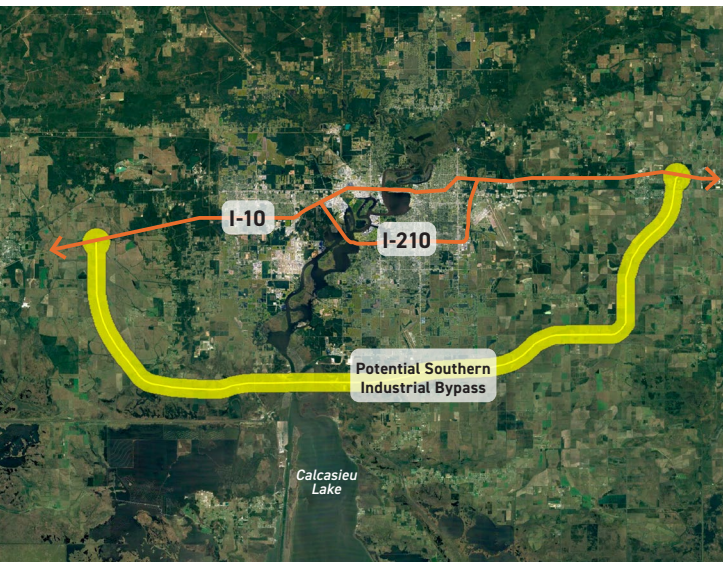




INFRASTRUCTURE

Just imagine...reliable and resilient infrastructure that improves the quality of life and makes the region safer.



Infrastructure improvements are needed to ensure a more resilient SWLA, including bridges, new road connections, improved road standards, drainage, and utilities. These recommendations add to those specific infrastructure improvements included in the 10 Catalytic Projects.

Infrastructure recommendations are based on:

1. Analysis of the existing infrastructure conditions and connectivity
2. Infrastructure Guiding Group meetings and input
3. Public input throughout the process

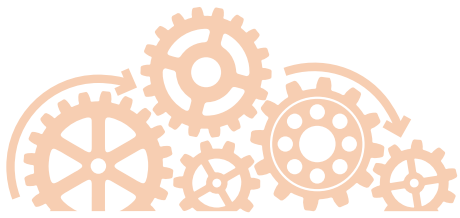
The tables list the full set of recommendations with estimated costs and timeframes, and key recommendations are described in more detail below.

Bridge Upgrades in Cameron Parish

Bridges are necessary transportation infrastructure and many key bridges in Cameron Parish are in need of maintenance and upgrades. Bridge investments should be a high priority to ensure residents, visitors, and industry can safely access destinations along the coast and throughout the Parish.

Public Docks for Waterway Access

Public docks democratize access to the water for recreation and enhance the economic viability of small fisheries. Currently, there are a handful of public docks in Calcasieu and Cameron parishes. New docks should include public slips that allow overnight stays, adjacent parking, and could be located near seafood processing facilities.



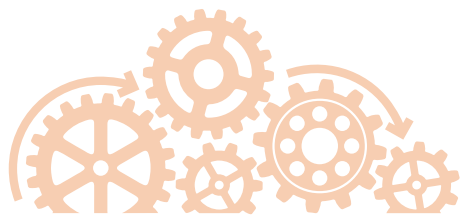
INFRASTRUCTURE

PLAN RECOMMENDATION	COST	TIME FRAME
Improve Access & Connectivity (New Connections)		
① New Cameron Parish ferries (2 ferries funded, construction starting late 2022)	\$50–70 million	1–2 years
② Rehabilitate and provide additional pontoon bridges in Cameron Parish	TBD	TBD
③ Replace Black Bayou Bridge (Calcasieu Parish)	\$15 million	TBD
④ Replace Kelso Bridge (Cameron Parish)	\$10 million	TBD
⑤ Public docks for waterway access (Calcasieu and Cameron parishes, in addition to the proposed dock in the Waterfront Development project)	TBD	2–10 years
⑥ Enterprise Boulevard Extension to Highway 171	\$40 million	5–10 years
⑦ Extend rail from Chennault to Cameron	\$300 million	5–10 years
⑧ High speed rail from NOLA to Houston	\$200 million	5–15 years
⑨ North I-210 Loop	\$975 million– \$1.1 billion	25+ years
⑩ Southern Industrial Loop — Create a second crossing of the Intercoastal Waterway	\$2 billion	25+ years
Improve Standards of Existing Roads		
⑪ Update ordinances to require detention for 25 year events and implement low-impact development incentives	\$250,000	2 years
⑫ Establish a traffic impact mitigation process in larger cities poised for continued growth that creates requirements for future developers to address impacts that new development imposes on the existing roadway network	\$250,000	2–5 years
⑬ Drainage improvements along LA 27 (fully funded)	<\$20 million	2–5 years
⑭ Upgrade existing drainage network to meet current requirements/standards in areas with known flood history	\$300 million	5–10 years
⑮ LA 171 Redevelopment corridor (add sidewalks and bike facilities similar to the Prien Lake Road project)	\$50–90 million	5–10 years
⑯ Upgrade rural roads to current LADOTD standards (travel lanes, shoulder widths, drainage, etc.)	\$100 million	10–30 years
⑰ Elevate roadways in current flood prone areas and those susceptible to sea level rise in lower Cameron Parish (similar to Port Fouchon)	TBD	10–30 years

Infrastructure

WHY IS THIS IMPORTANT?

