



US Army Corps  
of Engineers  
Mississippi Valley Division



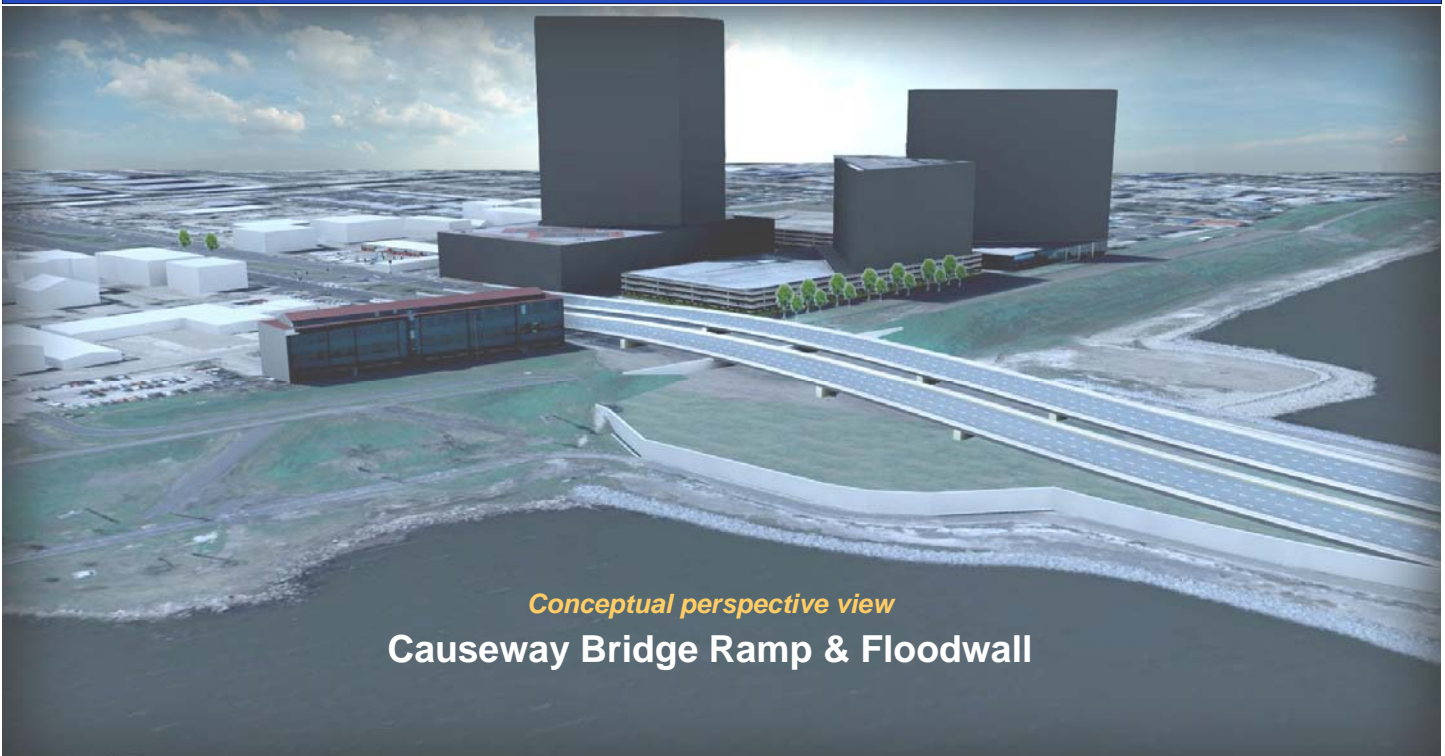
# Corps Hurricane Response

*Task Force Hope Status Report Newsletter*

*February 3, 2012*

**Hurricane and Storm Damage Risk Reduction System update**

## Big projects moving steadily toward completion



*Conceptual perspective view*  
**Causeway Bridge Ramp & Floodwall**

*by Susan Spaht*

**The** Hurricane and Storm Damage Risk Reduction System (HSDRRS) being constructed by the Corps of Engineers forms a storm surge defense around the five-parish Greater New Orleans area. Started shortly after Hurricane Katrina, this 133-mile perimeter system is now capable of defending against a 100-year storm surge, or a

