



**Town of Hanover, Massachusetts**  
Hanover High School



**PMA Construction Services**  
Owner's Project Manager

## **HANOVER HIGH SCHOOL PROJECT** *July 2010 – Monthly Status Report*

<b>Project:</b>	Hanover High School	<b>Building Size:</b>	157,000	<b>Ph1 Substantial Completion:</b>	June 2011
<b>Current Phase:</b>	Construction	<b>Enrollment Projection:</b>	800 Students	<b>Ph2 Substantial Completion:</b>	May 2012
<b>Construction Type:</b>	NEW	<b>Facility Type:</b>	High School	<b>Project Total Duration:</b>	32-months
<b>Construction Start Date:</b>	28Sep09	<b>Reimbursement Rate:</b>	48.21%	<b>Day 306 of 611 to Ph1 Substantial:</b>	50.1%

### **Project Safety Report**

Safety Incidents this Month • [1 Lost Time]  
Past Lost Time Incidents • [0]  
Past Minor Reportable Incidents • [2]

### **Open Scope / Potential Issues**

- Slab on grade completion
- Getting building weathertight to complete electrical work
- Building façade construction
- Subsurface infiltration bed #2 installation before students return
- Gas line installation to Cedar Elementary before students return
- Installation of track surface and athletic field turf for early turnover
- Completion of maintenance and concession building interior finishes for early turnover
- Replacement of existing asbestos containing water main under future driveway
- Coordination of electrical utility cable pulls & XFMR installation
- Terrazzo contract procurement & schedule integration
- Resolution of commissioning agent punchlist items
- Preparation for FF&E / IT and move to new building
- Community Issues – none at this time.

### **Budget Status**

**Total Project Budget:** \$50,106,069\*\* as of 7/31/10  
**Actual Incurred to Date:** \$20,463,340\* as of 7/31/10 (40.8%)  
**Contingency Remaining:** \$2,352,238 (89.7%)  
*\*\*Subject to Final Revised PFA Agreement*

#### **Construction Cost Summary:**

Award Value (Callahan):	\$38,652,255.00
Previously Executed CO's (Net)	\$125,754.97
Previous Contract Value:	\$38,778,009.97
CO's Executed this Month:	\$51,204.15*
<b>Current Contract Value:</b>	<b>\$38,829,214.12*</b>

#### **Construction Payment Summary:**

Previous Gross Amount:	\$13,118,087.38
This Month's Gross Amount:	\$2,964,637.00*
Gross Amount to-Date:	\$16,082,724.38*
Retainage To-Date @ 5%:	\$804,136.22*
Retainage Released	\$0.00
Current Retainage	\$804,136.22*
<b>Total Net Payable To-Date:</b>	<b>\$15,278,588.16*</b>

**Remaining Balance to Finish (gross):** **\$22,746,489.74\***

*\*Note: July Requisition Not Yet Finalized*

### **Project Status**

#### **July 2010 Progress**

- |  |  |
|--|--|
| <ul style="list-style-type: none"> <li>• PMA Performed OPM Duties (i.e. contract document compliance verification, project controls, real-time issues ID and resolution)</li> <li>• Designer Continued Construction Administration (i.e. submittals, RFIs, weekly site visits, QA/QC, etc)</li> <li>• Site Drainage &amp; Utility Installation 95% Complete</li> <li>• Site Parking Area 90% Binder Installed 50% Curbs Installed</li> <li>• Rough MEP 70% Complete on 2<sup>nd</sup> and 3<sup>rd</sup> Floors</li> <li>• 85% of Bldg Slab on Grade Placed</li> </ul> | <ul style="list-style-type: none"> <li>• CMU Walls @ Gym/Locker Rooms 75% Complete</li> <li>• 2<sup>nd</sup> &amp; 3<sup>rd</sup> Floor Framing Complete</li> <li>• 2<sup>nd</sup> Floor Wood Blocking Underway</li> <li>• Exterior Sheathing 85% Complete, AVB 50% Complete</li> <li>• Maintenance &amp; Concession Bldg Façade Complete</li> <li>• Roofing Installation 95% Complete, Skylights Installed</li> <li>• Fireproofing Approximately 85% Complete</li> <li>• Field &amp; Track Subgrade and Binder Installed, Lightpoles Installed</li> </ul> |
|--|--|

