



## City of Coquitlam

### REQUEST FOR PROPOSALS

RFP No. 14-01-05

### **TRAFFIC SIGNAL & STREET LIGHT MAINTENANCE SERVICES**

Proposals will be received on or before 2:00 pm local time on

**Friday, January 31, 2014**  
("Closing Date and Time")

#### **Obtaining RFP Documents**

Request for Proposal (RFP) documents are available for downloading from the City of Coquitlam's website: [www.coquitlam.ca/BidOpportunities](http://www.coquitlam.ca/BidOpportunities)

Printing of the RFP documents is the sole responsibility of the Proponents.

#### **Addenda**

Proponents are required to check the City's website for updated information and addenda issued before the closing date at the City website: [www.coquitlam.ca/BidOpportunities](http://www.coquitlam.ca/BidOpportunities)

#### **Proposals**

The lowest price Proposal will not necessarily be accepted. The City reserves the right to accept or reject any or all Proposals, accept a Proposal deemed to be in the best interest of the City, or cancel this RFP at any time.

The City will not be responsible for any costs incurred by Proponents in preparing a response.

D. Trudeau  
Purchasing Manager

Issue Date: January 6, 2014

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## DEFINITIONS

**“Agreement” “Contract”** means the formal written contract between the City and a Preferred Proponent to undertake the Goods and Services, the preferred form of which is Attachment I;

**“City”** means the City of Coquitlam;

**“Closing Date”** has the meaning set out in section 1.4;

**“Evaluation Team”** means the team appointed by the City;

**“Goods”** has the meaning set out in the Agreement (Attachment I);

**“Preferred Proponent(s)”** means the Proponent(s) selected by the Evaluation Team to enter into negotiations for an Agreement;

**“Proponent”** means a responder to this Request for Proposals;

**“Proposal” “Proposal Submission Form”** means a submission by the Proponent completed on the forms provided in Attachment II;

**“Request for Proposals” “RFP”** means this Request for Proposals documentation;

**“Services”** has the meaning set out in the Agreement (Attachment I);

**“Site”** means the place or places where the Goods are to be delivered and the Services are to be performed;

**“Supply”** means supply, deliver and pay for all associated materials necessary to complete the Services.

**1. INSTRUCTIONS TO PROPONENTS**

**1.1 Request for Proposals**

The City of Coquitlam ("**City**") requests Proposals to select a professional, qualified and experienced contractor for the provision of **Traffic Signal & Street Light Maintenance Services** ("**Services**").

The successful Proponent will provide all qualified personnel, vehicles, transportation, fuel, materials and equipment, necessary to perform the Services in the City.

The Services include the maintenance and repair of the City's existing and future street lighting systems and traffic control systems, both above and below ground,

The Services include but are not limited to:

- (a) Annual preventative maintenance of traffic signal equipment.
- (b) Annual re-lamping and pole painting of street lights and traffic signals.
- (c) Provision of twenty-four (24) hours per day repair service to traffic signal equipment.
- (d) The repair of malfunctioning street lights during regular working hours except as noted in (e).
- (e) Provision of twenty-four (24) hours per day repair service to street lights, and street light systems described as an immediate hazard by the City, reporting agency or person.
- (f) Graffiti and postings removal from traffic signal and streetlight infrastructure.
- (g) Maintenance as directed by the City.

Complete details of the Goods and Services required are defined in the Agreement (Attachment 1).

**1.2 Term**

The successful Proponent will provide the Goods and Services for a three (3) year term commencing on April 1, 2014 and terminating on March 31, 2017 (the "Term"). The contract may be extended for up to two (2) additional one (1) year terms, subject to mutual agreement.

### 1.3 Background

The City is 123 square kilometres in size, with a population of approximately 127,000 residents. The current inventory of electrical devices in the City consists of:

Traffic Signals – 114  
Pedestrian Signals – 24  
Fire Hall Signals – 4  
Special Crosswalks – 6  
Illuminated Pedestrian Crossings – 18  
Overhead Flashing Beacons – 3  
Advance Warning Flashers – 20  
Uninterruptible Power Supply Units – 69  
City Street Lights – 8,600 (approximately)

### 1.4 Closing Date & Time

**Proposals will be received on or before: 2:00 pm (local time):**

**Friday, January 31, 2014**

### 1.5 Instructions for Proposal Submission

Proposal submissions are to be uploaded through Qfile, the City's file transfer service accessed at website:

<http://qfile.coquitlam.ca/bid>

1. in the "Subject" field enter: RFP Number and Name
2. Add files in .pdf format and Send (ensure you receive 2 emails from Qfile to confirm upload is complete)

Proposals submitted are deemed to be successfully received when displayed as new email in the in-box of the City email address. The City will not be liable for any delay for any reason including technological delays, or issues by either party's network or email program, and the City will not be liable for any damages associated with Proposals not received.

The City reserves the right to accept Proposals received after the Closing Date but is under no obligation to evaluate.

Proposals may be withdrawn by written notice only, made by an authorized representative of the Proponent sent by email to [bid@coquitlam.ca](mailto:bid@coquitlam.ca) prior to time set as closing time for receiving Proposals.

Incomplete Proposals or Proposals submitted on forms other than the Proposal Submission Form may be rejected.

Proposals will not be opened in public.

1.6 Enquiries

Questions are to be submitted in writing no less than 3 business days prior to the Closing Date quoting the RFP name and number sent to email: [bid@coquitlam.ca](mailto:bid@coquitlam.ca)

The City shall determine, at its sole discretion, whether the query requires response, and such responses will be made available to all Proponents by issue of Addenda that will be posted on the City's website and will be incorporated into and become part of the RFP.

No oral conversation will affect or modify the terms of this RFP or may be relied upon by the Proponent.

1.7 Addenda

Proponents are required to check the City's website for updated information and Addenda issued before the Closing Date at [www.coquitlam.ca/BidOpportunities](http://www.coquitlam.ca/BidOpportunities)

Upon submitting a Proposal, Proponents are deemed to have received all Addenda posted on the City website and deemed to have considered the information for inclusion in the Proposal submitted.

Should there be any discrepancy in the documentation provided, the City's original file copy shall prevail.

1.8 Liability for Errors

While the City has used considerable effort to ensure an accurate representation of information in this RFP, the information contained is supplied solely as a guideline for Proponents. The information is not guaranteed or warranted to be accurate by the City, nor is it necessarily comprehensive or exhaustive. Nothing in this RFP is intended to relieve the Proponents from forming their own opinions and conclusions with respect to the work in this RFP.

1.9 Examination of Proposal Documents and Work Sites

The Proponent must carefully examine the RFP documents. The Proponent may not claim, after the submission of a Proposal, that there was any misunderstanding with respect to the requirements and conditions imposed by the City.

There will be no opportunity to make any additional claim for compensation or invoice for additional charges that were not considered and included in the Proposal price submitted, unless, at the City's sole discretion, it deems that it would be unreasonable to do so, or there are additional work requirements due to unforeseen circumstances.

All information in this RFP documents and any resulting Addenda will be incorporated into any Contract between the City and the successful Proponent, and therefore must be considered by the Proponent in preparing their Proposal.

#### 1.10 Irrevocability and Acceptance of Proposals

The City requests that Proposals remain open for acceptance for a period of not less than ninety (90) days from the Closing Date.

The City reserve the right to waive formalities in, accept or reject any or all Proposals, cancel this RFP, or accept the Proposal deemed most favourable in the interest of the City.

The City will be under no obligation to proceed further with any submitted Proposal and should it decide to abandon it, may, at any time, invite further Proposals for the supply of the described services or enter into any discussions or negotiations with any party for the provision of the Goods and Services. No alterations, amendments or additional information will be accepted after the Closing Date unless invited by the City.

#### 1.11 Proponent's Expenses

Proponents are solely responsible for their own expenses in preparing a proposal and for subsequent negotiations with the City, if any.

#### 1.12 No Agreement

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

#### 1.13 No Claim

Except as expressly and specifically permitted in these Instructions to Proponents, no Proponent shall have any claim for any compensation of any kind whatsoever relating to this RFP including, but not limited to, any decision by the City to accept a non-compliant bid, and by submitting a Proposal, each Proponent shall be deemed to have agreed that it has no claims.

No contractual, tort, or other legal obligations are created or imposed on the City, or any other individual, officer or employee of the City with respect to the RFP documentation or by submission or consideration by the City of any Proposal.

1.14 Conflict of Interest

Proponents shall disclose any actual or potential conflicts of interest and existing business relationships it may have with the City, its elected or appointed officials or employees.

1.15 Non-Solicitation

Proponents and their agents will not contact any member of the City Council with respect to this RFP at any time prior to the award of a Contract or the termination of the RFP, and the City may reject the Proposal of any Proponent that makes any such contact.

1.16 Freedom of Information and Protection of Privacy Act

Proponents are advised that submissions are subject to the *Freedom of Information and Protection of Privacy Act* (BC) and contents may be disclosed if required to do so pursuant to the Act.

**2. EVALUATION AND SELECTION**

2.1 Multiple Preferred Proponents

The City reserves the right and discretion to divide up the Services by type of work, or any other basis as the City may decide, and to select one or more preferred Proponents to enter into discussions with the City for one or more agreements to perform a portion or portions of the Services.

In addition to any other provision of this RFP, Proposals may be evaluated on the basis of advantages and disadvantages to the City that might result or be achieved from the City dividing up the Goods and Services and entering into one or more agreements with one or more Proponents.

2.2 Variations in Delivery of the Services

The City may consider Proposals that include:

(a) Delivery of All or Portions of the Services

The City is considering the following combinations of Service delivery options:

(1) Option 1 – All Traffic Signal Maintenance and Street Light Pole Replacements

The Services include all work orders for scheduled and unscheduled traffic signal maintenance as well as work orders involving street light pole replacements, both scheduled and unscheduled.



(2) Option 2 – All Street Light Maintenance (except Street Light Pole Replacements)

The Services include all work orders for scheduled and unscheduled street light maintenance excluding all work orders involving street light pole replacements.

(3) Option 3 – All of Option 1 and Option 2

The Services include all traffic signal and street light work described in Attachment 1.

The combinations listed herein (Option 1, 2 and 3) are suggested delivery options only. The City encourages Proponents to propose Service delivery options that:

- are most advantageous to the City; and
- are aligned with the Proponent's experience, expertise, and qualifications of personnel, equipment and resources.

(b) Innovative Variations in the Delivery of the Services

The City is interested in innovative variations to the delivery of the Services. Variations can range from minor modifications to major system and administrative changes. The list below illustrates (but does not limit or promote the implementation of) possible variations. Innovative variations could include:

- (1) longer or shorter Agreement terms;
- (2) Service delivery methodology improvements;
- (3) alternate vehicles/low emission vehicles; and
- (4) alternate performance requirements.

2.3 Evaluation Criteria

Criteria for evaluating the Proposals are listed in no order of precedence and include, but are not limited to:

**a) Corporate Experience, Reputation, Capacity and Resources**

- Corporate experience, reputation, financial stability, capacity and resources
- Ability to provide the services
- References

**b) Technical and Support Services**

- Experience and compliance with BC regulations, codes, statutes and bylaws
- Compliance with City specifications and scope of work
- Service methodology and work plan
- Quality control and assurance
- Reporting – tracking, reports, inspections
- Response times
- Resources - personnel qualifications, condition of equipment

**c) Financial and Value Added**

- Financial – price, operating and maintenance costs, warranty
- Value added
- Sustainability

These criteria will be used to determine best overall value to the City as well as any other criteria that may become evident during the evaluation process.

Upon submission of a Proposal, Proponents agree that the City may disclose the names of Proponents that submit Proposals in response to this RFP. However, no totals, scores or prices will be provided to any Proponent.

2.4 Discrepancies in Proponent's Proposal

If there are any obvious discrepancies, errors or omissions in a Proposal, then the City shall be entitled to make obvious corrections, but only if, and to the extent, the corrections are apparent from the Proposal submission.

2.5 Litigation

In addition to any other provision of this RFP, the City may, in its absolute discretion, reject a Proposal if the Proponent, or any officer or director of the Proponent submitting the Proposal, is or has been engaged directly or indirectly in a legal action against the City, its elected or appointed officers, representatives or employees in relation to any matter.

In determining whether or not to reject a Proposal under this section, the City will consider whether the litigation is likely to affect the Proponent's ability to work with the City, its contractors and representatives and whether the City's experience with the Proponent indicates that there is a risk the City will incur increased staff and legal costs in the administration of the Agreement if it is awarded to the Proponent.

## 2.6 Interviews

The Evaluation Team may, at its discretion, invite some or all of the Proponents to appear before the Evaluation Team to provide clarifications of their Proposals. In such event, the Evaluation Team will be entitled to consider the answers received in evaluating Proposals.

## 2.7 Negotiation of Agreement and Award

If the City selects a Preferred Proponent or Preferred Proponents, then it may:

- (a) enter into an Agreement with the Preferred Proponent(s); or
- (b) enter into discussions with the Preferred Proponent(s) to attempt to finalize the terms of the Agreement(s), including financial terms, and such discussions may include:
  - (1) clarification of any outstanding issues arising from the Preferred Proponent's Proposal;
  - (2) negotiation of amendments to the departures to the draft Agreement, if any, proposed by the Preferred Proponent; and
  - (3) negotiation of amendments to price(s) and/or scope of Services;
- (c) if at any time the City reasonably forms the opinion that a mutually acceptable Agreement is not likely to be reached within a reasonable time, give the Preferred Proponent(s) written notice to terminate discussions, in which event the City may then either open discussions with another Proponent or terminate this RFP and retain or obtain the Services in some other manner.
- (d) the City may enter into a changed or different contract with the Proponent proposing the “best value” without liability to unsuccessful Proponents.



## **City of Coquitlam**

### **Attachment I - Agreement**

#### **Agreement No. 14-01-05**

#### **TRAFFIC SIGNAL AND STREET LIGHT MAINTENANCE SERVICES**

THIS AGREEMENT made the \_\_\_\_\_ day of \_\_\_\_\_, 2014

BETWEEN:

**CITY OF COQUITLAM**, a municipal corporation under the laws of the Province of British Columbia, of 3000 Guildford Way in Coquitlam, British Columbia, V3B 7N2.

(the “City”)

AND:

**(CONTRACTOR)** a body corporate under the laws of Canada having its head office  
**(ADDRESS)** Province of British Columbia,

(the “Contractor”)

**WHEREAS** the City and Contractor wish to undertake this Agreement for the provision of certain goods and services on the conditions set out in this Agreement:

### **Traffic Signal and Street Light Maintenance Services**

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**1. INTERPRETATION**

**1.1 Definitions**

In this agreement the following definitions apply:

**“Agreement”** means this agreement, including all Schedules referred to in section 1.2;

**“City”** means the City of Coquitlam;

**“Contractor”** means the person, firm or corporation identified as such in the Agreement;

**“Fees”** has the meaning set out in section 5.1;

**“Invoice”** has the meaning set out in section 5.3;

**“Goods”** means the goods, equipment or materials as described generally in Schedule 1, including anything and everything to be done for the fulfillment and completion of this Agreement;

**“Term”** has the meaning set out in section 2.6;

**“Services”** means the services as described in Schedule 1 including everything necessary for the fulfillment and completion of this Agreement.

**1.2 Schedules**

The following Schedules are attached as part of this Agreement:

- (a) Schedule 1 – Specification of Goods and Scope of Services;
- (b) Schedule 2 – Fees and Rates;
- (c) Schedule 3 – Response Requirements;
- (d) Schedule 4 – Personnel Requirements;
- (e) Schedule 5 – Electrical Infrastructure Device Locations;
- (f) Schedule 6 – City of Coquitlam Supplementary Specifications; and
- (g) Schedule 7 – Reporting Requirements.



### 1.3 Order of Governance

If there is any inconsistency or conflict between the provisions of the Agreement documents then:

The Agreement shall govern and take precedence in the following order:

- (a) Agreement, including the Schedules;
- (b) Addenda (if any);
- (c) Master Municipal Construction Document Specifications (Platinum Edition, 2009); and
- (d) Master Municipal Construction Document Standard Detail Drawings (Platinum Edition, 2009).

## **2. GOODS AND SERVICES**

### 2.1 Goods and Services

The Contractor covenants and agrees to provide the Goods and Services for the City, pursuant to this Agreement.

### 2.2 Amendment of Goods and Services

The City may from time to time, by written notice to the Contractor, make changes to the Goods and Services. The Fees will be increased or decreased by written agreement of the City and the Contractor in accordance with Schedule 2.

### 2.3 Standard of Care/Quality Control

The Contractor will provide Goods and perform the Services with the degree of care, skill and diligence normally provided by a qualified and experienced professional. The Contractor represents that it has the expertise, qualifications, resources and relevant experience to provide the Goods and Services.

### 2.4 Warranty

The Contractor, unless specifically stated otherwise in this Agreement, guarantees to maintain and remedy the Goods and Services against any defects arising from faulty installation, faulty Goods or faulty workmanship which may appear within a warranty period of ninety (90) days for lamps and lamp installation and one (1) year for all other Goods and Services from the specified completion date on the Contractor's work order for that supply of Goods or provision of Services. During the warranty period, faulty Goods shall be replaced and defects shall be rectified to the satisfaction of the City.

If the City determines that a deficiency or defect exists in the Goods or workmanship in respect to a Service rendered under this Agreement, the City shall notify the Contractor in writing. In the event that the required remedial work, in the opinion of the City, must be done immediately to prevent serious damage, injury or loss of life, the City may perform or cause to be performed the necessary work and shall notify the Contractor accordingly.

Work required under warranty shall, except as otherwise provided herein for emergencies, be carried out by the Contractor within five (5) days of the City's written instruction to perform the work. In the event that this work is not done by the Contractor within the five (5) day period, the City may take whatsoever action is necessary to have the work done.

All costs resulting from the necessity to work under the warranty requirement, whether it be done by the Contractor, or the City, as provided herein, shall be borne by the Contractor. The Contractor shall, in addition, be liable to the City for all expenses, losses or damages incurred by the City as a result of such faulty Goods or defective workmanship, or as a result of the Contractor's failure to meet the warranty requirements as specified herein, including, but without limiting the generality hereof, all costs of engineering, inspection and testing work.

Damage to Goods and Service and labour associated with such damage caused by a motor vehicle accident or third party shall not be covered by any warranty.

#### 2.5 Disposal of Waste and Surplus Goods and Materials

The Contractor shall dispose of all waste and surplus Goods and other materials in accordance with current legislation. Goods and other materials shall be recycled where applicable and any required disposal must be done at the Contractor's own facilities and expense.

#### 2.6 Term

The Contractor will provide the Goods and Services for a three (3) year term commencing on April 1, 2014 and terminating on March 31, 2017 (the "Term").

#### 2.7 Contract Extension

At the discretion and mutual agreement of both parties, the Agreement may be extended for up to two (2) additional one (1) year terms. If the City and Contractor elect to extend the Term, the provisions of this Agreement will remain in force, including the Fees, except where amended in writing by the parties.

### **3. PERSONNEL**

#### **3.1 Qualified Personnel**

The Contractor will provide professional personnel who have the qualifications, experience and capabilities as described in Schedule 4 to provide the Goods and the Services.

#### **3.2 Listed Personnel and Sub-Contractors**

The Contractor will provide the Goods and Services using the professional personnel as described in Schedule 4 and identified by the Contractor, and the Contractor will not remove any such listed personnel or sub-contractors from this Agreement without the prior written approval of the City.

#### **3.3 Replacement of Personnel or Sub-Contractors**

If the City reasonably objects to the performance, qualifications, experience or suitability of any of the Contractor's personnel or sub-contractors then the Contractor will, on written request from the City, replace such personnel or sub-contractors.

#### **3.4 Sub-Contractors and Assignment**

The Contractor will not engage any personnel or sub-contractors, or sub-contract or assign its obligations under this Agreement, in whole or in part, without the prior written approval of the City. The Contractor will be as fully responsible to the City for acts and omissions of sub-contractors.

