

# **Port of Miami Tunnel Project**

# **Combined Monthly Progress Report – August & September 2011**



## PROJECT STATISTICS:

Project Information		Key Dates and Milestones		
Financial Project ID	251156-3-52-01	NTP # 1 – Design	Oct 15, 2009	
Contract #	E6F67	NTP # 2 – Construction	May 24, 2010	
Owner	FDOT – District 6	Percent Complete/Days Used:	40.57 % 716 of 1765	
Owner's Engineer (Design)	PB Americas, Inc.	Construction Cost:	\$607 Million	
Owner's CEI Representative	PB Americas, Inc.	Milestone Payment # 1 – design for tunnel	\$20 Million	
Concessionaire	MAT Concessionaire, LLC	Milestone Payment # 2 – TBM at work in 1 <sup>st</sup> bore	\$40 Million	
Design/Build Contractor	Bouygues Civil Works Florida (BCWF)	Milestone Payment # 3 – TBM at work in 2 <sup>nd</sup> bore	\$25 Million	
Engineer of Record	Jacobs Civil	Milestone Payment # 4 – Substantial completion of MAC	\$15 Million	
Maintenance and Operator	Transfield / VMS	Milestone Payment #5– Final Acceptance	\$350 Million	
Concession Agreement	35 Years	Construction Substantial Completion	May 15, 2014	
Contractual Design and Construction Duration	55 Months	Construction Final Acceptance Completion	Aug. 14, 2014	

## **CONTRACTS AMENDMENTS**

SA#	Date	Description	Amount	Status
1	10/25/10	Incorporation of Wage Rate Tables	\$0.00	Executed
2	09/07/11	Incorporation of E-Verify Requirements	\$0.00	Executed
3		Alternative Alignment - Single Portal Realignment	\$2,500,000.00	Pending
		on Dodge Island		
4		MacArthur Causeway Improvements: Bike Lane	\$390,696.83	Pending
		Extension, U-Turn at Watson Island & Extension		
		of Milling & Resurfacing Limits		

## **SCHEDULE**

Bouygues Civil Works Florida, Inc. (BCWF) submitted the August 20, 2011 Update and it indicated 22 days delay to Substantial Completion (No change from last month). BCWF has indicated that the delay is due to the effects to mining operations outlined in Relief Events No. 6 & 7. . The August Updated Schedule depicts the critical work to be the tunnel construction activities of TBM erection, with the Doge Island SOE becoming a near critical activity. Recent discussions concerning the project progress have revealed that BCWF has reduced delays and may be back on schedule by the next monthly schedule update.

## **DESIGN PROGRESS**

#### Watson Island

FDOT reviewed and provided comments for the following design packages:

- 1. Bored Tunnel Geotechnical Instrumentation Plans and Specs
- 2. Aesthetic Lighting
- 3. Drainage Transfer Station Plans and Calculations
- 4. Raft Slab Plans and Calculations
- 5. Support of Excavation (SOE) Specs Revision 1
- 6. Settlement Assessment Calculations
- 7. Substation Retaining Walls
- 8. Buildings Geotechnical Report
- 9. Conveyor Support Foundation Plans
- 10. Conveyor overhead structure
- 11. Flood Gate Enclosure Specs
- 12. Operations Buildings Specs

Documents submitted that are currently under review are:

- 1. Substation Retaining Wall Plans
- 2. Support of Excavation (SOE) Tension Elements and Tremie Seal Revision 2
- 3. Media Width Variation
- 4. Substation Building Geotechnical Engineering Report
- 5. Conveyor Support Foundations
- 6. Food Gate Enclosure Specs
- 7. Operations Buildings Specs
- 8. Raft Slab Plans
- 9. Tunnel Boring Machine (TBM) Spoil Conveyor Structure over Parrot Jungle Trail
- 10. MacArthur Causeway Bridge Superstructure
- 11. Median Width Variation

#### **Dodge Island**

FDOT reviewed and provided comments for the following design packages:

- 1. Operation Building Site Plans
- 2. Roadway Package 2 Revision 1
- 3. Support of Excavation (SOE) Plans Revision 1
- 4. Port Blvd. Westbound Temporary Sheet Piling Wall
- 5. Osterberg Load Cell Specs
- 6. Retaining wall plans

- 7. Pavement design
- 8. Geotechnical Engineering Report
- 9. Signing and Pavement Plans
- 10. Operation and Maintenance Buildings

#### Documents submitted that are currently under review:

- 1. Bridge 90% Plans and Calculations
- 2. Flexible Pavement Design Report
- 3. Retaining Wall Plans and Calculations
- 4. Roadways Package 3
- 5. Bridge and Retaining Wall Geotechnical Report
- 6. Operation and Maintenance Building Plans
- 7. Signing and Pavement Marking Plans
- 8. Roadway Package 4
- 9. Roadway Package 2 Revision 2
- 10. Bored Tunnel Geotechnical Instrumentation Plans
- 11. Drainage Report

#### Tunnel

FDOT reviewed and provided comments for the following design packages:

- 1. Soil Conditioning Trials
- 2. Subsurface Method Plan
- 3. Cross Passage Plans
- 4. Geotechnical Instrumentation Plans and Monitoring
- 5. TBM-Annular Void Grouting
- 6. Rigid Pavement Design
- 7. Roadway Tunnel Plans (Milestone No. 1)

## Documents submitted that are currently under review are:

- 1. Tunnel Rigid Pavement Report
- 2. Tunnel Segments Assessment of Segment Cast Prior to 8/15
- 3. Tunnel Typical Section Package
- 4. Tunnel Report of Non-Standard Super-elevation Variation
- 5. Cross Passages and Bored Tunnel Break-out Connections
- 6. TSP Portland Cement Treated Material
- 7. Grout Test Program
- 8. Tunnel Boring Machine (TBM) Tail Void Grouting Mix
- 9. Quality Control Plan
- 10. Confinement Pressure for Earth Pressure Balance (EPB) Process
- 11. Formation Grouting Report
- 12. Subsurface Method Plans (re-submittal)
- 13. Lining Segments Quality Control for Durability/Concrete Permeability
- 14. Typical Section Package (For approval)
- 15. Non-standard Super-elevation Variation (for approval)

#### Other

• Review is on-going for the Tunnel Emergency Response Plan

#### **CONSTRUCTION PROGRESS**

For the months of August & September 2011, BCWF performed the following major construction activities:

#### Watson Island

- 1. Completed 80% construction of MSE Wall along the MacArthur Causeway.
- 2. Completed 90% of decorative lighting on Parrot Jungle Trail.

#### **MacArthur Bridge**

- 1. Demolition of the existing pier stub is near completion.
- 2. Completed construction of approximately 75% of the pier column.

## **Dodge Island**

- 1. Implemented temporary westbound Port Blvd. detour on 9/28/2011.
- 2. Construction of North American Way is almost completed.
- 3. Continued construction of Phase 2D MOT on Florida Way/South Cruise Blvd.
- 4. Malcolm Drilling continues pre-drilling of SOE (support of excavation) and CSM (cutter soil mixer).
- 5. Continued development of Staging Area at the Seaman's Center.

#### **Underground, Tunnels, Cross Passages & Formation Grouting**

- 1. TBM shield and Cutterhead are assembled and in position on Watson Island.
- 2. Assembly of TBM of trailing equipment continues.
- 3. Spoils (T1) conveyor installation is underway.
- 4. Mobilization for Formation Grouting has started.
- 5. Support of excavation work continues for Dodge Island tunnel portal.
- 6. Ground improvement by Cement Soil Mixing (CSM) for the eastbound TBM intervention plug on Watson Island is complete.

#### **Precast Yard**

- 1. The Quality Control Plan for the Casting Plant is in the process of being approved with the exception of the permeability / durability.
- 2. By September 30, 2011, the casting plant had manufactured approximately 2015 concrete segments.

