

**RESOLUTION NO. 2449**

**EAST NORRITON TOWNSHIP**

**MONTGOMERY COUNTY, PENNSYLVANIA**

**A RESOLUTION OF THE TOWNSHIP OF EAST NORRITON ESTABLISHING SPECIFICATIONS FOR THE INSTALLATION, UPGRADE OR MODIFICATION OF TRAFFIC SIGNAL EQUIPMENT LOCATED WITHIN THE MUNICIPAL BOUNDARIES OF EAST NORRITON TOWNSHIP.**

**WHEREAS**, the Board of Supervisors for the Township of East Norriton recognizes the need for signalized intersections at various locations throughout the Township to safely and efficiently control the movement of both vehicular and pedestrian traffic, and furthermore deems it to be in the best interest of East Norriton Township, its citizens and the general public to establish specifications for the installation, upgrade and/or modification of traffic signal equipment to ensure commonality of equipment, uniformity of appearance and efficient operation and maintenance; and,

**WHEREAS**, §1506 of the Second Class Township Code, *as amended*, and found at 53 P.S. 66506, entitled "General powers", authorizes the Board of Supervisors to make and adopt ordinances, bylaws, rules and regulations, not inconsistent with or constrained by the Constitution and laws of the Commonwealth necessary for the proper management, care, and control of the Township and the maintenance of peace, good government, health and welfare of the Township and its citizens; and,

**WHEREAS**, the Board of Supervisors of the Township of East Norriton, after due consideration of this resolution, has determined that the health, safety, and general welfare of the residents of East Norriton will be served by the provisions related thereto.

**NOW, THEREFORE, BE IT RESOLVED** by the Board of Supervisors of the Township of East Norriton that the following specifications shall be adhered to:

**§ 1. Intent**

The purpose of this Resolution is to establish standards for the installation, upgrade or modification of traffic signal equipment for which East Norriton Township has operation and maintenance responsibilities. The standard specifications contained herein are intended to achieve; commonality of parts, standardization of equipment, uniformity of appearance, efficient operation and maintenance and interconnected system compatibility.

## § 2. Specifications

### A. General

1. All workmanship and materials shall be in accordance with these specifications and the most current version of the Pennsylvania Department of Transportation Publication 408 "Specifications".
2. Contractor/Developer shall furnish all labor, materials and equipment including signage, pavement markings, etc., as may be required to complete the installation/modification/upgrade in accordance with the approved PennDOT traffic signal permit.
3. All traffic signal equipment and accessory equipment provided shall be warranted for a period of either one (1) year from the date of acceptance (unless otherwise noted) by East Norriton Township or the manufacturer's standard warranty, whichever is greater. East Norriton Township shall not accept any installation/upgrade/modification until such time as a satisfactory inspection has been performed by PennDOT.
4. All traffic signal installations/upgrades/modifications shall comply with the latest accessibility requirements, as determined by East Norriton Township and PennDOT, with regards to curb ramps, location and type of accessibility related equipment and their installation.
5. Contractor/Developer shall be responsible for the maintenance and protection of traffic during any installation/upgrade/modification in accordance with PennDOT Publication 213 "Temporary Traffic Control Guidelines" as modified or amended from time to time.
6. Contractor/Developer shall be responsible for restoration of any disturbed areas associated with the installation/upgrade/modification. Restoration standards shall be determined by the entity having jurisdiction over the restored area(s).

### B. Equipment

1. Traffic Signal Controllers and Cabinets
  - a. All controllers shall be the ASC3 Series, NEMA TS-2, Type I, as manufactured by Econolite Control Products, or approved equal.
  - b. All controllers shall contain pedestrian isolation circuitry and surge protection on all controller inputs.
  - c. All Master Controllers shall be ASC-2M as manufactured by Econolite Control Products, or approved equal and shall be installed with a Township approved dial-up modem.
  - d. Controllers shall be equipped with GPS time clocks to maintain controller time-of-day accuracy.
  - e. Controllers shall be housed in a cabinet with a minimum size of 55" x 44" x 26".
  - f. All controller cabinets shall include fiber optic telemetry equipment.
  - g. All controller cabinets shall be equipped with police hand-controllers. Cord length shall be sufficient to allow clear visibility of all intersection approaches.
  - h. Controller cabinets shall be located at the intersection of conduit runs and not at the end of a conduit loop.

