

ARNOLD, GIS and the LHI

ARNOLD

All Roads Network of Linear (Referenced) Data

2012 Requirement of the FHWA (Federal Highway Administration)

All Public Roads NYSDOT at +/- 15,600 Centerline Miles Town, Village, City, and County at +/- 97,000 CL Miles



Local Highway Inventory

Listing of roads & streets under the responsibility of the towns, cities, villages, and counties of New York State.

As early as 1957

Linked to Current Funding since 1981



Sources

Statewide "Streets" from GIS Program Office

- System used for E-911, address ranges
- Often used in county tax mapping

Local Highway Inventory

Aerial photography and Geographic Information System (GIS) for editing



Tools

County highway & other published maps

Commercial Internet-based mapping tools

- Google Earth, Maps, and Street View
- Bing Maps, Birds Eye View, Streetside

NYS aerial photography

Online county tax mapping

NYS planimetric quadrangle mapping



Process

Match appropriate arcs from "Streets" to roads from Local Highway Inventory (LHI)

"Build" GIS route

Use aerial photography to measure road lengths

Edit GIS Street and/or LHI record to match measured length

Confirm With Municipality



Edits

Name - try to match common names, particularly those which can be seen on road signs such as on Google Street View

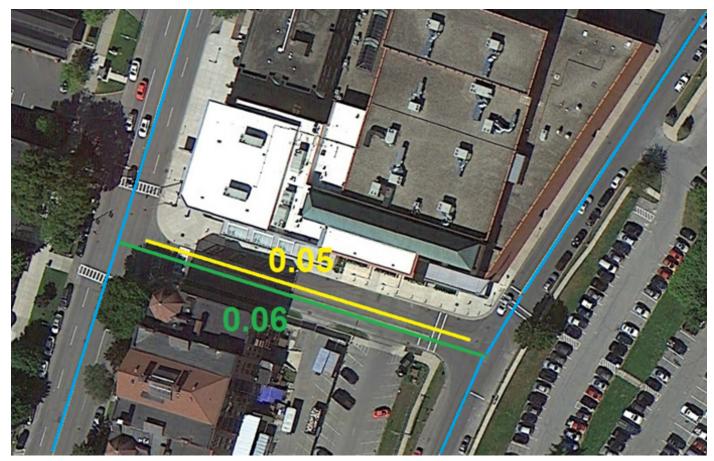
From/To descriptions – preferably reflect visible features primarily using cross streets

Length changes – aerial photography used to validate



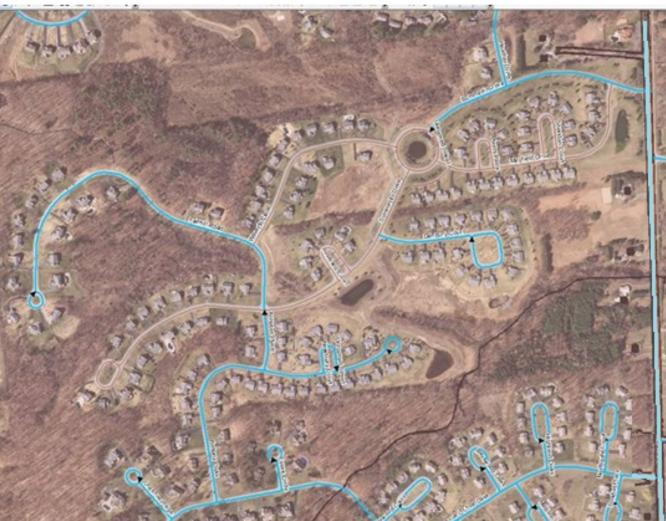
Measurements

Centerline to Centerline





Network Finds



Is it finished?
Is it approved?
Is there a dispute?
Is it <u>Public</u>?



Purpose – Data Delivery

Planning

- Safety, Traffic, Travel Demand, Corridor Planning
- **Program Development/Delivery**
- EIS, TIP, Design, ROW, Construction

Operations

- -Public Info, Winter Maintenance, Permitting,
- **Emergency Dispatch**
- **Asset Management**
- -Pavement/Bridge/Highway Inventory, Signs/Signals/ Markings, Photolog
- Data, Data, Data... (DRIP)



"If you build it, they can place data on it"



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Public Road

Federal Highway Administration Highway Performance Monitoring System

... any road or street owned and maintained by a public authority ... open to public travel ... available, except during scheduled periods, extreme weather or emergency conditions, passable by four-wheel standard passenger cars, and open to the general public for use without restrictive gates, prohibitive signs ...

