USING DATA IN THE FIELD

Transitioning from Explorer to Field Maps

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Many years ago I had developed an online utility map in ArcGIS Online for our field crews to use with ArcGIS Explorer, which has served us well.

The Public Works apps based on this included:

► Explorer – general utility line look-ups with link to as-built drawings

► Collector – record valve maintenance, fire hydrant painting, storm drain inlet markers, etc…

WHAT WE'RE USING

There were issues associated with using multiple apps, and with their use on individual's phones.

- ▶ One app had to be closed to access another app
- ▶ Cell phones have a small screen
- ▶ Supporting apps on personal devices was problematic
- ▶ Rolling out a new app involved new training / loading

SUPPORTING FIELD APPS

Then I heard about a new app released in Oct 2020 that would combine all of these field apps into one – Field Maps

After some quick investigation I decided to move to that app – aided by the fact that Esri is sunsetting Explorer

► It immediately used my existing ArcGIS Online Utility Map

► Most of my current Public Works apps could be combined into a single app

INVESTIGATING FIELD MAPS

Moving to Field Maps solved a couple of my issues, but it didn't alleviate my major headache – people still wanted to use their personal cell phones for mapping.

With some persuasion I got Engineering to move to new tablets w/ integrated cell service.

► Information Services paid for the tablets

► Engineering took over the monthly usage costs.

► Other information I don't want to put in writing.

STILL ONE ISSUE
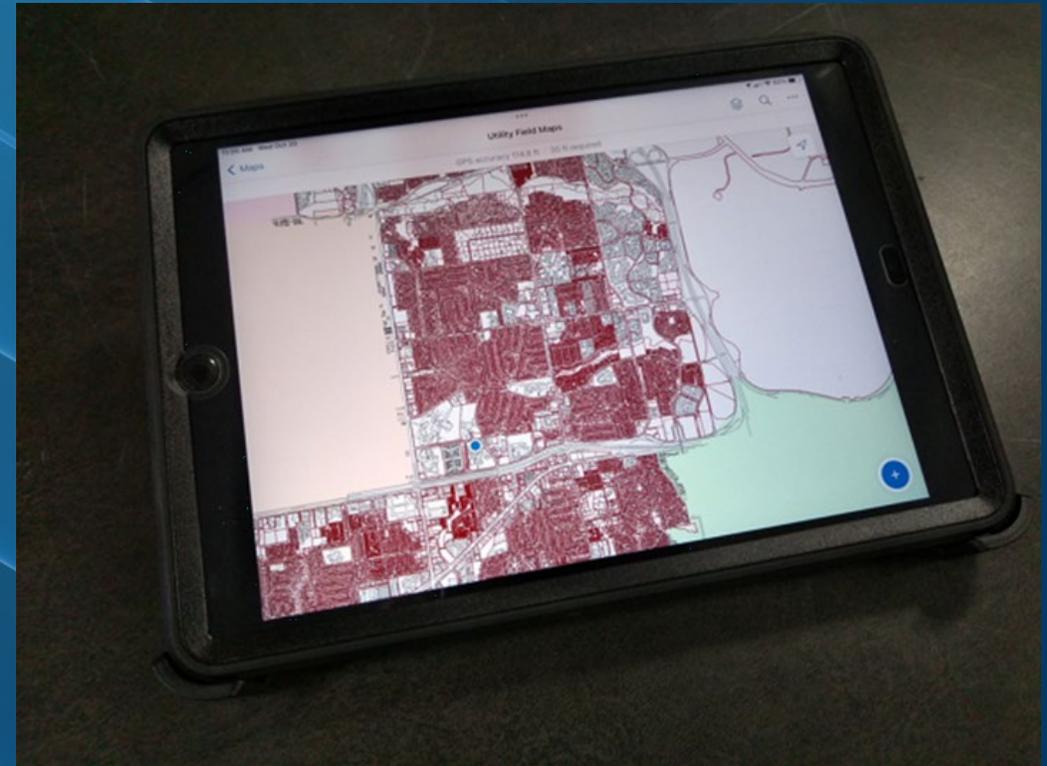
Setting up Field Maps is done in both ArcGIS Online and the Field Maps desktop configuration app.

