ELECTRICAL REQUIREMENTS

Any calculations shall use the nominal voltage value of 230/400 Volts. All street light connections shall be balanced across the phases of the supply network.

The value of current draw to be used for cable size calculations and selection of circuit protection devices is to be based on the total rated load of each luminaire installed, including electronic losses, power factor, harmonics and inrush current.

Minimum cable sizes and insulation types are indicated in the drawings SL03 and SL05.

Provide larger separate earth cables where the integral earth conductor is not sufficient size to meet earth fault loop impedance requirements.

Preferred types and values of protection equipment are shown on associated standard drawings. Cable sizes shall be checked for each proposed project for the following criteria:

i. Continuous current rating as per section 3 of AS 3008.
ii. Limitation of voltage drop as per section 4 of AS 3008.
iii. Short circuit performance as per section 5 of AS 3008.
iv. Earth loop impedance as per appendix B of AS 3000.

Residual current devices (RCDs) shall not be installed for streetlight final subcircuits, in accordance with AS3000 2.6.3.2.1 exception 5 and Ipswich City Council risk assessment.

Select overcurrent/short circuit protective devices in accordance with AS3000 to suit electrical load, prospective short circuit current and earth fault loop impedance.

Any changes in direction of conduit shall use a sweeping bend.

Provide pits for reticulation of electrical services as necessary. Pits shall be provided adjacent to poles to provide cable tee–off joints and at junctions and where conduit reticulation change direction. Generally, space the pits at maximum 50m intervals in local roads. This spacing may be greater in outer urban or rural subdivisions. Provide pit drainage to stormwater system or where not practicable to rubble pits.

ELECTRICAL ENERGISATION REQUIREMENTS

The Ipswich City Council as of July 2017 uses the Stanwell Corporation as the electricity retailer.

Queries regarding connection of street light should be directed to the following email address:
Rate3StreetLights@ipswich.qld.gov.au

PROJECT DESIGN REQUIREMENTS

4.5m outreach arms size shall not be used for minor road installation. 4.5m outreach arms shall be permitted for major road lighting installation.

Where a project is to be constructed in more than one stage then the same style of equipment must be installed across all stages of the same project.

Where a project has been constructed then the same style of equipment must be installed across all subsequent stages of the same constructed project.

In urban developments, each street light shall be supplied directly from the nearest Energex point of supply (i.e. LV pillar) unless approved by ICC. Multiple street lights fed from one supply will only be considered where there are no LV pillars. The number of street lights connected to a point of supply shall be determined by the designer based on the unique installation conditions that may be present.

ICC preference for developments with large frontages and significant distance between service pillar & streetlight locations is to supply multiple street lights from a main switchboard. Where an ICC MSB is utilized, a No.4 cable pit (with junction box, unfused) shall be located within 3mtrs of the base of each streetlight. Pits shall be aligned 125mm from property alignment (to ensure footpaths are not impacted).

HD conduits to be aligned at 870mm from property alignment. A maximum of 3 x 90 degree large radius sweep bends shall be used.

Provide durable and clearly visible permanently fixed weather proof Energex label to all rate 3 streetlights. Label shall be green back with white lettering "ICC3" to indicate a rate 3 Ipswich City Council site. Label shall be affixed on the light pole above the Energex site ID label. Refer Energex Public Lighting Manual for ID location.

Provide durable traffolyte label inside pole access hatch with words to the effect of :"WARNING RCD PROTECTION NOT INSTALLED".

Provide durable Energex type weather resistant permanently fixed 50mm high label to all ICC MSBs. Label shall be green back with white lettering with the MSB asset number, e.g. "ICC MSB XXXXXXXX" where XXXXXXXX is the service pillar supplying the MSB. Confirm asset numbering with ICC prior to installation.

Lighting supplied directly from the overhead network shall remain Rate 2.

PROJECT DOCUMENTATION REQUIREMENTS

Update all project documentation to be accurate and up to date for the as built installation.

All street light project documentation shall be provided in an agreed electronic format. The agreed electronic format shall allow the electronic transfer of all geospatial and all database information to the Ipswich City Council.

The unmetered rate 3 street light information shall also be made available to the distribution network service provider.

Provide full tabulated equipment schedules for streetlights, cables and equipment for the project.

All project documentation shall reference the following:

- ICC Public Lighting Standard Drawings (SL series)
- ICC Planning Scheme Policy
- Energex Public Lighting: Standard Conditions for Public Lighting Services
- Qld Public Lighting Design Manual (RED00767)
- Qld Public Lighting Construction Manual (RED00796)
- AS/NZS3000 Wiring Rules
- AS/NZS1158 Lighting for Roads & Public Spaces
- Manufacturer's installation requirements

Completion of the construction certificate for streetlights is required for the Ipswich City Council.

REVISIONS

	AMENDMENT	INITIALS	DATE		AMENDMENT	INITIALS	DATE
F				L			
E				K			
D				J			
C	RPEQ SIGN OFF	TM	16/05/18	I			
B	RPEQ SIGN OFF	TM	16/03/18	H			
A	*DRAFT – NOT ISSUED*	SGL	23/6/17	G			

IPSWICH CITY COUNCIL
P.O. Box 191 Ipswich QLD 4305 Australia
Telephone: (07) 3810 6666
Website: www.ipswichplanning.com.au

STANDARD DRAWING

RATE 3 PUBLIC LIGHTING ELECTRICAL PROJECT DOCUMENTATION AND DESIGN REQUIREMENTS

LIGHTING

SL.02

REV: C | DRAWER: 100