

**Miami-Dade Water and Sewer  
Department  
SDWWTP**

**HLD UPGRADES**

**Monthly Status Report Summary**

**August 31, 2009**

**MIAMI DADE WATER AND SEWER DEPARTMENT  
SOUTH DISTRICT WASTEWATER TREATMENT PLANT  
HLD UPGRADES  
MONTHLY STATUS REPORT SUMMARY**

**Date:** 8/31/09  
**M-D Project Manager:** James Ferguson  
**Consultant Project Manager:** Paul Vinci  
**Consultant:** Hazen and Sawyer  
**Project:** HLD Upgrade

**Status Summary**

**Program Status/Milestones**

- **Field Office:** Final As-builts were received; Final payment was submitted; All issues have been resolved and close-out paperwork being completed; Checking on need to file for each project completion versus FDEP preference for one completion certificate at end of overall HLD program.
- **Yard Piping:** Final Payment being processed.
- **Oxygenation Train 7:** Certificate of Completion was issued; Operational Test Report from Kruger was obtained and approved; MDWASD reviewing electrical as-built drawings; Final Payment being processed.
- **Filter System:** Continued installing rebar and pouring concrete at NFB, SFB, South Effluent Flume and North Effluent Flume; Continued rubbing concrete and coating Floc Tank walls; Continued installing CMU at North Filter Building Walls; Continued installing slab forms, rebar and Ys at Filters 1 through 7; Field Trailers' lease was terminated (P&K will remove the trailers from the site); P&K addressing Class 6 drainage permit renewal's issues; PR 16 – Cast in place previous pre-cast panels, stop log openings at Effluent channels, transformer pads, lighting pole details being prepared; H&S issued RFPs for HVAC and Fire Alarm System Modifications; HVAC PR being prepared; Fire alarm meeting with Building Department conducted, results and recommendations from the meeting distributed to design team and PR being prepared; P&K's cost proposal for the enhancement to the filter system coatings is under review. Transformer Pad Coordination: H&S preparing an RFP for access panels for the transformer installation / wiring boxes.
- **Clarifiers:** Continued work at RAS PS No. 2; Continued rebar and concrete pour at Polymer Bldg; Continued installing Rim and Spider Trenches at Clarifiers 9 and 10; Started installation of Mechanism at Clarifier 7; Started backfilling around the Clarifiers 7 and 8; Addressing expansion joints issue at Clarifier 7; Completed Cofferdam at RAS PS No. 3 and Junction Boxes 9 and 10; Started installation of the interconnect from O2 Train 7 to Clarifiers 7 and 8; Started installation of the 60-inch line between JB 8 and O2 Train 8; Addressing coordination of EDS ductbanks with Clarifier junction boxes; Walkway Bridges issue was addressed (Shop Drawing submittal was approved); Approved joist shop drawings requested by Building Department; PR for RSPS 2 and PR for steel for scum troughs, glass block were approved; Skanska corrected and re-filed Notice of Commencement form.
- **Transfer Pump Station:** Continued work at the Electrical Building foundation (rebar, concrete, electrical underground and backfilling); Continued steel reinforcement and concrete pour at Influent and Effluent Flumes; Continued steel reinforcement and concrete pour at effluent and inlet boxes; Addressing screw pumps phasing concept (conditional approval on few sections of the submittal was provided ; remaining sections are under review and additional information was requested); Pursuing deletion of disconnect Switches from the contract (H&S issued and RFP); Public Works permit being addressed through P&K permit; DERM Dewatering permit extended; Fire alarm meeting with Building Department took place, results and recommendations from the meeting distributed to design team and PR being prepared.
- **Chlorine Contact Tanks:** Continued work at the Scrub Water Lift Station; Continued rebar and concrete pour at Tanks 5 through 10; Started installation of the 120-inch PCCP; Completed the installation of 96-inch PCCP from Co./ Gen. building to existing chlorine contact tanks.
- **Electrical Distribution:** Construction Schedule and Schedule of Values preparation ongoing; Trailer Permit was approved (Contractor started mobilizing trailer and utilities); Completed Auger Cast Pile installation; Addressing Generator Radiator issues; Transformer Shop Drawing Submittal was approved; Coordination between MCM and FPL ongoing; PR No. 2 - Civil/Structural was approved; Submitted PR3 – Civil – EDB No. 2 excavation and drainage modifications; NOI, SWPP approved; Copy of Class VI Drainage permit was provided to MCM (MCM asked to extend the permit and submit Notice of Commencement form to DERM).
- **OSHG:** Preliminary Construction Schedule under review; MDWASD will be ready to feed chlorine manually on a continuous basis by 12/21/09 and they are continuing to work on the upgrade for automatic operation with a planned completion of around 12/2010.
- **Effluent Pump Station:** Award scheduled for October 2009; Planned NTP 11/02/09.
- **FOG, Flushing Water, Irrigation and Truck Scale Upgrade:** Addressing Truck Scale and FOG upgrades permitting issues (Public Works approval pending Private Road permit; Private road permit re-submitted to Public Works downtown on 8/11/09, DERM and Structural comments were approved, pending approval for Fire comments and Dry-run); Addressing front end language change for order of precedence.
- **Plant Process Control:** Design ongoing; Coordination with other contracts; Addressing proposed additions for existing instrumentation and controls to coordinate with HLD Upgrades; H&S is preparing a task authorization amendment to address the scope changes resulting from the required additions to the PPC contract; MDWASD will complete the installation of the new operators for the valves at the Grit Chambers under this contract.
- **Final Sitework:** Design ongoing; Coordination with other contracts.
- **Roadway Improvements:** Contract Closeout is ongoing (MDWASD made final payment); Installation of the additional guard rail at the West gate was completed; MDWASD addressing the street lights installation at the New North Gate.
- **Solids Control Improvements:** MDWASD addressing with CH2MHILL the design and replacement of existing bar screens with smaller opening size, fine bubble diffusers in the oxygenation reactors and digester improvements.
- **General Permitting:** Consent Order Revision by FDEP: Negotiations ongoing; Wetlands Jurisdictional Determination: Completed and advertised; waiting for Formal Determination; MDWASD addressing the Fecal Coliform Reduction Data Collection; MDWASD addressing with FDEP the option of implement clarifier blanket level control instead of an Interim Polymer Upgrade.

