

THE CORPORATION OF THE CITY OF WINDSOR POLICY

Service Area:	Office of the City Engineer	Policy No.:	
Department:	Public Works - Operations	Approval Date:	April 2021
Division:	Traffic Operations	Approved By:	
		Effective Date:	April 2021
Subject:	Street Lighting Policy	Procedure Ref.:	
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1. **POLICY**

1.1 The Corporation of the City of Windsor (“City”) is committed to outline effective policy for street lighting as it relates to lighting levels, installation of decorative fixtures, safety concerns, replacement of fixtures, and request for improved lighting through Local Improvements and capital projects for residential and commercial areas.

2. **PURPOSE**

- 2.1** To ensure consistency and uniformity for the existing and future street lighting design and installation throughout the city.
- 2.2** To ensure the policies of the City’s Official Plan are followed.
- 2.3** To provide a consistent approach for the selection, installation, maintenance, and replacement of decorative street and/or pedestrian light fixtures.
- 2.4** To ensure that city streets and rights-of-way are illuminated to the City’s standard lighting levels (most current revision of ANSI/IESNA RP-8).
- 2.5** To ensure streetlight funding is for the installation, maintenance, and replacement of street lighting and associated infrastructure within roadways.
- 2.6** To ensure that City approved lighting equipment is utilized.

3. **SCOPE**

- 3.1** This policy applies to any City of Windsor Department approving, certifying, designing, installing and/or maintaining streetlights and associated infrastructure within the roadway.
- 3.2** Other applicable policies are the Local Improvement Policy and the Alleyway Lighting Policy.

4. **RESPONSIBILITY**

- 4.1 City Council** is responsible for:
 - 4.1.1** The final approval and any amendments of the Street Lighting Policy.
 - 4.1.2** The approval of funding to continue to maintain and

improve the citywide street lighting system.

4.2 Standing Committees are responsible for:

- 4.2.1 Reviewing and recommending the Street Lighting Policy and any amendments to City Council for approval.

4.3 The Chief Administrative Officer (CAO) is responsible for:

- 4.3.1 Providing approval of the Street Lighting Policy and any amendments thereto, and associated reports and sending these to the Standing Committee.
- 4.3.2 Supporting the Street Lighting Policy including providing guidance and/or direction on issues that may arise.

4.4 Corporate Leadership Team (CLT) is responsible for:

- 4.4.1 Providing approval of the development of the Street Lighting Policy and any amendments thereto and associated reports prior to sending these to the CAO for approval.
- 4.4.2 Supporting Street Lighting Policy including providing guidance and/or direction on issues that may arise.

4.5 City Engineer, Manager or Supervisor is responsible for:

- 4.5.1 Reviewing the Street Lighting Policy to determine whether updates are required.
- 4.5.2 Consult with relevant stakeholders.
- 4.5.3 Forward the proposed policy and accompanying report to the CLT for approval.
- 4.5.4 Overseeing the street lighting portfolio including budget, selection, installation, maintenance, replacement and capital projects for the streetlight system.
- 4.5.5 Supporting Street Lighting Policy including providing guidance and/or direction on issues that may arise.
- 4.5.6 Payment of invoices for related to street lighting (i.e. maintenance).

4.6 Engineer II (Engineering Department) is responsible for:

- 4.6.1 Managing requests for lighting through the Local Improvement process

4.7 Engineer I (Operations Department) is responsible for:

- 4.7.1 Overseeing the daily operations of the street lighting portfolio.
- 4.7.2 Communicating any changes or issues related to street lighting, which may include new technology, request for lighting for Capital projects.
- 4.7.3 Maintaining and updating service requirements for the street lighting.
- 4.7.4 Overseeing street lighting capital projects.
- 4.7.5 Reviewing and approving street lighting levels and electrical designs related to street lighting.