### **4. LIMITED AUTHORITY**

#### **4.1 Agent of City**

This Agreement does not render the Contractor an agent or employee of the City, and without limiting the above, the Contractor does not have authority to enter into any contract or reach any agreement on behalf of the City, except for the limited purposes as may be expressly set out in this Agreement.

Every vehicle used by the Contractor in the course of providing the Goods and Services shall identify the Contractor by name.

#### **4.2 Independent Contractor**

The Contractor is an independent contractor. This Agreement does not create the relationship of employer and employee, a partnership, or a joint venture. The City will not control or direct the details, means or process by which the Contractor performs the Goods and Services. The Contractor is primarily responsible for performance of the Goods and Services and may not delegate or assign any Services to any other person except as provided for in section 3.4. The Contractor will be solely liable for the wages, fringe

benefits, work schedules and work conditions of any partners, employees or sub-contractors.

## 5. FEES

### 5.1 Payment for Goods and Services

The City will pay for Goods and Services provided by the Contractor in accordance with the rates in Schedule 2 (the “**Fees**”). For “Annual Maintenance” (minor and major) items, the unit prices shall include all labour, equipment, overhead, and profit (excluding applicable taxes) to perform the work tasks as outlined in Schedule 1. For “Unscheduled Maintenance” items, the hourly rates shall include all labour and equipment (excluding applicable taxes).

The Contractor’s general management, overhead, profit, and all incidental other items, parts and fasteners, necessary to complete the work shall be included the Fees.

For all scheduled and unscheduled work, the Contractor will only supply the Goods and perform the Services with written authorization issued from the City in the form of a work order with a unique work order number. The work order number must be reported in the supporting documentation that accompanies the monthly invoice submitted by the Contractor.

### 5.2 Regular Hours of Work

Regular hours of work shall be between **07:00 and 16:00** Monday through Friday, excluding statutory holidays.

### 5.3 Invoices and Payment

- (a) The Contractor will submit one (1) monthly invoice (the “**Invoice**”) for all the Goods supplied and Services performed in each month accompanied by the required reports and supporting documentation;
- (b) Invoices will be submitted in .pdf format sent to email:  
[apinvoices@coquitlam.ca](mailto:apinvoices@coquitlam.ca)
- (c) Invoices are to include the following information:
  - (1) A unique invoice number;
  - (2) Invoice date;
  - (3) invoice period (one invoice for each calendar month);
  - (4) Subtotals of Service categories and applicable taxes shown separately; and

- (5) Grand total of the invoice.
- (d) if the City reasonably determines that any portion of an Invoice is not payable then the City will so advise the Contractor; and
- (e) Payment will be made to the Contractor Net 30 days subject to review and approval of the invoice and supporting documentation.

#### 5.4 Invoice Supporting Documents

Invoice supporting documents in Microsoft Excel format must accompany the Invoice. Refer to Schedule 7, Item 3 for additional details. Prices shall be charged to the City in accordance with Schedule 2.

#### 5.5 Verification of Records

The Contractor will maintain accurate records for the Goods and Services that have been provided. Upon request from the City, the Contractor will make their records available to audit examination by the City at any time during regular business hours during Term and for a period of six years thereafter.

#### 5.6 Markup of Goods not listed in Schedule 2

All replacement Goods not specifically listed in Schedule 2 but required for the completion of the work, will be supplied by the Contractor and invoiced to the City at cost plus fifteen percent (15%) mark-up. The Contractor shall submit, upon request by the City, copies of original supplier's invoices to verify the cost of the Goods.

#### 5.7 Units of Goods and Services

The estimated units of Goods and Services in Schedule 2 are provided for evaluation and comparison of the fees and rates only. The City does not guarantee the actual amounts of Goods and Services will correspond even approximately to the estimated units, but reserves the right to increase or decrease the amounts of the Goods and Services, or to omit portions of the Goods and Services that may be deemed necessary or expedient by the City. The Contractor shall make no claim for anticipated profits, for loss of profit, for damages, or for any extra payment whatsoever, because of any difference between the amount of actual Goods and Services provided and the quantities stated in Schedule 2.

#### 5.8 Payment for "Hour" Units

Where the unit of payment in Schedule 2 is an "hour", the time measurement for payment for completing an unscheduled maintenance call during regular working hours shall be calculated as follows:

- (a) a minimum of one (1) hour shall be charged, if the time for completing a service call is one (1) hour or less;

- (b) the time to the next nearest one-half (1/2) hour shall be charged, if the time for completing an unscheduled maintenance call is more than two (2) hours; and
- (c) no payment will be made for travel time to and from each site and such time shall not be included in the time measured for payment.

5.9 Personnel Hourly Rates

The personnel hourly rates in Schedule 2 shall include all overhead, profit and all small tools and other miscellaneous equipment normally required by tradesmen in their provision of the Goods and Services. No payment will be made for travel time to and from each site and such time shall not be included in the time measured for payment.

5.10 Personnel Hourly Rates for Unscheduled Maintenance Calls

The Contractor's minimum charge at hourly personnel rates for unscheduled maintenance calls received for after-hours work, and all statutory holidays shall be as follows:

Between 16:00 and 00:00 (Monday to Friday)	two (2) hours
Between 00:00 and 05:00 (Monday to Friday)	four (4) hours
Between 05:00 and 07:00 (Monday to Friday)	two (2) hours
Weekends	four (4) hours
Statutory Holidays	four (4) hours

Weekends shall be defined as 00:01 Saturday to 05:00 Monday

Statutory Holidays shall be defined as 00:01 (holiday date) to 05:00 the following day.

5.11 Equipment Hourly Rates

The equipment hourly rates in Schedule 2 shall include all overhead, profit, operators, fuel, repairs, and moving charges. Time required for transportation of equipment to and from work sites within Coquitlam will be payable at the appropriate equipment hourly rates. Payment for time required to transport equipment into and out of the City's jurisdictional boundaries will not be payable.

5.12 Preventative Maintenance – Authorization

Any additional Goods and Services provided by the Contractor over and above the preventative maintenance tasks listed in Schedule 1 shall be authorized in writing prior to performing the work.

### 5.13 Incidental Goods Supply

Goods provided to aid or assist in maintenance tasks and installation of new or replacement parts shall be considered incidental, and shall not be paid for separately by the City under Schedule 2.

## **6. CITY RESPONSIBILITIES**

### 6.1 City Information

The City will, in co-operation with the Contractor, make efforts to make available to the Contractor all information, reports and records which the City has in its possession that relate to the delivery of the Goods and Services. The Contractor will review any such material upon which the Contractor intends to rely and take reasonable steps to determine if that information is complete or accurate. The Contractor will assume all risks that the information is complete and accurate and the Contractor will advise the City in writing if in the Contractor's judgment the information is deficient or unreliable and undertake such new surveys and investigations as are necessary.

### 6.2 City Decisions

The City will in a timely manner make all decisions required under this Agreement, examine documents submitted by the Contractor and respond to all requests for approval made by the Contractor pursuant to this Agreement.

### 6.3 Notice of Defect

If the City observes or otherwise becomes aware of any fault or defect in the delivery of Goods or the provision of Services, it may notify the Contractor, but nothing in this Agreement will be interpreted as giving the City the obligation to inspect or review the Contractor's performance with regards to delivering Goods or the provision of Services.

## **7. INSURANCE AND DAMAGES**

### 7.1 Indemnity

The Contractor will indemnify and save harmless the City and all of its elected and appointed officials, officers, employees, servants, representatives and agents (collectively, the "Indemnitees"), from and against all claims, demands, causes of action, suits, losses, damages and costs, liabilities, expenses and judgments (including all actual legal costs) for damage to or destruction or loss of property, including loss of use, and injury to or death of any person or persons which any of the Indemnitees incur, suffer or are put to arising out of or in connection with any failure, breach or non-performance by the Contractor of any obligation of this agreement, or any wrongful or negligent act or omission of the Contractor or any employee or agent of the Contractor.

## 7.2 Contractor's Insurance Policies

The Contractor will, without limiting its obligations or liabilities and at its own expense, provide and maintain throughout the Term the following insurance policies in forms and amounts acceptable to the City from insurers licensed to conduct business in British Columbia:

- (a) commercial general liability insurance on an occurrence basis, in an amount not less than five million (\$5,000,000) dollars inclusive per occurrence against death, bodily injury and property damage arising directly or indirectly out of the work or operations of the Contractor, its employees and agents. The City of Coquitlam must be named as an additional insured on this policy. The policy will include cross liability and severability of interests such that the coverage shall apply in the same manner and to the same extent as though a separate policy had been issued to each insured. The insurance will include, but not be limited to: premises and operators liability, broad form products and completed operations, City's and Contractor's protective liability, blanket contractual, employees as additional insureds, broad form property damage, non-owned automobile, contingent employers liability, broad form loss of use, personal injury, and incidental medical malpractice;
- (b) automobile liability insurance on all vehicles owned, operated or licensed in the name of the Contractor in an amount not less than three million (\$3,000,000) dollars per occurrence for bodily injury, death and damage to property; and
- (c) all risk contractors equipment or property insurance covering all equipment owned or operated by the Contractor or its agents or employees for the provision of the Services under this Agreement, for all risks of loss or damage with coverage in such amounts and on such terms as to allow for immediate replacement.

## 7.3 Insurance Requirements

The Contractor will provide the City with evidence of the required insurance prior to the commencement of this Agreement. Such evidence will be in the form of a completed certificate of insurance acceptable to the City. The Contractor will, on request from the City, provide certified copies of all of the Contractor's insurance policies providing coverage relating to this Agreement. All required insurance will be endorsed to provide the City with thirty (30) days advance written notice of cancellation or material change restricting coverage. The Contractor will be responsible for deductible amounts under the insurance policies. All of the Contractor's insurance policies will be primary and not require the sharing of any loss by the City or any insurer of the City.



#### 7.4 Waiver of Subrogation

The Contractor hereby waives all rights of recourse against the City for loss or damage to the Contractor's property. The Contractor shall ensure that the property insurance required in section 7.2 (a) above contains a waiver of subrogation in favour of the City and its elected and appointed officials, officers, employees, servants, representatives and agents

### **8. TERMINATION**

#### 8.1 Termination

This Agreement may be terminated by either party without cause or penalty upon sixty (60) days written notice. Despite any other provision of this Agreement, if either party terminates this Agreement before the expiration of the Term, the City will pay to the Contractor all amounts owing under this Agreement in respect of Goods and Services already provided by the Contractor up to and including the date of termination, as determined by the City in its sole discretion. Upon payment of such amounts no other or additional payment will be owed by the City to the Contractor. The City will not be liable for any amount owing on account of lost profits relating to the portion of the Goods and Services not performed or other profit opportunities.

#### 8.2 Termination for Cause

The City may terminate this Agreement for cause as follows:

- (a) If the Contractor is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of its insolvency, or if a receiver is appointed because of its insolvency, the City may, without prejudice to any other right or remedy the City may have, terminate this Agreement by giving the Contractor or receiver or trustee in bankruptcy written notice; or
- (b) If the Contractor is in breach of any term or condition of this Agreement, and such breach is not remedied to the reasonable satisfaction of the City within 5 days after delivery of written notice from the City to the Contractor, then the City may, without prejudice to any other right or remedy the City may have, terminate this Agreement effective immediately by giving the Contractor further written notice.

If the City terminates this Agreement as provided by this Section, then the City may:

- (c) enter into contracts, as it in its sole discretion sees fit, with other persons to complete the Goods and Services;
- (d) withhold payment of any amount owing to the Contractor under this Agreement for the performance of the Goods and Services;

- (e) set-off the total cost of completing the Goods and Services incurred by the City against any amounts owing to the Contractor under this Agreement, and at the completion of the Goods and Services pay to the Contractor any balance remaining; and
- (f) if the total cost to complete the Goods and Services exceeds the amount owing to the Contractor, charge the Contractor the balance, which amount the Contractor will pay.

### 8.3 Curing Defaults

If the Contractor is in default of any of its obligations under this Agreement, then the City may without terminating this Agreement, upon 5 days written notice to the Contractor, remedy the default and set-off all costs and expenses of such remedy against any amounts owing to the Contractor. Nothing in this Agreement will be interpreted or construed to mean that the City has any duty or obligation to remedy any default of the Contractor.

## **9. APPLICABLE LAWS, BUILDING CODES AND BY-LAWS**

### 9.1 Applicable Laws

This Agreement will be governed by and construed in accordance with the laws of the Province of British Columbia. The City and the Contractor accept the jurisdiction of the courts of British Columbia and agree that any action under this Agreement be brought in such courts.

### 9.2 Codes and By-Laws

The Contractor will provide the Goods and Services in full compliance with all applicable laws, electrical codes and electrical regulations.

## **10. CONFIDENTIALITY AND DISCLOSURE OF INFORMATION**

### 10.1 No Disclosure

Except as provided for by law or otherwise by this Agreement, the Contractor will keep strictly confidential any information supplied to, obtained by, or which comes to the knowledge of the Contractor as a result of the performance of the Goods and Services and this Agreement, and will not, without the prior express written consent of the City, publish, release, disclose or permit to be disclosed any such information to any person or corporation, either before, during or after termination of this Agreement, except as reasonably required to complete the Goods and Services.

10.2 Freedom of Information and Protection of Privacy Act

The Contractor acknowledges that the City is subject to the *Freedom of Information and Protection of Privacy Act* of British Columbia and agrees to any disclosure of information by the City required by law.

10.3 Return of Property

The Contractor agrees to return to the City all of the City's property at the completion of this Agreement.

**11. WORKSAFEBC, OCCUPATIONAL HEALTH AND SAFETY, CODES AND REGULATIONS**

- (a) The Contractor will, at its own expense, maintain WorkSafeBC coverage for all personnel engaged in the provision of the Goods and Services. The City has the unfettered right to deduct the amount of the unpaid premiums and assessments for WorkSafeBC coverage against any monies owing by the City to the Contractor. The City will have the right to withhold payment under this Agreement until the WorkSafeBC premiums, assessments or penalties in respect of the Goods and Services have been paid in full.
- (b) The Contractor will provide the City with the Contractor's WorkSafeBC registration number and a letter from WorkSafeBC confirming that the Contractor is registered in good standing with WorkSafeBC.
- (c) The Contractor agrees that it is the Prime Contractor for the Goods and Services for the purposes of the *Workers Compensation Act*. The Contractor will have a safety program in place that meets the requirements of the WorkSafeBC Occupational Health and Safety Regulation and the *Workers Compensation Act*.
- (d) Without limiting the generality of any other indemnities granted by the Contractor in this agreement, the Contractor will indemnify and save harmless the Indemnitees from and against all claims, demands, causes of action, suits, losses, damages, costs, liabilities, expenses, judgments, penalties and proceedings (including all actual legal costs) which any of the Indemnitees incur, suffer or are put to arising out of or in any way related to unpaid WorkSafeBC assessments owing from any person or corporation engaged in the performance of this agreement or arising out of or in any way related to the failure to observe safety rules, regulations and practices of the WorkSafeBC, including penalties levied by the WorkSafeBC.

- (e) The Contractor will ensure compliance with and conform to all health and safety laws, by-laws or regulations of the Province of British Columbia, including without limitation the *Workers Compensation Act* and Regulations pursuant thereto.
- (f) The Contractor understands and undertakes to comply with all the WorkSafeBC Occupational Health and Safety Regulations for hazardous materials and substances, and in particular with the "Workplace Hazardous Materials Information System (WHMIS)" Regulations. All "Material Safety Data Sheets (MSDS)" will be shipped along with the Goods and any future MSDS updates will be forwarded.
- (g) The Goods and Services shall be delivered and performed in accordance with the current CSA "Canadian Electrical Code", or as approved by a registered member of the Association of Professional Engineers and Geoscientists of British Columbia (APEGBC).

## **12. BUSINESS LICENSE**

The Contractor will obtain and maintain throughout the term of this Agreement a valid City of Coquitlam business license.

## **13. DISPUTE RESOLUTION**

### **13.1 Dispute Resolution Procedures**

The parties will make reasonable efforts to resolve any dispute, claim, or controversy arising out of this agreement or related to this Agreement ("**Dispute**") using the dispute resolution procedures set out in this section 13.

#### **(a) Negotiation**

The parties will make reasonable efforts to resolve any Dispute by amicable negotiations and will provide frank, candid and timely disclosure of all relevant facts, information and documents to facilitate negotiations.

#### **(b) Mediation**

If all or any portion of a Dispute cannot be resolved by good faith negotiations within 30 days, either party may by notice to the other party refer the matter to mediation. Within 7 days of delivery of the notice, the parties will mutually appoint a mediator. If the parties fail to agree on the appointment of the mediator, then either party may apply to the British Columbia International Commercial Arbitration Centre for appointment of a mediator. The parties will continue to negotiate in good faith to resolve the

Dispute with the assistance of the mediator. The place of mediation will be Coquitlam, British Columbia. Each party will equally bear the costs of the mediator and other out-of-pocket costs, and each party will bear its own costs of participating in the mediation.

(c) Litigation

If within 90 days of the request for mediation the Dispute is not settled, or if the mediator advises that there is no reasonable possibility of the parties reaching a negotiated resolution, then either party may without further notice commence litigation.

**14. JURISDICTION**

- (a) Nothing in this Agreement limits or abrogates, or will be deemed to limit or abrogate, the jurisdiction of the Council of the City in the exercise of its powers, rights or obligations under any public or private statute, regulation or by-law or other enactment.

**15. GENERAL**

15.1 Entire Agreement

This Agreement, including the Schedules and any other documents expressly referred to in this Agreement as being a part of this Agreement, contains the entire agreement of the parties regarding the provision of the Goods and Services and no understandings or agreements, oral or otherwise, exist between the parties except as expressly set out in this Agreement. This Agreement supersedes and cancels all previous agreements between the parties relating to the provision of the Goods and Services.

15.2 Amendment

This Agreement may be amended only by agreement in writing, signed by both parties.

15.3 Survival of Obligations

All of the Contractor's obligations to perform the Goods and Services in a professional and proper manner will survive the termination or completion of this Agreement.

15.4 Waiver

No waiver by either party of any breach by the other party of any of its covenants, obligations and agreements will be a waiver of any subsequent breach or of any other covenant, obligation or agreement, nor will any forbearance to seek a remedy for any breach be a waiver of any rights and remedies with respect to such or any subsequent breach.

15.5 Signature

This Agreement may be executed in or one or more counterparts all of which when taken together will constitute one and the same agreement, and one or more of the counterparts may be delivered in person or electronically.

15.6 Enurement

This Agreement shall enure to the benefit of and be binding upon the respective successors and permitted assigns of the City and the Contractor.

**IN WITNESS WHEREOF** the parties hereto have executed this Agreement on the day and year first above written.

Signed and Delivered by:

FOR THE CITY OF COQUITLAM:

\_\_\_\_\_  
General Manager Engineering & Public Works

FOR THE CONTRACTOR:

\_\_\_\_\_  
Name and Title

\_\_\_\_\_  
Signature

**SCHEDULES 1-7**

Schedules 1 through 7 will form part of the Agreement for execution, including information from the RFP and successful Proposal(s).

**SCHEDULE 1 – SPECIFICATIONS OF GOODS AND SCOPE OF SERVICES**

**SCHEDULE 2 – FEES AND RATES**

**SCHEDULE 3 – RESPONSE REQUIREMENTS**

**SCHEDULE 4 – PERSONNEL REQUIREMENTS**

**SCHEDULE 5 – ELECTRICAL INFRASTRUCTURE DEVICE LOCATIONS**

**SCHEDULE 6 – CITY OF COQUITLAM SUPPLEMENTARY SPECIFICATIONS  
(TO BE PROVIDED TO THE SUCCESSFUL PROPONENT)**

**SCHEDULE 7 – REPORTING REQUIREMENTS**



## **SCHEDULE 1**

### **SPECIFICATIONS OF GOODS AND SCOPE OF SERVICES**

The Goods and Services include without limitation the supply and delivery of material, the provision of skilled labour, and equipment to perform traffic signal maintenance and street light maintenance and other requirements of this Agreement in the City.

