BIM and Asset Management at NYSDOT

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The “Ins and Outs” of Asset Management

The Ins – “Systems of Record” (Agile EAMP)
- Common Geospatial Referencing Platform – Esri Roads and Hwys
- Asset Inventory and Conditions
- Asset Work History
- Asset Condition History
- Asset Condition Projections
- Asset Needs Modeling / Analysis
- Cross Asset Resource Optimization

The Outs – “Systems of Engagement” (Esri Maps & Apps)
- Common Geospatial Referencing Platform – Esri Roads and Hwys
- Integrated Data Viewers
- Unstructured Data Viewers
- Operations Viewers
- Dashboards
- Mobile Collectors
- Simple Design Apps
The “Ins” – Data Capture and Currency

Assets
- Bridges / Large Culverts
- Pavements
- Secondary Assets
  - Signs
  - Guide Rail
  - Small Culverts
  - Drainage Structures
  - +5 Others

Data Capture and Currency
- Bridge Inspection (Annual or Biennial Updates)
- Annual Automated Pavement Condition Scoring (Fugro)
- Four Year Secondary Asset Inventory by Fugro Using Photo Imagery
- Contract Survey (Section 625) Item
- Maintenance Reporting / Updating Procedure
- LiDAR Pilot
Small Culvert Inventory Example
The “Outs” – Data Presentation and Use

Type
- Integrated Data Viewers
- Unstructured Data Viewers
- Operations Viewers
- Mobile Asset Data Collector Apps
- Unstructured Content Collector Apps
- Simple Design Apps

Examples
- Pavement, Bridge, Safety, Maintenance Viewers
- Intellectual Assets Viewer – Traffic Studies, Record Plans, Borings, Environmental Reviews
- Winter Ops, Flood Watch
- Secondary Asset Collector App
- VPP in 15 Minutes App
The “Outs” – Data Presentation and Use

App Types

- Integrated Data Viewers (Pavement, Bridge, Safety, Maintenance)
- Unstructured Data Viewers (Intellectual Assets Viewer – Traffic studies, Record plans, Soil Borings, Environmental reviews, etc.)
- Operations Viewers (Winter Ops, Flood Watch)
- Mobile Asset Data Collector Apps (Secondary Asset Collector Apps)
- Unstructured Content Collector Apps (Photos with location and time stamps, geolocation of pdf files, etc.)
- Simple Design Apps (VPP in 15 Minutes App)
NYSDOT Maps & Apps

Pavement Viewer

Flood Watch Viewer

Surface Waters Viewer
BIM and Asset Management Overlaps

- Use of Common GIS Referencing Platform
- Data Integration – Enterprise System (In), SOE (Out)
- Data Currency – Section 625 Survey Item, Maintenance Updates
- Unstructured Data Capture – Record Plans, Other Project .pdfs
- Leveraged Asset Management Data for Simple Design Projects
- EAMP Data and LRS Foundational to Many SOE Apps