

LOCAL GOVERNMENT DATA COLLECTION USING COLLECTOR AND ARCGIS ONLINE



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AGENDA

- *Manassas Overview*
- *GIS in Manassas*
- *How AGOL Use Started in Manassas*
- *Site Inspection with Collector*
- *Damage Assessment with Collector*
- *Game Changers*
- *Questions*

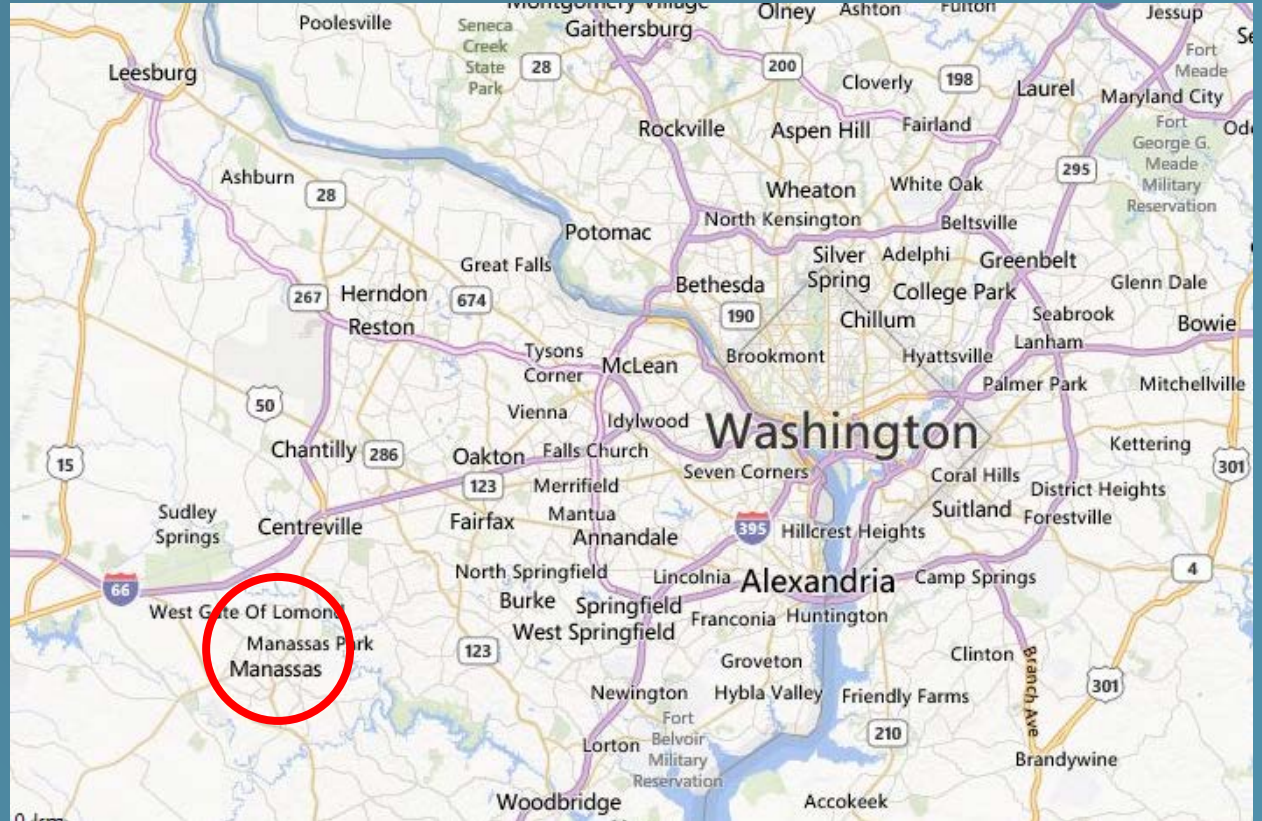


ABOUT MANASSAS

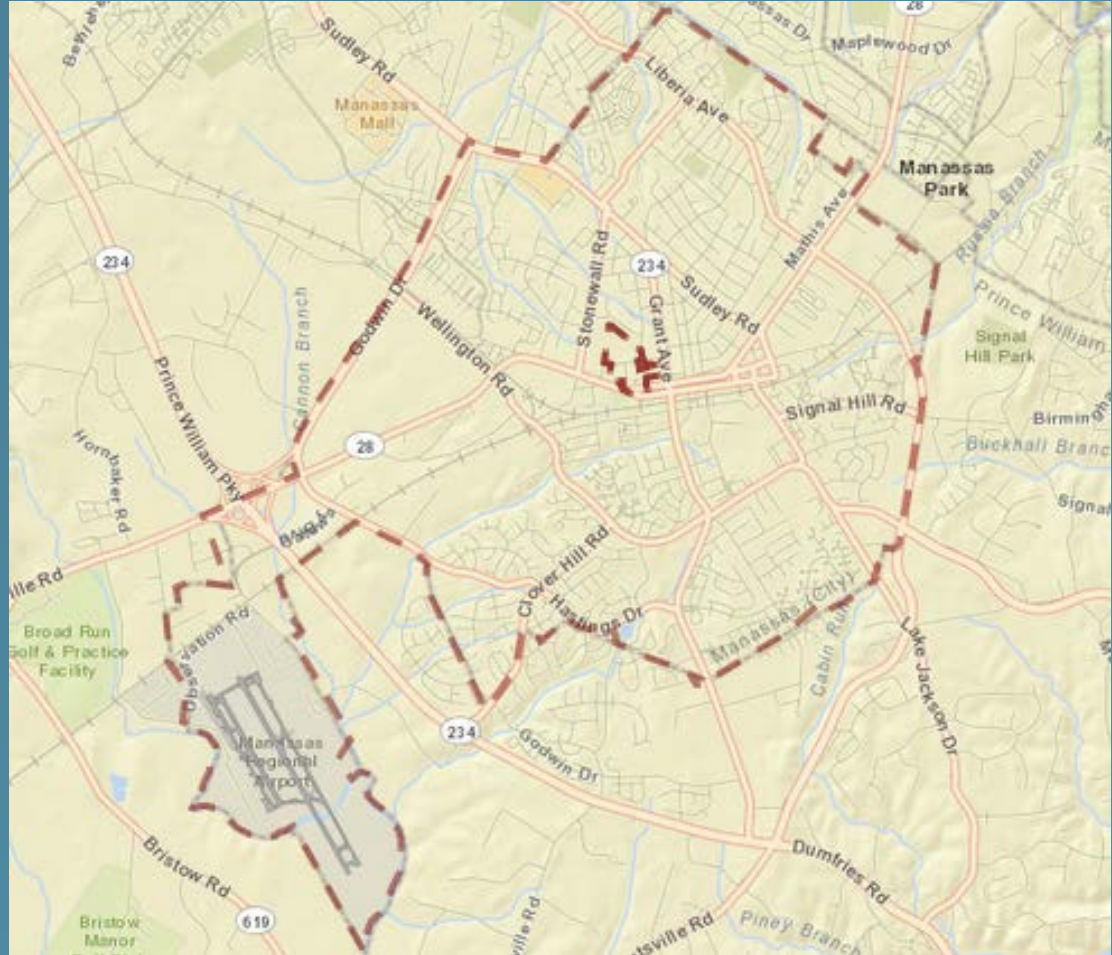
- *Proximity: 25 miles Southwest of Washington DC*
- *10 Square Miles*
- *Population: Approximately 40,000*
- *Employees: ~350*
- *Independent City*
- *Maintain our own Electric, Water, Sewer, Storm, Roads, Airport, etc.*



LOCATION



A DONUT!



GIS IN MANASSAS

- *Major reorganization ~7 years ago.*
- *Moved from PW to IT.*
- *Migrated from AutoCAD to ESRI.*
- *Personnel restructure.*



GIS IN MANASSAS

- 2 Full time GIS employees
 - GIS Coordinator
 - GIS DBA
- ~10 Part time “Data Stewards”
- ~40 ArcGIS Desktop Licenses in use
- One internal server (virtualized) running ArcGIS Server 10.2.2
- Web Adaptor running on box in the DMZ.

Acquired the Small Government ESRI Enterprise License Agreement (ELA) in December 2012.

