Florida Motor Carrier Size and Weight (MCS-AW) Asset Inventory and Management
A story map

**MCSAW Asset Inventory & Assessment**

**Overview of Inventory and Assessment Objectives**

- Locate and geospatially code all assets by type, material, etc.
- Complete a condition assessment of the assets and attributes
- Perform a maintenance rating of the assets (MRP and UI criteria)
- Assess the functionality of assets and solicit feedback from weigh station staff
- Why?
A story map

MCSAW Asset Inventory & Assessment

Data Dictionary Development

MRP
Uniform Inspection Manual

- Each of the applicable assets from each document were used to develop the Data Dictionary.
- Each Asset will have it's own schema for rating purposes.
- The schema of each of the Assets will be based on the Evaluation Criteria within the applicable document.
- The Asset will be scored against that criteria to determine if it meets the desired maintenance rating level.
- In addition, a 5 Point Rating Scheme will be calculated to show a true condition of each discrete asset.
- The intent is to determine individual maintenance needs, as well as how the condition of the Asset class compares...
### Rating Schema Development

#### Field Rating Matrix
- **Condition assessment Ratings**: Excellent, Good, Fair, Poor, Critical/Failed
  - Exterior Assets: Laminated handout guide
  - Inside buildings: Use UI Handbook
- **MRP/UI rating**: Meets / Does Not Meet
- **Functionality**: Excellent, Good, Fair, Poor, Critical/Failed & solicit Staff feedback

#### Pavement Rating Matrix
- Ramp Pavement ratings (Exit and Entrance): Handout with slab rating criteria

### Wildwood Test Site

Pre-populating existing elements using best available information.
A story map

MCSAW Asset Inventory & Assessment

Wildwood Test Site

Pre-populating existing elements using best available information.

Wildwood LIDAR data

Electronic Inventory and Assessment
MCSAW Asset Inventory & Assessment

Electronic Inventory and Assessment

- Geospatial location
- Use of drop down windows to add data and ratings
- Photo documentation
- Functionality ratings and adding inspector comments
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Workshop and Training

HNTB organized, facilitated and led client and sub consultant workshops and training sessions for FDOT and sub consultant inspectors on correct inventory and condition assessment workflows and best practices.

Analysis

Configured web application for performing spatial analysis of assets. This app provides a macro view of all MCSAW assets as well as the ability to view each individual asset, while providing spatial feedback to the viewer based on their map extents.

Capital Planning

Configured web application to provide objective
Analysis

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Capital Planning

Configured web application to provide objective analysis of the inventoried assets to support the 5 year Capital Planning effort.

This data driven app presents the inventory and assessment data in an easy to understand, spatial interface allowing most anyone to see where priority needs exist.
MCSAW Asset Inventory & Assessment

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ESRI App Integration

Integration of mobile apps can provide a robust set of tools for managing assets.

Capture - Collector for ArcGIS
Features

- Collect and update information in the field
- Take your maps and data offline and sync changes when connected
- Improve your data quality with easy-to-use map-driven forms
- Track your work and report your activities
- Capture and share photos and videos
- Work seamlessly with Navigator for ArcGIS, Operations Dashboard for ArcGIS, Survey123 for ArcGIS, and Workforce for ArcGIS
- Works on iOS, Android, and Windows 10
- Achieve data collection with ensured spatial accuracy for critical assets

Capture - Collector for ArcGIS

Monitor - Operations Dashboard for ArcGIS

HNTB Configured multiple ESRI Operations Dashboards for viewing existing infrastructure in a new format by the MCSAW staff.
A story map

MCSAW Asset Inventory & Assessment

Monitor - Operations Dashboard for ArcGIS

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Coordinate - Workforce for ArcGIS
A story map

MCSAW Asset Inventory & Assessment

Expanding the Program - Scale Management Systems (ITS)

- Scale
- Sensing Loop
- LiDAR
- Camera
- Surge protectors
- Batteries
- Controllers
- Antenna

ITS Assets

- 65 Feature Types
  - X 30 Attributes per Feature Type = 1950 Attributes
  - 108 Domains x 17 Values each = 1,836
MCSAW Asset Inventory & Assessment

ITS Assets

- 65 Feature Types
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Asset Inventory Solutions building steps

- Gather Requirements
- Evaluate Existing Resources
- Develop Geodatabase
- Seek Feedback and Refine
- Publish Feature Layers to hosted environment
- Author Web Map
- Test and Refine
- Deploy
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"Collecting" ITS Assets

- Open and Login
- Connect to Map
- Collect Point
- Enter Attributes
- Take & Attach Photo
- Submit to Database
A story map

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Take Home Message

- Local Representation
- MCSAW Asset Inventory and Management program has had a strong start -> Continuing to build
- ESRI configurable apps + Client Operational Guidelines + FDOT Enterprise GIS = Success

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Welcome

Motor Carrier Size and Weight is new to the Office of Maintenance. Senate Bill 2000 appropriated the move of Motor Carrier Compliance July 1st, 2011 from the Florida Department of Transportation to the Department of Highway Safety and the Florida Highway Patrol. The weigh stations and their operations will remain under FDOT. Motor Carrier Size and Weight is staffed by regulatory weight inspectors. MCSAW assists FDOT in fulfilling its mission of providing a safe transportation system by performing commercial vehicle size and weight enforcement. The primary purpose of the MCSAW weight

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