MIAMI DADE WATER AND SEWER DEPARTMENT  
SOUTH DISTRICT WASTEWATER TREATMENT PLANT  
HLD UPGRADES  
MONTHLY STATUS REPORT SUMMARY  
08/31/09

**Status Summary**

**Issues**

**The following items need to be resolved/completed:**

- **Site Preparation:** Close out ER.
- **Field Office:** Complete close-out paperwork; Close out ER; Address ERP Certificate of Completion.
- **Yard Piping:** Process Final Payment; Close out ER.
- **Oxygenation Train 7:** Finalize record drawings; Process Final Payment; Close out ER.
- **Filter System:** P&K address Class 6 drainage permit renewal's issues; Public Works Permit: P&K add process number for Transfer PS; Submit PR 16, HVAC PR and Fire Alarm PR and obtain approval; Address HVAC enhancements; Address potential coating enhancement; Standardize fire alarm panels and coordinate with the existing fire alarm panel at the Administration Building.
- **Clarifiers:** Address issue with the expansion joints (pending Erie Metal repair approval for the expansion joints); Address coordination of EDS ductbanks with Clarifier JB.
- **Transfer Pump Station:** Address screw pumps phasing concept; Submit Fire Alarm PR and obtain approval.
- **Chlorine Contact Tanks:** Delete EPS wet well modifications and side inlet piping from the CCT contract; MDWASD address coating at the Scrub Water Lift Station.
- **Electrical Distribution System:** Test Auger Cast Pile Installation; Extend Construction Permit for air emissions; Coordinate permitting meeting with MCM & BD; Address TCO's and process numbers with BD.
- **OSHG:** NTP 09/08/09; Pre-construction Meeting 09/17/09; Transfer BD permit to Skanska; Address revisions per bid, etc as Plan Revisions; H&S to provide a task authorization amendment to MDWASD for the OSHG Interim Chlorination scope changes.
- **Effluent Pump Station:** Award contract; Issue NTP; Transfer BD permit to the future EPS contractor after contract execution; Address revisions as Plan Revisions after NTP.
- **FOG, Flushing Water, Irrigation and Truck Scale Upgrades:** Advertise Bid; Develop Construction Schedule/milestones; Obtain Private Road permit and Dry-run approval; Obtain Fire comments approval; Address front end language change for order of precedence.
- **Plant Process Control:** Define scope of work / develop Milestones / New cost estimate; H&S provide MDWASD with a task authorization amendment to address the scope changes resulting from the required additions to the PPC contract. Add Grit valve upgrades.
- **Final Site work:** Confirm scope requirements per scope defined in previous contracts/ develop Milestones / New cost estimate.
- **Roadway Improvements:** Close out ER; Address the installation of street lights at the New North Gate.
- **Solids Control Improvements:** Address the design and replacement of existing bar screens with smaller opening size, carbon dioxide striping in the oxygenation reactors and digester improvements / Coordinate with HLD Contracts.
- **General Permitting:** MDWASD address the Fecal Coliform Reduction Data Collection; MDWASD address with FDEP the option to implement clarifier blanket level control instead of an Interim Polymer Upgrade; Obtain Wetlands Jurisdictional Formal Determination.
- **SRF:** Pursue State Revolving Fund loans.