Renewed in December 2015



HOW AGOL USE STARTED IN MANASSAS

- *Went live in January 2013.*
- *Redesigned in September 2015 using WebApp Builder.*
- *Main public GIS website.*
- *Hosting HTML on local server/Hosting services on AGOL.*



SUBSEQUENT SITES

- *Winters Branch Story Map*
 - *Dev Time: 6 weeks (mostly data)*
- *Old Town Parking App*
 - *Dev Time: 1 week*
- *Leaf, Trash, Recycling App (My Government Services)*
 - *Dev Time: 2 weeks (mostly data)*
- *Government & Building Services Finder App*
 - *Dev Time: 2 days*
- *Manassas Museum Historical Tour Story Map*
 - *Dev Time: 2 days*



SITE INSPECTION DATA COLLECTION

Major Capital Improvement Project: Upper Flat Branch Sewer Interceptor Project

- Replace ~1,800 linear feet of existing 8, 10 and 12-inch diameter gravity sewer.
- Replace/Install 17 manholes.
- Replace 40 sanitary service laterals.
- Replace 1,400 feet of 8” water main, two fire hydrants, several valves, and ten water service lines.
- Install ~1069 feet of various sizes of storm sewer pipe and box culverts.
- Install 17 storm structures.
- Replace all sidewalks, curb, gutter, asphalt.



UFBI INSPECTION

Goals:

- *Eliminate duplication of effort & paper processes.*
- *Capture fields dictate by specific reporting requirements.*
- *Generate Reports as needed.*
- *Enrich data with photos and video.*
- *Allow visibility to project managers, as needed.*
- *Use coded domains to simplify collection.*
- *Authenticated.*