#### **August 2010 Forecasted Items**

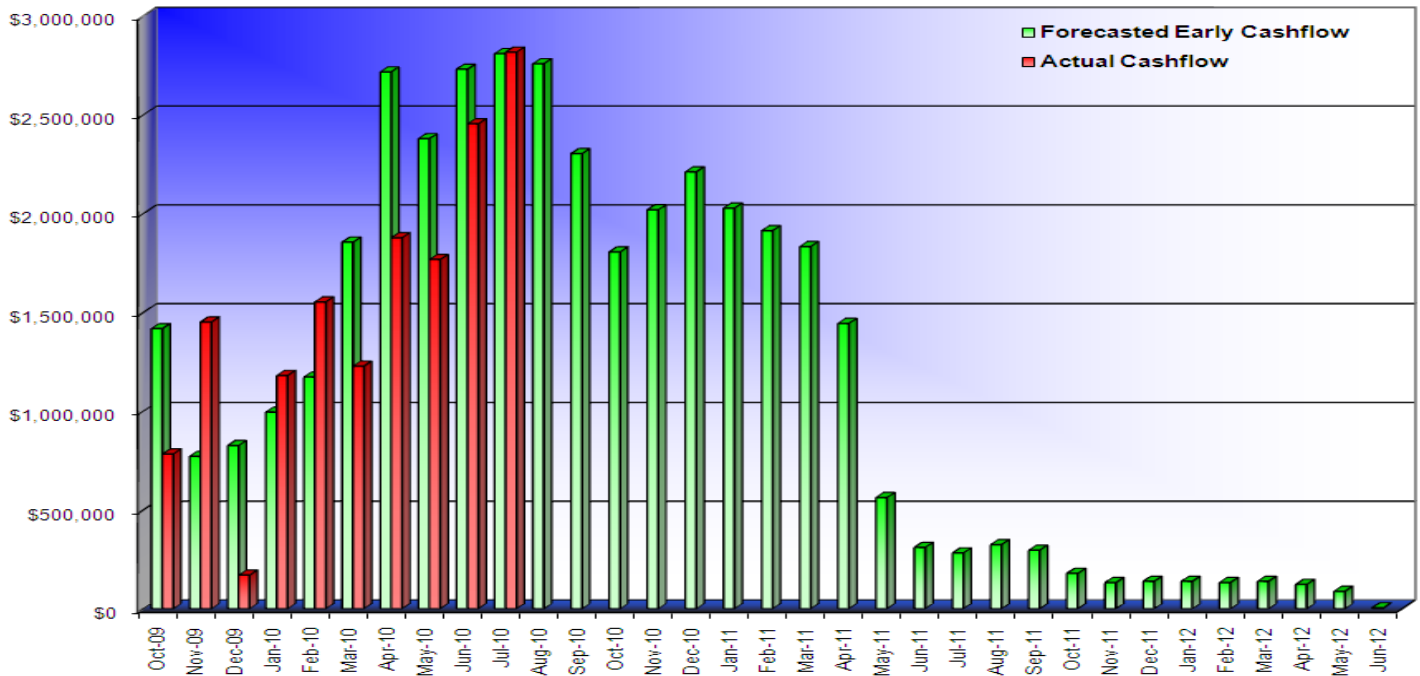
- |   |   |
|---|---|
| <ul style="list-style-type: none"> <li>• Continue Classroom Wing MEPs</li> <li>• Complete Slab on Grade Placement</li> <li>• Continue Construction of Outbuildings, Begin Interior Finishes</li> <li>• Continue Athletic Field Construction, Install Turf Sub-Base</li> <li>• Set Stands at Athletic Field</li> </ul> | <ul style="list-style-type: none"> <li>• Complete Roof Installation</li> <li>• Begin 1<sup>st</sup> Floor Interior Framing</li> <li>• Begin Work on Tennis Courts (Previously Phase II)</li> <li>• Begin Brick Façade Installation</li> <li>• Infiltration Bed Installation at Rear Parking Lot of Existing Bldg</li> </ul> |
|---|---|



