STREET LIGHTING

City of Greenville

Procedure Title:	Effective Date: April 15, 2011	
Interim Greenville Street Lighting Standard	**Version:** B ☐ Original Version ☒ Replaces Version A Dated: April 15, 2011	**Issuing Department/ Division** Public Works / Engineering
		Approved By: Wesley B. Anderson Director of Public Works

PURPOSE

The Public Works Department is presently developing standards for lighting City streets and parking lots. **SEC. 9-5-120 STREET LIGHTS (PUBLIC)** of the City Code states "that Street lights shall be provided at such locations as approved by the City and shall be installed and maintained by the Greenville Utilities Commission in accordance with current policy. (Ord. No. 1941, § 1, passed 1-12-1989)." Presently the City does not have written standards for the policy Greenville Utilities currently uses when developing street light plans for either developers or the City. This document converts current Greenville Utilities practice into a written policy. The policy is in effect until it is replaced by a City Council approved final streetlight standard.

SCOPE

This standard applies to all new or reconstructed public streets in the City.

PROCEDURE

1. Public Works upon City Council acceptance of a Street for City maintenance with street lights on it already will notify GUC to change those streetlights from its present account to the City's account.
2. Public Works upon City Council acceptance of a Street for City maintenance without street lights will request GUC to install streetlights per this policy. GUC will install streetlights as soon as possible after Public Works approves the lighting plan.
3. The following is the standard the City and Greenville Utilities will use for installing street lights.

a. **Street light spacing is determined by the lamp type used on a street.**

All street intersections will have a streetlight and the following spacing will be used along the street. Adjustments can be made for drive entrances, property lines, storm drains or other obstructions.

(1) Thoroughfares:

- 250 watt High Pressure Sodium (HPS) Cobra Heads nominal spacing will be 125 feet apart.
- 150 watt HPS Cobra Heads nominal spacing will be 100 feet apart
- 150 watt HPS Black Decorative Lantern nominal spacing will be 90 feet apart
- 150 watt HPS Decorative Drop Acorn (Brook Valley Light) nominal spacing will be 100' apart

(2) Collectors/Residential

- 150 watt HPS – nominal spacing will not exceed 300 feet.

b. **Poles:**

The lighting pole shall be designed in accordance with the "Standard Specifications for Structural Supports for Highway Signs, Luminaries and Traffic Signals", by the American Association of State Highway and Transportation Officials (AASHTO), latest edition. They shall meet wind load standards for 110 mph wind zone per the 2001 AASHTO Wind Zone map.

1. All residential lighting shall be mounted on poles that are provided in the following table (Non-Standard Support Structures/Lighting). The use of wood poles or GUC electric poles is permissible upon City Engineer's approval.
2. All thoroughfare lighting shall be mounted on twenty-five (25) foot or 35 foot concrete poles or twenty-four (24) foot aluminum poles. The use of wood poles or GUC electric poles is permissible upon City Engineer's approval.

3. All City parking lot lighting shall be mounted on any pole that does not exceed forty (40) feet in height. Streetlights may be mounted to GUC electric poles.
4. All poles shall be identical along an entire continuous street or throughout all residential and residential collector public streets in a subdivision.

Non-Standard Support Structures/Lighting:

The poles provided in the table below are poles that are currently installed and in stock at the Greenville Utilities Commission. If a developer would like to install a pole type different from the poles provided they will need approval from Greenville Utilities and the City Engineer.

