



Schedule C: Guidelines, Part II

Small Cells on Designated Street Lights

2024 July 29

IMPORTANT:

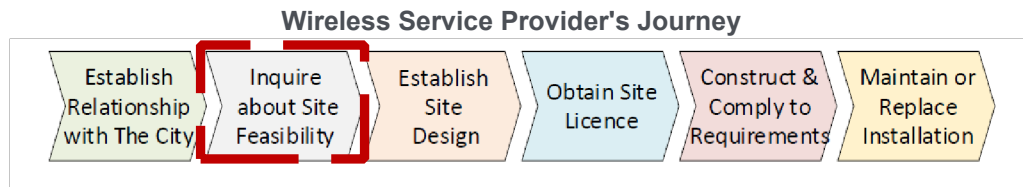
- For the most recent version, go to www.calgary.ca/development/street-lightsspecifications.html or www.calgary.ca/development/wireless-infrastructureaccess.html.
- This schedule is intended to be read with the Master Licence Agreement for Wireless Infrastructure.



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Version Updates	Description of Change
2021 May 10	<ol style="list-style-type: none"> 1) Amendments to 'Establish Site design': <ol style="list-style-type: none"> a) Section 1.I.(c). b) Additional Information - section A. c) Amendment to Access Box size and labelling. 2) Addition to 'Establish Site Design': Section II.3 and 1.II.4. 3) Amendment to 'Obtain a Site Licence: <ol style="list-style-type: none"> a) Section 1.b.3 4) Amendments to 'Construction and Comply to Requirements' <ol style="list-style-type: none"> a) Section 3.b
2021 July 08	<ol style="list-style-type: none"> 1) Street Light Communications Infrastructure Access Box Requirement: Conduit from the access box to the street light pole base shall be 32 mm – orange.
2024 May 22	<ol style="list-style-type: none"> 1) Grammatical and formatting changes throughout the document. 2) Updated hyperlinks and footnotes throughout the document. 3) Amendments to "Asset Classification: Designated Street Light Poles": <ol style="list-style-type: none"> a) Includes new terms "Conditionally Available – High Risk," "Under Review," and "Occupied." b) Revised definitions for existing asset classes. 4) Includes a new handhole identification tag provision (Page 14). 5) Amendment to 'Maintain or Replace Installation' <ol style="list-style-type: none"> a) Amendment to the remediation plan - section 4.2 (Page 28) 6) Amendment to CITY PROCESS 4.0: Administer Site Licence <ol style="list-style-type: none"> a) Total extension reduced from thirty-six (36) to twenty-four (24) months.

Approved WSP: Inquire about Site Feasibility



The Approved WSP will:

1. Complete the integrated site feasibility form, which may be obtained by visiting the [Wireless Infrastructure Deployment \(calgary.ca\)](https://www.calgary.ca/development/permits/antennas.html#need-permit) website. Also, please submit a KMZ file with each inquiry form; and
2. If applicable, the SLP Asset Steward will request the Approved WSP to submit a [Structural Analysis](#).

Additional Information

- A. CO-LOCATION: Unless a co-locate inquiry is submitted by Approved WSPs as a coordinated effort, any installations in progress must be constructed and inspected before the SLP Asset Steward will consider any requests for the co-location of Equipment. Co-location shall be considered at the discretion of the SLP Asset Steward on a case-by-case and first-come-first-serve basis.
- B. DON'T BE DELAYED: The Approved WSP is responsible for obtaining a concurrence letter which may be obtained by submitting an antenna application. For more information, go to [Antennas \(calgary.ca\)](https://www.calgary.ca/development/permits/antennas.html#need-permit)¹. The SLP Asset Steward will only issue a Site Licence to the Approved WSP if a concurrence letter is received.
- C. REMEMBER: The Approved WSPs are responsible for ensuring all electrical Equipment installed under Part 1 of the Canadian Electrical Code bears a certification mark or special inspection label that is recognized by the Standards Council of Canada. Also, that all installations shall meet or exceed all applicable structural standards, clearance standards, and provisions of the latest codes. In cases of conflict, the most stringent requirements shall prevail.
- D. THINKING AHEAD: A consultation on obtaining a Utility Alignment Permit may be requested. Standards are available on calgary.ca [Utility Alignment Permits](https://www.calgary.ca/development/permits/antennas.html#need-permit)². The Approved WSP should consider the following questions:
 - a. Is there sufficient backhaul and power for the proposed site(s)?; and
 - b. Have you reviewed JUMP records to determine if there is space for a backhaul build?
- E. CITY-OWNED FIBRE: The City licences its excess dark fibre. For a consultation or to learn more about accessing The City of Calgary's dark fibre, go to [Access The City of Calgary's dark fibre](https://www.calgary.ca/major-projects/dark-fibre.html?redirect=/darkfibre)³. Fibre enquiries may be initiated at any time.

¹ <https://www.calgary.ca/development/permits/antennas.html#need-permit>

² <https://www.calgary.ca/CS/IIS/Pages/Utility-Alignment-Permits/permits.aspx>

³ <https://www.calgary.ca/major-projects/dark-fibre.html?redirect=/darkfibre>

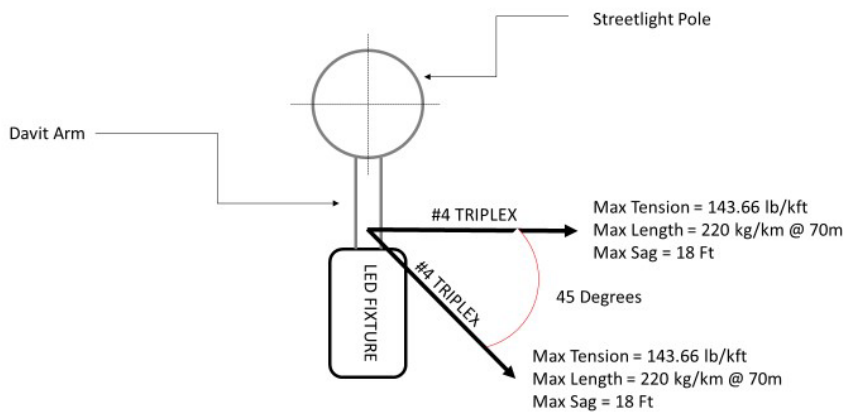
Structural Analysis

Any requirements or requests for a structural analysis will be treated as a design deviation. The SLP Asset Steward will request an Approved WSP to undertake a structural analysis. Please do not undertake a structural analysis without first consulting the SLP Asset Steward.

