

**Project Definition:** The entire collection for a contracted area.

**Work Unit Definition:** A production block of data defined by the National Geospatial Technical Operations Center due to expediency, priority or resource allocation. There can be one or many work units per project.

## Project Information

<b>Lidar Base Specification:</b> 2020 Revision A	<b>Primary Contractor:</b> Quantum Spatial Inc. (QSI)
<b>Las Version:</b> 1.4	<b>Contract Mechanism:</b> GPSC
<b>P Method:</b> 7 - Linear-Mode Lidar	
<b>Collection Start Date:</b> 07-02-2019	<b>Collection End Date:</b> 07-03-2021
<b>The National Map Email:</b> tnm_help@usgs.gov	

## Vertical Accuracy Results

The U.S. Geological Survey evaluates absolute vertical accuracy of the lidar and lidar-derived bare earth DEM data at the project level	Lidar Point Cloud		Digital Elevation Model	
	Required Value(cm)	Tested Value (cm)	Required Value(cm)	Tested Value (cm)
<b>Non-Vegetated Vertical Accuracy</b>				
95-Percent Confidence Level	19.6	4.04	19.6	4.15
<b>Vegetated Vertical Accuracy</b>				
95th Percentile	N/A	10.46	30.0	9.57

Please see the vertical\_accuracy folder within the project metadata for more information.

## Classifications Used

Classification verification is limited to the minimum required by applicable Lidar Base Specification. Classifications beyond the minimum are not verified by USGS.	
Classification ID	Classification Type
1	
2	Ground
7	Low Point (noise)
9	Water
17	Bridge Deck
18	High Noise
20	Ignored Ground

## Sensor(s) Used

Sensor
Riegl 1560ii/ii-s - Rotating Polygonal Mirror

## Work Unit Information

CA_AlamedaCo_1_2021	Work Unit ID: 221238	Quality Level: 1
Horizontal EPSG Code: 6420	Vertical EPSG Code: 6360	Geoid Model: GEOID 18
DEM Ground Sample Distance: 1.0	Hydro Treatment: hydro-flattened	
Collection Start Date: 2021-06-21	Collection End Date: 2021-07-02	

CA_AlamedaCo_2_2021	Work Unit ID: 225021	Quality Level: 1
Horizontal EPSG Code: 6420	Vertical EPSG Code: 6360	Geoid Model: GEOID 18
DEM Ground Sample Distance: 1.0	Hydro Treatment: hydro-flattened	
Collection Start Date: 2019-07-02	Collection End Date: 2021-07-02	

CA_AlamedaCo_3_2021	Work Unit ID: 225024	Quality Level: 0
Horizontal EPSG Code: 6420	Vertical EPSG Code: 6360	Geoid Model: GEOID 18
DEM Ground Sample Distance: 1.0	Hydro Treatment: hydro-flattened	
Collection Start Date: 2021-06-21	Collection End Date: 2021-07-03	