



# Planning Your Construction and Modernization Program

Laura Knauss, AIA, LEED AP, ALEP  
Principal, Education Practice Leader, Lionakis

Kathleen Moore  
Kathleen Moore and Associates

Mary Morris, AIA, LEED BD+C, ALEP  
Associate Principal, Lionakis

A goal without a plan  
is just a wish!

-Antoine de Saint-Exupery





The image shows a library setting. In the background, there are tall, dark wooden bookshelves filled with books. In the foreground, there are several large, neat stacks of books on a surface, possibly a table or a lower shelf. The lighting is warm and slightly dim, creating a quiet, scholarly atmosphere. A semi-transparent blue banner is overlaid across the middle of the image, containing white text.

How many look like this?  
Gathering dust...unused?





Facilities  
Master  
Plan

Bond  
Implementation  
Plan

Safety and  
Emergency  
Ops Plan

Capital  
Improvement  
Plan

Educational  
Specifications

District  
Strategic  
Plan

M&O  
Plan

Hazardous  
Materials  
Survey

Energy &  
Environmental  
Management  
Plan

ADA  
Transition  
Plan



Finding the balance...  
keeping it simple!



# Overview



- What do we have?
  - Facilities Inventory
  - Condition Assessment
  - Demographics/Capacity
- What do we want/need?
  - Educational Specifications
    - Parity/Equity
  - District Standards
  - Outreach
- What does that look like?
  - Vision
  - Test and Fit
  - Budget Modeling
- Implementation





A top-down view of several people sitting around a dark table, engaged in a meeting. Some are writing on papers, others are holding markers. The image is partially covered by a semi-transparent blue overlay.

Prepare to  
Plan

Research  
Conditions

Engage  
Stakeholders

Strategize to  
Find  
Consensus

Agree on a  
Plan

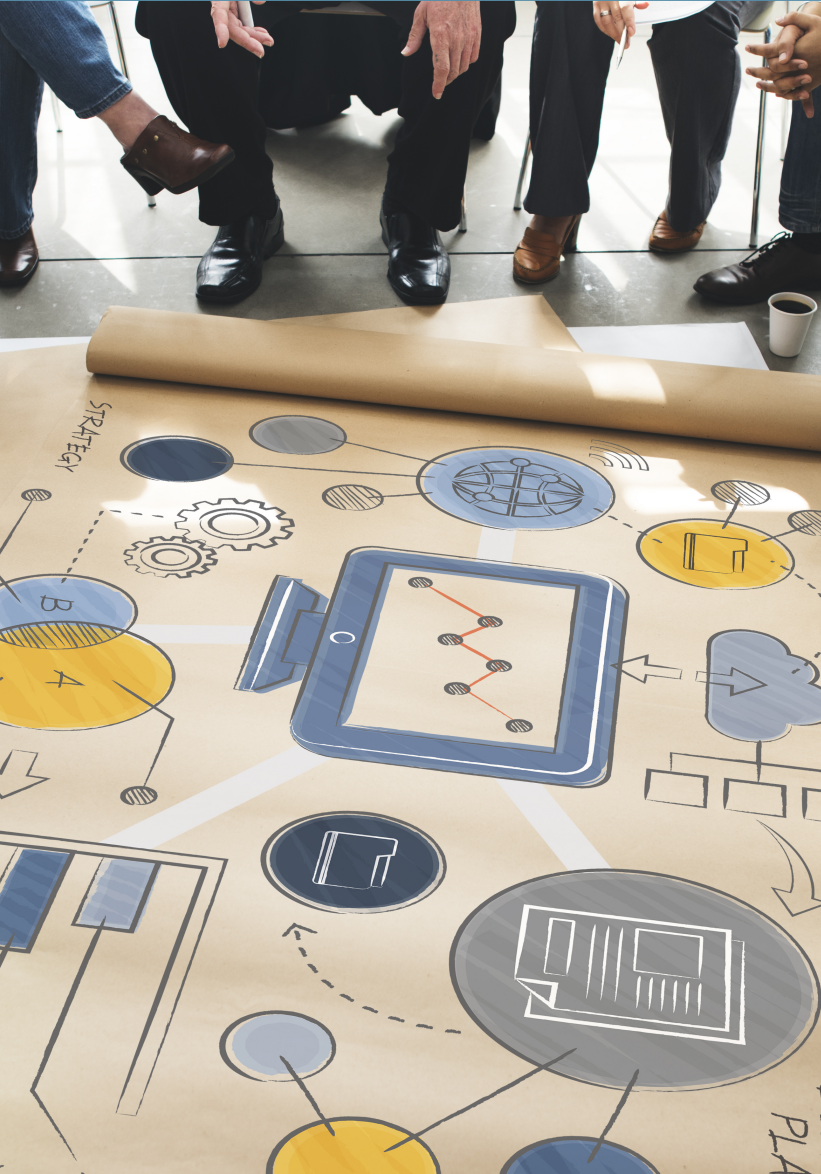


**NATIONAL COUNCIL**  
ON SCHOOL FACILITIES

States Advancing Effective K-12 Policy, Planning, and Practice



# Prepare to Plan



- What are the goals of the Plan?
  - Bond Focused?
  - Planning Interval?
- What is the level of detail you want?
  - And that you can manage?
- How much are you willing to spend (time and money) on planning?
- Do you have a solid educational vision guiding the process?
  - Or might this trigger some additional thought?





