MOUNTING ASSEMBLIES REQUIREMENTS

NOTES:

1. All materials and constructions shall conform to the requirements of the Specifications.

2. All proprietary parts of the traffic signal mounting assemblies provided at any one intersection shall be of the same manufacturer. The exception to this is that different lamp mounts may be used.

3. All signal framework or mounting assemblies shall meet or exceed the applicable requirements of the ITE Equipment and Material Standards Chapter 2 Vehicle Traffic Control Signal Heads (NTSCH) Section 6.00 Mounting Assemblies.

4. The mounting assemblies shall consist of the parts shown on T.S. 9 and 10 Series drawings. The project plan pole summary for the mountings and signals specified shall be designed and produced in accordance with theITE specifications. The mountings shall be capable of interchanging components for all traffic signal face assemblies and pedestrian signal products commonly used and approved by ITE (e.g., McComm, Eagle, Ecolite), interchangeable means they can be readily adjusted without physical alteration or addition to account for variations between manufacturers.

5. All mounting assemblies shall be suitable for use for the poles and mast arms specified herein per the T.S. 4 Series. Also, see T.S. 4 Series for pole drilling details for mounting bolts and electrical wire and cable access. All holes drilled for wire and cable access shall be reamed, filed, rounded, and smoothed to prevent any insulation or jacket damage. As an alternative a rubber grommet can be installed in the wire and cable access hole that is drilled into the pole.

6. Prior to fabrication of the mounting assemblies the contractor shall check the project pole summary plans to ensure that the mounting assemblies specified meet plan and field needs. This includes the correct mounts for the signals specified and the number of signals specified. The configuration differs between the pole and Type D signal shall also be accounted for. All materials and components shall be selected to fit the proposed pole locations, roadway / crosswalk and traffic signal control phase assignment and the NTCSO required "cone of vision" and minimum visibility distance. Pedestrian signals shall be installed at the beginning of the crosswalk and all the way across the street till 10 feet or less from end of the crosswalk. The contractor, per the Engineer's approval, shall make adjustments as necessary.

7. The orientations and associated mounting arm pipe lengths shown on these T.S. 9 series drawings are typically and may not match field conditions. Adjustments shall be made to meet field conditions and can be properly aimed without physical or visual conflict or overlap of the signals themselves or their backplates (as applicable) and visors. The contractor shall be directed to install signal arms so that the signal shall be directed to the visibility of the signal. This includes relocation of the mount and change of mounting pipes. In these cases it is acceptable to custom cut, thread and paint pipes in the field, if standard length do not work.

8. When required, the mount assemblies shall include the necessary gaskets, gasket washers and physical features to make all connections weather-proof. The gasket material shall be neoprene or similar suitable synthetic rubber gasket material which is rated for outdoor use. The use of "replacement" or the T.S. 9 Series drawings shall be regarded as a brand name or equal specification.

9. The terminal blocks shall be rated to operate and 120 VAC as a minimum. The terminal compartments shall be fitted with at least a 12-position, 24-terminal block. Larger terminal blocks shall be provided if needed to support the circuit plan for the intersection. The terminal compartment shall be manufactured of appropriate bronze or steel alloy and shall have a rain-proof weather-proof cover.

10. Terminal block units shall come pre-assembled and shall have the required wiring harness with splice type crimp on connectors. The individual conductors shall be 14 or 16 AWG stranded copper conductors with a copper braid or similar insulation. The lengths of conductors supplied shall be sufficient to extend from the terminal block to the signal terminal block with some slack. The basic color code of the conductors' insulation shall be as specified per the tables on sheet.

11. All mounting assemblies shall be powder coated or painted a minimum of two coats of black paint. The finish achieved shall have a minimum outdoor weathering rating of 12 or more years. The standard dull black color is Federal Standard (FS) 595A or b 3705. Any finish damage shall be repaired with the same material and cost.

12. The lock rippled length for the 8-inch indication signal face assembly will vary from the 8-inch indication signal face assembly. Typically it is 1/16 for the 8-inch and 1/32 for the 12-inch. This applies to all mounts except the Type 1, 2 and 3.

13. The configuration of the ornamental cap or end piece can vary. The slot which the ornamental cap or end piece forms with the top of the traffic signal face assembly shall be weather-proof or weather-resistant. The sides of the bottom of the signal shall be such that it allows water to drain if it gets inside the traffic signal face assembly.

14. All wiring and cables shall be installed in a manner that does not result in damage. All wires and cables shall be protected to ensure that there are no chafed wires. All male connections shall be made in a proper manner that matches the terminal block. Crimp connectors shall be made with a calibrated crimping tool. Solder ends for connecting to terminal strips. Connections shall be made so that all exposed wires or conductors shall be covered or insulated in a proper and safe fashion.

15. All mounting hardware shall be properly set and tightened.

16. Once installed traffic signal face assemblies not in use (dormant) shall be covered with an approved reusable traffic signal face assembly bag. The bag shall be sized to fit the signal it is covering. The item used to "bag" cover the signal shall be of tight fit material that is suitable for the purpose. The use of tied or duct taped burlap, cloth, or plastic is not acceptable. The signal bag shall be made of a durable nylon that shall slip over the signal assembly and be secured on the back with snaps and/or buckles. The front of the signal shall include holes or a mesh that enables the signal indication to be visually checked from the ground when the intersection is tested.