4.8 City Planner, Manager or Supervisor is responsible for:

- 4.8.1 Reviewing the Street Lighting Policy to determine whether updates are required.
- 4.8.2 Ensuring that the budget for streetscaping projects that result in the

- installation of decorative lights is in accordance with 5.3.6.
- 4.8.3 Consult with relevant stakeholders about the selection of Decorative Fixtures and Pedestrian Fixtures.
 - 4.8.4 In conjunction with the City Engineer Forward the proposed policy and accompanying report to the CLT for approval.
 - 4.8.5 Supporting Street Lighting Policy including providing guidance and/or direction on issues that may arise.

4.9 Subdivision Planner is responsible for:

- 4.9.1 Implementing this policy through the review and approval of subdivisions.

5. GOVERNING RULES AND REGULATIONS

5.1 DEFINITIONS

- 5.1.1 **ANSI/IESNA RP-8** – is short form for American National Standard Institute/Illuminating Engineering Society of North America with RP-8 as the American National Standard Practice for Roadway Lighting, last amended in 2014.
- 5.1.2 **BIAs** – is a Business Improvement Area as described by the *Municipal Act, 2001*.
- 5.1.3 **City Engineer**-means the City's City Engineer from time to time or their designate
- 5.1.4 **City Planner**-means the City's City Planner from time to time or their designate
- 5.1.5 **Civic Ways** - are municipal roads that are defined as a "Civic Way" on Schedule G: Civic Image of the City's Official Plan.
- 5.1.6 **Colour Temperature** – All standard street lighting is to have a colour temperature of 4000k unless otherwise directed by the City Engineer or designate. All new decorative light fixtures are to have a colour temperature of 3000k or less.
- 5.1.7 **Decorative Fixture** – consists of the pole, light fixture, mast arm, bracket and associated wiring.
- 5.1.8 **Developer** – is the individual, group or entity that undertakes the development of land, which may include all of the associated activities to prepare and service the land for construction.
- 5.1.9 **Fixture** – is the light source used to provide lighting for the roadway.
- 5.1.10 **Heritage Area** – an area or neighbourhood that is identified in the City's Official Plan as a "heritage area" or an area or neighbourhood that has been designated under the *Ontario Heritage Act*.
- 5.1.11 **LED Fixture** – is a streetlight fixture that utilizes light emitting diode technology.
- 5.1.12 **Lighting Levels** – The amount of light measured on a roadway with a photometric device.
- 5.1.13 **Mainstreet** – are municipal roads that are defined as a "Mainstreet" on Schedule G: Civic Image of the City's Official Plan.
- 5.1.14 **New Residential Area** – a residential area where streetlights will be installed after April 19, 2021.
- 5.1.15 **Pedestrian Lighting** – Any lighting designed to illuminate the

sidewalk/walkway. A pedestrian fixture is usually decorative in nature and can be attached to the streetlight pole over hanging the sidewalk/walkway or on its own pole.

5.1.16 Photocell or Shorting Cap – Photocell is a light sensory control device that turns on or off a fixture. Shorting Caps are mainly associated with fixtures on EC Row, which are connected to a master photocell(s).

5.1.17 Pole – is any wooden, steel or concrete structure, which may or may not have a fixture attached to it and is connected by wire for the operation of the street lighting system. Poles can be either city-owned poles or poles owned by other utilities, mainly EnWin Utilities. There are approximately 16,000 city-owned poles.

5.1.18 Residential Area – is an area of the city that consists mostly of residential dwellings units.

5.1.19 Standard Street Lighting – consist of the approved 30 foot gray concrete pole, NXT style roadway fixture, elliptical mast arm, bracket and associated wiring.

5.1.20 Street Lighting System –in Windsor is composed of approximately 24,000 streetlight fixtures, the associated wiring, poles, controls, meters, transformers, conduits and photocells/shorting caps.

5.2 LIGHTING LEVELS

5.2.1 Lighting levels for city roadways are to meet ANSI/IESNA RP-8 as approved by CR 146/2015 for all new construction or installation of streetlight fixtures and poles. The glare factor **for decorative poles only** may be exempt from the lighting calculation results in order to keep with the existing height and spacing of poles within a residential area.

