Memorandum

MIAMI-DADE COUNTY

Date: February 12, 2014

To: Honorable Chairwoman Rebeca Sosa
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor

Subject: Report on the Status of the Rehabilitation of the Bear Cut and West Bridges on the Rickenbacker Causeway

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During the April 16, 2013 meeting of the Board of County Commissioners (BCC), the BCC ratified the Contract Award to Kiewit Infrastructure South Co. (Kiewit) for the Design-Build services for the Project entitled Rehabilitation of Bridges No. 874541 (West Bridge) and 874544 (Bear Cut Bridge) on the Rickenbacker Causeway, through Resolution R-288-13. The work under this contract includes the removal of the existing superstructure found to be in a deteriorated condition on the West Bridge and Bear Cut Bridge (Bridges) and the construction of a new replacement section of pre-cast/pre-stressed concrete superstructure. Additionally, the overall structure at the Bear Cut Bridge is being widened in order to provide a dedicated and independent path for pedestrians and bicycles on each side of the bridge. As a result of the work, the existing water main attached to the Bridges was replaced and increased in size. The work related to the water main is funded by the Miami-Dade County Water and Sewer Department (WASD). The following information updates all aspects of the ongoing work on the Bridges.

As referenced in Resolution R-32-13 and R-288-13 approved by the BCC on January 23, 2013 and April 16, 2013 respectively, the rehabilitation work on the Bridges is to be paid by a combination of Causeway toll revenues and financing backed by Causeway toll revenues. Furthermore, in order to strengthen reserves and facilitate the sale of bonds, the BCC approved an increase in toll fees for the Rickenbacker Causeway, on January 23, 2013 through Resolution R-33-13, and for the Venetian Causeway through the BCC's adoption of the FY 2013-14 budget.

Construction Activities

1. **Pile Jacketing and Pile Repairs on the Bear Cut and West Bridges – Project No. 20130012**
   All work scheduled under this contract has been completed. The work consisted of the jacketing and cathodic protection of 22 piles on the newer portion of the Bear Cut Bridge (early 1980's construction) and the West Bridge, and spall repairs to address damage on existing concrete piles on both bridges.

2. **Design-Build Rehabilitation Work – Project No. 20120152**
   The Notice to Proceed was issued on May 1, 2013 with substantial completion originally expected by February 2014. All required permits have been received, and design work is complete. The following is a status for construction operations:

   All demolition work related to the removal of the deteriorated segments of the Bear Cut Bridge are complete, with similar work on the West Bridge ongoing. Additionally, all new concrete piles that will support the widening of the Bear Cut Bridge have been installed, and all work related to the replacement of the water main on both bridges is complete. With the advancement of the above noted demolition work and installation of the new concrete piles, new concrete beam and the concrete deck work is progressing. Further ongoing work is related to spall repairs on the existing concrete piles, and the installation of the project's drainage system.

Work continues as day and night operations, six (6) days a week, to maintain an expedited schedule. Phase I of the maintenance of traffic, which shifted all traffic to the south side of the bridge to four (4) 10-foot wide lanes for vehicles and a 5.5-foot wide pathway for bicycles and pedestrians, remains in place. During the off-peak nighttime period (8pm to 6am), two (2) lanes of vehicular traffic are closed to allow for heavy equipment to access the bridge and conduct the major components of work. This traffic pattern will be modified moving forward as work is phased to different sections of the bridge before the beginning of the Sony Open Tennis Tournament in mid-March. All modifications to the maintenance of traffic, project updates, and general project information are available to the public by visiting http://www.bearcutbridge.com. Through this website the public can also register to receive updates via email or text message.

Project Impacts to Schedule and Budget

As you know, the project's original schedule and budget have been impacted by unforeseen conditions with the discovery of asbestos on both the Bear Cut and West Bridges during demolition activities and by the additional work requested from Kiewit to produce a report analyzing the existing Bear Cut Bridge pilings (see attached report). Recently, there was a discovery of conflicts with existing buried piles discovered during the driving of new piles at each of the Bear Cut Bridge's abutments that required additional work. Additional lighting along the south side of the Bear Cut Bridge not originally contemplated in the contract was also requested and weather conditions have restricted the ability of the Contractor to work on the site, which have impacted the schedule.

To improve pedestrian and bicycle safety and in preparation for the upcoming Sony Open Tennis Tournament (Tournament), the County requested a change to the project's phasing to allow for the accelerated construction of the 14-foot wide dedicated pedestrian/bicycle lane on the north side of the Bear Cut Bridge. This pedestrian/bicycle lane will be open to users in time for the Tournament. In addition, a modification to the Contractor's schedule limits construction activities during the Tournament by not allowing night time lane closures so as not to impact traffic conditions during this time.