An acceptable analysis will include:

1. The latest wind values (i.e., CSA S6-19 ($q=554$ Pa) 1/25 Year, Calgary);
2. Two scenarios:
 - i. With a 45-degree (see diagram below) temporary overhead wire; or
 - ii. Without a temporary overhead wire;

City of Calgary Street Light Plan View (Not to Scale)



3. A relay which is mounted up to 6m on the pole. Weight: 10 kg. Width: 254 mm. Height: 203 mm. Depth: 152 mm;
4. Equipment;
5. Calculated base reactions;
6. Pole and base design drawings as obtained from the SLP Asset Steward;
7. Any other specifications (e.g., banners and signage) that may be unique to the pole.

The authenticated/stamped engineering report will be accepted as proof of structural loading compliance as it relates to an existing pole, provided the pole is in acceptable condition (e.g., no visible corrosion or damage).

Asset Classification: Designated Street Light Poles

Available	Conditionally Available	Conditionally Available – High Risk	Unavailable	Under Review	Occupied
<p>Not applicable</p>	<p>Galvanized steel single davit poles.</p> <p>Three heights are available:</p> <ol style="list-style-type: none"> 1. 9 metres 2. 12 metres 3. 15 metres. <p>Corten davit⁴ poles.</p> <p>Painted steel. 12m aluminum poles⁵.</p> <p>Poles with signage may not be suitable for Small Cell deployment. TCP shall determine, at its sole discretion, if it is possible for signage to be moved⁶.</p>	<p>A site that is at risk for relocation within the first 5 years of placement due to an upcoming City project.</p> <p>The Approved WSP will solely be responsible for any relocation costs.</p>	<p>20-metre galvanized poles are serviced by 480V and present issues. They require extensive detour setups and involve substantial traffic safety issues (e.g., high-traffic collisions may create circumstances where the Equipment becomes a projectile). As such, 20-metre galvanized poles are not available for Small Cell deployment.</p> <p>All other types of Designated Street Light Poles (e.g. residential decorative poles, poles on bridges, and other decorative poles) may be considered on a case-by-case basis at the discretion of the SLP Asset Steward.</p> <p>Generally, the following conditions will disqualify a site:</p> <ol style="list-style-type: none"> 1. Sites that do not comply with the Urban Design Guidelines⁷. 2. Designated Street Lights that have been previously declined due to preliminary or other urban design review. 	<p>A site with an existing wireless infrastructure deployment inquiry.</p>	<p>A site with existing wireless infrastructure deployed.</p>

⁴ The replacement or customization requirements for these poles are the financial responsibility of the Approved WSP.

⁵ 12m aluminum poles shall be replaced with 12m galvanized poles.

⁶ Costs incurred to move signage shall be the responsibility of the Approved WSP.

⁷ <https://www.calgary.ca/content/dam/www/cs/iis/documents/wireless-wid/Urban-Design-Guidelines-partIII.pdf>

CITY PROCESS 2.0: Assess Site Feasibility

The **Case Steward** will:

1. Endeavour to carry out the following activities within **five (5) calendar days** of receipt of the [Integrated Site Feasibility Form](#)⁸ and KMZ file from the Approved WSP:
 - (a) Review the Integrated Site Feasibility Form for completeness;
 - (b) Ensure the KMZ references the site(s) in the application;
 - (c) Assign an inquiry and file number;
 - (d) Update the status of the online map from 'Conditionally Available' to 'Under Review';
 - (e) Notify the Planning Technician to conduct an Urban Design review; and
 - (f) Notify the SLP Asset Steward to proceed if the form has been deemed complete by the Case Steward and Community Planning has deemed the site(s) 'Acceptable' or 'Acceptable with Conditions'.
2. Once reviewed by the SLP Asset Steward, provide the Approved WSP with the completed Integrated Site Feasibility Form.

Please Note: If any site is outside of a five (5) km area, it will be declined by the Case Steward. The Approved WSP may submit a new application.

The **SLP Asset Steward** will:

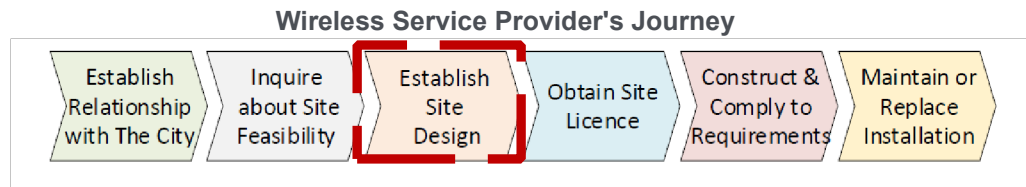
1. Within **fourteen (14) calendar days** (provided the ground is clear and there are no public weather alerts issued by Environment Canada) of notification from the Case Steward will endeavour to:
 - (a) Review the Integrated Site Feasibility Form;
 - (b) Inspect the SLP and complete the Integrated Site Feasibility Form;
 - (c) Engage impacted City stakeholders (e.g., Calgary Transit), where applicable;
 - (d) If requested by the Approved WSP, engage the TCP technician to determine if a sign may be removed. If required, the TCP Technician will engage any impacted City stakeholders (e.g., Calgary Parking Authority, Community Planning, etc.); and
 - (e) Provide the completed Integrated Site Feasibility Form to the Case Steward.

Please Note:

- If any site is outside of a five (5) km area, it will be declined by the SLP Asset Steward. The Approved WSP may submit a new application.
- Signage on poles in the city centre may have the following additional removal restrictions:
 - Removal of parking signs cannot negatively impact Calgary Parking Authority;
 - The relocation of signs to standalone signposts may create obstructions to pedestrian mobility, which need to be mitigated; and
 - Standalone signposts must maintain minimum separations to surface apertures.

