

Cooper River Bridge Replacement Project

A DESIGN BUILD PROJECT MANAGED BY THE SOUTH CAROLINA DEPARTMENT OF TRANSPORTATION

Environmental Planning, Permitting and Testing

Constructing a new bridge across the Cooper River involves much more than hammers pounding, foundations rising, and structures forming. Before the first tract of land is cleared for the approaches or the first barge begins digging in the Cooper River for the tower foundations, planning ensures that the Bridge Replacement Project does not adversely impact the land and water upon which it will be built.

Best Management Practices
The South Carolina Department of Transportation (SCDOT), its consultants and design/build contractor (Palmetto Bridge Constructors) are committed to the adherence of Best Management Practices (BMP's) outlined by the South Carolina

Department of Health and Environmental Control (DHEC). BMP's outline environmentally friendly maintenance and operating procedures while clarifying which practices are prohibited within the State. To assure that BMP's are being followed, DHEC requires demolition and construction projects to outline and maintain detailed project documents. These documents contain schedules of activities demonstrating their plans for following treatment requirements, controlling site runoff, spillage or leaks, storing drainage from raw materials, as well as disposing of sludge to prevent or reduce the pollution of waters in South Carolina.

In compliance with BMP's, Palmetto Bridge Constructors has developed and submitted their

Pollution Prevention / Sediment and Erosion Control Plan and their Spill Control, Clean-up and Countermeasure Plan to various agencies for approval.

Compliance with the many different rules set forth by local, state, and federal regulatory agencies is monitored by plan submittals, permit regulations, testing, environmental monitoring and on-site inspections.

Environmental Planning
The Spill Control, Clean-up and Countermeasure Plan establishes clear, definitive methods to prevent the accidental release of harmful substances into the environment. It also provides for the control in the event that an accidental release occurs.

The Pollution Prevention / Sediment and Erosion Control Plan works to control and prevent sediment as well as storm water runoff- caused by construction activity- from entering the surrounding environment. This plan ensures that wetland and marine habitat impacts, as a result of construction activity, are avoided.

Permitting
The Cooper River Bridge Replacement Project has obtained several

Bobby Clair, Director of Special Projects, inspects silt fence placement with Shannon Renz (center), an environmental specialist with the TYLI/ HDR Joint Venture, and Rickie Green, SCDOT Resident Engineer of Special Projects (left).



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permits to date, including: a United States Coast Guard Bridge Permit, a U.S. Army Corps of Engineers/DHEC Joint 404 Permit, a NPDES General Permit No. SCR100000, and a DHEC Demolition and Asbestos Abatement Permit.

Because the bridge is crossing navigable waters, the United States Coast Guard (USCG) was closely involved in permitting the bridge's span width and height, as well as the rock island depth and dimensions.

The SC Office of Ocean and Coastal Resource Management (OCRM) was involved in permitting construction activities along the banks of the Cooper River and in neighboring wetlands.

Testing

To ensure the maintenance of performance standards and to protect the public from potential hazards, testing is an ongoing part of infrastructure construction. Not only are the elements of the bridge design tested for their ability to withstand forces of the environment such as

WORKING ON WATER

The SCDOT and its Contractor work closely with the USCG, USACE, National Marine Fisheries Service (NMFS), and OCRM to ensure environmental compliance in areas of water.

USCG – In addition to a bridge permit, the Coast Guard requires notification for any work within the waterway in an effort to alert mariners and other users that construction activity is occurring in the area.

USACE – The Army Corps of Engineers is responsible for In authority over dredging and filling in the "waters of the United States," including many wetlands. Working jointly with DHEC, the USACE authorizes the 404 permit.

NMFS – Coordination with this agency ensures that impacts to marine life and habitat are avoided and minimized.

OCRM – Coordination with this South Carolina Department of Health and Environmental Concerns (DHEC) agency is in an effort to ensure that all pollution prevention methods are maintained throughout the life of the project. This agency conducts periodic reviews of the project so as to ensure compliance and permits the National Pollution Discharge and Elimination System for the project.

hurricanes and earthquakes, the design is also carefully tested for the way that it will influence its surroundings. Simulations are run on how the design impacts channel flow in the harbor and traffic flow on the land. As the bridge is constructed, the bridge contractor (Palmetto Bridge Constructors), SCDOT, and governmental agencies will be closely monitoring the quality of materials and construction practices.

During the pre-construction

phase, testing is completed on sediments in and around the harbor. This effort works to locate existing contaminants and to create a baseline, ensuring the proper disposal of dredged material that is removed for tower and rock island construction.

Before any demolition of properties can occur, the Contractor is required to conduct a hazardous waste survey for asbestos and lead based paint. If the surveys determine the

presence of asbestos or lead based paint, demolition activities may not occur until demolition and asbestos abatement permits are obtained from DHEC. At this point, a certified handler is brought in to conduct remediation (abatement) on the hazardous material.

Inspections

As demolition and dredging begin to occur, inspectors will check for compliance with permits and pollution prevention methods. SCDOT and PBC will continue to conduct inspections weekly and throughout the life of the project.

Conclusion

As the bridge infrastructure improves to accommodate the growth of the Charleston Region, be assured we are working hard and building partnerships to insure that the beauty and quality of the area's environment is not irreplacably damaged, but is maintained or even enhanced by our efforts.

To know more about our environmental plans and activities, please contact the Community Bridge Office at 843.534.5000 or you can e-mail us your comments at www.dot.state.sc.us.



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