

# New Jersey Turnpike Authority

P.O. Box 5042, Woodbridge, NJ 07095



November 23, 2021

## Document Change Announcement

### *Standard Drawings*

### *Lighting and Power Distribution Systems*

**DCA2021SD-02**

### **Subject: Revisions to**

### **All Electrical (E) Standard Drawings**

#### **Description of Change:**

Various sections/drawings of the Authority's Standard Drawings, 2016 Standard Supplementary Specifications, and Design Manual pertaining to lighting and power distribution systems have been updated.


Refer to the attached "Summary of Standard Drawing Changes".

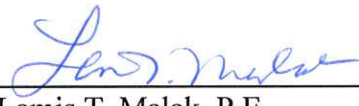
#### **Notice to New Jersey Turnpike Authority Staff and Design Consultants**

Effective immediately, all contracts currently in the design phase shall incorporate the revisions herein. For advertised contracts awaiting the opening of bids this revision shall be incorporated via addendum. Contact your New Jersey Turnpike Authority Project Manager for instruction.

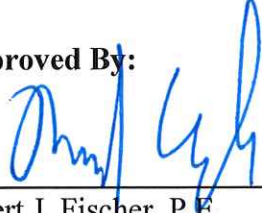
The revisions may be accessed on the Authority's webpage: <https://www.njta.com/doing-business/professional-services>

#### **Recommended By:**

  
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#### **Approved By:**

  
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Robert J. Fischer, P.E.  
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*Distribution: Senior Staff Engineering, Law, Maintenance & Operations Depts., All Prequalified Consultant Firms, File*

Published Standard Drawing	Published Title	Published Date	Published Version	New Title	New Date	New Version	Summary of changes
(All Drawings)	(All Drawings)			n/a			Removed reference to obsolete legacy design items and materials (ex.: HPS lighting, Series lighting)
E-01	LIGHTING STANDARD KEY SHEET	5/2012	1	LIGHTING STANDARD KEY SHEET	9/21	0 (Re-issued)	Removed all references to HPS, mast arms, expressway luminaires, ballasts, etc. Updated nomenclature with LED pole top luminaire configuration. Added new Type M, elevated concrete base detail.
E-02	STEEL LIGHTING STANDARD	3/2014	C	STEEL LIGHTING STANDARD	9/21	0 (Re-issued)	Added internal damper, and vibration damping pad. Updated notes. Changed light pole handhole from welded reinforcement to flush mount.
E-03	ALUMINUM LIGHTING STANDARD	3/2014	C	ALUMINUM LIGHTING STANDARD	9/21	0 (Re-issued)	Revise notes, references and callouts. Removed references to HPS/Mongoose fixtures.
E-03A	POLE-TOP LUMINAIRE MOUNTING ASSEMBLIES	3/2014	C	(Removed)	—	—	Split horizontal and vertical tenon adapter details to two sheets
E-04	EXPRESSWAY LIGHTING STANDARD 40 FOOT NOMINAL MOUNTING HEIGHT	4/2012	2	TYPE H POLE-TOP LUMINAIRE MOUNTING ASSEMBLIES	9/21	0 (Re-issued)	40' LS details obsoleted; Updated notes and details for wire pass-through.
