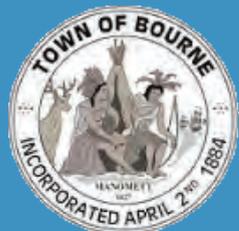


Community Forum No.8
August 11, 2016
Schematic Design

Bourne Elementary Schools Community Workshop No. 8



PROJECT MANAGEMENT **SMMA**
Massachusetts School Building Authority

Flansburgh Architects

Agenda

- Introductions
- MSBA Process
- Project Schedule
- Defining the Need
- District Wide Solution- Grade Span Schools
- The Design
- Transportation Plan
- Preliminary Costs
- Next Steps
- Questions

School Building Committee

James L. Potter	Chairman, School Building Committee
Christopher Hyldborg	Chairman, School Committee
Steven M. Lamarche	Superintendent of Schools, BPS
Peter J. Meier	Board of Selectmen
Edward S. Donoghue	Director of Business Services, BPS
Thomas M. Guerino	Town Administrator
Elizabeth Carpenito	Prinicipal, Bournedale Elementary School
Kathy Anderson	Member, School Building Committee
Rick Howe	Member, School Building Committee
Richard A. Lavoie	Member, Finance Committee
William Meier	Member, School Building Committee
Natasha Scarpato	Bourne School Committee
Donna Buckley	Member, School Building Committee

Design Team

Kent Kovacs

Flansburgh Architects

Owner's Project Manager

Joel Seeley

Symmés, Maini & McKee

Project Need

The Peebles Elementary School is an aged facility requiring significant upkeep without long term educational benefits.

Bourne Residents voted to approve this Feasibility Study and seek a Grant from MSBA to mitigate these conditions at the October 27, 2014 Special Town Meeting.

The estimated MSBA Grant is \$14.22 million.

MSBA Process

- **MSBA** is an independent public authority that administers and funds a program for grants to eligible cities, towns, and regional school districts for school construction and renovation projects.
- **MSBA** mandates a multi-step rigorous study and approval process
- **MSBA** will fund **43.84%** plus incentives of eligible project cost for an approved project if accepted by the voters of Bourne

Massachusetts School Building Authority

Deborah B. Goldberg
Chairman, State Treasurer

Maureen G. Valente
Chief Executive Officer

John K. McCarthy
Executive Director / Deputy CEO

Re: Town of Bourne, James F. Peebles Elementary School

Dear Mr. Guerino:

I am pleased to report that the Board of the Massachusetts School Building Authority (the “MSBA”) has voted to approve the Town of Bourne (the “Town”), as part of its invitation for Feasibility Study, to proceed into Schematic Design to replace the existing James F. Peebles Elementary School with a new District-wide grades 3-5 elementary school on the existing site (the “Proposed Project”).