## USAGE LEGEND

- Gymnasium/Athletics
- Theater
- Cafeteria
- Library
- Admin/Student Services
- Media
- Classrooms
- Art
- Science Labs
- Music
- ROP/CTE
- Special Education
- County



LEVEL TWO

## Inventory

The assessment process begins with an understanding of the existing campus, including the current uses of existing spaces. The graphic above defines a fixed point in time and the assigned use of those spaces as classrooms, specialty labs and core support facilities.

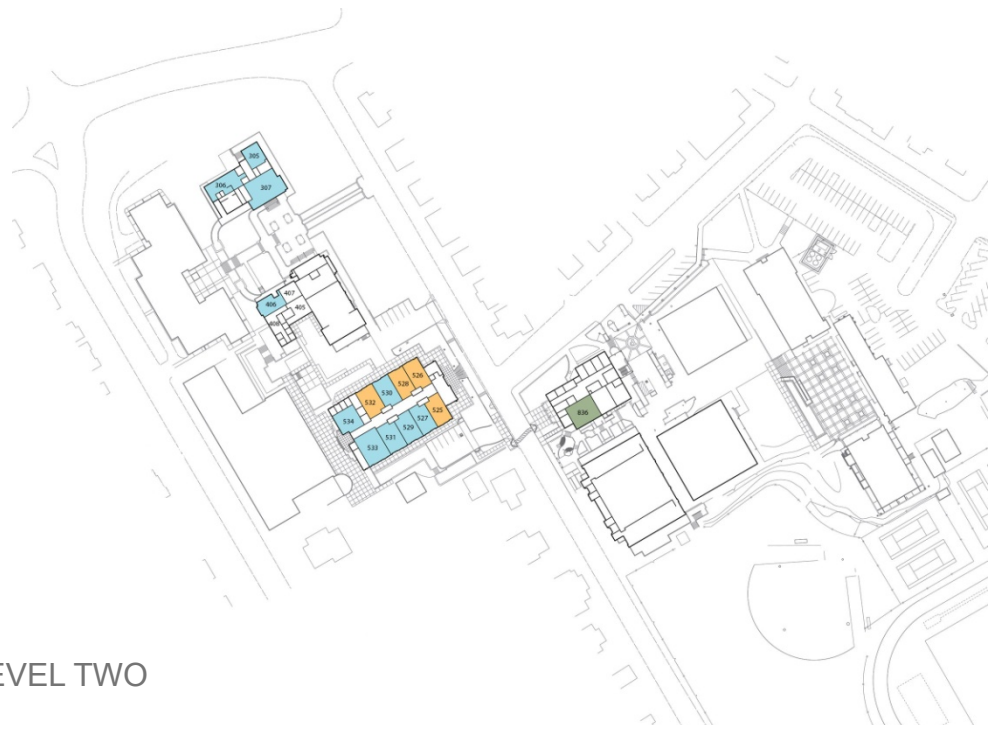
LEVEL ONE



GYM  
BASEMENT

## UTILIZATION LEGEND

- 4 blocks
- 3 blocks
- 2 blocks
- 1 blocks
- Unassigned



LEVEL TWO

## Utilization

Using the master schedule, the team evaluated the use of existing spaces. For example, spaces noted as “4 blocks” are those spaces that are utilized all periods of the schools day. On the other extreme, those labeled “Unassigned” are not utilized as classrooms at all. This diagram begins to determine the real need to address capacity at the site. Fully utilized spaces would be labeled “3 blocks” - supporting a full teaching load plus prep periods for the teacher within their assigned space.



LEVEL ONE



## UNDERSIZED CLASSROOMS

It was important to the committee to acknowledge the undersized classrooms at the site in order that they could be replaced or renovated. The classrooms highlighted fall below the 960 SF threshold established in Title 5 of the California Code of Regulations. In order to assess the final required classroom count for each site, undersized classrooms were excluded.





## ASSESSMENT LEGEND

- Minimal Renovation
- Moderate Renovation
- Significant Renovation
- Renovation = Replacement



LEVEL TWO

## CONDITION ASSESSMENT

Following a meeting with District facilities, maintenance and operations staff, the architecture and engineering team completed an assessment of the site. The results of that assessment can be found in the Appendix, but are summarized in this diagram, with facilities in green as those in good condition, and red as the other extreme, where replacement is warranted because renovation costs would exceed 50% of replacement costs. Information on site related utilities and accessibility issues, for example, can be found in the Appendix.

LEVEL ONE



GYM  
BASEMENT



# Engage Stakeholders

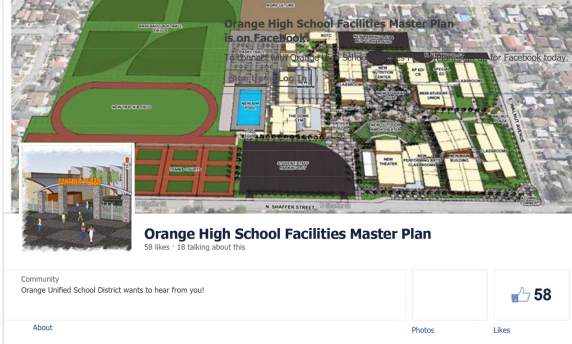
## What do we want/need?



- Level of engagement can impact timeline and budget for your master plan...plan for it!
  - Identify Stakeholders
- Inspire them, have fun and educate
  - Big Ideas
- But, manage expectations
- Taking your show on the road...



- Print Newsletters
- Social Media
- Town Hall/LCAP
- Awareness Tour



Community  
Orange Unified School District wants to hear from you!

