

Greene County Off-System Bridge (BRO) Replacement Program



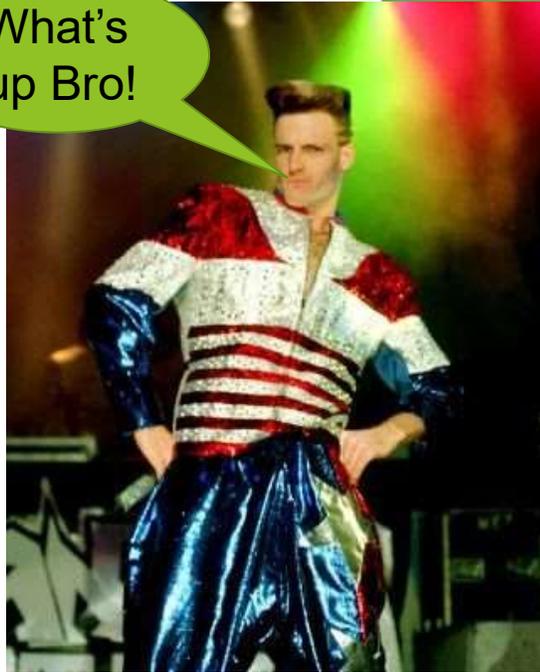
Presented by Adam Humphrey and Jim Norgren
October 8, 2019

What is the “BRO” Program?...

NOT the “BRO” Program

...

What's
up Bro!



Nope...
not it

We're on a
mission from
God...



~~The
Blues Brothers~~

Hmm...
No.



BRO Program Background:

- BRO stands for: **Bridge Replacement Off-System**
- Part of the "Federal Bridge Program" – which began in 1970

So, why did the US Government get involved with Greene County bridges?...

The Silver Bridge over the Ohio River

Friday, December 15,
1967
at approximately 5pm

Point Pleasant, West
Virginia

37 vehicles on the bridge
at the time of collapse

46 people died



BRO Program Background:

- Federal Transportation Bill (FAST Act of 2015) allocates funding to each state for replacing/rehabilitating deficient bridges that are **not** part of the federal-aid highway system (i.e. "off-system")
- These federal funds are then allocated to individual counties based on the amount of deficient bridge deck area (in square feet) within a given county

BRO Program Background:

- All county bridges located on public roads must be inspected at 2 year intervals – Federal Requirement
- Bridges are assessed an overall “Sufficiency Rating” on a scale of 1% to 100%
- Sufficiency Ratings are based on a combination of structural, functional, and public use factors
- Bridges with Sufficiency Ratings less than 50% are considered “deficient” and are eligible to receive federal funding for replacement

2018 Bridge Appraisal Overview:

- A total of 208 Greene County bridge evaluations were completed during the 2018 inspection cycle
- Inspection work was performed by:
Jim Norgren