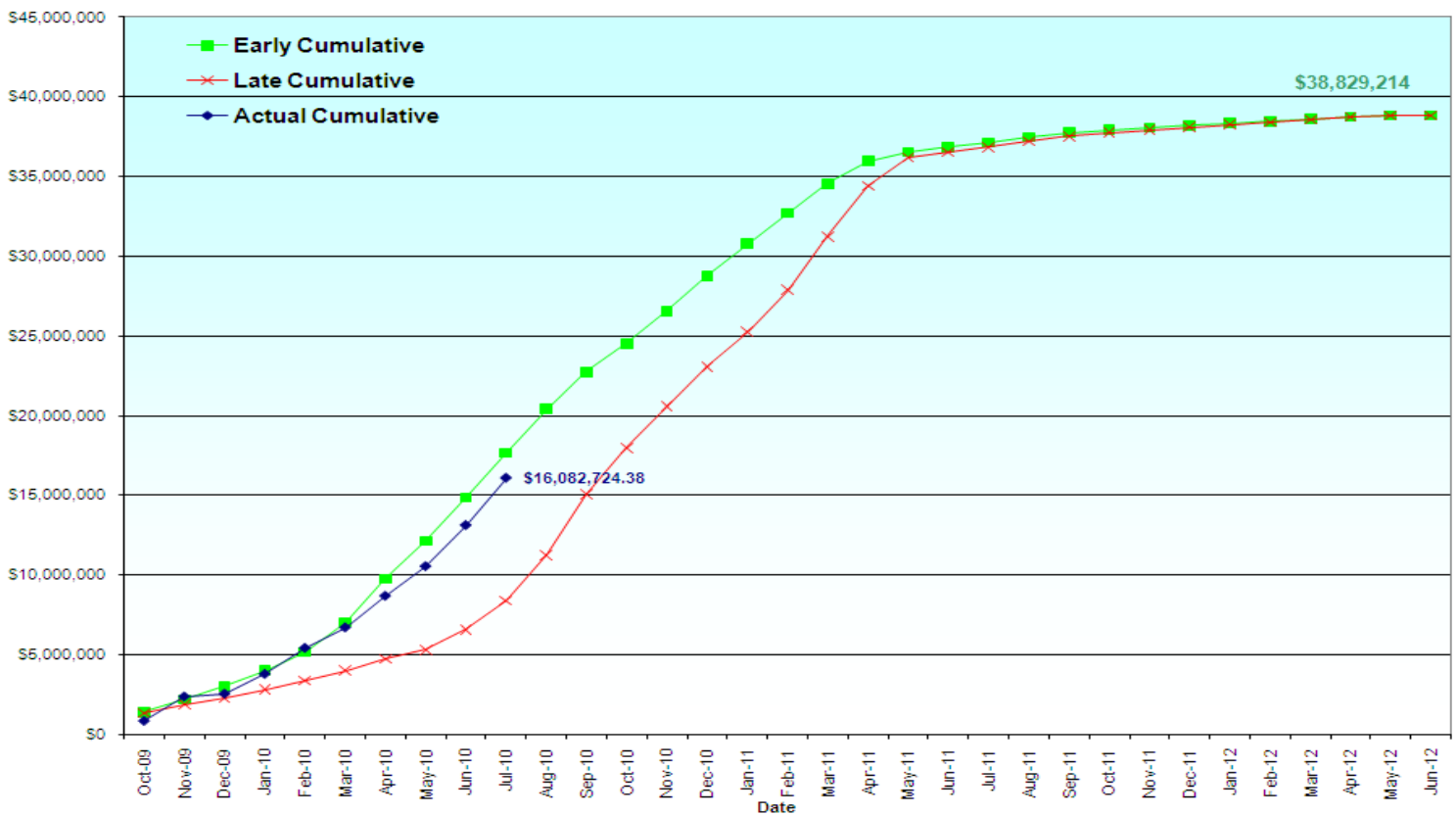
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### Monthly Cashflow Projection