MSBA Process

Submitted to MSBA
12/18/2015

- Existing Conditions
- Visioning
- Programming
- Preliminary options

Submit to MSBA
6/02/2016

- Refine top options
- Options detailed
- Cost Estimates

MSBA Board
Approval
07/20/2016

Submit to MSBA
9/29/2016

- Develop selected option
- Consensus

MSBA Board
Approval
11/09/2016

Local Funding
Approval

PDP

Preliminary Design
Program

PSR

Preliminary
Schematic Report

**Schematic
Design**

MSBA Process

Submitted to MSBA
12/18/2015

- Existing Conditions
- Visioning
- Programming
- Preliminary options

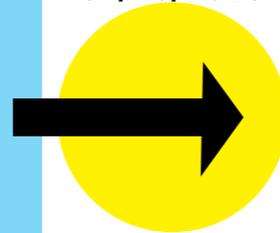
PDP
Preliminary Design
Program

Submit to MSBA
6/02/2016

- Refine top options
- Options detailed
- Cost Estimates

PSR
Preliminary
Schematic Report

MSBA Board
Approval
07/20/2016

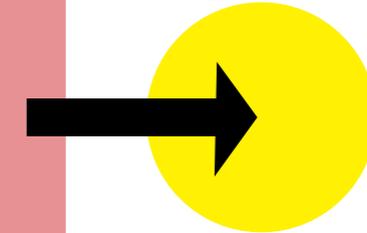


Submit to MSBA
9/29/2016

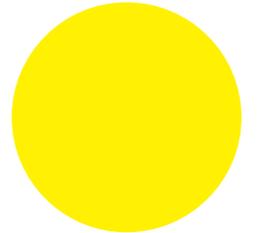
- Develop selected option
- Consensus

**Schematic
Design**

MSBA Board
Approval
11/09/2016



Local Funding
Approval



MSBA Process

Submitted to MSBA
12/18/2015

- Existing Conditions
- Visioning
- Programming
- Preliminary options

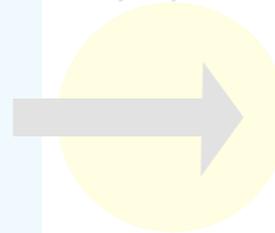
PDP
Preliminary Design
Program

Submit to MSBA
6/02/2016

- Refine top options
- Options detailed
- Cost Estimates

PSR
Preliminary
Schematic Report

MSBA Board
Approval
07/20/2016

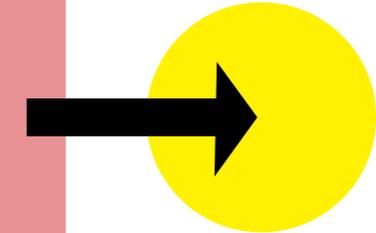


Submit to MSBA
9/29/2016

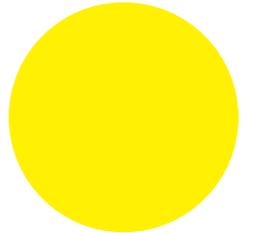
- Develop selected option
- Consensus

**Schematic
Design**

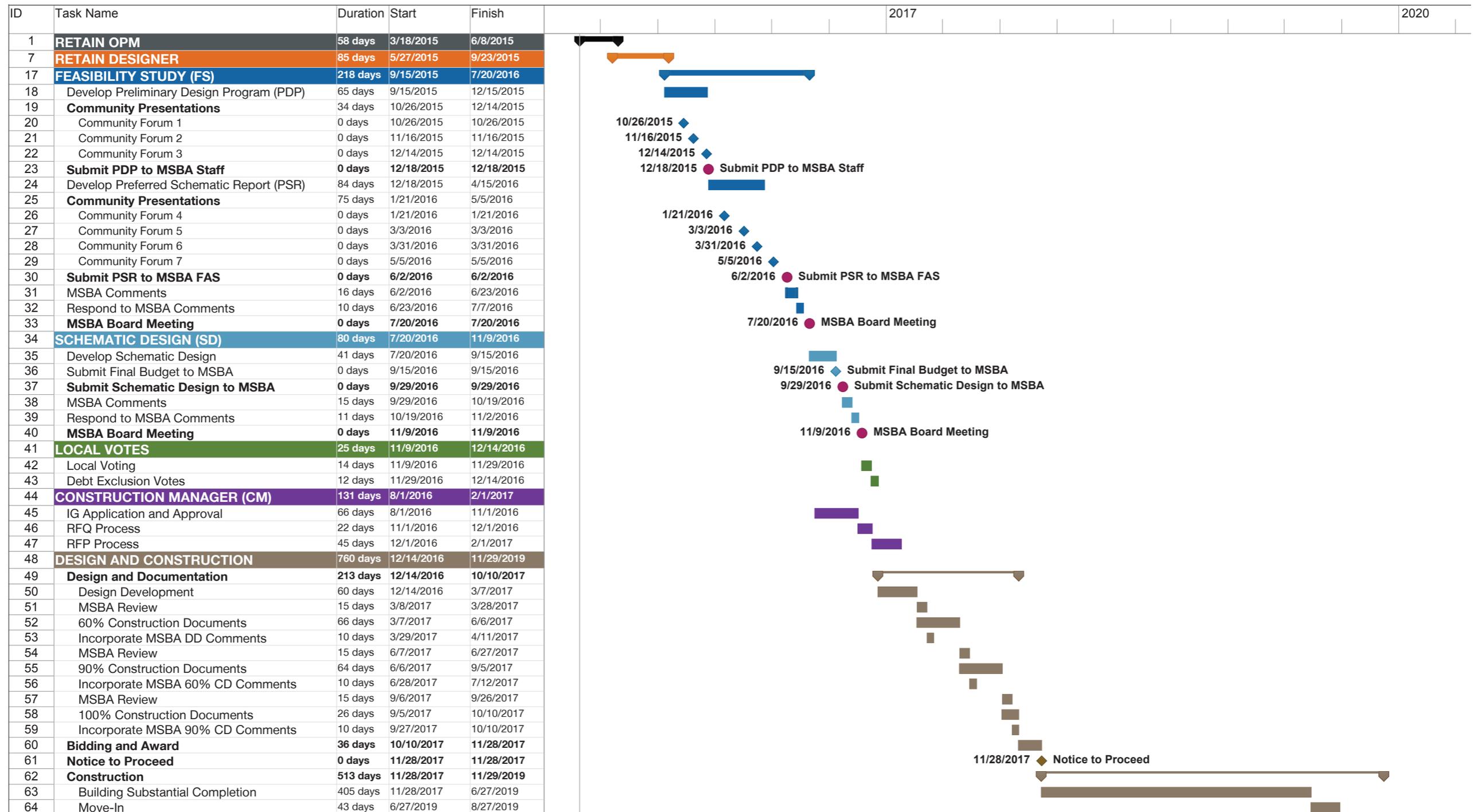
MSBA Board
Approval
11/09/2016



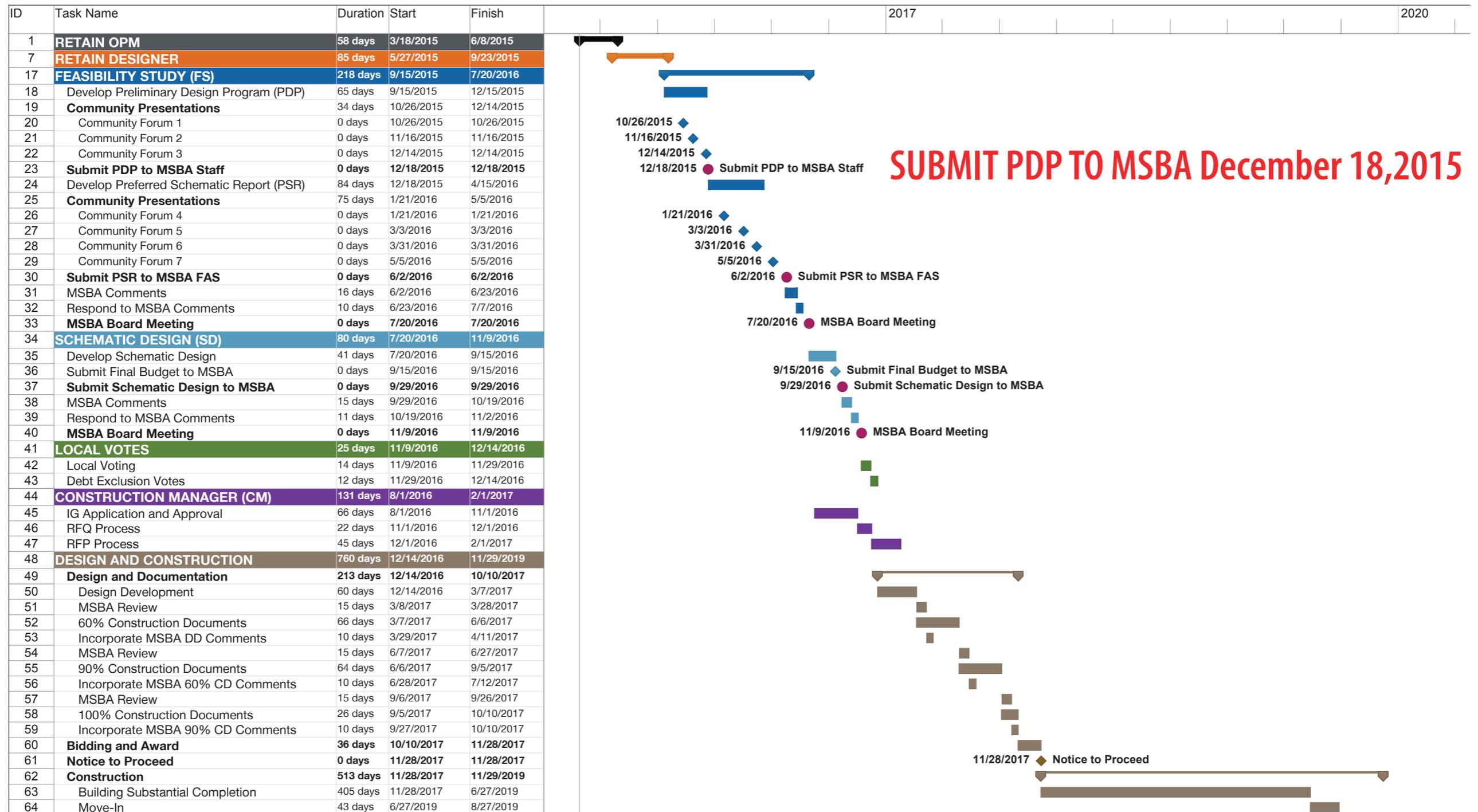
Local Funding
Approval



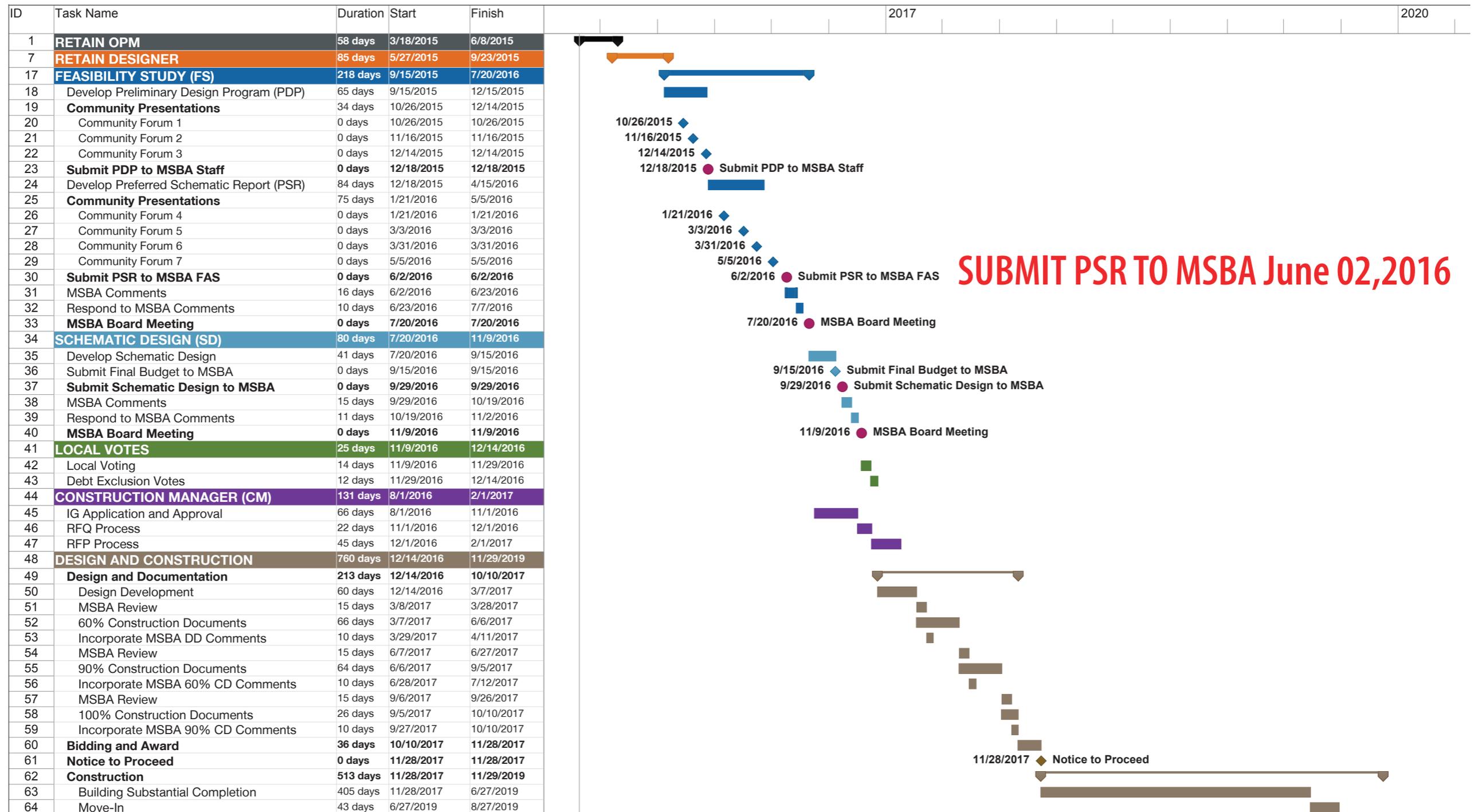
Project Schedule



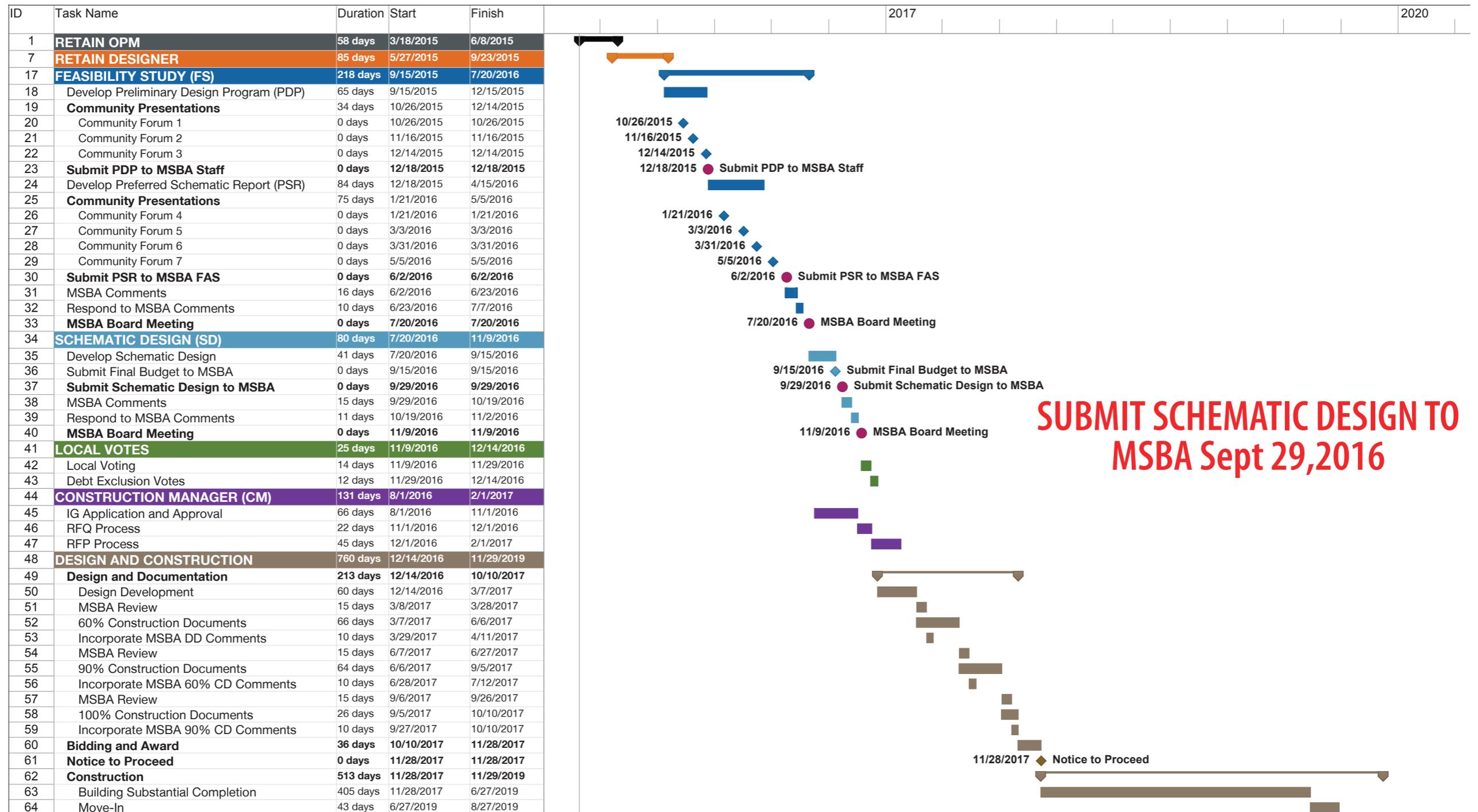
Project Schedule



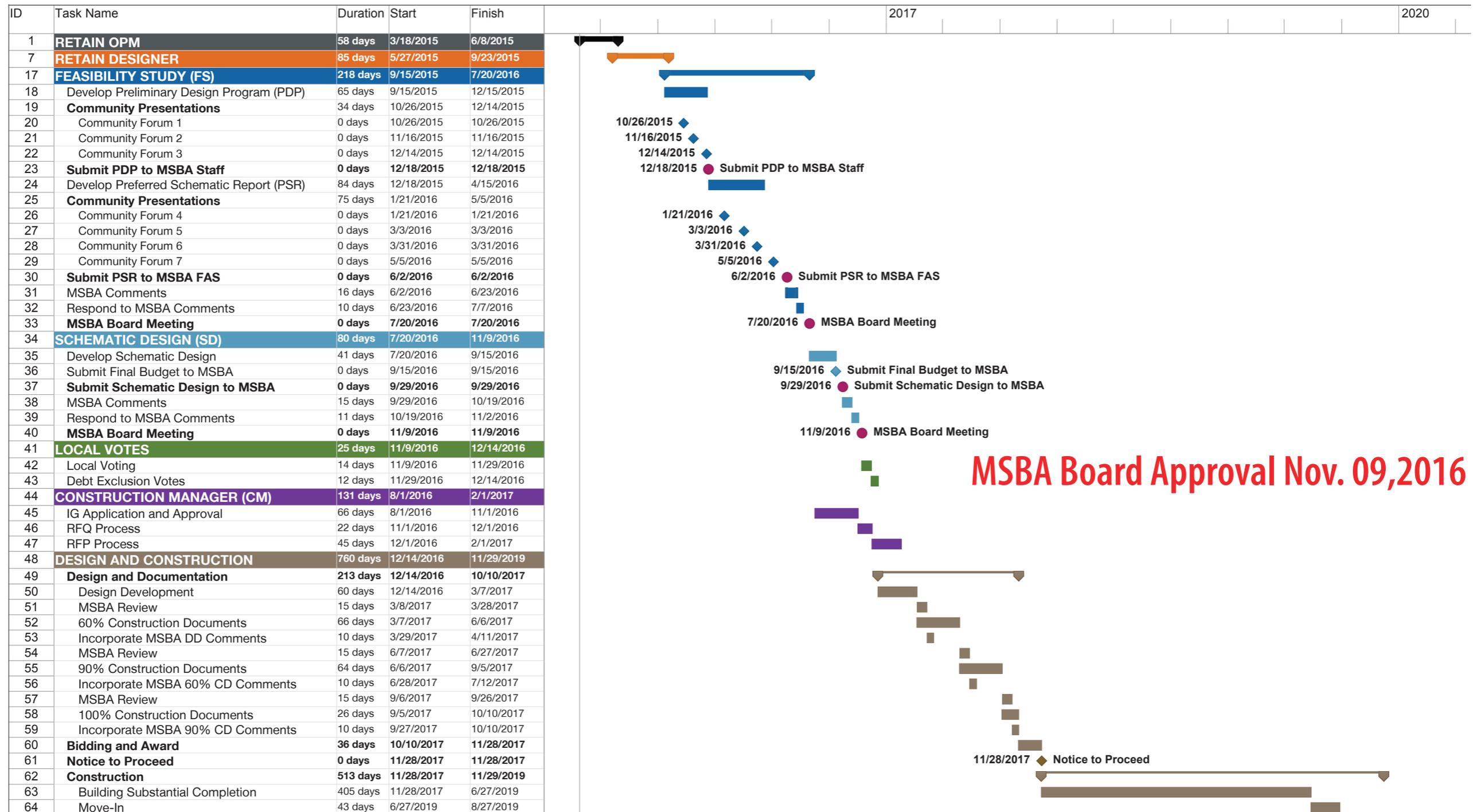
Project Schedule



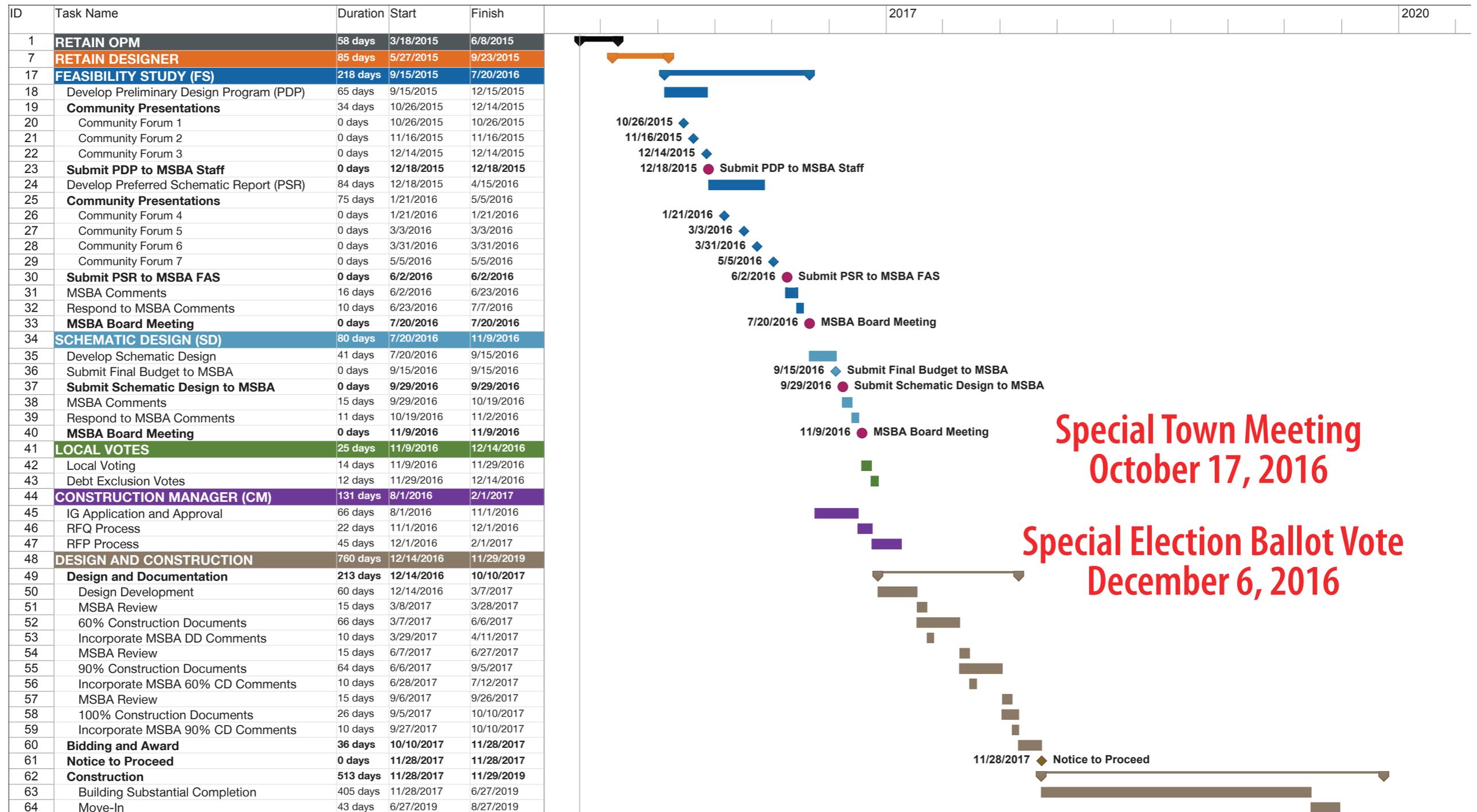
Project Schedule



Project Schedule



Project Schedule



Community Outreach

PDP Phase:

Forum No.1 *October 17, 2015*

- › Learn About 21st C Education
- › Share Your Thoughts
- › Shape Your Town's Future



Forum No.2 *November 17, 2015*

- › Learn About MSBA Process