Standard Street Light Poles

GUC Stock #	Material	Description	Height	Example Model	Residential	Industrial / Commercial
207750	Aluminum	Pole, Black	24'	Valmont #190845604TEB	X	X
204010	Aluminum	Pole, Silver	30'	Valmont #27084580GT4		X
203950	Concrete	Pole, Class B/C	35'	-Stresscrete #E-350-C-PR-G-MOD -Stresscrete #E-350-B-PR-G-MOD		X
208970	Concrete	Pole, Black Octagon	25'	Stresscrete #KCH20-G-S11C/W140(20/30)	X	X
208972	Aluminum	Arm, Scroll per Acorn Drop Fixture	6'	King Luminarie #KA30-T-6 scroll arm	X	X
209980	Aluminum	Pole, Antique Green Fluted	17'	Hadco #XP-2560-17G HR Verde Green	X	X

(3) Foundations:

Aluminum or Steel Pole foundation location requirements:

Pole locations in general should be kept as far away from the roadways as possible and shall be located behind existing barrier or guard rails where possible, or shall have foundations built into barrier or retaining wall where feasible.

Minimum pole setback requirements from back of curb or edge of traveled pavement to the face of the pole shall be as follows:

Typical areas where barrier curb is used is in dense urban areas or on bridges

Pole Type	Behind Barrier Curb	Without Barrier Curb
Frangible	2 Ft.	12 Ft.
Non-Frangible	6 Ft.	17 Ft.

Decorative Ornamental Pole direct buried location requirements:
Direct bury poles shall be located two (2) ft. behind the adjacent curb.

(4) Luminaires:

All luminaries shall have Type II distribution optics, unless otherwise approved, conforming to the patterns specified in 2.3.2.1 of the American Standard Practice for Roadway Lighting. Such luminaires shall have medium distribution as specified in 2.2.2 and semi-cutoff as specified in 2.4.2 of the American Standard Practice for Roadway Lighting.

The specific luminaires to be used in a particular location will be determined by the following:

1. Standard street light fixtures shall meet the following requirements: This establishes a boundary of bulb brightness used in residential areas to keep brighter bulbs from becoming a public nuisance.

    a. All fixtures on residential streets shall be either 8,500 to 14,000 lumen lamps.
    b. All fixtures along thoroughfares shall be 23,000 to 45,000 lumen lamps. The 14,000 to 23,000 lumen fixtures shall be placed along thoroughfares in residential areas when spillover from the 45,000 lumen fixtures would be excessive.
    c. All fixtures used for City parking lot lighting shall be 8,500 to 45,000 lumen lamps.

Standard Luminaires

GUC Stock #	Wattage	Description	Color	Lumens	Type	Input Volt.	Bulb Type	PE Volts	Dist.	Cutoff	Included Acc.
206570	150	Decorative Lantern	Black	14,000	HPS	120	S-55	120	Type II	Medium Semi	Dec. Ladder Rest

204080	250	Cobra	Grey	23,000	HPS	120	S-50	120	Type II	Medium Semi	
205850	150	Open	None	14,000	HPS	120	S-55	120	Type III	None	Terminal Board
205770	150	Cobra	Grey	14,000	HPS	120	S-55	120	Type II	Medium Semi	
207660	400	Flood	Bronze	45,000	HPS	120	S-51	120	7H x 6V	None	Yoke Mount
204030	100	Open	None	8,500	HPS	240	S-54	120	Type V	None	24" Arm, Terminal Board
208590	400	Flood	Bronze	40,000	MH	120	M-59	120	7H x 6V	None	Yoke Mount
208600	400	Cobra	Grey	45,000	MH	120	M-59	120	Type III	Medium Semi	
208971	150	Decorative Drop Acorn	Black	14,000	HPS	120	S-55	120	Type III	Semi	

HPS- High Pressure Sodium - A sodium vapor lamp is a gas discharge lamp which uses sodium in an excited state to produce light. It produces a pink-orange colored light.

MH- Metal Halide - A high-intensity discharge (HID) lamp that uses mercury and several halide additives as light-producing elements. It produces a white light.

e. **Exceptions to this Policy:**

i. Requests for exception to policy for pole and luminaries that are not listed in this policy will be directed to GUC. GUC will coordinate all requests for exception with the City.

ii. Requests for exception to policy for spacing or subdivision uniformity will be sent to the City Engineer for review and approval by the Director of Public Works.