### Cumulative Cashflow Projection



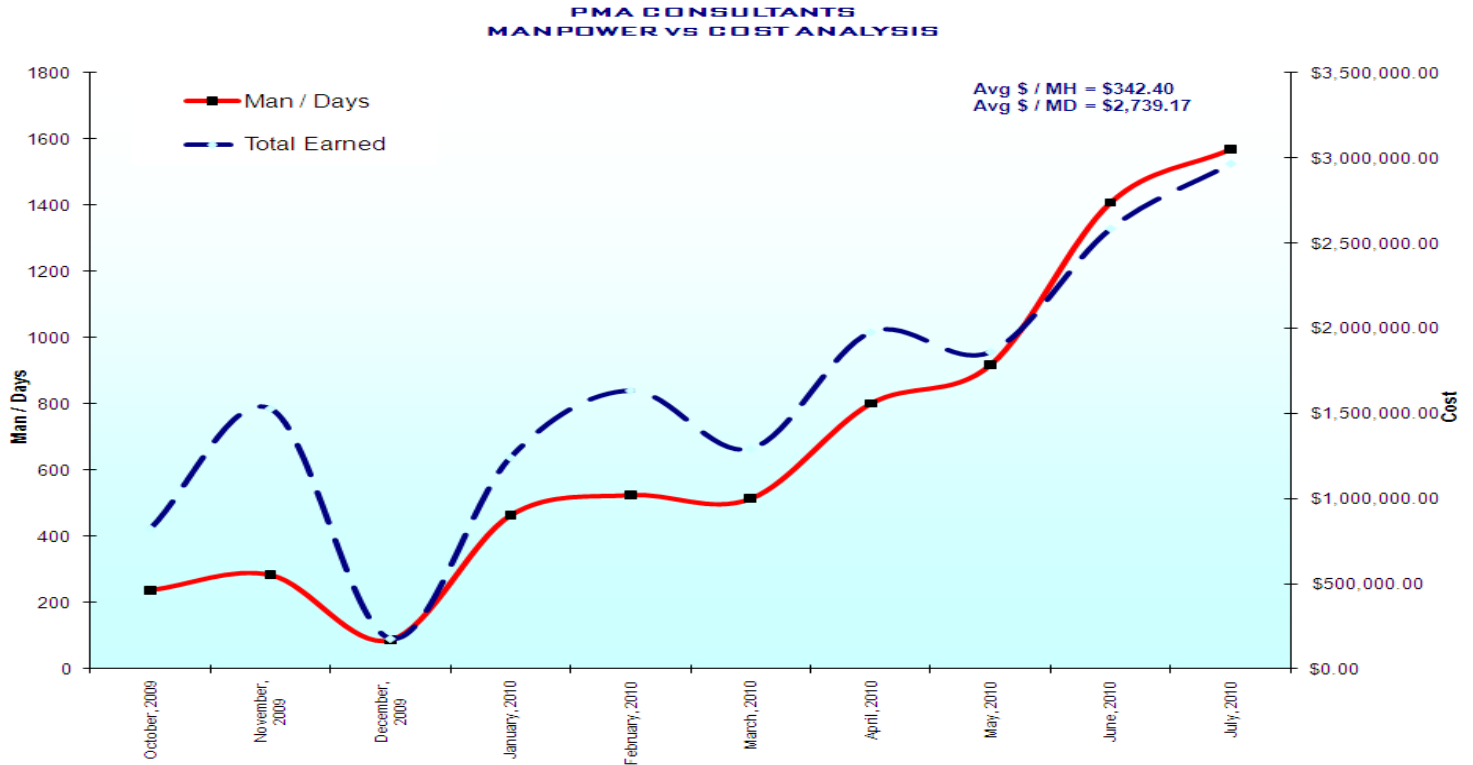


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### Manpower vs Cost Analysis



### Milestone Dates

Milestone Dates	Baseline	Forecast	Actual	Status	Schedule Notes
Construction Start - NTP	01Oct09		28Sep09	✓	On Schedule
OH MEP Work Start Milestone	20Apr10		12Apr10	✓	On Schedule
Building Envelope Start Milestone	28Apr10		26Apr10	✓	On Schedule
Begin Slab on Grade Placement	05Feb10		27May10	✓	No Critical Path Impact – Float Utilized
Begin Electrical Cut-In	17Aug10	31Aug10		✓	No Critical Path Impact – Float Utilized
Begin Main Building Brick Veneer	28Jul10	9Aug10		✓	No Critical Path Impact – Float Utilized
Ph1A Substantial Completion	15Oct10	15Sep10		✓	On Schedule
Begin Startup Checkout HVAC Systems	26Nov10	28Oct10		✓	On Schedule
Permanent Power Online	18Jan11	15Dec10		✓	On Schedule