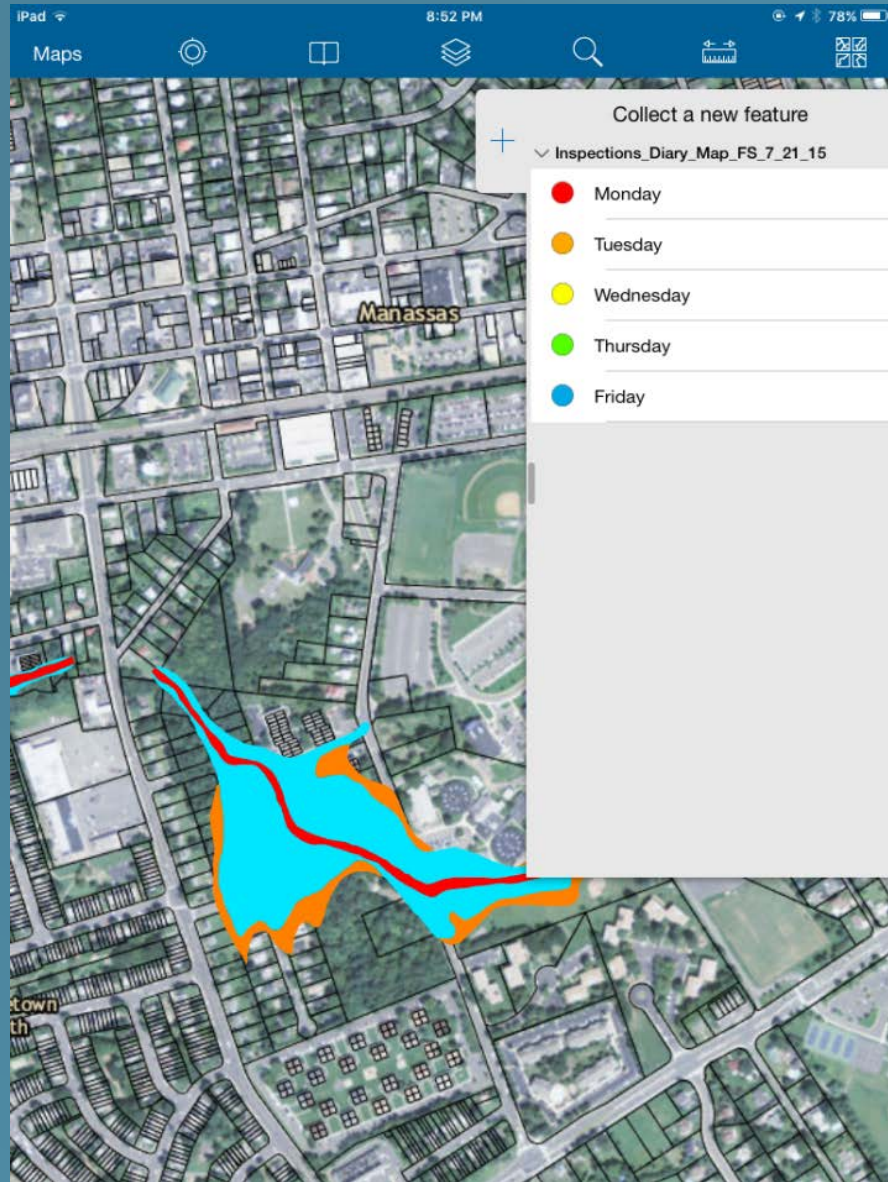


UFBI INSPECTION

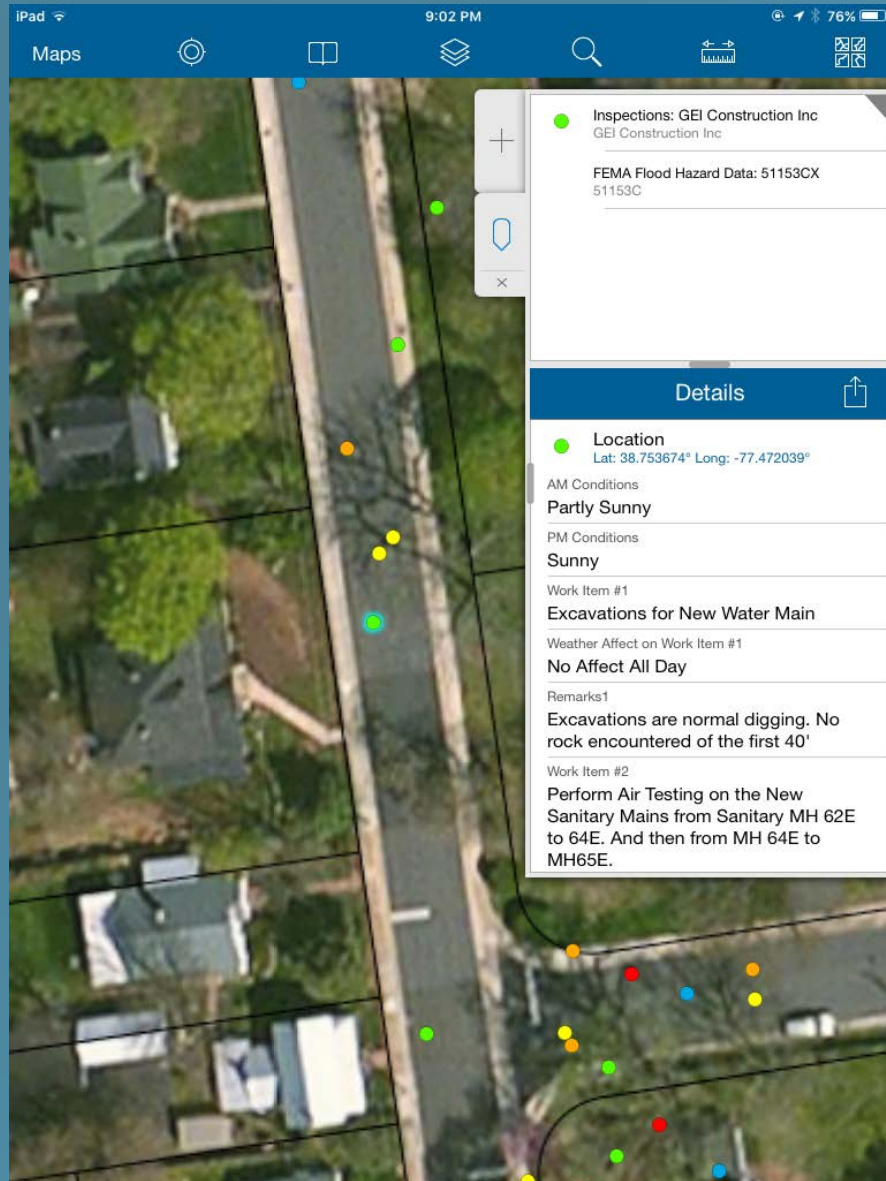
- *Parcels Data (owner, address, etc.)*
- *Flood Hazard Data*
- *Imagery (ESRI)*
- *Data Collection Service*
 - *As defined by State requirements, inspector needs, etc.*
 - *Used AGO Assistant to edit the JSON to limit number of points shown on device to eliminate clutter.*



