

MONTGOMERY COUNTY, MARYLAND
DEPARTMENT OF TRANSPORTATION (MCDOT)
DIVISION OF TRAFFIC ENGINEERING AND OPERATIONS

JUNE 2016

**STREETLIGHT INSTALLATION GUIDELINES
UNDERGROUND DISTRIBUTION**

Policy LTG-2

General Notes

1. All materials shall be per MCDOT specifications
2. All streetlight plans shall be reviewed and approved by MCDOT prior to construction
3. All lights shall be energized by the utility company and made functional prior to County-acceptance of the project

Residential Areas

- A) Single Family Land Use - roadways 36' or less.
 - 1) Luminaires - equipped with a photocell
 - a) Colonial post top (Type III distribution)
 - b) Decorative "Washington Globe" post top (Type III distribution)
 - 2) Posts - 12' to 16' above ground, direct burial, black or grey fiberglass
 - 3) Lamps – All LED
 - a. PEPCO area - 70 watt HPS equivalent LED (mid-block) and 100 watt HPS equivalent LED at intersections and specially designated areas as approved by DTEO.
 - b. BG&E and Allegheny Power areas - 100 watt HPS equivalent LED as approved by DTEO
 - 4) Lateral Placement
 - a. Streetlights at intersections shall be placed two feet (2') from the back of the curb or a minimum of six feet (6') from the edge of pavement in open section roadways.
 - b. Streetlights throughout a subdivision shall be placed one foot (1') in front (street side) of the sidewalk and 10 feet (10') minimum from the edge of pavement/curb, or as directed by the Engineer on open or closed section tertiary, secondary, or primary residential roadways.
 - 5) Longitudinal Spacing
 - a. High density (19,999 Sq. Ft. or less lots) -- 175' maximum alternate arrangement desirable, using property lines whenever possible, and using opposite arrangement for divided roadways.

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- b. Low density (20,000 Sq. Ft. or greater lots) -- 300' maximum alternate arrangement using property line where possible and using opposite arrangement for divided roadways.
- 6) General Installation Guidelines
 - a) Provide appropriate streetlight at intersection with an existing roadway. Use existing utility poles if available.
 - b) Install the first streetlight a maximum of one half of the specified longitudinal spacing from intersection.
 - c) Streetlights should be oriented towards the major road at T-type intersections and at four-way stop intersections.
 - d) Maintain the following minimum clearance distances; five feet (5') from driveways, inlets, storm drains, and fire hydrants, water, gas, electric and sewer lines; Fifteen feet (15') from trees.
- B) Multi-Family Land Use - roadways up to 36' wide (see Commercial/Industrial for roadways wider than 36')
 - 1) Luminaire – All LED, equipped with a photocell
 - a) Colonial post top (Type III distribution)
 - b) Cobra (Type III distribution), cut-off [flat glass]
 - c) Rectilinear (Type III distribution), decorative bronze - PEPCO area
 - d) Residential decorative (Washington Globe - Type III distribution), decorative green
 - 2) Post
 - a. For luminaire a) - 12' to 16' above ground, black or grey fiberglass, direct burial.
 - b. For luminaire b) - 26' pendant aluminum post, concrete footing or screw base required.
 - c. For luminaire c) - 25' round, galvanized steel or aluminum, bronze coated pole, concrete footing or screw base required.
 - d. For luminaire d) - 12' cast iron or cast aluminum with 17" pedestal (concrete footings are required for this style post).
 - 3) Lamp – All LED
 - a) For luminaire a) or d) - 100 – 150 watt, HPS equivalent LED
 - b) For luminaire b) - 100 to 250 watt, HPS equivalent LED
 - c) For luminaire c) - 150 to 250 watt, HPS equivalent LED
 - 4) Lateral Placement for luminaire a), b), c) or d) - Streetlights at intersections shall be placed two feet (2') from the back of the curb or a minimum of six feet (6') from the edge of pavement in open or closed section roadways. Streetlights throughout a subdivision shall be placed one foot (1') in front of the sidewalk on open or closed section tertiary, secondary, or primary residential roadways. Streetlights shall be placed one foot (1') behind the sidewalk and/or one foot (1')

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in front of the property line on open or closed section master plan arterial or higher roadways.

- 5) Longitudinal Spacing - 150' maximum alternate arrangement desirable.
 - 6) General Installation Guidelines - Provide appropriate streetlight at intersection with an existing roadway. Use existing utility poles if available. Install the first streetlight a maximum of one half the specified longitudinal spacing from intersection. Streetlights should be oriented towards the major road at T-type intersections and at four-way stop intersections. Maintain the following clearance minimum distances:
 - a) Five foot (5') from driveways, inlets, storm drains, and fire hydrants, water, gas, electric and sewer lines
 - b) Fifteen foot (15') from trees.
- C) Public Maintained Land (pathways)
- 1) Luminaires - equipped with a photocell
 - a) Colonial post top (Type III distribution)
 - b) Decorative "Washington Globe" post top (Type III distribution)
 - 2) Posts
 - a. For luminaire a) - 12' to 16' above ground, direct burial, black or grey fiberglass.
 - b. For luminaire b) - 12' cast iron or cast aluminum with 17" pedestal (footings are required for this style post).
 - 3) Lamps
 - a. PEPCO area - 70 watt HPS equivalent LED (mid-block) and 100 watt HPS equivalent LED at intersections and specially designated areas as approved by DTEO.
 - b. BG&E and Allegheny Power areas - 100 watt HPS equivalent LED as approved by DTEO
 - 4) Lateral Placement - Streetlights shall be placed two feet (2') from the edge of pavement.
 - 5) Longitudinal Spacing - 75' maximum alternate arrangement desirable, using property lines whenever possible
 - 6) General Installation Guidelines
 - a) Provide appropriate streetlight at intersection with an existing roadway. Use existing utility poles if available.
 - b) Install the first streetlight a maximum of one half of the specified longitudinal spacing from intersection.
 - c) Streetlights should be oriented towards the road at T-type intersections and at four-way stop intersections.
 - d) Maintain the following minimum clearance distances; Five feet (5') from driveways, inlets, storm drains, and fire hydrants, water, gas, electric and

