the Proponent.

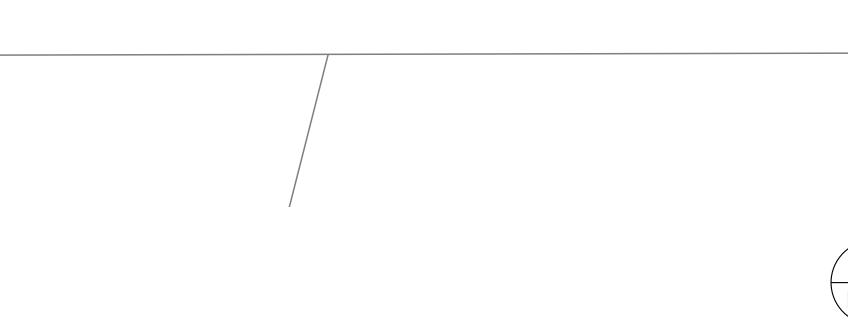
#### **11. Closing Date for Proposals**

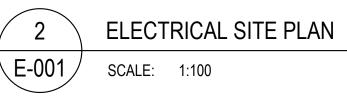
The closing date for proposals will be **3:00 p.m. local time, September 21, 2018.** All proposals must be clearly marked with the name and address of the proponent and the 'Request for Proposal' title. Proponents are responsible for ensuring that digital and courier delivery occurs within the deadline. Late proposals will not be accepted and will be returned to the proponent unopened.

Appendix A

**Electrical Design** 







ORS		
CH.		

BOARD	

**GENERAL NOTES:** (APPLICABLE TO ALL DRAWINGS)

- 1 EXISTING INFORMATION WITHIN THESE DRAWINGS ARE BASED ON INFORMATION PROVIDED BY OTHERS, EXTRACTED FROM HISTORICAL RECORDS, AND SITE OBSERVATION. EXISTING INFORMATION IS PROVIDED TO FACILITATE THE CONTRACTOR IN PROVIDING A FAIR AND ACCURATE TENDER BID, BY PROVIDING A GREATER UNDERSTANDING OF THE SCOPE OF WORK. BY NO MEANS SHALL THE CONTRACTOR RELY SOLELY ON THE EXISTING INFORMATION PROVIDED TO DETERMINE A COMPLETE AND FULLY ACCURATE SCOPE OF WORK AS NOT ALL ELECTRICAL EQUIPMENT OR DEVICES OR ASSOCIATED THAT REQUIRE TO BE RELOCATED, REMOVED OR REPLACED MAY BE NOTED, CONTRACTOR SHALL PERFORM A SITE VISIT TO DETERMINE THE EXACT SCOPE OF WORK
- ALL CONDUCTORS SHALL BE RUN IN CONDUIT SUITABLE 3 FOR APPLICATION.

PRIOR TO PROVIDING THEIR TENDER BID.

- 4 CONTRACTOR TO 'UTILIZE BC "ONE CALL" BEFORE EXCAVATING AND TO COORDINATE WITH UTILITY PROVIDERS BEFORE TRENCHING. CONTRACTOR TO NOTE THAT LOCATIONS OF POWER POLE AND PULLBOXES ARE APPROXIMATE, EXACT LOCATION TO BE DETERMINED ON SITE. ALL DEVICES TO BE ON DISTRICT OF SOOKE ROW LAND.
- 5 CONTRACTOR TO PROVIDE THE APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT (PPE) AND OBTAIN AUTHORIZATION FROM THE AUTHORITY HAVING JURISDICTION (AHJ) PRIOR TO COMMENCING WORK.

# **KEYNOTES**:

- (1) CONTRACTOR TO PROVIDE NEMA-3X ENCLOSURES FOR NEW DISCONNECT, BC HYDRO METER AND POWER PANEL . REFER TO SINGLE LINE DIAGRAM ON DRAWING E-002 FOR EXACT REQUIREMENTS.
- 2 CONTRACTOR TO PROVIDE NEW ELECTRICAL PULL BOX. PROVIDE COMPOSITE 20"X15" ENCLOSURE WITH BOLT DOWN COVER AND SEALED LID GASKETS.
- 3 NEW BC HYDRO POWER POLE COMPLETE WITH 200A, 120/240V, 1Ø SERVICE. CONTRACTOR TO PROVIDE POWER POLE AND CONDUCTORS UP TO WEATHERHEAD. BC HYDRO TO CONNECT NEW SERVICE.
- 4 NEW OVERHEAD SERVICE BY BC HYDRO.
- 5 CONCRETE CUTTING, TRENCHING AND REINSTALLATION OF SIDE WALK BY OTHERS. (6) APPROXIMATE LOCATION BOLLARDS AND PARKING SIGNAGE BY
- OTHERS.

## CIVIC ADDRESS

6726 Eustace Rd, Box 337, Sooke, BC V9Z 1G1

	DRAWING LIST
E-001	ELECTRICAL KEY PLAN AND SITE PLAN
E-002	ELECTRICAL SINGLE LINE DIAGRAM AND SITE DETAILS
E-003	ELECTRICAL SPECIFICATIONS

# IENT REF. #:

**\\\\** 

ONSULTANT - SUB-CONSULTANT:

EAL / PERMIT:

CLIENT

301-3600 Uptown Blvd Victoria BC, Canada V8Z 0B9

T+ 1 250-384-5510 F+ 1 250-386-2844 wsp.com

# **SOOKE EV CHANGER -**LOT 6726

## COPYRIGHT:

THIS DRAWING AND DESIGN IS COPYRIGHT PROTECTED WHICH SHALL NOT BE USED, REPRODUCED OR REVISED WITHOUT WRITTEN PERMISSION BY WSP CANADA INC. DISCLAIMER:

THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY OCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK

THIS DRAWING IS NOT TO BE SCALED.