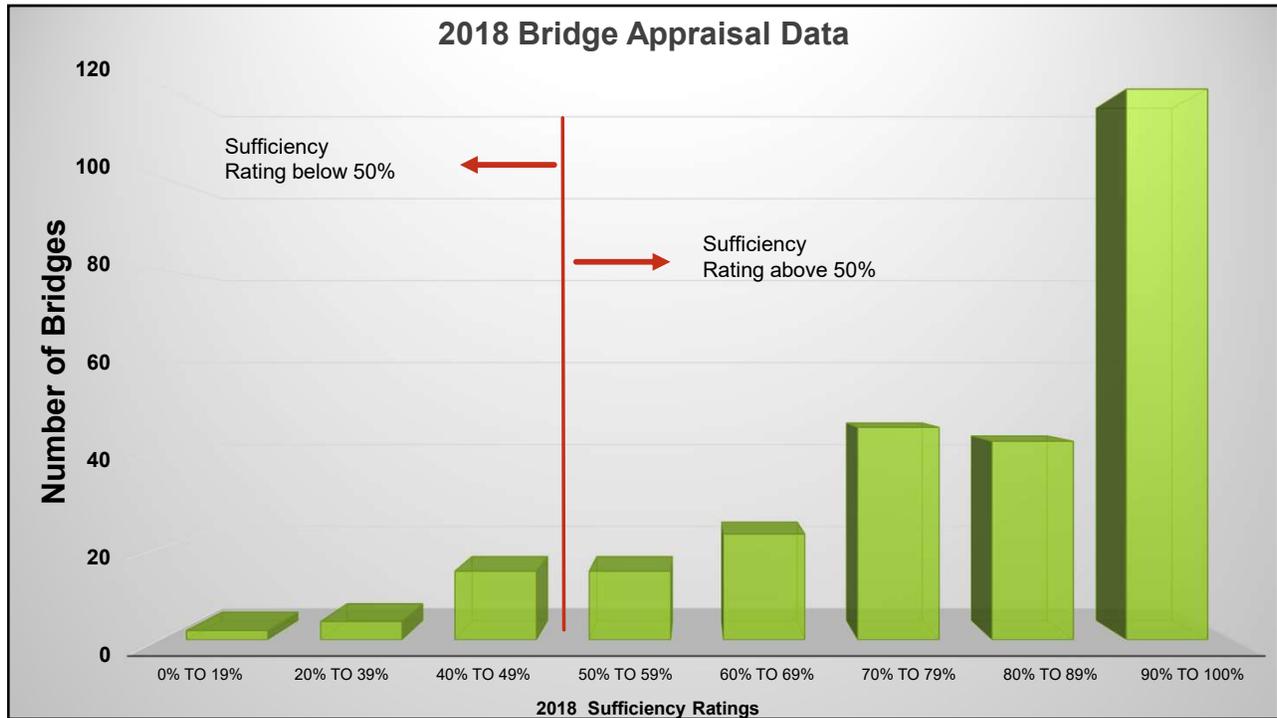


National Bridge Inventory (NBI) Condition Rating Scale:

- A Structural Rating Scale of 0 to 9 is used to evaluate the following individual bridge elements:
 - 1.) Deck Condition
 - 2.) Superstructure Condition
 - 3.) Substructure Condition
 - 4.) Channel Protection Condition
 - 5.) Culvert Condition

National Bridge Inventory (NBI) Condition Rating Scale:

- Rating Scale Evaluation Criteria:
 - 9 - Superior to present desired criteria
 - 8 - Equal to present desired criteria
 - 7 - Better than present minimum criteria
 - 6 - Equal to present minimum criteria
 - 5 - Somewhat better than minimum adequacy to tolerate being left in place
 - 4 - Meets minimum tolerable limits to be left in place
 - 3 - Basically intolerable requiring high priority of corrective action
 - 2 - Basically intolerable requiring high priority of replacement
 - 1 - This value of rating code not used
 - 0 - Bridge closed



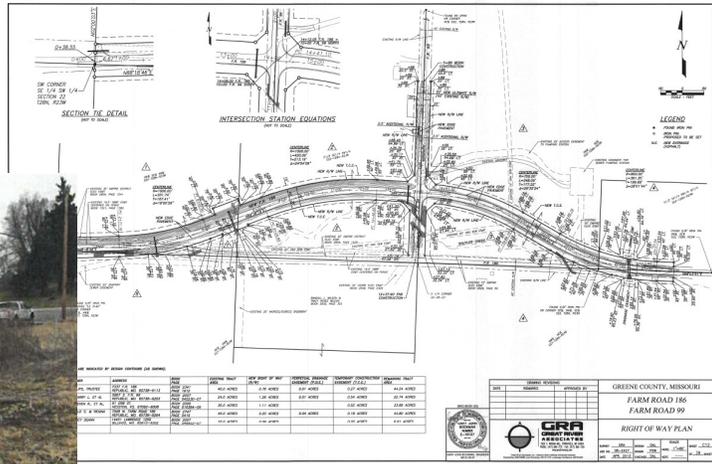
Farm Road 186 at Farm Road 99

BEFORE...



Farm Road 99 at Little Sac River Branch

AFTER...



Total Construction Cost = \$779,420

Farm Road 141 over Dry Sac (2 Bridges)

BEFORE...



Farm Road 141 over Dry Sac (2 Bridges)

AFTER...