### **ANTICIPATED CONSTRUCTION PROGRESS FOR NEXT MONTH**

For the month of October, BCWF has scheduled the following major construction activities:

#### **Watson Island**

- 1. Continue construction of site development under MacArthur Causeway Bridge for support of the TBM.
- 2. Continue installation of MSE wall on MacArthur Causeway.
- 3. Complete construction of on and off Ramps for Parrot Jungle Trail.
- 4. Complete retention ponds WA &WB located at on and off Ramps for Parrot Jungle Trail.

#### MacArthur Bridge

1. Continue construction of substructure for remaining piers (columns & caps).

2. Complete demolition of pier column stubs.

#### **Dodge Island**

- 1. Complete construction of temporary South Cruise Blvd.
  - a. Switch traffic onto new temporary South Cruise Blvd.
    - i. Complete adjustment of temporary traffic signal at Temp. WB Port Blvd.
- 2. Complete construction of MOT Phase 2D for Florida Way.
- 3. Malcolm to continue construction of the CSM (cutter soil mixer) Wall and shallow soil improvement columns.
- 4. Procure Phase 2 water main plan approval from WASD.
- 5. Begin Phase 2 water main installation.

#### **Underground, Tunnels, Cross Passages & Formation Grouting**

- 1. Complete TBM assembly and commence tunneling by late October.
- 2. Continue support of excavation work for Dodge Island tunnel portal.
- 3. Begin Formation Grouting program on Watson Island and in Government Cut channel.

#### **Precast Yard**

- 1. Continue casting concrete segments as planned.
- 2. Expect to receive BCWF technical proposal to resolve the pending permeability / resistivity issue to incorporate it into the Quality Control Plan for the Casting Plant.

## **EEO/DBE/OJT**

#### Equal Employment Opportunity (EEO)

Efforts continue to establish a quarterly job bulletin board inspection at all project locations to ensure contractor is in compliance.

#### Disadvantage Business Enterprise (DBE)

The Concessionaire has reach 2.69% of the 8.18% (Revised in August).

#### On-the-Job Training (OJT)

For the month of August, project successfully enrolled 2 Trainees. 6 Trainee's out of the 73 required trainee's started in September 2011.

## **PUBLIC INFORMATION/COMMUNITY AWARENESS**

The Concessionaire/Contractor continues to sponsor vendor and contractor inclusion with "Operation 305" outreach efforts with organizations such as the Miami-Dade Minority Chamber, American-Haitian Chamber of Commerce, Community Small Business Enterprise of Miami-Dade and many other organizations. The project participated in the Job Fair that was hosted by Congresswoman Frederica Wilson and the Congressional Black Caucus on August 23, 2011.

To date, the number of companies/vendors with contracts total 486. Of those 486 companies that have or are currently doing business with the tunnel project, the total amount that has been awarded is \$216M. From that figure, \$50M is for tunnel specialized work and the remaining amount, \$166M, is for

non-tunnel related specialty work. Sixty-three percent or \$102M of the total \$216M awarded has or is going to local, Miami-Dade County firms.

The project's outreach efforts have generated a total of 2,615 people who have worked on the Port of Miami Tunnel Project since inception. This total number includes direct hires by the design-build contractor Bouygues Civil Works Florida (BCWF) as well as those persons working on the project through subcontractors retained by BCWF. The subcontractors have hired 2,279 persons. Currently, each person working on this project is being counted and tracked via the Certified Payroll as required by the Florida Department of Transportation (FDOT). Additionally, BCWF tracks the direct hires (336) by zip code in an ongoing effort to hire locally. To date, those direct hires have yielded 83% of the workforce from Miami-Dade County.

The Concessionaire/Contractor held Stakeholder presentations for most businesses/tenants on Watson Island (MCM, Jungle Island and Miami Outboard Club) to provide an update regarding the Site Installation Work under the Bridge during the month of August.

The Concessionaire held a TBM Naming Contest Award Ceremony on August 9, where the three winning troops were awarded IPod Nanos and the TBM name, Holey Moley Harriet, was unveiled.