- › Existing Conditions Review
- › Educational Visioning Recap



Forum No.3 *December 08, 2015*

- › Review 7 Design Alternatives
- › Discuss Budget and Schedule
- › Share Your Thoughts



PSR Phase:

Forum No.4

January 21, 2016

- › Review 4 Options
- › MSBA Update
- › Share Your Thoughts



Forum No.5

March 03, 2016

- › Review Designs
- › Survey
- › MSBA Update



Forum No.6

March 31, 2016

- › Survey Results
- › Budget & Schedule
- › Share Your Thoughts



Forum No.7

May 05, 2016

- › Survey Results
- › Budget & Schedule
- › Option Discussion

Community Outreach

*Public Meetings, Town Board Updates,
and Community Forums*

- (21) School Building Committee Meetings
- (8) Community Forums
 - Posters & Town Website Announcement
- (1)Town Meeting
 - Project Status Report
- (3) Town Board Presentation
 - Capital Outlay
 - School Committee
 - Council on Aging



Community - Wide Surveys

Web-based surveys with feedback from over 900 participants

Televised School Building Committee and Community Forums

Transparent process keeping the community informed

Project Website & Email

Town Website: <http://www.townofbourne.com/school-building-committee>

Project Email: sbc@townofbourne.com

Completed Milestones

- January 09, 2012 - Bourne submits SOI to MSBA
- January 04, 2012 - MSBA invites Town into Eligibility Phase
- October 27, 2016 - Special Town Meeting Approves Feasibility Study Funding
- December 16, 2014 - MSBA Approves Student Enrollment
- February 11, 2015 - MSBA Executes Feasibility Agreement
- June 08, 2015 - Town retains Owner's Project Manager (OPM)
- September 22, 2015 - Town retains Architect
- October 17, 2015 - Community Forum No.1
- November 17, 2015 - Community Forum No.2
- December 08, 2015 - Community Forum No.3
- December 18, 2015 - PDP Submitted to the MSBA

Completed Milestones

- January 21, 2016 - Community Forum No.4
- March 03, 2016 - Community Forum No.5
- March 28, 2016 - Finance Committee Meeting
- March 31, 2016 - Community Forum No.6
- April 06, 2016 - School Committee Meeting
- May 05, 2016 - Community Forum No.7
- May 12, 2016 - School Committee Meeting Vote for Option 5A