**HLD Upgrades Program Cost Status**

**The total program cost is \$586,518,507**

**MIAMI-DADE WATER AND SEWER DEPARTMENT  
SOUTH DISTRICT WASTEWATER TREATMENT PLANT  
HLD UPGRADES  
PROGRAM SUMMARY**

Date: 8/31/09  
M-D Project Manager: James Ferguson  
Consultant Project Manager: Paul Vinci  
Consultant: Hazen and Sawyer

Project Location:



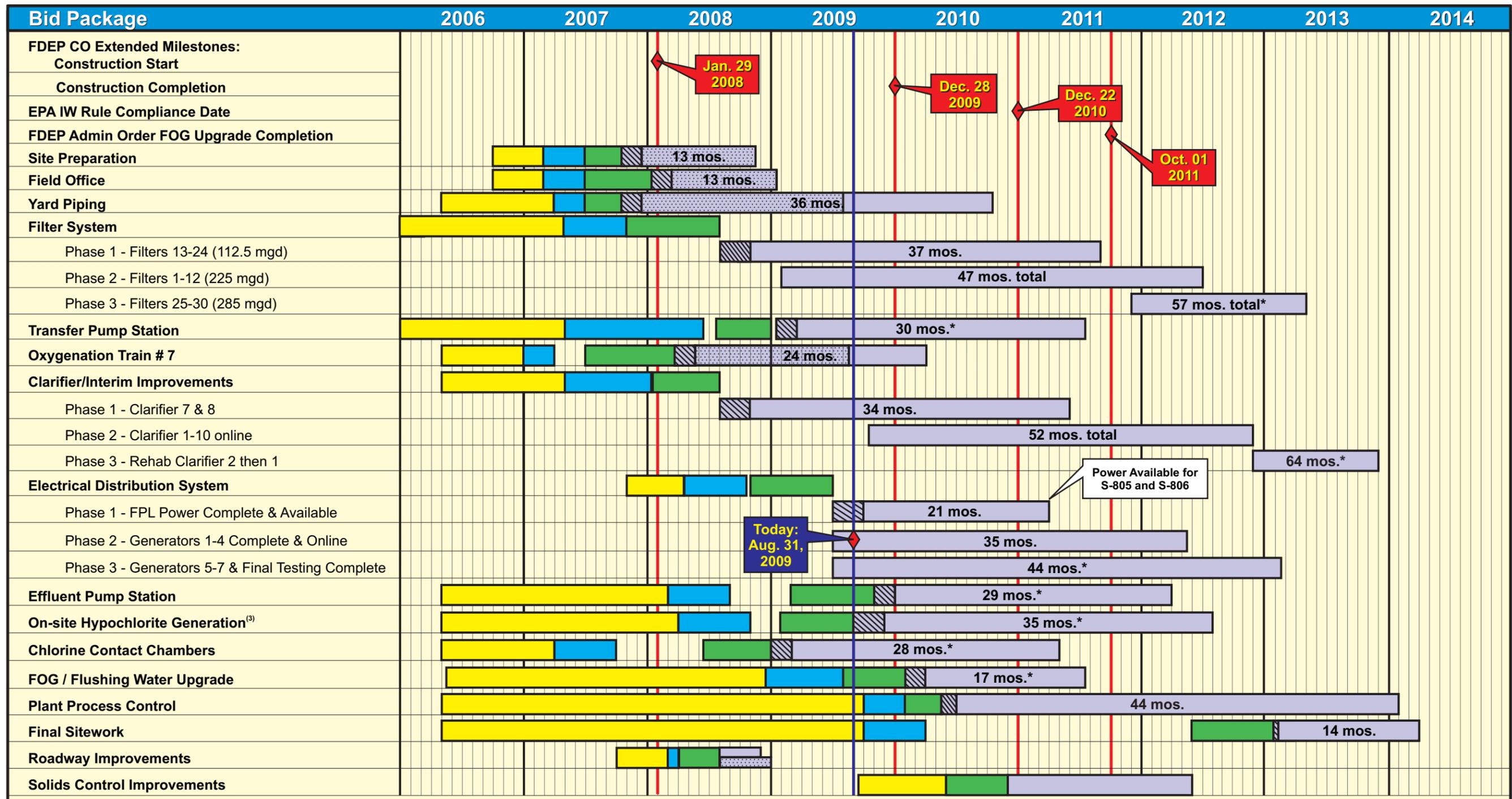
**Project Description:**

Miami-Dade Water and Sewer Department is required to upgrade the South District Wastewater Treatment Plant process to treat the effluent to meet high level disinfection requirements.

Projects	M-D Contract Number	H&S Project Number	Basis of Design	30% Design	VE	60% Design	90% Design	Permitting	Bid Documents
Temporary Field Office	S-825	40588-825	completed	completed	completed	completed	completed	completed	completed
Site Preparation	S-828	40588-828	completed	completed	completed	completed	completed	completed	completed
Transfer Pump Station	S-806	40588-806	completed	completed	completed	completed	completed	completed	completed
Electrical Distribution	S-808	40588-808	completed	completed	completed	completed	completed	completed	completed
Plant Process Control	S-809	40588-809	completed	completed	n/a	on-going *			
Final Clarifiers	S-811	n/a	completed	completed	completed	completed	completed	completed	completed
Chlorine Contact Tanks	S-812	n/a	completed	completed	completed	completed	completed	completed	completed
Filters	S-805	40588-805	completed	completed	completed	completed	completed	completed	completed
Yard Piping	S-813	n/a	completed	completed	completed	completed	completed	completed	completed