⁸ <https://www.calgary.ca/content/dam/www/cs/iis/documents/wireless-wid/IntegratedSiteFeasibilityForm.xlsx>

Approved WSP: Establish Site Design



The **Approved WSP** will:

1. Notify the Case Steward that they wish to proceed by submitting an IFR design drawing to the Case Steward within **sixty (60) calendar days** from the date the Approved WSP receives the site feasibility decision. Only sites that have been assessed as feasible may be included.
 - I. IFR drawings shall:
 - (a) Comply with the Street Light Communications Infrastructure (see below);
 - **Please Note:** The inclusion of interpole conduit and aggregation boxes is not required unless it makes sense in consultation with The City.
 - (b) Reflect a weatherproofed design (i.e., weatherproof grommets shall be installed at all cable entry points); and
 - (c) Be submitted in PDF format in compliance with [Streetlight Standards for AutoCAD](#). Drawings representing the Approved WSP infrastructure and designated power are only required if requested by the SLP Asset Steward.
 - II. Power assessment (voltage drop) authenticated by a professional engineer in good standing with the Association of Professional Engineers and Geoscientists of Alberta (APEGA)
 - (a) The power assessment study must confirm sufficient capacity in existing street light circuits for the additional load.
 - **Please Note:** The Approved WSP will be required to reconfirm that the field conditions are the same between IFR and the time of construction.
 - (b) If the power assessment study finds that there is insufficient capacity for additional load and the Approved WSP wishes to proceed with the site, the Approved WSP shall visit [Get Connected \(enmax.com\)](#) to request a new commercial service.
 - (c) Voltage drop should be displayed on an export of street light data and on a title block.
 - (d) Prequalified consultants should use the SLP data. Do not contact ENMAX.
 - III. Documentation confirming that all site feasibility conditions have been addressed.
 - IV. Documentation confirming all signage (or other attachments) relocation requirements have been addressed, if any.
2. Plan to purchase Access Boxes from:
 - I. The City warehouse (recommended); or
 - II. Directly from The City's contracted vendor, provided that a label is affixed with the words 'City of Calgary Street Light Comms Access'. Please contact the SLP Asset Steward for the latest vendor contact information.

3. Direct [prequalified consultants](#)⁹ (prequalification is based on The City's standards) to submit [Utility Alignment Permits](#) on behalf of City Streetlights for the City-owned make ready work (i.e., conduit, base, access box).
 - **Please Note:** If an Access Box and the conduit from the Access Box to the pole are already in place, a new [Utility Alignment Permit](#) is not required.
4. Only retain [prequalified consultants and contractors](#) (prequalification is based on The City's standards). To determine if a consultant or contractor is qualified to work on the specific asset, please refer to the following lists located on calgary.ca:
 - I. [Prequalified Firms for Engineering and Architectural Consultants](#)¹⁰; and
 - II. [Prequalified Prime Contractor List](#)¹¹.
 - **Please Note:** If the Approved WSP's consultant or contractor is not currently qualified, please refer to calgary.ca to learn more about [prequalification](#)¹².
5. Comply with:
 - I. The Canadian Electrical Code;
 - II. [Standard Specifications for Street Light Construction](#)¹³; and
 - III. [Design Guidelines](#)¹⁴ for Street Lighting.

⁹ <https://www.calgary.ca/buy-sell/supply-to-city/prequalification.html?utm=SupplyHomepage>

¹⁰ <https://www.calgary.ca/buy-sell/supply-to-city/engineering-architecture.html>

¹¹ <https://www.calgary.ca/buy-sell/supply-to-city/prime-contractors.html>

¹² <https://www.calgary.ca/CA/fs/Pages/Bid-and-Vendor-Information/Prequalification.aspx>

¹³ <https://www.calgary.ca/content/dam/www/pda/pd/documents/urban-development/publications/streetlighting2006.pdf>

¹⁴ <https://www.calgary.ca/content/dam/www/transportation/roads/documents/traffic/traffic-signals-and-streetlights/design-guidelines-for-street-lighting.pdf>

Additional Information

- A. **CO-LOCATION:** Unless a co-locate inquiry is submitted by Approved WSPs as a coordinated effort, any installations in progress must be constructed and inspected before the SLP Asset Steward will consider any requests for the co-location of Equipment. Co-location shall be considered at the discretion of the SLP Asset Steward on a case-by-case and first-come-first-serve basis.
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¹⁵ <https://www.calgary.ca/development/permits/antennas.html#need-permit>

¹⁶ <https://www.calgary.ca/CS/IIIS/Pages/Utility-Alignment-Permits/permits.aspx>

¹⁷ <https://www.calgary.ca/major-projects/dark-fibre.html?redirect=/darkfibre>

Street Light Communications Infrastructure

The Street Light Communications Infrastructure is intended to be used solely for the purpose of bringing communication services to the SLPs.