- ► In ArcGIS Online:
  - ► You build any feature layers that you will need in the map.
  - ► You make the map and configure symbology and pop-ups.
- ► In the Field Maps configuration you set up the layers and any field collection interfaces
  - ► **https://www.arcgis.com/apps/fieldmaps**

BUILDING THE DATA

The map in AGOL includes the layers I had before, but also new layers to accept the field data collection.

► Add a layer with editing and attachments enabled

► Set up the pop-up window for the fields you want to collect

AGOL MAP
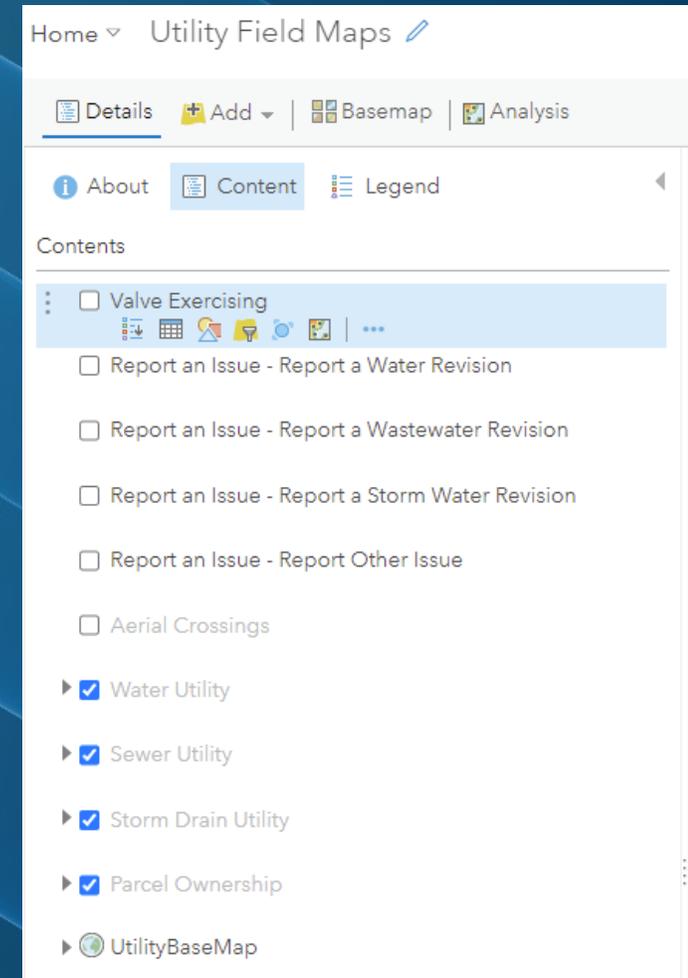
When you load Field Maps it will list pretty much every AGOL map you have, and I needed to restrict them to only one map to avoid confusion.

The Field Maps configuration let's you control this.

► Put users in a specific group.

► Share the maps to their group.

