ICA Case Study

ICA Responds to Gandy Bridge Emergency

Thursday, March 30, 12:30 PM. A tugboat line snaps and a 285 foot barge out of New Orleans, carrying 1,000,000 gallons of liquefied propane gas, drifts into the eastbound Gandy Bridge near Tampa, FL causing major damage to the structure. This is an event that nobody would wish for but it provided a showcase for ICA's Incident Response Plan, the capabilities of our District 7 team led by David Novakoski, and our commitment to both public safety and client customer service.

The Bridge

The Gandy Bridge is a 14,860 foot long bridge with 296 spans. It was built in 1975 as one of three vital links between St. Petersburg and Tampa. Each side of the bridge has two lanes with shoulders, and posts a speed limit of 55 mph. The average daily traffic over this bridge is 20,000 vehicles, 5% of those being trucks. This was a bridge hit of no small consequence.

The ICA Response

When the call came in from the Coast Guard, ICA responded immediately to acknowledge the alert and deployed personnel and equipment to the site. The Florida Highway Patrol immediately closed the bridge to traffic and within 1 hour of the initial call representatives from ICA and FDOT were in the water in boats inspecting the damage with Volkert Associates, ICA's inspection consultant, and their inspection dive team, Bolt Underwater Services. It was determined that one beam was damaged beyond repair and that several piles were cracked but that one lane of traffic could be restored on the bridge over the non-damaged portion. Eighty minutes from the original call the Highway Patrol was able to open the bridge to one lane of traffic with Maintenance of Traffic (MOT) provided by ICA.

Volkert immediately began work on design plans to remove (so the beam could be replaced) and replace 500 sq. feet of bridge deck, to remove and replace the 48 ft. long AASHTO Type II beam, remove and replace 48 feet of barrier rail, install one structural pile jacket and various other concrete repairs. Volkert would continue to perform Construction Engineering Inspection (CEI) throughout all the repairs and perform strength tests on new members prior to moving on to the next repair phase. ICA coordinated the temporary relocation of phone lines and conduits under the bridge with MCI and AT&T so the beam could be replaced.

ICA also immediately contacted Cone and Graham Heavy Construction—who had successfully repaired two other FDOT bridges for ICA—and before the end of the day they had met on-site, prepared a bid, entered into a contract for repairs, and begun mobilizing equipment. Per contract, C&G now had 14 days to repair the bridge at a lump sum cost of $237,500. ICA would start the process of coordinating with the Coast Guard for Third Party Damage Recovery information from the tug/barge that hit the bridge.

Within no time the media was everywhere. Five helicopters circled overhead and reporters from five different news channels interviewed FDOT officials about the incident. ICA would provide daily email updates to FDOT and the media—as we typically do for such events—from day one to the end of repairs and reopening of the bridge.

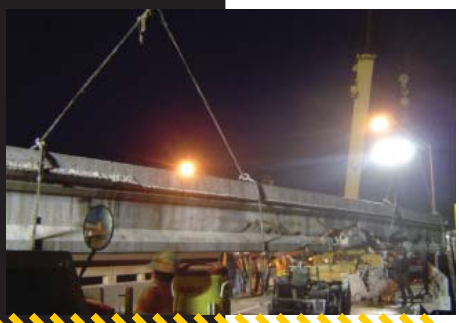
Just Fix It!

ICA's contract with FDOT puts the sole responsibility of response and repairs for an incident like this with ICA and at no extra cost to FDOT. Since our contracts with Volkert and Bolt were already intact, and there was no need for an FDOT bid review—just fix it!—the work could begin the very next day.

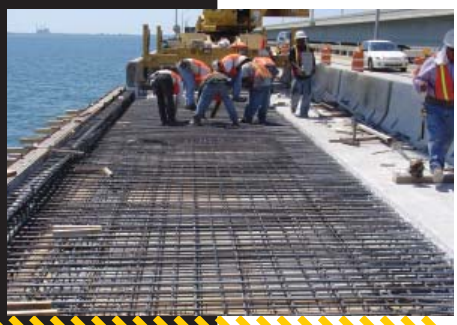
The single lane closure installed the day before was removed and replaced with a temporary barrier wall. This restored two lanes of traffic by shifting the traffic lanes and re striping the deck. Demolition work on the deck, beam, and diaphragms began, continuing into the night, and by the third day final repair design plans were

Incident Response

completed by Volkert and approved by FDOT. By Day 5 the new beam had been fabricated, delivered and installed during non-rush hour times to reduce the impact on traffic. Off-peak single lane closures would also be used for concrete delivery throughout the project.



The next 8 days would see the pouring of new diaphragms, the placing of steel rebar and forming deck; installation of the structural pile jacket; pouring of the new bridge deck, bottom rail barrier and top rail barrier; removal of forms and the reinstall of utilities. On the final day—April 13, 2006—after removal of all equipment and clean-up of the site, removal of the temporary barrier wall and the re striping of lanes, the Gandy bridge was reopened to traffic in its original configuration.



The ICA Response team had accomplished the project in a limited work zone space and with other challenges such as off-peak scheduling, concrete cure times, utility coordination, management of multiple contractors and media coordination. It is estimated that approximately 95 people worked on the site including ICA personnel, contractors, law enforcement officers, designers, utility companies, and FDOT personnel. These people spent an estimated 2,650 man hours, day and night, over a two week span to repair the bridge.

A Satisfied Customer

In responding to this incident, ICA surpassed it's contractual requirements for every major performance criteria. With an Incident Response Plan already in place we were capable of immediate response and crew deployment putting us on site in less than half the time required. ICA personnel were in boats with FDOT inspecting within 30 minutes, had contractors on site in 40 minutes and divers in the water within one hour. We beat our own 90 minute "Open Road Promise" by ten minutes moving traffic again within 80 minutes of the bridge closure.

Needless to say the Florida Department of Transportation was a satisfied client. Don Skelton, the local FDOT Secretary sent this congratulatory message to all of the response team members.

"I would like to express my personal thanks for the extraordinary efforts put forth by the entire team to repair the Gandy Bridge with minimal disruption to the public. The reaction, assessment, plan development, and implementation of the repair strategy exhibited a total focus to the objective at hand: repair the bridge without disrupting traffic (as much as possible) and return it to full operating condition that the public needs. I am thankful to even be able to be associated with this group. On behalf of the citizens of Florida—Thank You for a job well done."

The FDOT was so impressed with the ICA response and repair that they asked **Project Manager David Novakoski** to do a presentation at a recent FDOT conference in Ft Lauderdale, to other FDOT engineers around the state, to illustrate what can be accomplished with Asset Maintenance Management.