About Photos Likes

Highlights

**Orange High School Facilities Master Plan**  
February 14

**Orange High School Facilities Master Plan**  
Welcome! We would appreciate your participation in the facilities master planning process for future educational facilities at Orange High School. Your role as a stakeholder in OHS will be to represent OHS. This will be an opportunity to provide meaningful input about the educational and operation...  
Community: 58 like this

Like · Comment · Share  
Michelle Cuyler, Sioux Kent, Annette Dela Torre Kim and 3 others like this.

**Orange High School Facilities Master Plan**  
February 13

We brought the paddles tonight! Be sure to pick one up when you come in.

**Orange High School Facilities Master Plan**  
February 12

Please join us as we share our vision for OHS with the Board of Trustees on Thursday, February 13th at 6pm in the OHS Cafeteria. Community members, students, faculty, alumni and other interested stakeholders are encouraged to attend! See you there!

Like · Comment · Share  
Kelly Walters likes this.

**Orange High School Facilities Master Plan** changed their cover photo.  
January 30

**Orange High School Facilities Master Plan**  
January 29

**Community Presentation 1-29-14** (74 photos)  
Thank you all so much for joining us last night at the OHS Master Plan Celebration! We hope to see you all at OHS on February 13th at 6pm for the

Recent Posts by Others

**Lionakis Newport Beach**  
For more updates about OHS facilities master plan, follo...  
January 28 at 4:06pm

**Lionakis Newport Beach**  
Check out Orange High School Facilities Master Plan to B...  
December 5, 2013 at 3:54pm

**Christina Lin**  
This is a great idea :)  
October 15, 2013 at 3:27pm

More Posts

Likes

**I Heart Old Towne Orange**  
Neighborhood

**Orange High School Facilities Master Plan**  
February 13

We are all set up for the board meeting. Hope to see you here soon! — at Orange High School.

Like · Comment · Share  
Cindy Krise, Mary Carmen Perales and 2 others like this.

**Orange High School Facilities Master Plan** shared a link.  
February 4

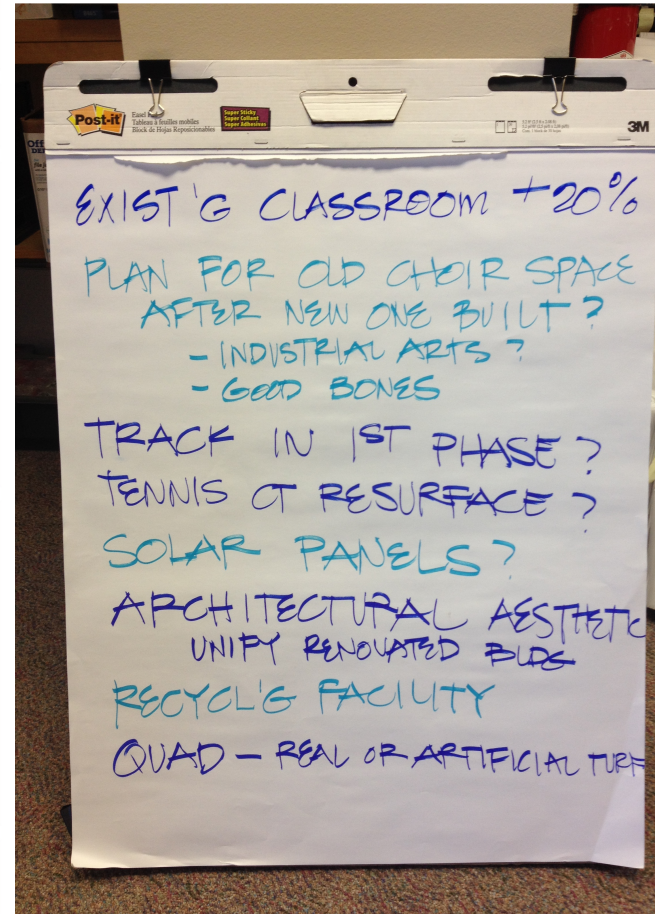
Do you "Like" this Walnut entry plaza for our school? See more at the next meeting, Thursday, February 13th, 6pm at OHS

**Twitter / OrangePanthers:** Favorite if you like this Walnut ...  
LCO

Instantly connect to what's most important to you. Follow your friends, experts, favorite celebrities, and breaking news.

Like · Comment · Share

**Orange High School Facilities Master Plan** shared a link.  
January 30







Don't forget the student voice

# Engage Stakeholders

## What do we want/need?



- The District is a stakeholder too!
- Your “Core Group”
  - Decision Making
  - Set Guiding Principles
  - Educational Specifications
  - Parity & Equity vs Equal
  - District Standards



## Card Unified School District - Proposed Revisions to District Standards

Section Title	Measure I District Standard	Lionakis Specification Number	Section Title	Current Lionakis Product Material/ Manufacturer	Comments / Proposed Modification to District Standard
DIVISION 01 - GENERAL REQUIREMENTS					
		01 74 19	Construction Waste Management and Disposal		Standards, sometimes includes contractor system scorecard. Includes contractor Rating System-specific protocols for construction IAQ management plans, HVAC protection, construction sequencing, building flush-out, and air
		01 81 13	Sustainable Design Requirements - CHPS		
		01 81 19	Indoor Air Quality Requirements		
DIVISION 02 - EXISTING CONDITIONS					
					Demolition - CWM requirements for CALGreen and CHPS/LEED
DIVISION 03 - CONCRETE					
03 05 00	Concrete Common Work results		03 11 00	Concrete Forming	
			03 20 00	Concrete Reinforcing	
			03 30 00	Cast-In-Place Concrete	Replace w/ Lionakis
			03 35 43.16	Polished Concrete Finishing	Acceptable Manufacturers - LM Scofield, Bomanite Co.
			03 35 19	Colored Concrete Finishing	Add 2nd manufacturer; verify with HUSD on colored concrete
03 35 43	Polished Concrete Finishing	LM Scofield (Chromix, Lithochrome, Colorcure)			
03 36 00	Integrally Colored Concrete				
03 52 16	Lightweight Insulating Concrete Block System				
DIVISION 04 - MASONRY					
04 05 00	Masonry Common Work Results		04 22 00	Concrete Unit Masonry	Basalite, Calstone, Angelus Block
04 20 00	Unit Masonry	No manuf. Listed	04 22 00.13	Concrete Unit Veneer Masonry	Basalite, Calstone, Angelus Block
DIVISION 05 - METALS					
05 05 00	Metals Common Work Results				All exposed metal - galvanized
					CHPS/LEED for recycled content
					CHPS/LEED for recycled content
					CHPS/LEED for recycled content
					CHPS/LEED for recycled content
05 50 00	Metal Fabrication				CHPS/LEED for recycled content