- Infrastructure was identified as the most pressing problem for the region to address — drainage, inadequate road conditions, missing connections, and utilities that need investment.
- Infrastructure is often not visible, but is critical to allowing residents and businesses to thrive, access functional utilities, and move around efficiently.
- Future storms and disasters will threaten the region's infrastructure. Hardening and upgrades will help SWLA be prepared and lessen future risks.



INFRASTRUCTURE

PLAN RECOMMENDATION	COST	TIMEFRAME
Resilient Utilities		
18 E-Vehicle charging stations	\$2,000/ station	1-5 years
19 Calcasieu Parish-wide ordinances for underground distribution of utilities for all new or modified developments	\$50,000	2 years
20 Calcasieu Parish Water & Sewer — Step 1: Begin to consolidate districts	\$0	2-5 years
21 Calcasieu Parish Water & Sewer — Step 2: Create a single district for solid waster, water, and sewer to maximize economy of scale and cost savings	\$0	10+ years
22 Calcasieu Parish Water & Sewer — Step 3: Extend sewers parish-wide	\$1 billion	5-30 years
23 Expand renewable and resilient energy sources in SWLA	TBD	5-15 years
24 Enhance Broadband beyond state initiatives	TBD	1-5 years
Other		
25 Reduce flood and wind insurance through community measures (FEMA's Community Rating System and FORTIFIED wind mitigation program through the Louisiana Department of Insurance	\$250,000	2 years
26 Explore a bike-share pilot program at the waterfront once the initial 4 miles of trails are established	\$500,000	2-5 years

Enterprise Boulevard Extension

Phase 1 of the Enterprise Boulevard extends from I-10 to Katherine Street in North Lake Charles. A possible future extension of Enterprise Boulevard could connect to N Goos Boulevard, Fitzenreiter Road, and Highway 171. The Enterprise Boulevard Extension should be designed as a two-lane community boulevard with pedestrian and bicycle paths that would enhance the experience and encourage connectivity from the Nellie Lutchter District to Riverside Park. The boulevard should be in

scale with the neighborhood and should not create a high-volume or high-speed barrier between important community assets, such as Combte-Fondel Elementary School and the residential neighborhood. The Enterprise Boulevard Extension could enhance economic opportunities adjacent to the Calcasieu River as well as improve quality-of-life and access, as long as it is designed in a compatible with the existing neighborhood scale and uses.

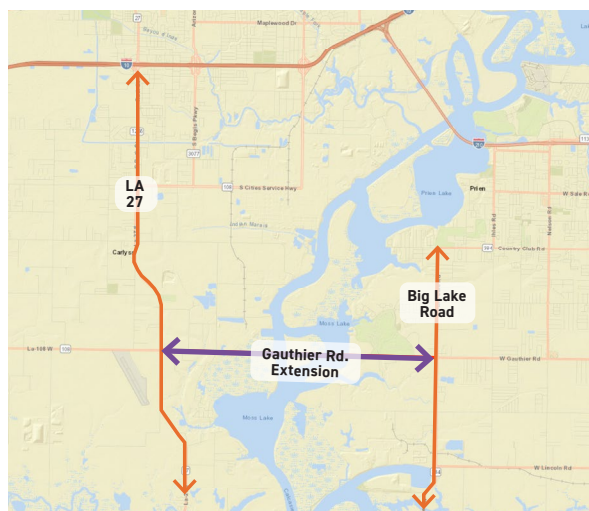


North I-210 Loop

A North I-210 Loop would provide enhanced access to development and neighborhoods in Westlake and Moss Bluff. This would benefit the region by opening new lands for residential development further from the coast and potentially at higher elevations. The process to explore a north loop would entail extensive analysis of environmental impacts and coordination with USDOT, LADOTD, and other federal, state, and local agencies.

Southern Industrial Loop

A new regional high speed road closer to southern Calcasieu and northern Cameron parishes would improve hurricane evacuation, provide a second crossing of the Intercoastal Waterway, provide access to new and planned industrial development, and accommodate future population growth. Residents of Cameron Parish could access I-10



without having to travel through the City of Lake Charles or Carlyss. Any new connection over the ship channel and the Calcasieu River will require environmental assessment and coordination with DOTD and other approving agencies.

Rural Road Upgrades

Many of the rural roads in both parishes are below LADOTD standards, lacking adequate shoulders, drainage, and lane widths. In Cameron Parish, LA27 is a critical evacuation route and should be prioritized for safety and functionality upgrades, including raising the road elevation.