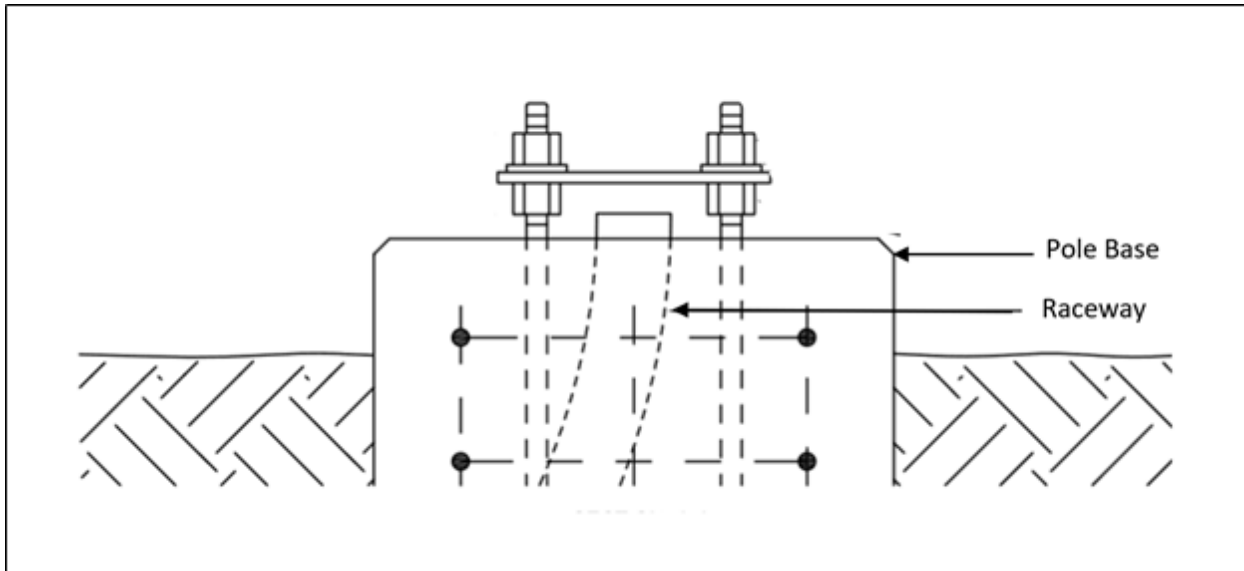
General Standards

1. Metering requirements are defined by Enmax Power Corporation:
 - I. Small Cell power can be unmetered (i.e., share the circuit with the street light)
 - Requires Site Licence inclusive of power.
 - Power to be paid by The City.
 - II. For billing purposes, a separate Site ID is required with different rate class D200 for Small Cell versus D500 for SLP.
 - Cannot share rate class.
 - III. Fifty (50) Small Cell nodes are allowed in one D200 rate class Site ID or 5000 kW.hs/month, whichever is lower.

2. Electrical Specifications & Voltage Drop Requirements
 - I. The Canadian Electrical Code dictates the voltage drop across a branch circuit cannot exceed three (3) percent and the voltage drop on a secondary cable cannot exceed two (2) percent.
 - II. Photo Electric Relays (PERs) in the downtown network have a capacity of 30A but the connected load shall not exceed eighty (80) percent or 24A.
 - III. Street light cabinets in the downtown network have a capacity of 100A but the connected load shall not exceed eighty (80) percent or 80A. It is unlikely to reach this threshold.
 - IV. Relays and cabinets in the downtown network require a service entrance rating of 100kA (Enmax Power Corporation requirement).
 - V. Installations outside of the downtown network area require a 15kA service entrance rating.
 - VI. All installations require a green electrical sticker.

Conduit Limitations

As illustrated below, the raceway is 100mm (4 inches) which will accommodate 3mm - 32mm. In a scenario with three (3) conduits, there will be no space to accept a fibre duct. Although a rare occurrence, this scenario applies to an estimated five (5) percent to ten (10) percent of all Pole Bases. Access to bases that have 3mm - 32mm existing conduits will require upgraded bases with a 152mm (6 inch) raceway.






Requirement	Existing development and power from the SLP	Existing development and power not from the SLP	New development or redevelopment
Custom design required	✗	✗	✓
Custom design for power required: <ul style="list-style-type: none"> - If the power does not come from the SLP, the Approved WSP will engage a prequalified designer (prequalifications are based on The City's standards) to design for the power required. The subsequent design will run both phases wherever possible. 	✗	✓	✗
Aggregation point¹⁸: <ul style="list-style-type: none"> - Only used as required and outlined in the custom design specifications. - Designed to accommodate multiple parties up to the physical capacity. - The aggregation point will be either 91cm x 61cm x 91cm or 76.2cm x 122cm x 91cm, depending on the site. The depth is 91cm. - There will be <u>no power</u> in the aggregation point. Communications conduit only. - The primary purpose is to pass through the aggregation point with slack loops and splicing done in the Approved WSP infrastructure. 	✗	✗	✓
Fibre (from the Access Box to the Equipment on the SLP) <ul style="list-style-type: none"> - Fibre cable that enters, passes through, or terminates into a City asset such as an Access Box, SLP, or aggregation box, will be subject to cable size restrictions. - Ideally between 6mm and 10mm. - All di-electric. - One cable per Approved WSP for each SLP¹⁹. 	✓	✓	✓

¹⁸ Also referred to as the demarcation point or large Access Box.

¹⁹ Co-location is an option, however, due to existing structural limitations, it is anticipated that only one Approved WSP will be located on a pole.

<p>Conduit from Approved WSP infrastructure to Access Box:</p> <ul style="list-style-type: none"> - Approved WSP conduit that enters, passes through, or terminates into a City asset, such as an Access Box, or aggregation box, will be subject to size restrictions. - One (1), 32 mm (max size and may be smaller) conduit. 	✓	✓	✓
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Requirement	Existing development and power from the SLP	Existing development and power not from the SLP	New development or redevelopment
<p>Interpole conduit²⁰:</p> <ul style="list-style-type: none"> - Interpole conduit can be owned by the Approved WSP or The City. - Approved WSP conduit that enters, passes through, or terminates into The City asset, such as an Access Box, or aggregation box, will be subject to size restrictions. - One (1) 32 mm conduit per Approved WSP for a maximum of four (4) 32 mm conduits. - Interpole conduit will require careful consideration of design and investment model. - Interpole conduit is not required for existing developments, however, it is an available option for collaborative builds or a City-led development. 	✓	✓	✓
<p>Handhole specifications for 9m, 12m and 15m galvanized SLPs:</p> <ul style="list-style-type: none"> - shall be compliant with the following specifications: <div style="display: flex; justify-content: space-around; margin: 10px 0;"> <div data-bbox="115 893 199 933" style="text-align: center;">  <small>454-2082-001.pdf</small> </div> <div data-bbox="262 893 346 933" style="text-align: center;">  <small>454-2082-003.pdf</small> </div> <div data-bbox="409 893 493 933" style="text-align: center;">  <small>454-2082-005.pdf</small> </div> </div> <ul style="list-style-type: none"> - For all other pole types, the Approved WSP is responsible for costs incurred by The City to provide custom electrical specifications. - The Approved WSP is responsible for attaching an identification tag inside the handhole (to the power feed of the small cell), indicating the following: <ul style="list-style-type: none"> - WSP File # - NOC Phone # - WID # - The City or its contractors shall have access to a “kill” switch to turn off the power to the Approved WSP Equipment for public safety or as part of any regular maintenance. 	✓	✓	✓

²⁰ Conduit between Access Boxes or from the aggregation point.

