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1. PURPOSE:

To formally establish responsibility and standards for periodic safety inspection and load rating evaluation of all bridges on public roads in Louisiana.

2. SCOPE:

This directive covers the general policies of this Department regarding periodic safety inspection and load rating evaluation of bridges on public roads in Louisiana.

3. PROCEDURE:

The LA DOTD, as required by the Code of Federal Regulations 23 Part 650, shall have a bridge inspection organization. The organization shall be responsible for the statewide bridge inspection program, load rating policies and procedures, and be capable of performing bridge inspections, determining load ratings, preparing inspection and load rating reports, and maintaining an inventory of all public bridges in accordance with the provisions of the AASHTO Manual for Bridge Evaluation; referred hereafter as the AASHTO Manual, and the standards contained herein. The bridge inspection organization will include LADOTD Headquarters and District staff as outlined herein and in the Bridge Maintenance Directives. Any work contracted or delegated outside of the LA DOTD organization shall be completed in accordance with this directive.

The National Bridge Inspection Standards (NBIS) as specified in the 23 CFR Part 650 shall apply to all structures defined as highway bridges located on all public roads fully or partially within the boundaries of the State of Louisiana. Exceptions are limited to bridges located on public roads that are the responsibility of a Federal agency or private entity.

In accordance with the 23 CFR Part 650, a bridge is defined as “a structure including supports erected over a depression or an obstruction, such as water, highway, or railway, and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between undercopings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may also include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.”

Inspection records and a bridge inventory shall be prepared and maintained in accordance with the NBIS, the LA DOTD Pontis Inspection Manual, Bridge Maintenance Directives, Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation’s Bridges (SI&A Recording and Coding Guide), and the AASHTO Manual. Specific guidance for inspection report and inventory preparation and maintenance shall be in accordance with the Bridge

Maintenance Directives.

Each bridge is to be inspected at regular intervals not to exceed 24 months in accordance with 23 CFR Part 650. The detail, depth and frequency to which bridges are to be inspected will depend on such factors as state of maintenance and known deficiencies. According to 23 CFR § 650.311(a)(3), certain bridges may be inspected at intervals greater than 24 months with FHWA approval. If FHWA approval is granted, the inspection frequency would be increased to not greater than 48 months.

All bridges over waterways shall be evaluated and/or assessed for scour vulnerability in accordance to Hydraulic Engineering Circular No. 18 (HEC-18) and LADOTD Policy for Predicting the Scour Elevation for Bridges (11/2/2009). Bridges determined to have the potential or have been determined to be scour critical will have a plan of action developed and implemented to monitor known and potential deficiencies and to address critical findings in accordance with 23 CFR 650.313(e)(3).

Bridges with support elements in more than 4 feet depth of water throughout the year shall have underwater inspections on intervals not to exceed 60 months. The detail, depth and frequency to which underwater structural elements are to be inspected will depend on such factors as environment, scour characteristics, construction material, state of maintenance, and known deficiencies. According to 23 CFR § 650.311(b)(3), certain bridges may be allowed underwater inspections at intervals greater than 60 months with FHWA approval. If FHWA approval is granted, the inspection frequency would be increased to not greater than 72 months.

Bridges that have been identified in the bridge record as having Fracture Critical Members (FCMs) require a Fracture Critical Member (i.e. “Hands-On”) inspection of the FCMs at intervals not greater than 24 months. The depth and frequency to which FCMs are to be inspected will depend on such factors as state of maintenance and known deficiencies.

Special, Damage, and In-Depth inspections shall be conducted in accordance with Bridge Maintenance Directives and/or on an as-needed basis as determined by the Assistant District Administrator (ADA) of Operations, Program Manager, Load Rating Engineer, or Bridge Inspection QA/QC Engineer.

The LA DOTD establishes the Program Manager responsible for overseeing the bridge inspection program as the Headquarters’ Structures and Facilities Maintenance Engineer, who shall meet the minimum qualifications as specified in 23 CFR § 650.309. Certain program manager duties have been delegated to the Assistant District Administrator (ADA) of Operations or Headquarters Bridge Inspection Engineer as necessary to effectively manage the Louisiana Bridge Inspection Program. Duties delegated are as specified or noted within the Bridge Maintenance Directives. Delegation of any Program Manager duties shall require the ADA of Operations and/or the Headquarters Bridge Inspection Engineer to meet the minimum qualifications of the Program Manager as specified above.