What's important to you?

What's important to you?

# Guiding Principles

Nice  
To Do

Core Facilities Upgrades  
Academic Specialty Spaces  
Athletics

---

Should Do

Educational Spaces  
Campus “Rightsizing”  
Portable Removal  
Site Infrastructure/Security

---

Must Do

Fire/Life Safety  
Structural Safety  
Access Compliance

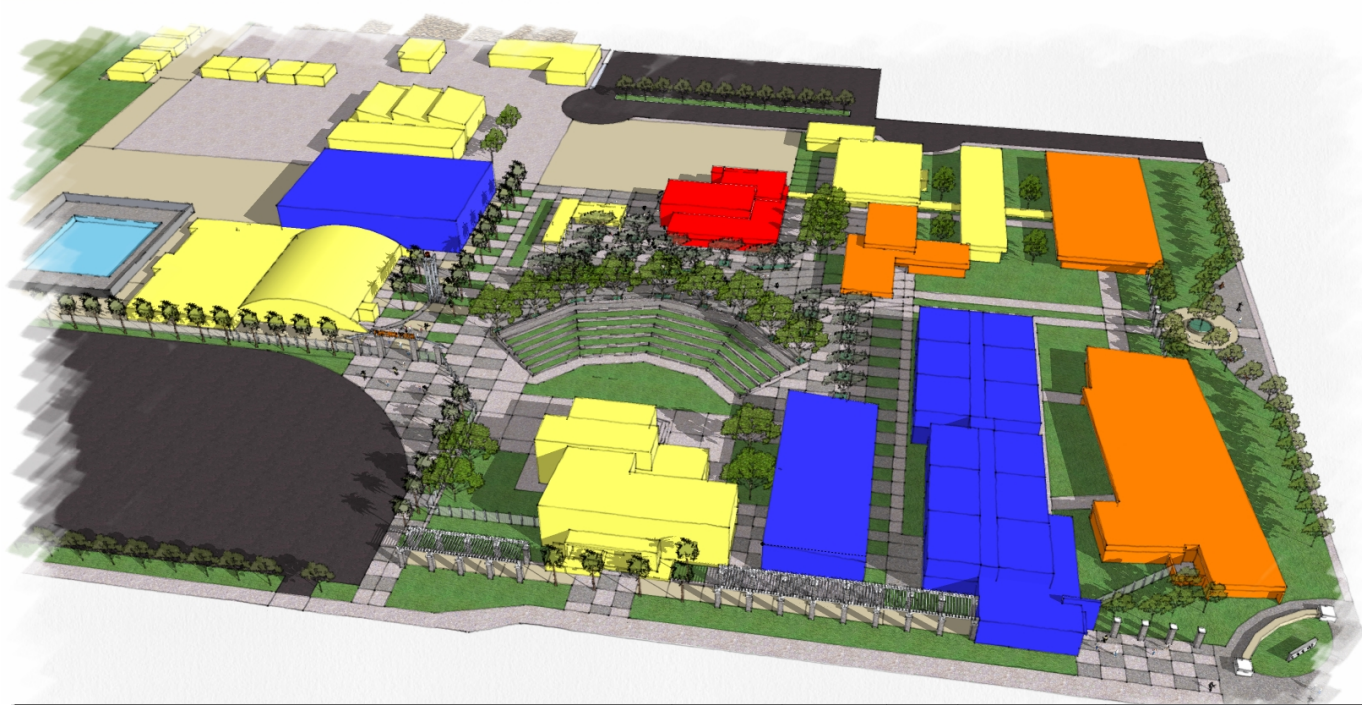


# Strategize to Reach Consensus

## What does that look like?



- Test and Fit Options
- Budgeting & Funding
- Prioritization



<b>Phase 1:</b>					
1. Relocate Bus Drop-off to Shaffer Street	51,200	23 \$/SF	\$ 1,177,600	\$ 1,683,968.00	
2. Demolish Portable Buildings, Snack Bar (8 Buildings)	8	8,000 \$/ea	\$ 64,000	\$ 91,520.00	
3. Utilities and Infrastructure		1 Allow	\$ 3,000,000	\$ 4,290,000.00	
4. Construct Building A: Science/Band/Choral					
Building	29,836	525 \$/SF	\$ 15,663,900	\$ 22,399,377.00	
Sitework (12% of New Construction)			\$ 1,879,668	\$ 2,687,925.24	
5. Panther Plaza				\$ -	
Victory Bell Tower		1 ea	\$ 150,000	\$ 214,500.00	
Plaza	15,000	35 \$/SF	\$ 525,000	\$ 750,750.00	
				\$ -	
<b>Sub Total - Phase 1</b>			<b>\$ 22,460,168</b>	<b>\$ 32,118,040.24</b>	
				\$ -	
<b>Phase 2:</b>					
1. Relocate Administration into Interim Location in Building 300		1 Allow	\$ 300,000	\$ 429,000.00	