<ul style="list-style-type: none"> ○ The “kill” switch will come in the form of a 10a fuse located at the ground level inside the handhole of the SLP. <ul style="list-style-type: none"> ▪ This fuse must be labelled with a fuse tag indicating amperage. ○ Prequalified contractors (prequalifications are based on The City’s standards) will be able to pull the fuse to de-energize the SLP while work is conducted. 			
<p>Tracer wire (Access Box to Equipment on the SLP):</p> <ul style="list-style-type: none"> - Approved WSPs will design with tracer wire for their conduit locates so underground infrastructure may be located. - The tracer wire will be grounded at the Access Box. - Tracer wire from the Approved WSP will be brought into the Access Box and attached within the Access Box. 	✓	✓	✓
<p>Approved WSPs must meet Applicable Laws (see below).</p>	✓	✓	✓

Requirement	Existing development and power from the SLP	Existing development and power not from the SLP	New development or redevelopment
<p>Access Box</p> <ul style="list-style-type: none"> - The Access Box will be: <ul style="list-style-type: none"> o 41cm x 76cm x 61cm; o Located adjacent to the pole at ground level - flush with grade; o Road rated; o Accessible to all parties; and o Labeled as “CoC Street Light Comms Access.” - There will be <u>no power</u> in the conduit; communications conduit only. - Should the Approved WSP require a designated power feed, it cannot go through the Access Box. <ul style="list-style-type: none"> o If ENMAX-owned service cables go through the Access Box, only qualified utility employees will be able to access the box. Approved WSPs may have a termination splice within the box. <ul style="list-style-type: none"> ▪ The size of the splice case will be approved by the SLP Asset Steward. - Conduit from the access box to the street light pole base shall be 32 mm – orange. - Approved WSPs will provide the fibre optic splice case. - Slack management: <ul style="list-style-type: none"> o If no splice in the Access Box, one slack loop (approximately 1m) within the box. o With a small FOSC in the Access Box, max 10m slack loop on each cable. o All cables will be neatly coiled and racked within the Access Box. - Labeling standard: all cables in the Access Box must be tagged to identify the owner and cable identifier. - Drop cable may be either: <ul style="list-style-type: none"> o A pre-connectorized cable from the device to the Access Box where it can splice onto another cable; or o A continuous cable, no splice, that terminates in the Approved WSP infrastructure. 	✓	✓	✓

Applicable Laws

Applicable Laws include but are not limited to the following:

1. Safety Codes Act
2. Alberta Electrical Utility Code (AEUC) and adopted CSA standards, including:
 - a. CSA C22.3 No.1-2¹²² Overhead Systems
 - b. CSA C22.3 No.7-15 Underground Systems
 - c. CSA C22.3 No. 1-15 Overhead Lines
3. Alberta Occupational Health & Safety Act (OH&S)
4. Occupational Health and Safety Code Part 40: Utility Workers – Electrical
5. Labour Relations Code
6. Good Engineering Practice

Standards shall also include the following, where applicable:

1. CSA 22.1-18 Canadian Electrical Code
2. CSA C22.2 No. 41-13 Grounding and Bonding Equipment
3. CSA C83-96 (R2011) Communication and Power Line Hardware
4. Safety Code 6 (2009) Limits of Human Exposure to Radiofrequency Electromagnetic Energy in the Frequency Range from 3 kHz to 300 GHz; Government of Canada (also IEEE C95.1)
5. ICES-Gen - Issue 1 - July 2018 > General Requirements for Compliance of Interference-Causing Equipment
6. IEEE Std 81 IEEE Guide for Measuring Earth Resistivity, Ground Impedance, and Earth Surface Potentials of a Grounding System
7. CSA 015-05 Wood Utility Designated Street Lights and Reinforcing Stubs
8. CSA ISO/IEC 11801 Information technology — Generic cabling for customer premises

Technical:

1. [Standard Specifications for Street Light Construction](#)¹⁵
2. [Material Catalogue](#)¹⁶
3. [Design Guidelines for Street Lighting - Page 31 – Section 7.6](#)²³
4. [Design Symbols for Street Light Luminaires and Poles \(Feb. 2021\)](#).

Others include but are not limited to the following:

1. Municipal Rights-of-Way Bylaw 17M2016
2. Streets Bylaw
3. Traffic Bylaw

²¹ https://www.calgary.ca/PDA/pd/Documents/urban_development/publications/Streetlighting2006.pdf.

²² <https://www.calgary.ca/Transportation/Roads/Documents/Traffic/Traffic-signals-and-streetlights/Street-Lighting-MaterialCatalogue.pdf>

²³ <https://www.calgary.ca/Transportation/Roads/Documents/Traffic/Traffic-signals-and-streetlights/Design-Guidelines-For-StreetLighting.pdf>

4. Traffic Safety Act
5. Tree Protection Bylaw
6. Structure Pole Drawing Catalogue
7. Streetlight Standards for AutoCAD

CITY PROCESS 3.0: Review Site Design

The **Case Steward** will:

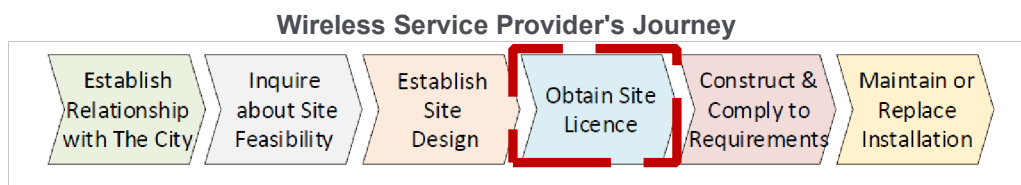
1. Close the file, notify the SLP Asset Steward, and update the SLP status on the online map from 'Under Review' to 'Conditionally Available' if the Approved WSP does not provide notification to proceed within **sixty (60) calendar days** from the date the Approved WSP received the site feasibility decision and conditions as set out by the SLP Asset Steward.
2. Endeavour to carry out the following activity within **five (5) calendar days** of receipt of the IFR design drawing:
 - (a) Review the submission for completeness; and
 - (b) Notify the SLP Asset Steward to proceed if the form is deemed complete by the Case Steward.
3. Provide the Approved WSP with the decision and conditions set out by the SLP Asset Steward.