A brief description of the Goods and Services include:

- (a) Annual preventative maintenance of traffic signal equipment;
- (b) Annual re-lamping and pole painting of street lights and traffic signals;
- (c) Provision of twenty-four (24) hours per day repair service to traffic signal equipment;
- (d) The repair of malfunctioning street lights during regular working hours except as noted in (e);
- (e) Provision of twenty-four (24) hours per day repair service to street lights, and street light systems described as an immediate hazard by the City, reporting agency or person;
- (f) Graffiti removal from traffic signal and streetlight infrastructure
- (g) Maintenance as directed by the City;

## **1.0 GENERAL CONDITIONS**

### **1.1 Specifications and Drawings**

All Goods and Services shall be supplied and performed in accordance with Master Municipal Construction Document Platinum Edition (2009) Specifications and Standard Detail Drawings, as amended by the City of Coquitlam Supplementary Specifications (to be provided to the successful Contractor).

### **1.2 Protection of the Public and Property**

The Contractor shall hold paramount the safety, health and welfare of the public. In supplying the Goods and performing the Services, the Contractor shall protect the City's property and other person's property from damage. The Contractor shall at the Contractor's own expense make good any such damage which arises as a result of the Contractor's operation except for damage which, in the performance of the Services, the Contractor could not reasonably avoid.

### **1.3 Traffic Control**

The Contractor shall be responsible for all temporary traffic marking, signing, signaling and control while performing the Services covered by this Agreement. In general, whenever required to obstruct traffic for the repair and/or maintenance of traffic signals and street lights, the Contractor shall provide the necessary signs, barricades, and other warning devices as specified in the document "*B.C. Traffic Control Manual for the Work on Roadways*". The requirement of the Contractor to obtain City Road and Right-of-Way and Traffic Obstruction Permits is hereby waived, with the exception of complete road closures.

### **1.4 Material Specifications**

The Contractor shall supply all materials required for the Agreement except for materials supplied by the City (See Section 1.13). All materials used in the Agreement shall comply with the latest B.C. Ministry of Transportation Materials Standards and Approved Products List unless otherwise directed by the City in writing. Materials used by the Contractor must be supplied as new, and meet or exceed the latest CSA, (c) UL, or ITS (Warnock Hersey) standards.

If any material is installed by the Contractor, and subsequently recalled by the manufacturer of the material, replacement of the defective materials will be at the Contractor's sole expense. The Contractor shall notify the City if a recall notice is issued by a manufacturer. Documentation regarding the recall is to be provided by the material manufacturer and Contractor.

1.5 Goods Purchased by City

The City has the right to purchase Goods required for the performance of this Agreement directly from manufacturers and suppliers, and to supply same to the Contractor. The Contractor shall be obligated to use such Goods, as directed by the City, for Services covered under this Agreement.

1.6 Alternate Goods

Use of substitute Goods shall be at the sole discretion of the City. If the Contractor wishes to use replacement Goods of an alternate type or manufacture from those which are approved, full particulars of the alternate item(s) shall be provided to the City, and the City's written approval of the substitution obtained. Should the Contractor use substitutions without prior approval from the City, and these substitutions are deemed unsatisfactory by the City, the Contractor shall be required to remove those items and replace them with Goods as specified by the City at the Contractor's sole expense.

1.7 Records and Reporting

The Contractor shall maintain accurate records of the Goods supplied and the Services performed. The Contractor shall complete all forms, record sheets, and procedure check lists specified by the City for each Service rendered. The Contractor will be provided with the necessary templates to record information including:

- (a) Date and time request for service was received;
- (b) Authority making request, e.g., Engineering, Parks, Facilities, etc;
- (c) Name of individual making request;
- (d) Identification of damaged unit, i.e., traffic signal or street light;
- (e) Location of damaged unit, traffic signal intersection and / or street light unique identifier;
- (f) Description of problem as reported;
- (g) Description of problem as field determined. Damaged traffic signals shall be identified as primary or secondary signal head. For traffic signal controller malfunctions, a Controller Failure Report shall be completed;
- (h) Indication of probable cause of damage, e.g., general, vandalism, third party damage, motor vehicle collision, etc;
- (i) Detailed description of action taken;
- (j) List of labour, equipment and material items and quantities thereof required to effect repair. Separate sub totals shall be shown for:
  - (1) Labour/equipment;
  - (2) Materials paid at unit prices;
  - (3) Materials paid at cost (including tax and 15 %); and
  - (4) Fuel emissions data for all equipment

- (k) Date and time and initials of repair crew that arrived on site;
- (l) Date and time repairs completed. If a second repair call is required to complete the work, e.g., reinstall equipment repaired in shop, a separate maintenance activity sheet shall be completed. The initial record sheet shall be referenced on all subsequent sheets, items (a) to (h) above, inclusive, shall be listed on the initial maintenance activity sheet only; and
- (m) Unanticipated traffic signal and street light Services shall be documented with at least one photograph at no charge to the City.

The preceding list is provided as a sample of the information that the Contractor will be required to record. The City reserves the right to make amendments to this list as necessary.

A copy of all records specified by the City shall be forwarded to the City at the end of the month in which the Services were performed, together with a monthly invoice. A second copy of each record shall be maintained at the Contractor's place of business.

#### 1.8 Meetings

The Contractor shall be required to meet with the City from time to time, as necessary, to review the performance and progress of this Agreement. The Contractor shall provide such additional details as may be requested by the City.

#### 1.9 Traffic Signal and Street Light Maintenance Calls

- Definition of Unscheduled Maintenance Call

Unless otherwise directed by the City, an unscheduled maintenance call shall be defined as Services that are not part of preventative maintenance.

- Definition of Emergency Unscheduled Maintenance Call

Unless otherwise directed by the City, an emergency unscheduled maintenance call shall be defined as:

- a. repair to a primary (overhead) traffic signal head (one or more lamps out);
- b. repair to malfunctioning traffic signal equipment, including signal in flash; and

- c. repair to damage that presents an immediate hazard to motorists, pedestrians and/or public or private property.

1.10 Local Service Centre

The Contractor must have an established local service centre complete with equipment and resources in Metro Vancouver for the duration of this Agreement.

1.11 Street Light Preventative Maintenance

The Contractor shall complete, as described below, street light preventative maintenance:

- (a) The City shall provide detailed mapping and estimated quantities to the Contractor to establish the preventative maintenance and re-lamping schedule. The Contractor is to provide a preventative maintenance and re-lamping program schedule within seven (7) calendar days of the receipt of the detailed information. Approximately 1,500 street lights and approximately 130 service bases are to be serviced each year.
- (b) The Contractor shall start the program within thirty (30) days of the City providing street light locations to the Contractor;
- (c) The Goods and Services required are described in Schedule 1, Section 3.0.
- (d) The Contractor shall be equipped to re-lamp poles with a minimum of 11 metres in height;
- (e) Street light preventative maintenance will take place on all roadway street light assets under jurisdiction of the City; and
- (f) If the Contractor obstructs traffic during street light preventative maintenance, the Contractor shall provide the necessary signs, barricades, and other warning devices as specified in the document “B.C. Traffic Control Manual for Work on Roadways”.
- (g) Any extra maintenance work required outside the scope of the annual maintenance shall be reported immediately to the City so that a separate work order may be issued.

1.12 Electrical Infrastructure Inventory Changes

Electrical infrastructure inventory is continually being updated and adjusted. The City reserves the right to make adjustments to Schedule 5.

1.13 Traffic Signal Materials Supplied by City

Generally, The Contractor will supply all Goods required to perform the Works except the following items supplied by the City:

- (a) Controller cabinets;
- (b) Controller units and associated controller cabinet cards/modules;
- (c) MMUs/CMUs;
- (d) All pre-emption equipment and cabling;
- (e) Traffic Signal to central system communication equipment (Ethernet/radio);
- (f) Uninterruptable Power Supplies;
- (g) Video Detection Systems and CCTV camera systems;
- (h) Radios;
- (i) Padlocks and keys; and
- (j) Controller and other equipment interface software;

The City carries only a limited supply of the above items in stock, and therefore is subject to delay due to ordering and delivery. The Contractor shall have no claim due to delivery delay of City supplied materials.

Materials supplied by the City and materials delivered following execution of the Agreement shall be examined by the Contractor for quality and defects. The Contractor shall sign a statement of materials acceptance, specifically listing materials and quantities thereof and noting all defective material.

**1.14 Fuel Emissions Data**

The Contractor shall report on the quantity of fuel (gasoline, diesel, natural gas, propane, and bio-fuel blends) used to operate vehicles, equipment and machinery as part of the delivery of the Services “in scope” on a mutually agreeable basis. Fuel consumption associated with the provision of these Services must be provided to the City relating to the Services provided in the previous period, in the following sample format.

<b>Sample Report:</b>	
<b>P.O. Number</b>	<b>567932</b>
<b>Date Range</b>	<b>March 1 – September 15</b>
<b>Gasoline (litres)</b>	<b>1,200</b>
<b>Diesel (litres)</b>	<b>4,500</b>
<b>Prorated Based on</b>	<b>Service hours</b>

Data provided should include the following information:

Litres of fossil fuels consumed in relation to the service delivered under the Agreement in each vehicle class, and the fuel type, for the Goods and Services provided in the previous period.

The City can provide direction, if necessary, to calculate this information.

## **2.0 TRAFFIC SIGNAL PREVENTATIVE MAINTENANCE**

The Contractor must submit a detailed work schedule for the year upon receipt of the list of locations from the City within seven (7) days of award of contract. The work shall start within seven (7) days of approval of the work schedule.

The Contractor shall perform traffic signal preventative maintenance up to twice annually. One (1) “major” and one (1) “minor” preventative maintenance shall be completed in each calendar year of the Contract.

Major traffic signal preventative maintenance shall be completed at each traffic signal device location within 13 months of the previous major traffic signal preventative maintenance.

Minor traffic signal preventative maintenance may be completed at each traffic signal device location. If minor traffic signal preventative maintenance is required, it shall be performed no earlier than five (5) months and no later than seven (7) months after the major traffic signal preventative maintenance.

Any extra maintenance work required outside the scope of the annual maintenance shall be reported immediately to the City so that a separate work order may be issued.

Annual traffic signal preventative maintenance consists of the following work:

- (a) Major annual maintenance of above ground and underground Traffic Signals and Pedestrian Signals;
- (b) Minor annual maintenance of above ground and underground Traffic Signals and Pedestrian Signals;
- (c) Annual maintenance of Uninterruptible Power Supplies
- (d) Annual maintenance of Fire Signals;
- (e) Annual maintenance of Illuminated Pedestrian Crossings and Special Crosswalks;
- (f) Annual maintenance of Overhead Flashing Intersection Beacons; and
- (g) Annual maintenance of Advance Warning Flashers

2.1 Above Ground Equipment (Major)

The interval between annual preventative maintenance for traffic control devices shall not be more than 13 calendar months.

The Contractor shall undertake the following maintenance tasks for each location listed in Schedule 5.

- (a) Replace all burnt out sign and combination pole luminaire lamps. Check for correct photocell operation and luminaire outages by covering the photocell. Also test photocell bypass after correct photocell operation is verified.
- (b) Clean all backboards (front and back), visors and signs with biodegradable cleaning solution. Rinse with clean water and wipe dry.
- (c) Repair or replace any lenses, sockets, terminals, reflectors, wires and weather seals that are burnt, corroded, or broken or otherwise damaged. Confirm that LED displays are installed with the letters “top” located at the top of the lens. Inspect LED display units for burnt out/defective LED arrays. Replace the unit if any LED arrays appear defective. For incandescent traffic signal lamps, replace all lamps with the products specified in the City’s “Approved Materials and Products List” (to be supplied to the Contractor upon award of the Contract). The filament of the lamps shall have the open end of the “horseshoe” in the up position.
- (d) Spray all signal display lenses with a mild detergent and water solution and polish dry with a soft cloth (do not use glass cleaner).
- (e) Lubricate signal head door hinges and latches.
- (f) Confirm appropriate tightness of all screws, bolts and nuts on mast arm or davit mounted sign and signal mounting hardware.
- (g) Test integrity of safety cables. Report any mast arm or davit mounted equipment lacking safety cables to the City.
- (h) Repair any damaged wire insulation. Inspect traffic spring cushion hangers for hinge pin failure and wire insulation wear.
- (i) Inspect poles and arms and all mounting hardware for general structural integrity, broken or cracked welds and excessive corrosion. Heavily corroded areas shall be tested for soundness using a hammer and center-punch. Locations with corrosion problems shall be noted on the maintenance check lists. Inspect the condition of the concrete pole base for cracks, spalling or other defects. The



Contractor shall report to the City any poles or base deficiencies. Poles that do not appear plumb shall be reported to the City.

- (j) Replace damaged or missing hand hole covers.
- (k) Confirm that all pole and arm assembly and mounting bracket nuts/bolts are present and correctly tightened.
- (l) Any observable hazard, related to the pole's proximity to overhead electrical lines shall be reported immediately to the City.
- (m) Any utility infrastructure that visually obstructs primary traffic signal heads from oncoming traffic shall be reported immediately to the City.
- (n) Ensure that the traffic signal equipment does not have any contact/visibility obstructions due to vegetation/trees. Any vegetation/tree trimming that is beyond the capabilities of the Contractor shall be reported immediately to the City.
- (o) Spray all pole assembly and base flange nuts and bolts with penetrating corrosion inhibiting lubricant and confirm correct torque. Replace broken or missing bolt caps.
- (p) Ensure all signal heads and pedestrian heads have proper vertical and horizontal alignment.
  - 1. All heads shall be vertical and not leaning left or right when facing them.
  - 2. Heads facing towards an inclined roadway shall also be inclined to match the grade of the approaching roadway.
  - 3. Primary traffic signal heads shall be pointed squarely toward the lane(s) of oncoming traffic.
  - 4. Secondary heads shall be adjusted to be clearly visible on the approach and as far forward as the center of the intersection.
  - 5. Pedestrian heads and audible signals shall be aimed at the center of the crosswalk markings at the opposite end of the crosswalk. Audible heads shall have the front face tilted slightly downward to prevent water entry. The Contractor shall test each audible signal for proper operation and appropriate volume through a pushbutton actuation.

- (q) Clean and polish Video Detection Image Sensor Enclosure lenses and PTZ camera domes (inside and out) or lenses with cleaner and cloth suitable for such optical systems. Openings into the camera are to be plugged with duct seal to prevent insect entry.
- (r) Confirm tightness of all fittings and mounting brackets on Ethernet Radio and antenna panels. DO NOT ALTER THE RADIO ALIGNMENT. Notify the City immediately after radio inspection is complete, so that communication can be verified. Adjust radio alignment if necessary.
- (s) Confirm tightness of all Image Sensor mounting brackets and cable connectors. DO NOT ALTER THE IMAGE SENSOR ALIGNMENT. Notify the City immediately after image sensor inspection is complete, so that alignment can be verified. Adjust image sensor alignment if necessary.
- (t) Open Image Sensor Pole Mounted Junction Boxes. Check for signs of moisture. Drill 1/8 inch hole in bottom of box if signs of moisture are found. Remove any accumulations of dirt, insects etc. Tighten all terminals and inspect coaxial connectors and cable for corrosion, wear and general condition
- (u) Test operation of all pedestrian buttons. Replace broken or excessively stiff push-buttons with Bulldog BDLM2-Y.
- (v) Ensure tightness of all terminal connections in service panel and seal any water leaks. If labels are missing or incorrect, re-label breakers with standard labels supplied by the City. For combined traffic signal and street lighting system services, add warning label supplied by City to panel if not already in place. Lubricate or replace lock as necessary and ensure that hinge screws/bolts are tight.
- (w) Ensure the connections between the ground rod and ground conductor are clean and tight.
- (x) Report any traffic signal visibility obstruction and any contact between signal equipment and utilities or vegetation to the City. Any damaged, faulty, worn, missing or other above ground equipment requiring further works found onsite are to be reported immediately to the City for further instruction.

2.2 Underground Equipment (Major)

- (a) Open each junction box. Clean dirt accumulations and organic material out of junction box rim, bottom, and bolting mechanisms. Clean and lubricate bolt and threaded insert. Replace missing bolts. Report any damaged junction boxes, lids, collars and any junction box or lid that is either protruding or is recessed more than 20mm from the surrounding sidewalk grade. Install hanger bar (if missing) and tie wrap splices to bar;
- (b) Ensure all metal junction boxes and metal vault lids are bonded; and
- (c) Add permanent bond wire bolted directly to steel lids for poly junction boxes if not already present.

2.3 Controller Cabinet (Major)

- (a) Clean outside of cabinet, remove graffiti with non-damaging cleaning chemicals/detergents. Report any cabinets requiring repainting due to unremovable graffiti or damaged paint;
- (b) Ensure upper vent holes are clear of debris;
- (c) Ensure that cabinet is securely mounted and base gaskets are sealing against moisture/debris entry;
- (d) Lubricate latches, lock and hinges. Replace missing or damaged locks;
- (e) Repair any door gasket damage, spray gaskets with silicone spray if door sticks closed;
- (f) Vacuum complete cabinet interior. Blow remaining dust out with compressed air;
- (g) Megger for proper cabinet ground. Report test results in the traffic signal log book provided by the City;
- (h) Ensure that all terminal screws, crimp on connectors, cable connectors and plug-in components are tight and seated firmly;
- (i) Ensure flash transfer relays are in good condition and operate correctly. Replace if faulty;
- (j) Ensure flasher operates correctly. Repair if faulty;

- (k) Record and compare serial number of each cabinet component using form supplied by the City;
- (l) Replace air filter;
- (m) Check that the vehicle detection system registers calls properly;
- (n) Complete an electronic test of the CMU or MMU using an ATSI, electronic conflict monitor/MMU tester;
- (o) After completing an electronic CMU/MMU test, a “hard wire” test of the CMU/MMU shall be completed. A minimum of two different conflicts shall be simulated. Ensure that the CMU/MMU detects the conflict and reacts appropriately. The hard wire test shall be completed with traffic control persons controlling the intersection;
- (p) Ensure duct seal is installed on all conduits entering the base of the controller cabinet. Fill any gaps between the conduits and base knock out with grout. Cap any empty ducts;
- (q) Test thermostatic operation of fans and heaters. Replace fans showing signs of bearing failure (noise and vibration);
- (r) Load switches shall be checked for their proper operation. Off state voltages of each output shall be recorded on the test record form supplied by the City. Replace load switches showing off state voltage above maximum allowable limit.
- (s) Ensure all major cabinets components are labeled with equipment number labels (supplied by the City). Major cabinet components include detectors, controllers, communication devices, CMU/MMUs, BIUs, TS-2 power supplies, video equipment and UPS equipment;
- (t) Install velcro straps for seismic restraint on all shelf mounted components;  
and
- (u) Check plug-in style power supplies for auxiliary equipment and ensure they are held in place by straps.

2.4 Above Ground Equipment (Minor)

- (a) Replace damaged or missing hand hole covers;
- (b) Ensure all signal heads and pedestrian heads have proper vertical and horizontal alignment.
  - 1. All heads shall be vertical;
  - 2. Primary traffic signal heads shall be pointed squarely toward the lane(s) of oncoming traffic;
  - 3. Secondary heads shall be adjusted to be clearly visible on the approach and as far forward as the centre of the intersection;
  - 4. Pedestrian heads and audible signals shall be aimed at the centre of the crosswalk markings at the opposite end of the crosswalk. Audible heads shall have the front face tilted slightly downward to prevent water entry. The Contractor shall test each audible signal for proper operation and appropriate volume through a pushbutton actuation;
- (c) Test operation of all pedestrian buttons. Replace broken or excessively stiff push-buttons with Bulldog BDLM2-Y; and
- (d) Report any traffic signal visibility obstruction and any contact between signal equipment and utilities or vegetation to the City. Any damaged, faulty, worn, missing or other above ground equipment requiring further works found onsite are to be reported immediately to the City for further instruction.

