

# Carver Elementary School



Carver School Building Committee Meeting  
February 4<sup>th</sup>, 2015



# MSBA PDP Submission

3.0	<b>Feasibility Study (Module 3)</b>							
			Owner	OPM	Designer	MSBA		
3.1	<b>Preliminary Design Program</b>							
3.1.1	<b>Introduction</b>							
	A.	Summary and SOI	X		X			
	B.	MSBA Letter inviting District to conduct feasibility study	X			X		
	C.	Design enrollment certification	X			X		
	D.	Capital Budget Statement	X					
	E.	Project Directory	X	X				
	F.	Updated Schedule		X	X			
3.1.2	<b>Educational Program</b>							
	A.	Statement of teaching philosophy and methods	X		X			
	B.	Existing Educational Program; Curriculum goals & policies	X		X			
	C.	Objectives of each program element	X		X			
3.1.3	<b>Initial Space Summary</b>							
	A.	Space Summary Form: Add/Reno Version	X		X			
	A1.	Space Summary Form: New Construction Version	X		X			
	B.	Existing Floor Plans			X			
	C.	Variance Narrative			X			
3.1.4	<b>Evaluation of Existing Conditions</b>							
	A.	Developable Property						
		- Proof of Site Ownership	X		X			
		- Proof of Availability for Development			X			
		- Determination of any Development Restrictions			X			
		- Determination of any Historic Significance			X			
	B.	Building						
		- Architectural Accessibility & Building Code			X			
		- Structural and Seismic			X			
		- HVAC, Electrical, Plumbing and Fire protection			X			
		- Building Hazmat	X		X			
	C.	Site						
		- Civil			X			
		- Site Environmental Phase 1 (21E)	X					
		- Traffic Study	X					
		- Survey	X					
		- Geotechnical Report, Soils and Borings	X					
3.1.5	<b>Site Development Requirements</b>							
	A.	- Requirements & Considerations Narrative			X			
	B.	- Site Plan			X			
3.1.6	<b>Preliminary Evaluation of Alternatives</b>							
	A.	Analysis of school district student school assignment practices	X		X			
	B.	Available space in other districts	X		X			
	C.	Tuition Agreements with adjacent school districts	X		X			
	D.	Rental or Acquisition of existing buildings	X		X			
	E.	Base Repair to Meet All Code Requirements			X			
	F.	Renovations/Additions to Existing Building			X			
	G.	Construction of a New Building			X			
3.1.7	<b>Local Actions and Approvals</b>							
	A.	Public Participation and Local Approval	X	X				
	B.	SBC Approval of Preliminary Design Program	X					
	C.	SBC Mtg. Agendas, Minutes, Materials, Stakeholders	X	X				
	D.	Public Mtg. Agendas, Minutes, Materials, Stakeholders	X					

# Educational Plan Review

- Design Enrollment: 750 K-5 + 50 preschool
- 2 story school preferred [PK-2 on First Floor]
- Contiguous classrooms at each grade level
- Centrally located Administrative/Support Services
- R.T.I. requirements drive small group and collaboration spaces
- Multi-purpose Room
- Importance of high performance environment
- Outdoor requirements



# Space Summary Review

- (3) PK classrooms
- (36) K-5 classrooms [6 per grade]
- SPED: (2) ASD and (1) Social Emotional classrooms
- (2) Music Rooms, (2) Art Rooms
- 3,700 SF Cafeteria [3 lunch seatings]
- 1,600 SF Multi-purpose Room w/Platform [subdivided from Caf]
- 6,000 SF Gym w/(2) teaching stations [fits (1) regulation basketball court]
- 4,000 SF Media Center



# Space Summary Review

- **New Construction** option aligns w/ MSBA space guidelines = 108,700 GSF
- **Renovation/Addition** option = 118,000 GSF

# Existing Conditions Review

Existing Elementary School Buildings require:

- Gut renovation w/all new systems
- Structural seismic/wind load upgrades
- Accessibility challenges
- Energy efficiency upgrades