The **SLP Asset Steward**, within **fourteen (14) calendar days** of receiving notification of IFR submission from the Case Steward, will endeavour to:

1. Review and update the IFR design drawing and related documentation with a decision and conditions, if any; and
2. If applicable, continue to engage the TCP Technician on signage removal and relocation.

Once all changes or comments from the SLP Asset Steward have been addressed, the Approved WSP may proceed to the next phase of the application process and submit a request to obtain a site licence.

Approved WSP: Obtain a Site Licence



The **Approved WSP** will:

1. Notify the Case Steward within **fourteen (14) calendar days** of the date of the decision if they wish to proceed with a Site Licence.
 - I. Email subject header: 'Obtain a Site Licence'
 - II. Email body:
 - (a) File number (e.g. 001-01-SLP) for each pole;
 - (b) High-level construction schedule (to the satisfaction of The City);
 - (c) Approved IFC must be submitted in MicroStation format and PDF format in compliance with Streetlight Standards for AutoCAD. This submission shall include street light infrastructure only unless otherwise requested by the SLP Asset Steward. The City will import the design into a geodatabase that is made available to Alberta One Call to accurately locate buried facilities before ground disturbance takes place.
 - (d) High-level maintenance plan and schedule (submitted at the beginning of each calendar year to the satisfaction of The City);
 - (e) Safety protocols (submitted at the beginning of each calendar year to the satisfaction of The City);
 - (f) Radiofrequency safety assurance letter;
 - (g) Updated power assessment study;
 - (h) Letter of concurrence;
 - (i) Confirmation of Utility Alignment Permit (if required); and
 - (j) Contact information:
 - WSP/Company Name:
 - Primary Contact Name:
 - Email:
 - Telephone No:

 - Secondary Contact Name:
 - Email:
 - Telephone No:
2. Email the Case Steward and SLP Asset Steward when requesting to amend the design (see [Maintain and replace installation](#)), undertake a Not Like-For-Like Replacement, or terminate the site licence.
 - I. Email subject header: 'amending the design' or 'not like-for-like replacement' or 'terminate site licence'

II. Email body:

(a) File number (e.g. 001-01-SLP) for each pole;

(b) Contact information

WSP/Company Name:

Primary Contact Name:

Email:

Telephone No:

Secondary Contact Name:

Email:

Telephone No:

3. If the request to terminate a site licence is received less than **six (6) calendar months** before the renewal date, the Approved WSP shall incur the annual site licence fee for the following year.
4. Unless otherwise negotiated (e.g. weather permitting or other limitations which might delay removal and restoration), the Approved WSP will complete the following before the expiry date of the Site Licence:
 - I. Remove the Equipment;
 - II. Remediate the site as per the remediation plan approved to the satisfaction of the SLP Asset Steward; and
 - III. Notify the SLP Asset Inspector once the site has been remediated.

Please Note:

- A. Approved WSPs are responsible for ensuring that all electrical Equipment installed under Part 1 of the Canadian Electrical Code bears a certification mark or special inspection label that is recognized by the Standards Council of Canada. Also, that all installations shall meet or exceed all applicable structural standards, clearance standards, and provisions of the latest codes. In cases of conflict, the most stringent requirements shall prevail.

CITY PROCESS 4.0: Administer Site Licence

The **Case Steward** will:

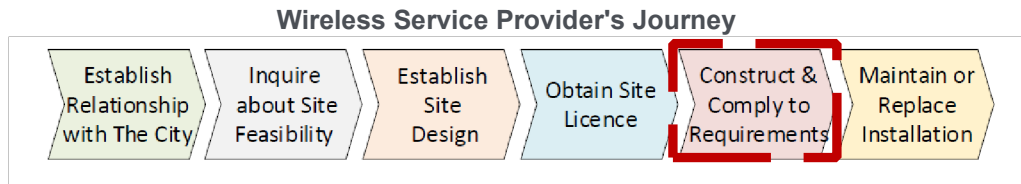
1. Close the file and notify the SLP Asset Steward if the Approved WSP does not provide notification to proceed within **fourteen (14) calendar days** from the date the Approved WSP receives the (IFR) site design decision approval and conditions.
2. Endeavour to issue a Site Licence within **fourteen (14) calendar days** of notification from the Approved WSP to proceed and upon receipt and approval of the following:
 - (a) File number (e.g. 001-01-SLP) for each pole;
 - (b) High-level construction schedule
 - (c) High-level maintenance plan and schedule;
 - (d) Safety protocols;
 - (e) Radiofrequency safety assurance letter;
 - (f) Approved IFC;
 - (g) Updated power assessment;
 - (h) Letter of concurrence;
 - (i) Confirmation of Utility Alignment Permit (if required); and
 - (j) Contact information.
3. Upon notification from the SLP Asset Steward that a:
 - (a) Site has been cancelled/declined, update the pole status on the online map from 'Under Review' to 'Conditionally Available' or 'Conditionally Available – High Risk'; or
 - (b) Site Licence has been issued, update the pole status on the online map from 'Under Review' to 'Occupied.'

The **SLP Asset Steward** will:

1. Notify the Approved WSP and Case Steward if a Site Licence is cancelled/declined by The City.
2. Where a Site Licence has expired or been terminated, the SLP Asset Inspector will inspect the SLP to verify the remediation has followed the remediation plan as approved to the satisfaction of the SLP Asset Steward.
3. Renew, amend, or terminate the Site Licence. Notify the Case Steward to update the SLP status on the online map.