The final delays and budgetary impacts, as described above, are subject to ongoing negotiations with the contractor and will be presented for BCC approval through a Change Order to the Contract. However, everything possible is being explored to keep the project on an expedited track with the least possible financial impact. Substantial completion is targeted for June 2014 and there are pictures attached to show the current real-time progress.

Please feel free to contact Alina T. Hudak, Deputy Mayor/Interim Director of PWWM at 305-375-2531 or me directly at 305-375-1880, if you have any further questions.

c: Honorable Harvey Ruvin, Clerk of the Board
Robert A. Cuevas, Jr., County Attorney
Alina T. Hudak, Deputy Mayor / Interim Director, PWWM
Edward Marquez, Deputy Mayor
Jennifer Moon, Director, Office of Management and Budget
Hugo Benitez, Assistant County Attorney
Antonio Cotarelo, P.E., County Engineer, PWWM
Christopher Agrippa, Division Chief, Clerk of the Board

Memorandum

MIAMI-DADE COUNTY

Date: November 8, 2013

To: Honorable Chairwoman Rebeca Sosa
and Members, Board of County Commissioners

From: Carlos A. Gimenez
Mayor

Subject: Report on the Status of the Rehabilitation of the Bear Cut and West Bridges on the Rickenbacker Causeway

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During the April 16, 2013 meeting of the Board of County Commissioners (BCC), the BCC ratified the Contract Award to Kiewit Infrastructure South Co. (Kiewit) for the Design-Build services for the Project entitled Rehabilitation of Bridges No. 874541 (West Bridge) and 874544 (Bear Cut Bridge) on the Rickenbacker Causeway, through Resolution R-288-13. The work under this contract includes the removal of the existing superstructure found to be in a deteriorated condition on the West Bridge and Bear Cut Bridge (Bridges) and the construction of a new replacement section of pre-cast/pre-stressed concrete superstructure. Additionally, as a result of the work, the existing water main attached to the Bridges will be replaced and increased in size. Finally, the overall structure at the Bear Cut Bridge shall be widened in order to provide a dedicated and independent path for pedestrians and bicycles on each side of the bridge. The Bridges' rehabilitation will be funded with bond proceeds obtained through proposed Miami-Dade County, Florida Rickenbacker Causeway Revenue Bonds, Series 2013, in an aggregate principal amount not to exceed $34,000,000.00. Work relating to the water main will be funded by the Miami-Dade County Water and Sewer Department (WASD). The following information updates all aspects of the ongoing work on the Bridges.

Construction Activities

The Notice to Proceed was issued on May 1, 2013 with substantial completion originally expected by the end of February 2014. All required permits have been received, and design work for the new segment of the Bridges is complete. The following is the latest on the construction operations:

1. **Asbestos (Unforeseen Condition)**
   On August 29, 2013 during deck demolition operations, Kiewit found that the existing street lighting conduit contained asbestos. The contractor is taking the proper precautions to remove the affected conduit in compliance with required asbestos remediation and disposal procedures. This work is being coordinated with the proper agencies, including the Environmental Resources Management Division of the Miami-Dade County Regulatory and Economic Resources Department. The work consists of the removal and proper disposal of the barrier wall containing asbestos material in accordance with all applicable regulations. The ordinance authorizing the issuance of Rickenbacker Causeway Revenue Bonds, adopted on first reading by the BCC on October 22, 2013, includes funding in the amount of $750,000.00 for this unforeseen condition. The final costs associated with this work, including any related delays, are currently being negotiated with the contractor. The Contractor has claimed 36 days of compensable delays. This number is still under negotiations and everything possible is being explored to keep the project on an expedited track.

2. **Design-Build Rehabilitation Work**
   Work has been approved for day and night operations, six (6) days a week, to maintain an expedited schedule. Since current construction operations consist of the demolition of the deteriorated sections of the Bear Cut Bridge, to allow for this work, Phase I of the maintenance

of traffic has shifted all traffic to the south side of the bridge by creating four (4) 10 foot wide lanes for vehicles and a 5.5 foot pathway for bicycles and pedestrians. During the off-peak nighttime period, two (2) lanes of vehicular traffic are closed to allow for heavy equipment to access the bridge and conduct the major components of work. This traffic pattern is subject to further change as work is phased to different sections of the bridge. All modifications to the maintenance of traffic, project updates, and general project information are available to the public by visiting http://www.bearcutbridge.com. Through this website the public can also register to receive updates via email.