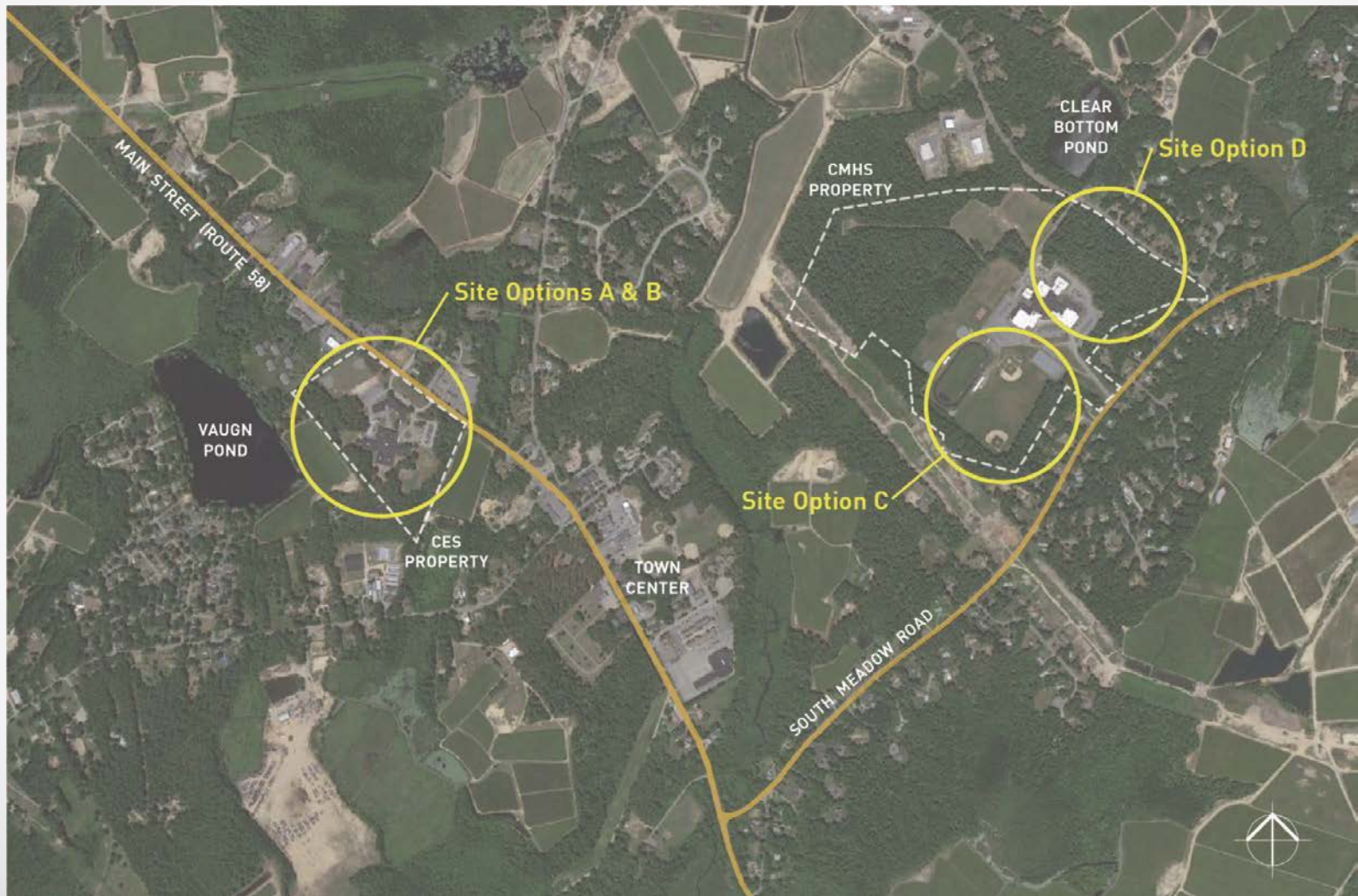
EKW Building:

- Layout challenging to meet educational needs
- Greater structural upgrades
- 1 story building results in less outdoor recreational space





# Sites Under Consideration





# Sites Under Consideration



Elementary School Site



Middle High School Site



# Addition/Renovation Existing Site



## Pros

- Existing GJC will be rejuvenated
- Portions of existing site features will remain intact

## Cons

- Construction on occupied site
- Longest construction schedule
- Layout not as optimized to Ed Plan
- Energy efficiency gains restricted
- Higher cost due to the longer construction, phasing

# Addition/Renovation Existing Site Details

## **Phase 1 (18 months)**

New additions (81,000 sf)