ISSUE / REVISION:

AWING NO

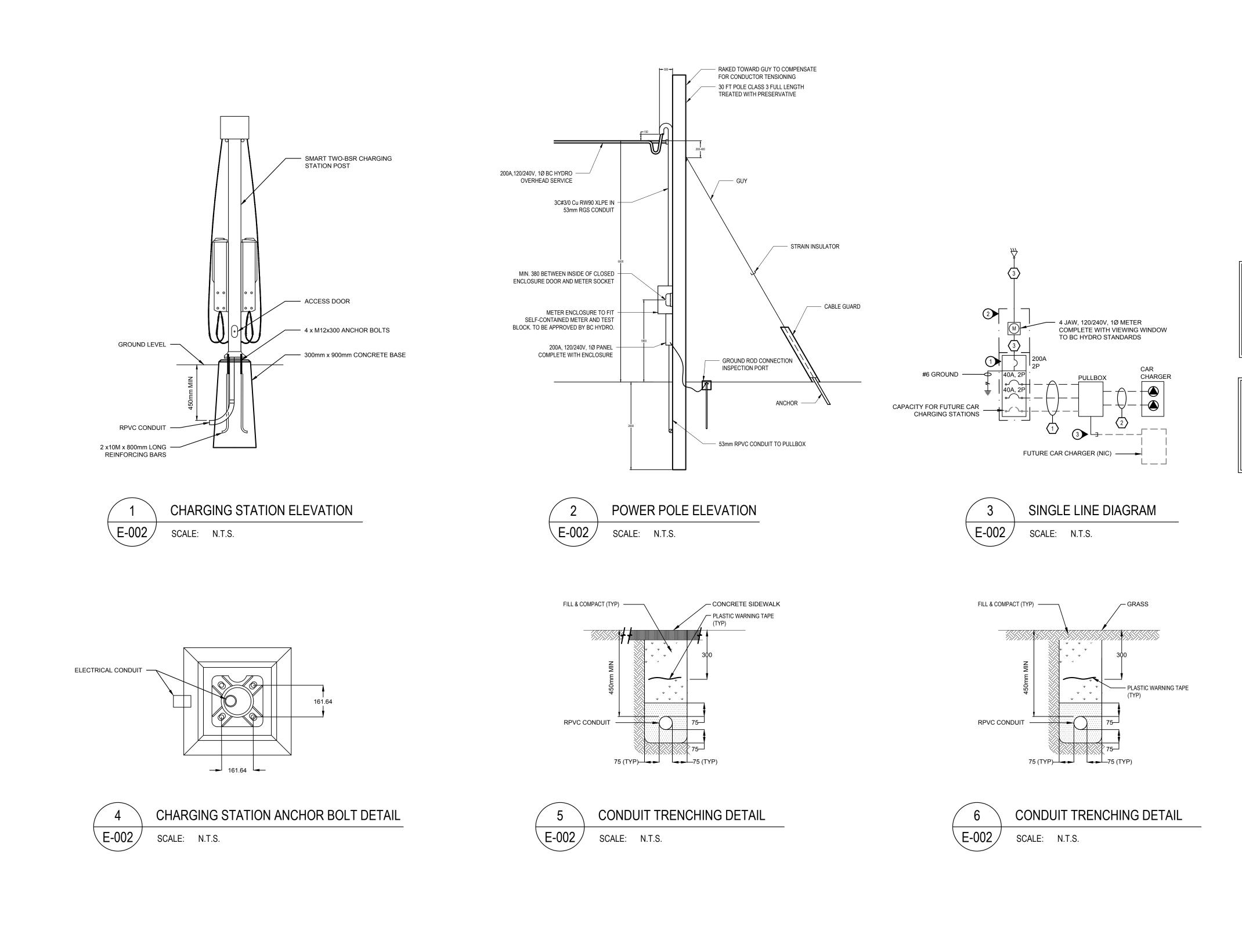
DATE OF: 2018/0810

2	2018/08/10	ISSUED FOR 100% CLIENT REVIEW	
1	2018/07/20	ISSUED FOR CLIENT REVIEW	
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AND SITE PLAN			



E	E-001		
1	OF	3	

2



FEEDER SCHEDULE:		
1	2[2C#8 AWG CU RW90 XLPE + BOND] IN 53mmC	
2	2[2C#8 AWG CU RW90 XLPE + BOND] IN 27mmC	
3	3C#3/0 AWG CU RW90 XLPE 53mm RGS CONDUIT	

### KEYNOTES:

(1) NEW 200A, 120/240V, 1Ø, 3W 18CCT PANEL. PANEL TO ACCOMMODATE FUTURE POWER TO TWO ADDITIONAL SmartTWO-BSR CHARGING STATIONS.

- 2 CONTRACTOR TO PROVIDE NEMA-3R ENCLOSURES FOR FUSED DISCONNECT, BC HYDRO METER AND POWER PANEL
- PROVIDE 27mmC STUBBED OUT 1m TO FUTURE CAR CHARGING STATIONS..

**\\\\** 301-3600 Uptown Blvd Victoria BC, Canada V8Z 0B9 T+ 1 250-384-5510 F+ 1 250-386-2844 wsp.com

CONSULTANT - SUB-CONSULTANT:

CLIENT

SEAL / PERMIT:

CLIENT REF. #: PROJEC

# **SOOKE EV CHANGER -**LOT 6726

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THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY LOCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING WORK.

