



City of Calgary Street Lighting Division
MEMO: Street Light Design Updates
Aug 2022

Important resources:

- [Street light resources for developers and consultants \(calgary.ca\)](#)
 - ***NEW*** “Wireless Infrastructure – Safety Protocols – General”
 - ***NEW*** “Wireless Infrastructure – Safety Protocols – Technical Staff”
 - ***NEW*** “Pageantry Lighting Site License”

- [Calgary Approvals Coordination bulletins](#)
 - **“Design Guidelines for Subdivision Servicing (DGSS) – Interim Updated Cross Sections”**
 - ***The City of Calgary only supports placing street light wire in the URD on residential road classifications. For any other road classifications, street light wire must be placed in a single party line assignment unless otherwise approved by the Quadrant Technician.**
 - **Proposed cross sections must be submitted with street light design for review by Quadrant Technician. If an alternate cross section is being proposed, approval from Transportation Development Services (TDS) must be provided.**

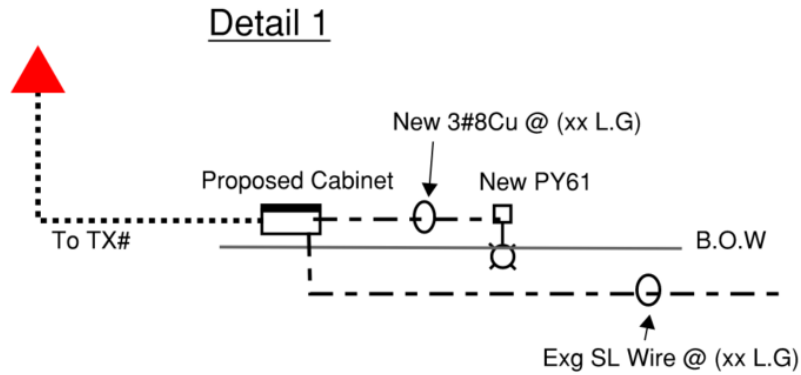
Street Light Design Updates:

- **TraceID** – with the introduction of Wireless Infrastructure mounted to street light poles, The City of Calgary has been required to provide 24/7 power to all circuits that have a Wireless attachment. To accomplish this, Street Lighting has been directing consultants to include installation of photocells on each individual street light and shorting caps on Photo Electric Relays. This orientation creates a normally closed circuit and 24/7 power to street lights in Calgary. Similarly, for street lights controlled by a cabinet, the photocell needs to be disconnected.
 - **Consequence:** Affected circuits no longer have group control which limits circuit tracing and maintenance abilities to confirm how lights are connected & controlled in the field.
 - **Solution:** TraceID is a pre-existing GIS feature which allows street light assets to be correlated to each other in the street light database. This provides designers the ability to view which lights are connected to a relay should there be inaccuracies in how street light wire is represented in City records. A basic example is shown below, and it is expected that designers submitting street light designs to The City begin to implement TraceID for all designs not yet started.



- TraceID must follow the format of PER-P1 (P2..etc for multiple relays), CAB-C1 (C2..etc) at the power source and Trace-P1, Trace-C1 at the lights. This nomenclature has been selected intentionally as to not be mistaken with pre-existing GIS codes.
 - PEC Symbol shall be added to every light that a photo cell will be installed on.
- **Drafting Updates**
 - **Drawing Scales**
 - i. Subdivisions: 1:500
 - ii. Signals: 1:250
 - **Date of Inspection** – provided in title block as the date a field visit was conducted to confirm existing conditions and accuracy of proposed design
 - **Transformer numbers** are to be provided on proposed design (when available)
 - **Drawing Colors:**
 - i. Red – Removal
 - ii. Black – New
 - iii. Magenta – Change
 - iv. Gray – Existing, no change
 - **Provide “Power Supply”** symbology for all power supplies within project limits.

- **Detail Views** – for drawing elements work important details such as alignments are not visible, provide a separate viewport on drawing with a “zoomed-in” view of that area. Example Below.
 - Details may be requested from Quadrant Technicians if drawing elements are unclear



- **Line Weights** – only street light assets should be bolded. All other drawing elements such as transformers, catch basins, property lines, etc. shall be light gray as per City drafting standards.
- **MPLA vs ULA** – identify ULA number on drawing and indicate either single party line assignment or multi-party line assignment
- **SFTP Password Resets** – Contact Amber.Kwak@calgary.ca
- **KTK Fuses** – due to available fault currents in the downtown network, all 30A Photo Electric Relays must be fused in the handhole with a KTK 600Vac fast acting fuse rated at 100kA. [Bussmann series KTK supplemental fuse data sheet No. 1011 \(eaton.com\)](#) (or equivalent)

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