2.5 Controller Cabinet (Minor)

- (a) Clean outside of cabinet, remove graffiti with non-damaging cleaning chemicals/detergents. Report any cabinets requiring repainting due to un-removable graffiti or damaged paint;
- (b) Ensure that cabinet is securely mounted and base gaskets are sealing against moisture/debris entry;
- (c) Lubricate latches, locks and hinges. Replace missing or damaged locks;
- (d) Ensure flash transfer relays are in good condition and operate correctly. Replace if faulty;
- (e) Ensure flasher operates correctly. Replace if faulty;

- (f) Complete an electronic test of the CMU or MMU using an ATSI, electronic conflict monitor/MMU tester; and
- (g) Test thermostatic operation of fans and heaters. Replace fans showing signs of bearing failure (noise and vibration).

## 2.6 Uninterruptible Power Supplies (UPS)

UPS maintenance shall be completed by the Contractor at each location within thirteen (13) months of the previous UPS maintenance.

The Contractor shall undertake the following Services at each UPS included in Schedule 5. This maintenance applies to both the full intersection control and red flash control UPS systems.

Perform a Self -test on the UPS system. This function is slightly different between the two UPS models. Refer to the specific UPS user guide below:

- (a) Activate the UPS Self-test function:
  - 1. **Novus 1800TP:** simultaneously press the Enter and Down Arrow buttons. Self-Test duration ninety (90) seconds.
  - 2. **FXM 1100/2000:** Control Menu BATT TEST. Test duration = two (2) minutes.
- (b) Measure the individual battery voltages while the UPS is operating in backup mode. There should be no more than 0.6 volts difference between the highest battery voltage and the lowest battery voltage. Record voltage readings in database format and provide to the City;
- (c) Verify there is no Low Battery Alarm;
- (d) Look at the UPS indicator control panel (with 3 neon indicators) and ensure the “ON BATT” indicator is on;
- (e) Open the front door of the traffic cabinet and ensure the ‘ON BATT” indicator is on;
- (f) Inspect top of batteries for dirt, rust, moisture, etc. Clean as required;
- (g) Inspect batteries for cracks or swelling. Replace defective battery or batteries;
- (h) Check battery terminals for corrosion. Clean terminals and add anti-oxidation materials such as No-Ox, NCP, Penetrox, etc. Ensure battery terminals are tight;
- (i) Ensure batteries are not sitting directly on concrete;

- (j) Ensure a gap of no less than ¼” is provided for proper airflow around batteries and UPS unit. Ensure nothing is on top of the UPS control unit;
- (k) Record all findings in UPS log book provided by the City; and
- (l) Download event logs to laptop. Provide data to the City for record keeping.

Alternate Test:

Use this test if on battery testing is necessary for periods longer than the two minute BATT TEST performed above.

- (a) On the Automatic Transfer Switch (ATS), locate the “UPS INPUT” circuit breaker and depress and then release the button. This will interrupt the AC power to the UPS control unit and the ATS will transfer the UPS output to the load (traffic controller cabinet). The LCD screen should indicate “INVERTER”;
- (b) Keep in this state for ten (10) minutes. Monitor the traffic controller and traffic signals to ensure they remain operational. Look at the UPS indicator control panel and ensure the “ON BATT” indicator is on. Open the front door of the traffic cabinet and ensure the “ON BATT” indicator is on; and
- (c) After 10 minutes, depress the “UPS INPUT” circuit breaker and release. The circuit breaker is now engaged and the UPS status display should indicate “LINE”. The Contractor should be able to hear the ATS transfer back to nominal AC power.

The following tasks are not required for the Red Flash only UPS systems:

- (a) Ensure the battery temperature probe is attached with duct tape;
- (b) Clean UPS cabinet exterior. Remove any graffiti, tape, postings, etc.;
- (c) Clean UPS cabinet interior of all debris;
- (d) Vacuum the UPS air intake, and/or air exhaust vents;
- (e) Check UPS cabinet air filter media. Replace as required;
- (f) Check tightness of UPS cabinet bolts to concrete base;
- (g) Check locks, locking mechanisms and hinges. Lubricate as required; and
- (h) Test UPS cabinet light, heaters, fan, and thermostats.

## 2.7 Fire Signal Preventative Maintenance

Fire Signal maintenance shall be completed by the Contractor at each location within thirteen (13) months of the previous Fire Signal maintenance.

The Contractor shall undertake the following Services at each Fire Signal included in Schedule 5:

- (a) Repair or replace any lenses, sockets, terminals, reflectors, wires and weather seals that are burnt, corroded, or broken or otherwise damaged. Confirm that LED displays are installed with the letters “top” located at the top of the lens. Inspect LED display units for burnt out/defective LED arrays. Replace the unit if any LED arrays appear defective. For incandescent traffic signal lamps, replace all lamps with the products specified in the City’s “Approved Materials and Products List” (to be supplied to the Contractor upon award of the Contract). The filament of the lamps shall have the open end of the “horseshoe” in the up position.
- (b) Clean all backboards (front and back), visors and signs with biodegradable cleaning solution. Rinse with clean water and wipe dry. Spray all signal display lenses with a mild detergent and water solution and dry with a soft cloth. (do not use glass cleaner)
- (c) Repair or replace any lenses, sockets, terminals, reflectors, wires and weather seals that are burnt, corroded, or broken or otherwise damaged.
- (d) Wipe inner surface of lenses with soft damp cloth to clean where necessary.
- (e) Lubricate signal head door hinges and latches as necessary.
- (f) Ensure tightness of all screws, bolts and nuts on mast arm or davit mounted sign and signal mounting hardware and replace any excessively worn pins or clips in signal hangers.
- (g) Check integrity of safety cables. Install safety cables on any overhead hardware that is missing them.
- (h) Repair any damaged wire insulation. Inspect spring cushion hangers for component failure and wire insulation damage.
- (i) Inspect poles and arms and all mounting hardware for general structural integrity, broken or cracked welds and excessive corrosion. Heavily corroded areas shall be tested for soundness using a hammer and center-punch. Locations with corrosion problems shall be noted on the maintenance check lists.



- (j) Replace damaged or missing hand hole covers.
- (k) Check and confirm that all pole and arm assembly and mounting bracket nuts/bolts are present and correctly tightened. Replace broken or missing bolt caps. Clean all inside and outside of controller cabinet including removing any graffiti. Report any un-removable graffiti and cabinets requiring re-painting.
- (l) Check that all terminals in fire signal controller are tight.
- (m) Check that all connectors in fire signal controller are tight and components are properly seated in their sockets.
- (n) Check seismic cable tie restraints on shelf mounted equipment and install where missing.
- (o) Check service panel for damage and ensure locking mechanism is secure.
- (p) Test operation of all signal activation buttons.
- (q) Verify that all pre-empt sequences operate properly.
- (r) Verify that pre-empt outputs to adjacent controllers function properly.
- (s) Check all junction boxes for damage and ensure lids are secure.
- (t) Report any junction boxes in walkways that protrude more than 20mm above the surrounding surface.

2.8 Illuminated Pedestrian Crossing Sign (IPCS) and Special Crosswalk Maintenance

IPCS and Special Crosswalk maintenance shall be completed by the Contractor at each location within thirteen (13) months of the previous IPCS and Special Crosswalk maintenance.

The Contractor shall undertake the following Services at each IPCS and Special Crosswalk included in Schedule 5:

- (a) Replace fluorescent tubes with same style of cold start rated tube. Replace HPS down light with diffuse coated HPS lamp.
- (b) Clean with a mild detergent and water solution, wipe the interior and outer surfaces of the sign, including the inside sign faces and wipe dry.
- (c) Check mounting hardware and power cables. Tighten or re-secure if necessary.

- (d) Test for proper operation by using P.E.C. by-pass switch at service panel.
- (e) Inspect Photo-electric-cell and replace with modified early-on style as specified by the City.
- (f) Inspect and clean service panel, check breaker operation and ensure all power terminals/connections are tight and in good condition.
- (g) Check that fuse holder is in good condition and that hand hole covers are present and secure.
- (h) Inspect ballast and replace if faulty.

**Special Crosswalks are Illuminated Pedestrian Crossings with an additional flashing beacon feature and require the following additional maintenance tasks:**

- (a) Inspect controller for proper operation, clean all foreign materials from cabinet and ensure all terminals are tight and in good condition.
- (b) Look for signs of water/insect entry and correct by applying sealant or weather stripping as necessary.
- (c) Repair or replace any lenses, sockets, terminals, reflectors, wires and weather seals that are burnt, corroded, or broken or otherwise damaged. Confirm that LED displays are installed with the letters “top” located at the top of the lens. Inspect LED display units for burnt out/defective LED arrays. Replace the unit if any LED arrays appear defective. For incandescent traffic signal lamps, replace all lamps with the products specified in the City’s “Approved Materials and Products List” (to be supplied to the Contractor upon award of the Contract). The filament of the lamps shall have the open end of the “horseshoe” in the up position.
- (d) Inspect and test actuation buttons and/or sensors.

2.9 Overhead Flashing Intersection Beacon Maintenance

Overhead Flashing Intersection Beacon maintenance shall be completed by the Contractor at each location within thirteen (13) months of the previous Overhead Flashing Intersection Beacon maintenance.

The Contractor shall undertake the following Services at each Overhead Flashing Intersection Beacon included in Schedule 5:

- (a) Repair or replace any lenses, sockets, terminals, reflectors, wires and weather seals that are burnt, corroded, or broken or otherwise damaged. Confirm that LED displays are installed with the letters “top” located at the top of the lens. For incandescent traffic signal lamps, replace all lamps with the products specified in the City’s “Approved Materials and Products List” (to be supplied to the Contractor upon award of the Contract). The filament of the lamps shall have the open end of the “horseshoe” in the up position. Disconnect socket at terminal block prior to attempting to remove stuck lamps to eliminate the possibility of a short circuit and damage to the flasher module.
- (b) Clean all backboards, visors and signs with biodegradable cleaning solution. Rinse with clean water and wipe dry. Spray all signal display lenses with a mild detergent and water solution and dry with a soft cloth (do not use glass cleaner).
- (c) Repair or replace any lenses, sockets, terminals, reflectors, wires and weather seals that are burnt, corroded, or broken or otherwise damaged.
- (d) Wipe inner surface of lenses with soft damp cloth to clean where necessary.
- (e) Lubricate signal head door hinges and latches as necessary.
- (f) Ensure tightness of all screws, bolts and nuts on mast arm or davit mounted sign and signal mounting hardware and replace any excessively worn pins or clips in signal hangers.
- (g) Check integrity of safety cables. Install safety cables on any overhead hardware that is missing them.
- (h) Repair any damaged wire insulation. Inspect traffic spring cushion hangers for component failure and wire insulation.
- (i) Inspect poles and arms and all mounting hardware for general structural integrity, broken or cracked welds and excessive corrosion. Heavily corroded areas shall be tested for soundness using a hammer and center-punch. Locations with corrosion problems shall be noted on the maintenance check lists.
- (j) Replace damaged or missing hand hole covers.
- (k) Check and confirm that all pole and arm assembly and mounting bracket nuts/bolts are present and correctly tightened. Replace broken or missing bolt caps.

2.10 Advance Warning Flasher Maintenance

Advance Warning Flasher maintenance shall be completed by the Contractor at each location within thirteen (13) months of the previous Advance Warning Flasher maintenance.

The Contractor shall undertake the following Services at each Advance Warning Flasher included in Schedule 5:

- (a) Replace sign luminaire lamps.
- (b) Clean all sign boards, with biodegradable cleaning solution. Rinse with clean water and wipe dry. Report any decay or damage of the sign board.
- (c) Repair or replace any lenses, sockets, terminals, reflectors, wires and weather seals that are burnt, corroded, or broken or otherwise damaged. Confirm that LED displays are installed with the letters “top” located at the top of the lens. Inspect LED display units for burnt out/defective LED arrays. Replace the unit if any LED arrays appear defective. For incandescent traffic signal lamps, replace all lamps with the products specified in the City’s “Approved Materials and Products List” (to be supplied to the Contractor upon award of the Contract). The filament of the lamps shall have the open end of the “horseshoe” in the up position.
- (d) Spray all signal display lenses with a mild detergent and water solution and polish dry with a soft cloth (do not use glass cleaner).
- (e) Lubricate signal head door hinges and latches. Ensure the finial caps are installed in the top and bottom of signal heads.
- (f) Confirm appropriate tightness of all screws, bolts and nuts on mast arm or davit mounted sign and signal mounting hardware.
- (g) Repair any damaged wire insulation.
- (h) Inspect poles and arms and all mounting hardware for general structural integrity, broken or cracked welds and excessive corrosion. Heavily corroded areas shall be tested for soundness using a hammer and center-punch. Locations with corrosion problems shall be noted on the maintenance check lists. Inspect the condition of the concrete pole base for cracks, spalling or other defects. The Contractor shall report to the City any poles or base deficiencies. Poles that do not appear plumb shall be reported to the City.

- (i) Replace damaged or missing hand hole covers.
- (j) Confirm that all pole and arm assembly and mounting bracket nuts/bolts are present and correctly tightened.
- (k) Spray all pole assembly and base flange nuts and bolts with penetrating corrosion inhibiting lubricant and confirm correct torque. Replace broken or missing bolt caps.

### **3.0 STREET LIGHT PREVENTIVE MAINTENANCE RELAMPING PROGRAM**

The Contractor shall undertake the following Services at each street light location included in Schedule 5.

- (a) Terminal block connections shall be removed and replaced with a grease marette connection. Install in-line fuse holders and fuses.
- (b) Remove fuse blocks and replace with a in-line fuse holder, and new 10A fuse.
- (c) In-line fuse holders shall be inspected, cleaned and checked for proper fit. Check to ensure that a 10A fuse in in use and replace as necessary.
- (d) Check all wiring and insulation for signs of physical damage, heat stress, or charring. Repair, re-terminate or replace as required.
- (e) Check for bonding wire and ensure pole is properly bonded.
- (f) Ensure duct seal is installed on all conduits entering the base of each streetlight. Empty conduits are to be capped.
- (g) Replace missing or damaged hand hole covers. Install security hand hole cover and security bolt. Use anti-seize compound on bolt. If security cover and bolt already exist then remove cover, wipe bolt clean coat with anti-seize compound and re-install.
- (h) Reflectors and refractors or lenses are to be washed in a mild detergent, rinsed in clean water and dried with a soft paper towel. Ensure reflectors and refractors are dry and streak free upon completion of task.
- (i) Check, and repair as necessary, the ballast chamber for signs of overheating and loose connections.
- (j) Spray lamp bases with a corrosion inhibitor to ensure proper setting of the lamps in their sockets. Replace lamps with proper wattage and type. Before installing, mark all replacement lamps with a date/year code using a permanent ink pen in the format MM/YY
- (k) Inspect the seal for the lamp chamber and replace if necessary.
- (l) Tighten all clips, fittings or other hardware holding refractor or lenses in place.

- (m) On cobra head style luminaires, ensure the door to the lamp and ballast chamber is properly closed. Test the spring release button. Repair as necessary.
- (n) Check that any house side light shields are secure and oriented appropriately.
- (o) Ensure that each relamp location is marked with a wattage sticker on the underside of the luminaire casing. Properly clean and prepare this area with an alcohol cleaning pad and allow to dry to ensure good adhesion of the label to the casing surface.
- (p) Ensure tightness of the davit or post-top luminaires to their pole tenon. Check for proper vertical and horizontal alignment of the luminaire to the roadway.
- (q) Ensure the vertical alignment of the lamp standard between the concrete base and the flange plate of the pole and report all defects to the City. Shim if necessary. Tighten securely all bolt and nut connections to the anchor rods. Ensure nut covers are plastic, removing all others (aluminum).
- (r) Inspect poles and all mounting hardware for general structural integrity, broken or cracked welds and excessive corrosion. Heavily corroded areas shall be tested for soundness using a hammer and centre-punch. Immediately contact the City if structural failure is imminent.
- (s) Remove vegetation or any soil build-up from around the base and base flange of the pole, as directed, to improve drainage and mitigate corrosion. Ensure all drain holes are functioning and clear of debris.
- (t) Locate and inspect all junction boxes up-stream between the pole and the next pole towards the service. Clean excessive contamination from box, inspect splices, Ensure all lids are exposed, accessible, and properly bonded. Check for tripping hazards and damage. Lift all splices to top of box and install a hanger bar to ensure that all splices are secured and not contacting the lid.
- (u) Update asset attributes with provided database and streetlight locations on the maps.

- (v) The Contractor shall be given a street light map book on which a unique number identifies individual poles. If a street light or existing pole is not shown on the maps, the Contractor shall markup the field maps and advise the City of the discrepancy for future correction.

### 3.1 Street Light Service Base Preventative Maintenance

The Contractor shall undertake the following Services at each street light service base included in Schedule 5.

- (a) Thoroughly vacuum the service base and ensure all soil, grass and other organic material are removed from the interior of the base. Clean the service panel of all residual dust, dirt and rust. Touch-up all rusted surfaces with anti-corrosive paint matched in colour to the service panel;
- (b) Mitigate water intrusion into the service base by sealing all holes or cracks at the top of the service base with a clear, weather and temperature rated exterior caulking compound (RTV/silicone sealant);
- (c) Repair or replace all broken or missing latches, fittings and mounting screws using stainless steel hardware. Install security bolts where required;
- (d) Ensure tightness of all terminal connections; inspect all wiring and splices in the service base circuitry;
- (e) Check the contact surfaces of the contactor. If more than 70% of the contact surfaces of the contactor are burned or pitted, or if contactor chatters, buzzes loudly or fails to snap closed, replace the contactor;
- (f) Check voltage differences, under full load, between input and output terminal connections of both contactor circuits. If the difference in voltage is not zero, replace the contactor;
- (g) Check voltage differences, under full load, between service panel and the two extreme end loads of both street light circuits. Ensure minimum voltages are present to allow proper operation of the system. Report all system loading concerns to the City;
- (h) Install special high security locking hasp on service base;
- (i) Visually inspect the service feed and dip service. Inspect, expose, and clean junction boxes that are in-line with the service feed;



### 3.2 Pole Painting (Street Light and Traffic Signal Poles)

This annual program establishes a seven (7) year cycle for painting the City's street light and traffic signal poles and may run in conjunction with the re-lamping program during the summer months. Approximate quantities appear in Schedule 2. Detailed maps and quantities will be provided following the award of, to enable the Contractor to establish a schedule and materials requirements. The Contractor's schedule must reflect pole painting during the dry and warmer months from May through to September.

The Contractor is to provide a Street light Pole Re-Painting Program work schedule within seven (7) calendar days of receipt of the detailed information for approval by the City. The City has the right to reject or request amendments to the schedule to ensure completion of the program.

The program shall commence within fourteen (14) calendar days of approval of the schedule. These dates will be confirmed in writing by the City with approval of the schedule.

The Contractor shall undertake the following Services at each street light and traffic signal pole included in Schedule 5.

- (a) Scrape, brush or sand all surface rust, flaked paint, blisters, foreign material and other marks affecting adhesion to the existing paint or surface.
- (b) Expose all buried or covered surfaces by removing shrubs, tree branches, leaves, and surface materials near the pole (base of standard inclusive). Thoroughly clean and wash these surfaces once exposed.
- (c) Ensure all signs (front and back sides), banners, luminaires and other attachments are properly covered or protected from the re-painting process. Protect all street furniture, parked cars, and traffic signal heads but do not block cover or obscure the signal display.
- (d) If the pole has a powder coat finish, repair cracks or chips only, using manufacturer recommended procedures and materials.
- (e) Spot prime all exposed rusted areas with an anti-corrosive primer (Non-cremate red-oxide primer - General Paints #06-154) and allow 2 hours to dry before top coating.
- (f) Spot prime exposed metal surfaces with a suitable product (as approved by the City). If using the "G.P. #16" enamel as a prime coat, allow to dry for 5 hours (at 21°C) before top coating. For Town Centre style posts (brown) use Glidden primer #5206 Quick Dry Primer or equivalent.