2. Demolish 100/200 Classroom Wings including abatement	27,000	16 \$/SF	\$ 432,000	\$ 617,760.00	
3. Construct Building B: Administration and Classrooms					
Building	53,464	475 \$/SF	\$ 25,395,400	\$ 36,315,422.00	
Sitework (12% of New Construction)			\$ 3,047,448	\$ 4,357,850.64	
4. Develop Alumni Plaza/Entry Improvements	20,000	35 \$/SF	\$ 700,000	\$ 1,001,000.00	
5. Demolish Portables (15 Buildings)	15	8,000 \$/ea	\$ 120,000	\$ 171,600.00	
6. Develop Parking and improvements on Harwood Street	20,000	23 \$/SF	\$ 460,000	\$ 657,800.00	
7. Demolish Portables (9 Buildings)	9	8,000 \$/ea	\$ 72,000	\$ 102,960.00	
<b>Sub Total - Phase 2</b>			<b>\$ 30,454,848.00</b>	<b>\$ 43,653,392.64</b>	
<b>Total</b>			<b>\$ 52,915,016.00</b>	<b>\$ 75,771,432.88</b>	
<b>Alternate - Recommended</b>					
1. Reduce Building B					
Remove 6 Classrooms Above Administration	9,000	475 \$/SF	\$ 4,275,000	\$ 6,113,250.00	
Sitework (12% of New Construction)			\$ 513,000	\$ 733,590.00	
<b>Total - Recommended</b>			<b>\$ 48,127,016.00</b>	<b>\$ 68,821,632.88</b>	



# Priorities and Preferences



# Agree On A Plan



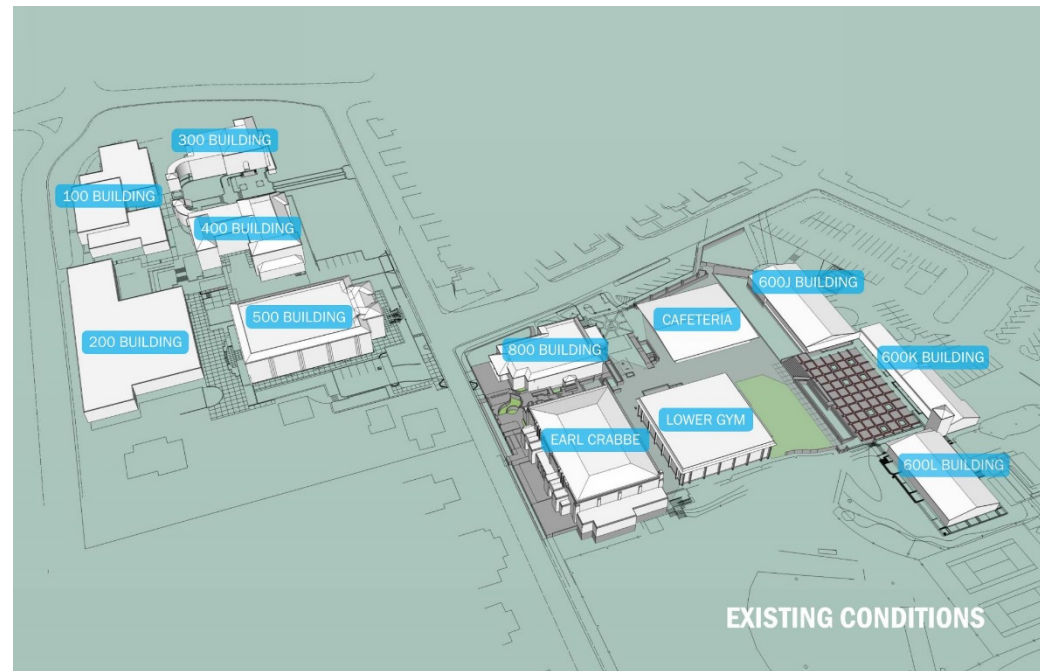
# Implementation Focus

- How far ahead can you realistically look?
- Is there a Pivot Point?
- Implementation Strategies
  - Realistic?
  - Polling impact?
- Make it dynamic...things change
- Board Adoption