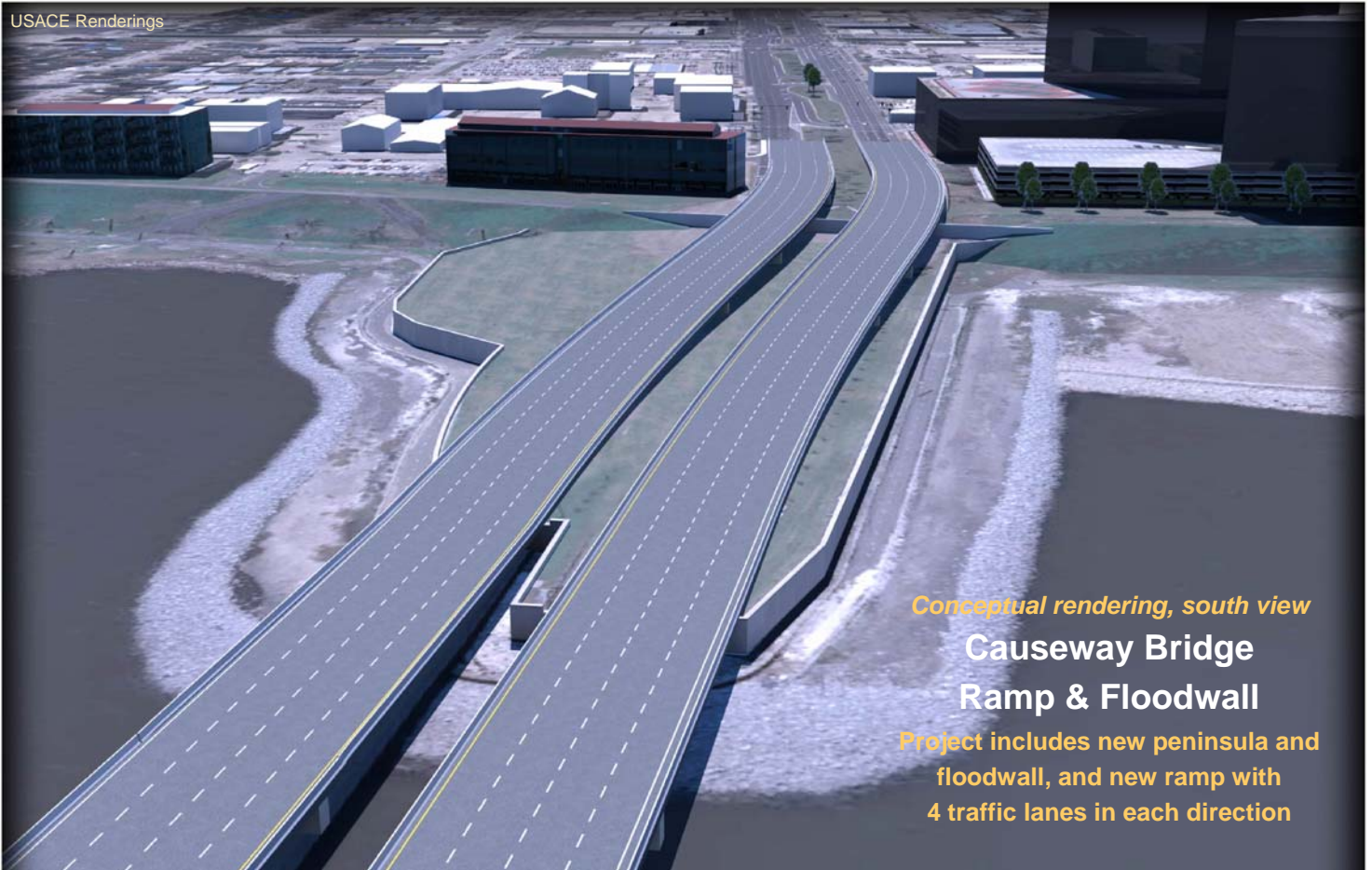
storm that has a 1% chance of occurring in any given year. Even though the 100-year level of defense has been attained, construction continues on several of the larger projects in the system. Three of these major projects are the Causeway Bridge ramp and floodwall at Lake Pontchartrain, the Inner Harbor Navigation Canal Surge Barrier on the Gulf Intracoastal Waterway at Lake Borgne, and the Seabrook Floodgate Complex on the Industrial Canal.