New site improvements in adjacent areas

Tie into existing utilities

Tie into existing wellhead and Title V septic system

## **Phase 2 (8 months)**

EKW grades move into new addition; GJC grades move into EKW

Abate and gut renovate GJC (35,000 sf)

New site improvements in adjacent areas

Tie into existing wellhead and Title V septic system

## **Phase 3 (4 months)**

All grades start school year in completed building

Abate and demolish EKW

Complete site improvements

# New Construction Existing Site



## Pros

- Compact and efficient footprint
- Most energy efficient
- Good play space orientation
- Straightforward construction schedule
- Layout tuned to Ed Plan
- More recreational space
- Appears to be lowest cost

## Cons

- Construction on occupied site
- Existing well protection constrains likely building site
- Adjacency to neighbors

# New Construction

## Existing Site Details

### **Phase 1 (18 months)**

New building

New parking lots, drives and drop off loops

New playfields and playgrounds

New storm water systems

Tie into existing utilities

Tie into existing wellhead and Title V septic system

### **Phase 2 (5 months)**

All grades start school year in new building

Abate and demolish GJC and EKW

Complete site improvements



# New Construction on CMHS Site

## Fields Option



### Pros

- Construction on unoccupied site
- Compact and efficient footprint
- Most energy efficient
- Straightforward construction schedule
- Layout tuned to Ed Plan

### Cons

- More constricted site, less play space
- Emergency response concerns
- High cost of W.W.T.P.
- Imported fill required

# New Construction on CMHS Site Details

## South Meadow Rd. Option

### **Phase 1 (3 months)**

Clear Woods Site and replicate MHS ball fields and tennis courts

### **Phase 2 (18 months)**

Remove existing MHS ball fields and tennis courts

Over excavate unsuitable fill; add new structural fill

New building

New parking lots, drives and drop off loops

Tie into MHS gas and electrical service

New storm water systems

New ES playfields and playgrounds

New wellhead for ES domestic use

New W.W.T.P. shared with MHS

# New Construction on CMHS Site

## Woods Site Option



### Pros

- Construction on unoccupied site
- Compact and efficient footprint
- Most energy efficient
- Straightforward construction schedule
- Layout tuned to Ed Plan

### Cons

- More constricted site, less play space
- Emergency response concerns
- High cost of W.W.T.P.

