

Evaluation Table

PEP ID:	XXXXX
Manufacturer:	Name of Manufacturer
Product Name:	Name of Product

731 Traffic Signals and Light Poles

731 Traffic Light Poles and Mast Arms (Aluminum)

ADOT Stored Specification: 731STRSUP

ADOT Standard Drawing: T.SL. 4 Series (as applicable)

Responsible Section: Traffic Group

Product Property	Specification/ Test Method	Requirement	Results	Pass/ Fail
General: Definition	731STRSUP 731-2.01(A)	Standard aluminum poles assemblies for highway lighting shall include pole shafts, pole bases, and mast arms.		
General: Complete Assembly	731STRSUP 731-2.01(A)	Each aluminum pole and mast arm shall be designed and manufactured as a complete assembly. The assembly shall be furnished and installed as a complete unit that is configured to the necessary dimensions with all the required components including mounting brackets and assembly, ground lugs, rain caps, hand hole covers, anchor bolts, nuts, washers and related hardware and accessories.		
General: Design Parameters	731STRSUP 731-2.01(A) T.SL 4 Series	The design of the pole assembly (pole, mast arm, and luminaire attachment portion) shall be per the requirements of the 2013 AASHTO Standard Specifications for Structural Supports for Highway Signs, Luminaires and Traffic Signals, 6th edition with 2015 interim revisions. (2019 and 2020 interim revisions included in Standard Drawings)		
General: Stress and Fatigue	731STRSUP 731-2.01(A)	The design of the poles, mast arms and luminaire mounting brackets shall be based on a wind speed of 90 miles per hour with a luminaire having an effective projected area of 1.5 square feet and a weight of 55 pounds.		

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General: Design Life	731STRSUP 731-2.01(A)	Aluminum poles shall have a minimum design life of 50 years.		
General: Manufacturer	731STRSUP 731-2.01(A)	The pole and mast arm shall be supplied from the same manufacturer and of similar metal properties providing a uniform appearance.		
Pole Shafts: Tapered Pole Shaft	731STRSUP 731-2.01(B)(1) ASTM B221	The tapered pole shaft shall be fabricated from a one-piece, seamless, round tapered tube of Aluminum Alloy 6063-T6, conforming to the requirements of ASTM B221, and shall be full-length heat treated after tapering and welding on the base and hand hole reinforcing to produce a T6 temper.		
Pole Shafts: Taper Rate	731STRSUP 731-2.01(B)(1)	The pole shafts shall either maintain a uniform taper rate from the base of the pole to the pole top or shall be non-tapered.		
Pole Shafts: Base Plate	731STRSUP 731-2.01(B)(1)	The base plate shall be constructed to match the foundation bolt pattern for standard poles shown in the Standard Drawings for Aluminum Light Poles.		
Pole Shafts: Damper	731STRSUP 731-2.01(B)(1)	The pole shaft shall have an internal vibration damper.		
Pole Shafts: Hand Hole	731STRSUP 731-2.01(B)(1)	All aluminum poles shall have a hand hole in the base of the poles and shall conform to the details shown on the Standard Drawings, with the exception that the hand hole shall use aluminum components and stainless-steel screws.		
Pole Shafts: Identification	731STRSUP 731-2.01(B)(1)	An aluminum tag shall be permanently attached to the pole above the hand hole. The tag shall state the manufacturer's name, pole type, ADOT standard drawing number, pole length, and gage number.		
Truss Mast Arms: Fabrication	731STRSUP 731-2.01(B)(2) ASTM B221	The aluminum truss mast arms shall be fabricated by the same manufacturer as the aluminum pole manufacturer and from Aluminum Alloy 6063-T6 conforming to the requirements of ASTM B221.		

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Welding	731STRSUP 731-2.01(B)(3) AWS D1.2	Welding of all components of aluminum light poles shall conform to the American Welding Society (AWS) D1.2 Specifications for Class I Structures.		
Aluminum Type "S" Pole	T.SL. 4-5	Aluminum Type "S" poles shall conform to Standard Drawing T.SL. 4-5.		
Aluminum Type "T" Pole	T.SL. 4-6	Aluminum Type "T" poles shall conform to Standard Drawing T.SL. 4-6.		
Aluminum Type "G" Pole	T.SL. 4-8	Aluminum Type "G" poles shall conform to Standard Drawing T.SL. 4-8.		
Type "H" Pole	T.SL. 4-9	Aluminum Type "H" poles shall conform to Standard Drawing T.SL. 4-9.		
Type "I" Pole	T.S. 4-10	Aluminum Type "I" poles shall conform to Standard Drawing T.SL. 4-10.		
Hand Hole	T.SL. 4-18	Hand holes shall conform to Standard Drawing T.SL. 4-18.		
Aluminum Truss Arm Type "G" "H" and "I" Poles	T.SL. 4-30	Aluminum truss arms for Type "G" "H" and "I" poles shall conform to Standard Drawing T.SL. 4-30.		
Design Calculations	Internal	Design Calculations must be submitted with the completed Evaluation Report.		