5.2.2 Lighting levels for all roadways with existing poles that are less than required lighting levels as outlined in ANSI/IESNA RP-8 will be updated to the current standard at the time of replacement.

5.3 USE OF DECORATIVE FIXTURES

5.3.1 Decorative fixtures are generally reserved for installation on Mainstreets, Civic Ways, and Heritage Areas.

5.3.2 Decorative fixtures may be considered for installation in Residential Areas and New Residential Areas.

5.3.3 Decorative fixtures may be selected based on the area/location they are installed;

5.3.2.1 Heritage Area areas may have decorative fixtures. The fixture will be selected based on consultation between the residents, City Planner and City Engineer

5.3.2.2 Mainstreets and Civic Ways may have decorative fixtures. The fixture will be selected based on consultation between the City Planner and the City Engineer.

5.3.2.3 Residential areas may have decorative fixtures, where agreed upon by the City Planner and City Engineer. The fixture must be selected from the list of the City's approved fixture list.

5.3.4 Decorative fixtures may be installed in New Residential Areas

where the cost of street lighting is included with the cost of developing the lands. However, when an existing Residential Area would like to upgrade the street lighting to decorative fixtures, the costs of such lighting will be allocated in accordance with the provisions of the Local Improvement Policy. A minimum of one (1) block is required to be upgraded.

5.3.5 Capital budgets for projects that include Decorative Fixtures shall include the replacement costs for a minimum of (4) full component replacement for the Decorative Fixture assembly.

5.3.6 For New Residential Areas developers are required to pay for the initial installation of street lighting, standard or decorative. Developers that choose to install decorative lighting shall provide the City an additional 100% of the cost of one (1) full replacement cycle of the decorative lighting. The funds shall be placed into a reserve account to be utilized for street lighting maintenance or future replacement of the decorative lights. After funding has been exhausted, the City will take responsibility of the maintenance of such decorative street lights.

5.4 DESIGN AND INSTALLATION OF STREET LIGHTING FOR ROADWAYS

5.4.1 All new design for street lighting of city roadways must meet ANSI/IESNA RP-8.

5.4.2 All designs must utilize LED fixtures. Fixture types are to be from pre-approved list or additional approval is required from City Engineer.

5.4.3 Designs shall consider pedestrian traffic, location of sidewalks, location of existing or proposed driveways/egresses.

5.4.4 Photometrics of the streetlight design must be submitted and approved by City Engineer prior to any installation.

5.4.5 As-builts which are to include the serial number of each fixture installed are to be submitted to the City Engineer prior to EnWin connection.

5.5 REQUEST FOR NEW OR IMPROVEMENT STREET LIGHTING ON EXISTING ROADWAYS

5.5.1 Funding for new or improved street lighting on expressway, arterial and collector roadways will be through the City's Capital budget.

5.5.2 To request street lighting on roadway without any lighting, property owners are required to follow the Local Improvement Policy.

5.5.3 To request decorative street lighting on a roadway with existing standard lighting, property owners are required to follow the Local Improvement Policy.

5.5.4 As part of a road rehabilitation project, allowances are to be made to improve the street lighting to city standards and to improve the street lighting infrastructures (i.e. poles, wiring, etc.) where street lighting currently exists.

5.6 REQUEST FOR ALLEY LIGHTING

5.6.1 To request lighting in alleys without any lighting, property owners are required to follow the Local Improvement Policy.

5.6.2 Alley lighting levels are not required to meet the uniformity

requirements of ANSI RP-8, however average levels shall be required to meet local/residential levels in the area of the light.

5.7 REQUEST FOR LIGHTING DUE TO SAFETY CONCERNS

- 5.7.1** In special circumstances, lighting may be installed to deter criminal activities. A history of previous criminal activities must be confirmed by Windsor Police Services, who recommend that lighting will assist with crime deterrence, prior to the installation of lighting. This lighting shall be approved by the City Engineer and will be funded from the City's capital budget.
- 5.7.2** There may be requests to light walkways to deter criminal activities and to promote safe travel areas. Each request will be reviewed on its merit and if approved, will be funded by other means (i.e. ward fund) unless directed by the City Engineer.