- May 18. 2016 - Capital Outlay
- May 19. 2016 - Council on Aging
- June 02, 2016 - PSR Submitted to the MSBA
- July 20, 2016 - MSBA Board Approves Option 5A PSR

Completed Tasks

- Educational Program
- Visioning Program
- Space Summary Spreadsheets
- Building Evaluation
- Structural Evaluation
- MEP Evaluation
- Hazardous Materials Inspection
- Phase 1 Environmental Assessment
- Site Evaluation
- Traffic Evaluation
- Options Development
- Comparison Matrix
- Cost Analysis
- Options Evaluation
- Design Alternatives reduced from 7 to 4
- PDP Report Submitted to the MSBA
- Responded to MSBA Comments on PDP
- Refined 4 PSR Options
- Evaluated MSBA Reimbursement on the 4 Options
- MSBA approval of Option 5
- Design Alternatives reduced from 4 to 2
- SBC Vote for Option 5
- PSR Report Submitted to the MSBA
- Responded to MSBA Comments on PSR
- MSBA Board Approves Option 5A PSR

Defining the Need

Defining the NEED

- Provide a long term solution for the existing deteriorating school
- Provide educational spaces that meet the MSBA state standards
- Update the schools to meet the “Visioning” workshops goals
- Provide 21st Century Educational spaces
- Provide a place Bourne can be proud of

Defining the NEED - Existing Conditions

Peebles Elementary School

Year Built: 1953, 1959 *(62 yrs. old)*

Site Poor drainage, traffic, and HC accessibility

Exterior Cracks, leaks, and lack of insulation

Interior Worn out, broken, and needs replacement

MEP systems Antiquated, inefficient, & poor temperature control



Building Exterior

Systems to be addressed near future

- Brick veneer potentially breaking away from building
- Further settling of the addition
- Limited areas covered by sprinkler system
- Major ventilation concerns in the cafeteria, gymnasium and kitchen

District Wide Solution

District Wide Solution - Grade Span Schools

This option, based on grade spans, creates a district-wide PreK to grade 2 school, a new school that houses grades 3-5, and establishes a middle school consisting of grades 6-8. This is a dramatic shift from the current school configurations with potential benefits for all stakeholders of the Bourne Public Schools.