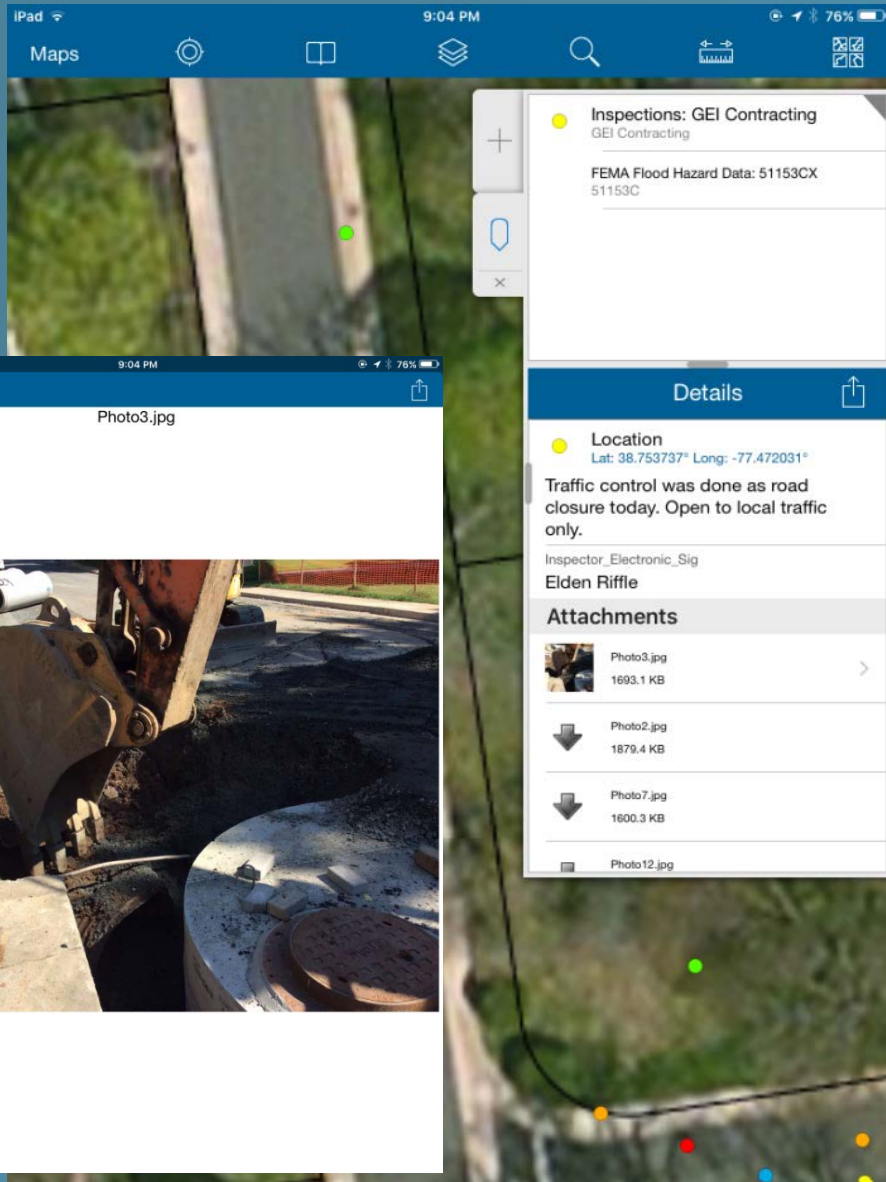
UFBI INSPECTION



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UFBI INSPECTION

{ArcGIS Online Web Map Demo}



UFBI INSPECTION

Reports Using ESRI Report Viewer:

Report Date: 9/22/2015 8:19:25 PM High Temp: 58 *F
Day of the Week: Tuesday Low Temp: 74 *F
Inspector's Name: Elden Riffle
Contract Number: <null> AM Conditions: Partly Cloudy
TIP Number: <null> PM Conditions: Sunny
Accident? No
Date of Accident: <null>

Work Item #1:

Sanitary sewer main replacement

Weather Affect: No Affect All Day

Rock excavation slowing progress. Today rock ledge jumped up from 3.5 feet to approximately 10' feet.

