

STREET LIGHTING DESIGN

STREET LIGHTING DESIGN MANUAL

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As-Built Drawing Statement

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1.0 GENERAL

1.1 Responsibility to Provide Facilities

Unless otherwise approved by the Town, the Developer of newly developed areas and subdivisions within the Town corporation limits shall be required to design and construct street lighting systems in accordance with the Town specifications and policies or have the street lighting system designed and constructed by Allegheny Power Company. The plans shall be reviewed and approved all the Town prior to construction. All costs associated with furnishing and installing the street lighting systems including but not limited to: light fixtures; poles; relays; photo eye; foundations; conduit; wiring; control panels; meters and pedestals; and testing will be borne by the Developer. The Town will assume ownership of the street light system on streets which the Town has accepted and after inspection and testing of the system is complete and the system is functional and approved by the Town in all respects. The plans must be designed by and sealed by a Professional Engineer licensed in Maryland who is qualified in the design of electrical street light systems.

Prior to any structure receiving a Use and Occupancy Permit all streetlights fronting the structure shall be complete and in operation. **The developer shall be responsible for contacting, making application and payment of fees to Allegheny Power for design, extension of primary service and installation of the streetlights in a timely manor. A period of 90 calendar days will be granted for installation of the lights after the base paving is installed. U & O's will be granted within this time frame if the extension of power and streetlights design is approved and fees have been paid to Allegheny Power. No U & O's will be granted after the 90 day period if the streetlights have not been installed.**

2.0 MATERIALS

2.1 Lights

Street lights shall be of the type and quality as approved by the Town.

2.2 Poles

Poles shall be of the type and quality as approved by the Town.

2.3 Wiring

- a. Wiring shall be #6 CU, 3 conductor installed in 1 1/2-inch PVC Schedule 40 conduit with a minimum of 24-inches of cover or as approved by the Town of Middletown. Street crossings shall have 30" of cover.
- b. Wiring from the fuse holder to fixture shall be 14/3 SEO cable. A 1/4-inch threaded ground stud shall be welded to the pole base.
- c. Conductors shall be fused with fuse holder and BAF 5 amp for each individual fixture.

2.4 Meter/Panel

Meter/Panel enclosure shall be rated for 100 amp minimum.

2.5 Workmanship

All work shall be in accordance with the requirements of the Town of Middletown and the National Electric Code.

3.0 LOCATION

3.1 Spacings

New poles and fixtures will be located between the curb and sidewalk, approximately 12-inches - 15-inches behind the face of curb. The light poles and fixtures shall be located at 100-foot spacing from pole to pole, on alternating sides of the street (staggered) or as approved by the Town. A minimum of two (2) light poles and fixtures, staggered across the intersection, shall be required at all collector/collector, or greater, intersections. The final fixture location must be approved by the Town.

3.2 Layout Requirements

Fixtures shall be strategically located to provide adequate illumination for all intersections. Adequate shall be defined as providing a minimum of 0.5-foot candles at all locations within the road right-of-way including the intersections of streets or as approved by the Town. Conduit shall be provided to the end of each subdivision street constructed by the Developer, with a cap for future extension.

4.0 DESIGN PARAMETERS

4.1 Volt Drop

The maximum allowable voltage drop in any circuit shall be 3 percent. The final design of all street lighting shall be reviewed and approved by the Town of Middletown.

4.2 Coordination and Approval

The layout, location and source of power must be coordinated with and approved by the Town of Middletown, Allegheny Power Corporation, and the Frederick County Electrical Inspector.

5.0 CONTRACT DRAWINGS AND DOCUMENTS TO BE SUBMITTED TO THE TOWN

5.1 Plans

Contract drawings shall be prepared on drawings separate from other utilities. Separate drawings shall be devised for each street or subdivision. The scale of the plans shall be 1-inch = 50-feet or larger. The location of the existing and proposed light fixture shall be clearly identified, with all conduit shown. Street crossing shall be located by centerline stationing of the roadway. All control panels/meter pedestals shall be indicated and each separate circuit numbered for clarity.

5.2 Typical Sections and Details

Plans should include all details of the light poles and fixtures, foundation details and trenching cross sections. Any special design feature shall be shown on the drawing or clearly stated in the general notes.

5.3 Provide three (3) copies of the final plans to the Office of Planning and Zoning for use by the town.

5.4 Provide one (1) copy of the As-Built plans on mylar plan sheets with the statement and Engineer's signature, as shown in the Appendix, and submit to the Office of Planning and Zoning within thirty (30) days of completion and acceptance of the work by the Town and on computer GIS diskette in a format approved by the Office of Planning and Zoning.

APPENDIX

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AS-BUILT DRAWING

I HEREBY STATE, TO THE BEST OF MY
KNOWLEDGE AND PERSONAL BELIEF, THAT
THE WORK SHOWN ON THESE PLANS WAS
CONSTRUCTED TO THE LINES AND GRADES
SHOWN.

ENGINEER DATE P.E. NO.

AS-BUILT DRAWING
STATEMENT

TOWN OF MIDDLETOWN