# New Construction on CMHS Site Details

## Pond St. Option

### **Phase 1 (18 months)**

Clear woods and provide new structural fill

New building

New parking lots, drives and drop off loops

New gas and electrical service from Pond Street

New storm water systems

New playfields and playgrounds

New wellhead for ES domestic use

New W.W.T.P. shared with MHS



# Contract Workplan

### SCHEDULE 3

Carver Elementary School FS Phase Work Plan: 6/11 Submission

HMFH Architects 12/22/14

Complete  
2/27/15

Duration  
9 weeks

### Preliminary Design Program (PDP)

### Educational Program

~~Finalize Ed Program~~

## Revise Space Summary

### SBC Approve Ed Program & Space Summary

## Green Goals

## Evaluation of Existing Conditions

## Site Development Requirements Review

~~Review Zoning~~~~Site Program Development~~

~~Geo-Environmental Analysis~~

~~Wetlands/Conservation Requirements~~~~Orientation/Parking/Traffic Analysis~~

## Preliminary Evaluation of Alternatives

~~Review/Update Potential Alternatives~~~~Identify Preliminary Sites Locations~~

## SBC Approve Site Selections & Alternatives

### Analysis of Sites for Feasibility

### Preliminary Plan and Site Diagrams

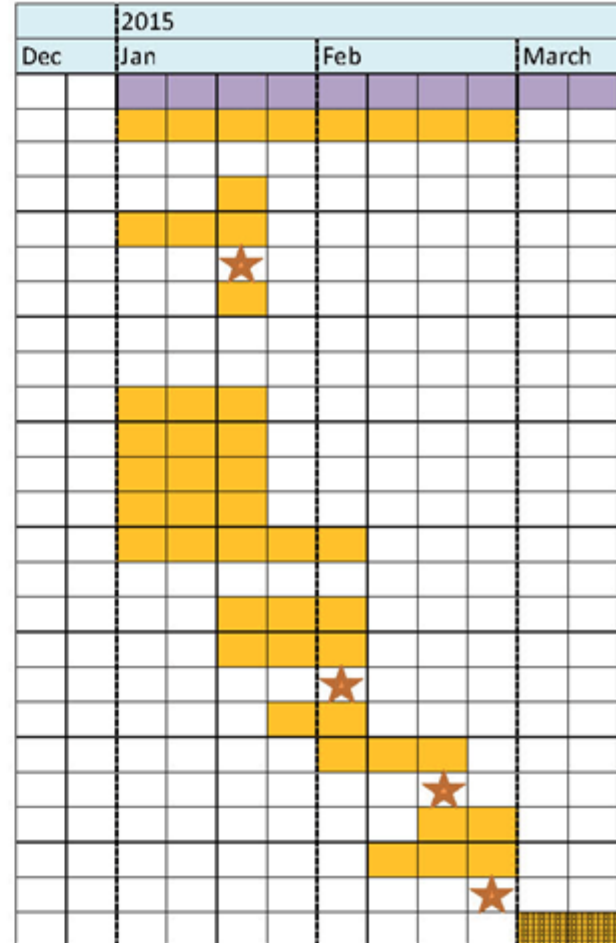
## SBC Approve Planning Diagrams

### Cost Evaluation of Alternatives

### Compile PDP Report

## SBC Approve PDP Submission

MSBA Review Period

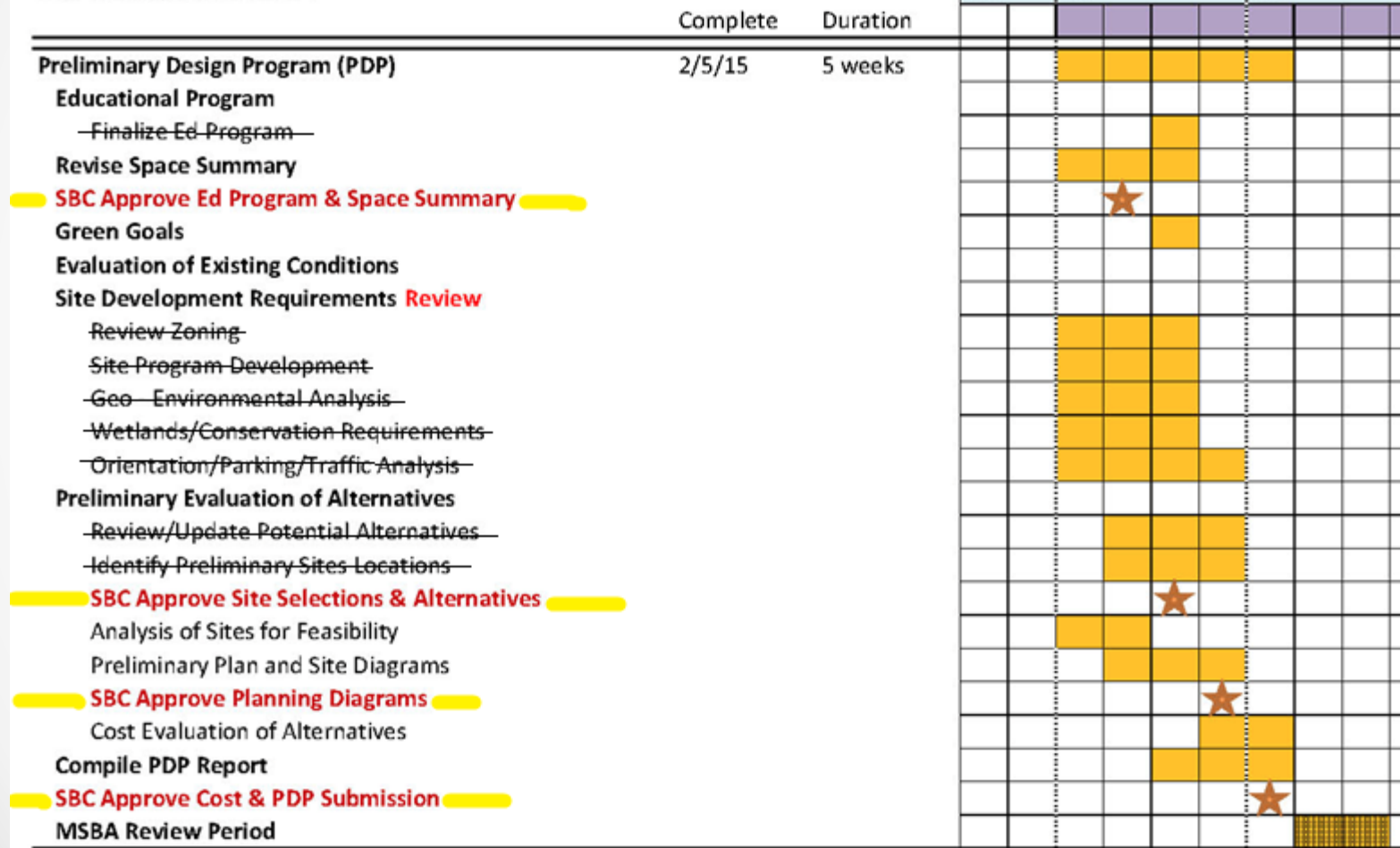


# 'Aggressive' Workplan

## SCHEDULE 4

Carver Elementary School FS Phase Work Plan: 4/16 Submission

HMFH Architects 12/22/14



# Detailed Schedule

Carver Elementary School Master Schedule			Carver Elementary Master Schedule		03-Feb-15 16:43
Activity ID	Activity Name	Original Duration	Start	Finish	
<b>Carver Elementary School Master Schedule</b>			1024	29-Sep-14 A	27-Aug-18
<b>OPM / Architect Contract (MSBA Module 2 "Forming the Team")</b>			65	29-Sep-14 A	23-Dec-14
<b>OPM</b>			9	06-Oct-14 A	21-Oct-14
A1030	MSBA Approval of PMA as OPM	0		06-Oct-14	MSBA Approval of PMA as OPM
A1000	OPM Contract Negotiation & Execution	8	06-Oct-14 A	21-Oct-14	OPM Contract Negotiation & Execution
<b>Architect</b>			59	29-Sep-14 A	23-Dec-14
A1010	PMA Develop A/E RFS Draft	3	29-Sep-14 A	03-Oct-14	PMA Develop A/E RFS Draft
A1020	Town Review / Comment on A/E RFS Draft	2	03-Oct-14 A	03-Oct-14	Town Review / Comment on A/E RFS Draft
