

# OPTIMIZING K-12 DESIGN & CONSTRUCTION

Prototype Classroom Buildings - We are looking for a prototype design that is both expandable in the number of classrooms and the number of stories. The design should include the options for a 6 classroom building, an 8 classroom building, a 10 classroom building, and a 12 classroom building. The designs should include all of the required spaces and square footages as outlined in the attached pages.

12 Classroom Prototype - New Construction

FISH CODE	NO. OF AREAS	DESCRIPTION OF AREAS	NO. OF STAFF PER AREA	NO. OF STUDENTS PER AREA	NO. OF STUDENTS TOTAL	NET SQ. FT. PER UNIT	NET SQ. FT. TOTAL
<b>NEW CONSTRUCTION:</b>							
002	12	Intermediate (4-6) Classrooms	1	22	264	800	9,600
301	2	Zenith Closet				80	160
303	2	Communications Closet				80	160
703	1	Electrical Room				150	150
815	2	Student Restrooms - Male (from Student separation)				210	420
816	2	Student Restrooms - Female (from Student separation)				210	420
821	2	Staff Restrooms - Unisex				80	160
921	2	Elevators				80	160
927	1	Elevator Equipment Room				45	45
Total Teacher Stations			12				
						SUBTOTAL NET SQ. FT.	11,080
						8% FOR MECHANICAL	886
						TOTAL NET SQ. FT.	11,966
						27% FOR GRADES PRE-SCHOOL THROUGH GRADE SIX	3,172
						30% FOR MIDDLE SCHOOL	—
						34% FOR HIGH SCHOOL	—
						TOTAL GROSS SQ. FT.	14,833



Doug Pollei - Director, Facilities Construction, Pinellas County Schools  
 Rick Bevilacqua - Manager, Facilities Construction, Pinellas County Schools  
 Bill Byrne - President, Ajax Building Corporation  
 Stephen L. Johnson, AIA ALEP - Principal, Harvard Jolly Architecture



*Open discussion with Educational Facilities Departments, Architects and Construction Managers of project challenges*

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VII. PROGRAM FACILITIES LIST						
FISH CODE	NO. OF AREAS	DESCRIPTION OF AREAS	NO. OF STAFF PER AREA	NO. OF STUDENTS PER AREA	NO. OF STUDENTS TOTAL	NET SQ. FT. PER UNIT
<b>NEW CONSTRUCTION:</b>						
000	12	Intermediate (4-6) Classrooms	1	30	364	850
301	2	Media Closet				80
302	2	Communications Closet				80
703	1	Electrical Room				180
815	2	Student Restrooms - Male (from Student Restrooms - Female from student allocation)				210
816	2	Student Restrooms - Female (from student allocation)				210
821	2	Staff Restroom - Unisex				80
827	2	Plumbing				45
827	1	Elevator Equipment Room				25
Total Teacher Stations			12			
						SUBTOTAL NET SQ. FT. 11,085
						8% FOR MECHANICAL 887
						TOTAL NET SQ. FT. 11,972
						27% FOR GRADES PRE-SCHOOL THROUGH GRADE SIX 3,173
						52% FOR MIDDLE SCHOOL 6,196
						TOTAL GROSS SQ. FT. 14,833



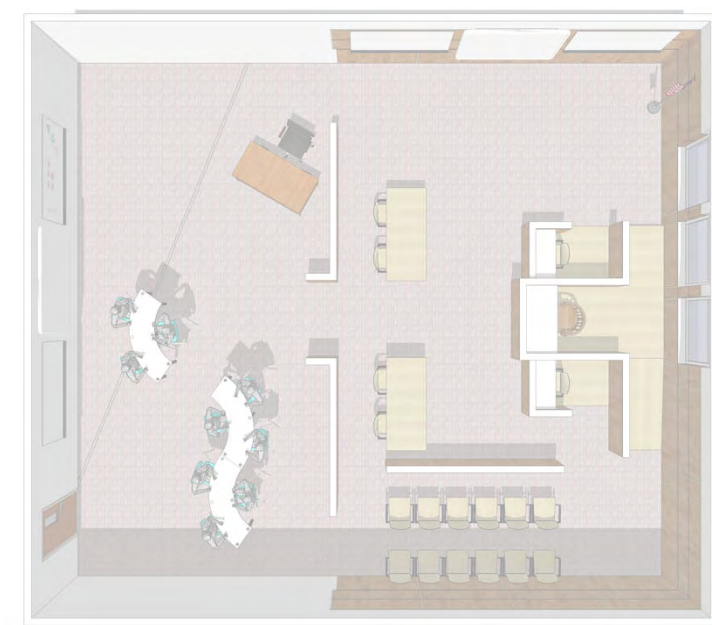
PROJECT PLANNING  
DESIGN PHASE  
ESTABLISHING PROJECT TIMELINES  
CONSTRUCTION PROJECT STAFFING