► Mark all other maps besides the target map as 'hidden' in Field Maps

SETTING UP FIELD MAPS
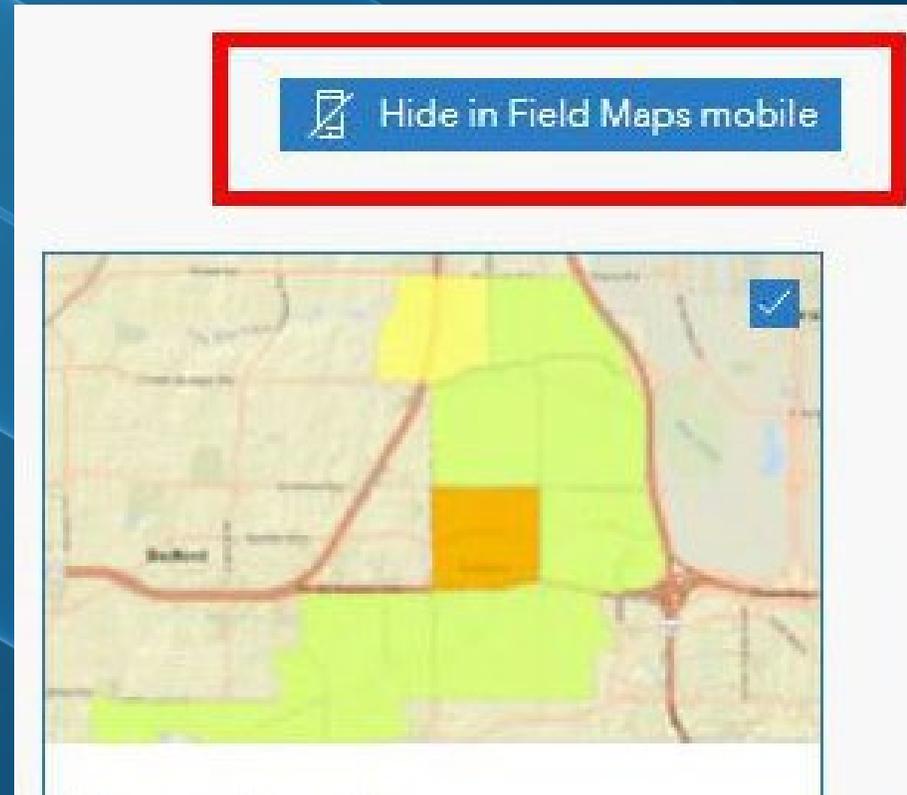
Editable layers will have a Form Builder canvas on which you build the form. After selecting a layer on the left, you can drag fields from the list into the canvas and configure them or pull in the configured pop-up.

If the layer is set for editing, the form will display and allow data collection.

If the layer has attachments enabled it will automatically add the photo capabilities.

► Text fields can be text or scan from a QR or Bar code

► Fields with a pick list can be a selection list or radio buttons

► You can group items like in a GeoForm

CONFIGURING

I added layers to allow field workers to report revisions to the utility data.

- ► Turn the layer on
- ► Click the Collect button

Report an Issue – Report a
Water Revision

Report an Issue – Report a
Wastewater Revision

Report an Issue – Report a
Storm Water Revision

Report an Issue – Report
Other Issue
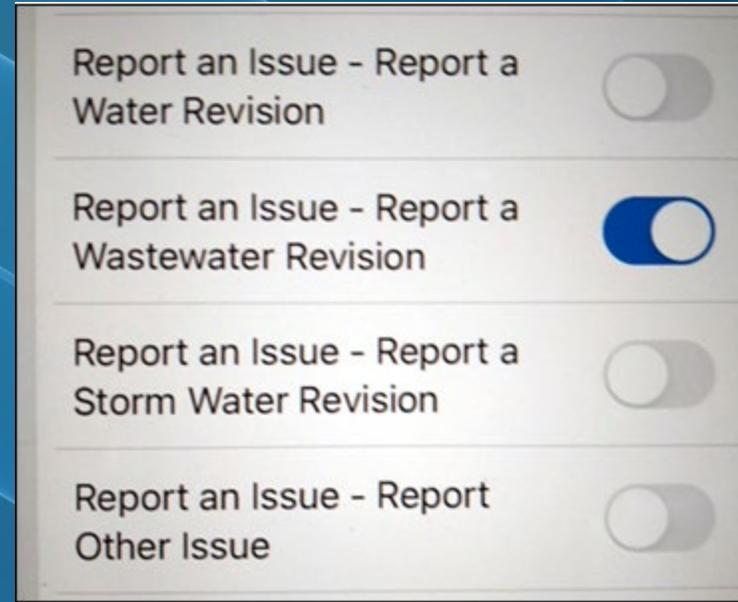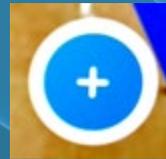
COLLECTING DATA

They fill out the form and submit. When this data gets back to me I should be able to update the GIS data accordingly.

- ▶ Pre-configured form
- ▶ Take photos
- ▶ Attach also lets you record and attach videos

THE COLLECTION FORM

Field Maps has a built-in capability to create mark-ups on a special layer that is stored on the device. You can have several markup layers, and these are turned on/off like a regular layer.