### HS07 Schedule Submission (HS08 July Update Not Yet Submitted)

#### Contract Milestone Analysis

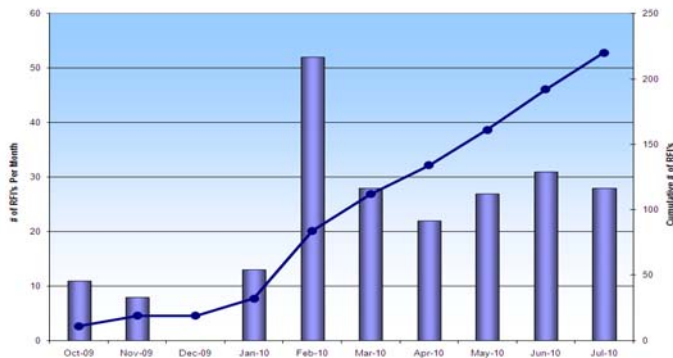
Phase	Contract	HS06	HS07	Float
Ph1 Substantial	01Jun11	01Jun11	07Jun11	-4
Ph1A Substantial	01Jun11	31Aug10	23Aug10	194
Ph2 Substantial	01May12	01May12	27Apr12	2

- The primary critical path to Phase 1 substantial completion in the HS07 schedule submission flows through delivery & installation of brick veneer & precast, installation of window assemblies, metal siding and interior finishes (incl. GWB, ceiling, lighting, casework, millwork, flooring & paint). This path contains -4 days of total float.
- The secondary path to Ph1 Substantial Completion displays 0 days of total float and currently flows through exterior framing/sheathing/insulation activities to the installation of brick veneer. This path continues on to drive the primary critical path activities outlined above.

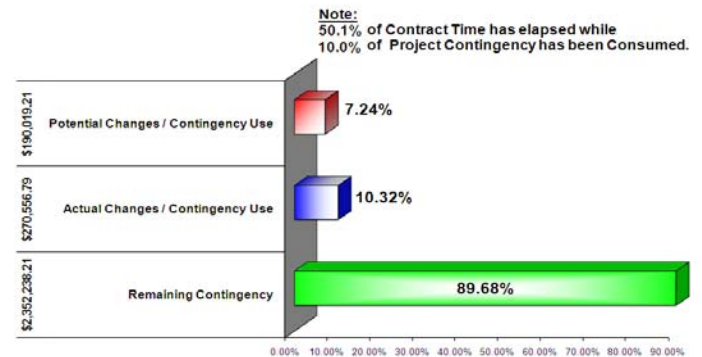


## Graphs & Data

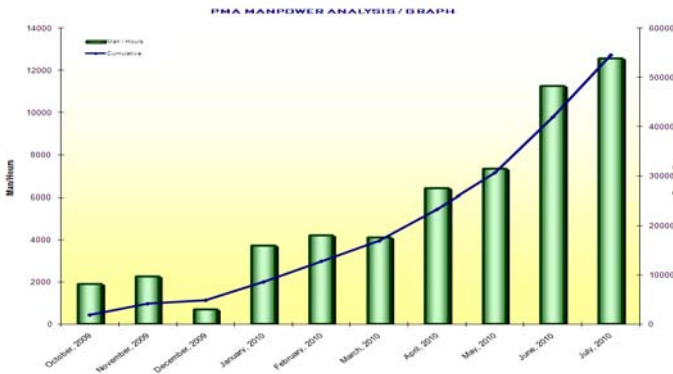
### Requests for Information (RFIs)