### **Causeway Bridge Ramp and Floodwall**

The Corps' new, stringent design specifications for the HSDRRS called for improving or raising most of the levees and floodwalls along the Lake Pontchartrain south shoreline. These improvements include the construction of a 10-foot floodwall (elevation 15 feet), where the

*Continued on page 2*

USACE Renderings



*Conceptual rendering, south view*  
**Causeway Bridge Ramp & Floodwall**  
 Project includes new peninsula and floodwall, and new ramp with 4 traffic lanes in each direction

Continued from page 1

Causeway Bridge will ramp over, as a continuation of the HSDRRS Lake Pontchartrain and Vicinity project.

The Causeway Bridge is a major thoroughfare for commuters traveling to and from New Orleans from the north shore of Lake Pontchartrain, with approximately 42,000 cars crossing on a normal weekday. This presented special construction challenges for the Corps of Engineers' project team because the plans called for removing the existing ground-level traffic lanes and constructing a roadway ramp over the



Rebecca Constance



new floodwall. The plans also call for construction of an additional elevated lane in each direction to improve future traffic flow. The Corps'

construction challenge was to maintain the traffic flow of 42,000 cars per day with minimal disruption.

Continued on page 3

Continued from page 2

Yet traffic congestion was not the only challenge the Corps project team and contractor had to overcome. This huge project also included removing (and eventually replacing) an historic canopy and building, addressing sensitive environmental and cultural issues, repositioning utility lines as well as changing and coordinating traffic lights with frequently changing construction issues, all within a small construction area.

The project is already 71% complete and moving along on schedule despite original fears that traffic congestion would be an ongoing nightmare during construction.

Phase One of the Causeway project was the construction of temporary traffic lanes in the former median and the construction of the outside elevated lanes. Phase Two was the diversion of traffic onto the newly constructed elevated lanes. Phase Three was the removal of the temporary median lanes. The Final Phase, now ongoing, is the addition of two more elevated lanes in each direction.



**Carlton Dufrechou**

“We have been working very closely with state and parish officials, the Levee Board, the Causeway Commission and the public,” said Rebecca Constance, the Corps’ Project Manager. “This teamwork and coordination has made it possible for our



*Causeway Bridge Ramp & Floodwall construction continues*



construction to stay on schedule and minimize disruptions to traffic flow.”

Simultaneous to working on the floodwall, the Corps recently re-sequenced the south end of the southbound ramp (see photos this page) so that a third traffic lane could be immediately constructed. After a

year of only minimal traffic delays, some commuters are currently experiencing temporary slowdowns during the busy morning travel times with construction of this third lane underway. The south-bound third lane construction is expected to be

*Continued on page 4*

Continued from page 3

completed in about a month.

Causeway Bridge General Manager Carlton Dufrechou said, "We were very concerned about traffic congestion when this project started. Because of a great deal of cooperation and coordination by the Corps and Boh Bros., major delays for our commuters were prevented for the first year of the project.

Recently, construction required demolition of our third lane exiting on the south shore. This induced the traffic back up many feared early on. The good news is that the Corps and Boh are accelerating rebuilding a portion of the third exit lane already...

"This is a complicated project with a small footprint. Despite the vast amount of construction work and equipment on site, the Corps and Boh Bros. have really worked hard to help keep our commuter traffic flowing as smoothly as possible."

The mainline floodwall under the causeway ramp requires 12 concrete monoliths of which nine are already complete. When all 12 are in place - at the end of March - this section of the Lake Pontchartrain and Vicinity project will meet the final 100-year level criteria for surge defense.

