



ENHANCEMENTS TO THE BRR RATING TOOL FOR LRFR

 Jonathan C. Mallard, PE

August 8, 2018

BrR Rating Tool – LRFR

Rating Tool

- **Pre-Computes capacities at key (critical) points**
- **Checks the load demand by analysis against pre-computed capacities**
- **Can be used for rapid evaluation of permit requests**
- **Could be integrated into commercial routing and permitting software**

BrR Rating Tool – LRFR

NCHRP Domestic Scan 12-01

- **Advances in State DOT Superload Permit Processes and Practices**
- **Activities**
 - **Desk Scan – review of literature, selection of DOT's to follow up with**
 - **Questionnaire sent to 18 states**
 - **Workshop held for representatives of 18 states – 8 Scan Team members and 10 Additional invitees**

BrR Rating Tool – LRFR

NCHRP Domestic Scan 12-01

- **Advances in State DOT Superload Permit Processes and Practices**
- **Recommendations**
 - **Work collectively with AASHTO to use automation for permitting**
 - **Submit a proposal that the AASHTOWare contractor create capacity tables using influence lines**
 - **Create a permit module that incorporates a bridge analysis module...**

BrR Rating Tool – LRFR

NCHRP Domestic Scan 12-01

- **Advances in State DOT Superload Permit Processes and Practices**
- **Implementation**
 - **Outlined for SCOBS Committees (T5 & T18) the need to develop a permit truck for design and evaluation**
 - **Members made presentations as part of Webinars, Peer Exchanges, SCOBS, regional meetings, etc.**
 - **Met with the AASHTOWare taskforce in April 2014**

BrR Rating Tool – LRFR

NCHRP Domestic Scan 12-01

- **Advances in State DOT Superload Permit Processes and Practices**
- **April 2014 AASHTOWare meeting**
 - **A prototype had already been developed**
 - **Additional structure types have been completed for LFR**
 - **More LFR Types are have been incorporated into the current work plan**
 - **An estimate has been prepared for LRFR**

BrR Rating Tool – LRFR

Emergency Route Working Group (ERWG)

- **FAST Act (Public Law 114-94) Section 5502**
- **Scope – 4 main points of investigation. One of which is applicable to structural capacity**
 - **Do impediments currently exist that prevent expeditious State approval of special permits for vehicles involved in emergency response and recovery?**
 - **6 public meetings at DOT Headquarters**
 - **Report has been submitted for the Secretary to publish**

BrR Rating Tool – LRFR

Emergency Route Working Group (ERWG)

- **Report to Secretary**
 - **The Secretary should incentivize States to modernize their permitting systems to provide for auto-issue permitting so that permits are available 24/7. This would reduce delays in obtaining the necessary permits to move oversize/overweight vehicles in response to an emergency**

BrR Rating Tool – LRFR

Where does the software stand?

- A prototype had been developed in April 2014
- Work has progressed and various bridge types have been scoped into the work plan for LRFR
- Estimates of effort have been provided for various bridge types in LRFR

BrR Rating Tool – LRFR

Where does the software go from here?

- **The industry is continuing to push its agenda**
 - **Quicker turnaround times**
 - **Higher weight allowances**
- **Industry successfully lobbied for inclusion of specific items in the FAST Act**
 - **ERWG**
 - **Strategic Transformer Network**
- **LFR is no longer updated**
- **LRFR is the only code being updated**

BrR Rating Tool – LRFR

What does VDOT want to happen?

- The Rating Tool available for all structure types that BrR supports
- The Rating Tool updated to include all new structure types supported by BrR
- All code updates as AASHTO Adopts

BrR Rating Tool – LRFR

Questions and Discussion