



RESEARCH PROJECT CAPSULE [12-2SS]

October 2012

TECHNOLOGY TRANSFER PROGRAM

History of Road Design Standards in LADOTD

JUST THE FACTS:

Start Date:
August 1, 2012

Duration:
18 months

End Date:
January 31, 2014

Funding:
State: TT-Reg

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Sponsored jointly by the Louisiana
Department of Transportation and
Development and Louisiana State
University

POINTS OF INTEREST:

Problem Addressed / Objective of
Research / Methodology Used
Implementation Potential

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PROBLEM

According to the Louisiana Statewide Transportation Plan, Louisiana's highway network is comprised of over 60,000 miles, of which over 16,000 miles are maintained by the state. The roadways were designed and constructed according to the design standards valid at the time. Currently, the Louisiana Department of Transportation and Development does not have a comprehensive written record of the road design standards enforced for the practice. It is very useful to retain the road design standards in chronological order to identify standards used for the corresponding roads.

	State	Parish	City	Total
Interstate	893	0	0	893
Other Freeway/ Expressway	45	0	0	45
Other Principal Arterial	1,801	64	102	1,967
Minor Arterial	2,532	218	518	3,268
Collector	8,723	326	858	9,907
Local	2,706	32,703	9,423	44,832
Total	16,700	33,311	10,901	60,912

Source: DOTD, USDOT - FWHA, Office of Highway Policy Information, 2000.

Louisiana's highway network

The information on road design standards adopted in the past is available either in the official records in the Department or within the collective memory of senior personnel who administered these systems in the past. It is vital to collect the latter source of time-sensitive information before it is lost.

OBJECTIVE

The objectives of this study are to: (1) identify national and state road design standards applied in Louisiana over the last 90 years; (2) determine state and federal laws that have a bearing on road design in Louisiana; (3) identify internal directives, policies, and practice applied to road standards in the Louisiana DOTD over the last 90 years; and (4) develop a document library of files in Access, Excel, or Word format listing the standards in chronological order.

METHODOLOGY

The following tasks will be completed in order to meet the objectives of this study:

Task 1: Literature Review

In addition to the literature review of historical application of state and national road design standards in LA (including codes, policies, directives, or agreements adopted by LADOTD), input will be sought from surviving engineers and administrators who have served in positions of authority related to road design standards.

Task 2: Data Assessment

The research team will review the information collected in this study, its sources, its extent, its format, its accessibility, method of extraction, and any manipulation that may be necessary to bring information from the different sources into a common format.

Task 3: Prepare and Present Interim Report

Task 4: Law Review

This review includes the development of descriptive listing of pertinent state and federal statutory provisions and regulations, the development of descriptive listing of matching statutory and regulatory authorities with specific road design standards, and a legal analysis of liability implications of standards and the revision of standards.

Task 5: Internal Review

The research team will conduct a review of all formal requirements within the Department regarding road design including formal directives (i.e., EDSMs), internal policy memoranda, and codes adopted within the Department (e.g., MUTCD). The team will also conduct a survey among active and retired senior personnel of LADOTD.

Task 6: Establish Appropriate Format to Document the Information

After collecting all information in the previous tasks, the research team will develop the most effective and convenient format for information retrieval by the potential users of the system.

Task 7: Prepare Final Reports

IMPLEMENTATION POTENTIAL

The compiled time-related record would be a valuable resource to LADOTD in defending tort liability cases in the state, and for identifying the design use in past projects that require repair or rehabilitation.