O <sub>2</sub> Train	S-816	n/a	completed	completed	completed	completed	completed	completed	completed
Effluent Pump Station	S-817	40588-817	completed	completed	completed	completed	completed	completed	completed
Onsite Sodium Hypochlorite	S-819	40588-819	completed	completed	completed	completed	completed	completed	completed
FOG / Flushing Water Upgrade	S-829	40588-829	completed	completed	completed	completed	completed	completed	
Final Sitework	S-810	40588-810	completed	completed	n/a	on-going *			
Roadway Improvements	--	n/a	n/a	n/a	n/a	completed	completed	completed	completed
Solids Control Improvements	--	n/a							

\* Dependent upon completion of design and permitting of other contracts.

**MDWASD SDWWTP HLD Upgrade – Overall Project Schedule – With County-Implemented Acceleration Ordinance**



**Updated 08/31/2009** Notes: 1. Total contract duration shown includes construction time and schedule preparation. 2. Refer to "Summary of Key Assumptions" for a listing of assumptions used in preparation of schedule. 3. MDWASD is concurrently pursuing an Interim Chlorination Upgrade for earlier completion. Overall Contract Completion 08/12/2014. 4. Some contractors are accelerating construction at their own initiative and, as a result, it may be possible to reduce the overall construction program duration by about 1 year. Related revisions to this schedule (similar to those made for the Yard Piping and Oxygenation Train 7 contracts) will be made in the future, with more certainty regarding early completion. \* Substantial Completion Date (Systems accepted for Operation).