4. On a case-by-case basis, approve up to a total of twenty-four (24) months to complete construction due to third-party (e.g. developer, City project, etc.) construction delays or Approved WSP materials or resourcing delays.
 - (a) If requested, the Approved WSP will provide proof of delay to The City.
 - (b) Each extension will not exceed twelve (12) months and is subject to another review by City of Calgary Street Lighting.
 - (c) The Approved WSP will continue to be responsible for Site Licence Fees regardless of the delay.

Approved WSP: Construct & Comply to Requirements



The **Approved WSP** will:

1. Within **ninety (90) calendar days** of the date the Site Licence is issued, submit a construction schedule, to the satisfaction of The City, for approval by the SLP Asset Inspector prior to starting construction. The Approved WSP will be required to reconfirm that the loading conditions (power assessment) are the same between the IFC and the time of construction.
2. During construction:
 - I. Stop construction and contact the SLP Asset Inspector to obtain approval for any deviations:
 - (a) As approved at the time the Site Licence was issued; and
 - (b) Defined by the Utility Alignment Permit and in compliance with the setback guidelines set out in [Section 7.6 of the Street Light Design Guidelines](#).
 - II. Comply with all [Utility Alignment Permit](#) requirements as changes from time to time, including but not limited to:
 - (a) Ensuring that the latest construction schedule is uploaded to [CROWM](#);
 - (b) Observing and maintaining the standards and procedures as set out in the Temporary Traffic Control Manual;
 - (c) Ensuring the site is in the same condition as found;
 - (d) Repairing damage to the pole, and if required, pay for the cost to install a new pole; and
 - (e) Provide The City with **ten (10) calendar days** notice prior to starting work if The City is conducting an inspection.
3. Upon construction completion:
 - I. Notify the SLP Asset Inspector within **seven (7) calendar days** of construction completion.
 - II. Fill out and submit a [non-metered request form](#) to WID-StreetLighting@calgary.ca which will be reviewed for accuracy, forwarded to siteid@enmax.com, and used to calculate the annual power fees. This is not applicable where a new power feed is required.

- III. Notify the SLP Asset Inspector within **seven (7) calendar days** of completing landscaping.¹⁸
 - IV. Provide a two-year workmanship guarantee for all landscaping;
 - V. Remove debris, fencing, equipment, signage, and return the site to its original condition within seven (7) calendar days of construction completion and seven (7) calendar days of landscaping completion; and
 - VI. Within ninety (90) calendar days, submit As-Built Drawings for each installation to the SLP Asset Inspector as follows:
 - (a) all drawings must be signed and stamped (physical or digital) by a prequalified consultant (prequalifications are based on The City's standards); and
 - (b) a copy of the email notice from CROWM confirming the construction completion date (only in cases where a Utility Alignment Permit was required).
4. Upon notification from the SLP Asset Inspector of inspection completion, resolve any deficiency within the specified resolution period and notify the SLP Asset Inspector.
 5. Only retain prequalified consultants and contractors (prequalifications are based on The City's standards). To determine if a consultant or contractor is qualified to work on the specific asset, please refer to the following lists located on calgary.ca:
 - o [Prequalified Firms for Engineering and Architectural Consultants](#)¹⁹
 - o [Prequalified Prime Contractor List](#)²⁰

If the Approved WSP's consultant or contractor is not qualified, please refer to calgary.ca to learn more about [prequalification](#)²¹.

Additional Information

REMEMBER: The Approved WSP is responsible for ensuring all electrical Equipment installed under Part 1 of the Canadian Electrical Code bears a certification mark or special inspection label that is recognized by the Standards Council of Canada. All installations shall meet or exceed all applicable structural standards, clearance standards, and provisions of the latest codes. In case of conflict, the most stringent requirements shall prevail.

¹⁸ Wherever possible landscaping must be complete within the current construction year or by June 30 of the following year.

¹⁹ <https://www.calgary.ca/content/dam/www/ca/fs/documents/bid-and-vendor-information/prequalified-engineering-architectural-consultants.pdf>

²⁰ <https://www.calgary.ca/CA/fs/Documents/Bid-and-Vendor-Information/PrequalifiedContractors.pdf>

²¹ <https://www.calgary.ca/CA/fs/Pages/Bid-and-Vendor-Information/Prequalification.aspx>

CITY PROCESS 5.0: Monitor for compliance

The **SLP Asset Steward** will determine if a deviation request must return to the 'Establish Site Design' stage and if an amendment to the Site Licence is required.

The **SLP Asset Inspector** will:

1. Within thirty (30) calendar days of receiving the As-Built Drawings, endeavour to conduct a post-construction inspection which includes:
 - (a) Reviewing the IFC drawings and As-Built Drawings to confirm compliance with the current [Standard Specifications for Street Light Construction](#)²²;
 - (b) Providing a list of deficiencies and required remediation with a specified time frame;
 - (c) Reviewing and checking the physical SLPs with the As-Built Drawings (including the notes);
 - (d) Ensuring there are no site location deviations;
 - (e) Ensuring any overhead wires have been removed (if applicable);
 - (f) Opening the handhole on each pole and examining the electrical connections against the most current [Standard Specifications for Street Light Construction](#)²³; and Street Light Communications Infrastructure standards;
 - (g) Testing the circuit and all luminaires on the circuit when the lights are on at night; and
 - (h) Inspecting landscaping for compliance against the current [Standard Specifications for Street Light Construction](#)²⁴. If the date of construction completion is different from the date of landscaping completion, two inspections shall be conducted.

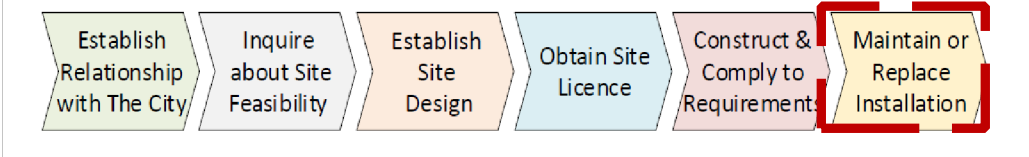
²² https://www.calgary.ca/PDA/pd/Documents/urban_development/publications/Streetlighting2006.pdf.