E-05	EXPRESSWAY LIGHTING STANDARD 48 FOOT NOMINAL MOUNTING HEIGHT	4/2012	2	TYPE V POLE-TOP LUMINAIRE MOUNTING ASSEMBLIES	9/21	0 (Re-issued)	48' LS details obsoleted; Updated notes and details for wire pass-through.
E-06	HIGHMAST LIGHTING STANDARD DETAILS - 1	05/2009	0	HIGHMAST LIGHTING STANDARD DETAILS - 1	9/21	0 (Re-issued)	Revised notes, references and callouts. Removed references to HPS fixtures and floodlight towers.
E-07	HIGHMAST LIGHTING STANDARD DETAILS - 2	05/2009	0	HIGHMAST LIGHTING STANDARD DETAILS - 2	9/21	0 (Re-issued)	Updated High-Mast lighting wiring diagram to include separate neutral. Added dimensional constraints to ensure luminaires will fit on head ring in quantity and size when designing.
E-08	IDENTIFICATION TAG DETAILS	05/2009	0	IDENTIFICATION TAG DETAILS	9/21	0 (Re-issued)	Revised tags to remove legacy wattage for HPS/HID fixtures. Updated voltage callout to commonly used power systems, updated lighting standard and luminaire type, add LED luminaire type table, removed emergency luminaire, and removed reference to series lighting .
E-09	TRANSFORMER BASE AND POLE GROUNDING DETAILS	3/2014	1	TRANSFORMER BASE AND POLE GROUNDING DETAILS	9/21	0 (Re-issued)	Added vibration damping pad information for shoe-base installation. Removed transformer Base TB-B, as they were for 48' expressway poles.
E-10	(NOT USED)	—	—	LIGHTING STANDARD ANCHOR BOLT DETAILS	9/21	0 (Re-issued)	Added anchor bolt details
E-11	LIGHTING STANDARD BASES	05/2009	0	LIGHTING STANDARD CONCRETE BASE	9/21	0 (Re-issued)	Added new detail for Type M elevated concrete lighting standard base for parking lot and service area locations. Removed foundation details for Type 1,II and III concrete bases.
E-12	JUNCTION BOX FOUNDATION	05/2009	0	JUNCTION BOX FOUNDATION	9/21	0 (Re-issued)	Revised requirement for crushed stone under JB. Added alternate light pole installation position for areas where space may be limited. Removed Type 2 JBF details fro 48' standard. Added JB cover bonding.
E-13	JUNCTION BOX TYPE C	05/2009	0	JUNCTION BOX TYPE C	9/21	0 (Re-issued)	Revised requirement for crushed stone under JB. Updated cover identification to reflect that the box is being used for electrical/lighting cables. Added JB cover bonding.
E-14	JUNCTION BOX TYPE D	4/2011	2	JUNCTION BOX TYPE D	9/21	0 (Re-issued)	Updated JB cover identification to reflect that the box is being used for electrical/lighting cables, as per NEC requirements. Added JB cover bonding.
E-15	ROADWAY LIGHTING MANHOLE	05/2009	0	ROADWAY LIGHTING MANHOLE	9/21	0 (Re-issued)	Revised requirement for crushed stone under JB. Added JB cover bonding.
E-16	(NOT USED)	—	—	MISCELLANEOUS DETAILS - 1	9/21	0 (Re-issued)	New sheet. Included rodent blocking details for conduits, cable identification tag detail, cabinet name plate detail, details for conduit drains and conduit termination in concrete.