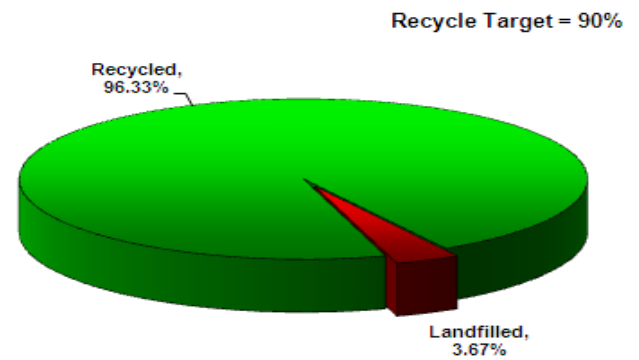
### Contingency Utilization



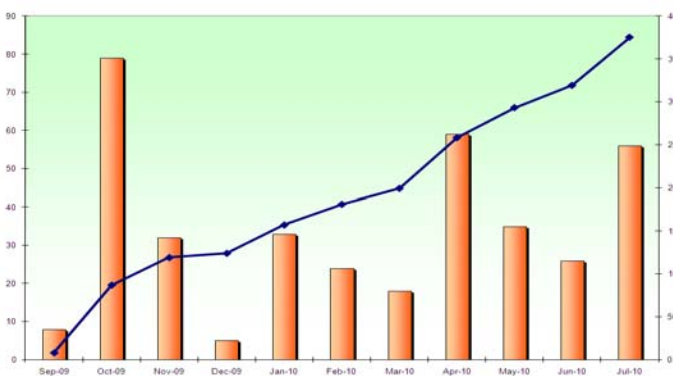
### Monthly Manpower



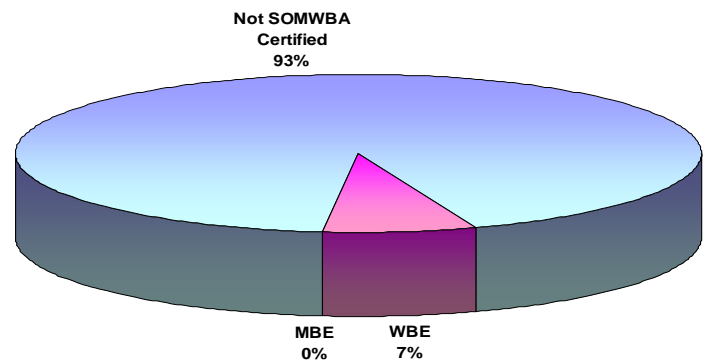
### MA-CHPS Waste Management



### Economic Impact – Work Force Employed To-Date



### MBE / WBE Participation



## PMA Change Management

Potential Change Orders											
	Issued By / For	Scope	Proposed Cost (A)	PMA Analysis (B)	Approved Cost (C)	DELTA (A - C)	Pending Costs	PMA Notes	Proposed Time Extension (Days)	Granted Time Extension (Days)	
PCO #6	Lopes / Stewwork	Asbestos Waterline Replacement	\$84,507.51	\$52,706.90	\$77,000.00	\$7,507.51	\$77,000.00	PCO Not Yet Received	0	0	
PCO #7	Lopes / Stewwork	Force Main Repair	TBD	\$5,000.00	TBD	TBD	TBD	Amount Estimated, PCO not yet rec'd	0	0	
PCO #8	Lopes / Stewwork	Add 1 MH & Wider Ductbank for NGRID	TBD	\$10,000.00	TBD	TBD	TBD	Amount Estimated, PCO not yet rec'd	0	0	
PCO #9	VPS / Carpentry	Added soffits for RLs @ B313 and B314	\$1,126.81	\$1,126.81	\$0.00	\$1,126.81	\$1,126.81	ASI Driven, CO pending.	0	0	
PCO #14	Callahan	Stair #4 Railing	\$31,123.31	\$31,123.31	\$0.00	\$31,123.31	\$31,123.31	SBC to Vote on 8/11	0	0	
PCO #16	Lopes / Stewwork	Additional Tree Removal	\$24,733.00	\$24,733.00	\$0.00	\$24,733.00	\$24,733.00	SBC to Vote on 8/11	0	0	
PCO #17	Griffin / Lopes	Conduit Relocation @ Cedar School	\$136,379.44	\$50,000.00	\$86,379.44	REJECTED	REJECTED - Price too high		0	0	
PCO #18	Lopes / Stewwork	Grind & Repave Cedar Drive	\$49,499.93	\$49,499.93	\$0.00	\$49,499.93	\$49,499.93	SBC to Vote on 8/11	0	0	
PCO #19	Lopes / Stewwork	Tennis Court Fence Replacement	\$50,000.00	N/A	TBD	REJECTED	REJECTED - Price too high				
PCO #20		Additional Grills & Ductwork	\$6,195.04	\$6,195.04	\$0.00			SBC to Vote on 8/11			
PCO #21		***TBD*** PCO NOT YET RECEIVED									
PCO #22	Lopes / Stewwork	Granite Curb Changes	\$5,561.18	\$5,561.18	\$0.00	\$5,561.18	\$5,561.18	SBC to Vote on 8/11	0	0	





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**Progress Photos**

**Maintenance Building Façade & Parking Lot Binder**



**Asphalt Sub-Base @ Athletic Track**



**Tight Tank Installation**



**Concession Building Plumbing / CMU**



**Locker Room CMU Block Walls**



**Main Entrance Binder & Granite Curbs**