- (g) Clean all exposed galvanized surfaces with a solvent (GP #39-101 Metal Cleaner), rinse with water and allow to dry. Utilizing a cold galvanizing compound and following the manufacturer's instructions, touch-up all marks, scratches and abrasions in the original galvanized coat. Then pre-treat the galvanized poles with a vinyl wash (General Paints "Meta-Prime" Reducer #39-103 and Base #39-104). Allow 1 to 2 hours before top coating.
- (h) Apply one coat of paint, assuring that all primer is completely covered and that the entire standard has received a new coat. If painting a new or previously unpainted galvanized pole apply a second coat of paint once the first has thoroughly dried.
- (i) Attach a 'wet paint' sign to each pedestrian approach side of poles. Signs shall not be hand lettered.
- (j) Update all City provided maps with correct field data and completion dates.
- (k) Paint codes are in the City's "Approved Materials and Products List".

**Note:** Do not apply paint or primer unless surfaces are free from moisture or when frost is predicted within 24 hours of proposed painting.

#### **4.0 REPAIR OF MALFUNCTIONING TRAFFIC SIGNAL EQUIPMENT**

The procedures outlined in this section describe the typical basic repair procedure steps required to remedy malfunctioning traffic signal equipment. These procedures shall in no way replace the troubleshooting skills and judgment of a journeyman electrician. It is the Contractor's responsibility to repair traffic signal equipment using the most safe, cost effective, efficient procedures, while meeting all applicable electrical code, electrical regulations, and WorkSafeBC regulations.

##### **4.1 Traffic Signals Malfunctions**

The Contractor, on arrival at the site of a malfunctioning traffic signal shall observe the traffic signal. The following conditions will typically be present:

- Condition A. Traffic Signal Displays operating correctly
- Condition B. One or more of the displays absent or not performing as designed
- Condition C. Displays in the "Fail Safe Mode" (Flash)

The Contractor shall record every visit to a traffic signal location in the log book provided in each traffic controller cabinet. The following information shall be recorded: date, service person, arrival time, departing time, job complete, nature of call, action taken and any other notable events that may occur (i.e. MVAs).

##### **Condition A**

If the displays appear to be operating correctly, the problem may be related to one of the four situations listed below:

- (a) Traffic hardware damage - The Contractor shall apply one or all repair procedures listed in Schedule 1, Section 4.2 - Traffic Signal Repairs.
- (b) Loop assembly related damages - The Contractor shall observe that the signal will not actuate or that a continuous call is present, or if in the vehicle recall mode phases, will not extend. As an interim measure prior to the repair of the loop assembly, the Contractor shall contact the City for temporary timings.

When the replacement loop has been activated, the Contractor shall contact the City.

- (c) Timing complaint - The Contractor shall first check the controller log book for any recent known issues such as failed loops and temporary timing parameters in effect, check to ensure the program, defining maximum extension, vehicle extension, maximum and minimum gap is consistent with the timings in the signal system database. If the programs do not match, the Contractor shall notify the City.
- (d) Erroneous calls for service - If the signal appears to have no problems, the Contractor shall then actuate and observe the operational displays of all the phases and pre-emption sequences as well as the orientation of all traffic signal displays. If all the above is in correct working order and the orientations of the traffic and pedestrian heads are correct, the Contractor shall advise the City that the traffic signal installation has been checked and confirm that no problems were found.

#### **Condition B**

The Contractor shall follow the repair procedures outlined in Schedule 1, Section 4.2 - Traffic Signal Repairs - Procedure 1 - Display Failure.

#### **Condition C**

The Contractor shall follow and fill out the information required in the Traffic Signal Troubleshooting Guide provided by the City. In general the Contractor should determine whether the problem is internal or external to the controller cabinet. Where the cause of the malfunction is determined as external to controller, the Contractor shall trace through the conductors relating to the conflicting phases as directed by the conflict monitor. This trace shall follow between the output terminals of the controller to the lamp socket assembly at the traffic head displays of the conflicting phases.

If the problem is determined to be internal to the controller cabinet, the Contractor shall repair as detailed in Schedule 1, Section 4.2 – Traffic Signal Repairs – Procedure 5 - Malfunction Within the Controller Cabinet.

#### 4.2 Repair Procedures for Traffic Signal Equipment

The Contractor shall undertake the procedures and instructions set out below in the repair of traffic signal equipment.

(a) Procedure 1 – Display Failure

The service response to a display failure of the traffic signal/pedestrian head is for the Contractor to replace the failed display with a new display.

For incandescent displays, the lamp installed shall be orientated with open end of the horseshoe shaped lamp filament in the up position.

The Contractor shall examine the lamp socket and the conductors leading to the socket for corrosion, burns, breaks, and bad contacts. If problem is found in the socket or associated wiring, the Contractor shall repair or replace the defective or damaged items. The Contractor shall replace or clean faulty or dirty lenses and reflectors associated with the head with the lamp failure as necessary.

For LED displays, the Contractor shall check for appropriate 120V AC supply to the LED display before replacing the LED display. The Contractor is to ensure that the letters “TOP”, embossed on the inside rim of the lenses are at the top when the new LED display is secured firmly in position.

All LED displays at an intersection shall be supplied in accordance with the City’s approved products list.

The Contractor shall check the internal housing of the traffic head for evidence of water entry. If water entry is evident, the Contractor shall drain all water from the housing and seal the head against further water entry.

Before leaving the site, the Contractor shall check that all traffic signal audible and visual displays are operating as designed and shall replace any other failed displays at the site. The Contractor shall replace or repair all failed displays or malfunctioning displays before leaving the site.

(b) Procedure 2 – Traffic or Pedestrian Head and Bracket Support Damage

If traffic or pedestrian head assembly damage is encountered, the Contractor shall repair or replace the damaged assembly. If the assembly is repaired, the Contractor shall advise the City immediately so that the repaired assembly may be assessed as to its function and visual acceptability to the City.

Where the traffic or pedestrian head assembly is exposed to frequent or likely traffic damage due to minimal clearance distances, the Contractor shall advise the City of any options to relocate the head assembly to a safer location on the pole.

(c) Procedure 3 – Traffic Signal Pole Post or Base Damage

If damage to traffic signal pole, post or base is assessed by the Contractor as a public hazard, the Contractor shall replace the pole, post or base as quickly as possible. The replaced pole shall meet the loading specifications of the manufacturer. If full repairs are not practical until a later date, then a temporary pole or base may be required. Temporary poles and bases shall meet the minimum requirements for signals as defined in the BC Motor Vehicle Act and Regulations and shall be located such that it does not present a hazard or unreasonable obstruction to vehicle or pedestrian traffic.

If the pole or post appears to be repairable and does not constitute a hazard to the public, the Contractor shall inform the City of the damage immediately. The City, at his discretion, may request the pole be taken down and replaced with a new one.

The Contractor shall contact the City when damaged poles or heads are removed. The City will advise whether a temporary head or pole shall be installed.

(d) Procedure 4 – Conductor and Conduit Damage

Where conduit and/or conductor damage occurs, the Contractor shall withdraw the conductors from the damaged conduit. The Contractor shall replace the conductors and damaged section of conduit.

The Contractor shall repair the broken conduit by cutting out the damaged section and replacing it with a new section of conduit. The Contractor shall ream the internal ridge of the two couplings and slide them over each of the open ends of the existing conduit. The new conduit section shall be cut to fit snugly between the two open ends of the existing conduit. The PVC welding compound shall be applied and the two couplings shall be slid into place.

The repaired conduit is to be blown clean of all foreign matter before the Contractor shall restore the conductors into the repaired conduit. The Contractor shall splice and reseal all conductor joins with a CSA approved

water sealant. Splices and insulation repairs shall not be permitted in conduits.

The Contractor shall not leave the traffic signal installation until the traffic signal is operating safely and correctly. Special attention shall be taken to ensure that accidental cross connections are not present in the completion of the conductor repairs. Each reconnected or new signal indication shall be tested and confirmed to be connected to the proper controller phase prior to it being put into service. Bundle neatly, and label all conductors with respect to phase and colour at junction boxes and controller cabinet. If the rod designed to keep splices above the bottom of the junction box is not in place, Contractor shall install rod and attach all splices within the box to the rod. The Contractor shall ensure that all junction boxes and hand holes are properly closed and bolted.

(e) Procedure 5 – Malfunction Within the Controller Cabinet

The Contractor shall identify the malfunction within the controller cabinet by reading the indicator displays on the cabinet components. Record this information on a form provided by the City for future reference. In addition to the above indicator displays, the Contractor shall check the main and branch circuit breakers on the power distribution panel.

Where the cause of the malfunction is determined to be internal to the controller the Contractor shall determine the faulty components and where there is more than one damaged or faulty component identify which component failure or field fault was the source of the problem and subsequent failures.

If the conflict monitor or malfunction management unit (CMU/MMU) is determined to be faulty, it shall be replaced with a CMU/MMU that has been fully tested within the previous 6 months. The program card from the faulty CMU/MMU shall always be inspected and transferred to the new CMU/MMU.

Once the malfunctioning unit is replaced or repaired the Contractor shall return the signal to normal operation. The Contractor shall follow signal flash and restart procedures as outlined in Schedule 1, Section 4.3 – Traffic Signal Flash, Re-Start and Power Down/Power Up Procedures. The Contractor shall then observe the signal cycle through all of its possible operations and timing extensions. Before leaving, the Contractor shall ensure no further problems or malfunctions are observed and the signal is operating correctly. If a problem persists the Contractor shall contact the City for assistance.

The malfunctioning unit removed from the controller cabinet shall be returned to the City and exchanged for a new spare. The malfunctioning unit shall be tagged with the site removed from, date and a detailed description of the problem and an equipment movement form (provided by the City) shall be filled out and submitted.

Where the malfunctioning component or cause of malfunction in a controller cannot be definitively identified, the Contractor shall contact the City.

The City shall provide the Contractor with any equipment required within the traffic signal controller cabinet.

#### 4.3 Traffic Signal Flash, Restart and Power Down/Power Up Procedures

##### (a) Signal Flash Procedures

It may be necessary for the Contractor to switch the traffic signal from normal operation to flash operation or to return from flash operation to normal operation.

The procedure outlined below describes the typical steps required for traffic signal flash and restart. These procedures shall in no way cover every circumstance encountered by the Contractor, and do not replace the skill and judgment of a journeyman electrician with IMSA Work Zone Safety, and Traffic Signals II certification. It is the Contractor's responsibility to ensure that switching the traffic signal from normal operation to flash operation or to return from flash operation to normal operation is done using the most safe, effective method, causing the least amount of confusion to motorists.

##### (b) Switching Traffic Signal to Flash Operation

1. Determine the phase designation of the major street. The major street phases generally are programmed for recall operation.
2. Determine which phase/s flash operation will follow. Flash operation shall be initiated at the end of the amber interval of the major street. If the minor street has an obviously higher traffic volume then flash shall be initiated at the end of the minor street amber interval.
3. Switch to flash at the end of the appropriate amber interval and when the intersection is clear of pedestrians. It may be necessary to wait several cycles.



(c) Switching Traffic Signal Out of Flash Procedure

Switch off controller unit, place “flash/auto” switch in “Auto” position, ensure stop-time switch is in “auto” position and “manual/auto” switch is in “auto” position. If flag persons are available, have them stop all traffic and pedestrians. When intersection is clear of pedestrians and fast moving traffic or at a reasonably safe instance, switch controller unit on and watch for proper start-up sequence to occur.

(d) Switching Pedestrian Signals Into or Out of Flash Procedure

Pedestrian signals shall be switched into or out of flash only when clear of pedestrians and traffic.

(e) Signal Power-down/Power-up Procedures

It may be necessary for the Contractor to remove power from the traffic signal for emergency repairs.

The procedure outlined below describes the typical steps required for removing the power and restoring power to a traffic signal. These procedures shall in no way cover every circumstance encountered by the Contractor, and do not replace the skill and judgment of a journeyman electrician with IMSA Work Zone Safety, and Traffic Signals II certification. It is the Contractor’s responsibility to ensure that removing the power and restoring power to a traffic signal is done using the most safe, effective method, causing the least amount of confusion to motorists.

The Contractor shall obtain approval from the City prior to any full power-down of a signal except in emergency situations. If an emergency power-down is necessary, the City shall be notified as soon as possible.

Prior to power-down, the Contractor shall arrange for alternate traffic control as directed by the City. Alternate traffic control shall be Traffic Control Personnel.

(f) Power-down Procedure

Switch signal to flash operation following the signal flash procedure and setup “Traffic Control Persons Ahead” signs for each approach. Have qualified Traffic Control Personnel enter intersection and begin controlling traffic manually as required. Disconnect power once traffic control personnel have control of the intersection.

(g) Power-up Procedure

Turn signal on in flash mode and have Traffic Control Personnel on standby. Provided that the signal has been in flash at least 5 seconds, switch to normal operation using the signal out of flash procedure.

4.4 Street Light Outages – Repair Procedures

The Contractor shall undertake the following in response to an unscheduled maintenance call, which is not motor vehicle/vandalism damage related, to repair a malfunctioning street light.

1. Activate the photocell bypass switch and check all streetlights energized by the service base;
2. If a system malfunction is apparent, check for proper voltages and circuit operation of all components, including contactors. Repair as required;
3. Identify pole(s) with street light outages or other deficiencies and record location and/or unique pole number as indicated on City supplied database;
4. Lock-out service supply as per normal safety and all WorkSafeBC requirements. Re-energize the system to check progress of repair only when safe to do so;
5. For each malfunctioning street light, do the following checks:
  - a. Check fuse for continuity, and replace if necessary;
  - b. Tighten terminal and fuse block or fuse holder connections, and replace if necessary;
  - c. Tighten terminals within the ballast chamber and ensure proper wire splicing. Re-splice if necessary; and
  - d. Replace lamp if above actions fail to remedy the street light malfunction.

If the above actions do not remedy the problem, replace either the luminaire or individual components, whichever is less costly.

If no problems are initially observed when bypassing the photocell circuitry, ensure proper operation by placing a hood over top of the photocell to activate the system. Repair or replace as required.

**Note:** The Contractor shall receive a streetlight system map series and database on which the individual poles are identified by their respective numbers. If the streetlight is not shown on the map, the Contractor shall advise the City in writing of its location, pole type, luminaire type, and wattage.

## **SCHEDULE 2**

### **FEES AND RATES**

Refer to “Schedule 2” attached (Microsoft Excel Spreadsheet)

## SCHEDULE 3

### RESPONSE REQUIREMENTS

#### 1.0 RESPONSE REQUIREMENTS

##### 1.1 Type of Response

In order to verify the extent of the damage or malfunction, the Contractor shall provide an immediate response to work orders regarding a malfunctioning traffic signal, pedestrian signal, special crosswalk or illuminated pedestrian crossing and any damaged electrical infrastructure.

Response time shall be measured as the elapsed time between the Contractor's receipt of an authorized work order and the arrival of the first qualified and equipped Contractor personnel at the specific work site.

##### 1.2 Immediate Response (Emergency)

**Immediate Response** shall be defined as the Contractor, on notification by the City, arranging for qualified personnel to proceed without delay to the specified location or locations and beginning the required work.

(a) Unless otherwise directed by the City, **Immediate Response** shall include:

- i. repair to a primary (overhead) traffic signal head display or left turn arrow signal head display.
- ii. repair malfunctioning traffic signal equipment, including traffic signals in Flash state.
- iii. repair to damage that presents an immediate hazard to motorists, pedestrians and/or public or private property, including but not limited to exposed wires, unstable poles/fixtures, mis-directed traffic signal/pedestrian displays.

If the Contractor becomes aware of a malfunctioning traffic signal or damaged transportation system electrical infrastructure via a third party or the signal system software, the City shall immediately be contacted to authorize any further action. The Contractor shall record the name and phone number of the third party.

1.3 Normal Response (Non-Emergency)

**Normal Response** shall be defined as the Contractor, on notification by the City, arranging for qualified personnel to proceed to the specified location or locations and beginning the required work.

- (a) Unless otherwise directed by the City, **Normal Response** shall be defined as, but not limited to:
  - i. repair of a secondary traffic signal head display, pedestrian head display or pedestrian pushbutton.
  - ii. repair of a damaged or poorly aligned traffic signal or pedestrian head (but still functioning as intended).
  - iii. repair of a street light outage or street light system outage.

1.4 Repair Completion Deadlines (Immediate Response and Normal Response)

The following table details the deadlines required by the City for the traffic signal and street light repairs listed in (a) and (b) above:

Repair Work Required	Response Time	Condition Made Safe	Repair Completion Time
<b>Immediate Response</b>			
Repair to a primary (overhead) traffic signal head display or left turn arrow signal head display.	1 hour	1 hour	1 Day
Repair malfunctioning traffic signal equipment, including traffic signals in flash state.	1 hour	1 hour	1 Day
Repair to damage that presents an immediate hazard to motorists, pedestrians and/or public or private property, including but not limited to exposed wires, unstable poles/fixtures, mis-directed traffic signal/pedestrian displays.	1 hour	1 hour	3 Days*
<b>Normal Response</b>			
Repair of a secondary traffic signal head display, pedestrian head display, or pedestrian pushbutton.	1 Day	Not Applicable	3 Days*
Repair of a damaged or poorly aligned traffic signal or pedestrian head.	1 Day	Not Applicable	3 Days*
Repair of a single street light outage or island flasher outage.	5 Days	Not Applicable	5 Working days
Repair of a street light system outage.	1 Day	1 Day**	5 Working days

\*If the repair completion time for traffic signals spans an intervening weekend or holiday, then the repairs must be completed prior to that weekend or holiday (except as directed by the City). Any work delays shall be documented and approved by the City. Regular or outside regular hour rates will apply in this situation.

\*\*Streetlight system failures (defined as an outage of 3 or more consecutive lamp standards) shall be attended to and made safe within one (1) working day of the work order being issued (Report of Fault). If the next working day follows an intervening weekend or holiday, then the repair shall be initiated and completed on date of report. Completion of the work shall not exceed 5 working days. Any work delays shall be documented and approved by the City. Regular or outside regular hour rates will apply in this situation.

**Note:** The Contractor shall attempt to use resources efficiently and effectively, i.e., Whenever possible, multiple work orders should be scheduled in a single work day as opposed to scheduling a single repair based on the five day response requirement. The City shall be notified by the Contractor if repairs will exceed these time frames.

It shall be the responsibility of the Contractor to advise the City immediately when the Contractor is unable to diagnose the cause or origin of a traffic signal or street light malfunction.

If, during the course of the Agreement, the Contractor is unable to provide adequate response, it may be considered a breach, and the City may, without prejudice, terminate this Agreement.



## SCHEDULE 4

### PERSONNEL REQUIREMENTS

#### 1.0 PERSONNEL REQUIREMENTS

##### 1.1 Qualifications of Key Personnel

The Contractor's personnel must be knowledgeable in the function, operation and features of current electrical and electronic signal control equipment.

##### 1.2 Traffic Signal Electricians

Traffic Signal Electricians shall hold a valid Journeyman Electrician Trade Certification in B.C. and have at least five (5) years of experience maintaining and installing traffic signals and signal systems. Traffic Signal Electricians shall have IMSA Traffic Signal Level II Certification or better.

##### 1.3 Street Lighting Electricians

Street Lighting Electricians shall hold a valid Journeyman Electrician Trade Certification in B.C. and have a minimum of three (3) years experience maintaining and installing street lighting systems. Street Lighting Electricians shall have IMSA Roadway Lighting Level I Certification or better.

