Preserving Shreveport Bridges

THE CONDITION AND FUNDING NEEDS OF SHREVEPORT'S AGING BRIDGE SYSTEM



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Founded in 1971, TRIP * of Washington, DC, is a nonprofit organization that researches, evaluates and distributes economic and technical data on surface transportation issues. TRIP is sponsored by insurance companies, equipment manufacturers, distributors and suppliers; businesses involved in highway and transit engineering and construction; labor unions; and organizations concerned with efficient and safe surface transportation.

Louisiana's bridges are a critical element of the state's transportation system, which supports commerce, economic vitality and personal mobility. The state's transportation system is literally the backbone of Louisiana's economy. Louisiana's transportation system enables the state's residents and visitors to travel to work and school, visit family and friends, and frequent tourist and recreation attractions, while providing its businesses with reliable access to customers, materials, suppliers and employees.

To retain businesses, accommodate population and economic growth, maintain economic competitiveness, and achieve further economic growth, Louisiana will need to maintain and modernize its bridges by repairing or replacing deficient bridges and providing needed maintenance on other bridges to ensure that they remain in good condition as long as possible. Making needed improvements to Louisiana's bridges will require increased and reliable funding from local, state and federal governments, which will also provide a significant boost to the state's economy by creating jobs in the short term and stimulating long term economic growth as a result of preserved and enhanced mobility and access.

SHREVEPORT BRIDGE CONDITIONS

Thirteen percent of locally and state-maintained bridges in the Shreveport area (which includes Bossier and Caddo Parishes) are structurally deficient, meaning there is significant deterioration to the major components of the bridge.

- There are a total of 965 bridges in the Shreveport area that are 20 feet or longer. These bridges are maintained by local and state agencies.
- Thirteen percent (130 bridges) of state-and locally maintained bridges in the Shreveport area are structurally deficient.
- Bridges in the Shreveport area that are structurally deficient carry approximately 628,000 vehicles each day.
- Bridges that are structurally deficient may be posted for lower weight limits or closed if their condition
 warrants such action. Deteriorated bridges can have a significant impact on daily life. Restrictions on
 vehicle weight may cause many vehicles especially emergency vehicles, commercial trucks, school
 buses and farm equipment to use alternate routes to avoid weight-restricted bridges. Redirected
 trips also lengthen travel time, waste fuel and reduce the efficiency of the local economy.

• The list below details the 25 most heavily traveled structurally deficient bridges in the Shreveport area.

Rank	Parish	Location	Facility Carried	Feature Intersected	Year Built	Average Daily Traffic	Open, Closed, Posted
1	Caddo	Shreveport	10020	ST. LOUIS & SW RR	1965	86800	Posted
2	Bossier	Bossier City	10020	STL&SW-KCS RR/WESTERFIEL	1966	43950	Open
3	Bossier	Bossier City	10020	STL&SW-KCS RR/WESTERFIEL	1966	43950	Open
4	Caddo	Shreveport	10020	LK SHORE DR&KESRR	1965	31800	Open
5	Caddo	Shreveport	10020	M.P. RR	1965	27400	Open
6	Caddo	Shreveport	10020	M.P. RR	1965	27400	Open
7	Bossier	Shreveport	LA0511	RED R.,C.FANT PKWY,AR TE	1968	24400	Open
8	Caddo	Shreveport	US0071	ICG RR	1937	22400	Posted
9	Caddo	Shreveport	US0071	ICG RR	1940	22400	Posted
10	Caddo	Shreveport	LINWOOD AVE	KCS,MOPAC & PAC RRS	1950	22308	Posted
11	Caddo	Shreveport	LA0001	KCS RR/JONES ST	1954	12850	Posted
12	Bossier	Bossier City	US0080	RED RIVER @ TEXAS ST.	1934	12400	Posted
13	Caddo	Shreveport	LA3094	KANSAS CITY SOUTHERN RR	1977	11000	Posted
14	Caddo	Shreveport	LA3094	TWELVE MILE BAYOU	1968	11000	Open
15	Caddo	Shreveport	LA0525	BOGGY BAYOU	1969	10700	Posted
16	Caddo	Shreveport	LA0525	BOGGY BAYOU	1969	10700	Posted
17	Bossier	Bossier City	US0080	ALLIGATOR BAYOU	1955	9750	Posted
18	Bossier	Bossier City	US0080	ALLIGATOR BAYOU	1936	9750	Open
19	Caddo	Shreveport	10020	I-20 RAMP W-N I-20 MKT S	1985	9690	Open
20	Caddo	Shreveport	US0080	KCS RR	1927	8800	Posted
21	Bossier	Bossier City	10020	US71&KCSRR	1966	8790	Open
22	Caddo	Shreveport	LAKESHORE DRIVE	TRIB TO CROSS LAKE	1960	7168	Open
23	Bossier		US0080	BAYOU FIFI	1934	7050	Posted
24	Bossier		US0080	BAYOU FIFI	1955	7050	Posted
25	Bossier		LA0612	CREEK	1965	7000	Open

The following 25 structurally deficient bridges in the Shreveport area have the lowest average rating
for deck, substructure and superstructure (carrying a minimum of 500 vehicles per day). Each major
component of a bridge is rated on a scale of zero to nine, with a score of four or below indicating poor
condition. If a bridge receives a rating of four or below for its deck, substructure or superstructure, it is
rated as structurally deficient.