THIS DRAWING IS NOT TO BE SCALED.

ISSUE / REVISION:

SHEET NO.

DATE OF: 2018/0810

SSUE:

2		ISSUED FOR 100% CLIENT REVIEW		
1	2018/07/20	ISSUED FOR CLIENT REVIEW		
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	E-002			

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2	OF	3

ISS/REV

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#### GENERAL PROJECT REQUIREMENTS

- .1 THE GENERAL REQUIREMENTS, INSTRUCTIONS TO BIDDERS, THIS SPECI ADDENDA HERETO FORM PART OF THE CONTRACT DOCUMENTS AND SH CONJUNCTION WITH THEM. WORK SHALL INCLUDE THE FURNISHING OF MATERIALS UNLESS SPECIFICALLY NOTED OTHERWISE TO COMPLETE AN CONDITION ALL ELECTRICAL SYSTEMS AS INDICATED ON THE DRAWINGS
- .2 RESPONSIBILITY AS TO WHICH TRADE PROVIDES REQUIRED ARTICLES O SOLELY WITH THE GENERAL CONTRACT TRADE. EXTRAS WILL NOT BE C GROUNDS OF DIFFERENCE IN INTERPRETATION OF SPECIFICATIONS AS INVOLVED SHALL PROVIDE CERTAIN SPECIALTIES OR MATERIALS.
- .3 INCLUDE ALL UTILITY COSTS IN SCOPE OF WORK.

#### STANDARDS OF MATERIAL AND WORKMANSHIP

- .1 ALL MATERIALS SHALL BE NEW, OF THE QUALITY SPECIFIED AND SHALL STANDARDS OF THE CANADIAN STANDARDS ASSOCIATION. WHERE EQU ARE SPECIFIED BY TECHNICAL DESCRIPTION ONLY, THEY SHALL BE OF QUALITY OBTAINABLE FOR THE PURPOSE.
- .2 ALL WORK SHALL BE EXECUTED IN A NEAT AND WORKMANLIKE MANNER TRADESPERSONS. ELECTRICAL CONTRACTOR SHALL KEEP A COMPETEN NECESSARY ASSISTANTS ALL SATISFACTORY TO THE ENGINEER ON THE PROGRESS OF THE WORK.

#### CODES, PERMITS AND INSPECTIONS

- .1 COMPLY WITH ALL LAWS, ORDINANCES, RULES, REGULATIONS AND CODI HAVING JURISDICTION RELATIVE TO THIS PROJECT.
- .2 COMPLETE INSTALLATION IS TO COMPLY WITH THE MOST RECENT VERSI ELECTRICAL CODE AND THE BRITISH COLUMBIA BUILDING CODE INCLUDI AMENDMENTS AND LOCAL MUNICIPAL CODES AND RELATED CSA ELECTE
- .3 SUBMIT TO THE ELECTRICAL INSPECTION AUTHORITY HAVING JURISDICT NUMBER OF DRAWINGS AND SPECIFICATIONS FOR REVIEW AND APPROV COMMENCEMENT OF THE PROJECT.
- .4 PAY ALL ASSOCIATED FEES AND OBTAIN ALL PERMITS, LICENSES ETC. TO PROJECT.
- .5 OBTAIN A CERTIFICATE OF ACCEPTANCE FROM THE INSPECTION AUTHOR JURISDICTION UPON COMPLETION OF THE PROJECT AND INCLUDE IN THI

#### DRAWINGS AND SPECIFICATIONS

- .1 THE DRAWINGS AND SPECIFICATIONS ARE COMPLEMENTARY EACH TO CALLED FOR BY ONE SHALL BE BINDING AS IF CALLED FOR BY BOTH.
- .2 SHOULD ANY DISCREPANCY APPEAR BETWEEN THE DRAWINGS AND SPE LEAVES THE ELECTRICAL CONTRACTOR IN DOUBT AS TO THE TRUE INTE PLANS AND SPECIFICATIONS, A RULING SHALL BE OBTAINED FROM THE IN WRITING BEFORE SUBMITTING TENDER. IF THIS IS NOT DONE, IT WILL MORE EXPENSIVE ALTERNATE WILL BE REQUIRED.

#### EXAMINATION OF OTHER DRAWINGS

.1 THIS CONTRACTOR SHALL EXAMINE CAREFULLY THE CIVIL DRAWINGS AN TRADES TO THEIR SATISFACTION THAT THE WORK UNDER THIS CONTRA CARRIED OUT AS SHOWN ON THE PLANS. SHOULD AN ISSUE ARISE SHOW REQUIRING ADDITIONAL WORK BEYOND THE WORK OF THESE DRAWINGS SHALL BRING THIS MATTER TO THE ATTENTION OF THE ARCHITECT OR E SUBMITTING HIS TENDER.

#### **EXAMINATION OF THE SITE**

- .1 PRIOR TO SUBMITTING HIS TENDER, THE ELECTRICAL CONTRACTOR SHA THE SITE AND ASCERTAIN ALL CONDITIONS THAT SHALL AFFECT HIS CON BE ALLOWED FOR WORK RESULTING FROM CONDITIONS THAT WOULD HA A THOROUGH EXAMINATION OF SITE.
- .2 QUESTIONS OR APPARENT CONFLICTS NEED TO BE SUBMITTED BY THE CLARIFICATION BY THE CONSULTANT PRIOR TO SUBMITTAL OF TENDER. CLARIFICATION IS NOT SUBMITTED TO THE CONSULTANT THE MORE EXP BE CONSIDERED CORRECT.