- i. All controller interconnects, as a minimum, shall be single mode fiber optic cable, 6-fiber 9/125 micron, terminated in patch panels with ST connectors. Mechanical splices or terminations will not be accepted.
- j. Any fiber installed on existing systems will be single mode unless specifically permitted by the Township.

## 2. Signal Supports, Heads, Accessory Equipment

- a. All traffic signal and sign supports shall be Mast Arms, no strain poles allowed.
- b. All signal heads shall be constructed of polycarbonate materials and shall contain red, yellow and green Dialight Model #433 LED modules, or approved equal.
- c. All intersections shall be equipped with "Hand/Man" Countdown style LED pedestrian signal heads as manufactured by Dialight, Inc., or approved equal.
- d. All LED modules must have, as a minimum, a provisional Pennsylvania Department of Transportation approval number and the contractor must comply with all PennDOT requirements and compliance testing.
- e. All LED modules shall be warranted for a period of five (5) years.
- f. Mast Arm mounted luminaires shall be required as needed at each intersection and as determined by the Township's Traffic Engineer and/or Lighting Consultant and PennDOT.
- g. All new and upgraded/modified traffic signals shall be equipped with optical emergency pre-emption equipment for all approaches to the intersection. Detectors shall be positioned to achieve the proper distance for activation and control of the intersection. Optical pre-emption equipment shall be Opticom, as manufactured by GTT, Inc., or approved equal. Emergency pre-emption equipment shall be warranted for a period of five (5) years.
- h. All new and upgraded/modified traffic signals shall be equipped with video detection in lieu of magnetic loop detectors. Video detection equipment shall be Autoscope Solo-Pro II, as manufactured by Econolite Control Products, or approved equal.
- i. All new and upgraded/modified traffic signals shall be equipped with emergency battery back-up power supply systems (UPS Systems) that will automatically transfer power to the battery unit when commercial power is interrupted. System shall be appropriately sized to power all aspects of the traffic signal for a minimum of eight (8) hours, shall condition incoming power so as to allow for the use of an external power source and shall be 100% compatible with signal controller. Model DBL-700 as manufactured by Econolite Control Products, or approved equal.
- j. Controller cabinet shall be equipped with an external plug with transfer switch for the use of a portable generator to power the traffic signal.

## 3. Miscellaneous

- a. All mast arms, pedestrian poles, cabinets, electrical disconnect boxes, conduit (if required) and hardware shall be painted "Woodland Green" or approved equal. Paint coatings shall be warranted for a period of five (5) years against chipping, peeling and rust.
- b. Conduit runs will be sized to accommodate future intersection expansion.

- c. At a minimum, one (1) 3" conduit is required at all street crossings.
- d. Each controller cabinet foundation or each pole foundation (for pole mounted cabinets) shall contain two (2) conduits of at least 3" diameter entering from an adjacent junction box.
- e. Should any magnetic loops be required, all shall be terminated in junction boxes. Magnetic loops shall be warranted for a period of two (2) years.
- f. At least one (1) junction box shall be installed at each corner of the intersection.
- g. Street lighting circuits shall be installed in a separate 2" conduit system specifically for that purpose and shall be protected by circuit breakers that are also separate from the traffic signal system.
- h. All new or upgraded/modified traffic signals shall contain mast arm mounted street name signs. The size, type, color and designation shall be per the PennDOT traffic signal permit and the Township.
- i. All pavement markings and signage shall be installed in accordance with the approved PennDOT traffic signal plan. All materials shall be PennDOT approved and shall be installed in accordance with the latest version of the Manual on Uniform Traffic Control Devices (MUTCD).
- j. All pavement markings shown on the approved PennDOT traffic signal permit shall be installed using hot thermoplastic material.

**§ 3. General Provisions**

- A. Any conflicts or ambiguities contained in the above specifications shall be resolved to the satisfaction of East Norriton Township, the Township's Traffic Engineer, and/or PennDOT.
- B. The Township reserves the right to waive any portion of the above specifications as may be deemed in the best interest of the Township, its citizens, and the general public or to allow these specifications to be commensurate with the scope of any upgrades/modifications.
- C. Any resolutions inconsistent with the terms of this document are hereby repealed.

**RESOLVED** by the Board of Supervisors of East Norriton Township, Montgomery County, Pennsylvania this 25th day of August, 2009.

**TOWNSHIP OF EAST NORRITON**

Lewis K. McQuirns  
By: Lewis K. McQuirns, Chairman

**ATTEST:**

Donald D. Delamater  
By: Donald D. Delamater, Secretary

