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Report of Horizontal Accuracy Testing of 4" Digital Orthophotos for Los Angeles Region Imagery Acquisition Consortium 4 (LAR-IAC6)

Date: June 30, 2021

References: a. *ASPRS Positional Accuracy Standards for Digital Geospatial Data*, V1.0, Nov, 2014

b. Quality Plan for Los Angeles Region Imagery Acquisition Consortium 6 (LARIAC6)

Reference a. Consistent with the National Standard for Spatial Data Accuracy (1998), Reference a implements a statistical and testing methodology for estimating the positional accuracy of points on digital orthophotos with respect to georeferenced ground positions of higher accuracy, reported at the 95% confidence level.

Reference b. LAR-IAC6's 4" digital orthophotos, produced by EagleView, were tested in accordance with Acceptance Criteria listed in Reference b. The "georeferenced ground positions of higher accuracy," referred to generically as "QA/QC checkpoints," were provided by LARIAC with additional checkpoints surveyed by Dewberry in 2014. A total of 141 checkpoints were used in the accuracy assessment. Each QA/QC checkpoint is a ground point feature that is well-defined and photo-identifiable on the digital orthophotos from which California State Plane Zone V coordinates were measured by Dewberry. Dewberry determined the Δx and Δy differences in Eastings (x-coordinates) and Northings (y-coordinates) between the ground-surveyed QA/QC checkpoints and their coordinates extracted from the digital orthophotos. Dewberry then computed the root-mean-square-error (RMSE) statistics, including $RMSE_x$, $RMSE_y$, and $RMSE_r$. $RMSE_r$ is the radial statistic which equals the square root of [$RMSE_x^2$ + $RMSE_y^2$]. Finally, The NSSDA absolute accuracy statistic ($Accuracy_r$) is computed as $RMSE_r$ x 1.7308 in order to report the tested horizontal accuracy at the 95% confidence level as required by Reference a.

Criteria for 4-inch GSD Imagery	Acceptance Criteria	Tested
$Accuracy_r$ (acceptance criteria 31)	2.50 ft	1.21 ft
Number of QA/QC checkpoints used	N/A	141

The data set was tested to meet ASPRS Positional Accuracy Standards for Digital Geospatial Data (2014) for a 1 ft $RMSE_x$/$RMSE_y$ Horizontal Accuracy Class. Actual positional accuracy was found to be = ± 1.21 ft at 95% confidence level.

I, Steven A. Wood, CA PLS#6132, do hereby certify that I was the surveyor of record that performed the GPS measurements on the 141 photo identifiable check points referenced above , and that I have reviewed the tabulations stated above and referenced in the attached spreadsheet, on July 01, 2021.

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