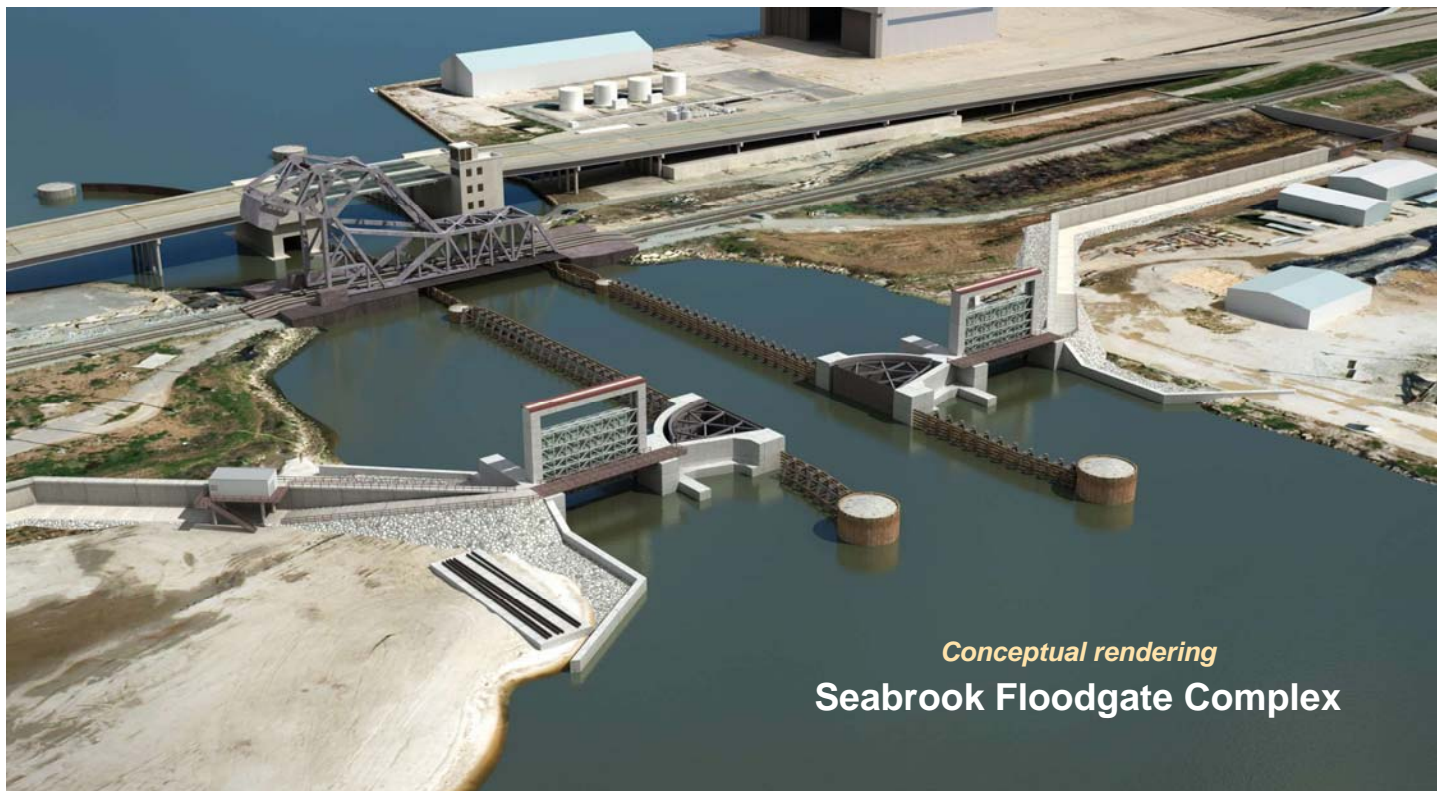
"Boh Bros., our contractor, deserves a lot of the credit for keeping things moving and on schedule with this complex project," said Constance.

"They have worked out complicated issues with the Causeway Commission, St. Tammany and Jefferson parishes, the utility owners, the East Jefferson Levee District, and the adjacent business owners. Boh is doing a great job."

Completion of the new Causeway ramp construction is expected for the end of 2012.

Continued on page 5





*Conceptual rendering*  
**Seabrook Floodgate Complex**

*Continued from page 4*

### **IHNC Surge Barrier**

Two major projects make up the Inner Harbor Navigation Canal portion of the HSDRRS: the IHNC Surge Barrier at Lake Borgne, spanning between the north bank of the GIWW and the south bank of the MRGO (see photo, page 4), and the Seabrook Floodgate Complex, located on the Industrial Canal at Lake Pontchartrain. These two structures will work in tandem to provide storm surge risk reduction for the Ninth Ward, New Orleans East, Orleans Metro and St. Bernard Parish – some of the areas most vulnerable to flooding from hurricane storm surge.