Work Item #2:

Columbia gas main replacement

Weather Affect: No Affect All Day

Columbia gas contractor showed up on site today but did not stay the entire day. Call Columbia Gas Inspector to get reasons for delays. No call back as of yet at 4:30 pm



DAMAGE ASSESSMENT

Goals:

- *Eliminate paper damage inspection process (and duplication of effort).*
- *Enrich data collection with photos (attached to the record).*
- *Real time delivery of images and reports in the EOC.*
- *Visualize patterns if possible.*

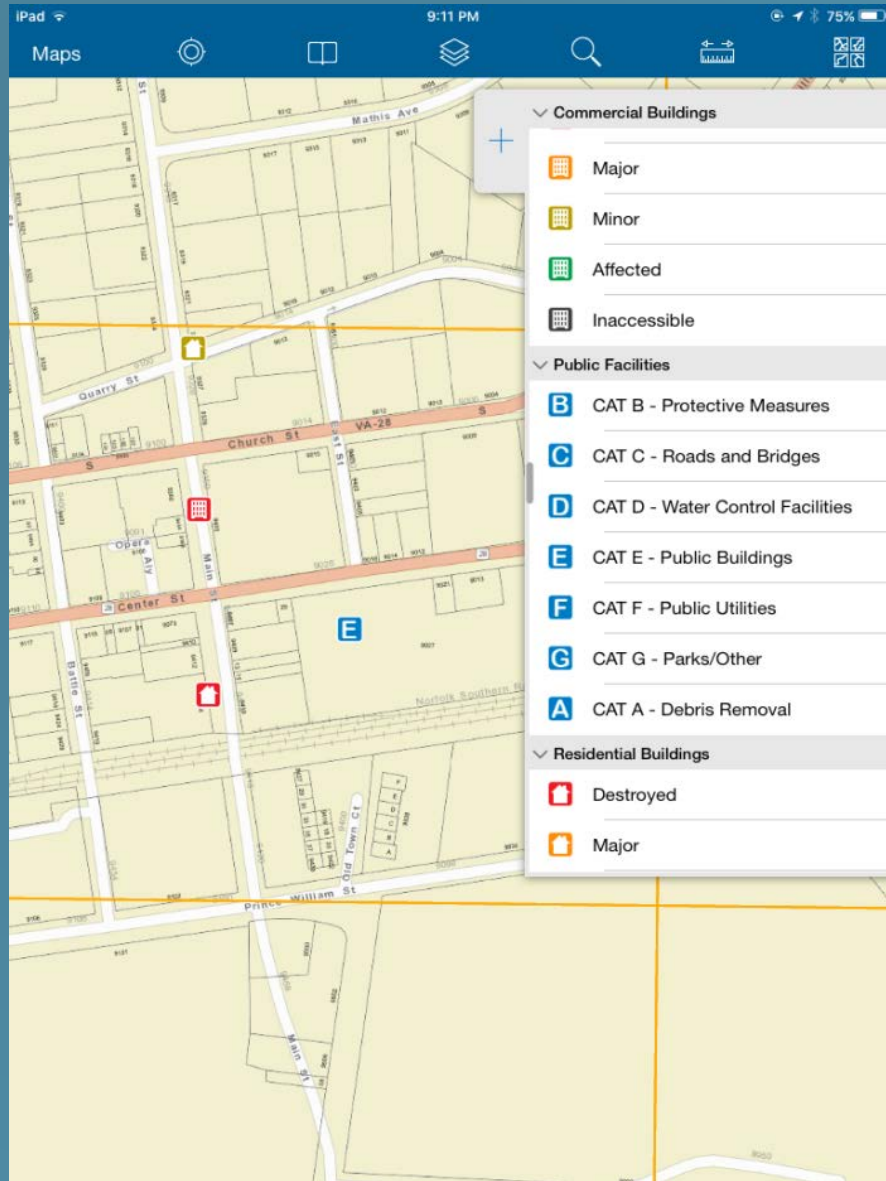


DAMAGE ASSESSMENT

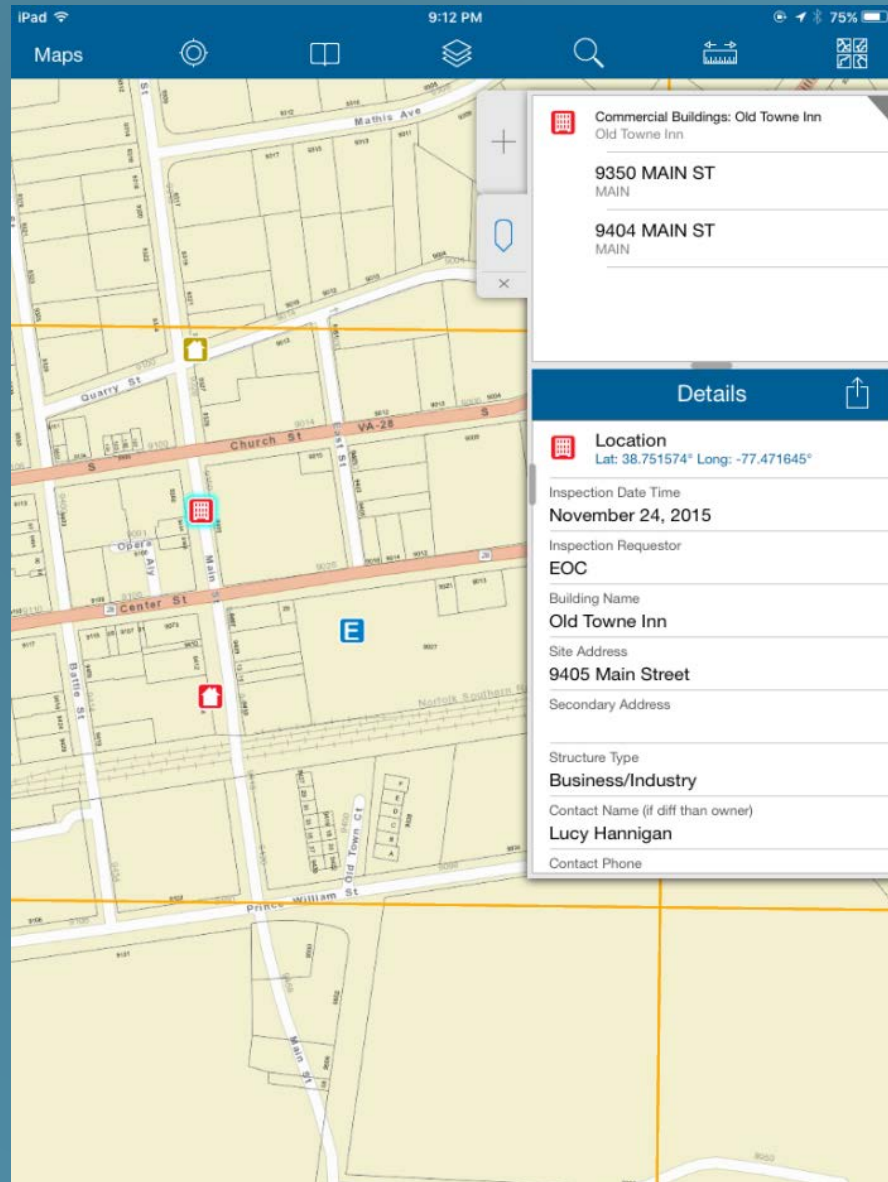
- *Utilized the ESRI Local Government Model.*
- *Added ~15 fields for building inspection purposes.*
- *Used coded domain values whenever possible.*



DAMAGE ASSESSMENT



DAMAGE ASSESSMENT



DAMAGE ASSESSMENT

{Dashboard Demo}



LESSONS LEARNED

- *Whenever possible start with Local Government Model first.*
- *Carve out time to review latest ESRI solutions and stay up-to-date.*
- *Watch out for Alias issues. Aliases in Catalog /= Aliases in ArcMap.*
- *Expect repeated iterations on the same app. Two at a minimum.*
- *Stay in the game – it's ever changing! Develop an app every 4-6 weeks if possible.*



GAME CHANGERS

Manassas GIS has changed dramatically in the past few years.

- *ELA allows for more users. No longer limited by extensions.*
- *Local Government Model provides the schema – implemented for select datasets.*
- *Local Government Solutions provide nearly ready solutions that can be quickly stood up.*



QUESTIONS?