Broadband Connectivity

Under Connect LA, Calcasieu and Cameron parishes and the municipalities are responsible for taking the lead to convince providers to apply for grants to expand access. The focus should be on expanding access to un- and under-served populations, improving affordability, and promoting digital literacy.

Drainage System Upgrades

Drainage system upgrades are currently underway in both Calcasieu and Cameron parishes. 24 drainage improvement projects totaling \$189 million in Calcasieu Parish will increase stormwater capacity by:

- Clearing existing drainage laterals
- Widening channels
- Constructing new detention basins
- Increasing pump station capacity

Infrastructure

BROADBAND FOR SWLA

Broadband expansion in Louisiana is managed by Connect LA, officially known as the Office of Broadband Development & Connectivity. ConnectLA is charged with expanding broadband access, improving affordability, and promoting digital literacy. Expanding broadband access involves addressing the un- and under-served populations. ConnectLA defines broadband as connections with minimum speeds of 25 megabits per second (Mbps) download and 3 Mbps ($\geq 25/3$ Mbps) uploads.

To accomplish their goal of 100% broadband access by 2029, ConnectLA issues grants to broadband providers who have partnered with municipalities to subsidize the cost of expansion and system upgrades. The broadband grants are funded by a variety of state and federal funding programs including the Infrastructure bill, American Rescue Plan Act, the Federal Communication Commission's (FCC) Rural Digital Opportunity Fund, and the Word Digital Opportunities Fund.

An important aspect of the program is that providers are not required to expand access. In many cases, the municipality must take the lead and convince the provider to apply for the grants. In some cases, even with the grants, expansion may not make business sense for the provider, because of the small number or lack of concentration of customers. The FCC maintains the Fixed Broadband Deployment map to share the current providers and the level of services they offer. The map depicts the number of providers, by census block, that offer broadband ($\geq 25/3$ Mbps).



Higher Standards for Flood and Wind Risk

WHAT IS FEMA'S CRS PROGRAM?

- The Community Rating System (CRS) is a voluntary incentive program.
- It recognizes and encourages community floodplain management practices that exceed the minimum requirements of the National Flood Insurance Program (NFIP).
- Over 1,500 communities participate nationwide.
- In CRS communities, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community's efforts that address the three goals of the program:
 - Reduce and avoid flood damage to insurable property
 - Strengthen and support the insurance aspects of the National Flood Insurance Program (NFIP)
 - Foster comprehensive floodplain management

These improvements will relieve flooding problems, reduce flood damage and costs of damage, overtopping of roads with drain water, and will keep roadways free of water during periods of high precipitation.

Undergrounding Utilities in New Development

Both parishes should write and adopt ordinances requiring underground distribution of utilities for all new development. Calcasieu and Cameron parishes should work with DOTD to underground utilities along roads as improvements are made in the public rights-of-way, especially along LA27 and evacuation routes.

Water and Sewer District Consolidation

In Calcasieu Parish, in the future, there are strategic opportunities to consolidate some existing water and sewer districts to facilitate efficiencies and expand capacity.

Implementation of Higher Standards for Flood and Wind Risk

State building code requirements in Louisiana fall below the national standard for flood protection and require the minimum standard for wind protection. The adoption and enforcement of higher standards can and should be used to mitigate against future hurricane and flood events. Higher standards that result in meaningful mitigation actions will reduce insurance premiums, and if properly executed during construction, will resist damaging effects caused by extreme wind and flood events. By constructing the built environ-

ment to anticipate historic flood depths and wind-speeds is a proactive way to protect the homes and business of SWLA.

More robust participation in FEMA's Community Rating System (CRS) could reduce flood insurance rates. Cameron Parish could adopt or update floodplain management ordinances; implement programs, plans, and activities to maximize CRS points; and update building codes. The use of imported dirt fill to achieve freeboard requirements should be restricted or comprehensively studied in the Special Flood Hazard Area, as it has been shown to adversely impact neighboring structures, existing drainage, and natural hydrology. Pier and beam construction, which was the traditional style foundation in SWLA prior to the 1960s, should be encouraged for new construction.

FORTIFIED wind mitigation program can reduce homeowners insurance. FORTIFIED Roof program, which is being supported through a grant pilot program by the Louisiana Dept. of Insurance to provide insurance discounts up to 25–25%, aims to strengthen the roof system and minimizes the chances of water getting in homes. The FORTIFIED Silver program can provide discounts up to 35–45%, by strengthening the roof, windows, door and other vulnerable areas of your home to prevent wind and rain from causing serious damage.

FORTIFIED Gold provides a 45–55% discount by combining the FORTIFIED Roof and Silver, plus a continuous load path to provide maximum protection from wind.



Infrastructure

WHAT IS THE FORTIFIED PROGRAM?

- A voluntary construction and re-roofing program designed to strengthen homes and commercial buildings against specific types of severe weather such as high winds, hail, hurricanes, and tornadoes
- A standard that goes above minimum building codes to make a home or building stronger and more protected in the case of disasters
- A system that can provide discounts of up to 55% on homeowners insurance