Additional ongoing work consists of horizontal drilling under the sea bed, for the eventual placement of a new 16" water main, which will replace the existing 12" water main attached to the section of the Bridges being demolished. The existing water main will not be removed until such time as the new water main has been placed into service, ensuring that the pressure capacity of the pipes leading to the Village of Key Biscayne is maintained.

3. **Pile Jacketing and Pile Repairs on the Bear Cut and West Bridges**
   The Notice to Proceed was issued on April 1, 2013 with substantial completion expected by mid December 2013. All required permits have been received, and work is currently ongoing. The work consists of conducting spall and crack repairs, as well as pile jacketing with cathodic protection, for piles located on the newer section of the bridge as determined by the Engineer upon a joint inspection with the selected Contractor. Currently, 18 of the 22 piles selected for pile jacketing have been completed, and a significant portion of the spall areas identified have been repaired.

Bear Cut Bridge Existing Foundation Analysis Engineering Report

On August 28, 2013, the Public Works and Waste Management Department (PWWM) submitted a memo which supplemented the existing foundation analysis engineering report prepared by Kiewit. This report was requested by the County in order to evaluate the load carrying capacity of the existing piles on the portion of the Bear Cut Bridge that was built in the mid 1940's, and that are to remain in place following the rehabilitation work. Both documents provided the methodology of the analysis performed, the results of the findings, and a conclusion.

The County has proceeded with the planned rehabilitation work based on Kiewit's report concluding that "due to the fact that the new superstructure is not increasing the axial loads on the existing foundation the factors of safety which existed prior to the rehabilitation will remain consistent upon completion of the County's specified work." Furthermore, as stated in the report's conclusion, "If the contract prescribed substructure improvements, as specified by Miami-Dade County, is all that is required and periodic maintenance of the substructure, which includes sealers, cathodic coatings, active cathodic protection and other maintenance methods is performed, this may allow this bridge to provide an additional 20-30 years of continued life, barring an extreme event such as coastal storm surges, extreme wind events (above 100 mph), and vessel collision."

Financing and Construction Costs

As referenced in Resolution R-32-13 and R-288-13 approved by the BCC on January 23, 2013 and April 16, 2013 respectively, the rehabilitation work on the Bridges is to be paid by a combination of Causeway toll revenues and future financing backed by Causeway toll revenues. Furthermore, on January 23, 2013, the BCC approved Resolution R-33-13, which amended Implementing Order 4-57 to adjust the toll structure of the Rickenbacker Causeway in order to strengthen reserves and facilitate the sale of bonds.

A new Rickenbacker Causeway Bond Ordinance (Ordinance) and a Series Resolution to authorize the issuance of Miami-Dade County, Florida Rickenbacker Causeway Revenue Bonds, Series 2013 in an aggregate principal amount not to exceed $34,000,000.00 have been prepared. The BCC adopted the Ordinance on first reading during its October 22, 2013 meeting. Moving forward, both items will be scheduled for consideration by the Finance Committee on November 12, 2013. If approved at Finance Committee, both items will be presented for final approval by the BCC (following a public hearing of the Ordinance) at the December 3, 2013 meeting.

The $34,000,000.00 not to exceed amount includes sufficient bond proceeds to fund construction, reimbursement to the County for any funds advanced for construction, a debt service reserve, issuance costs, and underwriter's discount. Of this total, $30,378,000.00 is for the construction fund, which consists of the following:

Kiewit Infrastructure South Contract	$31,000,000
Plus: Police Traffic Management during Construction	942,000
Staff Project Administration	686,000
Unforeseen Conditions Remediation (Asbestos)	750,000
Series 2013 Project Total	$33,378,000
Less: Water Main Relocation and Replacement funded by the Miami-Dade Water and Sewer Department (WASD)	(3,000,000)
Total to be funded with the Series 2013 Bond Proceeds[(1)]	$30,378,000

(1) The difference between the project cost and the par amount of the Bonds to be issued plus premium or minus discount, if any, is the Debt Service Reserve Fund, Cost of Issuance and Underwriter's Discount.

Please feel free to contact me directly at 305-375-1880 if you have any further questions.

c: Honorable Harvey Ruvin, Clerk of the Board
Robert A. Cuevas, Jr., County Attorney
Alina T. Hudak, Deputy Mayor / Interim Director, Public Works and Waste Management
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Kiewit

Bear Cut Bridge Rehabilitation

SMITH AERIAL PHOTOS

01-27-13

Kiewit

Bear Cut Bridge Rehabilitation

SMITH AERIAL PHOTOS

01-27-13