A1050	PMA Finalize A/E RFS Draft	2	06-Oct-14 A	14-Oct-14	PMA Finalize A/E RFS Draft
A1040	MSBA Review/Approve A/E RFS Draft	5	08-Oct-14 A	15-Oct-14	MSBA Review/Approve A/E RFS Draft
A1090	A/E RFS Solicitation / Proposal Period	10	15-Oct-14 A	29-Oct-14	A/E RFS Solicitation / Proposal Period
A1100	Town/PMA Review Submissions & Complete Checklist	5	30-Oct-14 A	05-Nov-14	Town/PMA Review Submissions & Complete Checklist
A1240	DSP Review A/E Choices 2 wks Prior to Meeting	10	06-Nov-14 A	19-Nov-14	DSP Review A/E Choices 2 wks Prior to Meeting
A1110	MSBA Designer Selection Panel	0		25-Nov-14	MSBA Designer Selection Panel
A1270	MSBA Designer Selection Panel Interviews	0		09-Dec-14	MSBA Designer Selection Panel Interviews
A1120	A/E Contract Negotiation	11	09-Dec-14 A	23-Dec-14	A/E Contract Negotiation
<b>Feasibility Study / Preferred Option for Schematic (MSBA Module 3)</b>			108	05-Jan-15 A	03-Jun-15
<b>Preliminary Design Program (PDP)</b>			34	05-Jan-15 A	19-Feb-15
<b>Educational Program &amp; Space Summary</b>			23	05-Jan-15 A	04-Feb-15
A1280	Review/Revise Existing Ed Program	10	05-Jan-15 A	16-Jan-15	Review/Revise Existing Ed Program
A1290	Meetings with Staff and Teachers	10	05-Jan-15 A	16-Jan-15	Meetings with Staff and Teachers
A1300	Finalize Ed Program	5	19-Jan-15 A	23-Jan-15	Finalize Ed Program
A1310	Revise Space Summary	12	19-Jan-15 A	03-Feb-15	Revise Space Summary
A1320	SBC Approve Ed Program & Space Summary	1	04-Feb-15*	04-Feb-15	SBC Approve Ed Program & Space Summary
<b>Existing Conditions Evaluation</b>			20	05-Jan-15 A	30-Jan-15
A1340	Review Code/Structural Requirements	10	05-Jan-15 A	16-Jan-15	Review Code/Structural Requirements
A1350	Review Haz Mat Analysis	10	05-Jan-15 A	16-Jan-15	Review Haz Mat Analysis
A1360	Review Phase 1 Site Investigations	10	05-Jan-15 A	16-Jan-15	Review Phase 1 Site Investigations
A1370	Review Geotechnical Investigations	10	05-Jan-15 A	16-Jan-15	Review Geotechnical Investigations
A1330	Review/Update Existing Conditions Drawings	15	05-Jan-15 A	23-Jan-15	Review/Update Existing Conditions Drawings
A1380	Review/Update Topographic Site Surveys	20	05-Jan-15 A	30-Jan-15	Review/Update Topographic Site Surveys
<b>Site Development Requirements</b>			22	05-Jan-15 A	03-Feb-15
A1390	Review Zoning	15	05-Jan-15 A	23-Jan-15	Review Zoning
