

6410000 PRESTRESSED CONCRETE POLES  
COMMENTS FROM INTERNAL/INDUSTRY REVIEW

Debbie Toole  
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Comment: (6-25-14)  
641-2.2.2.2: Who submits to whom?

~~→ → → 641-2.2.2.2-Connector-Block: Provide modular, self-aligning, and self-adjusting female and male socket contact halves in the connector block. Equip the lowering device with enough contacts to permit operation of all required functions of the camera, up to a maximum of 20 contacts. Provide and include at least two spare contacts. Provide contact connections between the fixed and movable lowering device components that are capable of passing ELA-232, ELA-422, ELA-485, and Ethernet data signals and 1 volt peak-to-peak (V<sub>p-p</sub>) video signals, as well as 120V<sub>AC</sub>, 9-24V<sub>AC</sub>, and 9-48V<sub>DC</sub> power. Ensure that the lowering device connections are must be capable of carrying the signals, voltages, and current required by the device(s) connected to them under full load conditions. Submit documentation showing pin assignment for approval. ¶~~  
~~→ → → → Provide Use only corrosion-resistant stainless steel hardware.~~

Response: The manufacturer must indicate standard pin assignments to the TERL during the APL approval process. This information must be provided as evidence that the product meets the requirements of this article during the APL process (manufacturers are instructed they must provide this information in the compliance matrix submitted with their APL application). Therefore, the statement is not necessary in this article.

However, pin assignments should also be reviewed and coordinated with the Engineer, as there may be a need to match existing systems. We have edited and moved this requirement to the installation article (641-4.4) to also clarify project-specific pin assignments must be submitted to the Engineer.  
Change made.

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Comment: (7-2-14)  
I propose the expansion of 641-3 Concrete Pole Construction to read: (add highlighted text)

Construct concrete poles in accordance with Section 450. Assume responsibility for performance of all quality control testing and inspections required by Sections 346 and 450, however; the PCI personnel and plant certifications are not required. Also, the plant certification by other Department approved certification agencies, as described in 105-3.4, is not applicable to plants that are manufacturing prestressed concrete poles.

Response: Agree. Language changed as follows:

641-3 Concrete Pole Construction. ¶  
→ Construct concrete poles in accordance with Section 450. Assume responsibility for performance of all quality control testing and inspections required by Sections 346 and 450, however; the PCI personnel and plant certifications are not required. Plant certification by a Department approved precast prestressed concrete plant certification agency, as described in accordance with 105-3.4, is not required for plants that manufacture prestressed concrete poles. ¶

Change made.

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Comment: (7-10-14)

**641-2 Materials.**

Spiral Reinforcing should be ASTM A1064 (See Standard Design Indexes 17725 and 18113).

Response: Change made.

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Comment: (7-11-14)

Update Method of Measurement similar to other signals specs- remove duplicate text for various operations. Add pole removal details from old Section 690 spec. I'll provide draft to Specs/Traffic Ops.

Response: Agree.  
Changes made.

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Shailesh Patel

Comment: (7-21-14)

The following acronyms that have not been explained at any time in the section of the spec. Section 641-1 CCTV Section 641-2.2.6 NPT.

Response: Abbreviations have been spelled out at their first appearance in the section.  
Changes made.

641-2.2.2.2 Provide contact connections between the fixed and movable lowering device components that are capable of passing EIA-232, EIA-422, EIA-485, and Ethernet data signals and 1 volt peak to peak (Vp-p) video signals, as well as 120 VAC, 9-24 VAC, and 9-48 VDC power connections.

Revised to 641-2.2.2.2 Provide contact connections between the fixed and movable lowering device components that are capable of passing all of the following simultaneously if necessary - EIA-232, EIA-422, EIA-485, Ethernet data signals, 1 volt peak to peak (Vp-p) video signals, as well as 120 VAC, 9-24 VAC, and 9-48 VDC power connections.

Response: We believe that the existing text is sufficient to define the functional requirements of the lowering device and to facilitate APL approval. It is generally not necessary for these devices to support simultaneous 232/422/484 and Ethernet data. The type of communication connection required may vary depending on the camera that is used, but cameras typically only require a single communication method. The same holds true for power. The lowering device must

provide the electrical connections between the control cabinet and the equipment installed on the lowering device without reducing the function or effectiveness of the equipment. Therefore, it should provide connections whatever connections are supported by the attached device. If specific, additional, simultaneous signals are required for project-specific needs, then those would need to be detailed in the plans or handled via MSP.  
No change made.

641-2.2.5 Wiring: All wiring must meets NEC requirements and is installed....  
Revised 641-2.2.5 Wiring: All wiring must meet NEC requirements and shall be installed

Response: Language changed to “All wiring must meet NEC requirements and be installed...”  
Change made.