- ▶ Turn the layer on
- ▶ Click Markup in the Options menu
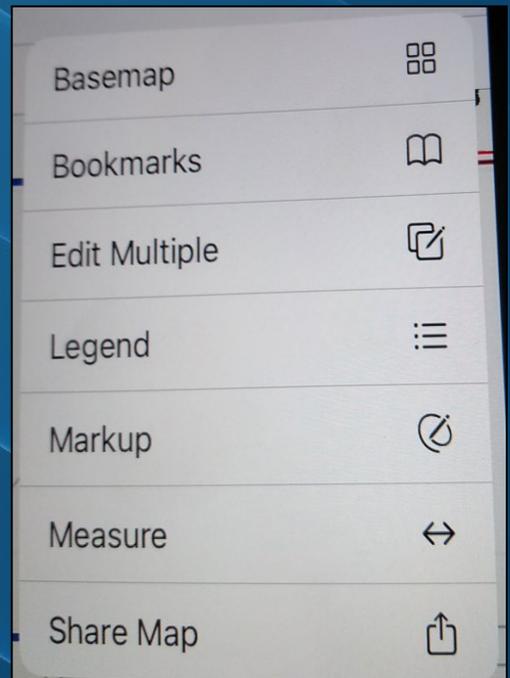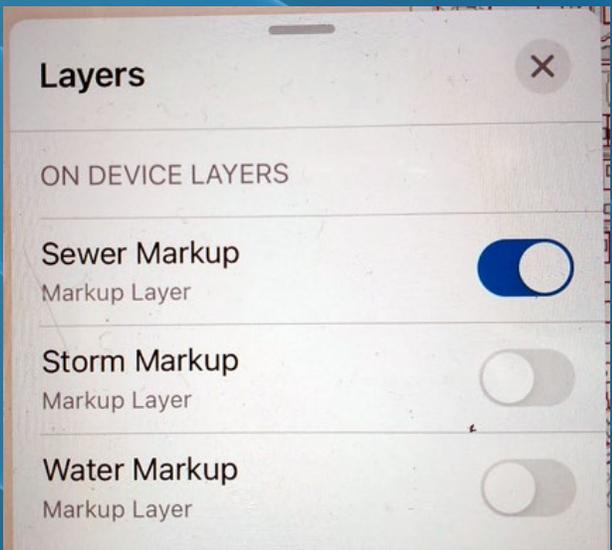
FIELD MARKUPS

Field workers can add points, lines, an polygons to represent any field changes they want to report.

► Draw with your finger

► Change the colors and fill out the notes

► No pictures with Markups

► When completed you upload to AGOL and it makes a new Markup layer
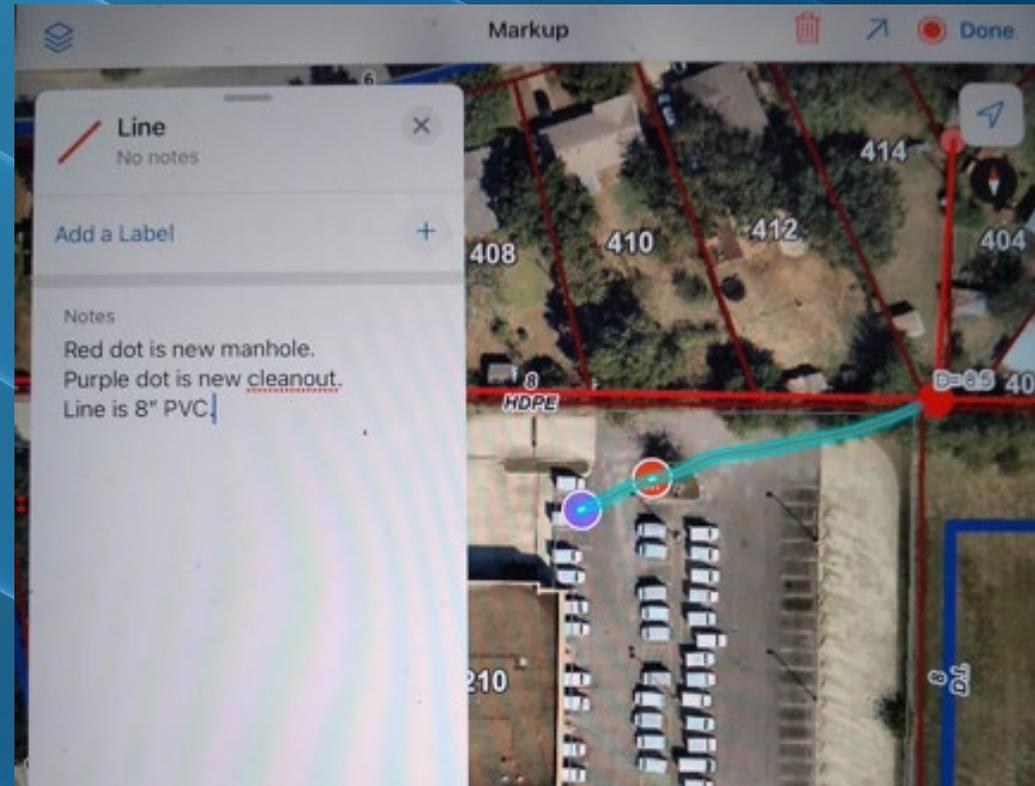
FIELD MARKUPS