#### SHOP DRAWINGS

- .1 ELECTRICAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENG ELECTRICAL COMPONENTS FOR ALL SYSTEMS.
- .2 ALL DRAWINGS SHALL BE SUBMITTED IN PDF VERSION VIA THE GENERAL REVIEW
- .3 THE ENGINEER'S REVIEW OF SHOP DRAWINGS SHALL BE FOR GENERAL NOT RELIEVE THE ELECTRICAL CONTRACTOR OR SUPPLIERS FROM THE ERRORS, PROPER FITTING, AND CONSTRUCTION OF THE WORK AND FUR THE REVIEW SHALL NOT BE CONSTRUED AS APPROVING DEPARTURES F DOCUMENT REQUIREMENTS IF SUCH DEPARTURES ARE NOT SPECIFICAL LETTER ACCOMPANYING SUCH DRAWINGS. ELECTRICAL CONTRACTOR FOR VERIFYING ALL DIMENSIONS.
- .4 SHOP DRAWINGS TO INDICATE ALL INFORMATION REQUIRED TO DISCERI EQUIPMENT MEETS THE REQUIREMENTS OF THIS SPECIFICATION AND TH DIAGRAMS, SCHEMATICS, RISERS AND RELEVANT DETAILS, WHERE REQU TO THE PROJECT AND NOT GENERIC IN FORM. MANUFACTURER'S SALES BE ACCEPTABLE.

#### UNIFORMITY OF EQUIPMENT

- .1 UNLESS OTHERWISE SPECIFICALLY CALLED FOR IN THE SPECIFICATIONS MANUFACTURE SHALL BE MAINTAINED FOR ANY PARTICULAR ITEM THRO
- .2 WHERE THE PROJECT ENCOMPASSES RENOVATIONS OR ADDITIONS TO A THE MANUFACTURER SHALL MATCH THE EXISTING UNLESS NOTED OTHE MANUFACTURERS' EQUIPMENT THAT VARIES FROM THE EXISTING MUST I WITH THE EXISTING.

#### EQUIVALENT PRODUCTS

- .1 ALL TENDERS SHALL BE BASED ON THE PRODUCT SPECIFIED OR EQUIVA HAVE BEEN GIVEN WRITTEN APPROVAL PRIOR TO TENDER BY THE ENGIN DECISION AS TO THE EQUIVALENCY OF PRODUCTS SHALL BE FINAL.
- .2 ELECTRICAL CONTRACTOR AND/OR SUPPLIERS WISHING TO SUBMIT EQU SHALL DO SO IN PDF FORMAT VIA AN EMAIL TO THE ENGINEER. IF THE PF AN EQUIVALENT, AN EMAIL OF CONFIRMATION SHALL BE SENT FROM THE THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO ENSURE THAT ANY THE ELECTRICAL CONTRACTOR HAVE OBTAINED THE WRITTEN APPROVA
- .3 ALL REQUESTS FOR EQUIVALENT MATERIAL APPROVAL MUST BE EMAILE (7) DAYS PRIOR TO CLOSING OF TENDER. NO EQUIVALENT REQUESTS WII AFTER THIS TIME.
- .4 THE APPROVAL OF EQUIVALENT PRODUCTS WILL BE GRANTED ON THE DESIGN ONLY. SUCH APPROVALS WILL NOT RELIEVE THE ELECTRICAL CO PROVIDING ALL NECESSARY COMPONENTS AND FUNCTIONS REQUIRED I OR ON THE DRAWINGS.
- .5 ALTERNATE SERVICE RATED EQUIPMENT SHALL MEET THE UTILITIES' RE .6 ANY CHANGE IN THE FOOTPRINT SIZE DUE TO ALTERNATE EQUIPMENT S REDESIGN. ANY COST TO REVISE THE DESIGN DUE TO AN ALTERNATE M REQUIREMENT SHALL BE BORNE BY THE ELECTRICAL CONTRACTOR.

