



Missouri Department of Transportation

STRUCTURAL REHABILITATION CHECKLIST

Bridge No.: **J0009**

Job No.: **J5P3542**

Route: **19**

Over: **frene creek**

County: **gasconade**

Date of Field Check: **5/10/2022**

*** Please include photographs for all items that apply. ***

1

OVERLAY

* Type of existing overlay: None Asphalt Low Slump Silica Fume Latex Epoxy Other: _____

* Existing overlay thickness: 1 " * Year overlay was applied: _____ Unknown

* % of overlay repaired or patched: _____ % * Replace overlay: Yes No

* Notes: _____

Picture #

2A

DECK REPAIRS (Deck repair quantities are required even if a Deck Test request has been ordered for this structure.)

* Half-sole repairs: **3' of joints** * Full-depth repairs: **50** sq. ft.
(round up to the nearest 50 sq. ft.) (round up to the nearest 25 sq. ft.)

* Slab edge repairs: _____ lin. ft. * Superstructure repair (Unformed): _____ sq. ft.
(covers the outer 4" of the slab edge) (covers the remaining slab cantilever beyond the outer 4")

* Clean & seal slab edge: _____ lin. ft. * Cantilever replacement: _____ lin. ft.
(in lieu of edge repairs)

* Total surface hydro demolition bridge deck: Yes No * Full deck replacement (redeck): Yes No Optional
(half-sole and full depth repair quantities still required)

* Deck repairs with voided tube replacement: Yes No * Superstructure replacement: Yes No Optional
(if applicable) _____ sq. ft. * Full bridge replacement: Yes No Optional
(Deck repair quantities required for cost comparison of alternatives)

* How were the quantities obtained? Visual Bridge Inspection Report Sounded Other _____

* Notes: **Goal is reconfigure this bridge and have it last 40+ years.**

Picture #

DECK REPAIRS CONT.

*** ISSUES \ PROBLEMS WITH PRECAST PRESTRESSED DECK PANELS**

| Spans | Location in Span | | | | | Deterioration | | Describe |
|-------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|---------|----------|
| | At Panel Jt. | Btwn (mid) Panel Jt. | End | Mid | End | Type | Amount | |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | sq. ft. | _____ |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | sq. ft. | _____ |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | sq. ft. | _____ |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | sq. ft. | _____ |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | sq. ft. | _____ |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | sq. ft. | _____ |

* Notes: _____

(Deterioration may include water saturation, efflorescence, rust staining, cracking, spalling, exposed steel, disintegration of panel edges at joints, etc. Typically observed at or near panel joints. The location and "Type" of deterioration should be recorded.)

Picture #

APPROACH SLABS

- * Is there a bridge approach slab in place? Yes No * Type: Concrete Asphalt Other _____
- * Is there a rdwy. approach pavement in place? Yes No * Type: Concrete Asphalt Other _____
- * Is the approach slab sinking at the end bent? N/A Yes No _____
- * Are repairs needed to the bridge approach slab driving surface? Yes No _____
(Typically a roadway item but will be reported to district on the Bridge Memorandum.)

* Notes: _____

Picture #

4

SLAB DRAINS

* Is the drainage system working adequately? Yes No

* Recommendations: plug current deck drains due to reconfiguring the lanes

* Notes: _____

Picture #

5

CURBS & RAILS

* Existing curb (left side): Safety Barrier Curb Curb/parapet Blockouts Thrie Beam Baluster Steel Channel
 Other _____ Handrail Fence _____

* Does curb need repair Yes No * Curb repair _____ lin. ft.

* Remove hand rail Yes No * Add curb blockout Yes No

* Existing curb (right side): Safety Barrier Curb Curb/parapet Blockouts Thrie Beam Baluster Steel Channel
 Other _____ Handrail Fence _____

* Does curb need repair Yes No * Curb repair _____ lin. ft.

* Remove hand rail Yes No * Add curb blockout Yes No

* Existing median curb: Type: _____ Width _____ " Height _____ "

* Does curb need repair Yes No * Curb repair _____ lin. ft.

* Approach rail attachment: None Not attached 4 Hole 5 Hole Turn-down Other _____

* If the existing handrails will be removed, does the local maintenance supervisor wish to keep them? Yes No

Storage address: location: _____

address: _____

city: _____ state: _____ zip: _____

* Notes: ciy considering adding funds for astetic rail that matches river bridge or 100 over frene.
pedestrian seperation not needed due to speed, but may be wanted by city to match other structures

Picture #

6

EXPANSION DEVICES

| Bent | Type | Recommendations | | | Gap Left | Gap Right | Temperature & Other Info |
|-------|-------|--------------------------|--------------------------|--------------------------|----------|-----------|--------------------------|
| _____ | _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ " | _____ " | _____ |
| _____ | _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ " | _____ " | _____ |
| _____ | _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ " | _____ " | _____ |
| _____ | _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ " | _____ " | _____ |
| _____ | _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ " | _____ " | _____ |
| _____ | _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ " | _____ " | _____ |