**Legend:**

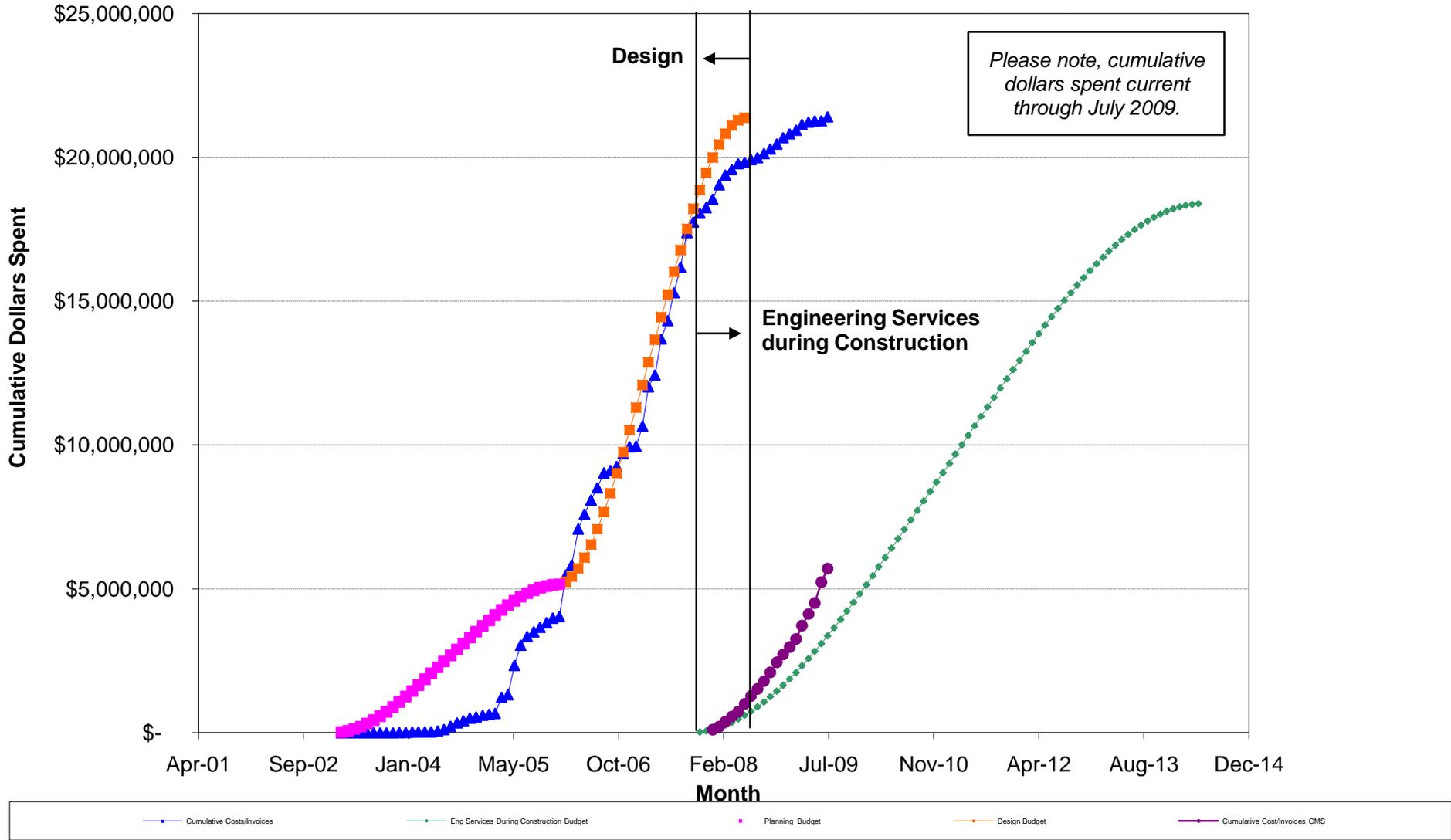
- Design (Yellow)
- Permit (Blue)
- Bid / Award (Green)
- Schedule Preparation (Hatched)
- Planned Construction (Light Blue)
- Actual Construction Completion (Dark Blue)
- Expected Construction Completion (Dark Blue with Hatched)

