

1 VISION



Portland Public Schools is master planning the redevelopment of Madison, Benson, and Lincoln High Schools as part of an overall bond program to modernize and improve district facilities. Each school has formed a Master Plan Advisory Committee (MPC) to provide input on the process. The Lincoln MPC is made up teachers, students, parents, neighbors, and citizens. Over the past 6 months, they have developed the concepts you see on these boards.

The school board will recommend a package of improvements for a November 2016 bond. Upon a successful outcome, the actual building design will start in 2017.

VISION STATEMENT

SCHOOL → The redeveloped Lincoln campus will be an innovative hub of life-long learning; it will help students reach their goals in a safe, inclusive, and inspiring environment.

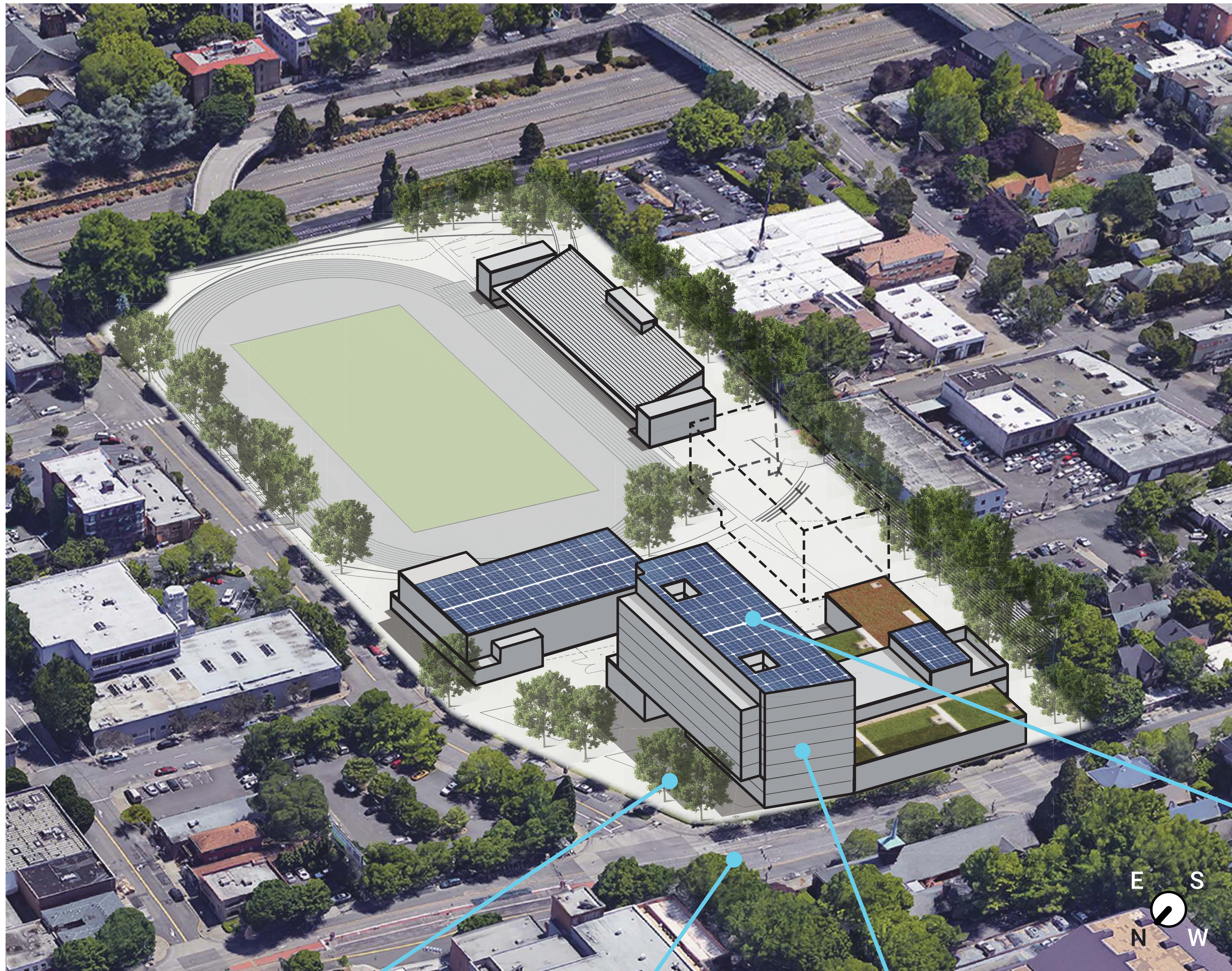
COMMUNITY → The campus will be the center of an active, healthy, urban community and will support educationally related public and private partnerships.