	10	SETTING OUT OF THE WORK
CIFICATION AND ANY		THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR CORRECTING ALL WORK
SHALL BE READ IN F ALL LABOUR AND		COMPLETED CONTRARY TO THE INTENT OF DRAWINGS AND SPECIFICATIONS AND SHALL BEAR ALL COST FOR SAME. WHERE INTENT OF DRAWINGS AND SPECIFICATIONS IS NOT CLEAR, HE
AND PUT INTO OPERATING GS AND SPECIFIED HEREIN.	2	SHALL OBTAIN CLARIFICATION OF THE ARCHITECT BEFORE PROCEEDING WITH WORK. THE ELECTRICAL CONTRACTOR SHALL GIVE THE WORK PERSONAL SUPERVISION, LAY OUT THEIR
OR MATERIALS RESTS CONSIDERED BASED ON	.2	OWN WORK, DO ALL NECESSARY LEVELING AND MEASURING OR EMPLOY A COMPETENT ENGINEER TO DO SO. FIGURES, FULL SIZE AND DETAIL DRAWINGS SHALL TAKE PRECEDENCE
S TO WHICH TRADE		OVER SCALE MEASUREMENTS.
	.3	WHERE EQUIPMENT SUPPLIED BY THE ELECTRICAL CONTRACTOR MUST BE BUILT IN WITH THE WORK OF OTHER TRADES, THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SUPPLYING OF THE EQUIPMENT TO BE BUILT IN OR MEASUREMENTS TO ALLOW NECESSARY OPENINGS TO BE LEFT SO AS NOT TO HOLD UP THE WORK.
L CONFORM TO THE UIPMENT OR MATERIALS	.4	ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DAMAGE CAUSED THE OWNER OR ANY OF THE OTHER TRADES BY IMPROPER LOCATION OR CARRYING OUT OF HIS WORK.
THE BEST COMMERCIAL	.5	THE ELECTRICAL CONTRACTOR, IN SETTING OUT OF HIS WORK, SHALL MAKE REFERENCE TO CIVIL DRAWINGS. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH THE RESPECTIVE TRADES IN SETTING OUT LOCATIONS FOR CONDUIT RUNS, EQUIPMENT, PANEL ASSEMBLIES, ETC., SO THAT
ENT FOREMAN AND HE JOB DURING THE		CONFLICTS ARE AVOIDED AND SYMMETRICAL EVEN SPACING IS MAINTAINED.
	<b>11</b>	PAINTING AND FINISHES ALL ELECTRICAL FITTINGS, SUPPORTS, HANGER RODS, PULLBOXES, CHANNEL FRAMES, CONDUIT
DES OF ALL AUTHORITIES	.1	RACKS, OUTLET BOXES, BRACKETS, CLAMPS, ETC., SHALL HAVE GALVANIZED FINISH OR PAINT FINISH OVER CORROSION-RESISTANT PRIMER.
	.2	ALL PANELBOARDS SHALL BE FACTORY FINISHED WITH SPRAY-ON AIR DRY ENAMEL. ALL ENAMEL SHALL BE APPLIED OVER CORROSION RESISTANT PRIMER. MATTE OR FLAT TYPE FINISH PAINT
RSION OF THE CANADIAN IDING THE LATEST CTRICAL BULLETINS. CTION THE NECESSARY		WILL NOT BE ACCEPTED. ALL PANELS OR SIMILAR FACTORY FINISHED UNITS THAT ARE SCRATCHED OR MARKED DURING INSTALLATION SHALL BE TOUCHED UP WITH MATCHING SPRAY ON AIR DRY LACQUER AND IF REQUIRED TO PROVIDE A SATISFACTORY JOB SHALL BE
OVAL PRIOR TO	.3	COMPLETELY REFINISHED. ALL DISTRIBUTION EQUIPMENT, MCCS, CDPS, PANEL BOARDS, PULL BOXES, ETC. SHALL BE
TO COMPLETE THE		FINISHED IN GREY ENAMEL UNLESS NOTED OTHERWISE.
IORITY HAVING	12	PROJECT CLEAN-UP THE ELECTRICAL CONTRACTOR AND HIS SUB-TRADES SHALL AT ALL TIMES DURING
THE O&M MANUAL.		CONSTRUCTION, KEEP THE SITE FREE OF ALL DEBRIS, BOXES, PACKING, ETC., RESULTING FROM WORK OF THIS TRADE.
) THE OTHER AND WHAT IS	.2	AT THE COMPLETION OF THE WORK, THE ELECTRICAL INSTALLATION SHALL BE LEFT IN A CLEAN FINISHED CONDITION TO THE SATISFACTION OF THE ARCHITECT.
PECIFICATIONS WHICH TENT AND MEANING OF THE	13	SITE REVIEWS AND CONSTRUCTION DOCUMENTS
E ENGINEER OR ARCHITECT L BE ASSUMED THAT THE	.1	CONTRACTOR SHALL CONTACT THE CONSULTANT FOR A MINIMUM OF ROUGH-IN AND FINAL REVIEWS. ADDITIONAL REVIEWS WILL BE COMPLETED AS REQUIRED; CONTRACTOR IS TO MAKE CONSULTANT AWARE REGARDING ANY CONDITIONS THAT WARRANT SPECIAL REVIEWS. CONTRACTOR SHALL ENSURE THAT ALL REQUIRED WORK IS COMPLETED PRIOR TO CALLING FOR REVIEW. ADDITIONAL CHARGES MAY BE LEVIED SHOULD ADDITIONAL REVIEWS BE REQUIRED DUE TO LACK OF COMPLETION OF WORK TO BE REVIEWED.
AND WORK OF OTHER RACT CAN BE ACCEPTABLY OWING CONFLICT WITH, OR	.2	PROGRESS CLAIMS SUBMITTED SHALL BE BROKEN DOWN FOR EACH SYSTEM AND INCLUDE A MATERIALS AND LABOR PORTION FOR REVIEW. PROGRESS CLAIMS SUBMITTED WITHOUT PROPER BREAKDOWN WILL NOT BE REVIEWED.
IGS, THE CONTRACTOR R ENGINEER PRIOR TO	.3	ALL REVISIONS RESULTING IN COSTS TO THE OWNER SHALL BE SUBMITTED WITH A FULL