40568-800 Schedule.cdr

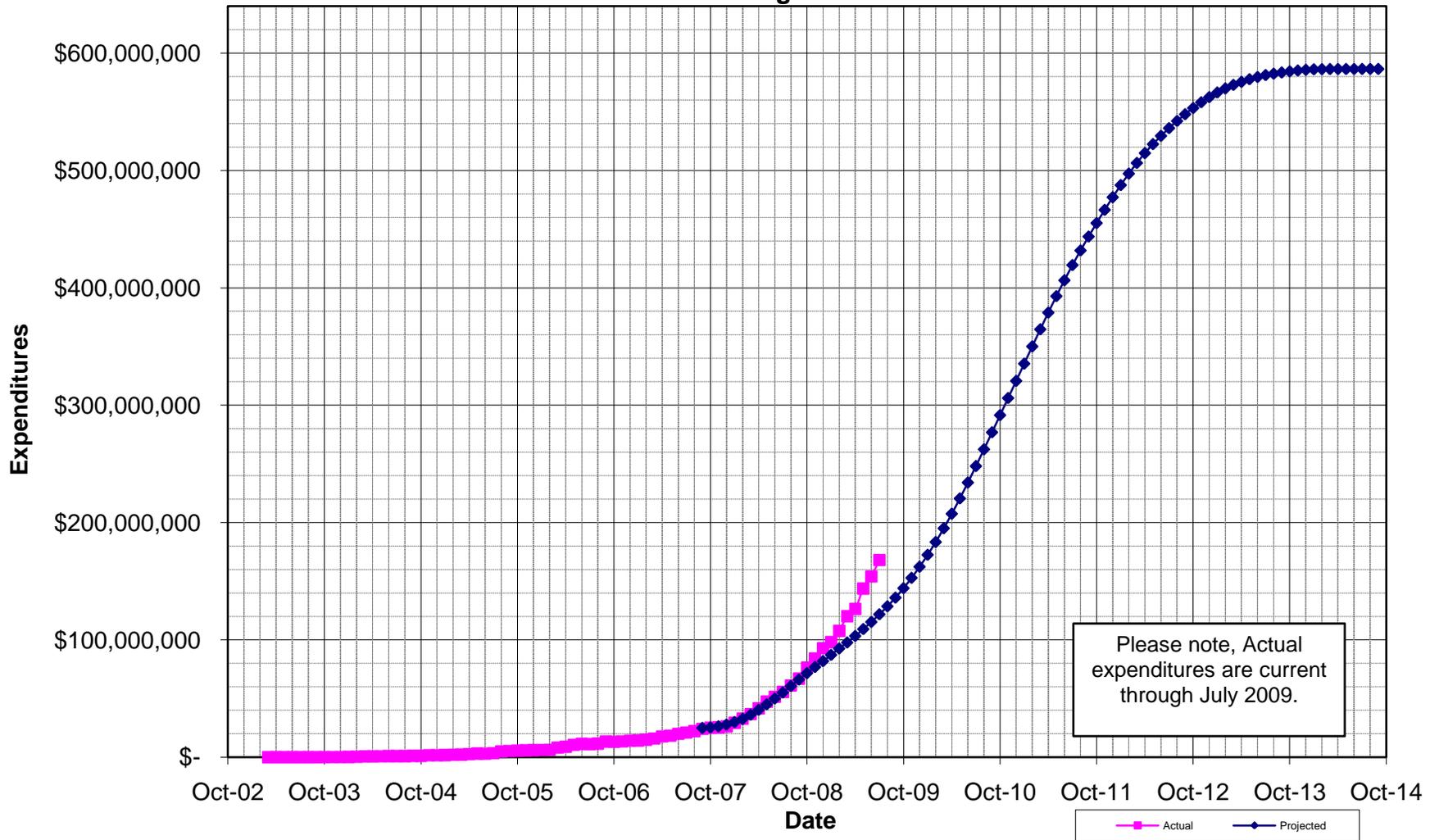
**MDWASD SDWWTP HLD Upgrade**  
**Overall Project Schedule with County-Implemented Acceleration Ordinance**  
*Updated 08/31/09*  
**Summary of Key Assumptions**

- 1 Projected permitting duration is 6 months, or is adjusted to reflect actual permitting duration.
- 2 Bid/Award duration is 6 months for small projects, 8 months for large projects.
- 3 Schedule preparation is either 30 or 60 days for small projects, 90 days for large projects.
- 4 Indicated construction durations are aggressive, no float time, weather days, delays, etc. are included.
- 5 Projects will obtain RC approval within 1 week, following the completion of all permitting.
- 6 Construction activities do not begin until the satisfactory completion of the schedule preparation milestone.