5.8 . REPLACEMENT OF EXISTING LIGHTING DUE TO END OF LIFE OR FAILURE

- 5.8.1** Standard street lighting will be replaced with the City's current standard concrete poles, luminaires, mast arms and brackets in accordance with 5.7.2., 5.7.3., and 5.7.4..
- 5.8.2** If two or less lights in consecutive spacing are to be replaced at the same time, a like for like replacement of the fixture size, type and wattage shall be utilized. These replacements shall be coordinated and paid for through the City's operating budget.
- 5.8.3** If more than two lights in consecutive spacing are to be replaced at the same time, a lighting calculation shall be performed to ensure the correct size, type and wattage are used to complete the replacement. These replacements shall be coordinated through the City's capital budgets and shall be scheduled based on available budgets. Emergency replacements shall be made temporarily where required.
- 5.8.4** Non-LED Luminaires shall be replaced with LED. Where an area is still non-LED, a minimum of 1 block or four (4) luminaires in a row (whichever is less) shall be replaced with LED in order to maintain consistency of lighting.
- 5.8.5** Where decorative fixtures are to be replaced, similar decorative fixtures shall be utilized as per the following;
 - 5.7.5.1** In Heritage Areas, existing decorative fixtures shall be replaced with similar make and model if available from the original manufacturer in accordance with 5.7.2., 5.7.3., and 5.7.4. Where the similar make and model are no longer available, the City shall select the closest replacement in size, colour, material, and distribution, etc. and that shall be the new decorative fixture standard moving forward.
 - 5.7.5.2** In Heritage Areas, if residents prefer an alternative fixture, or wish to attempt to re-furbish the existing lighting, this may be considered through the Local Improvement Process. The costs funded in accordance with the Local Improvement Process should be limited to the difference between the costs for the City's recommended alternative and the refurbishment or another alternative. Alternative

fixture selection must be agreed upon by the City Planner and City Engineer.

- 5.7.5.3** In Mainstreets and Civic Ways, existing decorative lighting shall be replaced with similar make and model if available from the original manufacturer in accordance with 5.7.2, 5.7.3., and 5.7.4. Where the similar make and model are no longer available, the City shall select the closest replacement in size, colour, material, and distribution, etc. and that shall be the new decorative lighting standard moving forward
- 5.7.5.4** The City Planner and City Engineer will ensure that the budget for capital projects that result in the installation of decorative fixtures in Mainstreets and Civic Ways includes additional funding consistent with 5.3.6.
- 5.7.5.5** In Residential Areas with existing decorative fixtures, where individual replacements are required streetlights shall be replaced with similar make and model if available from the original manufacturer in accordance with 5.7.2, 5.7.3., and 5.7.4. Where the similar make and model are no longer available, the City shall select the closest replacement in size, colour, material, and distribution, etc.
- 5.7.5.6** In Residential Areas with existing decorative fixtures that have reached the end of life and large scale replacements are required, street lights shall be replaced with the City's current approved decorative pole and luminaire.

5.8 FESTIVAL/HOLIDAY LIGHTING

- 5.8.1** Holiday/Festival lighting may be attached to streetlight poles. Requests will be reviewed with input from other departments, i.e. Planning, Development, Projects and ROW. All funding for the installation, general maintenance and energy of festive/holiday lighting is to come from other sources unless otherwise directed.

5.9 PEDESTRIAN LIGHTING

- 5.9.2** Pedestrian lighting may be installed in specific areas, i.e. BIAs or high pedestrian generators. The street lighting levels will be calculated separate from the pedestrian lighting levels. The street lighting must meet ANSI/IESNA RP-8 requirements without including the pedestrian lighting. Any installation of pedestrian lighting is to be through a capital project.
- 5.9.3** The fixture will be selected in consultation between the City Planner and the City Engineer.

6 RECORDS, FORMS AND ATTACHMENTS

- 6.1.1** All records in relation to this policy will be kept in accordance with *Records Retention By-Law 21-2013*.