# PROJECT PLANNING



The commencement of a project can be from:

- Long Range Planning
- Emergency
- Political





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Validate the project's scope of work, budget, and timelines

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12 Classroom Prototype - New Construction

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<b>NEW CONSTRUCTION:</b>							
032	12	Intermediate (4-5) Classrooms	1	22	264	900	9,600
331	2	Janitor Closet				60	120
383	2	Communications Closet				60	120
703	1	Electrical Room				160	160
816	2	Student Restrooms - Male (from student allocation)				210	420
818	2	Student Restrooms - Female (from student allocation)				210	420
821	2	Staff Restroom - Unisex				65	130
827	2	Elevator				45	90
827	1	Elevator Equipment Room				45	45
		Total Teacher Stations	12				
SUBTOTAL NET SQ. FT.							11,085
6% FOR MECHANICAL							665
TOTAL NET SQ. FT.							11,750
27% FOR GRADES PRE-SCHOOL THROUGH GRADE SIX							3,173
32% FOR MIDDLE SCHOOL							---
34% FOR HIGH SCHOOL							---
TOTAL GROSS SQ. FT.							14,923
CIRCULATION WALLS, ETC.							---



REALISTIC BUDGET



NO SCOPE CREEP

**PROJECT PLANNING**

DESIGN PHASE

ESTABLISHING PROJECT TIMELINES

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HARVARD • JOLLY  
ARCHITECTURE



1. Validate the project's scope of work, budget, and timelines.

Once the scope of work is defined and budget established, it is imperative that the team does not allow scope to creep

## PROJECT PLANNING

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1. Validate the project's scope of work, budget, and timelines.
2. Once a scope of work is defined and a budget is established, it is imperative that you do not allow scope to creep.

New and remodel projects require a facilities list and educational specifications. Budget cannot exceed the maximum cost per student station

## PROJECT PLANNING

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RFQ should include the scope of work, budget,  
Facilities List and time lines for the project

## PROJECT PLANNING

### DESIGN PHASE

#### ESTABLISHING PROJECT TIMELINES

#### CONSTRUCTION PROJECT STAFFING



1. Validate the project's scope of work, budget, and timelines.
2. Once a scope of work is defined and a budget is established, it is imperative that you do not allow scope to creep.
3. New and remodel projects require a facilities list and educational specifications. Budget cannot exceed the maximum cost per student station.
4. RFQ should include the scope of work, budget, Facilities List and time lines for the project.

*These 4 items can help optimize project planning & will provide the A/E essential information to commence & complete the design*



Require the schedule of values have clear cost delineation to maximize exclusions from the unit cost per student station as defined in approved **Senate Bill 7070**.

Currently the cost per student station for **Elementary Schools is \$23,104, Middle Schools \$24,950, and High Schools \$32,408**. SB-7070 has mandated the index for the cost per student station be changed from using the Consumer Price Index to a construction index. DOE, working with Economic and Demographic Research, has until January 1, 2020 to select an inflation index to use for calculating the maximum cost per student station.

SB-7070 allows exclusions from the formula which help reduce the overall cost per student station. These items need to be clearly delineated in the schedule of values:

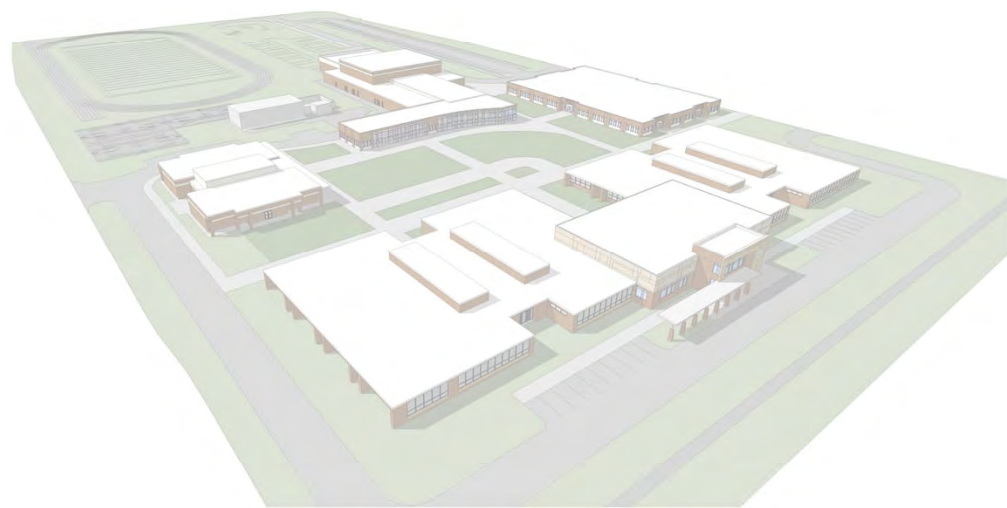
- **Legal and administrative cost**
- **Site work**
- **Security items: secured entries, check points, lighting specifically for security cameras**
- **Locks, electronic security systems, security fencing, and bullet-proof glass**



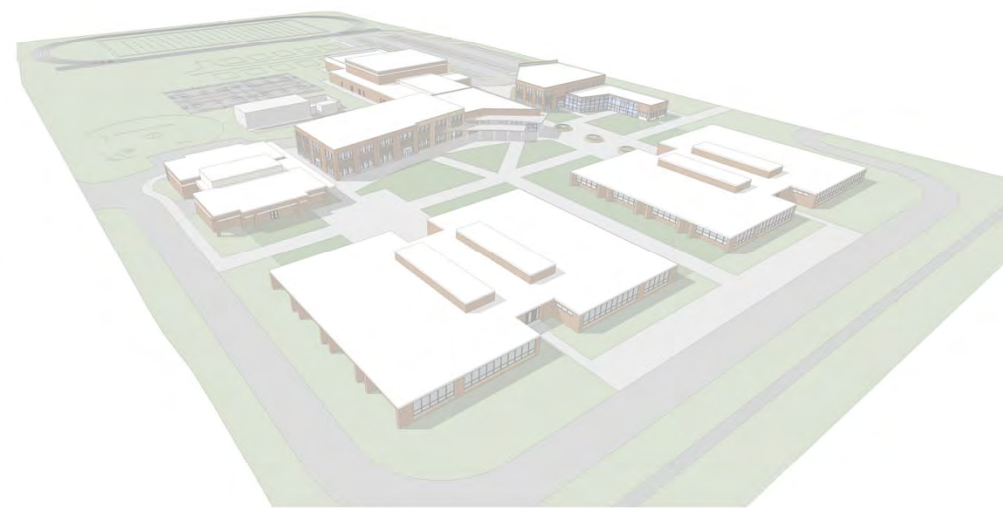
# DESIGN PHASE



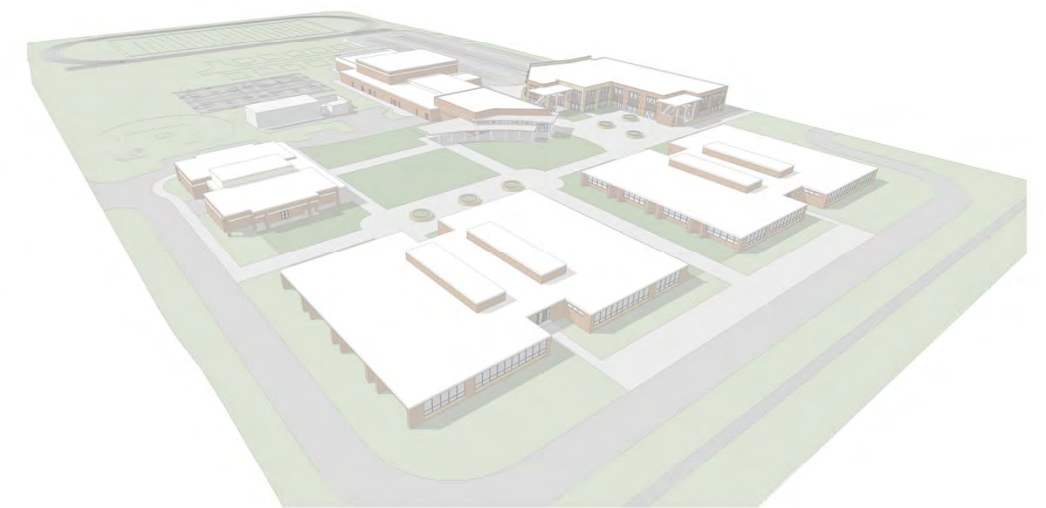
Design professionals validate the budget during programming and concept development phase



CONCEPT #1



CONCEPT #2



CONCEPT #3

PROJECT PLANNING

**DESIGN PHASE**

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1. Design professionals validate the budget during programming and concept development phase.