A1400	Site Program Development	15	05-Jan-15 A	23-Jan-15	Site Program Development
A1410	Geo- Environmental Analysis	15	05-Jan-15 A	23-Jan-15	Geo- Environmental Analysis
A1420	Wetlands/Conservation Requirements	15	05-Jan-15 A	23-Jan-15	Wetlands/Conservation Requirements
A1430	Orientation/Parking/Traffic Analysis	22	05-Jan-15 A	03-Feb-15	Orientation/Parking/Traffic Analysis
<b>Preliminary Evaluation of Alternatives</b>			23	05-Jan-15 A	04-Feb-15
A1450	Identify Preliminary Sites Locations	5	05-Jan-15 A	09-Jan-15	Identify Preliminary Sites Locations
A1470	Analysis of Sites for Feasibility	5	05-Jan-15 A	09-Jan-15	Analysis of Sites for Feasibility
A1460	SBC Approve Site Selections & Alternatives	1	12-Jan-15 A	12-Jan-15	SBC Approve Site Selections & Alternatives
A1500	Cost Evaluation of Alternatives	6	05-Jan-15 A	12-Jan-15	Cost Evaluation of Alternatives
A1480	Preliminary Plan and Site Diagrams	5	13-Jan-15 A	19-Jan-15	Preliminary Plan and Site Diagrams
A1440	Review/Update Potential Alternatives	22	05-Jan-15 A	03-Feb-15	Review/Update Potential Alternatives
A1490	SBC Approve Planning Diagrams	1	04-Feb-15*	04-Feb-15	SBC Approve Planning Diagrams
<b>PDP Report</b>			21	22-Jan-15 A	19-Feb-15
A1510	Compile PDP Report	10	22-Jan-15 A	04-Feb-15	Compile PDP Report
A1520	Local Actions and Approval Certification for PDP	0		04-Feb-15*	Local Actions and Approval Certification for PDP
<div> <div>Actual Work</div> <div>Critical Remaining Work</div> <div>Remaining Work</div> <div>Milestone</div> </div>			Page 1 of 2		TASK filter: All Activities
					© Oracle Corporation



# Detailed Schedule

[illegible]



# Budget Summary Sheet



## CARVER ELEMENTARY SCHOOL PROJECT MASTER PROJECT BUDGET



Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(5)							
	Base Budget	BRR #1 Pending		Current Budget	Actuals	Remaining	% Complete
<b>Feasibility Study Agreement</b>							
<i>OPM Feasibility Study</i>	72,000.00	51,000.00		123,000.00	22,980.00	100,020.00	18.7%
<i>A&amp;E Feasibility Study</i>	287,000.00	134,000.00		421,000.00	-	421,000.00	0.0%
<i>Env. &amp; Site</i>	34,000.00	(26,000.00)		8,000.00	-	8,000.00	0.0%
<i>Other</i>	17,000.00	(9,000.00)		8,000.00	-	8,000.00	0.0%
<b>Feasibility Study Agreement Subtotal</b>	<b>410,000.00</b>	<b>150,000.00</b>	<b>-</b>	<b>560,000.00</b>	<b>22,980.00</b>	<b>537,020.00</b>	<b>4.1%</b>

