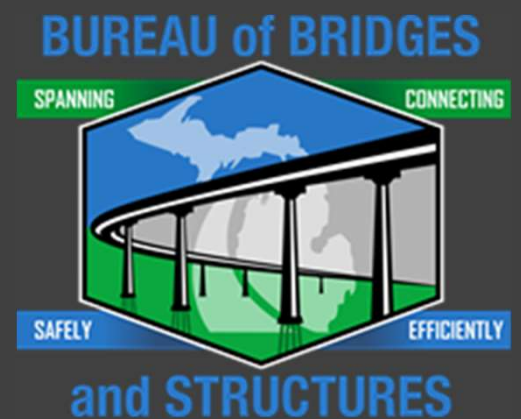


Bureau of Bridges and Structures



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2019 Bridge Management User Group
Meeting



Bridge and Road Management

Leverage existing application and develop a web-based pavement management system that will enable MDOT to **manage our pavement assets** utilizing the existing BrM software.





What will it do?

- **identify pavement project candidates, prioritize potential projects, and forecast pavement condition**



What will it do?

Utilize existing department data (ie. Pavement, Bridge, Safety, Operations, etc) to identify best candidates and the best **multi-asset projects**.



What will it do?

Include mapping and reporting capabilities

Why is it important?

Core responsibility of the department is to develop a program of projects to maintain our pavement asset.



Why is it important?

- Identify candidate pavement segments
- Identify the best fix for those segments and recommend projects
- Prioritize those projects based on cost/benefit and other factors



Why is it important?

- Ability to forecast pavement condition and run “what-if” scenarios based not only on RSL, but the new federally mandated pavement metrics (IRI, Cracking, Rutting, Faulting).



Figure 11: Pavement Condition Metrics



Bridge Inspection Enhancements

Leverage existing application and incorporate inspection enhancements into BrM





Structure Condition Dashboard

 Jurisdiction:

Structure Inventory Summary

	Count
Total No. of Structures	5,891
Highway (NBI) Structures greater than 20'	4,486
Highway Structures less than 20'	1,098
Rail Road Structures (X)	126
Pedestrian Structures (P)	166
Other Non-Highway Structures (V, Plaza)	15

Additional Bridge Inventory Information

Posted Structures	18
Closed Structures	24
Fracture Critical Structures	81
Scour Critical Structures	415
Estimated/Under Construction (S, G)	34

Structure Condition Summary

	Count
Good/Fair (5 or Greater)	5,498
Highway included in NBI	4,205
Non NBI Structures (<20, RR, Ped, etc.)	1,293
Poor (4)	336
Highway included in NBI	245
Non NBI Structures (<20, RR, Ped, etc.)	91
Serious/Critical (3 or less)	50
Highway included in NBI	31
Non NBI Structures (<20, RR, Ped, etc.)	19
Unrated Structures	7
Highway included in NBI	-
Non NBI Structures (<20, RR, Ped, etc.)	-

SD/FO Summary

*Structurally Deficient	276
*Functionally Obsolete	1,014
*Non-Deficient Structures	3,194
*No Current SD/FO Rating	594

NBI Condition - Goals Summary

	Pct.
*Good/Fair (5 or Greater)	93.8%
Freeway	93.8%
Non-Freeway	93.8%
*Poor/Serious/Critical (4 or Less)	6.2%
Freeway	6.2%
Non-Freeway	6.2%
*Scour Critical Area	30.1%
*Fracture Critical Area	1.4%

What's Being Considered?

- Universal Dashboards
- Hyperlinked Bridge IDs
- Upgraded Maps with conditional information and mapping more bridges
- Data Warehouse



What's Being Considered?

- New Shared Controls Across Inspection Pages
- Generate Crystal Reports
- Mapping
- Multimedia
- Inspection Work Candidates (separate from parallel inspections)
- Stoplight/Rating/Inspection information

What's Being Considered?

- Assign Load Ratings
- Associate Load Ratings to Inspections
- Associate Multimedia with Load Ratings
- Load Rating Customization/Configuration of Fields
- Posting images based on selected posting type





What's Being Considered?

- Associate Multimedia with Defects
- Separate Multimedia from Documents
- Multimedia Context Security
- Multimedia Compression
- User Certifications