Identify any extraordinary site costs and understand what is left over for the vertical design and construction of the project



PROJECT PLANNING

**DESIGN PHASE**

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Renovation or remodeling projects require confirmation of existing conditions

PROJECT PLANNING

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Occupied campus projects will likely include phased documents and a construction activity approach that is agreed upon by the entire team

PROJECT PLANNING

**DESIGN PHASE**

ESTABLISHING PROJECT TIMELINES

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4. Occupied campus projects will likely include phased documents and a construction activity approach that is agreed upon by the entire team.

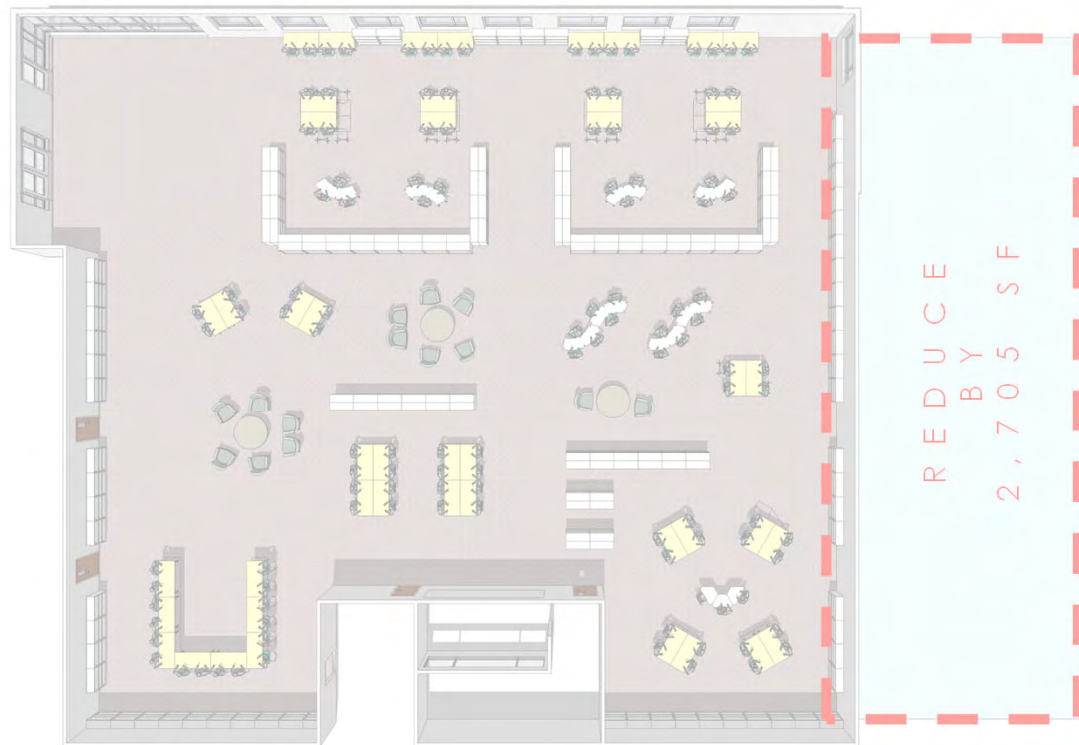
*These 4 items can help optimize the Design of a project*