##### 1.4 Primary Electrician with Bucket Truck

###### Assignment:

The Primary Electrician shall be exclusively assigned to this Contract. The Primary Electrician shall report to Coquitlam by 07:00 hours every normal working day and shall stay on site until 16:00 hours.

Duties:

- Work on annual maintenance work orders except when there are other non-annual (unscheduled maintenance) work orders to be completed;
- Act as the Contractor’s technical representative;
- Coordinate work of secondary electricians, labourers and sub-contractors and ensure work is completed on schedule and in accordance with the Agreement;
- Act as the primary contact for communications with the City regarding work in progress, work planning, scheduling and quality control;
- Act as both primary traffic signal and street lighting electrician;
- Where multiple Contractor personnel are involved in maintenance or installation tasks, the primary electrician shall be responsible for coordinating all work and completing all necessary documentation under this Contract. No additional moneys will be paid for performing these tasks beyond the unit time utilized to complete the work.

1.5 Secondary Electricians and Specialized Personnel

Duties:

- These personnel shall be utilized on an “as required” basis to provide backup for the primary electrician, or for additional assistance;
- Perform installation or maintenance services as necessary to complement the primary electrician; and
- These personnel shall be under the direct supervision of the primary electrician.

The Contractor shall give 30 days written notice if the primary traffic signal electrician is to be re-assigned. The choice of replacement primary traffic signal electrician shall be mutually agreeable to the Contractor and City.

Should the primary electrician be unable to report to the site due to illness or other reason, the Contractor shall immediately provide an alternate primary electrician. Alternate primary electricians shall meet the qualifications required under this Contract for a “primary electrician”. The City shall be notified when an alternate primary electrician is assigned.

1.6 Testing of Contractor’s Personnel

At the discretion of the City, any or all of the primary, secondary and on-call service electricians may be required to complete written and practical tests to satisfactorily demonstrate NEMA TS1 and TS2 traffic signal controller and cabinet installation and troubleshooting skills. A more comprehensive test may be conducted for the primary and on-call electricians than for the secondary electricians.

All electricians (regular duty and on-call) named in Appendix B of the Proposal Submission Form shall be made available for testing with a minimum 48 hours written notice by the City. Costs for the Contractor's staff time and expenses for these tests shall be borne by the Contractor. Copies of the completed tests will be the property of the City and will not be available for reproduction or distribution to contractors or individual personnel involved in the tests. Upon request to the City, test results will be made available to the Contractor.

Failure of the primary electrician to complete the tests with satisfactory results will be deemed sufficient reason to request a different primary electrician to be supplied by the Contractor. Failure of on-call and secondary electricians to satisfactorily complete the tests may be deemed sufficient to request different qualified personnel. On-call electricians shall have the same level of troubleshooting skills as the primary electrician.

#### 1.7 Alternate Personnel

If, over the term of the Contract, it becomes necessary for the Contractor to assign different primary, secondary or on-call electricians to perform the work, a request in writing stating the reasons for the change(s), the name(s), position to be held for the Contract, experience, and independent references which can verify the proposed personnel's experience, shall be provided. The City reserves the right to similarly test any proposed signal maintenance electrician, and accept or reject the personnel on the basis of test results.

The City reserves the right to request (in writing) different primary or secondary electricians based on poor performance or repeated unprofessional behaviour and/or call backs. The Contractor shall immediately act to remedy the situation. Failure to adequately provide suitable qualified electricians within 60 days will be a breach of this Agreement.

## SCHEDULE 5 – ELECTRICAL INFRASTRUCTURE DEVICE LOCATIONS

### 1.0 ELECTRICAL INFRASTRUCTURE DEVICE LOCATIONS

#### 1.1 Traffic Signal Locations

Number	Asset #	Asset Type	Location Description	Signal Type
1	TSS1000	TSIGNAL	TS: Alderson Ave at Blue Mountain St	Traffic Signal
2	TSS1050	TSIGNAL	TS: Alderson Ave at Lougheed Hwy	Traffic Signal
3	TSS1100	TSIGNAL	TS: Allard St at Brunette Ave	Traffic Signal
4	TSS1125	TSIGNAL	TS: Anson Ave at Pinetree Way	Traffic Signal
5	TSS1140	TSIGNAL	TS: Anson Ave at Ponderosa St (Planned)	Traffic Signal
6	TSS1150	TSIGNAL	TS: Anson Ave at Westwood St	Traffic Signal
7	TSS1200	TSIGNAL	TS: Austin Ave at Blue Mountain St	Traffic Signal
8	TSS1250	TSIGNAL	TS: Austin Ave at Bromley St	Traffic Signal
9	TSS1300	TSIGNAL	TS: Austin Ave at Gatensbury St	Traffic Signal
10	TSS1400	TSIGNAL	TS: Austin Ave at Guilby St	Traffic Signal
11	TSS1500	TSIGNAL	TS: Austin Ave at Hickey Dr	Traffic Signal
12	TSS1600	TSIGNAL	TS: Austin Ave at Hillcrest St	Traffic Signal
13	TSS1700	TSIGNAL	TS: Austin Ave at Linton St	Traffic Signal
14	TSS1800	TSIGNAL	TS: Austin Ave at Mariner Way	Traffic Signal
15	TSS1900	TSIGNAL	TS: Austin Ave at Marmont St	Traffic Signal
16	TSS2000	TSIGNAL	TS: Austin Ave at Mundy St	Traffic Signal
17	TSS2100	TSIGNAL	TS: Austin Ave at Nelson St	Traffic Signal
18	TSS2300	TSIGNAL	TS: Austin Ave at Poirier St	Traffic Signal
19	TSS2400	TSIGNAL	TS: Austin Ave at Schoolhouse St	Traffic Signal
20	TSS2500	TSIGNAL	TS: Austin Ave at Walker St	Traffic Signal
21	TSS2600	TSIGNAL	TS: Austin Ave at Westview St	Traffic Signal
22	TSS2700	TSIGNAL	TS: Baker Dr at Como Lake Ave	Traffic Signal
23	TSS2720	TSIGNAL	TS: Barnet Hwy at Falcon Dr	Traffic Signal
24	TSS2740	TSIGNAL	TS: Barnet Hwy at Johnson St & Mariner Way	Traffic Signal
25	TSS2760	TSIGNAL	TS: Barnet Hwy at Lansdowne Dr	Traffic Signal
26	TSS2780	TSIGNAL	TS: Barnet Hwy at Lougheed Hwy/Pinetree Way	Traffic Signal
27	TSS2800	TSIGNAL	TS: Blue Mountain St at Como Lake Ave	Traffic Signal
28	TSS3000	TSIGNAL	TS: Blue Mountain St at Foster Ave	Traffic Signal
29	TSS3025	TSIGNAL	TS: Blue Mountain St at Lougheed Hwy	Traffic Signal
30	TSS3100	TSIGNAL	TS: Blue Mountain St at Rochester Ave	Traffic Signal
31	TSS3200	TSIGNAL	TS: Brigantine Drive at United Blvd	Traffic Signal
32	TSS3250	TSIGNAL	TS: Brunette Ave at Lougheed Hwy	Traffic Signal
33	TSS3300	TSIGNAL	TS: Brunette Ave at Marmont-King Edward St	Traffic Signal
34	TSS3500	TSIGNAL	TS: Brunette Ave at Schoolhouse St	Traffic Signal
35	TSS3550	TSIGNAL	TS: Burbidge St at United Blvd	Traffic Signal
36	TSS3700	TSIGNAL	TS: Cape Horn Ave/United Blvd at Mariner Way	Traffic Signal
37	TSS3800	TSIGNAL	TS: Chapman Ave/Robinson St at Clarke Rd	Traffic Signal
38	TSS3900	TSIGNAL	TS: Chilko Drive at Mariner Way	Traffic Signal

Number	Asset #	Asset Type	Location Description	Signal Type
39	TSS4000	TSIGNAL	TS: Chilko Dr at Riverview Cres	Traffic Signal
40	TSS4100	TSIGNAL	TS: Christmas Way at Westwood St	Traffic Signal
41	TSS4300	TSIGNAL	TS: Clarke Rd at Como Lake Ave	Traffic Signal
42	TSS4400	TSIGNAL	TS: Clarke Rd at Glenayre	Traffic Signal
43	TSS4500	TSIGNAL	TS: Clarke Rd at Kemsley Ave	Traffic Signal
44	TSS4600	TSIGNAL	TS: Clarke Rd at Smith Ave	Traffic Signal
45	TSS4700	TSIGNAL	TS: Clipper St at United Blvd	Traffic Signal
46	TSS4750	TSIGNAL	TS: Coast Meridian Road Rd at David Avenue	Traffic Signal
47	TSS4761	TSIGNAL	TS: Coast Meridian Rd at Gislason Ave/Mason Ave	Traffic Signal
48	TSS4770	TSIGNAL	TS: Coast Meridian Rd at Victoria Dr	Traffic Signal
49	TSS4850	TSIGNAL	TS: Colony Farm Rd at Lougheed Hwy	Traffic Signal
50	TSS4900	TSIGNAL	TS: Como Lake Ave at Gatensbury St	Traffic Signal
51	TSS4950	TSIGNAL	TS: Como Lake Ave at Lougheed Hwy	Traffic Signal
52	TSS5000	TSIGNAL	TS: Como Lake Ave at Linton St	Traffic Signal
53	TSS5100	TSIGNAL	TS: Como Lake Ave / Spuraway Dr at Mariner Way	Traffic Signal
54	TSS5300	TSIGNAL	TS: Como Lake Ave at Poirier St	Traffic Signal
55	TSS5400	TSIGNAL	TS: Como Lake Ave at Porter St	Traffic Signal
56	TSS5500	TSIGNAL	TS: Como Lake Ave at Robinson St	Traffic Signal
57	TSS5600	TSIGNAL	TS: Como Lake Ave at Schoolhouse St	Traffic Signal
58	TSS5800	TSIGNAL	TS: Como Lake Ave at Thermal Dr	Traffic Signal
59	TSS5900	TSIGNAL	TS: David Ave at Johnson St	Traffic Signal
60	TSS5950	TSIGNAL	TS: David Ave at Lansdowne Dr	Traffic Signal
61	TSS6000	TSIGNAL	TS: David Ave at Noons Creek Dr	Traffic Signal
62	TSS6050	TSIGNAL	TS: David Avenue at Oxford Street	Traffic Signal
63	TSS6100	TSIGNAL	TS: David Ave at Pinetree Way	Traffic Signal
64	TSS6200	TSIGNAL	TS: David Avenue at Pipeline Road	Traffic Signal
65	TSS6250	TSIGNAL	TS: David Avenue at Shaughnessy Street	Traffic Signal
66	TSS6275	TSIGNAL	TS: Delahaye Drive at Johnson Street	Traffic Signal
67	TSS6375	TSIGNAL	TS: Dewdney Trunk Rd at Lougheed Hwy	Traffic Signal
68	TSS6400	TSIGNAL	TS: Dewdney Trunk Rd at Mariner Way	Traffic Signal
69	TSS6500	TSIGNAL	TS: Dewdney Trunk Rd at Norman Ave	Traffic Signal
70	TSS6600	TSIGNAL	TS: Dewdney Trunk Rd at Westwood St	Traffic Signal
71	TSS6700	TSIGNAL	TS: Douglas College Dwy at Pinetree Way	Traffic Signal
72	TSS6750	TSIGNAL	TS: Dunkirk Ave at Pipeline Road	Traffic Signal
73	TSS6775	TSIGNAL	TS: Durant Dr @ Johnson St	Traffic Signal
74	TSS7000	TSIGNAL	TS: Falcon Dr at Guildford Way	Traffic Signal
75	TSS7200	TSIGNAL	TS: Gallette Ave at Pipeline Rd	Traffic Signal
76	TSS7400	TSIGNAL	TS: Glen Dr at Johnson St	Traffic Signal
77	TSS7500	TSIGNAL	Ts: Glen Dr at Lansdowne Dr	Traffic Signal
78	TSS7600	TSIGNAL	TS: Glen Dr at Pinetree Way	Traffic Signal
79	TSS7750	TSIGNAL	TS: Glen Dr at Westwood St	Traffic Signal
80	TSS7760	TSIGNAL	TS: Guilby St at Lougheed Hwy	Traffic Signal
81	TSS7800	TSIGNAL	TS: Guildford Way at Johnson St	Traffic Signal
82	TSS7850	TSIGNAL	TS: Guildford Way at Lansdowne Dr	Traffic Signal

Number	Asset #	Asset Type	Location Description	Signal Type
83	TSS7900	TSIGNAL	TS: Guildford Way at Pinetree Way	Traffic Signal
84	TSS8000	TSIGNAL	TS: Guildford Way/Ozada Ave at Pipeline Rd	Traffic Signal
85	TSS8100	TSIGNAL	TS: Guildford Way at Westwood St	Traffic Signal
86	TSS8200	TSIGNAL	TS: Hawser Ave at Mariner Way	Traffic Signal
87	TSS8400	TSIGNAL	TS: Hickey Dr/Riverview Cres at Mariner Way	Traffic Signal
88	TSS8450	TSIGNAL	TS: Johnson St. at North Mall Dwy	Traffic Signal
89	TSS8550	TSIGNAL	TS: Johnson St. at Panorama Dr/Meadowvista Pl.	Traffic Signal
90	TSS8600	TSIGNAL	TS: Johnson St at Parkway Blvd	Traffic Signal
91	TSS8650	TSIGNAL	TS: Johnson St at South Mall Dwy	Traffic Signal
92	TSS8700	TSIGNAL	TS: Johnson St at Walton Ave	Traffic Signal
93	TSS8725	TSIGNAL	TS: King Edward St at Lougheed Hwy	Traffic Signal
94	TSS8750	TSIGNAL	TS: King Edward St at Seguin Dr	Traffic Signal
95	TSS8825	TSIGNAL	TS: King Edward Street at United Boulevard	Traffic Signal
96	TSS9000	TSIGNAL	TS: Lansdowne Dr at Runnel Dr	Traffic Signal
97	TSS9050	TSIGNAL	TS: Lincoln Ave at Pipeline Rd	Traffic Signal
98	TSS9100	TSIGNAL	TS: Lincoln Ave at Westwood St	Traffic Signal
99	TSS9200	TSIGNAL	TS: Lincoln Ave at Pinetree Way	Traffic Signal
100	TSS9202	TSIGNAL	TS: Lougheed Hwy at Woolridge Connector	Traffic Signal
101	TSS9208	TSIGNAL	TS: Lougheed Hwy at Orchid Dr. (Valleyview)	Traffic Signal
102	TSS9210	TSIGNAL	TS: Lougheed Highway at Pitt River Rd	Traffic Signal
103	TSS9240	TSIGNAL	TS: Lougheed Hwy at Westwood St	Traffic Signal
104	TSS9245	TSIGNAL	TS: Lougheed Hwy at Woolridge St	Traffic Signal
105	TSS9250	TSIGNAL	TS: Lucille Starr Dr at Schoolhouse St	Traffic Signal
106	TSS9275	TSIGNAL	TS: Mara Dr at Mariner Way	Traffic Signal
107	TSS9400	TSIGNAL	TS: Mariner Way at Park 'n Ride	Traffic Signal
108	TSS9500	TSIGNAL	TS: Mariner Way at Service Centre Dwy	Traffic Signal
109	TSS9550	TSIGNAL	TS: Northern Ave at Pinetree Way	Traffic Signal
110	TSS9600	TSIGNAL	TS: Pinetree Way at Pinewood Dr	Traffic Signal
111	TSS9650	TSIGNAL	TS: Pinetree Way at Robson Dr	Traffic Signal
112	TSS9700	TSIGNAL	TS: Pipeline Rd at Robson St	Traffic Signal
113	TSS9825	TSIGNAL	TS: Pipeline Rd at Windsor Gate	Traffic Signal
114	TSS9900	TSIGNAL	TS: Schooner St at United Blvd	Traffic Signal

1.2 Pedestrian Signal Locations

Number	Asset #	Asset Type	Location Description	Signal Type
1	TSS1175	TSIGNAL	TS: Austin Ave. at 1000 Blk. (Safeway)	Pedestrian Signal
2	TSS1650	TSIGNAL	TS: Austin Ave. at Laurentian Cres.	Pedestrian Signal
3	TSS2710	TSIGNAL	TS: Banting St. at Como Lake Ave	Pedestrian Signal
4	TSS2900	TSIGNAL	TS: Blue Mountain St at Dansey Ave	Pedestrian Signal
5	TSS3015	TSIGNAL	TS: Blue Mountain St at King Albert Ave (Planned)	Pedestrian Signal
6	TSS3225	TSIGNAL	TS: Brunette Ave at Laval St	Pedestrian Signal
7	TSS3400	TSIGNAL	TS: Brunette Ave at Nelson St	Pedestrian Signal
8	TSS4200	TSIGNAL	TS: Clarke Rd at 500 Block	Pedestrian Signal
9	TSS4800	TSIGNAL	TS: Como Lake Ave at Charles Best School	Pedestrian Signal
10	TSS4890	TSIGNAL	TS: Como Lake Avenue at Custer Court	Pedestrian Signal
11	TSS5700	TSIGNAL	TS: Como Lake Ave at Seymour Dr	Pedestrian Signal
12	TSS5825	TSIGNAL	TS: Como Lake Ave at Wasco St	Pedestrian Signal
13	TSS5875	TSIGNAL	TS: David Ave at Genest Way	Pedestrian Signal
14	TSS6350	TSIGNAL	TS: Dewdney Trunk Rd at Irvine St	Pedestrian Signal
15	TSS6800	TSIGNAL	TS: Eagleridge Drive at Guildford Way	Pedestrian Signal
16	TSS6900	TSIGNAL	TS: Eastwood St at Guildford Way	Pedestrian Signal
17	TSS7300	TSIGNAL	TS: Glen Dr at The High St	Pedestrian Signal
18	TSS7550	TSIGNAL	TS: Glen Dr at Pacific St	Pedestrian Signal
19	TSS7700	TSIGNAL	TS: Glen Dr at Pipeline Rd	Pedestrian Signal
20	TSS7875	TSIGNAL	TS: Guildford Way at Pacific St	Pedestrian Signal
21	TSS8050	TSIGNAL	TS: Guildford Way at Town Centre Blvd	Pedestrian Signal
22	TSS9300	TSIGNAL	TS: Mariner Way at Mariner Park	Pedestrian Signal
23	TSS9510	TSIGNAL	TS: Marmont St at Rochester Ave	Pedestrian Signal
24	TSS9675	TSIGNAL	TS: Pinetree Way at Town Centre Blvd	Pedestrian Signal

1.3 Fire Signal Locations

Number	Asset #	Asset Type	Location Description	Signal Type
1	TSF1000	TSF	TSF: Mariner Way @ Mariner Fire Hall	Fire Signal
2	TSF2000	TSF	TSF: Nelson Street @ Austin Heights Fire Hall	Fire Signal
3	TSF3000	TSF	TSF: Pinewood Street @ Town Centre Fire Hall	Fire Signal
4	TSF4000	TSF	TSF: David Avenue @ Burke Mountain Fire Hall	Fire Signal

1.4 Special Crosswalk Locations

<b>Number</b>	<b>Asset #</b>	<b>Asset Type</b>	<b>Location Description</b>	<b>Signal Type</b>
1	TSP3550	SIPC	IPC: Brunette Ave @ 900 block	Special Crosswalk
2	TSP3700	SIPC	IPC: David Ave @ Bramble Park	Special Crosswalk
3	TSP3800	SIPC	IPC: David Ave @ Summit pathway	Special Crosswalk
4	TSP4155	SIPC	IPC: Lincoln Ave @ Ponderosa	Special Crosswalk
5	TSP4415	SIPC	IPC: Pinetree Way @ Silverthrone/Grizzly	Special Crosswalk
6	TSP5000	SIPC	IPC: Robinson St @ Egmont Ave	Special Crosswalk