District Wide Solution - Grade Span Schools

Bournedale
Grades PK to 2

Early Elementary

Peebles
Grades 3 to 5

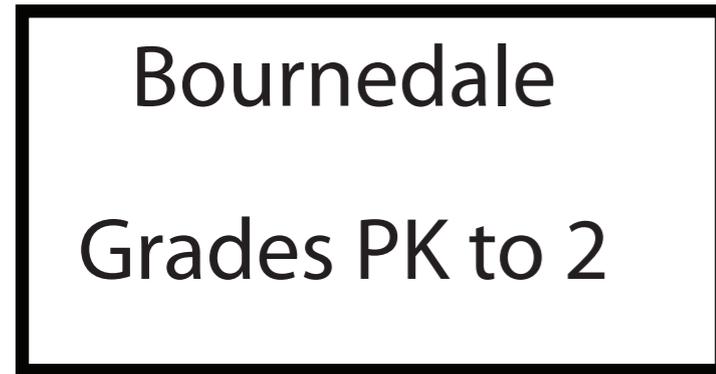
Intermediate Elementary

BMS
Grades 6 to 8

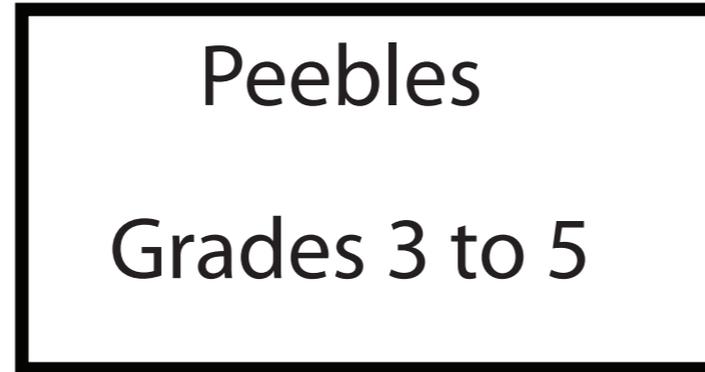
Middle School

- Shared Educational Experience
- Social Emotional Benefits
- Focus on Developmental Age
- More Streamline Curriculum

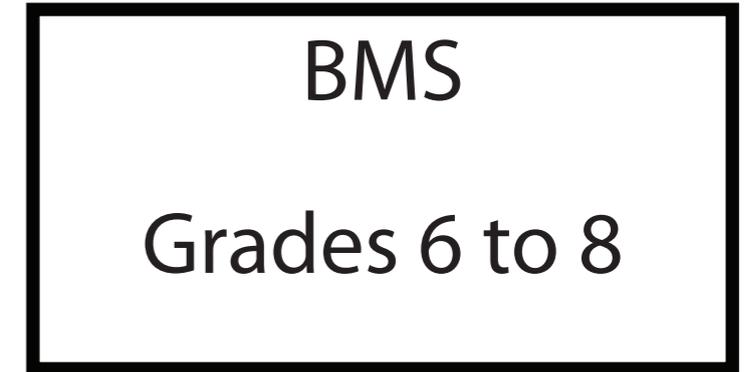
District Wide Solution - Grade Span Schools



Early Elementary



Intermediate Elementary



Middle School

- Improved Support Network and Programs
- Student Transitions
- Impact on Middle School
- Full day Kindergarten program at Bournedale

Educational Program - Grade Spans

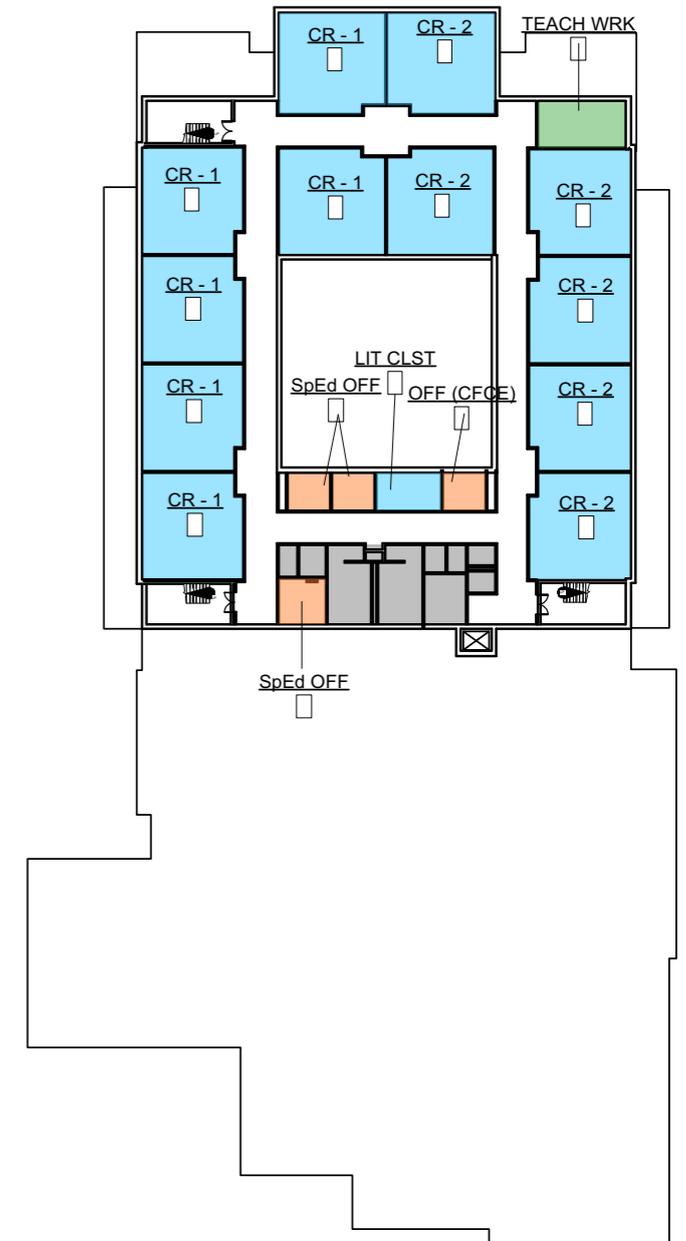
Bournedale
Grades PK to 2

Early Elementary

- Full day K provided
- Size Appropriate Spaces



FIRST FLOOR PLAN



SECOND FLOOR PLAN

Educational Program - Grade Spans



BMS
Grades 6 to 8

Middle School

Project Design

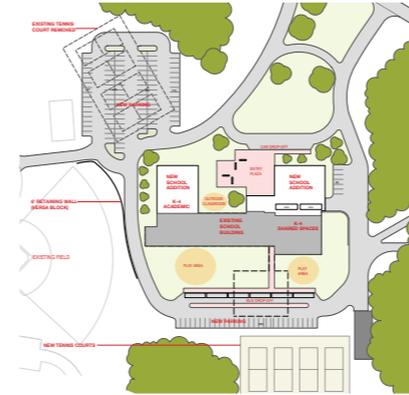
New Peebles (Grades 3 through 5)



OPTION 1A - NEW CONSTRUCTION Grades K-4

Total Student Enrollment: 250 students (K-4)
Total Square Footage: 57,248 sf

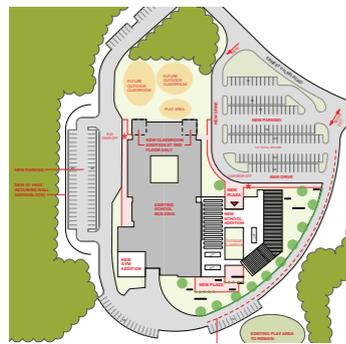
- New school building on the Peebles Elementary School
- Elementary schools remain on each side of the canal



OPTION 1G - ADD/RENO Grades K-4

Total Student Enrollment: 250 students (K-4)
Total Square Footage: 57,248 sf

- New Addition to the existing Peebles Elementary School
- Existing to remain will require extensive renovations
- Elementary schools remain on each side of the canal



