

**J.B. Dixon Engineering & Surveying Inc.**  
**200 East Laurel Ave.**  
**Lompoc, CA 93436**

ph 805-736-5523  
fax 805-736-5513

e-mail [jim@jbdixon.com](mailto:jim@jbdixon.com)

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Michael Buckingham  
Spirit Communications

Re: Orcutt Radio Tower orientation

Last May we checked the orientation of the transmitter antennae placed on a tower south of Orcutt. We reported the orientation of the antennae as being 155° from True North. Apparently the orientation should have been at 150° from True North. Given the critical nature of the orientation, we decided to undertake a more formal survey of the "as-built" installation, rather than relying of a visual sighting from the orientation point set 100 feet from the tower.

We once again established True North using GPS readings. We then surveyed in the actual location of the Vertical Bars shown on your photos and then calculated the orientation of the bars with a right angle to the tangent between the bars being the orientation of the transmitter antennae. The location of the Vertical bars was determined by the use of reflectorless distance measuring capability of our Total Station.

The results of our survey and calculations showed that the orientation of the vertical bars was slightly more that 150° from True North at 151.5 degrees. In order to adjust the antennae to face exactly to 150°, the antenna would need to be rotated counterclockwise 0.07 feet. In my professional opinion given the extremely small adjustment tolerance of .07 feet the current orientation at 151.5 degrees is as close to 150 degrees as is reasonably possible.

Please let me know if I can be of further assistance, or if you have any questions.

James Dixon PE