## Hazen and Sawyer HLD Program Expenditures Planning, Detailed Design and Engineering Services during Construction



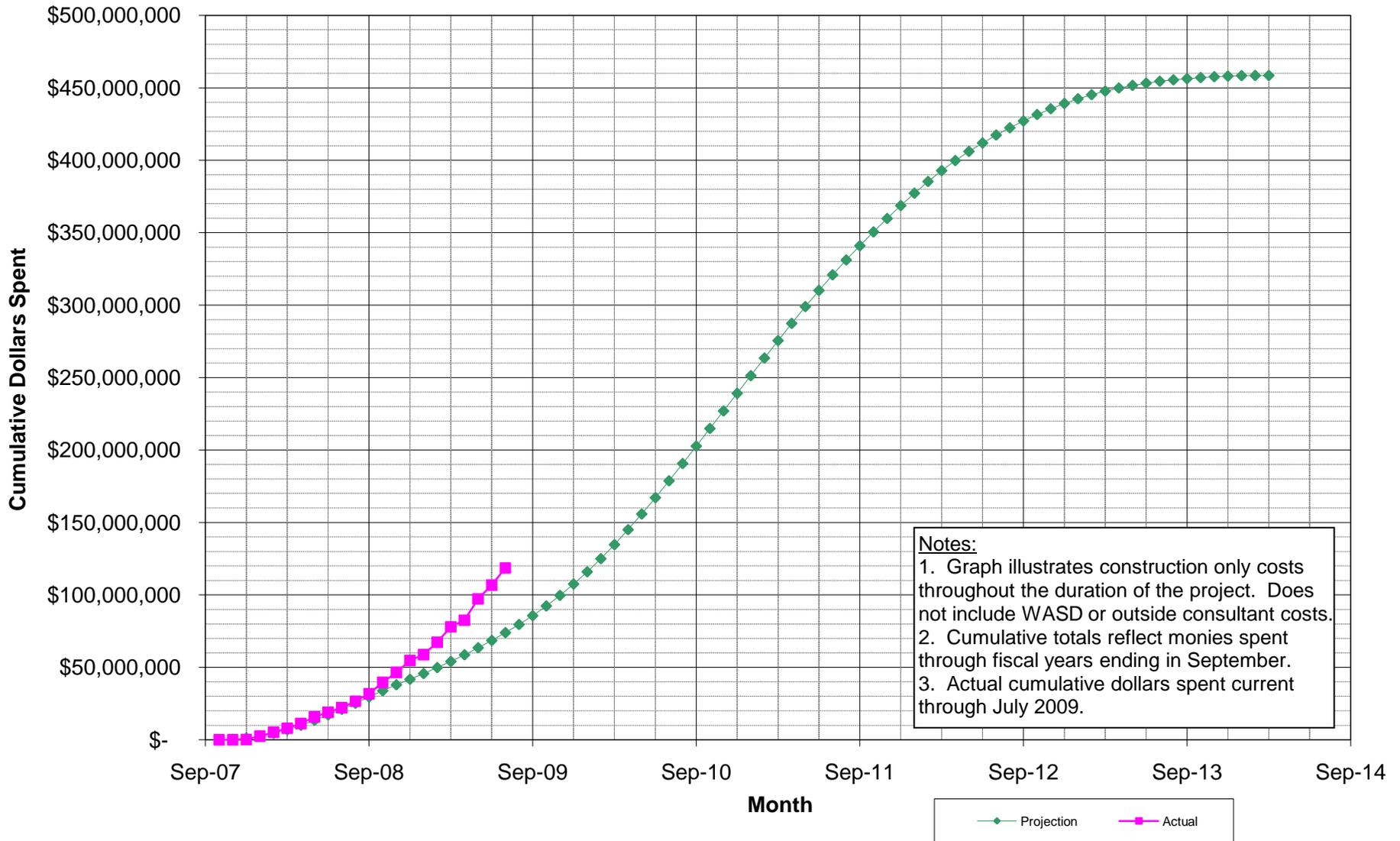
# MDWASD SDWWTP HLD Program Expenditures Total Program Costs



**Miami-Dade Water and Sewer Department  
South District Wastewater Treatment Plant  
HLD Upgrades  
Construction Cost Only Projection**

Line	Project Code	Description	Amount [\$]	10/1 to 9/30							
				2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2012-2013	2013-2014
1	1037	HLD Project									
2	101618 - Deep Bed Filters	Construction	134,253,006								
3	101619 - Final Clarifiers	Construction	92,786,511								
4	101620 - Process Control	Construction	1,293,000								
5	101621 - OSHG	Construction	24,944,441								
6	101622 - Yard Piping	Construction	10,132,996								
7	101623 - Electrical Distribution	Construction	62,407,393								
8	101624 - Transfer Pump Station	Construction	28,305,698								
9	101625 - Final Sitework	Construction	2,375,000								
10	101669 - Oxygenation Train	Construction	8,830,950								
11	101670 - Effluent Pump Station	Construction	21,008,660								
12	101695 - FOG / Flushing Water Upgra	Construction	16,949,000								
13	101696 - Chlorine Contact Tanks	Construction	18,096,498								
14	101697 - Site Preparation	Construction	13,407,486								
15	101735 - Temporary Field Office	Construction	11,110,940								
16	Roadway Improvements	Construction	589,025								
17	Bar Screen Upgrade, CO2 Striping & I	Construction	12,000,000								
Capital Project Cost (cost per year)			458,490,604	0	29,541,203	56,141,485	117,010,778	138,273,607	86,136,487	29,180,221	2,206,823
Capital Project Cost (cumulative cost)			458,490,604	0	29,541,203	85,682,688	202,693,466	340,967,073	427,103,560	456,283,781	458,490,604