²³ https://www.calgary.ca/PDA/pd/Documents/urban_development/publications/Streetlighting2006.pdf.

²⁴ https://www.calgary.ca/PDA/pd/Documents/urban_development/publications/Streetlighting2006.pdf.

Approved WSP: Maintain or Replace Installation

Wireless Service Provider's Journey



The Approved WSP will:

1. On the same day of any Planned Maintenance, provide an email notification to the SLP Asset Steward as follows:
 - I. Subject header: 'Planned Maintenance'
 - II. Email body:
 - (a) File number (e.g. 001-01-SLP) for each pole;
 - (b) Expected start and expected finish date for each pole; and
 - (c) Contact information
 - WSP/Company Name:
 - Primary Contact Name:
 - Email:
 - Telephone No:

 - Secondary Contact Name:
 - Email:
 - Telephone No:

Approval is not required. The Approved WSP may proceed.

2. On the same day of any Like-For Like Replacement, the Approved WSP will provide an email notification to the SLP Asset Steward as follows:
 - I. Email subject header: 'Like-For-Like Replacement'
 - II. Email body:
 - (a) File number (e.g. 001-01-SLP) for each pole;
 - (b) Expected start and expected finish date for each pole; and
 - (c) Contact information
 - WSP/Company Name:
 - Primary Contact Name:
 - Email:
 - Telephone No:

 - Secondary Contact Name:
 - Email:
 - Telephone No:

Approval is not required. The Approved WSP may proceed.

3. For any Not Like-For-Like Replacement, the Approved WSP will proceed as follows:
- I. If size or weight are increasing, go to [Establish Site Design](#).
 - II. If mounting height increases and / or requires new holes drilled into the pole, go to [Establish Site Design](#).
 - III. For all other changes to the As-Built Drawings, approval is not required. The Approved WSP will provide an email notification to the SLP Asset Steward on the **same day** as the Not Like-For-Like Replacement as follows:
 - (a) Email subject header: 'Not Like-For-Like Replacement'
 - (b) Email body:
 - i. File number (e.g. 001-01-SLP) for each pole;
 - ii. Expected start and expected finish for each pole;
 - iii. A brief description (e.g. changing the internals of the device or changing mounting the mechanism) of what is changing; and
 - iv. Contact information
WSP/Company Name:
Primary Contact Name:
Email:
Telephone No:

Secondary Contact Name:
Email:
Telephone No:

Please Note: any requirements to update or amend the concurrence letter are the responsibility of the Approved WSP.

4. In situations where The City has requested the Approved WSP to relocate Equipment, within **seven (7) calendar days** of notification, the Approved WSP will provide email notification to the SLP Asset Steward as follows:
- (a) Email subject header: Relocation and File Number (e.g. 001-01-SLP)
 - (b) Email body:
 - i. File number (e.g. 001-01-SLP) for each pole;
 - ii. Remediation plan, to the satisfaction of the SLP Asset Steward;
 1. File number (e.g., 001-01-SLP)
 2. High-level plan to relocate the equipment within the time period set out in Schedule "G"
 - iii. Contact information
WSP/Company Name:
Primary Contact Name:
Email:
Telephone No:

Secondary Contact Name:

Email:

Telephone No:

Approval is required. The Approved WSP will wait for a response from the SLP Asset Steward before proceeding.

Please Note:

If the WSP plans to relocate a small cell on the same property, return to '[Establish Site Design.](#)' If the WSP plans to relocate a small cell to a new property, return to '[Inquire about Site Feasibility.](#)' Any requirements to update or amend the concurrence letter is the responsibility of the Approved WSP. The WSP is required to apply for a new Utility Alignment Permit.

Additional Information

REMEMBER: The Approved WSPs are responsible for ensuring all electrical Equipment installed under Part 1 of the Canadian Electrical Code bears a certification mark or special inspection label that is recognized by the Standards Council of Canada. Also, that all installations shall meet or exceed all applicable structural standards, clearance standards, and provisions of the latest codes. In cases of conflict, the most stringent requirements shall prevail.

CITY PROCESS 6.0: Provide Access for Maintenance or Replacement

The **Case Steward** will:

1. Upon notification from the SLP Asset Steward of site relocation, update the online map.

The **SLP Asset Steward** will:

1. Require all pre-qualified vendors working on the designated SLP to:
 - (a) Turn off power to the Equipment prior to conducting regular maintenance activities; and
 - (b) Turn on power to the Equipment upon completion of regular maintenance activities.
2. Retain a passive Planned Maintenance and Like-For-Like Replacement log.
3. Provide a notification, in accordance with Schedule “G,” to the Approved WSP of any planned construction requiring relocation.
4. Review Calgary 3-1-1 service or City Claims Division requests, investigate for safety issues, and determine the required remediation up to and including the immediate removal of a pole.
5. If The City is required to remove Equipment, the SLP Asset Steward will work with ENMAX Trouble²⁴, when practical, to contact the relevant Approved WSP’s Network Operations Centre (NOC). In these cases:
 - (a) The NOC shall be provided the option to attend the scene and remove the Approved WSP’s Equipment; or
 - (b) The SLP Asset Steward shall remove the Approved WSP’s equipment, and endeavour to hold it for **fourteen (14) calendar days** from the date of notification to the NOC. If the NOC does not retrieve the Equipment, the SLP Asset Steward shall dispose of the Equipment and restore the site at the expense (including storage costs) of the Approved WSP. The SLP Asset Steward and ENMAX Trouble are not responsible for any damage to the Approved WSP’s equipment.

²⁴ ENMAX Trouble is a division of the ENMAX Power Corporation (EPC). When ENMAX Trouble is deployed, an assessment is completed. If safety issues are identified, immediate action shall be taken to remove the impacted pole(s). To preserve structural integrity, if there is damage incurred on a pole with Approved WSP Equipment, the pole shall be automatically replaced. Typically, automatic replacement only occurs where there are dents on two of eight faces (or worse) on the pole.