# Budget Detail Sheet

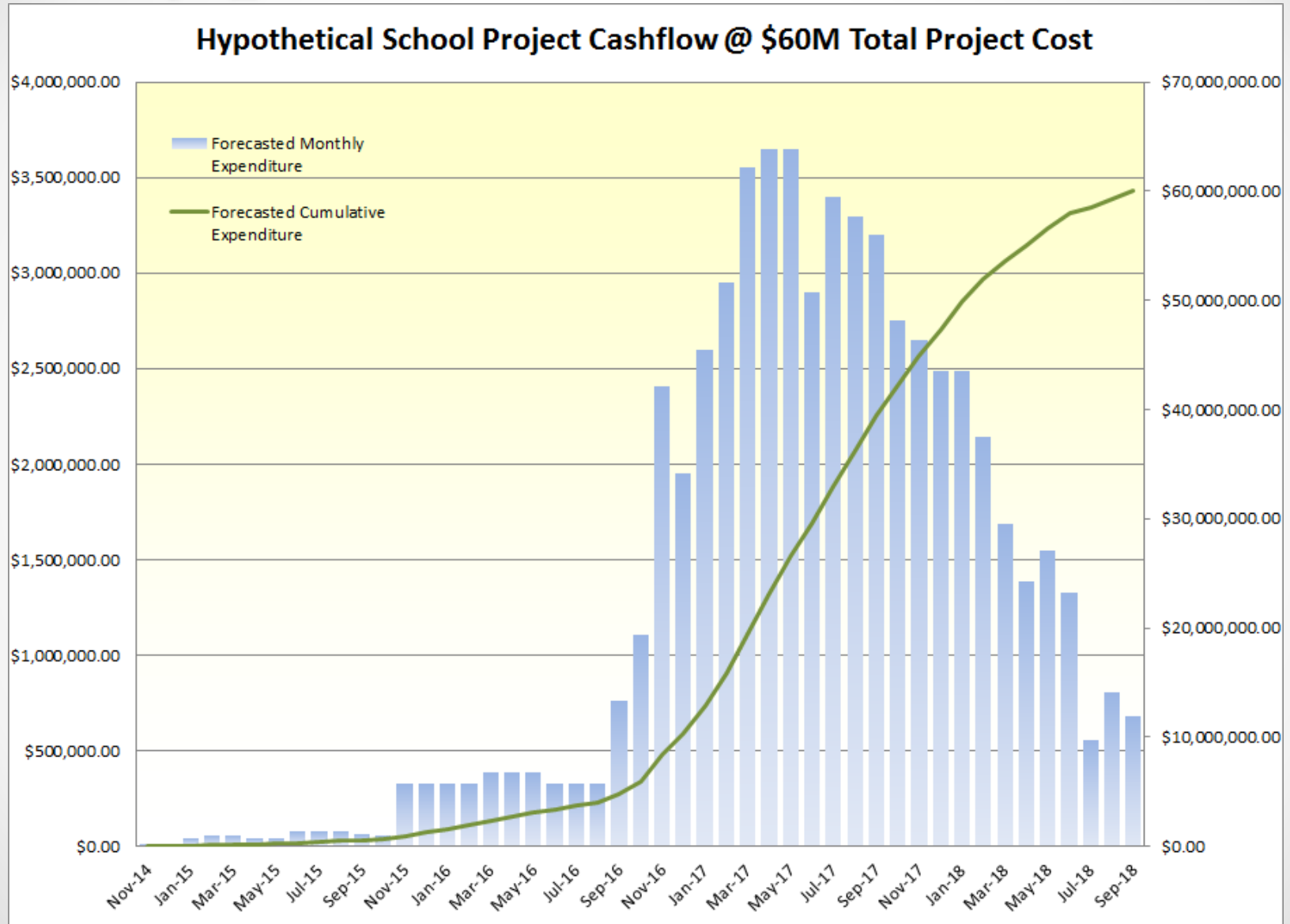


## CARVER ELEMENTARY SCHOOL PROJECT MASTER PROJECT BUDGET - DETAIL SHEET



Total Project Budget: All costs associated with the project are subject to 963 CMR 2.16(5)																	
	Current Budget	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	NEW	Actuals	Remaining	% Complete
<b>Feasibility Study Agreement</b>																	
OPM Feasibility Study	\$ 123,000.00	8,430.00	7,380.00	7,170.00											\$ 22,980.00	\$ 100,020.00	18.7%
A&E Feasibility Study	\$ 421,000.00														\$ -	\$ 421,000.00	0.0%
Env. & Site	\$ 8,000.00														\$ -	\$ 8,000.00	0.0%
Other	\$ 8,000.00														\$ -	\$ 8,000.00	0.0%
<b>Feasibility Study Agreement Subtotal</b>	<b>\$ 560,000.00</b>	<b>8,430.00</b>	<b>7,380.00</b>	<b>7,170.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 22,980.00</b>	<b>\$ 537,020.00</b>	<b>4.1%</b>
<b>Administration</b>															\$ -	\$ -	#DIV/0!
Legal Fees	\$ -	2,006.00													\$ 2,006.00	\$ (2,006.00)	#DIV/0!
Owner's Project Manager															\$ -	\$ -	#DIV/0!
Design Development	\$ -														\$ -	\$ -	#DIV/0!
Construction Contract Documents	\$ -														\$ -	\$ -	#DIV/0!
Bidding	\$ -														\$ -	\$ -	#DIV/0!
Construction Contract Administration	\$ -														\$ -	\$ -	#DIV/0!
Closeout	\$ -														\$ -	\$ -	#DIV/0!
Extra Services	\$ -														\$ -	\$ -	#DIV/0!
Reimbursable & Other Services	\$ -														\$ -	\$ -	#DIV/0!
Cost Estimates	\$ -														\$ -	\$ -	#DIV/0!
Advertising	\$ -														\$ -	\$ -	#DIV/0!
Permitting	\$ -														\$ -	\$ -	#DIV/0!
Owner's Insurance	\$ -														\$ -	\$ -	#DIV/0!
Other Administrative Costs	\$ -														\$ -	\$ -	#DIV/0!