	.4	BREAKDOWN OF MATERIALS AND LABOR FOR EACH PORTION OF THE WORK. REQUESTS FOR INFORMATION (RFIS) SHALL BE SUBMITTED FOR ONSITE QUESTIONS ONLY AFTER
HALL CAREFULLY EXAMINE		THE ISSUE HAS BEEN REVIEWED AND DISCUSSED WITHOUT RESOLUTION ON SITE WITH THE APPROPRIATE TRADES. MINOR ISSUES SHOULD BE DEALT WITH THROUGH PHONE OR EMAIL.
ONTRACT. NO EXTRAS WILL HAVE BEEN EVIDENT UPON	14	ELECTRICAL SYSTEMS TESTS
E CONTRACTOR FOR	.1	ALL PORTIONS OF THE ELECTRICAL WORK SHALL BE TESTED AND CHECKED FOR SATISFACTORY OPERATION.
R. IN CASES WHERE XPENSIVE SOLUTION SHALL	.2	BEFORE ENERGIZING ANY PORTION OF THE ELECTRICAL SYSTEM, PERFORM MEGOHMETER TESTS ON ALL FEEDERS AND BRANCH CIRCUITS. RESULTS OF SUCH TESTS SHALL CONFORM TO THE REQUIREMENTS OF THE CANADIAN ELECTRICAL CODE AND SHALL BE TO THE SATISFACTION OF THE AUTHORIZED INSPECTION AGENCY AND THE ENGINEER.
NGINEER FOR REVIEW OF	.3	
AL CONTRACTOR FOR		PANELS, ETC. THE TESTS SHALL BE CARRIED OUT BY TURNING ON ALL POSSIBLE LOADS IN THE CONTRACT AREA AND CHECKING LOAD CURRENT BALANCE. IF LOAD UNBALANCE EXCEEDS 15%, RECONNECT CIRCUITS TO BALANCE THE LOAD.
L DESIGN ONLY AND SHALL	15	RECORD DRAWINGS
IEIR RESPONSIBILITY FOR URNISHING OF MATERIALS.	.1	THE GENERAL CONTRACTOR SHALL FURNISH TO THE ELECTRICAL CONTRACTOR ONE FULL SIZED
S FROM THE CONTRACT CALLY NOTED IN A COVERING & SHALL BE RESPONSIBLE		SET OF DRAWINGS TO BE USED FOR RECORDING WORK AS ACTUALLY INSTALLED. THE ELECTRICAL CONTRACTOR SHALL ACCURATELY RECORD ON THIS SET OF DRAWINGS, DAY BY DAY, ALL OUTLETS, CONDUIT, FIXTURES AND EQUIPMENT AS ACTUALLY INSTALLED ON THE JOB. ANY DISCREPANCIES NOTED BY THE ELECTRICAL CONTRACTOR BETWEEN THE DESIGN DRAWINGS AND THE EXISTING INSTALLATION SHALL BE NOTED ON THE RECORD DRAWINGS.
RN WHETHER THE THE DRAWINGS. WIRING QUIRED, SHALL BE UNIQUE	16	GUARANTEE/WARRANTIES
ES LITERATURE WILL NOT	.1	FURNISH A WRITTEN GUARANTEE/WARRANTY COUNTERSIGNED AND GUARANTEED BY THE GENERAL CONTRACT TRADE STATING:
		.1 THAT ALL WORK EXECUTED UNDER THIS CONTRACT WILL BE FREE FROM DEFECTS OF MATERIAL AND WORKMANSHIP FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THIS WORK.
NS, UNIFORMITY OF ROUGHOUT THE BUILDING. O AN EXISTING BUILDING		.2 THE ABOVE PARTIES FURTHER AGREE TO, AT THEIR OWN EXPENSE, REPAIR AND REPLACE ALL SUCH DEFECTIVE WORK AND OTHER WORK DAMAGED THEREBY WHICH FAILS OR IS OTHERWISE DEFECTIVE DURING THE TERM OF THE GUARANTEE/WARRANTY PROVIDED THAT
HERWISE. ALL NEW ST BE FULLY COMPATIBLE		SUCH FAILURE IS NOT DUE TO IMPROPER USAGE. .3 THE PERIOD OF THE GUARANTEE SPECIFIED SHALL IN NO WAY SUPPLANT ANY OTHER GUARANTEE OF A LONGER PERIOD BUT SHALL BE BINDING ON WORK NOT OTHERWISE
VALENT PRODUCTS, WHICH GINEER. THE ENGINEER'S	.2	COVERED. PROVIDE ADDITIONAL WARRANTIES FOR MANUFACTURER'S SYSTEMS AS REQUIRED BY OTHER SECTIONS OF THIS SPECIFICATION.
	17	OPERATION AND MAINTENANCE MANUAL
QUIVALENT PRODUCTS PRODUCT IS APPROVED AS HE ENGINEER. IT SHALL BE	.1	
NY SUPPLIERS QUOTING TO VAL OF THE ENGINEER.		RETURNED COPIES SHALL HAVE THE REVISIONS MADE AND SENT TO THE OWNER AT THE END OF THE PROJECT.
LED NOT LESS THAN SEVEN WILL BE CONSIDERED	.2	EACH MANUAL SHALL HAVE A LIST OF SECTIONS, CONTACT INFORMATION FOR THE GENERAL CONTRACTOR, ELECTRICAL CONTRACTOR AND ALL SUB-CONTRACTORS, ELECTRICAL ENGINEERING FIRM AND ALL SYSTEMS MANUFACTURERS, ALL WARRANTIES, GUARANTEES AND CERTIFICATES, COPIES OF APPROVED SHOP DRAWINGS, SINGLE LINE DIAGRAMS AND
E BASIS OF GENERAL CONTRACTOR FROM		SCHEMATICS FOR ALL SYSTEMS, TEST AND VERIFICATION RESULTS AND CLEANING AND MAINTENANCE PROCEDURES.
D IN THE SPECIFICATIONS	18	SUBSTANTIAL COMPLETION
REQUIREMENTS.	.1	BEFORE CALLING FOR SUBSTANTIAL COMPLETION REVIEW THE CONTRACTOR SHALL PROVIDE THE FOLLOWING RELEVANT DOCUMENTS TO THE CONSULTANT:
SHALL NOT RESULT IN A MANUFACTURERS'		<ul> <li>.1 LETTER OF INSPECTION FROM THE AUTHORITY HAVING JURISDICTION.</li> <li>.2 OPERATION AND MAINTENANCE MANUALS HAVE BEEN SUBMITTED FOR REVIEW.</li> </ul>
		.3 SEALED SEISMIC DRAWINGS AND LETTER OF ASSURANCE FROM THE SEISMIC ENGINEER