With the correct user permissions the markup data can be shared via ArcGIS Online as a hosted Markup Layer

- ► The Markup Layer can hold points, lines, and polygons but manages them as a single layer

- ► We're doing both Markups and Collector style field reporting
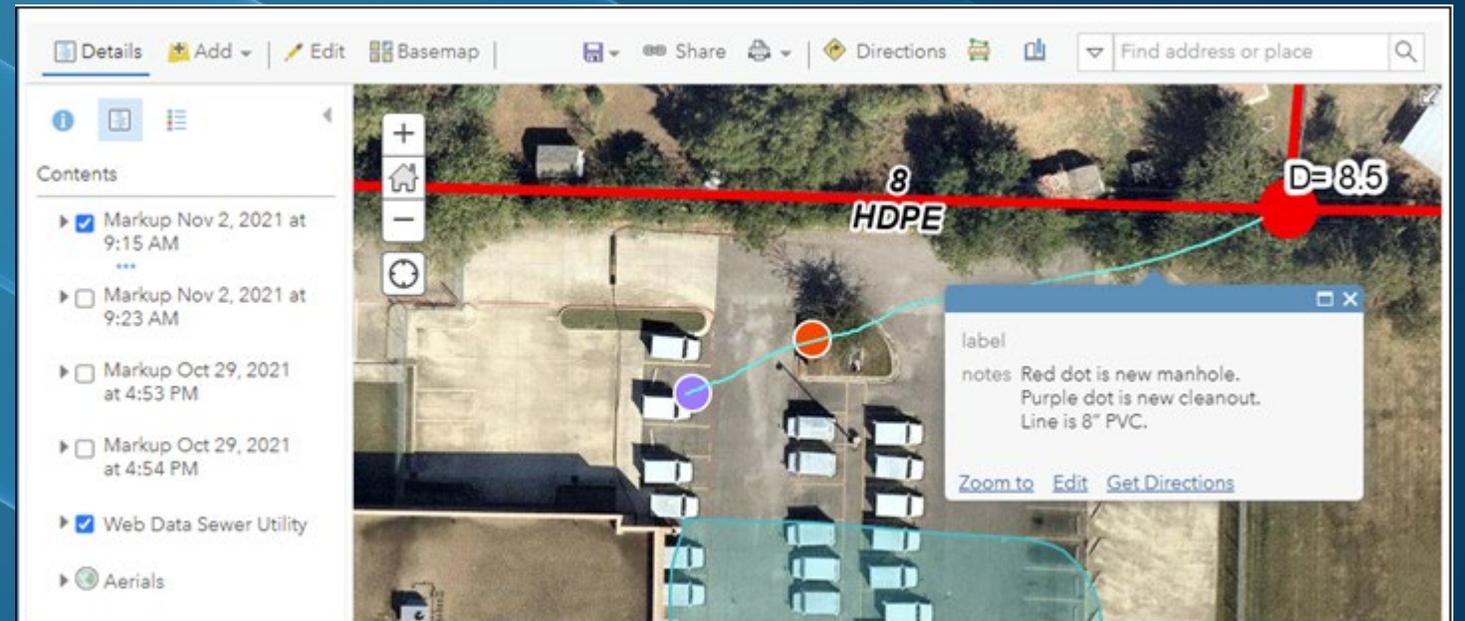
MARKUPS IN AGOL

The Valve Inspection is super simple.

► Touch the valve

► Change the date to Today

► If the valve needs attention, use the Report an Issue to get it on the repair list.