OPTION 2A - ADDITION/RENOVATION Grades PK-4

Total Student Enrollment: 725 students (PK-4)
Total Square Footage: 114,593 sf

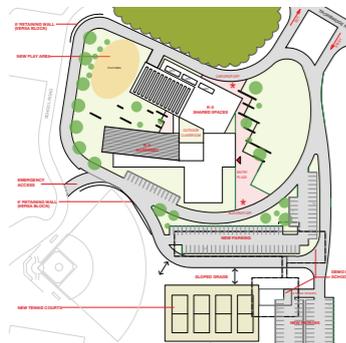
- One district-wide consolidated elementary school
- New school addition to the Bournedale Elementary School
- 5th grade remains in the middle school



OPTION 3A - ADDITION/RENOVATION Grades PK-5

Total Student Enrollment: 885 students (PK-5)
Total Square Footage: 131,380 sf

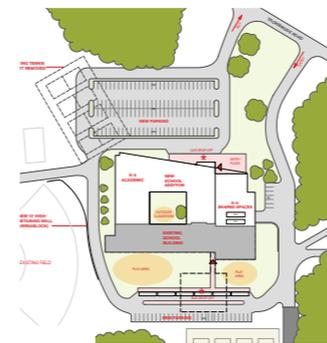
- One district-wide consolidated elementary school
- New school addition to the Bournedale Elementary School
- 5th grade in an elementary school setting



OPTION 4A - NEW CONSTRUCTION Grades K-5

Total Student Enrollment: 410 students (K-5)
Total Square Footage: 72,473 sf

- Elementary schools remain on each side of the canal
- New school building on the Peebles Elementary School site
- 5th grade in an elementary school setting



OPTION 4B - ADDITION/RENOVATION Grades K-5

Total Student Enrollment: 410 students (K-5)
Total Square Footage: 72,473 sf

- Elementary schools remain on each side of the canal
- New school addition to the existing Peebles Elementary School
- 5th grade in an elementary school setting



OPTION 5A - NEW CONSTRUCTION Grades 3-5

Total Student Enrollment: 460 students (3-5)
Total Square Footage: 72,680 sf

- Elementary schools remain on each side of the canal
- New school building on the Peebles Elementary School site
- 5th grade in an elementary school setting

This option provides district-wide PK-2 at Bournedale, 3-5 at Peebles and 6-8 at BMS.

Existing Bournedale
Grades PK to 2

Early Elementary

Peebles
Grades 3 to 5

Intermediate Elementary

Existing BMS
Grades 6 to 8

Middle School

New Peebles (Grades 3 through 5)

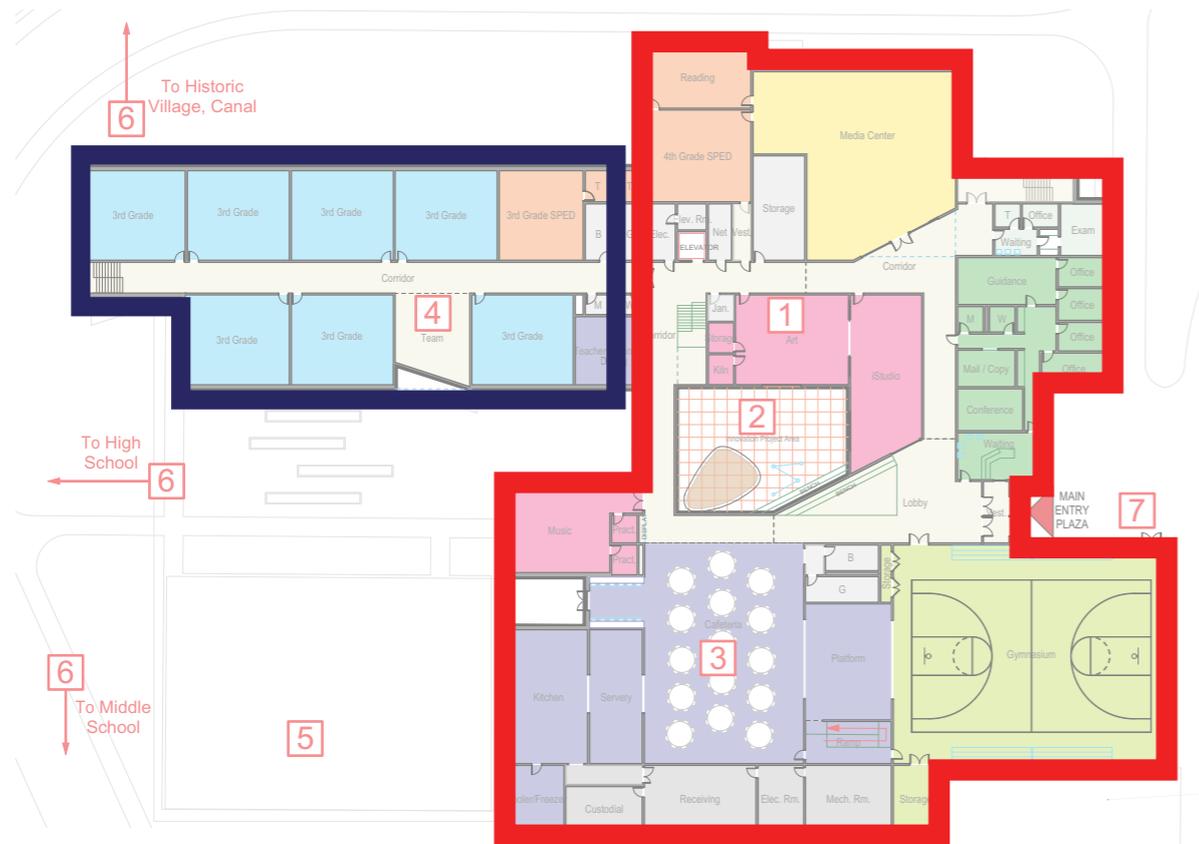


Site Benefits

- Simplifies phasing/construction
- Highly visible “front” entrance
- Academic Campus
- Clear circulation routes

New Peebles (Grades 3 through 5)

ACADEMIC



COMMUNITY

First Floor Plan

ACADEMIC



Second Floor Plan

Educational Benefits

- Proper zoning between community and academic use spaces
- Neighborhood clusters by grade to maintain grade level resources
- 21st century learning (adjacencies, flexible/adaptable spaces)

New Peebles (Grades 3 through 5)

Schematic Design

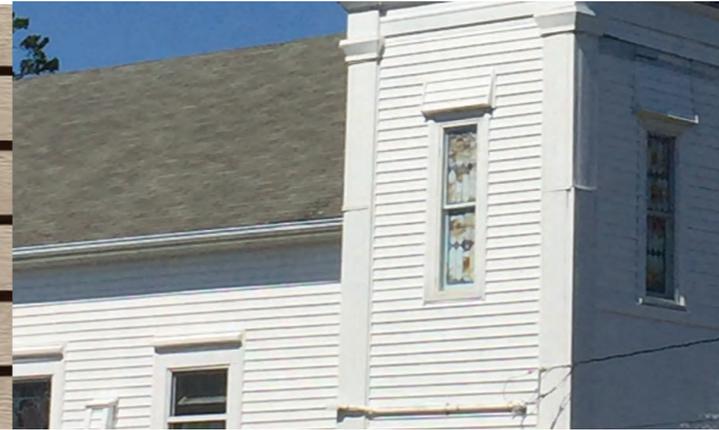
SECOND LEVEL PLAN



- KEY**
1. Arts & Innovation Studio:
 - Grouped with Arts, Music, Makers Space & Learning Commons to promote collaboration, shared resources
 2. Outdoor Classroom:
 - Limits distraction to academic classrooms
 - Project area with water and power
 3. Community:
 - Stage open to gym & cafe to support larger venue to support greater community events on south side of the canal
 4. Academic:
 - Neighborhood collab/display
 5. Play Area:
 - Adjacent to Gymnasium to limit distraction to academic classrooms
 6. Campus Resource:
 - Adjacent to Middle School and High School, Historic Village, Canal
 7. Entry Plaza connects separate car and bus zones