## MDWASD SDWWTP HLD Upgrades Construction Cost Projection



**MDWASD SDWWTP HLD Upgrade**  
**Summary of Costs**  
*Updated 08/31/09*

Contract No.	H&S/WASD	Job Name	Construction Cost Estimate	Cost Estimate Level	Awarded Amount	Low Bid Amount	Final Contract Amount	Department Total Cost with Original Estimates	Department Total Cost with Low Bid, Awarded costs & Final Contract Amount (3)
805	H&S	Filters	\$ 138,000,000	100%	\$ 134,253,006			\$ 175,868,046	\$ 171,669,321
806	H&S	Transfer Pump Station	\$ 25,443,000	100%	\$ 28,305,698			\$ 32,473,045	\$ 36,241,416
808	H&S	Electrical Distribution	\$ 74,700,000	100%	\$ 62,407,393			\$ 95,225,318	\$ 79,832,151
809	H&S	Plant Process Control	\$ 1,293,000	30%				\$ 1,651,441	\$ 1,656,990
810	H&S	Final Sitework	\$ 2,375,000	30%				\$ 3,084,950	\$ 3,095,315
811	WASD	Clarifiers	\$ 85,371,500	100%	\$ 92,786,511			\$ 108,820,561	\$ 118,664,477
812	WASD	Chlorine Contact Tanks	\$ 17,180,000	100%	\$ 18,096,498			\$ 21,946,175	\$ 23,191,432
813	WASD	Yard Piping	\$ 13,900,000	100%	\$ 10,132,996			\$ 17,767,532	\$ 13,012,029
816	WASD	Oxygen Train 7	\$ 10,139,000	100%	\$ 8,830,950			\$ 12,976,105	\$ 11,347,679
817	WASD	Effluent Pump Station (4)	\$ 23,987,000	100%		\$ 21,008,660		\$ 30,618,135	\$ 26,913,924
819	H&S	OSHG (4)	\$ 37,860,000	100%	\$ 24,944,441			\$ 48,292,014	\$ 31,944,865
825	H&S	Field Offices	\$ 7,472,000	100%	\$ 11,110,940			\$ 9,578,409	\$ 14,262,093
828	H&S	Site Preparation	\$ 15,400,000	100%	\$ 14,474,955		\$ 13,407,486	\$ 19,678,497	\$ 17,197,669
829	WASD	FOG / Flushing Water (1)	\$ 16,949,000	100%				\$ 21,651,887	\$ 21,724,635
--	APCTE/PW	Roadway Improvements (2)	\$ 589,025	100%				\$ 764,515	\$ 764,515
--	WASD	Bar Screen Upgrade, CO2 Striping & Digesters Upgrade (5)	\$ 12,000,000					\$ 15,000,000	\$ 15,000,000
<b>Estimated Total</b>			<b>\$ 482,658,525</b>					<b>\$ 615,396,629</b>	<b>\$ 586,518,508</b>
<b>Total with Low Bid, Awarded Amount &amp; Final Amount</b>			<b>\$ 458,490,603</b>						

(1) MDWASD is currently defining the scope of the Flushing and Irrigation Water Upgrade and will confirm this cost estimate.

(2) Roadway Improvements designed by APCTE, paid for by MDWASD, and constructed under the management of Miami-Dade County Public Works. Department Total Cost is construction and soft costs only, with no engineering included.

(3) Total cost includes design, construction (based upon low bid, awarded amount and final amount), construction management and Miami-Dade "soft" costs. The ER for Site Preparation is still open for any "soft" costs charges so the Total Cost is still "Estimate".

(4) Bids opened for the 817 project, results as follows:

Poole and Kent	\$21,008,660.00
John J. Kirilin	\$21,217,710.00
MCM	\$21,917,820.71
Cardinal	\$22,121,815.00
Skanska USA	\$22,825,688.70
Southeastern	\$23,860,328.00

(5) Added to HLD Program in July 2009