1.5 Illuminated Crosswalk Locations

<b>Number</b>	<b>Asset #</b>	<b>Asset Type</b>	<b>Location Description</b>	<b>Signal Type</b>
1	TSP3400	IPC	IPC: Blue Mountain @ Cottonwood	Illuminated Crosswalk
2	TSP3500	IPC	IPC: Blue Mountain @ Regan	Illuminated Crosswalk
3	TSP3600	IPC	IPC: Cape Horn @ Dawes Hill	Illuminated Crosswalk
4	TSP3625	IPC	IPC: Chartwell Green; E of Plateau	Illuminated Crosswalk
5	TSP4000	IPC	IPC: Dunkirk @ Nestor	Illuminated Crosswalk
6	TSP4050	IPC	IPC: Eastwood @ S of Guildford	Illuminated Crosswalk
7	TSP4075	IPC	IPC: Heffley Crescent @ 1100 Blk	Illuminated Crosswalk
8	TSP4100	IPC	IPC: Hickey @ Bognor	Illuminated Crosswalk
9	TSP4150	IPC	IPC: Hickey @ Leduc	Illuminated Crosswalk
10	TSP4160	IPC	IPC: Lucille Starr Drive (East X-ing)	Illuminated Crosswalk
11	TSP4170	IPC	IPC: Lucille Starr Drive (West X-ing)	Illuminated Crosswalk
12	TSP4200	IPC	IPC: Paddock, 1760 (South)	Illuminated Crosswalk
13	TSP4250	IPC	IPC: Parkway @ N of Johnson	Illuminated Crosswalk
14	TSP4300	IPC	IPC: Parkway, 1735	Illuminated Crosswalk
15	TSP4325	IPC	IPC: Parkway, 1937	Illuminated Crosswalk
16	TSP4400	IPC	IPC: Paddock, 1765 (North)	Illuminated Crosswalk
17	TSP4425	IPC	IPC: Plateau Blvd; N of Chartwell	Illuminated Crosswalk
18	TSP4450	IPC	IPC: Poirier @ 600 Block	Illuminated Crosswalk



1.6 Overhead Flashing Beacon Locations

<b>Number</b>	<b>Asset #</b>	<b>Asset Type</b>	<b>Location Description</b>	<b>Signal Type</b>
1	TSB1000	FIB	FIB: Hillcrest Street @ Foster Avenue @ Wilmot Street	Flashing Intersection Beacon
2	TSB3000	FIB	FIB: Regan Avenue @ Wilmot Street	Flashing Intersection Beacon
3	TSB4000	FIB	FIB: Schoolhouse Street @ Winslow Avenue	Flashing Intersection Beacon

1.7 Advance Warning Flashers

<b>Number</b>	<b>Asset #</b>	<b>Location Description</b>	<b>Signal Type</b>
1	TSS2900	Advance Warning Flasher : Blue Mountain at Dansey (Southbound)	Advance Warning Flasher
2	TSS4000	Advance Warning Flasher : Chilko Dr at Riverview Cres (Westbound)	Advance Warning Flasher
3	TSS4000	Advance Warning Flasher : Chilko Dr at Riverview Cres (Eastbound)	Advance Warning Flasher
4	TSS4850	Advance Warning Flasher : Colony Farm Rd at Lougheed Hwy (Westbound)	Advance Warning Flasher
5	TSS4850	Advance Warning Flasher : Colony Farm Rd at Lougheed Hwy (Eastbound)	Advance Warning Flasher
6	TSS4950	Advance Warning Flasher : Como Lake Ave at Lougheed Hwy (Northbound)	Advance Warning Flasher
7	TSS4950	Advance Warning Flasher : Como Lake Ave at Lougheed Hwy (Southbound)	Advance Warning Flasher
8	TSS6375	Advance Warning Flasher : Dewdney Trunk Rd at Lougheed Hwy (Northbound)	Advance Warning Flasher
9	TSS6375	Advance Warning Flasher : Dewdney Trunk Rd at Lougheed Hwy (Southbound)	Advance Warning Flasher
10	TSS6400	Advance Warning Flasher : Dewdney Trunk Rd at Mariner Way (Northbound)	Advance Warning Flasher
11	TSS7000	Advance Warning Flasher : Falcon Dr at Guildford Way (Eastbound)	Advance Warning Flasher
12	TSS7200	Advance Warning Flasher : Gallette Ave at Pipeline Rd (Southbound)	Advance Warning Flasher
13	TSS8200	Advance Warning Flasher : Hawser Ave at Mariner Way (Northbound)	Advance Warning Flasher
14	TSS8600	Advance Warning Flasher : Johnson St at Parkway Blvd (Southbound)	Advance Warning Flasher
15	TSS9208	Advance Warning Flasher : Lougheed Hwy at Orchid Dr. (Valleyview) (Northbound)	Advance Warning Flasher
16	TSS9208	Advance Warning Flasher : Lougheed Hwy at Orchid Dr. (Valleyview) (Southbound)	Advance Warning Flasher
17	TSS9210	Advance Warning Flasher : Lougheed Highway at Pitt River Rd (Northbound)	Advance Warning Flasher
18	TSS9210	Advance Warning Flasher : Lougheed Highway at Pitt River Rd (Southbound)	Advance Warning Flasher
19	TSS9300	Advance Warning Flasher : Mariner Way at Mariner Park (Northbound)	Advance Warning Flasher
20	TSS9700	Advance Warning Flasher : Pipeline Rd at Robson St (Southbound)	Advance Warning Flasher

1.8 Uninterruptible Power Supply Equipment Locations

Number	Asset #	Location Description	UPS Type
1	TSS1050	Alderson @ Lougheed	Full intersection control
2	TSS1125	Anson @ Pinetree	Full intersection control
3	TSS1140	Anson @ Ponderosa	Full intersection control
4	TSS1150	Anson @ Westwood	Full intersection control
5	TSS1200	Austin @ Blue Mountain	Full intersection control
6	TSS1300	Austin @ Gatensbury	Full intersection control
7	TSS1650	Austin @ Laurentian	Red flash only
8	TSS1700	Austin @ Linton	Red flash only
9	TSS1800	Austin @ Mariner	Red flash only
10	TSS1900	Austin @ Marmont	Full intersection control
11	TSS2100	Austin @ Nelson	Full intersection control
12	TSS2300	Austin @ Poirier	Full intersection control
13	TSS2400	Austin @ Schoolhouse	Full intersection control
14	TSS2720	Barnet Hwy @ Falcon Drive	Full intersection control
15	TSS2740	Barnet Hwy @ Johnson Street	Full intersection control
16	TSS2760	Barnet Hwy @ Lansdowne	Full intersection control
17	TSS2780	Barnet Hwy @ Lougheed-Pinetree	Full intersection control
18	TSS2800	Blue Mountain @ Como Lake	Full intersection control
19	TSS3025	Blue Mountain @ Lougheed	Full intersection control
20	TSS3250	Brunette @ Lougheed	Full intersection control
21	TSS3300	Brunette Avenue @ Marmont/King Edward	Full intersection control
22	TSS3500	Brunette @ Schoolhouse	Red flash only
23	TSS3700	Cape Horn @ United	Full intersection control
24	TSS4300	Clarke @ Como Lake	Full intersection control
25	TSS4750	Coast Meridian @ David	Full intersection control
26	TSS4761	Coast Meridian @ Gislason/Mason	Full intersection control
27	TSS4770	Coast Meridian @ Victoria	Full intersection control
28	TSS4850	Colony Farm @ Lougheed	Full intersection control
29	TSS4900	Como Lake @ Gatensbury	Full intersection control
30	TSS4950	Como Lake/Chilko @ Lougheed	Full intersection control
31	TSS5000	Como Lake @ Linton	Full intersection control
32	TSS5100	Como Lake @ Mariner	Full intersection control
33	TSS5300	Como Lake @ Poirier	Full intersection control
34	TSS5600	Como Lake @ Schoolhouse	Full intersection control
35	TSS5800	Como Lake @ Thermal	Full intersection control
36	TSS5900	David @ Johnson	Full intersection control

<b>Number</b>	<b>Asset #</b>	<b>Location Description</b>	<b>UPS Type</b>
37	TSS5950	David @ Lansdowne	Full intersection control
38	TSS6050	David @ Oxford	Full intersection control
39	TSS6100	David @ Pinetree	Full intersection control
40	TSS6200	David @ Pipeline Street	Full intersection control
41	TSS6250	David @ Shaughnessy	Full intersection control
42	TSS6275	Delahaye @ Johnson	Full intersection control
43	TSS6375	Dewdney Tr Rd @ Lougheed	Full intersection control
44	TSS6400	Dewdney Tr Rd @ Mariner	Full intersection control
45	TSS6700	College Access @ Pinetree	Full intersection control
46	TSS6775	Durant @ Johnson	Full intersection control
47	TSS7400	Glen @ Johnson	Full intersection control
48	TSS7600	Glen @ Pinetree	Full intersection control
49	TSS7760	Lougheed @ Guilby	Red flash only
50	TSS7800	Guildford Drive @ Johnson Street	Full intersection control
51	TSS7900	Guildford Drive @ Pinetree Way	Full intersection control
52	TSS8200	Hawser @ Mariner	Full intersection control
53	TSS8450	Johnson Street @ North Mall Access	Full intersection control
54	TSS8550	Johnson Street @ Panorama	Full intersection control
55	TSS8600	Johnson Street @ Parkway Blvd	Full intersection control
56	TSS8650	Johnson Street @ South Mall Access	Full intersection control
57	TSS8700	Johnson Street @ Walton	Full intersection control
58	TSS8725	King Edward @ Lougheed	Full intersection control
59	TSS8825	King Edward @ United Blvd	Full intersection control
60	TSS9050	Lincoln @ Pipeline	Full intersection control
61	TSS9200	Lincoln @ Pinetree	Full intersection control
62	TSS9202	Lougheed Hwy @ 1000 blk (Ikea)	Full intersection control
63	TSS9208	Lougheed Hwy @ Orchid Street	Full intersection control
64	TSS9210	Lougheed Hwy @ Pitt River	Full intersection control
65	TSS9240	Lougheed Hwy @ Westwood Street	Full intersection control
66	TSS9245	Lougheed Hwy @ Woolridge Street	Full intersection control
67	TSS9550	Northern @ Pinetree	Full intersection control
68	TSS9600	Pinetree Way @ Park Access/Pinewood	Full intersection control
69	TSS9675	Pinetree Way @ Town Centre	Full intersection control

## **SCHEDULE 6**

### **CITY OF COQUITLAM SUPPLEMENTARY SPECIFICATIONS**

(Schedule 6 Supplementary Specifications are in the process of being updated to align with the MMCD Platinum Edition 2009 and will be provided to the successful Contractor upon award)

## SCHEDULE 7

### REPORTING REQUIREMENTS

#### 1.0 REPORTING REQUIREMENTS

The Contractor is responsible for providing the following reports throughout the duration of the Agreement. All reports must be submitted in a timely manner and may be amended as required by the City. These reports are to be submitted electronically via file transfer protocol in accordance with the instructions provided by the City. Hardcopies are to be submitted by mail. Requirements for each reporting category are outlined below.

##### 1.1 Work Status Reports – Scheduled Maintenance

All scheduled maintenance work performed is to be reported and summarized by month with the following headings:

###### (a) Traffic Signals (all)

- i. Work Order #
- ii. Municipal Account Code (see below)
- iii. Task Description
- iv. Location Description
- v. Location Asset Code (to be provided)
- vi. Status % Complete
- vii. Scheduled Date
- viii. Completion date
- ix. Technicians on site
- x. Comments (i.e. extras requiring separate WO#, etc.)

This report shall be submitted seven (7) days prior to first day of the scheduled work and then monthly to the City in a tabular electronic Microsoft Excel format until the maintenance is complete.

###### (b) Street Lights (Relamping and Service Base Maintenance)

- |                         |                                |
|-------------------------|--------------------------------|
| i. Zone                 | xiv. Pole Condition            |
| ii. GIS ID (ELSL #)     | xv. Foliage                    |
| iii. Luminaire 1        | xvi. Power Receptacle (Y/N)    |
| iv. Wattage 1           | xvii. Banner Hanger (Y/N)      |
| v. Luminaire 2          | xviii. Hydro Attached (Y/N)    |
| vi. Wattage 2           | xix. Service Base (Y/N)        |
| vii. Lamp Type          | xx. Srv Base Maintained (Date) |
| viii. Pole Height       | xxi. Security (Y/N)            |
| ix. Pole Type           | xxii. System Voltage           |
| x. Pole Style           | xxiii. Frangible Base (Y/N)    |
| xi. Pole Colour         | xxiv. Last Relamp (Date)       |
| xii. Coating            | xxv. Comments                  |
| xiii. Coating Condition |                                |

This report shall be submitted seven (7) days prior to first day of the scheduled work and then monthly to the City in a tabular electronic Microsoft Excel format until the program is complete.

This report shall detail any changes or corrections to street light attributes as listed in the map tables issued to the Contractor at the start of the relamping program. The base report file will be provided by the City.

(c) Street Lights (Repainting)

- i. Zone
- ii. GIS ID (ELSL #)
- iii. Pole Type
- iv. Pole Style
- v. Pole Height
- vi. Pole Colour
- vii. Re-paint completion date

This report shall be submitted seven (7) days prior to first day of the scheduled work and then monthly to the City in a tabular electronic Microsoft Excel format until the program is complete.

This report shall detail any changes or corrections to street light attributes as listed in the map tables issued to the Contractor at the start of the relamping program. The base report file will be provided by the City.

1.2 Work Status Reports –Unscheduled Maintenance

All unscheduled maintenance work performed under this Agreement is to be reported and summarized by day with the following array headings:

1. Work Order #
2. Municipal Account Code (see below)
3. Task Description
4. Location Description
5. Location Asset Code (to be provided where applicable)
6. Start, Finish, Arrival and Departure Times (and dates)
7. Technicians on site
8. Comments (detailing works completed and findings)

This report shall be submitted twice per week on Mondays and Wednesdays to the City in a tabular electronic Microsoft Excel format. The Monday submission shall contain the work orders completed the preceding Wednesday through Sunday and the Wednesday submission shall contain the work orders completed the preceding Monday and Tuesday.

If, during the course of the Agreement, the Contractor is unable to provide reports as outlined in a timely manner, it may be considered a breach, and the City may, without prejudice, terminate this Agreement.

## 2.0 INVOICE AND SUPPORTING DOCUMENTATION

One invoice shall be submitted monthly for all of the work performed in each month. Invoice supporting documents in Microsoft Excel format must accompany the invoice. The supporting documentation shall provide details for each individual work order under one of the following municipal account codes:

1. TSMU: Unscheduled Maintenance Traffic Signals – MRN
2. TSNU: Unscheduled Maintenance Traffic Signals – Non-MRN
3. SLMU: Unscheduled Maintenance Street Lights – MRN
4. SLNU: Unscheduled Maintenance Street Lights – Non-MRN
5. TSMS: Scheduled Maintenance Traffic Signals – MRN
6. TSNS: Scheduled Maintenance Traffic Signals – Non-MRN
7. SLMS: Scheduled Maintenance Street Lights – MRN
8. SLNS: Scheduled Maintenance Street Lights – Non-MRN
9. PROJ: Project related, non-TrafOps

The onus is on the contractor to report the information accurately. The City will provide assistance and guidance to determine which municipal account code is appropriate for given asset locations. Major Road Network (MRN) roads are shown on Translink's Major Road Network Map at <http://bit.ly/1cohuN1>

Each work order within the supporting documentation shall be detailed separately with the following headings:

1. City Contract No. (14-01-05)
2. The Invoice #
3. City Work Order # (provided by City)
4. Internal Work Order # (provided by contractor, where applicable)
5. Municipal Account Code (from above)
6. Job # (where applicable, may be used for specific quotes, etc.)
7. Location Asset Code
8. Call Type (general, MVA-related, vandalism/theft, etc.)
9. Address or Location
10. Call Date
11. Completion Date
12. Arrive Time
13. Depart Time
14. Item Code (where applicable)
15. Item Description (item being charged, labour and material)
16. Quantity
17. Unit Cost Charged
18. Subtotal amount (pre-tax)
19. Tax Charged (GST)
20. Problem / Task Code or Description (where applicable)
21. Problem (class of problem related to the invoice item)
22. Technicians on site
23. Work Done (comments detailing the work to date)



The monthly invoice, supporting documentation and Microsoft Excel reports shall be submitted on a monthly basis.

Please note that for Annual Maintenance Work Orders, the breakdown for materials and labour costs will not apply and there will only be one total price for both labour and materials. This must be clearly indicated on all reports.

### **3.0 ASSET INVENTORY UPDATE**

As part of the annual maintenance, cursory asset inventory data collection may need to be performed. The data collection may include confirming the make, model and year as well as serial numbers of controllers, cabinets and any other major equipment related to the traffic signal scheduled maintenance. Street lighting assets found to not be represented or in existence in our reports and mapping will also need to be reported. The Contractor will provide asset inventory updates upon request by the City at no additional charge.



City of Coquitlam  
REQUEST FOR PROPOSALS  
RFP No. 14-01-05

**TRAFFIC SIGNAL AND STREET LIGHT MAINTENANCE SERVICES**

Proposals will be received on or before 2:00 pm local time on

**Friday, January 31, 2014**  
(Closing date and time)

**INSTRUCTIONS FOR PROPOSAL SUBMISSION**

Proposal Submissions are to be uploaded through QFile, the City’s file transfer service accessed at website: <http://qfile.coquitlam.ca/bid>

1. In the “Subject Field” enter: RFP Number and Name
2. Add files in .pdf format and Send  
(ensure you receive 2 emails from Qfile to confirm upload is complete)

If assistance is required phone 604-927-3060 or fax 604-927-3035.

**ATTACHMENT II - PROPOSAL SUBMISSION FORM**

Complete and return this Proposal Submission Form including the following appendices:

- Appendix A – Statement of Departures
- Appendix B – Proponent’s Experience, Reputation and Resources
- Appendix C – Proponent’s Technical Proposal
- Appendix D – Proponent’s Schedule 2 – Fees and Rates (from Attachment I)

The following appendices are attached for reference to be provided by the successful contractor at time of award:

- Appendix E – Certificate of Insurance Form
- Appendix F – Prime Contractor Designation Form

**Submitted by:** \_\_\_\_\_  
(Company Name)

**1.0 I/We, the undersigned duly authorized representative of the Proponent,** having received and carefully reviewed all of the RFP documents, including any issued addenda posted on the City Website, and having full knowledge of the Goods and Services required, and having complete understanding as to the intent, difficulties, facilities and local conditions to supply the Goods and perform the Services, submit this Proposal in response to the RFP.

**2.0 I/We confirm** having full knowledge that the City reserves the right to divide up the Goods and Services by type of work, or other basis as the City may decide, and to select one or more Preferred Proponents to enter into discussions with the City for one or more agreements to perform a portion or portions of the Goods and Services.

**3.0 I/We confirm** having full knowledge that the City considers the following combinations of delivery options as viable alternatives:

(1) Option 1 – All Traffic Signal Maintenance and Street Light Pole Replacements

This work entails all work orders related to scheduled and unscheduled traffic signal maintenance as well as work orders involving street light pole replacements, both scheduled and unscheduled.

(2) Option 2 – All Street Light Maintenance (except Street Light Pole Replacements)

This work entails all work orders related to scheduled and unscheduled street light maintenance excluding all work orders involving street light pole replacements.

(3) Option 3 – All of Option 1 and Option 2

This work entails all traffic signal and street light work as described in Schedule 1.

**4.0 I/We confirm** that the following attachments form a part of this Proposal submission:

- APPENDIX A: Statement of Departures;
- APPENDIX B: Proponent’s Experience, Reputation and Resources;
- APPENDIX C: Proponent’s Technical Proposal; and
- APPENDIX D: Proponent’s Schedule 2 – Fees and Rates (from Attachment I).