Rank	Parish	Location	Facility Carried	Feature Intersected	Year Built	Average Daily Traffic	Open, Closed, Posted
1	Bossier		LA0157	FLAT RIVER	1964	3500	Closed
2	Bossier	Haughton	Sligo Rd	FOXSKIN BAYOU	1987	900	Open
3	Bossier		Fairview Pt-Koran	SPRING BRANCH	1980	570	Open
4	Caddo	Shreveport	US0071	ICG RR	1940	22400	Posted
5	Caddo	Shreveport	US0080	KCS RR	1927	8800	Posted
6	Bossier	Bossier City	LA07822	MACKS BAYOU	1970	6300	Open
7	Caddo		LA0001	CADDO LAKE	1940	5400	Posted
8	Caddo	Shreveport	US0071	ICG RR	1940	4480	Posted
9	Caddo		LA0002	JEEMS BAYOU	1973	1890	Open
10	Caddo	Shreveport	LINWOOD AVE	KCS,MOPAC & PAC RRS	1950	22308	Posted
11	Bossier	Bossier City	US0080	RED RIVER @ TEXAS ST.	1934	12400	Posted
12	Caddo	Shreveport	LA0525	BOGGY BAYOU	1969	10700	Posted
13	Caddo	Shreveport	LA0525	BOGGY BAYOU	1969	10700	Posted
14	Bossier	Bossier City	US0080	ALLIGATOR BAYOU	1936	9750	Open
15	Caddo	Shreveport	US0071	CROSS BAYOU	1940	6950	Open
16	Bossier		LA0527	FLAT RIVER	1981	2600	Open
17	Caddo	Greenwood	LA0169	S FORK CROSS B	1965	2200	Posted
18	Caddo		LA0789	FOSTER CREEK	1971	1370	Open
19	Caddo		LA0789	SPRING BRANCH	1971	1370	Posted
20	Caddo		LA0789	CYPRESS BAYOU	1975	1370	Open
21	Bossier	Benton	LA0162	BLACK BAYOU	1967	1240	Posted
22	Caddo		LA0530	BLACK BAYOU	1928	990	Posted
23	Caddo		LA0173	MAHLIN BAYOU	1965	870	Posted
24	Bossier	Shreveport	LA0511	RED R.,C.FANT PKWY,AR TE	1968	24400	Open
25	Caddo	Shreveport	US0071	ICG RR	1937	22400	Posted

TRANSPORTATION FUNDING AND PRESERVING LOUISIANA'S AGING BRIDGES

Maintaining aging bridges becomes more costly as they reach the limits of their design life, challenging state and local transportation agencies to take an asset management approach to bridge preservation that emphasizes enhanced maintenance techniques that keep infrastructure in good condition as long as possible, delaying the need for costly reconstruction or replacement.

• Repairing and replacing bridges in poor condition and preserving bridges in fair and good condition will require increased and reliable funding from local, state and federal governments.

- A recent <u>survey of states by the U.S. General Accountability Office</u> (GAO) found that more than half of states surveyed (14 out of 24) reported that inadequate funding was a challenge to their ability to maintain bridges in a state of good repair.
- Under pressure from fiscal constraints, aging bridges, and increased wear due to growing travel
 volume, particularly by large trucks, transportation agencies are adopting cost-effective strategies
 focused on keeping bridges in good condition as long as possible. While this strategy requires
 increased initial investment, it saves money over the long run by extending the lifespan of bridges.
- The GAO Report found that the increase in the number and size of bridges that are approaching the limits of their design life will likely place a greater demand on bridge owners in the near future, making it more difficult to mitigate issues in a cost-effective manner.
- A survey included in the GAO report found that more than half of states surveyed (13 out of 24) indicated that the advanced age of many bridges posed a challenge to their ability to maintain their bridges in a state of good repair.
- Bridge preservation may include washing, sealing deck joints, facilitating drainage, sealing concrete, painting steel, removing channel debris, and protecting against stream erosion.
- Rehabilitation involves major work required to restore the structural integrity of a bridge as well as work necessary to correct major safety defects.
- Replacement projects include total replacements, superstructure replacements, and bridge widening.
- The need to repair or replace high priority bridges may create a funding cycle that makes it difficult to keep pace with the needed preservation activities.

TRANSPORTATION AND ECONOMIC GROWTH IN LOUISIANA

The efficiency of Louisiana's transportation system, particularly its roads, highways and bridges, is critical to the health of the state's economy. Businesses rely on an efficient and dependable transportation system to move products and services. A key component in business efficiency and success is the level and ease of access to customers, markets, materials and workers.

- Annually, \$734 billion in goods are shipped to and from sites in Louisiana.
- Businesses have responded to improved communications and greater competition by moving from a
 push-style distribution system, which relies on low-cost movement of bulk commodities and largescale warehousing, to a pull-style distribution system, which relies on smaller, more strategic and timesensitive movement of goods.
- Increasingly, companies are looking at the quality of a region's transportation system when deciding
 where to re-locate or expand. Regions with congested or poorly maintained roads may see businesses
 relocate to areas with a smoother, more efficient and more modern transportation system.

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 where to re-locate or expand. Regions with congested or poorly maintained roads may see businesses
 relocate to areas with a smoother, more efficient and more modern transportation system. Highway
 accessibility was ranked the number one site selection factor in a 2017 survey of corporate executives
 by <u>Area Development Magazine</u>. Labor costs and the availability of skilled labor, which are both
 impacted by a site's level of accessibility, were rated second and third, respectively.
- The <u>Federal Highway Administration</u> estimates that each dollar spent on road, highway and bridge improvements results in an average benefit of \$5.20 in the form of reduced vehicle maintenance costs, reduced delays, reduced fuel consumption, improved safety, reduced road and bridge maintenance costs and reduced emissions as a result of improved traffic flow.

Sources of information for this report include the Louisiana Department of Transportation and Development (LADOTD), the Federal Highway Administration (FHWA), the National Bridge Inventory (NBI), the Bureau of Transportation Statistics (BTS), and the U.S. Census Bureau.