DESIGN NOTES:

1. The maximum number and types of signal heads mounted on span wire for a given span length shall be in accordance to the "Maximum No. of Signals" table on T.S. 15-1 Sheet 1 of 6 for steel pole design and T.S. 15-1, Sheet 4 of 6 for wood pole design. R- or F-face signals may be substituted for Q-2 Face signals in this table. No other substitutions shall be made.

2. The maximum number of span wire mounted signs shall be:
   a. Two 48 inch x 48 inch aluminum signs and mounting hardware.
   b. One 18 inch x 108 inch aluminum street name sign and mounting hardware.

3. No other items shall be mounted on a span wire.

4. No more than the following shall be mounted on each strain pole:
   a. Two vehicular signals and mounting hardware.
   b. Two pedestrian signals and mounting hardware.
   c. Two pedestrian push button housing assemblies and mounting hardware.
   d. Two aluminum signs, maximum size 24 inch x 36 inch, and mounting hardware.
   e. One luminaire mast arm (steel poles only)
      i. The luminaire fixture mounting height shall be no more than 35 feet and no less than 30 feet above the finished roadway grade.
      ii. The luminaire fixture shall weigh no more than 60 pounds and have a projected area of no more than 2.1 square feet.
      iii. The luminaire mast arm shall be the type shown in T.S. 4-26, Detail A. No other luminaire mast arms types shall be mounted on strain poles.
      iv. One video detection unit with a maximum 5 foot riser may be mounted on the luminaire arm.
   f. No luminaire arm shall be mounted on a wood strain pole.

5. The details and other information provided in these drawings can be used in a single span arrangement or a box span arrangement. For the box span wire arrangements, a maximum of two spans can be mounted to any given pole, and all design variables (pole size, wire size, base connection, etc.) shall be selected based on the longer of the two adjacent span wire spans.

6. For box span arrangements, the minimum angle subtended between messenger wires of adjacent spans shall be 75° and the maximum shall be 105°

7. Span wire and supports selection procedure:
   a. The size of messenger wire shall be selected from the "Messenger Wire Selection" table on T.S. 15-1, Sheet 1 of 6 for steel strain pole span wire supports. The messenger, guy, and tether wire sizes for wood poles shall be selected from the "Messenger, Guy, and Tether Wire Selection" table on T.S. 15-1, Sheet 4 of 6. The longest span present in the traffic signal support system, as indicated on the signalization plans, shall be used to size all wires and poles. The "span" shall be taken as the chord distance in the plan view between the centerlines of poles on either side of the roadway for a given span.

   b. The vertical distance for the Messenger Attachment Height "MAH" is measured between finished grade at the centerline of a given pole and the level of the highest messenger wire attachment at the pole clamp. For cases where different MAH values are calculated at different poles in the span wire support system, the largest MAH value shall be used to select all design variables. MAH shall be calculated such that the minimum vertical clearance over the roadway shown on the drawings is obtained after the installation of all permanent features, including wires, signs, signal heads, conductor cables, luminaire arms and luminaires, and miscellaneous mounting hardware.

   c. The steel strain pole size shall be selected from the "Pole Sizing Table" table on T.S. 15-1, Sheet 1 of 6, using the longest span and the largest MAH in the span wire signal support system. The wood pole size shall be selected from the "Wood Pole Selection" table on T.S. 15-1 Sheet 4 of 6 using the longest span and the largest MAH in the span wire signal support system.

   d. Steel strain pole foundation design variables shall be determined using the pole size selected in "c" above, from the "Strain Pole Variables" table on T.S. 15-1, Sheet 2 of 6.

NOT TO SCALE

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

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