<b>Administration Subtotal</b>	<b>\$ -</b>	<b>2,006.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 2,006.00</b>	<b>\$ (2,006.00)</b>	<b>#DIV/0!</b>
<b>Architecture and Engineering</b>															\$ -	\$ -	#DIV/0!
Basic Services	\$ -														\$ -	\$ -	#DIV/0!
Design Development	\$ -														\$ -	\$ -	#DIV/0!
Construction Contract Documents	\$ -														\$ -	\$ -	#DIV/0!
Bidding	\$ -														\$ -	\$ -	#DIV/0!
Construction Contract Administration	\$ -														\$ -	\$ -	#DIV/0!
Closeout	\$ -														\$ -	\$ -	#DIV/0!
Other Basic Services	\$ -														\$ -	\$ -	#DIV/0!
<b>Basic Services Subtotal</b>	<b>\$ -</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ -</b>	<b>\$ -</b>	<b>#DIV/0!</b>
Reimbursable Services															\$ -	\$ -	#DIV/0!
Construction testing	\$ -														\$ -	\$ -	#DIV/0!
Printing (over minimum)	\$ -														\$ -	\$ -	#DIV/0!
Other Reimbursable Costs	\$ -														\$ -	\$ -	#DIV/0!
Hazardous Materials	\$ -														\$ -	\$ -	#DIV/0!
Geotech & Geo-Env.	\$ -														\$ -	\$ -	#DIV/0!
Site Survey	\$ -														\$ -	\$ -	#DIV/0!
Wetlands	\$ -														\$ -	\$ -	#DIV/0!
Traffic Studies	\$ -														\$ -	\$ -	#DIV/0!
<b>Architectural/Engineering Subtotal</b>	<b>\$ -</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ -</b>	<b>\$ -</b>	<b>#DIV/0!</b>
<b>Project Budget</b>	<b>\$ 560,000.00</b>	<b>10,436.00</b>	<b>7,380.00</b>	<b>7,170.00</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>\$ 24,986.00</b>	<b>\$ 535,014.00</b>	<b>4.5%</b>

# Hypothetical Cashflow



# Discussion / Questions?

Carver School Building Committee Meeting  
February 4<sup>th</sup>, 2015