CATALYST → The project will be an example of schools promoting positive change in our neighborhood, city, state and region.

2 SUSTAINABILITY



District Standard: All new buildings are designed to meet a minimum of LEED "Gold" rating



Indoor Air Quality: Avoid materials, particulates, chemicals, and elements known to pose serious risks to human health.



Learning Opportunities: Curriculum can be integrated with building technology to increase student understanding and commitment to sustainable practices



Designing for bikes: Better bike lanes, covered bike parking, showers and repair facilities



Solar panels, green roofs, and water reclamation will be considered to **reduce reliance on natural resources**



Water: The site design will treat stormwater on site instead of adding to the municipal pipe system



The school is located steps from a MAX stop and several bus stops, which **encourages transit use**



The orientation of the building, plus a highly-efficient skin system, will **reduce energy use** and make classrooms more comfortable

"This school should be a 'poster child for sustainability' on any tour of the city."

- An LHS MPC student member

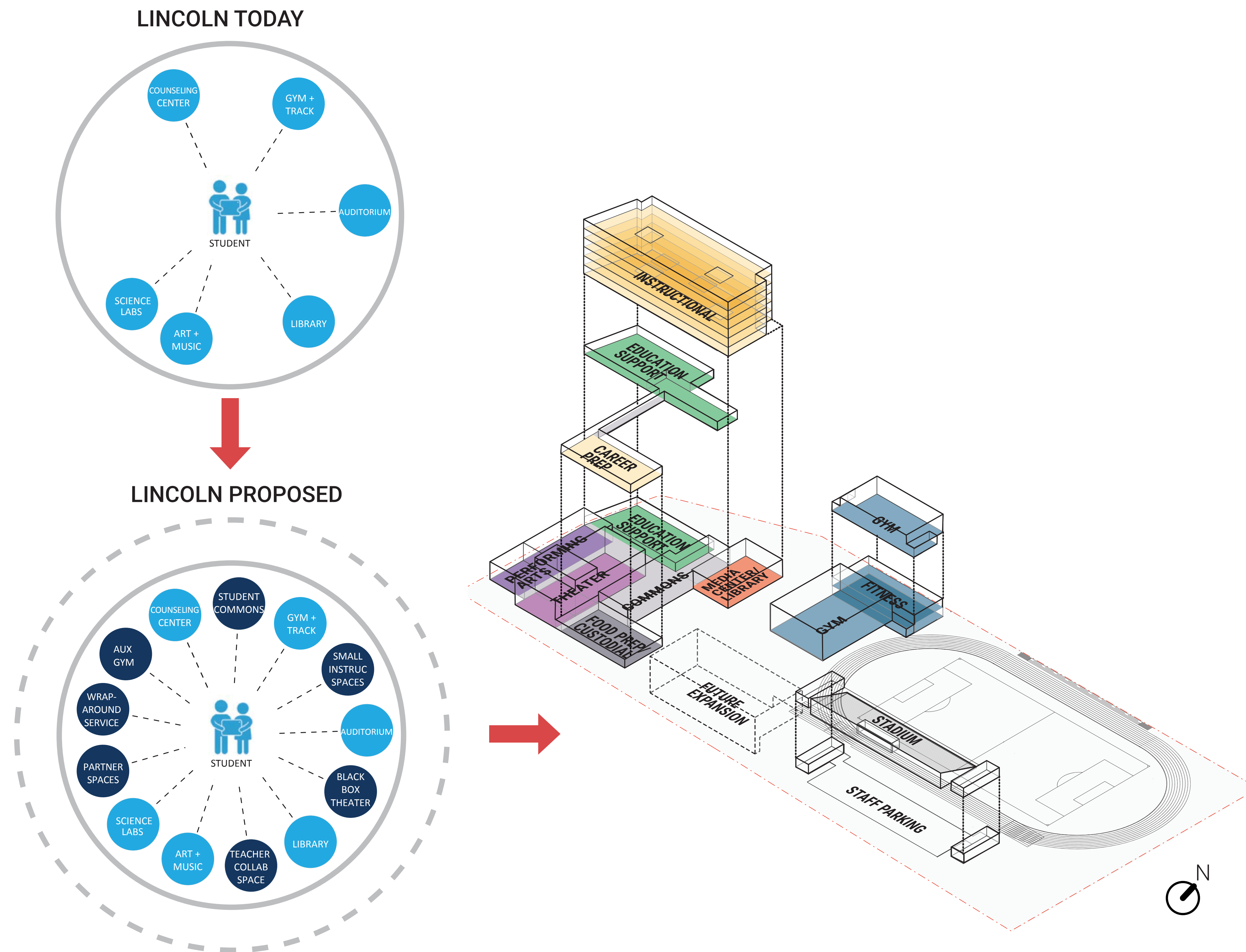
"The District will seek to implement high-performance systems to achieve cost effective energy, water and waste solutions that provide flexible, adaptive learning environments to support student achievement."

