Agenda says EAMP – Enterprise Asset Management Program

I’m here to talk to you about the systems related to EAM, and particularly the HDSB application RIS 2.0
The Planning side of it include all this and more. Remember that with these programs we need to meet all our TPM needs. So while safety is not an asset it is condition that needs to be included in resource allocation. So how are we doing this. New applications to allow for an enterprise view and data management structure that gets us away from siloed data structures.
Asset Management

In use, construction, or design:
- Structures Management System* (SMS)
- Maintenance Management System (MMS)
- Pavement Management System (PMS)
- RIS 2.0 (Roads and Highways and SEE)
- Crash Location & Engineering Analysis Repository (CLEAR)
  - SIMS/ALIS/PIES replacement
- Enterprise Geospatial Data Warehouse
  - Roadway Data Mart

SEE – Smart Entry Engine
SOE – System of Engagement  Think of 511 as a system of engagement
Asset Management

In the works:

Traffic Monitoring - TRADAS replacement
Overhead Sign Structures (OSS)
BDIS Bridge Data Information System – Currently Live
SI – Structures Inspector – Prior to this years Inspection Cycle
Asset Management

**MMS** - Daily Maintenance Work Reporting (Labor, Equipment, Materials, Work Accomplishments)

Work Management (Work Requests, Work Orders, Projects), Signal Crew/Lab Management, Snow and Ice Operations, LATS, Inventory of Secondary Assets, Integration with LRS.

Go live for Fall 2019 or Spring 2020
Go Live Summer 2019
HPMS and State Pavement models are different.
Go Live Summer 2019
Most of the discussion will be on RIS 2.0 today. Please keep in mind these systems do a ton more, but I am only interested in the asset side of it.
EAM Data Warehouse—Will allow for extraction, transformation and loading of all asset data from multiple data marts. Also used as the repository for all historical data from replaced applications.

Roadway Data Mart will be a part of the EAM Data Warehouse Crash Location & Engineering Analysis Repository (CLEAR tentative name)
The bridge is the asset

- Structures Unit will start to maintain the bridge in R&H giving them the power to determine its length and location for state and federal reporting.
Currently structures has a GIS point file. Stores all the data as a point event and provides the LAT/LONG needed for federal reporting. While BDIS stores a ton of data, not everything they report comes from BDIS. Some attributes come from RIS.
The attribute pulled from RIS include:
In order for BDIS to get the attribute data from RIS it needs to be tied to our LRS with a mile point. As discussed in our HPMS session, we currently report a minimum length of 0.01 miles or 52.8 feet. In RIS we labeled all these bridges as feature 1, to let us know the roadway carried the bridge.
While also allowing for the LAT/LONG reported currently need in the National Bridge Inventory.
If NBI ever goes to the eventual reporting of a linear event, we be one step ahead.
In order to get BDIS the feature crossed information we create breaks in in the underlaying roads and assign the BIN above and label as a feature of 2 or greater. 2 things need to happen for BDIS to get the needed RIS data, we first need to have the BIN assigned to the roadway correctly and also have the feature number correct.
So if the RIS and BDIS features do not align, BDIS does not get the needed data. Except in this example feature 4 lined up, which could really lead us to scratch our head as to why some are working and some aren’t.
The hope is that with the bridges soon to be built in a linear format, a geoprocessing tool can be run to find the intersection and a point created with a BDIS defined feature #. Takes away two program areas needing to track bridges and out of HDSB.
Vendor Collected vs Region Files
2 vendors collected retaining walls in Chemung County
Green is the regional collection – Use regional and create central database in AA
If I am the Ryder truck up on I-86 I miss this entire retaining wall/MSE Wall
MMS collecting secondary assets
Some of these attributes will be collected every fours years through a vendor, with updates coming from through D contracts.
Signals unit will maintain their own location inventory.
MMS

Collection area will be based on a routing file using GIS ID and mile points.

Data delivery will be based in a GIS ID and GPS point. The idea is that these assets should remain in place. Collection cycle comparisons can be based on missing items from known GPS points.
MMS

Once data is entered into MMS a mile point can be derived from the GIS ID and GPS point.

Entire data points can be selected and changed to another GIS ID and MP regenerated.
Region 9 State Routes Sign Inventory.
Zoom into Route 7 in Oneonta, Otsego Co.
Each Asset has it’s own set of attributes
Guiderail Route 23 in Oneonta, Otsego Co.
Each Asset has it's own set of attributes
Similar to bridges, in that once the GIS ID and mile point are established, desired RIS attributes can be assigned.
(Ownership Jurisdiction, Maintenance Jurisdiction, DOT Residency Assigned)
PMS will be the authoritative source for the old RIS pavement condition data.
Bump are an average of every bump on the roadway, Asphalt and Concrete
Faulting only at the Joints of Concrete Pavement
HPMS Cracking is defined in the Wheel paths while the state is looking at the roadway as a whole.
Currently using the State GIS Street Layer – Transitioning to ELRS?
ALIS – Accident Location Information System
SIMS – Safety Information Management System
PIES – Post Implementation Evaluation System
E-mail a flat file that then gets translated to match their system
Will be meeting with Traffic Safety to discuss who is going to be responsible for collecting some of the MIRE elements. Some of these data items seem easy. Some program areas have different ideas for what each data item means. Direction of travel, as an example, no problem.
EAMP

Questions?

Comments?