# E

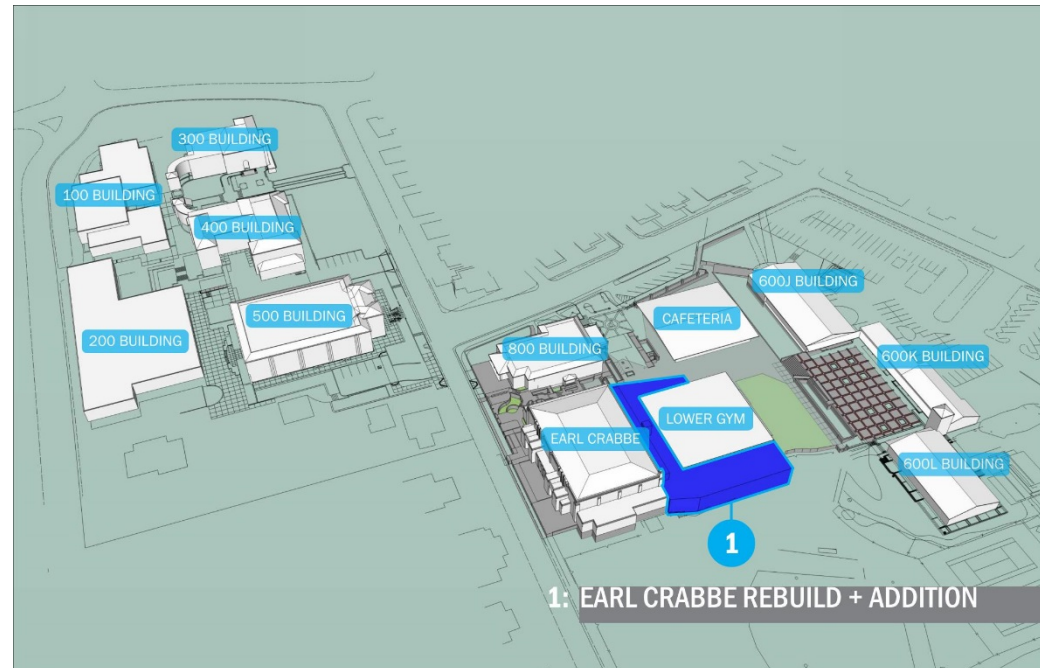
## EXISTING CAMPUS PLAN



# 1

## EARLE CRABBE GYM REBUILD + ADDITION

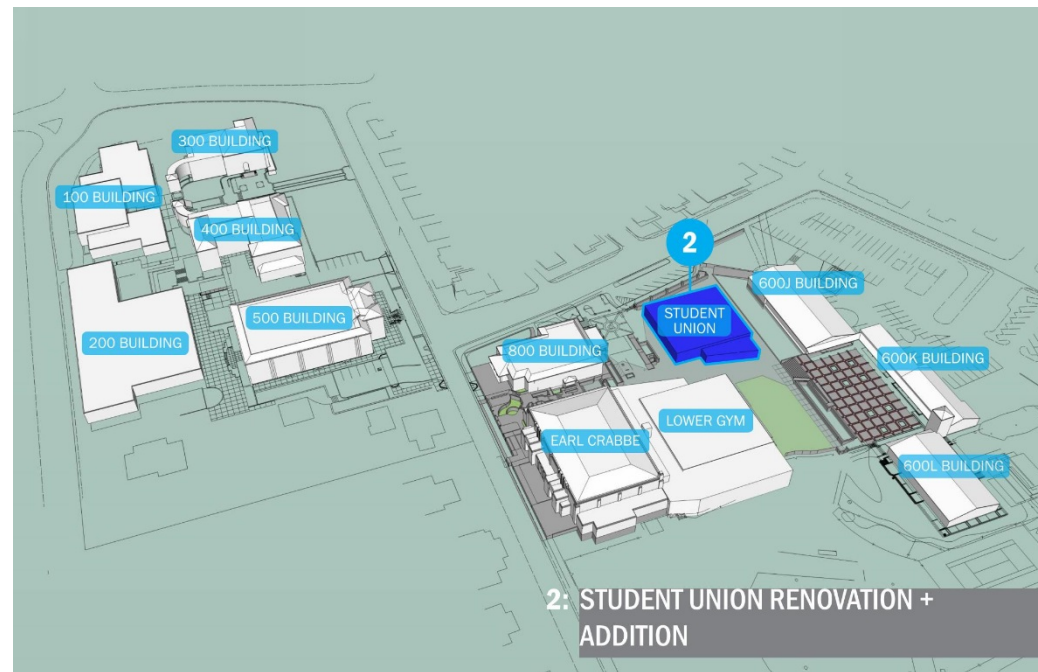
In order to address the significant needs of the Earl Crabbe gym – including historic upgrades, accessibility upgrades as well as significant needs to the building and building systems – a renovation is required. The proposal includes the addition of a central spine, connecting the Lower Gym with the Earl Crabbe Gym, to provide needed teaching spaces (dance, weight rooms, etc.) as well as to address the need for elevators and accessible pathways to the gym. The following page describes the conceptual goals of the project.



2

## STUDENT UNION RENOVATION + ADDITION

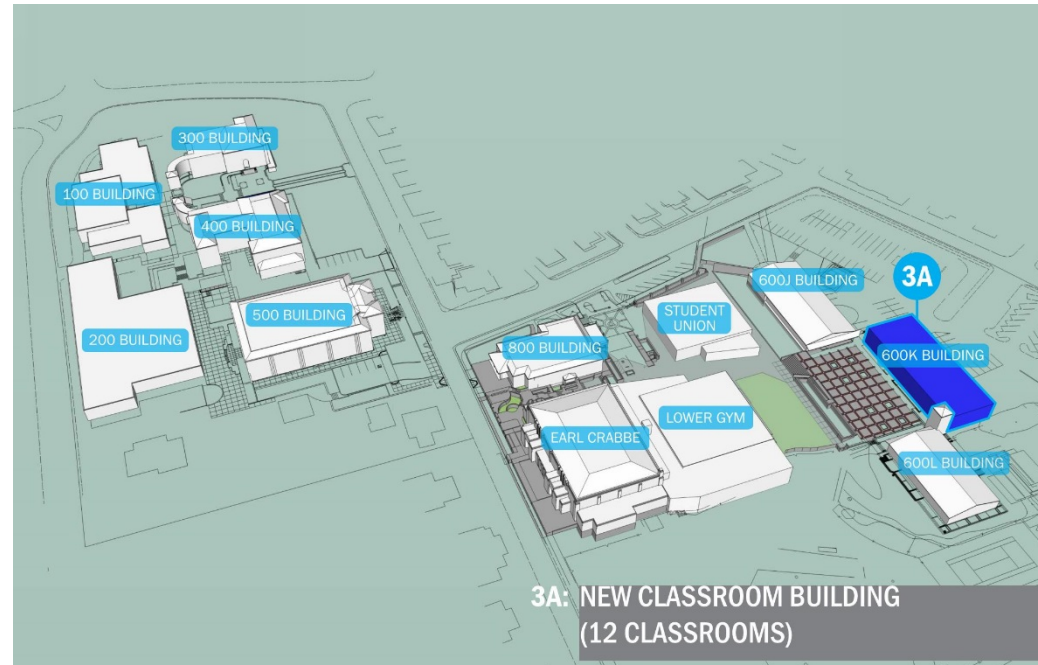
The renovation of the cafeteria into a Student Learning Commons space will address the deferred maintenance issues of the building, but will also reassign and expand existing space to create opportunities for distance learning, project-based learning and research. The facility, when combined with the Earl Crabbe complex, can become a hub for student activities.