The IHNC Surge Barrier at Lake Borgne is 95% complete with construction completion scheduled for early October 2012. Contractors are completing welding and bolting of the Bayou Bienvenue vertical lift gate and tower, mechanical work on the

barge gate, installing electrical equipment, completing the approach wall, etc. This colossal project includes a 1.8-mile surge barrier wall, the largest of its kind in the world, and three gated structures. It is capable of defending against a 100-year storm surge.

### **Seabrook Floodgate Complex**

The Seabrook Complex, one of the largest projects in the HSDRRS, will include a 95-foot sector gate and two flanking vertical lift gates (see illustration this page). Construction is 66% complete and on schedule to meet its construction completion date of June 2012.

The West Vertical Lift Gate was installed on January 22, and the East Vertical Lift Gate was installed on January 31 (see photos, page 7). Each of the two vertical lift gates is 50 feet wide, 34 feet tall, 8 feet thick, and each weighs 120 tons.

Alberici Constructors of St. Louis, Mo., the project contractor, is fabricating the huge sector gate for Seabrook. The gate is 70% complete and scheduled to arrive on site by March 15, 2012. Installation of the gate will occur in April 2012.

“The Seabrook construction schedule has been affected by several setbacks,” said Eric Stricklin, the Project Manager, “but our contractor has been able to make up some of that lost time.”

Seabrook construction was held up early on by a contract protest. In accordance with Federal law, the Government Accountability Office ordered an official “stop work order” that lasted 94 days. The dispute was resolved and work started. Then the project was held up in May 2011 by high water on the Mississippi River that affected delivery of critical con-

*Continued on page 6*



*Work continues on Seabrook Floodgate Complex*



*Continued from page 5*

struction materials. Then Tropical Storm Lee caused flooding in the Industrial Canal and flooded the project work site.

The latest construction setback involves the 10 steel/aluminum castings that go into the sector gate. The first six were completed successfully, according to Stricklin, "but the final four castings did not meet our design requirements, so we refused them

and ordered replacements. The replacements have passed inspections and they are currently being machined and readied for installation on the sector gates."

Seabrook Floodgate Complex construction is scheduled for completion in June 2012 - before the height of the hurricane season. "And we are happy to report that navigation will resume at that time also."



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The *Status Report Newsletter* supports the information program for Task Force Hope and its stakeholders.

It also serves as the primary tool for accurately transmitting the Corps' hurricane risk reduction efforts to stakeholders.

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This issue and past issues can be found at:

<http://www.mvn.usace.army.mil/hps>

Comments and questions

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**U.S. Army Corps of Engineers**

**Status Report Newsletter**

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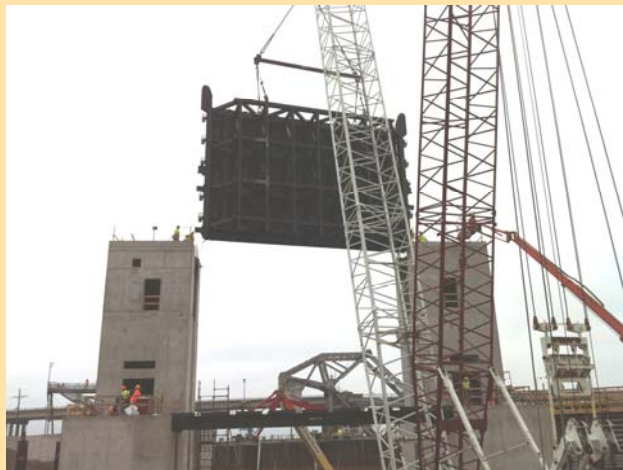
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*Seabrook Floodgate Complex*

# Vertical Lift Gates installed

*Jan. 22, 2012*

**West Vertical Lift Gate Installation**



*Jan. 31, 2012*

**East Vertical Lift Gate Installation**