(a) **I/We confirm** that this proposal is accurate and true to best of my/our knowledge.

<b>Company Name</b>	
<b>Street Address</b>	
<b>City, Province &amp; Postal Code</b>	
<b>Tel No.</b>	
<b>E-mail</b>	
<b>GST Registration No.</b>	
<b>WorkSafeBC Account No.</b>	
<b>Name and Title</b> (please print)	
<b>Signature</b>	
<b>Date:</b>	

For the purpose of this RFP submission, electronic signatures will be accepted.

**5.0 Value Added Services**

Confirm what value added benefits would be provided to the City.

List any additional services and/or areas of expertise that the City may leverage over the term of the contract.

--

**6.0 Early Payment Discount**

Provide a percentage discount if invoice paid within a specified amount of days (otherwise Net 30 days from receipt of invoice)

**7.0 Sustainable Initiatives and Leadership**

Provide information on any corporate initiatives, programs and product choices that the Proponent has implemented that could be considered environmental, financial/economic, social/ethically sustainable value:

**8.0 Additional Information**

Provide additional information either in the space provided below, in this document, or as an attachment(s) with your Proposal, that is pertinent to this RFP and directly supports your submission.

**9.0 Addenda**

We acknowledge receipt of the following Addenda related to this RFP and have incorporated the information received in preparing this Proposal:

<b>Addendum No.</b>	<b>Date Issued</b>	<b>Date Received</b>

**APPENDIX A – STATEMENT OF DEPARTURES**

1. I/We have reviewed the proposed Agreement attached to the RFP as Attachment I. If requested by the City, I/we would be prepared to enter into that Agreement, amended by the following departures (list, if any):

2. As of the date of this Proposal, I/we advise that we have the ability to meet all of the above requirements **except as follows** (list, if any):

3. I/We offer the following alternates to improve the provision of the Goods and Services described in the RFP (list, if any):

The Proponent acknowledges that the Departures it has requested in Sections 1, 2 and 3 of this Appendix A will not form part of the Agreement until the City agrees to them in writing.

**APPENDIX B – PROPONENT’S EXPERIENCE, REPUTATION AND RESOURCES**

1. Corporate information:

<b>Head Office Location</b>	
<b>Local Branch Office Location</b>	
<b>Length of time (Years) in business</b>	

2. Relevant experience and qualifications for electrical traffic signal and street light maintenance, including approximate total volume of electrical traffic signal and street light maintenance work performed in Western Canada for the last five years:

<b>Year Started</b>	
<b>Year Completed</b>	
<b>Description of Contract</b>	
<b>Company</b>	
<b>Contact Person</b>	
<b>Telephone and Email</b>	
<b>Contract Value</b>	

<b>Year Started</b>	
<b>Year Completed</b>	
<b>Description of Contract</b>	
<b>Company</b>	
<b>Contact Person</b>	
<b>Telephone and Email</b>	
<b>Contract Value</b>	

<b>Year Started</b>	
<b>Year Completed</b>	
<b>Description of Contract</b>	
<b>Company</b>	
<b>Contact Person</b>	
<b>Telephone and Email</b>	
<b>Contract Value</b>	

3. State electrical installation/rectification/maintenance experience of key personnel. Refer to Attachment I, Schedule 4 for requirements.

Name	Position	Qualifications	Experience

- Attach resumes for Journeyman Electrician(s)

4. Equipment and vehicles used at the work site must be clearly identified. List Proponent’s vehicles and equipment which is owned or leased and would be used in providing the Services. Demonstration of the equipment and vehicles may be required and must comply in all respects with all applicable standards, requirements and governing regulations of CSA and the BC Motor Vehicle Act:

Equipment and Vehicles	Make / Model	Year



5. Provide information on the background and experience of all sub-contractors proposed to undertake a portion of the Goods and Services (use the spaces provided and/or attach additional pages, if necessary):

	<b>Description of Services</b>	<b>Sub-Contractors Name</b>	<b>Years of Working with Contractor</b>	<b>Telephone Number &amp; Email</b>
<b>1.</b>				
<b>2.</b>				
<b>3.</b>				

## **APPENDIX C – PROPONENT’S TECHNICAL PROPOSAL**

### **1. APPROACH & METHODOLOGY**

Generally describe your approach and methodology to provide the Goods and Services including specifications and requirements:

### **2. PERFORMANCE & SCHEDULE**

Describe how you will complete and manage the Goods and Services, and accomplish required objectives within the City’s schedule:

### **3. STANDARDS**

Describe the standards which will be met in providing the Goods and Services:

### **4. QUALITY MANAGEMENT SYSTEM (QMS)**

Describe your company’s experience with Quality Management Systems (QMS).

**APPENDIX D – PROPONENT’S FINANCIAL SUMMARY SHEET**

(Complete and Attach Schedule 2 – Fees and Rates)

**City of Coquitlam**  
**RFP No. 14-01-05 - Traffic Signal and Street Light Maintenance**

**APPENDIX D**

**SCHEDULE 2 - FEES AND RATES**

(All prices quoted shall Exclude GST)

\*Should there be any discrepancy in the information provided or submitted, the City's original file copy shall prevail\*

ITEM No.	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED AMOUNT
<b>TRAFFIC SIGNAL - ANNUAL PREVENTATIVE MAINTENANCE</b>					
<b>1.00</b>	<b>Major Maintenance: To supply everything including labour and equipment to meet the minimum requirements specified in Schedule 1, Sections 2.0 - 2.3 and Sections 2.6 - 2.10</b>				
1.01	Traffic Signal	Each	114		<b>\$0.00</b>
1.02	Pedestrian Signal	Each	24		<b>\$0.00</b>
1.03	Uninterruptible Power Supply Equipment	Each	69		<b>\$0.00</b>
1.04	Fire Signal	Each	4		<b>\$0.00</b>
1.05	Illuminated Pedestrian Crossing Sign	Each	18		<b>\$0.00</b>
1.06	Overhead Flashing Intersection Beacon	Each	3		<b>\$0.00</b>
1.07	Advance Warning Flasher	Each	22		<b>\$0.00</b>
1.08	Special Crosswalk	Each	6		<b>\$0.00</b>
<b>2.00</b>	<b>Minor Maintenance: To supply everything including labour and equipment to meet the minimum requirements specified in Schedule 1, Sections 2.4 - 2.5</b>				
2.01	Traffic Signal	Each	40		<b>\$0.00</b>
<b>TRAFFIC SIGNAL - UNSCHEDULED MAINTENANCE</b>					
<b>3.00</b>	<b>To supply everything including labour and equipment for traffic signal unscheduled unscheduled maintenance calls.</b>				
3.01	Primary Electrician with Bucket Truck	Hour	1,000		<b>\$0.00</b>
3.02	Secondary Electrician with Bucket Truck	Hour	1,000		<b>\$0.00</b>
3.03	Labourer with Pickup Truck	Hour	1,500		<b>\$0.00</b>
3.04	Labourer Only	Hour	200		<b>\$0.00</b>
3.05	Operator with Backhoe	Hour	1		<b>\$0.00</b>
3.06	Operator with Crane Truck	Hour	200		<b>\$0.00</b>
3.07	Specialty Truck, equipment and crew including jackhammer, compressor, concrete saw and compactor	Hour	1		<b>\$0.00</b>
3.08	Operator and Buffer Truck	Hour	500		<b>\$0.00</b>
3.09	Flagpersons	Hour	300		<b>\$0.00</b>
3.10	Supply and Install Inductance Loops	Each	60		<b>\$0.00</b>

**Name of Contractor:** \_\_\_\_\_

**City of Coquitlam**  
**RFP No. 14-01-05 - Traffic Signal and Street Light Maintenance**

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(All prices quoted shall Exclude GST)

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ITEM No.	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED AMOUNT
<b>4.00</b>	<b>To supply everything including labour and equipment for emergency unscheduled maintenance calls other than those specifically listed in this schedule <u>outside regular working hours.</u></b>				
4.01	Primary Electrician with Bucket Truck	Hour	200		<b>\$0.00</b>
4.02	Secondary Electrician with Bucket Truck	Hour	50		<b>\$0.00</b>
4.03	Labourer with Pickup Truck	Hour	50		<b>\$0.00</b>
4.04	Labourer Only	Hour	50		<b>\$0.00</b>
4.05	Operator with Backhoe	Hour	1		<b>\$0.00</b>
4.06	Operator with Crane Truck	Hour	100		<b>\$0.00</b>
4.07	Specialty Truck, equipment and crew including jackhammer, compressor, concrete saw and compactor	Hour	1		<b>\$0.00</b>
4.08	Operator and Buffer Truck	Hour	50		<b>\$0.00</b>
4.09	Flagpersons	Hour	100		<b>\$0.00</b>
4.10	Supply and Install Inductance Loops	Each	10		<b>\$0.00</b>
	<b>STREET LIGHT - ANNUAL PREVENTATIVE MAINTENANCE</b>				
<b>5.00</b>	<b>To supply everything including labiour, equipment and Goods to carry out street light preventative maintenance as specified in Schedule 1, Section 3.0 including replacement lamps.</b>				
5.01	100 Watt HPS	Each	700		<b>\$0.00</b>
5.02	150 Watt HPS	Each	700		<b>\$0.00</b>
5.03	250 Watt HPS	Each	50		<b>\$0.00</b>
5.04	400 Watt HPS	Each	50		<b>\$0.00</b>
5.05	100 Watt MH	Each	50		<b>\$0.00</b>
5.06	175 Watt MH	Each	50		<b>\$0.00</b>
5.07	250 Watt MH	Each	300		<b>\$0.00</b>
<b>6.00</b>	<b>To supply everything including labour, equipment and Goods to carry out pole painting specified in Schedule 1, Section 3.2</b>				
6.01	Street light pole less than 10.5m	Each	450		<b>\$0.00</b>
6.02	Street light pole greater than 10.5m	Each	100		<b>\$0.00</b>
6.03	Standard traffic signal or combination pole	Each	100		<b>\$0.00</b>
6.04	Secondary traffic signal pole	Each	50		<b>\$0.00</b>

**Name of Contractor:** \_\_\_\_\_

City of Coquitlam  
**RFP No. 14-01-05 - Traffic Signal and Street Light Maintenance**

**APPENDIX D**

**SCHEDULE 2 - FEES AND RATES**

(All prices quoted shall Exclude GST)

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ITEM NO.	DESCRIPTION	UNIT	QTY	UNIT PRICE	EXTENDED AMOUNT
<b>7.00</b>	<b>To supply everything including labour and equipment to carry out street light electrical service base prevenative maintenance as specified in Schedule 1, Section 3.1</b>				
7.01	Service Bases	Each	130		<b>\$0.00</b>
	<b>STREET LIGHT - UNSCHEDULED MAINTENANCE CALLS</b>				
<b>8.00</b>	<b>To supply everything including labour and equipment for street light unscheduled maintenance calls.</b>				
8.01	Primary Electrician with Bucket Truck	Hour	1,000		<b>\$0.00</b>
8.02	Secondary Electrician with Bucket Truck	Hour	1,000		<b>\$0.00</b>
8.03	Labourer with Pickup Truck	Hour	1,500		<b>\$0.00</b>
8.04	Labourer Only	Hour	200		<b>\$0.00</b>
8.05	Operator with Backhoe	Hour	1		<b>\$0.00</b>
8.06	Operator with Crane Truck	Hour	200		<b>\$0.00</b>
8.07	Specialty Truck, equipment and crew including jackhammer, compressor, concrete saw and compactor	Hour	1		<b>\$0.00</b>
8.08	Operator and Buffer Truck	Hour	500		<b>\$0.00</b>
8.09	Flagpersons	Hour	300		<b>\$0.00</b>
<b>9.00</b>	<b>To supply everything including labour and equipment for emergency street light unscheduled maintenance calls <u>outside regular working hours.</u></b>				
9.01	Primary Electrician with Bucket Truck	Hour	400		<b>\$0.00</b>
9.02	Secondary Electrician with Bucket Truck	Hour	10		<b>\$0.00</b>
9.03	Labourer with Pickup Truck	Hour	200		<b>\$0.00</b>
9.04	Labourer Only	Hour	1		<b>\$0.00</b>
9.05	Operator with Backhoe	Hour	250		<b>\$0.00</b>
9.06	Operator with Crane Truck	Hour	1		<b>\$0.00</b>
9.07	Specialty Truck, equipment and crew including jackhammer, compressor, concrete saw and compactor	Hour	25		<b>\$0.00</b>
9.08	Operator and Buffer Truck	Hour	10		<b>\$0.00</b>
9.09	Flagpersons	Hour	50		<b>\$0.00</b>
<b>(exclude GST) TOTAL</b>					<b>\$0.00</b>

**Name of Contractor:** \_\_\_\_\_

**APPENDIX E**

**Certificate of Insurance**

(Required at time of award)

**THIS FORM IS TO BE COMPLETED BY THE INSURANCE BROKER**

(A fillable form is also available for electronic completion on the City's website): [http://www.coquitlam.ca/Libraries/Coquitlam\\_Forms/Certificate\\_of\\_Insurance\\_-\\_Standard\\_Form.sfb.ashx](http://www.coquitlam.ca/Libraries/Coquitlam_Forms/Certificate_of_Insurance_-_Standard_Form.sfb.ashx)

This certifies that policies of insurance as described below have been issued to the Insured named below and are in full force and effect at this time. It is understood and agreed that **thirty (30) days' notice of cancellation** or reduction in applicable limit of any of the policies listed below, with the exception of ICBC, will be given to the holder of this certificate.

NOTE: **INSURANCE COMPANIES MUST BE LICENSED TO OPERATE IN BRITISH COLUMBIA.**

This Certificate is issued to: **City of Coquitlam**, 3000 Guildford Way, Coquitlam, BC V3B 7N2

<b>Insured</b>	<b>Name:</b>		
	<b>Address:</b>	<b>Email:</b>	<b>Phone:</b>

<b>Broker</b>	<b>Name:</b>		<b>Agent's Name:</b>
	<b>Address:</b>	<b>Email:</b>	<b>Phone:</b>

**Project to which this Certificate applies:**

<b>Contract No.: RFP No. 14-01-05</b>	<b>Project Name &amp; Description: Traffic Signal &amp; Street Light Maintenance Services</b>
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**COMMERCIAL GENERAL LIABILITY** coverage is required to insure against liability from the activities arising out of operations or work in connection with the above-described project, including liability arising out of the use of City property.

Type of Insurance	Insurer Name and Policy Number	Policy Term (dd/mm/yy)	Limits of Liability/Amounts
<b>Section 1: Commercial General Liability</b>		From:	Bodily Injury, Death & Property Damage
<input checked="" type="checkbox"/> Occurrence Form		To:	\$ _____ Per Occurrence
<input type="checkbox"/> Claims Made Form			<input checked="" type="checkbox"/> <b>MINIMUM \$5,000,000</b>
<input type="checkbox"/> Umbrella Liability		From:	\$ _____ Aggregate
		To:	\$ _____ Deductible
<input type="checkbox"/> Excess Liability		From:	\$ _____ Umbrella Limit
		To:	\$ _____ Excess Limit
<b>Section 2 Other:</b>		From:	\$ _____ Limit
		To:	\$ _____ Deductible

**Particulars of General Liability Insurance (Sections 1 & 2):  indicates that the coverage is included.**

- |  |  |   |
|--|--|---|
| <input checked="" type="checkbox"/> City of Coquitlam as Additional Insured    | <input checked="" type="checkbox"/> Coverage is Primary and not contributory   | <input type="checkbox"/> 12 months Completed Operations |
| <input checked="" type="checkbox"/> Premises & Operations                      | <input checked="" type="checkbox"/> Personal Injury  | <input type="checkbox"/> 24 months Completed Operations |
| <input checked="" type="checkbox"/> Broad Form Products & Completed Operations | <input type="checkbox"/> Use of explosives for blasting  | <input type="checkbox"/> Aircraft/Aviation Liability    |
| <input checked="" type="checkbox"/> Owners & Contractors Protective            | <input type="checkbox"/> Vibration from pile driving or caisson work   | <input type="checkbox"/> Non-owned aircraft liability   |
| <input checked="" type="checkbox"/> Blanket Contractual                        | <input type="checkbox"/> Removal or weakening of support of property, building or land whether support is natural or otherwise | <input type="checkbox"/> Watercraft liability           |
| <input checked="" type="checkbox"/> Unlicensed Automobile Liability            | <input type="checkbox"/> Water Ingress Coverage  | <input type="checkbox"/> Non-owned watercraft liability |
| <input checked="" type="checkbox"/> Cross Liability/Severability of Interests  | <input type="checkbox"/> Work below ground level over 3 meters (XCU extension)   | <input type="checkbox"/> Pollution Liability            |
| <input checked="" type="checkbox"/> Employees As Additional Insureds           |  | <input type="checkbox"/> Asbestos                       |
| <input checked="" type="checkbox"/> Non-Owned Automobile                       |  |   |
| <input checked="" type="checkbox"/> Attached Machinery                         |  |   |
| <input checked="" type="checkbox"/> Occurrence Property Damage                 |  |   |
| <input checked="" type="checkbox"/> Contingent Employer's Liability            |  |   |
| <input checked="" type="checkbox"/> Broad Form Loss of Use                     |  |   |

<b>Section 3: Automobile Liability</b> (owned or leased vehicles)	If insured by ICBC, attach a copy of the ICBC form APV-47	From:	Personal Injury & Property Damage
		To:	\$ _____ Limit
			<input checked="" type="checkbox"/> <b>MINIMUM \$2,000,000</b>

It is understood and agreed any deductible or reimbursement clause contained in the policy shall be the sole responsibility of the Named Insured.

\_\_\_\_\_  
**Broker Authorization (Signature & Stamp)**

\_\_\_\_\_  
Date

<b>INTERNAL USE ONLY</b>			
Certificate	<input type="checkbox"/>	Approved	<input type="checkbox"/> Not Approved

**COMPLETE & SUBMIT TO: CITY OF COQUITLAM**  
Email: [bid@coquitlam.ca](mailto:bid@coquitlam.ca)



**APPENDIX F**

**Prime Contractor Designation**  
(Required at time of Award)



**City of Coquitlam  
Prime Contractor Designation**

(A fillable form is also available for electronic completion on the City's website):

[http://www.coquitlam.ca/Libraries/Coquitlam\\_Forms/Prime\\_Contractor\\_Designation\\_Form.sflb.ashx](http://www.coquitlam.ca/Libraries/Coquitlam_Forms/Prime_Contractor_Designation_Form.sflb.ashx)

**Subject:** Prime Contractor Designation

**Contract / Permit #:** \_\_\_\_\_

**Project / Site Location:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ (the "Contractor") represents, acknowledges and agrees that:

(Company Name)

1. in accordance with section 118 of the Workers Compensation Act, R.S.B.C. 1996, c. 492 (the "Workers Compensation Act"), the Contractor shall be the "Prime Contractor" and is qualified to act as the "Prime Contractor" in respect of the Project ;
2. the Contractor accepts the duties and responsibilities for coordination of health and safety in accordance with the Workers Compensation Act and further agrees that it will do everything necessary to establish and maintain a system or process that will insure compliance with the Workers Compensation Act and the Regulations thereto;
3. the Contractor shall fulfill all the obligations of an "Owner" under section 119 of the Workers Compensation Act in respect of the Project site; and
4. that the City of Coquitlam has fulfilled its obligations as an "Owner" under section 119 of the Workers Compensation Act, in respect of the Project site.

**Prime Contractor Name:** \_\_\_\_\_

**Prime Contractor Address:** \_\_\_\_\_

\_\_\_\_\_  
**Prime Contractor Signature**

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
**Print Name**

Please return a signed copy of this memo to the City of Coquitlam, 3000 Guildford Way, Coquitlam, BC, V3B 7N2

If you have any questions, please contact the City of Coquitlam Health & Safety Advisor at 604-927-3068.