The Concessionaire/Contractor held a site visit for the Florida Department of Transportation Secretary Ananth Prasad on August 10.

Meetings with Miami-Dade County, City of Miami and City of Miami Beach Commissioners continue on an individual and collective basis. The Concessionaire/Contractor met with Miami Beach Mayor Bower on August 25.

The Contractor participated in a Workshop sponsored by Commissioner Monestime and the American-Haitian Chamber of Commerce.

The Concessionaire sponsored the "25 Most Successful Black Women in Business" event hosted by Legacy Magazine.

The Concessionaire held a kiosk unveiling event for the project partners on September 7. Coordination with Miami-Dade County and the City of Miami is ongoing so the kiosks can be placed at their respective county and city halls.

Union inclusion has been completed with the Laborers International and the South Florida Labor Council. IBEW, AFL-CIO and the Operators are all now part of the POMT project. The project's job website, <a href="https://www.build305.com">www.build305.com</a>, is up and running.

Meetings with Miami-Dade County, City of Miami and City of Miami Beach Commissioners continue on an individual and collective basis. The Concessionaire/Contractor attended the Miami Beach Commission meeting on September 14.

The Concessionaire/Contractor held a Stakeholder meeting for Port of Miami tenants, i.e. cruise, cargo, truckers and taxis on September 16, to update them on the upcoming construction activities.

Port of Miami Tunnel - August & September 2011 Combined Monthly Progress Report

The Contractor held a presentation for the Kiwanis Club of Miami on September 21.

The Concessionaire/Contractor held a site visit for members of the National Association of Women in Construction (NAWIC) on September 22 and 23.

The Concessionaire/Contractor met with the Chairman of the TARC on September 27 to discuss the upcoming presentation of the tunnel portal design.

### PROJECTED COMMUNITY OUTREACH / RECRUITMENT EFFORTS:

The Concessionaire/Contractor will meet with the PHS Islands HOA Board Members on October 5 and attend the PHS Islands HOA general meeting on October 25 to present project updates.

The Concessionaire/Contractor will host a Waterways Stakeholder meeting on October 5 to update all organizations such as the U.S. Coast Guard, Chalk's, charter boats, companies that provide materials to cruise ships, about the upcoming operations that will take place in the channel.

The Concessionaire/Contractor will be doing an educational presentation on the project for the Miami Children's Museum charter school during the month of October.

The TBM Launching Event coordinated by FDOT is scheduled for November 4.

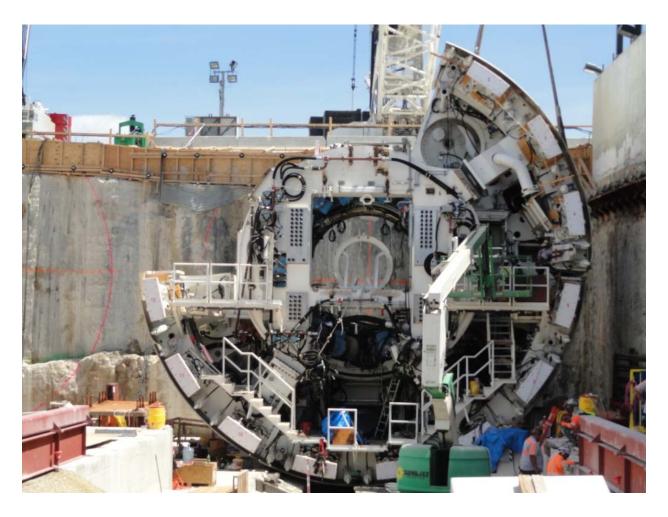


Figure 1: Construction of EPB shield assembly.



Figure 2: MacArthur Bridge construction of interior column.



Figure 3: Dodge Island construction of temporary Westbound Port Blvd.



Figure 4: Dodge Island construction of new South Cruise Blvd.



Figure 5: Completed cutterhead of the EPB shield.



Figure6: Tunnel Boring Machine (TBM) cutter head.



Figure 7: TBM Launching Pit



Figure 8: Lowering cutter head into launching pit.