Santa Clara County
Collaborative Authoritative Address Point Project

Douglas Schenk - County of Santa Clara, GIS Analyst Supervisor
Gabriel Paun, GISP - Arini Geographics - Enterprise GIS Architect
Sherie Tan - Arini Geographics - GIS Analyst
Marshall Ballard, GISP - Santa Clara Valley Transportation Authority - GIS Manager
Silicon Valley Government Geospatial Collaborative

- Common Geography
- Need to collaborate - meet quarterly
- Shared Business practices
- Data Sharing
- Emergency operations
- Training
- Ideas and Innovation
- Cost sharing

- 15 jurisdictions
  - Santa Clara County
  - City of Santa Clara
  - City of Cupertino
  - City of Mountain View
  - City of San Jose
  - City of Milpitas
  - City of Campbell
  - City of Palo Alto
  - City of Morgan Hill
  - City of Gilroy
  - City of Sunnyvale
  - Towns of Los Gatos, Saratoga, Los Altos
  - Los Altos Hills

- 4 special districts
  - Valley Water District
  - County Fire
  - Valley Transportation Authority
  - Mid Peninsula Open Space
Santa Clara County Collaborative Authoritative Address Point Project (SCCCAAPP)
- Background and Current Status May 2017

Provides a project to demonstrate ability to collaborate between authoritative GIS organizations.

Provides the public and it’s agencies with a compilation of authoritative address point information available within Santa Clara County.

Useful for; collaboration, geo-coding, mutual aid, noticing.

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**Silicon Valley Government GIS Collaborative**

**Required**
Ballard, Marshall; tenig@cupertino.org; peter.maugura@mountainview.gov; Bazzhaw, Greg; Patra, Sampa; chrism@ccf.org; Crowe, Daniel; Perrell, Tamiko; jierzak@sanjosewater.org; juceris@mgis.com
Steve, golden@mountainview.gov; Perrell@Mountainview; Permlett, Adam; Hug, Steven; Steve, radige@mountainview.gov; gi@sunnyvale.ca.us; kickech@sunnvale.ca.us; chat@oescpso.org; nvchis@oescpso.org; lvdqy.gallardo@sanjose.org

**Optional**

Gu@Sunnyvale.ca.gov; Vaidya, Durgas Conant, Alan; Obcatt, Douglas; Chen, Jasons; Maria Angelos; Shah, Roshni; Baath, Mandep

**Retention Policy**
2 Year Delete (Default) 2 years

**When**
Wednesday, October 07, 2015 9:00 AM-11:30 AM

**Location**
County of Santa Clara - 1555 Berger Drive, Building 2 Auditorium

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Hello All,

The County Enterprise GIS group volunteered to host our next meeting which should be occurring in September/October timeframe. As such, we have scheduled time on October 7, 2015 at the Berger Auditorium at 1555 Berger Drive, Building 2 from 9:00AM to 11:30AM. Refreshments will be available at 9:00AM, meeting start at 9:30AM. We hope this is enough time to get on everyone’s calendars.

The Agenda is Flexible as this is an opportunity to collaborate on all matters, but end of County of Santa Clara fiscal year is complete and it would be a good time to discuss:

1. Proposed Methods and Practice of Creating a Collaborative Address Point Feature Class for Santa Clara County (a discussion)
2. [http://www.sccgov.org/arcgis/rest/services/impending map service name change to http://www.sccgov.org/arcgis/rest/services](http://www.sccgov.org/arcgis/rest/services)
3. Santa Clara Thematic Atlas (a presentation)

Also, Additional Agenda Items:
4. Open Agenda Items (from All)

If you would like to contribute to shaping a pilot scheme for Collaborative Address Points please reply back and we can collaborate.

Sincerely, Doug Schenk
It’s not addresses, its location

- Santa Clara Valley Transportation Authority need for exceptional address data
- Addresses are important, but locations at addresses are more important
- VTA building its own trip planner using Open Trip Planner
- Addresses and Points of Interest needed
- No resource with all addresses, common problem for other countywide needs
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Coming Soon: An open database of every U.S. address

Despite what your GPS would lead you to believe, addresses are not in the public domain. The Department of Transportation is among the agencies trying to fix that.

GIS leaders push National Address Database program forward without funding

The federally-funded pilot for the U.S. Transportation Department's National Address Database is over, and with no funding prospects, state and local GIS leaders trudge on.