Exterior Materials

Town Precedents

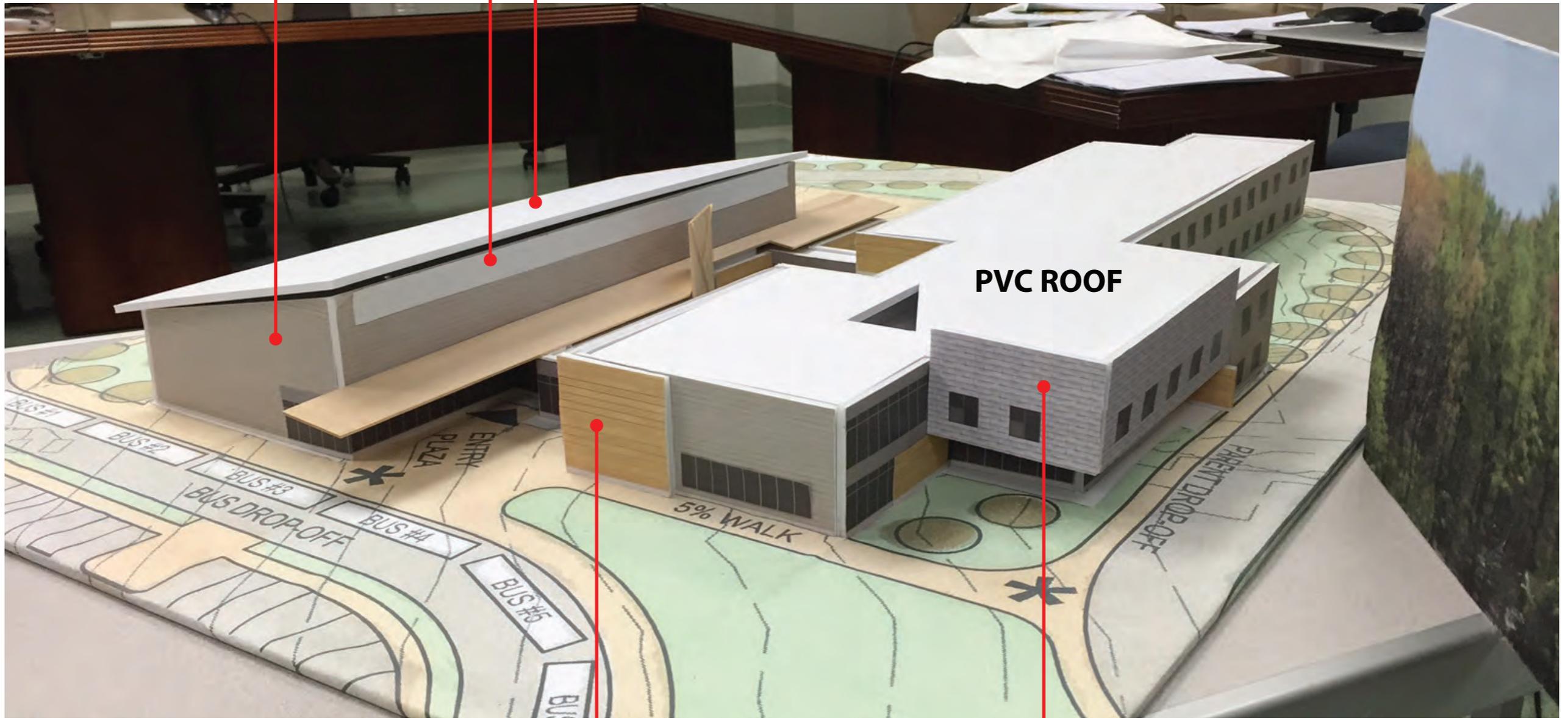


Exterior Materials

STANDING SEAM METAL ROOF

POLYCARBONATE WINDOW

BRICK

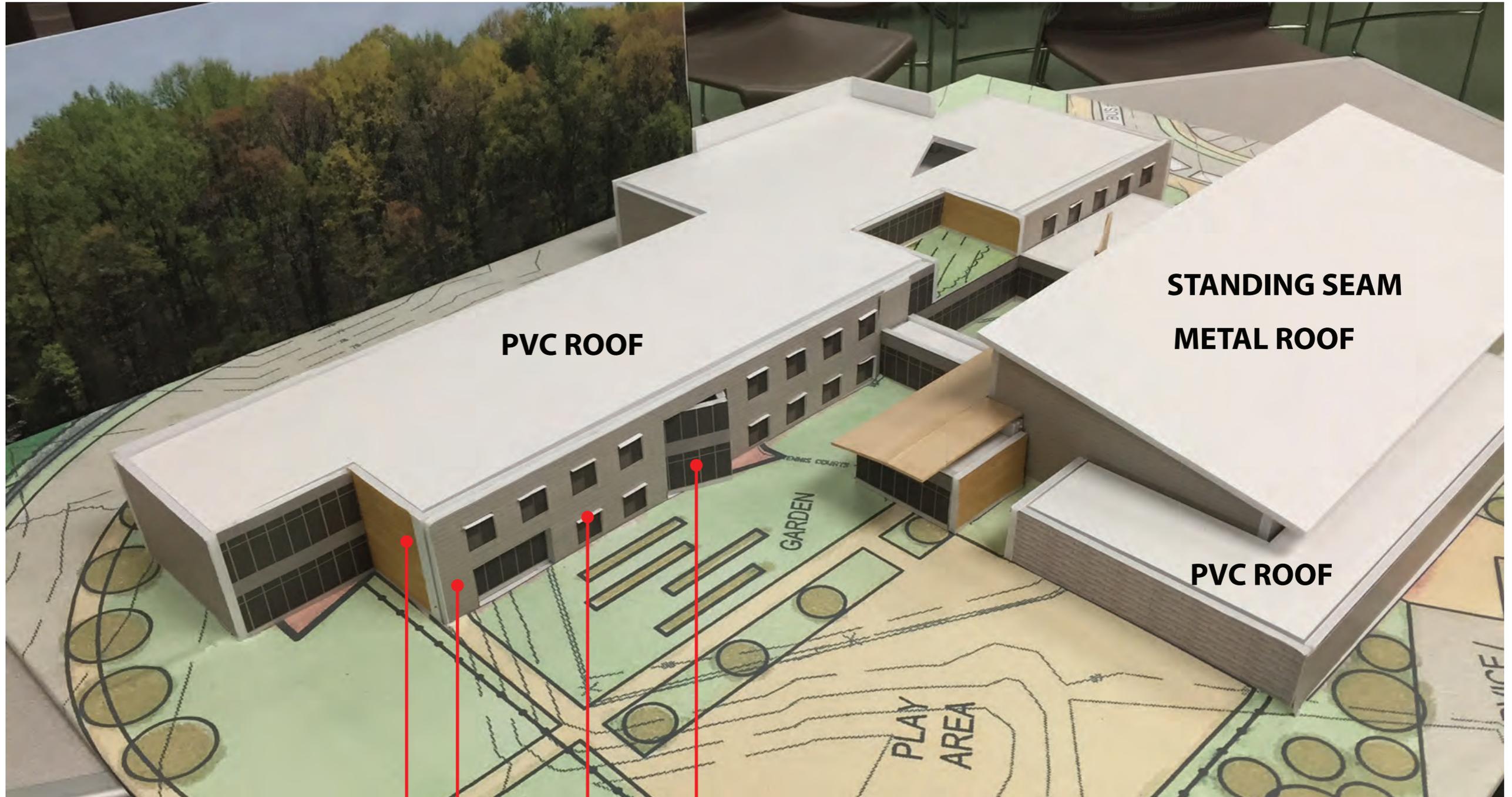


PVC ROOF

WOOD (EXTERIOR RESIN PANEL)

ZINC METAL SHINGLE

Exterior Material



PVC ROOF

STANDING SEAM
METAL ROOF

PVC ROOF

WOOD (EXT. RESIN PANEL)

BRICK

SUN SHADES AT WINDOW

GLASS WALL SYSTEM

TRANSPORTATION PLAN

Background

The Bourne Public Schools are contemplating the construction of a new Peebles Elementary School on property contiguous to the current school location. The School District plan is to house Grades 3 - 5 at the new Peebles Elementary School, and house Grades PreK - 2 at the current Bournedale Elementary School. Both elementary schools would become District-wide schools. The purpose of this study is to present bus route and bell time options to the School Committee for consideration in the event the new Peebles Elementary School is built. As a note, the Pre - K students will continue to be transported on the district vans.

prepared by:
The Flahive Consulting Group
August 11, 2016

School Bus Route Construction

School Bus Routes are constructed taking into account time, distance, and capacity.

