



Additional Steel Members added to Raise Tower



Southern California Edison
ELM Project A.18-05-007

DATA REQUEST SET A1805007-ED-SCE-DEF-002

To: ENERGY DIVISION
Prepared by: Lamar Cunningham
Title: Engineering Project Manager
Dated: 08/27/2018

Question 56:

PEA Figure 3-6 Typical Single-Circuit 500 kV Dead-End Tower and Figure 3-7 Typical Single-Circuit 500 kV Suspension Tower illustrate existing towers and provide typical dimensions. At PEA page 3-75ff (Lattice Steel Tower Modification) it is noted that towers may be raised using either tower body extensions or vertical leg extensions.

Q.56. Please provide illustrations similar to Figures 3-6 and 3-7 that show how the towers altered using these two methods would appear after construction.

Response to Question 56:

There are no special pole types or special features. Rather, SCE has decided to raise towers using tower body extensions not vertical leg extensions for this Project. Attached are before and after pictures of a recent similar tower that was raised using tower body extension method. These pictures in the attachments below show the approximate visible differences.

Attachments:

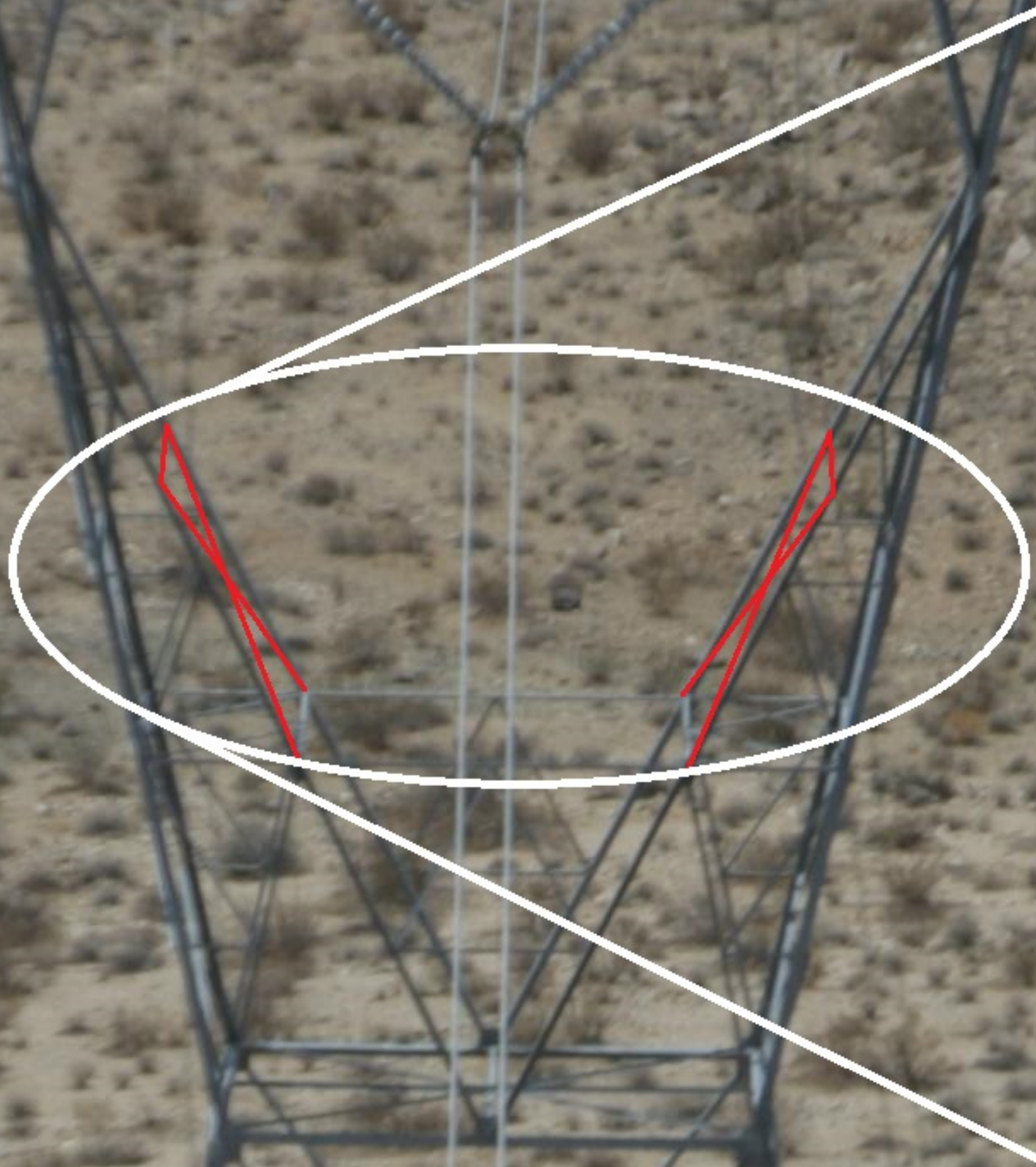
ELM_Q#56 M59-T2_BEFORE Example

ELM_Q#56 M59-T2_AFTER Example



str M29-T3

GWP MODIFICATIONS: REINFORCING MEMBERS ADDED TO TOP SECTION OF ONE GWP TO SUPPORT OPGW SPLICE



BODY MODIFICATIONS: X-BRACES ADDED TO "LAYBACKS" TO SUPPORT OPGW SPLICE LOCATION

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Question 57:

OPGW would be installed on approximately 855 existing lattice steel towers. PEA page 3-36 notes that “To support OPGW installation, tower modifications would be required.”

Q.57. Please clarify whether the modifications referenced at PEA page 3-36 are those already identified as being needed to address discrepancies, or if modifications will be required on the tops of all or most existing towers to support OPGW installation. If tower modification is required for OPGW installation, please describe the modification, including what would be removed/installed and how it would alter the appearance of the tower. If appropriate, provide an illustration of the modification.

Response to Question 57:

This question appears to be operating under the assumption that the modifications to support OPGW installation are related to the discrepancies. Page 3-36 covers conductor modifications to mitigate line discrepancies to address clearance to ground issues. It also covers tower modifications, which are intended to support the installation of OPGW. For clarification, the tower modifications indicated on Page 3-36 are related to the OPGW installation and not the discrepancies.

That being said, to address the question, the tower body and peak modifications indicated on the second row of Table 3-1 on Page 3-31 would support the installation of OPGW. These modifications are not required at the 855 existing lattice steel tower locations, but rather at the splice locations not set up to handle dead-end loading as currently installed. These modifications are intended to reinforce those specific towers to better handle the weight/load of the OPGW. Each LST that would be used as a OPGW splice location is located approximately every 2-4 miles. Please see the before and after pictures as similar examples.

Attachments:

ELM_Q#57 M29-T3_BEFORE Example

ELM_Q#57 M29-T3_AFTER Example