By Jake Williams
OCTOBER 26, 2016 4:05 PM
Open Addresses

- Great resource but data quality and reliability is a concern
- Santa Clara County Addresses in the collection
- No point of interest data
- Let’s discuss with the Collaborative
- Who has great address data?
- Who needs great address data?
- Let’s meet and discuss?
- Who is presenting a solution?
Data standardization

- Just like transit data (GTFS) General Transit Feed Specification
- Addresses - rather location needs to be standardized
- Collective groups with the knowledge and data
- VTA can spend $10k / year for Google geocoding services in its trip planner

or

Use open source solutions like Mapzen’s Pelias geocoder or ESRI Leaflet Geocoder to geocode authoritative collective government address and location data, for the mere cost of infrastructure.

But let’s create the clean addresses and locations 1st

Address maintainers unite!!!!
Santa Clara County Collaborative Authoritative Address Point Project (SCCCAAPP)
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- **Identify** authoritative address point organizations.
- **Determine** willingness and ability of organization to contribute.
- **Delineate** geographic boundaries of contribution areas.
- **Select** a contributing source for each geographic area.
- **Adopt** a common schema for contribution (no change to the operational schema necessary).
- **Compile** the merged data.
- **Deliver** the compiled data.
- **What Else?**
Santa Clara County Collaborative Authoritative Address Point Project (SCCCAAPP)
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To date **35%** of county addresses are being enhanced by contributions from authoritative data sources.

City of San Jose is in process and will increase this percentage to **84%** in the next six months.

Quantities of addresses has increased by **69%** based upon contributions to-date.

<table>
<thead>
<tr>
<th>Jurisdiction</th>
<th>Base</th>
<th>Enhanced</th>
<th>Current</th>
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</thead>
<tbody>
<tr>
<td>Campbell</td>
<td>13538</td>
<td></td>
<td>13538</td>
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<tr>
<td>Cupertino</td>
<td>17617</td>
<td>23506</td>
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<tr>
<td>Gilroy</td>
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<td>20168</td>
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<td>Los Altos</td>
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<tr>
<td>Los Altos Hills</td>
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<tr>
<td>Los Gatos</td>
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<td>24415</td>
<td>24415</td>
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<tr>
<td>Monte Sereno</td>
<td>1271</td>
<td></td>
<td>1271</td>
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<tr>
<td>Morgan Hill</td>
<td>13902</td>
<td></td>
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<tr>
<td>Mountain View</td>
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<td>36250</td>
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<tr>
<td>Palo Alto</td>
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<td>45722</td>
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<tr>
<td><strong>San Jose</strong> *</td>
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<td></td>
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<tr>
<td>Santa Clara</td>
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<tr>
<td>Saratoga</td>
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<td></td>
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<tr>
<td>Sunnyvale</td>
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<td>68057</td>
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<tr>
<td>Unincorporated</td>
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<td></td>
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<td><strong>Total</strong></td>
<td>487144</td>
<td>290550</td>
<td>605671</td>
</tr>
</tbody>
</table>

* In Process
Developing a Master Address Dataset for Local Government

City of Santa Clara
The Center of What’s Possible

Arini Geographics
An address is a standardized representation of location.

Address Components:
- House Number
- Street Direction Prefix
- Street Name
- Street Type
- Street Direction Suffix
- Building
- Unit
- City
- State
- Zip Code

How many ways do these sources spell “Avenue”?
1. Avenue
2. AVENUE
3. AV
4. Av
5. AVE
6. Ave
7. Ave
8. _AV_
9. AV_
10. Avnue
11. Avenue
12. Av__
13. Avenue_
14. A_Ve
15. Avneue
16. ___Av
17. AVENUe
18. aVENUE

This applies for many street types and names.

Every component of an address must be standardized as well.
Developing a Master Address Dataset for Local Government

Aggregating Address Records

Note: This is a simplified depiction for aggregating records that represent the same address.
Developing a Master Address Dataset for Local Government

Relationships and Representation of Addresses

Address Placement

- Points are placed 5 ft away from the parcel boundary line facing the street.
- Labels face the street that the address point corresponds to.
- Why is the centroid not used?
  - Representing duplexes and multi-family residential areas.
    - Highlighted in green

Nantucket Apartments

Units are arranged and displayed based upon building plans and fire complex cards.

Notice the main address for the complex (1600 Nantucket Circle) is facing the entrance of the complex.
Next Steps/Vision

- Expand the collaboration efforts to additional data sets (ex. streets, POI)
- Input from Users
- Applications using the data
- Increase the importance of updates and standardization.
Questions?

marshall.ballard@vta.org  
douglas.schenk@isd.sccgov.org  
sherie@arinigeo.com  
gabriel@arinigeo.com