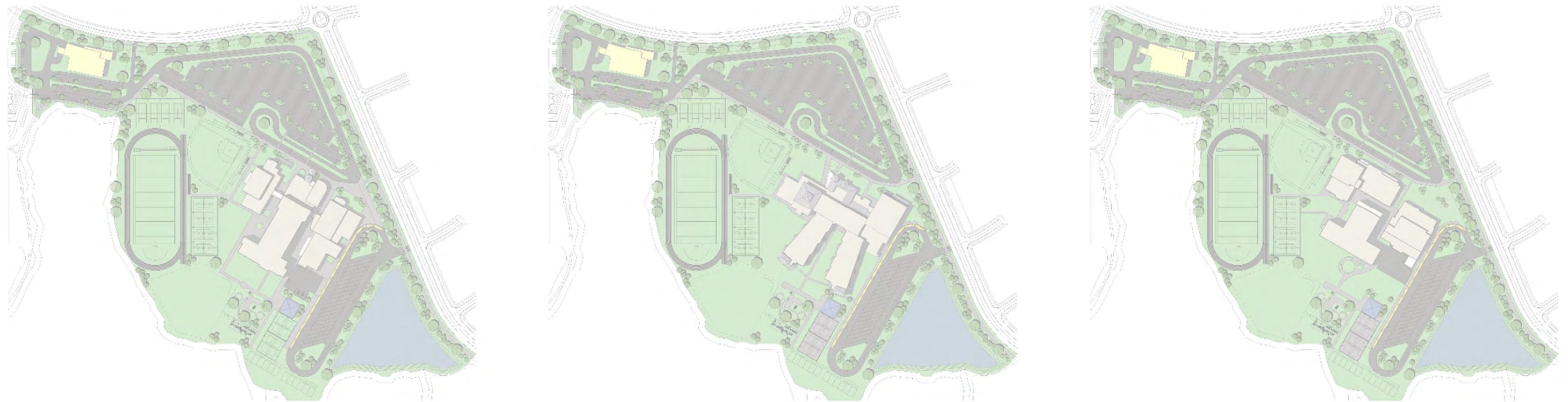
# ESTABLISHING PROJECT TIMELINES



Assess educational/campus needs for the completion of the project



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*Renovation and remodel projects allow time for forensic inspections to reduce or eliminate unforeseen conditions during construction*



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*Allow adequate time to design a project; a more detailed design reduces costly changes during construction*



1. Assess educational/campus needs for the completion of the project.
2. Renovation and remodel projects allow time for forensic inspections to reduce or eliminate unforeseen conditions during construction.
3. Allow adequate time to design a project; a more detailed design reduces costly changes during construction.

*Allow time for the drawing review, clash detection & Redi-Check at each phase. Allow ample owner review time, especially with major systems involved in the project*

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*Establish construction time and challenges for construction. (Occupied campus, means of egress, environmental permitting, and school testing)*

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(Occupied campus, means of egress, environmental permitting, and school testing).

*Allocate time for design estimates and reconciliation to confirm that preliminary designs are on budget*



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5. Establish the construction time and challenges for construction. (Occupied campus, means of egress, environmental permitting, and school testing).
6. Allocate time for design estimates and reconciliation to confirm that preliminary designs are on budget.

*These 6 items can help optimize project timelines for a successful substantial completion of a project*

# CONSTRUCTION PROJECT STAFFING

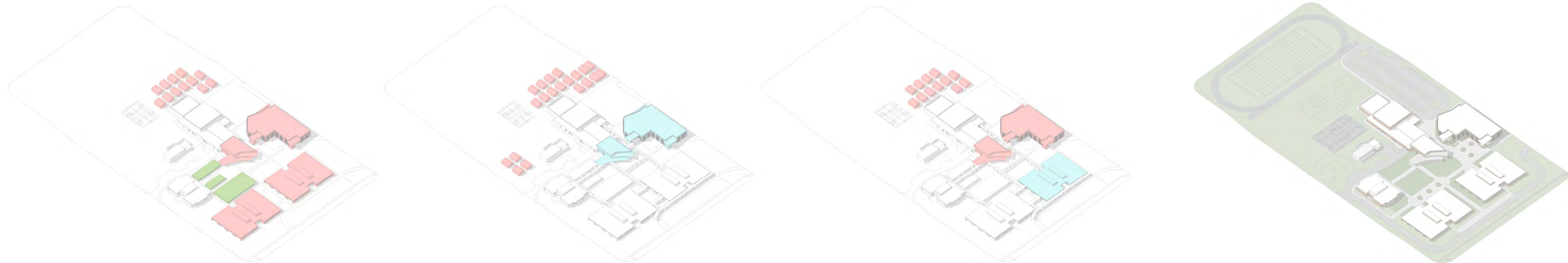


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*Alternate supervision for working off hours*

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*Condensed schedules require additional supervision, especially with current state of trade deficiencies*



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*Consider staff and subcontractor movement and buildings under construction on campus*

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2. Alternate supervision for working off hours.
3. Condensed schedules require additional supervision, especially with current state of trade deficiencies.
4. Consider staff and subcontractor movement and buildings under construction on campus.

*These 4 items can help optimize project staffing to ensure quality control and contract compliance*

THANK YOU!



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