3A

## 2-STORY CLASSROOM BUILDING NEW CONSTRUCTION

The 600 Wing of classroom buildings includes a building that is both inefficient and requires significant upgrades to meet the 21<sup>st</sup> century goals for the campus. The space currently houses the wrestling room in a makeshift configuration. By replacing one building with a new, two-story building, the density of the campus improves, and 12 new educational environments are created. Future programming and planning meetings with site stakeholders will determine the type of learning environments that support the entire campus plan.





## 3B

### BUILDING 600 MODERNIZATIONS

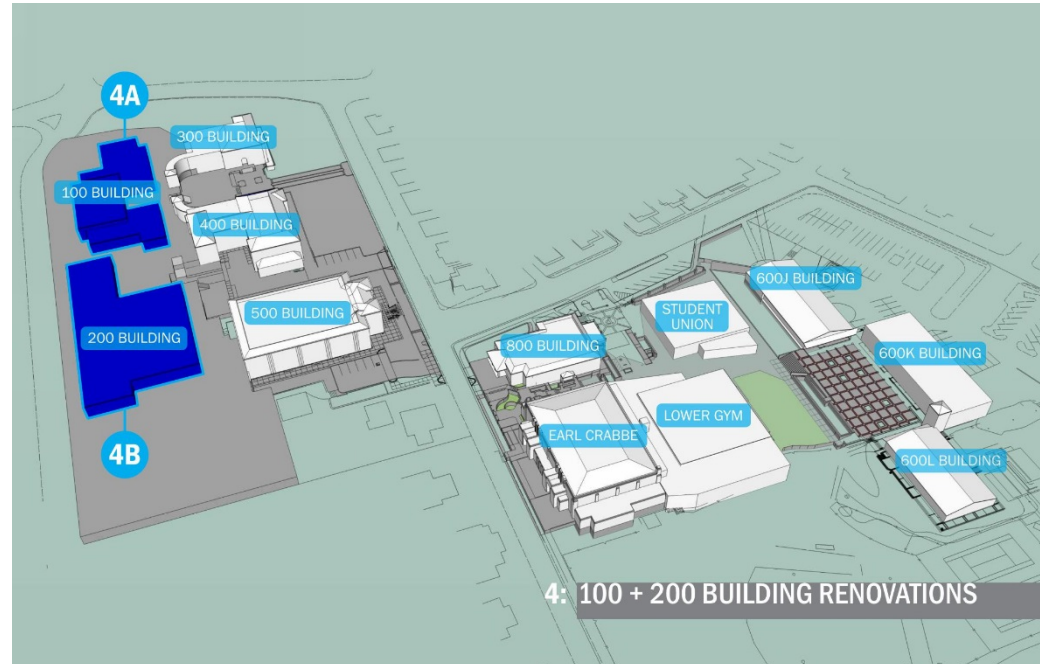
To complement the new classroom building, the remaining 600 Buildings will be renovated to a consistent standard. These buildings have undersized classrooms, and any renovation plans should address this problem. The Master Plan assumes a net reduction in classrooms to the two remaining buildings.



## 4A

### BUILDINGS 100/200 RENOVATION

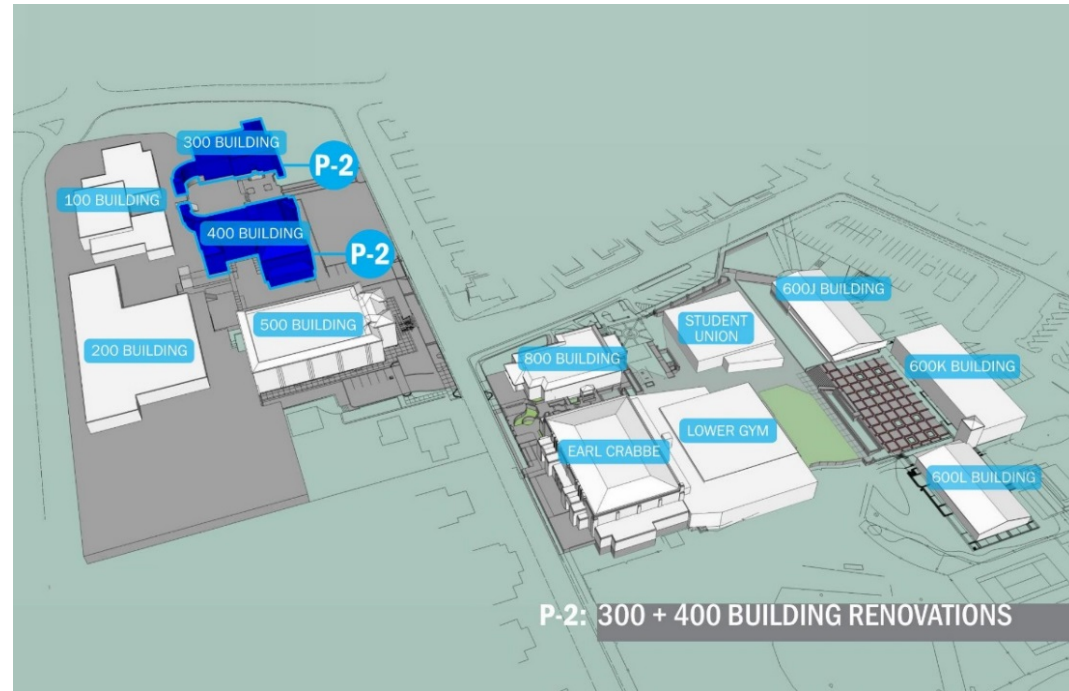
The 100 and 200 Building renovations are the “Go Back” projects for Placer High School’s Implementation Plan. The scope and scale of these projects will respond to the available funding. One of the key areas of focus in this renovation should be relocating Special Education from the 200 Building to the 100 Building, and reclaiming space in the 200 Building for a Career Technical Education (CTE) use, perhaps a Maker Space.