COLLECTING DATA
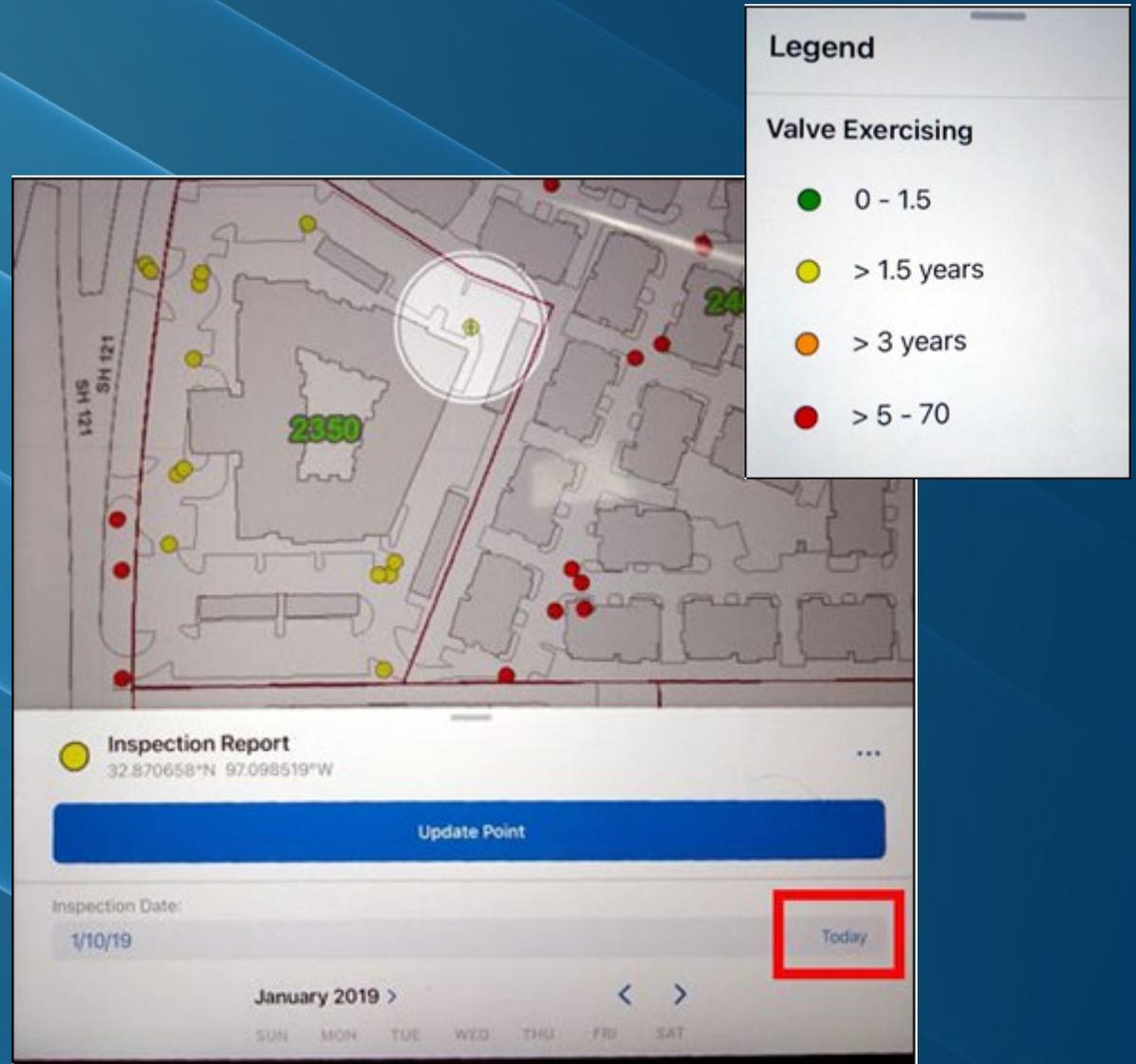
We're hoping to solve many of our existing issues with Field Maps

- ► Single device to support
- ► Single app to use
- ► Better reporting of field work to GIS
- ► Plug in the tablet for a demo

WRAP UP & DEMO

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QUESTIONS?