In New England, the most common school bus configurations are 2-tier and 3-tier Routing Structures.

In a typical 3-tier Structure, the routes would look like this:

Tier I	High School
Tier II	Middle School
Tier III	Elementary Schools

Buses would complete two or three routes each in the morning and afternoon.

A 2-tier routing structures would typically look like this:

Tier I	HS / MS Combined
Tier II	Elementary Schools

As a general rule, a 2-tier system makes more sense in a district with a large geographic Footprint and a less dense population, where a 3-tier system works better in a smaller geographic and more densely populated district.

As many school districts are adapting district-wide elementary schools and later start times for high schools (based on learning studies), the assignment of schools to different route tiers are being adapted to meet these needs.

prepared by:
The Flahive Consulting Group
August 11, 2016

Building Grade Assignments Ridership Changes

	Current Assigned	Current Grades	Proposed Assigned	Proposed Grades
High School	239	9 - 12	239	9 - 12
Middle School	700	5 - 8	532	6 - 8
Peebles Elementary	325	K - 4	460	3 - 5
* Bournedale Elementary	346	PreK - 4	420	PreK - 2
Total Ridership	1,610		1,651	

* 41 Full-day Kindergarten Students added.
Proposed enrollment figure are estimates only.
Slight fluctuations will not effect number of buses required for schools.

prepared by:
The Flahive Consulting Group
August 11, 2016

Current Bus Route Structure

	Tier	Bell Time	Assigned Ridership	# of buses (full size)
High School	Tier I	7:15 - 1:42 (6 hrs., 27 min.)	239	10
Middle School	Tier II	8:00 - 2:22 (6 hrs., 22 min.)	700	18
Peebles Elementary School	Tier III	9:00 - 3:00 (6 hr.)	325	8
Bournedale Elementary School	Tier III	9:00 - 3:00 (6 hr.)	346	7
Total Ridership			1,610	

prepared by:
The Flahive Consulting Group
August 11, 2016

Proposed Bus Route Structure

Option #1

	School(s)	Grades	Bell Times	Assigned Riders	# of buses
Tier I	(Combined) Middle School & High School	6 - 8 9 - 12	7:15 - 1:42 7:20 - 1:47	532 <u>239</u> 771	20
Tier II	Peebles Elementary	3 - 5	8:05 - 2:25	460	17
Tier III	Bournedale Elementary	PreK - 2	9:15 - 3:15	420	16

prepared by:
The Flahive Consulting Group
August 11, 2016

Proposed Bus Route Structure

Option #2

	School(s)	Grades	Bell Times	Assigned Riders	# of buses
Tier I	High School & Middle School (combine)	9 - 12 6 - 8	7:40 - 2:07 7:45 - 2:12	239 <u>532</u> 771	20
Tier II	Peebles & Bournedale	3 - 5 PreK - 2	9:00 - 3:00	460 <u>420</u> 880	22

* PreK students are transported on District vans

prepared by:
The Flahive Consulting Group
August 11, 2016

Proposed Bus Route Structure

Option #3

	School(s)	Grades	Bell Times	Assigned Riders	# of buses
Tier I	High School	9 - 12	7:15 - 1:42	239	10
Tier II	Middle School	6 - 8	8:00 - 2:20	532	16
Tier III	Peebles & Bournedale Elementary	3 - 5 PreK - 2	9:15 - 3:15	460 <u>420</u> 880	22

prepared by:
The Flahive Consulting Group
August 11, 2016

Consultant Comments & Recommendations

- Current Full-size bus fleet provided by contractor has 22 buses (route buses + spare/trip buses) of which 17 - 71 passenger and 5 -77 passenger (Flat nose). In the new contract, I would recommend looking into a larger percentage of 77 passenger vehicles to provide additional capacity. (e.g. 10 additional 77 passenger buses = 40 additional seats)
- Over time, bus routes can become stale and less efficient due to student address changes. I would recommend taking a “fresh look” at all of the routes and bus stops to try to pinpoint any opportunities for efficiency and reduced route times.
- In comparing the three route structure option costs:
 1. Option I = 1 to 2 additional buses @ \$55,000 to \$110,000
 2. Option II = 4 additional buses @ \$220,000
 3. Option III = 4 additional buses @ \$220,000

Option I - Combines the HS / MS onto Tier I, which is a combination used in many school districts throughout the United States. This option will require 2 additional buses.

Option II - This option utilizes a 2 - tier structure with the HS/MS combined and Peebles/Bournedale combined. This option allows the HS starting time to be delayed by 30 minutes, the MS starting time moved forward 10 minutes, and the elementary bell times to be kept the same. This option will require 4 additional route buses.

Option III - This option requires the Peebles and Bournedale schools to be combined, and leaves the HS and MS on their current schedules. This option will require 4 additional buses.

Peebles and Bournedale Elementary routes will average 15 minutes longer due to longer travel distances. All options take into account a larger percentage of 77 passenger vehicles.

prepared by:
The Flahive Consulting Group
August 11, 2016

Travel Analysis - trip duration impact

GRADES	Cape Side residents	Off Cape residents
PK (at Bournedale)	no change	no change
K (at Bournedale)	no change	no change
1 (at Bournedale)	*Add 15 minutes	no change
2 (at Bournedale)	*Add 15 minutes	no change
3 (at Peebles)	no change	*Add 15 minutes
4 (at Peebles)	no change	*Add 15 minutes
5 (at Peebles)	no change	no change

* Approximate additional travel time to current bus trip duration

DESIGN & CONSTRUCTION SCHEDULE

Design & Construction Schedule

- December 7, 2016 - Commence Detailed Design
- October 2017 - Commence Bidding
- November 2017 - Commence Construction
- August 2019 - Open New Peebles School
- November 2019 - Complete Demolition and Sitework

PROJECT REIMBURSEMENT

Project Costs

		Peebles (3-5) Peebles Elementary 460 students
		New Construction
Gross SF		72,680 SF
Construction Cost \$ (Hard Cost)	Building	\$25.24M
	Hazmat/Demo	\$1.62M
	Sitework	\$4.1M
	Total	\$30.96M
Soft Cost \$	Fees & Expenses	\$5.49M
	FF&E	\$1.38M
	Contingencies	\$2.17M
* TOTAL		\$39.99M
Cost per SF		\$550

* Estimated Cost subject to change as project is refined and appropriation vote date is established

MSBA Reimbursement Process

- MSBA is the state authority that administers and funds a program for grants for Massachusetts school projects.
- MSBA mandates a multi-step rigorous study and approval process.
- MSBA will reimburse all Eligible Costs.
 - Examples of Ineligible Costs are:
 - › Site Costs Over 8%,
 - › Building Costs Over \$312/sf,
 - › Asbestos Flooring Abatement,
 - › FFE/Technology Costs Over \$2,400/Student,
 - › Legal Fees, Moving Expenses, Construction Contingencies over 1% for new construction or 2% for renovations.

Estimated Project Reimbursement Rate for Eligible Costs

	Option 5A
Base Reimbursement Rate	43.84
Maintenance	1.00
CM @ Risk	0.00
Renovation	0.00
Green Schools	2.00
* Total Reimbursement Rate	46.84

* Reimbursement rates subject to change based on MSBA Review

Estimated Project Costs and MSBA Reimbursement

	Option 5A
Project Cost	\$39.99M
Approximate MSBA Grant	\$14.22M
Approximate Cost to Bourne	\$25.77M

* Costs subject to change as project is refined

Next Steps

Next Steps

The School Building Committee meetings are every two weeks. Meeting agendas and dates are posted on the District's website.

- **August 11, 2016 - Community Forum No. 8 at Bournedale Elementary School Cafeteria**
- **August 23, 2016 - Selectmen Meeting Presentation**
- **September 20, 2016 - Community Forum No. 9 at Peebles Elementary School Cafeteria**
- **September 2016 - Finance Committee Presentation**
- **September 29, 2016 - Submit Schematic Design documents to MSBA**
- **October 17, 2016 - Special Town Meeting**
- **November 09, 2016 - MSBA Board Meeting to approve project to bring to voters**
- **December 06, 2016 - Special Election Ballot Vote**

Bourne Elementary Schools School Project Information

Go to:

Town Website: <http://www.townofbourne.com/school-building-committee>

Project Email: sbc@townofbourne.com



Peebles Elementary School | Bourne, MA



Flansburgh Architects

Questions?