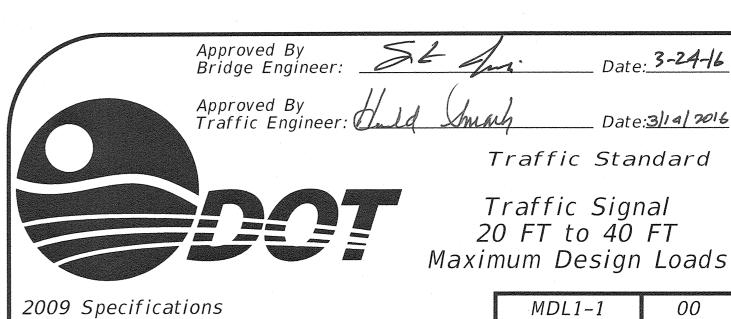


## <u>Design Criteria Notes</u>

- 1. Reference the following signal pole standard sheets for more information:
- Traffic Signal Support Structures Signal Pole and Mast Arm Details PMAP1-1 (Latest Rev.)
- Traffic Signal Support Structures Pole Assembly Details MAD1-1 (Latest Rev.)
- Traffic Signal Support Structures Mast Arm Assembly Details MAD2-1 (Latest Rev.)
- Traffic Signal Pole Fabrication and Installation Data PFID1-1 (Latest Rev.)
- Traffic Signal Pole Fabrication and Installation Data PFID2-1 (Latest Rev.)
- Traffic Signal Mast Arm Pole and Pedestal Pole Footing Details CFD1-1 (Latest Rev.)
- Traffic Signal Pole Wiring and Cable Termination Details PWD1-1 (Latest Rev.)
- 2. For mast arm assemblies up to 25 LF per arm, designed loads for various equipment are as follows:
- Qty = 2 3-Section Signal Head w/ Backplate (50 LBS/EA and EPA = 9.81 sq. ft.)
- Qty = 1 5-Section (Type S-19) Signal Head w/ Backplate (90 LBS/EA and EPA = 14.56 sq. ft.) Qty = 2 Pedestrian Signal Head 1 Section (30 LBS/EA and EPA = 2.64 sq. ft.)
- Qty = 2 Push Button Housing (10 LBS/EA and EPA = 1.20 sq. ft.)
- Qty = 1 Luminaire (50 LBS/EA and EPA = 2.00 sq. ft.)
- Qty = 2 Typical Regulatory Sign (18 LBS/EA and EPA = 10.08 sq. ft.) Qty = 1 Typical Street Name Blade (20 LBS/EA and EPA = 16.15 sq. ft.)
- Qty = 1 Opticom (5 LBS/EA and EPA = 1.0 sq. ft.)
- Qty = 1 Video (VIVDS) (10 LBS/EA and EPA = 1.60 sq. ft.)

- 3. For mast arm assemblies between 30 and 40 LF per arm, maximum design loads accommodate up to the following equipment per assembly:
- Qty = 2 3-Sect. Signal Head w/ Backplate (50 LBS/EA and EPA = 9.81 sq. ft.)
- Qty = 1 5-Sect. (Type S-19) Signal Head w/ Backplate (90 LBS/EA and EPA = 14.56 sq. ft.)
- Qty = 2 5-Sect. (Type S-17) Signal Head w/ Backplate (90 LBS/EA and EPA = 15.18 sq. ft.) Qty = 2 Pedestrian Signal Head 1 Sect. (30 LBS/EA and EPA = 2.64 sq. ft.)
- Qty = 2 Push Button Housing (10 LBS/EA and EPA = 1.20 sq. ft.)
- Qty = 1 Luminaire (50 LBS/EA and EPA = 2.00 sq. ft.)
- Qty = 2 Typical Regulatory Sign (18 LBS/EA and EPA = 10.08 sq. ft.)
- Qty = 1 Typical Illuminated Street Name Signs (100 LBS/EA and EPA = 29.52 sq. ft.)
- Qty = 1 Opticom (5 LBS/EA and EPA = 1.0 sq. ft.) (If required)
- Qty = 1 Video (VIVDS) (10 LBS/EA and EPA = 1.60 sq. ft.)- Qty = 1 - Surveillance Camera (10 LBS/EA and EPA = 1.60 sq. ft.)
- Qty = 1 Radar Detector (10 LBS/EA and EPA = 1.60 sq. ft.)
- 4. A 40' mast arm assembly configuration is shown above as an example.
- 5. For a dual mast arm configuration, loading criteria identified herein also applies to the second mast arm.
- 6. The typical mast arm rise is 2° from the nominal mast arm mounting height. The minimum rise per AASHTO is S1/1000.



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