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sewer lines; Fifteen feet (15') from trees.

Commercial and Industrial Areas - includes multi-family land use on roadways wider than 36'

- 1) Luminaires - equipped with a photocell
 - a. Cobra (Type III distribution), cut-off [flat glass]
 - b. Rectilinear (Type III distribution), decorative bronze – PEPCO region only.
 - c. Rectilinear (rectangular) (Type III distribution), decorative bronze - furnished, installed and energized by utility company. Potomac Edison and BG&E regions.
- 2) Posts
 - a. For luminaire a): 26' spun aluminum pendant style, concrete footing or screw base preferred (direct burial may be allowed in special circumstances.) *
 - b. For luminaire b): 25' to 40' galvanized steel or aluminum, bronze coated pole
 - c. For luminaire c): 25' or 30', square steel pole, bronze colored pole, screw base mounted.
- 3) Lamps
 - a. For luminaire a): 100-250 watt HPS equivalent LED with photoelectric control on each pole.
 - b. For luminaire b): 100-250 watt HPS equivalent LED
 - c. For luminaire c): 100 - 200 watt HPS equivalent LED
- 4) Lateral Placement - For luminaire a), b) or c) - one foot (1') behind the back of the sidewalk or one foot in front of the County right-of-way line.
- 5) Longitudinal Spacing - For luminaire a), b) or c): 125' to 150' opposite arrangement desirable.
- 6) General Installation Guidelines
 - a. Provide appropriate streetlight at intersection with an existing roadway. Use existing utility poles if available.
 - b. Install the first streetlight a maximum of one half of the specified longitudinal spacing.
 - c. Streetlight should be oriented towards the major road at T-type intersections and at four-way stop intersections.
 - d. Maintain the following clearance distances: Five foot (5') from driveways, inlets, storm drains, and fire hydrants, water, gas, electric and sewer lines: Fifteen foot (15') from trees.

Arterial and Major Roadways (CIP Projects)

- 1) Luminaires - equipped with a photocell
 - a. Cobra (Type III distribution) cut-off - furnished, installed and energized by utility company.
 - b. Rectilinear (Type III distribution) decorative bronze – only PEPCO region
 - c. Rectilinear (rectangular), (Type III distribution) decorative bronze – Potomac Edison and BG&E regions

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- 2) Posts
 - a. For luminaire a): 26' pendant style, concrete footing or crew base mounted preferred.
 - b. For luminaire b): 25' to 40' galvanized steel or aluminum, bronze coated poles, concrete footing required (specifications shall be approved by DTEO.)
 - c. For luminaire c): 25 or 30', square pole, concrete footing or screw base mounted.
- 3) Lamps – All LED
 - a. For luminaire a): 100 - 250 watt, HPS equivalent LED
 - b. For luminaire b): 100 - 250 watt HPS equivalent LED
 - c. For luminaire c): 100 or 200 watt HPS equivalent LED
- 4) Lateral Placement - For luminaire a), b) or c): one foot (1') behind the back of the sidewalk or one foot in front of the County right-of-way line or as directed by the engineer.
- 5) Longitudinal Spacing - For luminaire a), b), or c): 125' to 150' desirable. Alternate sides for roadways up to 36' wide. Both sides for roadways over 36' wide and for divided roadways.
- 6) General Installation Guidelines
 - a. Use existing utility poles if available.
 - b. Install the first streetlight a maximum of one half of the specified longitudinal spacing from the intersection.
 - c. Streetlight should be oriented towards the major road at T-type intersections and at four-way stop intersections.
 - d. Maintain the following minimum clearance distances: Five foot (5') from driveways, inlets, storm drains, and fire hydrants, water, gas, electric and sewer lines. Fifteen foot (15') from trees.

Metro-Impact Areas/Urban Revitalization Districts

Lateral Placement - Shall be installed as specified in the master plan and/or sector plan, most recent publication, as approved by M-NCPPC/ DTEO. Longitudinal placement shall be as specified in the master plan and/or sector plan, most recent publication, as approved by M-NCPPC/DTEO.

The following architecturally designed streetlight fixtures (LED luminaires and posts) have been approved for use:

Vehicular Streetlights

- Bethesda LED Lantern
- Cobrahead
- Rectilinear, Decorative Bronze
- Silver Spring Highlight

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Silver Spring Pendant
Wheaton Highlight
Damascus highlight
Avenel Decorative Lights

Pedestrian Lights

Damascus Pendant
Colonial Post Top
Silver Spring Washington Globe
Washington Globe
Wheaton Post Top