* Notes: **diaphragms at the north intermediate bent under the west sidewalk bay are poor. Replace with deck reconstruction.**

Picture # _____

7

BEARINGS

| Bent | Coating | Recommendations | | | | | | Notes (indicate which bearings at each bent) |
|-------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|--------------------------|-------|--|
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | |
| _____ | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | _____ | |

* Notes: **sidewalk girders have no bearings. Other are flat plates**

Picture # (Provide Pictures of Each Bearing) _____

8

COATING SYSTEM (PAINT)

* Existing coating system: _____ green gray other _____

* Date last coated: _____ * Is existing coating peeling? Yes (Overcoat is not an option) No

* Coating recommendation: Blast clean & recoat all steel Clean & overcoat all steel
 Blast clean & recoat only at joint locations Blast & recoat at joint locations and clean & overcoat all other steel

Note: Pull off test required for overcoat (Calcium Sulfonate) option. Bridge Division will request pull off tests.

* Notes: _____

Picture # _____

SUPERSTRUCTURE REPAIRS (Repairs needed not previously stated.)

Concrete Slab Superstructure or Girder: (above the bearings) _____
 (Example: Deck solid slabs, voided slabs, box girder,
 deck girders & prestressed girders) _____

Steel: (Example: Beams, stringers, girders, diaphragms, cross-frames, misc. steel)

| Member | (Check all that apply) (Attach pictures) | | | | Describe & Locate |
|--------|--|---------|---------------------------------|-----------|-------------------|
| _____ | <input type="checkbox"/> Section Loss | _____ % | <input type="checkbox"/> Cracks | _____ in. | _____ |
| _____ | <input type="checkbox"/> Section Loss | _____ % | <input type="checkbox"/> Cracks | _____ in. | _____ |
| _____ | <input type="checkbox"/> Section Loss | _____ % | <input type="checkbox"/> Cracks | _____ in. | _____ |
| _____ | <input type="checkbox"/> Section Loss | _____ % | <input type="checkbox"/> Cracks | _____ in. | _____ |

Notes: Sidewalk girders both are taller/thinner sections than deck girders. Either modify or replace west sidewalk girder as part of reconfiguration

Picture #

SUBSTRUCTURE REPAIR

| Bent | Formed Repair | Unformed Repair | Seal Concrete Beam Cap Bts. | Coat Exposed Pile @ Int. Pile Cap Bts. | Describe (Beam, Backwall, Wing, etc.) |
|-------|---------------|-----------------|--|--|---------------------------------------|
| _____ | _____ sq. ft. | _____ sq. ft. | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| _____ | _____ sq. ft. | _____ sq. ft. | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| _____ | _____ sq. ft. | _____ sq. ft. | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| _____ | _____ sq. ft. | _____ sq. ft. | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |
| _____ | _____ sq. ft. | _____ sq. ft. | <input type="checkbox"/> Yes <input type="checkbox"/> No | <input type="checkbox"/> Yes <input type="checkbox"/> No | _____ |

* Does the structure need graffiti protection? No Bottom 8' of Concrete End Bents Other _____

* Notes: _____

Picture #

SIGNS, SIGNALS &/OR LIGHTING ATTACHED TO STRUCTURE

* Are there signs attached directly to this structure? Yes No quantity _____ location _____

* Describe proposed work to be done to signs. _____

* Are there signals attached directly to this structure? Yes No quantity _____ location _____

* Describe proposed work to be done to signals. _____

* Is there aviation lighting attached to this structure? Yes No N/A Red _____ Green _____
qnty. qnty.

* Is there navigational lighting attached to this structure? Yes No N/A Red _____ Green _____
qnty. qnty.

* Is there roadway lighting attached to this structure? Yes No N/A

* Describe proposed work to be done to lighting. _____

* Notes: _____

Picture #

UTILITIES ATTACHED TO STRUCTURE

| Type | | | Qty. | Size | Owner | Condition | | | |
|----------------------------------|--|--------------------------------|-------|-------|-------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|
| <input type="checkbox"/> Conduit | <input checked="" type="checkbox"/> Pipeline | <input type="checkbox"/> Other | _____ | _____ | _____ | <input type="checkbox"/> Repaint | <input type="checkbox"/> Repair | <input type="checkbox"/> Replace | <input type="checkbox"/> Remove |
| <input type="checkbox"/> Conduit | <input type="checkbox"/> Pipeline | <input type="checkbox"/> Other | _____ | _____ | _____ | <input type="checkbox"/> Repaint | <input type="checkbox"/> Repair | <input type="checkbox"/> Replace | <input type="checkbox"/> Remove |
| <input type="checkbox"/> Conduit | <input type="checkbox"/> Pipeline | <input type="checkbox"/> Other | _____ | _____ | _____ | <input type="checkbox"/> Repaint | <input type="checkbox"/> Repair | <input type="checkbox"/> Replace | <input type="checkbox"/> Remove |
| <input type="checkbox"/> Conduit | <input type="checkbox"/> Pipeline | <input type="checkbox"/> Other | _____ | _____ | _____ | <input type="checkbox"/> Repaint | <input type="checkbox"/> Repair | <input type="checkbox"/> Replace | <input type="checkbox"/> Remove |