- JALS HAVE BEEN SUBMITTED FOR REVIEW. .3 SEALED SEISMIC DRAWINGS AND LETTER OF ASSURANCE FROM THE SEISMIC ENGINEER HAVE BEEN SUBMITTED TO CONSULTANT AND INCLUDED IN MAINTENANCE MANUAL.
- .4 RECORD DRAWINGS SUBMITTED FOR UPDATING.

#### SEISMIC RESTRAINTS 19

- INCLUDED IN THE MAINTENANCE MANUAL
- SERVICE UTILITY CONNECTIONS 20 STANDARDS.
- DESIGNATED ON DRAWINGS.
- .3 PRIMARY CONDUITS TO BE RGS. CONTRACTOR.
- .6 ALL FEES FOR THE UTILITY SHALL BE PAID FOR BY THE OWNER. ELECTRICAL DISTRIBUTION EQUIPMENT

21

22

23

24

- .2 PROVIDE METER SOCKET COMPLETE WITH ENCLOSURE TO UTILITY STANDARDS.
- DOORS.
- TO ORDERING EQUIPMENT.

# RACEWAYS AND FITTINGS

- REQUIREMENTS.
- TO ELECTRICAL BOXES AND EQUIPMENT.
- ACCEPTABLE.

# PULLBOXES AND OUTLET BOXES

- BOXES.
- APPLICATIONS.

# WIRING

- CONNECTED TO 75 DEGREE RATED EQUIPMENT.

- EQUIPMENT. (NO SHARING OF NEUTRALS).
- CANADIAN ELECTRICAL CODE.

#### 25 GROUNDING AND BONDING

- ADEQUATELY BONDED.

#### 26 WIRING DEVICES

## IDENTIFICATION AND LABELLING 27

- ELECTRICAL EQUIPMENT AND DEVICES.

# END OF SPECIFICATION

.1 RETAIN THE SERVICES OF A QUALIFIED SEISMIC ENGINEER TO PROVIDE SEISMIC RESTRAINT REQUIREMENTS, INSTALLATION DETAILS, SITE REVIEWS AND LETTER OF ASSURANCE FOR THE PROJECT. EXACT SCOPE OF SEISMIC WORK SHALL BE DETERMINED BY THE SEISMIC ENGINEER. ALL SEISMIC DETAILS SHALL BE SUBMITTED AS SHOP DRAWINGS TO THE CONSULTANT AND

.2 PROVIDE LETTERS OF ASSURANCE FROM THE SEISMIC ENGINEER TO THE ELECTRICAL ENGINEER AFTER FIELD REVIEWS BY THE SEISMIC ENGINEER AT SUBSTANTIAL COMPLETION.

.1 PROVIDE CONDUIT AND WIRE FROM SERVICE MAST TO SERVICE EQUIPMENT TO BC HYDRO

.2 PROVIDE SERVICE MAST AND HEAD FOR OVERHEAD CONNECTION BY BC HYDRO AT LOCATION

.4 TRENCHING, BACKFILLING AND CONCRETE ENCASING SHALL BE PROVIDED BY THE GENERAL

.5 CO-ORDINATE EXACT REQUIREMENTS AND SCOPE OF WORK WITH BC HYDRO AND CO-ORDINATE SERVICE CONNECTION AND INSTALL WITH UTILITY DURING CONSTRUCTION.

.1 SERVICE ENTRANCE EQUIPMENT SHALL BE RATED AND SIZED FOR UTILITY REQUIREMENTS.

.3 PANELBOARDS SHALL BE EQUAL TO CUTLER-HAMMER POW-R-LINE 1A SERIES, SIZED AS NOTED ON THE DRAWINGS. PANELS TO BE SURFACE MOUNTED COMPLETE WITH PANEL TRIM HAVING CONCEALED HINGES AND TRIM MOUNTING SCREWS, HINGED LOCKING DOOR WITH FLUSH CATCH. PROVIDE BOLT-IN BRANCH CIRCUIT BREAKERS FOR ALL PANELBOARDS. PROVIDE NEW TYPEWRITTEN PANEL DIRECTORIES FOR ALL PANELS AND AFFIX TO INSIDE OF PANELBOARD

.4 ALL AIC RATINGS SHALL BE AS NOTED ON THE DRAWINGS AND A MINIMUM OF 10K. .5 PRE-APPROVED ALTERNATE MANUFACTURES SHALL BE SIEMENS AND SCHNEIDER. REVIEW FOOT PRINT SIZES PRIOR TO SELECTING ALTERNATE AND NOTIFY CONSULTANT OF ANY ISSUES PRIOR

.1 RIGID STEEL CONDUIT (RGS) SHALL BE INSTALLED FOR ALL ABOVE GROUND WIRING UNLESS NOTED OTHERWISE. CONDUITS TO BE INSTALLED IN CONFORMANCE WITH THE CANADIAN ELECTRICAL CODE. COLOR CODE CONDUIT AND JUNCTION BOX COVERS AS NOTED IN OTHER SECTIONS OF THIS SPECIFICATION. SIZE CONDUITS TO THE CANADIAN ELECTRICAL CODE

.2 IN-GROUND CONDUIT SHALL BE RPVC CONDUIT. LABEL BOTH ENDS OF STUB-UP LOCATIONS WITH FELT MARKER INDICATING USE OF CONDUIT. ENSURE CONDUIT IS SEALED DURING CONSTRUCTION AND FREE OF DEBRIS PRIOR TO INSTALLING WIRE IN CONDUIT.