641-4.4 Install the correct length of lowering cable to prevent cable slack and prevents cable from jumping off the winch spool.  
Revised 641-4.4 Install the correct length of lowering cable to prevent cable slack and to prevent the cable from jumping off the winch spool.

Response: Change made

641-2.2.3 Lowering Tool- Regarding the statement shown in this section for the “delivery of the lowering tool to the Department after final acceptance” (see below); I’m not sure if the Department’s intentions to receive the lowering tool after final acceptance is something that is a common or unique practice. It should be before final acceptance.

Response: Change made

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Comment: (date)

**1. 641-1 (third paragraph):**

Change 'Ensure that each pole is constructed and permanently and legibly marked...' to 'Construct and permanently and legibly mark each pole...' for active-voice compliance.

Response: The Contractor does not construct the pole, but is responsible for ensuring that it meets these requirements.  
No change made.

**2. 641-1 (third paragraph):**

Change 'Concrete CCTV poles must be constructed and permanently and legibly marked...' to 'Construct and permanently and legibly mark concrete CCTV poles...' for active-voice compliance.

Response: See response above.

**3. 641-2.2 (third paragraph):**

Hyphenate 'corrosion-resistant'.

Response: Change made.

**4. 641-2.2 (fourth paragraph):**

Change 'Provided' to 'Provide'.

Response: Change made.

**5. 641-2.2.1:**

Insert a hyphen between '1' and '1/2 inch' ('1-1/2 inch').

Response: Change made.

**6. 641-2.2.2:**

Change 'is' to 'are'.

Response: Change made.

**7. 641-2.2.2:**

Add 's' to load ('All loads') or change 'All' to 'the' ('The load'), as appropriate.

Response: Change made.

**8. 641-2.2.2.2 (second paragraph):**

Change 'instructions' to 'recommendations'.

Response: Change made.

**9. 641-2.2.3 (first paragraph):**

Hyphenate 'corrosion-resistant'.

Response: Change made.

**10. 641-2.2.3 (second paragraph):**

Change 'inch' to 'inches'.

Response: Change made.

**11. 641-2.2.4 (first paragraph):**

Should 'stainless steel Type 316' be rephrased as 'Type 316 stainless steel'?

Response: Change made.

**12. 641-2.2.6 (second paragraph):**

Hyphenate 'NEMA 4 rated' ('NEMA 4-rated').

Response: No change made.

**13. 641-2.2.6 (second paragraph):**

Hyphenate 'corrosion-resistant'.

Response: Change made.

**14. 641-2.2.6 (second paragraph):**

Hyphenate '14-gauge'.

Response: No change made.

**15. 641-2.2.6 (second paragraph):**

Hyphenate 'vandal-resistant'.

Response: Change made.

**16. 641-2.2.6 (third paragraph):**

Hyphenate 'double-flanged'.

Response: Change made.

**17. 641-2.2.6 (third paragraph):**

Use either '#' or 'No.', but not both.

Response: The “#” symbol is already shown as deleted text.  
No change made.

**18. 641-2.2.6 (fourth paragraph):**

Capitalize 'schedule' ('Schedule 40').

Response: Change made.

**19. 641-3:**

Swap hyphen and comma around 'however' ('...Sections 346 and 350; however, the ...').

Response: Change made.

**20. 641-4.2 (second paragraph):**

Hyphenate '4 inch maximum' ('4-inch').

Response: No change made.

**21. 641-4.2 (second paragraph):**

Delete 'the Contractor may'.

Response: No change made.

**22. 641-4.2 (second paragraph):**

Hyphenate '6 inch maximum' ('6-inch').

Response: No change made.

**23. 641-4.2 (second paragraph):**

Change 'The Contractor may backfill with concrete.' to 'Backfill with concrete if necessary' for active-voice compliance.

Response: No change made.

**24. 641-4.4 (third paragraph):**

Hyphenate '1.25 inch PVC conduit' ('1.25-inch')

Response: No change made.

**25. 641-4.4 (fourth paragraph):**

Hyphenate 'weather-resistant'.

Response: No change made.

**26. 641-4.4 (fourth paragraph):**

Remove hyphen between 'externally' and 'mounted'. Adverbs ending in -ly are not hyphenated.

Response: Change made.

**27. 641-4.4 (last paragraph):**

Consider changing 'manufacturer recommended installation instructions, inspection instructions (including recommended schedules and procedures), and operating instructions' to the all-encompassing 'manufacturer's recommendations'.

Response: Recommend the text remains as-is due to past experience with these products.  
No change made.

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