GENERAL NOTES:

1. All materials and construction shall conform to the requirements of the Specifications. However, these T.S. Drawing requirements supercede any conflicting requirement specified in the original 2008 version of the Specifications or any subsequent version (stored or standard) which has not been revised to include advancements specified in these drawings.

2. Span wire structures have been designed in accordance with the 2001 (4th) edition of the AASHTO Standard Specifications for Highway Signs, Luminaires, and Traffic Signal and interims.

3. All welding shall be performed in accordance with the American Welding Society Structural Welding Code (steel) ANSI/AWS D1.1 (current edition). No field welding shall be permitted on any part of the pole.

4. All traffic signals shall be placed vertically and horizontally in accordance with the MUTCD.

5. The bottoms of all signal heads and signs on each approach shall be plumb and horizontally aligned with the tether wire.

6. Traffic signal conductor cables shall be lashed to the messenger wire with insulated outdoor type (galvanized or stainless steel) lashing rod.

7. Each signal head shall have an individual IMSA traffic signal conductor cable.

8. Hardware used to anchor messenger, guy or tether wires, except the "S-hooks" on tether wires, shall develop the full breaking strength of the wire. Pole clamps shall be rated for a minimum breaking strength of 30,000 lbs.

9. Each pole clamp shall connect a single messenger wire to a pole. For box spans where adjacent messenger wires connect to the same pole, each wire shall have its own pole clamp. The clamps shall be positioned vertically on the pole such that one is directly on top of the other and so that they are in contact with each other. Tether wires in adjacent spans may connect to a pole using the same pole clamp. Pole clamps shall be installed according to manufacturer's instructions. Messenger wire pole clamps in a single span wire traffic signal support system shall be at the same final elevation with an allowed tolerance of 1"±. In box span wire arrangements, all messenger wires shall connect to pole clamps at the same final elevation, with a tolerance of 4"±.

10. All span wire traffic signal and sign mounting hardware shall be aluminum with stainless steel hardware and bushings.

11. Span wire hardware shall be functionally equivalent to that shown in this drawing set and shall be approved by the Engineer.

12. All traffic signal supports shall conform to the design criteria and details shown on these drawings unless noted otherwise on the plans or as approved by the Engineer.

13. A one-piece strain pole shall be used where a luminaire is required.

14. Dimensions shall not be scaled from the drawings.

FOUNDATION NOTES:

1. The foundations are designed based on the following conservative soil criteria which cover the great majority of soil types found in Arizona:
   Classification = cohesionless (sand)
   Friction angle = 30 degrees
   Unit weight = 100 pounds per cubic foot
   SPT blow count = 10

2. Only in cases where the designer considers the soil type at the specific site location to have lesser strength properties shall an analysis be required. Auger boring, SPT borings or CPT soundings may be utilized as needed to verify the assumed soil properties and, at relatively uniform sites, a single boring or sounding may cover several foundations. Furthermore, borings in the area that were performed for other purposes may be used to confirm the assumed soil properties.

3. Foundation concrete for drilled shafts shall be Class "S" with minimum 28-day compressive strength of 3500 psi, and shall be placed within undisturbed material or compacted embankment. The top of the drilled shaft shall be formed to 12" below the ground surface. Compacted backfill shall be in place prior to erecting the pole. Foundation concrete for wood poles shall be Class "B" with minimum 28-day compressive strength of 2500 psi, and shall be placed against undisturbed earth or compacted embankment.

4. Once the pole installation is completed, the open space between the base plate and the foundation shall be grouted with non-shrink, high early-strength grout (non-ferrous) with a minimum compressive strength of 5000 psi.

5. A bolt template shall be provided during the installation of anchor bolts. The bolt template shall be fabricated of a ¼" thick (minimum) steel plate, similar to the anchor plate details, and shall be match drilled to each base plate.

6. Reinforcing steel shall conform to ASTM A615 or A706, Grade 60. A minimum lap splice length of 36 bar diameters shall be used unless noted otherwise.

7. All bends and hooks shall meet the requirements of AASHTO LRFD Article 5.10. All bend dimensions for reinforcing steel shall be out-to-out of the bars. All placement dimensions for reinforcing steel shall be to the center of the bars unless noted otherwise.

8. ½" Dia or ⅝" Dia spirald shall be cold drawn steel wire conforming to AASHTO M32 except the minimum tensile strength shall be 60,000 psi. There shall be 1½ turns lapped at the top and the bottom of each spiral.

NOT TO SCALE

DESIGN APPROVED **SIGNATURE**	ARIZONA DEPARTMENT OF TRANSPORTATION INTERMODAL TRANSPORTATION DIVISION TRAFFIC SIGNALS AND LIGHTING STANDARD DRAWINGS	REVISION 01/12	
APPROVED FOR DISTRIBUTION **ON FILE**	SPAN WIRE SIGNALS AND LIGHTING GENERAL NOTES	DRAWING NO. T.S. 15-0	SHEET NO. 1 OF 3

NO	DESCRIPTION OF REVISIONS	MADE BY	DATE
1	2012 ORIGINAL ISSUE - NEW DRAWING	C. COLE	01/12
2			
3			
4			