

HIGHWAY BRIDGE SCOUR PLAN OF ACTION REPORT



BRIDGE ID NUMBER: **57SR0050017**
 BRIDGE OWNER: **STATE OF TENNESSEE**
 ROAD NAME: **S HIGHLAND AV**
 CROSSING: **BOND CREEK**
 LATITUDE: **N 35.57175 DEGREES**
 LONGITUDE: **W 88.81469 DEGREES**

COUNTY: **MADISON**
 ROUTE: **SR005**
 SPECIAL CASE: **0**
 COUNTY SEQUENCE: **1**
 LOG MILE: **9.34**
 YEAR BUILT: **1929**

TYPE OF SUPERSTRUCTURE

MAIN SPAN: **CONCRETE - TEE BEAM**

APPR. SPAN: **NOT APPLICABLE**

TYPE OF SUBSTRUCTURE

ABUTMENTS: **CONCRETE STUB ABUTMENT ON CONCRETE PILE FOUNDATION**

BENTS: **CONCRETE PILE BENT ON PILE FOUNDATION**

PIERS: **CONCRETE COLUMNS WITH SOLID WEB WALL (DUMB BELL) ON TIMBER PILE FOUNDATION**

SCOUR EVALUATION

Bridge is scour critical; bridge foundations determined to be unstable for calculated scour conditions. Rip-rap protection was installed but it has failed and is now ineffective. Major repair or replacement of the protection system is needed.

INSPECTION PROCEDURES

What Initiated the Call-out Inspection?

- ☐ BridgeWatch Alert
☐ TDOT District or Local Maintenance Personnel
☐ THP or Local Law Enforcement Personnel
☐ Other: _____

Things to check on a bridge during floods:

- ☐ - Span movement - horizontally as well as vertically
 1. Check displacement / deflection along curb line, both bridge rails and outer edge of bridge deck.
 2. Check for plumb of piers or bents.
- ☐ - Check for embankment erosion
- ☐ - Check for drift build-up on piers or bents
- ☐ - Check pier exposure, if possible, and compare to previous inspection
- ☐ - Review the latest bridge inspection report versus current field conditions

If Closure is recommended:

- ☐ - Stay at bridge with vehicle pulled across road until bridge is secured and properly closed by District, County or City Maintenance Personnel. Use Barricade Tape, traffic cones and/or traffic flares as temporary measures to warn motorists to stay off of the bridge until such time as the bridge may be properly closed and barricaded.
- ☐ - Contact: (1) District Maintenance Supervisor (if bridge is State maintained)
 (2) City or County Highway Maintenance Official (if bridge is not State maintained)
 (3) Tennessee Highway Patrol and/or local law enforcement Officers as appropriate
 (4) TDOT Regional Bridge Engineer
- ☐ - The Bridge should remain closed until the water recedes and a daylight visual inspection is made by a TDOT bridge inspection team.

PUBLICATION DATE

07-Nov-24

BRIDGE ID
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- [] - The bridge inspection team will work with State District maintenance or local highway maintenance officials in establishing a detour route. Any bridge on the selected detour route shall be checked prior to signing the detour route.
- [] - The bridge can be re-opened only after a TDOT bridge inspection team checks the substructure units and they are determined to be structurally stable.

CONTACT PERSONNEL:**TELEPHONE NUMBER:**

REGION BRIDGE ENGINEER

(731) 234-9561

DISTRICT MAINTENANCE SUPERVISOR

(731) 694-6673

TENNESSEE HIGHWAY PATROL

(731) 423-6635

- [] - Summarize and submit findings from the inspection to BridgeWatch scour monitoring system. The report shall include the date and time of the inspection, a brief summary of findings and, as appropriate, photographs of the bridge and stream channel measurements. If significant scouring has occurred, the report shall also be copied to Bridge Inspection Headquarters.

COMMENTS: _____

Suggested List of Equipment to conduct the Inspection:

Latest Bridge Inspection Report

Scour POA Report with the above Checklist

Bridge Design Plans, if available

Tape measure with weight

Plumb bob

Range Pole

A 1000 Foot Roll of yellow Polyethylene Barricade Tape printed with the following message:

SAFETY HAZARD KEEP AWAY

A Barricade Tape Dispenser with serrated cutter

A roll of Duct Tape

Traffic Cones - Minimum of four (4)

Traffic Safety Flares - Minimum of four (4) or set of electronic warning flashers

TDOT two-way radio (State Personnel only) and/or cellular telephone

TDOT radio directory (State Personnel only)

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