Each LA DOTD certified bridge inspection team leader shall meet the minimum qualifications specified in 23 CFR § 650.309. Up to 40% of the bridge inspection experience, as called for

in the qualifications may be substituted by certain bridge design, bridge construction or bridge maintenance experience, if approved only by the Program Manager. The balance of the required experience must be in-service bridge safety inspection experience. All requests for certification and/or substitution must be made in writing by the Assistant District Administrator of Operations with supporting documentation showing the above mentioned qualifications have been met.

All bridge inspectors performing bridge inspections in the State of Louisiana must have completed a FHWA approved comprehensive bridge inspection training course based on the FHWA's "Bridge Inspection Reference Manual" (BIRM) and meet the minimum experience qualifications specified in 23 CFR 650. Supporting documentation shall be provided to the Program Manager.

All underwater bridge inspection divers performing underwater bridge inspection in the State of Louisiana must have completed a FHWA approved comprehensive bridge inspection training course or other FHWA approved underwater bridge inspection training course and meet all requirements for an underwater bridge inspection diver in accordance with 23 CFR 650. Supporting documentation shall be provided to the Program Manager.

The LA DOTD, as required by 23 CFR Part 650, shall include a bridge load rating organization capable of determining safe load-carrying capacities of public bridges in accordance with the AASHTO Manual, LA DOTD Bridge Rating Manual and Bridge Maintenance Directives. The LA DOTD Assistant Bridge Design Administrator overseeing the bridge load rating staff is designated with the overall responsibility for establishing a load rating policy for all bridges on public roads, determining overload screening and evaluation procedure, establishing the safe load posting requirements, and consistency for load ratings of all public bridges. This Assistant Bridge Design Administrator referred to hereafter as the State Bridge Load Rating Engineer shall be a licensed civil or structural engineer in the State of Louisiana and meet all requirements set forth under 23 CFR § 650.309. The State Bridge Load Rating Engineer may delegate certain duties to the Headquarters Structures and Facilities Maintenance Engineer and/or the local owners. Delegation of any Load Rating Engineer duties shall require the delegated individual or their representative engineer to meet the minimum qualifications of the Bridge Load Rating Engineer as specified above.

The LA DOTD Bridge Inspection Organization shall include a formal quality control (QC) and quality assurance (QA) program. The QC/QA Program Manual will establish policies, guidance, and procedures for maintaining consistency and accuracy in the inspection program along with periodic review of bridge inspection program items and any periodic bridge inspection staff refresher training requirements.

The findings and results of bridge inspections shall be recorded on LA DOTD standard forms. The data required to complete the forms and functions which must be performed to compile the data are contained in the AASHTO Manual, the LA DOTD Recording and Coding Guide, the SI&A Recording and Coding Guide, the BIRM, the LA DOTD PONTIS Manual, and the LA DOTD Bridge Maintenance Directives Manual.

In accordance with 23 CFR § 650.315 (c) and (d); existing bridge modifications that alter previously recorded bridge conditions and/or design after work completion, new bridges,

changes in load restrictions, or bridge closure status changes must be entered into the inventory within 45 days for State owned bridges and 90 days for non-State owned bridges. Completion of bridge work will be considered the date upon which physical construction is completed on a bridge to allow the safe collection of the required inventory/condition information. The date when the inventory/condition information of a bridge is collected will be the date that load rating needs should be evaluated or performed. The date the bridge closure status determination is made will be considered the date the change occurred.

The LA DOTD shall prepare and maintain an inventory of all bridge structures subject to the NBIS. Under the NBIS Standards, certain structure inventory and appraisal data will be collected and retained in accordance with Bridge Maintenance Directive # 8, and within the various departments of the LA DOTD for annual submission to the Federal Highway Administration as support for the Department's infrastructure needs. A tabulation of this data is contained in the Structure Inventory and Appraisal sheet distributed by the Federal Highway Administration as part of the Recording and Coding Guide for the Structure Inventory and Appraisal of the Nation's Bridges (SI&A Recording and Coding Guide).

4. RESPONSIBILITY:

The LA DOTD Structures and Facilities Maintenance Engineer as the official Program Manager for the Louisiana Bridge Inspection Program shall be responsible for implementing this directive and shall issue specific directives as necessary to insure that Louisiana is in compliance with the NBIS.

5. OTHER ISSUANCES AFFECTED:

All directives, memoranda or instructions heretofore in conflict with this directive are hereby rescinded.

6. EFFECTIVE DATE:

This Directive shall become effective immediately upon receipt.

Richard L. Savoie, P.E.
Chief Engineer