.3 ALL CONDUITS TO HAVE A GREEN BONDING CONDUCTOR; DO NOT USE THE CONDUIT AS A BOND

.4 CONDUITS TO BE FREE FROM BURRS AND KINKS; BENDS SHALL BE KEPT TO A MAXIMUM 45 DEGREE ANGLE FOR OFFSETS AND SADDLES WHEREVER POSSIBLE. PROVIDE A PULL BOX OR JUNCTION BOX FOR EACH 360 DEGREE BEND IN THE CONDUIT RUN. IN EXPOSED AREAS THE INSTALL OF CONDUITS SHALL BE UNIFORM IN APPEARANCE AND INSTALLED IN PARALLEL OR RIGHT ANGELS WITH THE BUILDING STRUCTURE.

.5 PROVIDE BUSHING ON ALL CONNECTORS ON CONDUITS 27MM IN SIZE AND LARGER. ALL CONNECTORS AND COUPLINGS SHALL BE STEEL; ALUMINUM OR DIE-CAST ZINC IS NOT

.1 SUPPLY AND INSTALL PULLBOXES AND JUNCTION BOXES AS SHOWN ON THE DRAWINGS AND AS REQUIRED TO SUIT JOB CONDITIONS. PULLBOXES SHALL CONFORM TO CANADIAN ELECTRICAL CODE REQUIREMENTS AND SHALL BE FINISHED IN ENAMEL OVER CORROSION RESISTANT PRIMER WITH SCREW-ON OR HINGED COVER. UTILIZE TABLE 23 OF THE CEC FOR DETERMINING SIZES OF

.2 WHEN INSTALLED IN CONCRETE UTILIZE APPROPRIATE MASONRY BOXES INTENDED FOR SUCH

.1 ALL WIRING SHALL BE COPPER WITH RW75 X-LINK OR R75 NYLON 600 V INSULATION INSTALLED IN EMT CONDUIT. NO WIRE SMALLER THAN NO.12 AWG SHALL BE USED FOR BRANCH CIRCUIT WIRING. WIRING SHALL BE COLOR CODED TO THE CANADIAN ELECTRICAL CODE REQUIREMENTS. RIGID THREADED GALVANIZED STEEL CONDUIT SHALL BE USED WHERE REQUIRED BY CODE. 90 DEGREE WIRING MAY BE USED BUT SHALL BE DE-RATED TO 75 DEGREE WIRING WHERE

.1 WIRING LARGER THAN 2/0 MAY BE PARALLELED AS PERMITTED BY CODE.

.2 CABLING MAY BE ALUMINUM WHEN SIZED 1/0 OR LARGER.

.3 CABLING SHALL BE FIRE RATED WHERE APPLICABLE BY CODE.

.2 PROVIDE DEDICATED NEUTRAL CONDUCTORS FOR ALL CIRCUITS FEEDING ELECTRONIC

.3 CONDUCTORS TO BE SIZED SO AS TO LIMIT VOLTAGE DROP TO THE LIMITS OUTLINED IN THE

.1 SUPPLY AND INSTALL COMPLETE GROUNDING AND BONDING SYSTEM AS INDICATED AND AS REQUIRED BY CANADIAN ELECTRICAL CODE, THE LOCAL ELECTRICAL INSPECTION DEPARTMENT AND AS DEFINED IN OTHER SECTIONS OF THIS SPECIFICATION.

.2 PROVIDE #6 COMMON GROUNDING CONDUCTOR FROM THE NEUTRAL GROUNDING TERMINAL TO THE GROUNDING ELECTRODE(S). OBTAIN PERMISSION FROM THE CONSULTANT BEFORE INSTALLING A GROUNDING PLATE IN LIEU OF GROUND RODS.

.3 ALL COMPONENTS SHALL BE SECURELY AND ADEQUATELY BONDED TO GROUND AND WHERE REQUIRED TO ACCOMPLISH THIS, BONDING JUMPERS, BONDING STUDS AND BUSHINGS SHALL BE USED. ENSURE THAT ALL RACEWAYS, DISTRIBUTION EQUIPMENT, TERMINAL PANELS AND EQUIPMENT FOR LOW VOLTAGE SYSTEMS, FIRE ALARM, SOUND, ETC. ARE SECURELY AND

.1 TIER 2 ELECTRIC VEHICLE CHARGING STATIONS SHALL BE EQUAL TO FLO SMARTTWO-BSR LEVEL SERIES. ALTERNATE MANUFACTURERS MUST BE SAE 1772 COMPLIANT AND HAVE OPTION FOR NO CHARGE AND CHARGEABLE CONNECTION. CONNECT UNITS TO 2-40A 240V 1 PHASE CONNECTIONS. 1ST UNIT TO BE MASTER SMARTTWO; ADDITIONAL UNITS (WITHIN 50M0 TO BE AUXILIARY SMARTTWO. PROVIDE ONE DUAL UNIT FOR EVERY TWO STALLS.

.1 ELECTRICAL CONTRACTOR SHALL PROVIDE AND INSTALL IDENTIFYING LABELS FOR ALL

.2 ALL DISTRIBUTION EQUIPMENT INCLUDING PANELS SHALL HAVE LAMICOID LABELS.

.3 ALL DEVICES SHALL HAVE ADHESIVE LABELS FROM A BROTHER P-TOUCH DEVICE OR EQUIVALENT.

IENT REF. #:

# SOOKE EV CHANGER LOT 6726

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THE CONTRACTOR SHALL CHECK AND VERIFY ALL DIMENSIONS AND UTILITY OCATIONS AND REPORT ALL ERRORS AND OMISSIONS PRIOR TO COMMENCING

THIS DRAWING IS NOT TO BE SCALED.

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# ELECTRICAL

## ELECTRICAL SPECIFICATIONS

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