San Mateo County from Above!

How SMC Agencies can Leverage Aerial Imagery and LiDAR Data

GIS Team
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Uses of Aerial Imagery

Transportation/ Infrastructure Planning	Create and Augment Data in Lieu of Field Work
	Develop Situational Awareness
Public Safety	Help with Emergency and Recovery Work
Urban and Environmental Planning	Change Detection analysis using Chronologically Sequential Digital Orthophoto

Uses of LiDAR Data

Transportation/ Infrastructure Planning	Significant Savings in Initial Project Design Phase and much more Accurate Cut and Fill Estimates
	Development of Improved Viewshed Analysis, Soil Survey Mapping, Flood Protection Analysis
Environmental Planning	Probability Modeling for Threatened and Endangered Species (Hill shading and Slope)
Forestry, Parks, Urban Planning	Topography maps, Elevation data, Building and Tree Heights

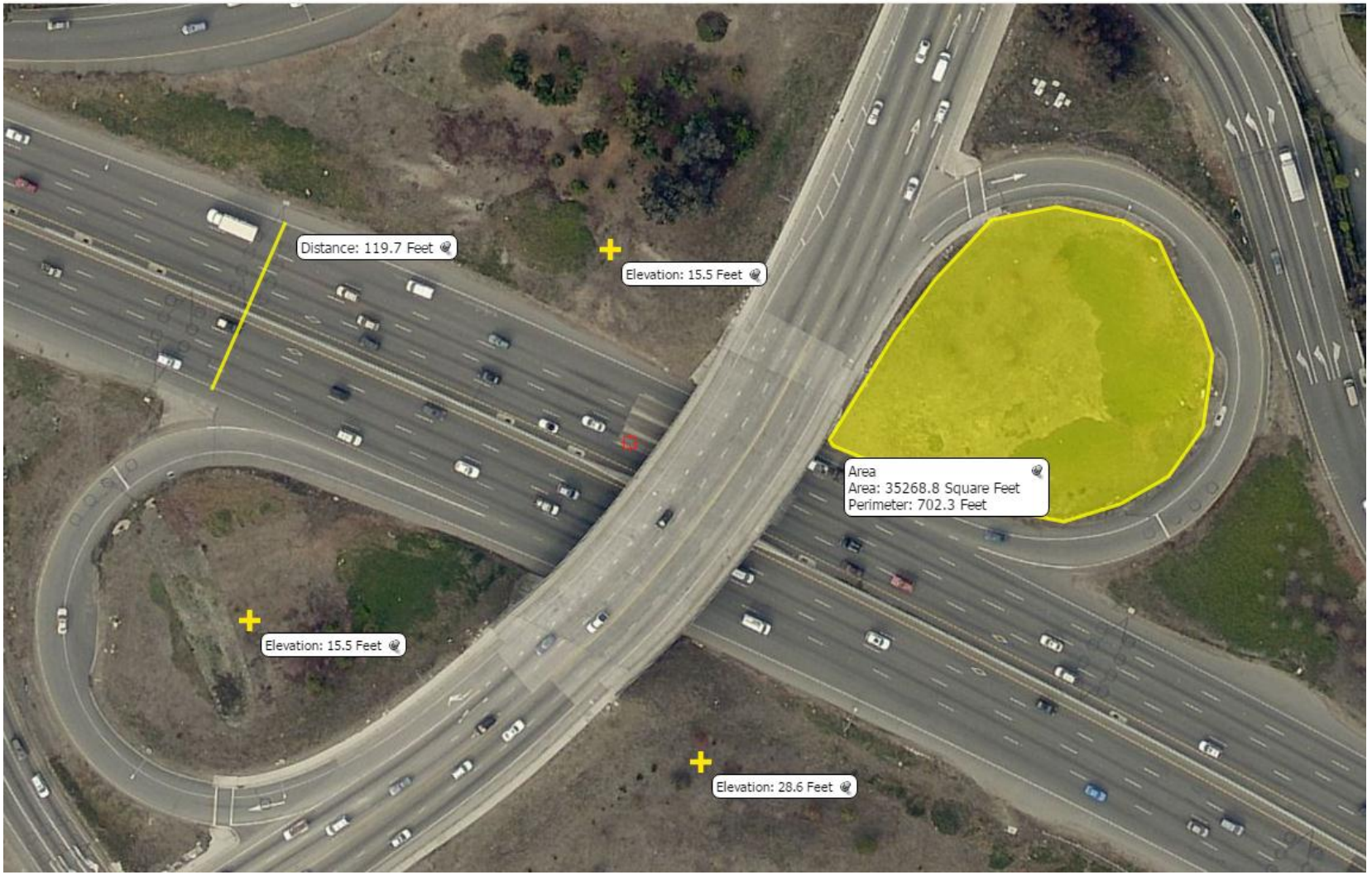
Aerial Imagery and Related Products

Tiled Imagery

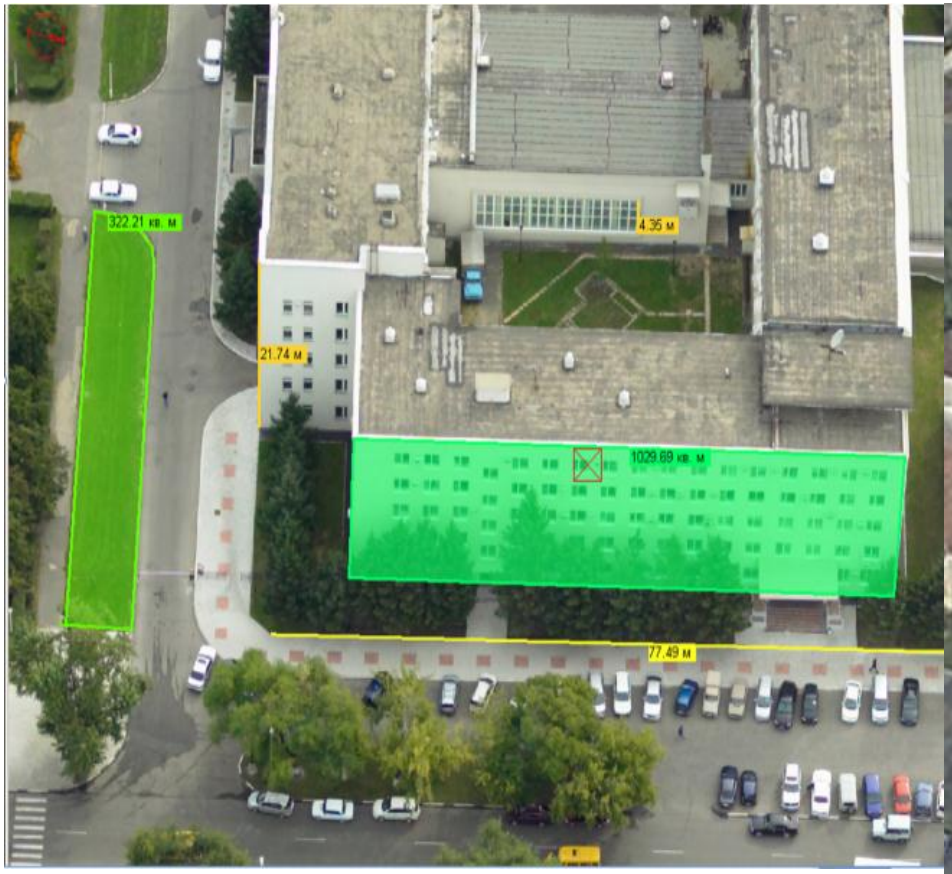
Basemaps

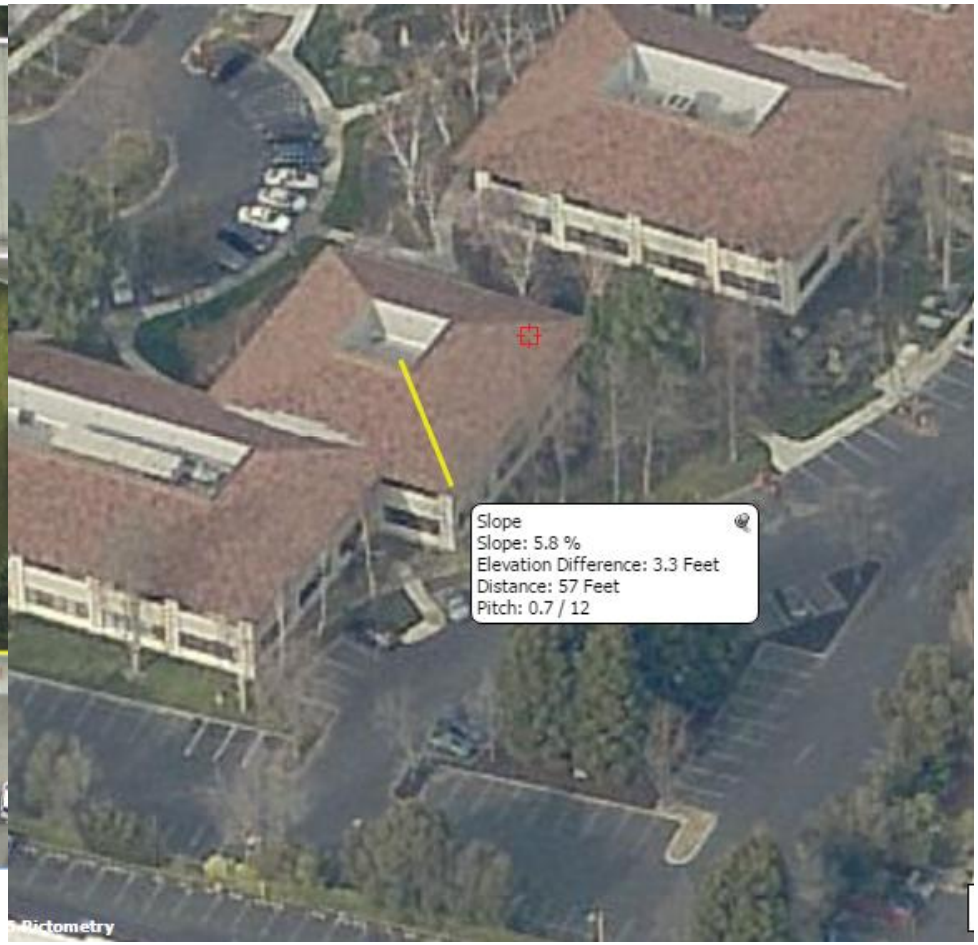
Webservices

CONNECTEXplorer



- Use the tools to calculate lane width, elevation, area on the imagery





- Use the tools to calculate roof pitch, area of the building facade

The Need

Aerial Imagery has become the Foundation for Most Public GIS

Essential Dataset for better Service Delivery and Public Safety

Regular Updates are Difficult Due to Funding Shortfalls and Uncoordinated Efforts

Cities and Agencies that are Benefitting

City of San Mateo
Redwood City
Belmont
Daly City
Portola Valley
Coastside Fire District (CalFIRE)
San Francisco Public Utilities Commission

- Over last few years, Cities has reached out to County GIS and expressed interest in acquiring high resolution imagery
- If the County is to fund this project, we would only be able to acquire low resolution imagery and cities would have to work on getting imagery of desired specification on their own

Aerial Imagery & LiDAR: Estimated Pricing

Products	Pricing
Total	**$ 240,000**
Standard Imagery (532 sq mi)	**$ 160,000**
LiDAR Data 1.0 m (532 sq mi)	**$ 80,000**
Building Outlines* (230,000 Parcels)	**$ 57,500***

Next Steps

Identify a Sustainable Funding Source for Regular Updates

Gather Specific or Special Requirements from Stakeholders

Draft an RFP

Backup Slides

In-House Imagery vs. Google Imagery

- Proprietary
- Obscured Metadata
- Availability Dependent on Broadband