* Notes: **many pipes in east sidewalk bay. Utilities hang off diaphragms (not deck)**

Picture #

13

CATHODIC PROTECTION SYSTEM

* Is there a cathodic system on this structure? Yes No Remove Do not alter Abandon in place (grooved system)

* Is it on and working? Yes No Unknown _____

* Notes: _____

Picture #

14

CHANNEL ALIGNMENT, SLOPE PROTECTION & SCOUR

* Is channel aligned to bridge opening? Yes No Describe _____

* Is drift a continual problem? Yes No Describe & Locate _____

* Is erosion a problem? Yes No Describe & Locate _____

* Describe slope protection in place. _____

| Scour | At Footing | At Piling | Depth | Bent | Recommendation |
|-------|--------------------------|--------------------------|-------|-------|----------------|
| | <input type="checkbox"/> | <input type="checkbox"/> | _____ | _____ | _____ |
| | <input type="checkbox"/> | <input type="checkbox"/> | _____ | _____ | _____ |

* Describe needed work. **much rock added. There is rock added by the car dealership that is resting up against the west sidewalk girder.**

Picture #

15

TRAFFIC LANES

* Number of lanes striped: on structure 2 under structure _____

* Shoulder width: None on structure _____ (left) _____ (right) under structure _____ (left) _____ (right)

* Sidewalk widths: on structure _____ (left) _____ (right) under structure _____ (left) _____ (right)

* Median width: on structure _____ under structure _____

* Proposed improvements for lanes/shoulders/sidewalks: **Lanes are narrow. Widen as part of lane reconfiguration**

Picture #

16

GENERAL AREA CONDITIONS

* Primary area: Commercial Industrial Residential Agricultural Military Other _____

* Posted speed limit on structure: 25 mph

* Posted load on structure: _____ tons @ _____ mph NA

Single Unit: _____ tons @ _____ mph NA

Semi (tractor/trailer): _____ tons @ _____ mph NA

* Are both signs in place?

Yes No

* Do pedestrians and/or bicyclists regularly use this structure? Yes No Undetermined

* Notes: Sidewalk reconfiguration and improvement necessary.

Picture #

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MAINTENANCE

* What work has been done to this structure that may not be reflected on existing bridge plans? _____

Picture #

18

ADDITIONAL FIELD NOTES

Bridge has good condition cast bridge number plaques at both ends in good shape. Reincorporate these into new railing...

Picture #

19

STAGING / DETOUR

* **Traffic Control:** Close structure Stage construction on structure Cross over traffic to adjacent structure Detour
 Other option temp signal control

* **Define probable detour route.** Closure may not be possible. ? There are local detours but this route has a significant amount of truck traffic

20


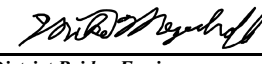
PERSONS ASSISTING WITH CHECKLIST

| | | | | | |
|------|-----------------------|-------|------------------|-----|--------------|
| Name | <u>Patrick Hake</u> | Title | <u>TPM</u> | Ph. | <u>() -</u> |
| Name | <u>Tim Leaf</u> | Title | <u>BPM</u> | Ph. | <u>() -</u> |
| Name | <u>Mike Meyerhoff</u> | Title | <u>DBE</u> | Ph. | <u>() -</u> |
| Name | <u>Cyrus Meller</u> | Title | <u>TPD</u> | Ph. | <u>() -</u> |
| Name | <u>Joe Alderson</u> | Title | <u>Br Liason</u> | Ph. | <u>() -</u> |

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REQUIRED SIGNATURES

I have reviewed the information on this checklist and believe it to be as accurate as possible.

| | | | |
|------|--|------|-------------------|
| Name | <u></u> | Date | <u>05/18/2022</u> |
| | <u>Transportation Project Manager</u> | | |
| Name | <u></u> | Date | <u>5/17/2022</u> |
| | <u>District Bridge Engineer</u> | | |

The structural rehabilitation checklist indicates how the bridge is functioning and aging.

All deterioration should be noted, even if it is known that the work will not be completed under the proposed project.

Send **NEW** Structural Rehabilitation Checklist by email

To: "Bridge Survey Processor"

Cc: Structural Project Manager or Structural Resource Manager



STONE HILL
WURST

486-0407

Ford

HERMANN FORD

CAR WASH

















CREEK



SPEED
LIMIT
25

MISSOURI
HIGHWAY DEPT
BRIDGE NO. J. 9
1900





FRENE
CREEK

25

Peoples Savings Bank

Shell