## BUILDINGS 300/400 RENOVATION (FUTURE)

The District anticipates making improvements to the existing Theater in the 400 Building using community funds. That is seen as the highest need by the community stakeholders. A comprehensive renovation of the 300/400 Wing will require the introduction of an elevator and other significant ADA issues. This project will be not be addressed in this phase of implementation.





# Planning



- Mission & Vision
- Inventory and Assessment
- Community Information & Demographics
- Plan Proposals





“Failing to plan is  
planning to fail.”

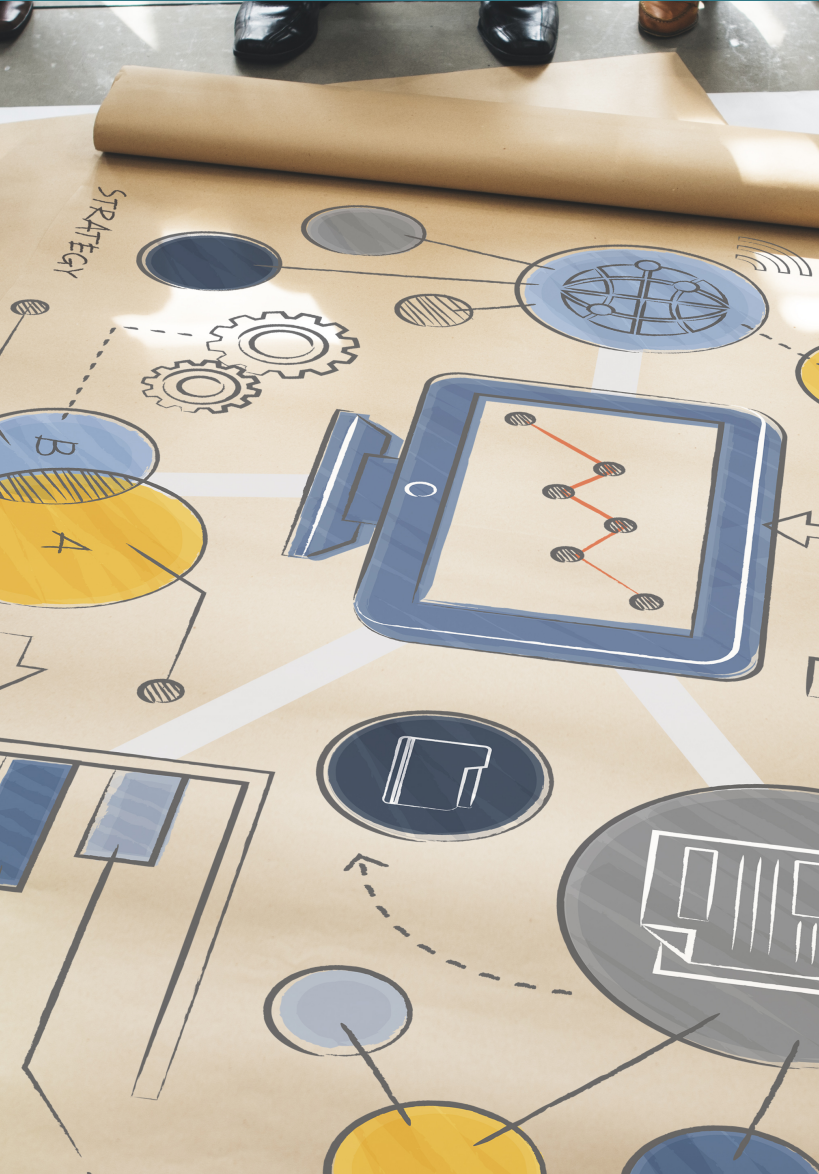
- Benjamin Franklin

It's your plan...  
make it work for you!



25:00

# Resources



LIONAKIS

[www.Lionakis.com](http://www.Lionakis.com)

Laura Knauss  
Principal & K-12 Market Lead  
[Laura.Knauss@Lionakis.com](mailto:Laura.Knauss@Lionakis.com)

Mary Morris  
Associate Principal  
[Mary.Morris@Lionakis.com](mailto:Mary.Morris@Lionakis.com)

Kathleen Moore  
[Kathleen@kathleenmooreassociates.com](mailto:Kathleen@kathleenmooreassociates.com)