\*In January 2022, all affected drawings on the website were corrected to show a revision date of 9/21. Any changes from the previously-posted versions (dated 7/21) were superficial (i.e. font, formatting).

Published Standard Drawing	Published Title	Published Date	Published Version	New Title	New Date	New Version	Summary of changes
E-17	(NOT USED)	—	—	MISCELLANEOUS DETAILS - 2	9/21	0 (Re-issued)	New sheet from details in retrofit ER drawings. Details were modified for the lower mounting bracket to be used to replace older aluminum alloy brackets. Sheet is noted that the details for the retrofit bracket are only to be used for retrofit installations.
E-18	ROADWAY LIGHTING INSTALLATION DETAILS - 1	05/2009	0	ROADWAY LIGHTING INSTALLATION DETAILS - 1	9/21	0 (Re-issued)	Examples of typical lighting standard installations were updated and redistributed. New guidelines for MASH requirements have been partially incorporated into these details.
E-19	(NOT USED)	—	—	ROADWAY LIGHTING INSTALLATION DETAILS - 2	9/21	0 (Re-issued)	Examples of typical lighting standard installations were updated and redistributed. New guidelines for MASH requirements have been partially incorporated into these details.
E-20	ROADWAY LIGHTING INSTALLATION DETAILS - 3	05/2009	0	ROADWAY LIGHTING INSTALLATION DETAILS - 3	9/21	0 (Re-issued)	Revised requirement for crushed stone under JB. Updated cover identification to reflect that the box is being used for electrical/lighting cables.
E-21	SIGN LIGHTING DETAILS - 1	01/2013	1	SIGN LIGHTING DETAILS - 1	9/21	0 (Re-issued)	Updated notes and callouts for consistency with other sheets.
E-22	SIGN LIGHTING DETAILS - 2	01/2013	1	SIGN LIGHTING DETAILS - 2	9/21	0 (Re-issued)	Updated notes and callouts for consistency with other sheets.
E-23	(NOT USED)	—	—	BRIDGE/WALL INSTALLATION DETAILS	9/21	0 (Re-issued)	New Bridge/Wall conduit installation details to reflect large embedded PVC Bell fitting and stainless steel conduit for expansion/deflection fittings. The use of the conventional AXDX expansion/deflection conduit fitting has been removed.
E-24	BRIDGE/WALL INSTALLATION DETAILS	06/2010	1	BRIDGE/WALL CONDUIT TRANSITION	9/21	0 (Re-issued)	Moved installation details to E-23, revised conduit transition details
E-25	UNDERBRIDGE LIGHTING DETAILS	05/2009	0	UNDER BRIDGE LIGHTING DETAILS	9/21	0 (Re-issued)	Revised details for the LED wall mounted underbridge lighting. Updated callouts for separate neutral requirements, and updated notes.
E-26	(NOT USED)	—	—	CONDUIT INSTALLATION DETAILS	9/21	0 (Re-issued)	Added conduit installation details
E-27	(NOT USED)	—	—	(NOT USED)	—	—	Reserved for future use
E-28	TYPE LP LUMINAIRE QUALIFICATION CRITERIA TABLES	3/2014	C	(NOT USED)	—	—	Luminaire qualification moved to Specifications
E-29	(NOT USED)	—	—	(NOT USED)	—	—	Reserved for future use
E-30	(NOT USED)	—	—	MANUAL TRANSFER SWITCH DETAILS	9/21	0 (Re-issued)	Added new Manual Transfer Switch details
E-31	SCHEDULE OF APPROVED LIGHTING STANDARDS	05/2009	0	(NOT USED)	—	—	Approved luminaires moved to Qualified Products List
E-32	TYPE F LOAD CENTER DETAILS - 1	03/2012	1	TYPE F LOAD CENTER DETAILS - 1	9/21	0 (Re-issued)	Revised drawing callouts for a separate neutral requirement. Added requirement for the surge protective device, updated foundation details for the cabinet and updated notes for general consistency.
E-33	TYPE F LOAD CENTER DETAILS - 2	03/2012	1	TYPE F LOAD CENTER DETAILS - 2	9/21	0 (Re-issued)	Revised drawing callouts and wiring diagram for a separate neutral requirement, and updated notes for general consistency.
E-34	TYPE G LOAD CENTER DETAILS - 1	08/2012	1	TYPE G LOAD CENTER DETAILS - 1	9/21	0 (Re-issued)	Revised drawing callouts for a separate neutral requirement. Added requirement for the surge protective device, updated foundation details for the cabinet and updated notes for general consistency.
E-35	TYPE G LOAD CENTER DETAILS - 2	08/2012	1	TYPE G LOAD CENTER DETAILS - 2	9/21	0 (Re-issued)	Revised drawing callouts and wiring diagram for a separate neutral requirement, and updated notes for general consistency.
ER-01	LIGHTING STANDARD KEY SHEET	05/2009	0	(Removed)	—	—	Obsolete details removed, relevant details moved to Miscellaneous Details
ER-03	LIGHTING STANDARD TYPE 1-6 DETAILS	05/2009	0	(Removed)	—	—	Obsolete details removed, relevant details moved to Miscellaneous Details
ER-04	LIGHTING STANDARD TYPE 7-12 DETAILS	05/2009	0	(Removed)	—	—	Obsolete details removed, relevant details moved to Miscellaneous Details
ER-05	LIGHTING STANDARD TYPE 15 DETAILS	05/2009	0	(Removed)	—	—	Obsolete details removed, relevant details moved to Miscellaneous Details
ER-06	BRIDGE MOUNTED LIGHTING STANDARD DETAILS	05/2009	0	(Removed)	—	—	Obsolete details removed, relevant details moved to Miscellaneous Details
ER-07	PARAPET MOUNTING BRACKET DETAILS	05/2009	0	(Removed)	—	—	Obsolete details removed, relevant details moved to Miscellaneous Details
							Obsolete details removed, relevant details moved to Miscellaneous Details