VAR – Marietta Asset Management Inventory

PID 97967
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Presented by:

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LOCATED IN WASHINGTON COUNTY

LAND AREA: 8.75 SQ. MI.

POPULATION: 14,085

88 C/L MILES

ODOT DISTRICT 10

CONTAINS 5 STATE ROUTES

1ST SETTLEMENT IN THE NORTHWEST TERRITORY

WOOD-WIRT-WASHINGTON INTERSTATE PLANNING COMMISSION (CITY OF MARIETTA’S MPO)

HOME OF MARIETTA COLLEGE PIONEERS
Goals of the Project

- Roadway Feature Inventory
- Deficiency Inventory
- Track Deficiency Reduction Trends
- Create City Work Plan
- Create Maintenance Budgeting Tool
- Provide Maintenance Record Database
- Create a Repository for Information
- Begin Utilizing GIS
- Better Management of City Assets
Qualifications Based Selection
- Short List
- Written Project Approach (LOI Format)
- Previous Relevant Experience
- Proposal and approach for ease of updating data set
- Ease of use
- Non-proprietary software
- Engineering expertise & judgement
VAR Marietta Asset Management Inventory (PID 97967)

Surface Transportation Program Funding

- ODOT & Triple W
- 60% of total project cost
- Limited to Federal Aid Routes
- Utilized Toll Credits to fund 100% of Federal Aid Route – (0% Match)

Local Funding

- 40 % of total project cost
- All local roadways
Why Manage Assets?

- Required for many types of funding
- Comparison of number & condition of assets to similar sized cities
- Billing accurately based on assets in service (ex. Street Lights)
- Budgeting for replacements (ex. Scheduled Sign Replacements)
- Planning to meet new requirements (ex. Countdown Ped Heads)
- Liability reduced if plan is in place
- Awareness of current assets (Miles of Guardrail, # of Signs)
- Credit Rating Asset considered by Municipal Bond Companies
- Repository for Information Management
New Funding Requirements:
- ADA Transition Plan
- FHWA Curve Safe Mandate
- Sign Changes to Clearview Font
- Sign Retroreflective Requirements
<table>
<thead>
<tr>
<th>CONDITION CATEGORY</th>
<th>LOW PCI VALUE</th>
<th>HIGH PCI VALUE</th>
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<tbody>
<tr>
<td>Excellent</td>
<td>92</td>
<td>100</td>
</tr>
<tr>
<td>Very Good</td>
<td>82</td>
<td>91</td>
</tr>
<tr>
<td>Good</td>
<td>68</td>
<td>81</td>
</tr>
<tr>
<td>Fair</td>
<td>50</td>
<td>67</td>
</tr>
<tr>
<td>Poor</td>
<td>35</td>
<td>49</td>
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<tr>
<td>Very Poor</td>
<td>20</td>
<td>34</td>
</tr>
<tr>
<td>Failed</td>
<td>0</td>
<td>19</td>
</tr>
</tbody>
</table>
BENCHMARKING AVERAGE NETWORK CONDITION BY AGENCY

- ZANESVILLE: 57
- COSHOCTON: 59
- MARIETTA: 64
- PICKERINGTON: 70
- WESTERVILLE: 72
Locations, Condition and Assessment of the Following:

- Guardrail Inventory and Inspection
- Pavement Condition
- Pavement Marking Study
- Signs & Supports Inventory and Inspection
- Roadside Hazard Inventory
Scope of Work

Locations, Condition and Assessment of the Following:

- Ball Bank (Safe Curve Speed) Study
- No Passing Zone
- Curb Ramps
- Speed Zone
- Bridges Inspection and Inventory
- Traffic Signals Inventory

Time Frame – Work completed in June 2016
Collected more than 15,000 features in approx. 6 months (94 centerline miles of city road)

- 146 Guardrail Segments
- 4,478 Pavement Markings
- 4,902 Signs
- 3,235 Sign Supports
- 952 Curb Ramps
- 37 Signalized Intersections

- Maintenance Items
  - 35 Signs
  - 20 Sign Supports
  - 15 Guardrail Issues
  - 205 Unprotected Hazards
Location information was collected for each asset
- Street Name, Offset, Nearest Intersection, Nearest Address, Lat/Long, Easting/Northing, Google Maps Link
- Guardrail
  - Type, Length, Height from Pavement, Purpose, Field Photo, Maintenance
- Signs
  - Type, Condition, Height from Pavement, Retro, Field Photo, Associated Support, Street Name, Sign Compliance
Ball Bank

- Per ODOT Traffic Engineering Manual, Section 1213-2
- Curves with Advisory Speeds or Unmarked Curves
- Recommend Addition/Change/Removal of Sign

Hazards

- Ditches, Embankments, Shoulder Width, Overhead, Obstructions (Rocks, Trees, Structures, Poles, etc.)
- Offset, Description, Recommendation, Field Photo
Microsoft Access –  
Customized Forms  
Customized Reports  
Easy to Search/Filter
Standards set for each asset
- e.g., Pavement Condition Index
- Allows for Tracking of Annual Inspection
Planning for future needs

Track asset costs
Module Created to Determine Compliance with ADA Standards

Inspection performed by City

Pictures and Geographic Location collected by TEC

Reporting available for non-compliant curb ramps
Pavement Marking – Paint Type, Condition, Reports Containing Replacement Date

Traffic Signals – Location, Controller/Cabinet Info, Signal Head Info, Pole Types

Culvert – Size, Material, Pictures, Inlet/Outlet Elevation, ODOT Culvert Management Manual

Bridge – Based on ODOT’s Bridge Inspection Report

Speed Zone Studies – Location, Results, Pre/Post Study Speed
Field Data Entry

- Associated roadway item information (sign, guardrail)
- Work required
- Completion Data
- Field Photo
- Tracks History
Follow-up Work

Query data to provide decision information

Develop initial maintenance plans
Most Difficult Part of Database

Who will update?

Field Techs vs. Office Staff

Update Methods:

Paperwork

Field Data Entry – Laptop, Tablet

Geo-coded Picture
Next Steps

- Determine information required
- Reports, Queries
- Maintenance
- Ensure database management
- Develop Work Plan
- Address Hazards, Sign Maintenance, Guardrail Maintenance, Curve Signs
- Evaluation of Effectiveness- Annual Reporting
- Determine Need for Funding Requests
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