Greene County Bridge 1410151.1 2/26/2016
Looking West Along the Little Sac River



Greene County Bridge 1410155.1 2/26/2016
Looking West Along the South Dry Sac River



Total Construction Cost = \$1,584,000

Farm Road 66 over Little Sac Branch

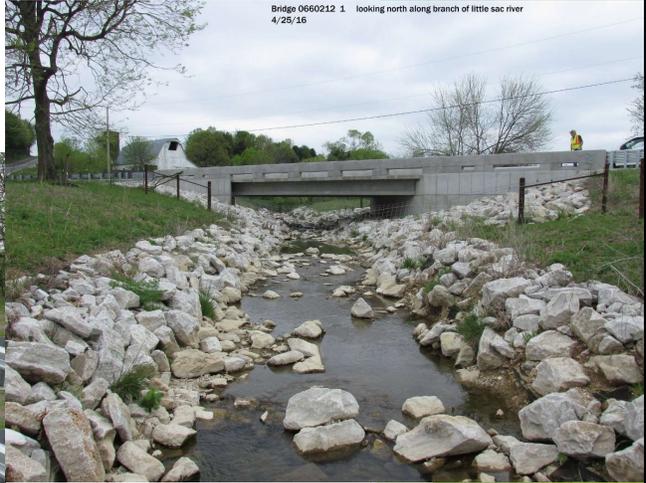
BEFORE...

Bridge 0660212 4/10/2014 Failed Culvert Floor / Channel Protection
Scour hole 2' deep, Stream running under the floor
Bent walls on piling



Farm Road 66 over Little Sac Branch

AFTER...



Total Construction Cost = \$442,643

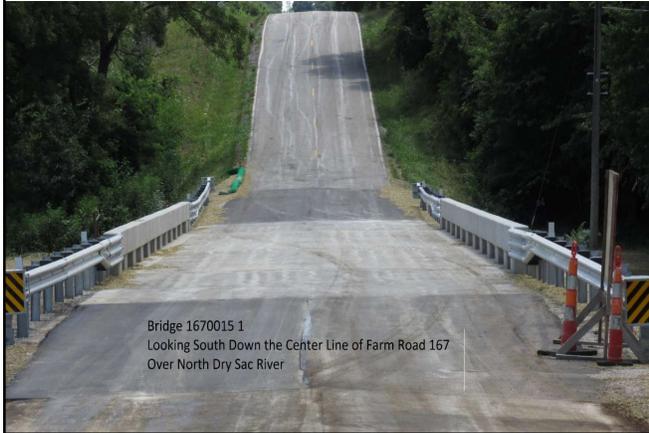
Farm Road 167 over N. Dry Sac River

BEFORE ...



Farm Road 167 over N. Dry Sac River

AFTER...



Total Construction Cost = \$594,850

Farm Road 102 over Pea Ridge Creek

BEFORE ...



Farm Road 102 over Pea Ridge Creek

AFTER...



Total Construction Cost = \$619,558

Farm Road 167 over Farmer's Branch

BEFORE ...



Farm Road 167 over Farmer's Branch

AFTER...



Total Construction Cost = \$367,156

Farm Road 76 over Clear Creek

BEFORE ...



Farm Road 76 over Clear Creek

AFTER...



Total Construction Cost = \$672,909

Looking into the Future...

- ▶ FAST Act set to expire in September 2020
- ▶ FAST Act contains a \$7.5 billion rescission that takes effect on July 1, 2020
- ▶ Unspent fund balances that remained as of Sept. 30, 2019 are subject to this “rescission”
- ▶ If Congress were to pass a new federal transportation bill prior to July 1, 2020 – it is possible that the rescission could become obsolete
- ▶ MoDOT is considering “restructuring” the BRO program in an effort to reduce unspent fund balances in the future



Greene County BRO Program Summary

- ▶ 92% of Greene County bridges were appraised as “Non Deficient” in 2018 inspection cycle
- ▶ All bridge condition ratings were a 4 or greater – no critical or emergency structural issues identified
- ▶ Current BRO funding balance is sufficient to address our emerging bridge needs within Greene County
- ▶ Highway Department will continue to prioritize and program bridge projects for future replacements

QUESTIONS?...