- From the PPS Long Range Facilities Plan, 2012

3 BUILDING USES

PROPOSED MASTER PLAN

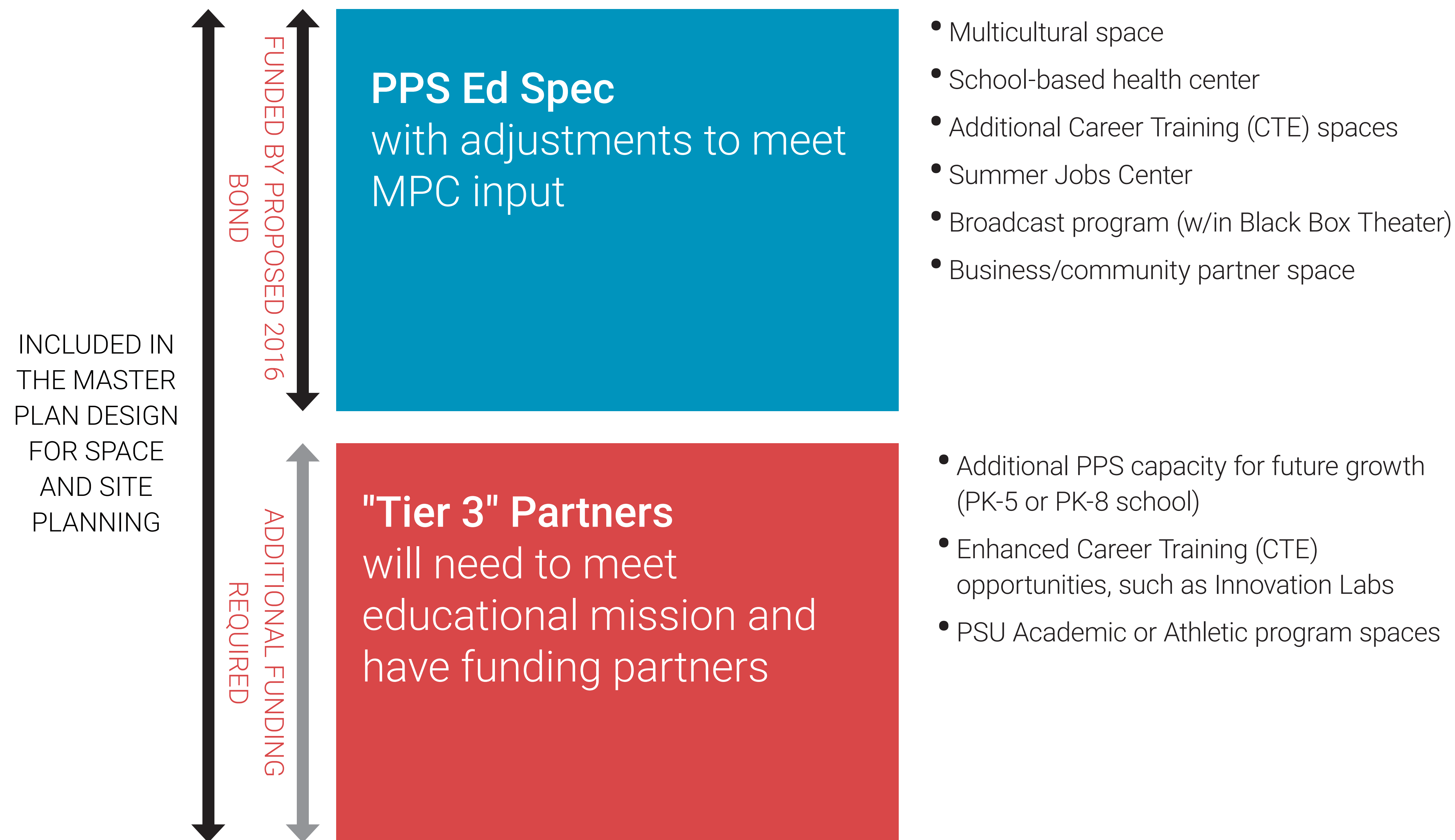
- Student Population** 1,975 students (1678 students today)
- New Building Area** 298,000 sq feet
- Site Program** Track & Field, Stadium, Public Plazas
- Potential Future Expansion** PPS Elementary or PK-8 school, or other educationally-related, partner-funded spaces



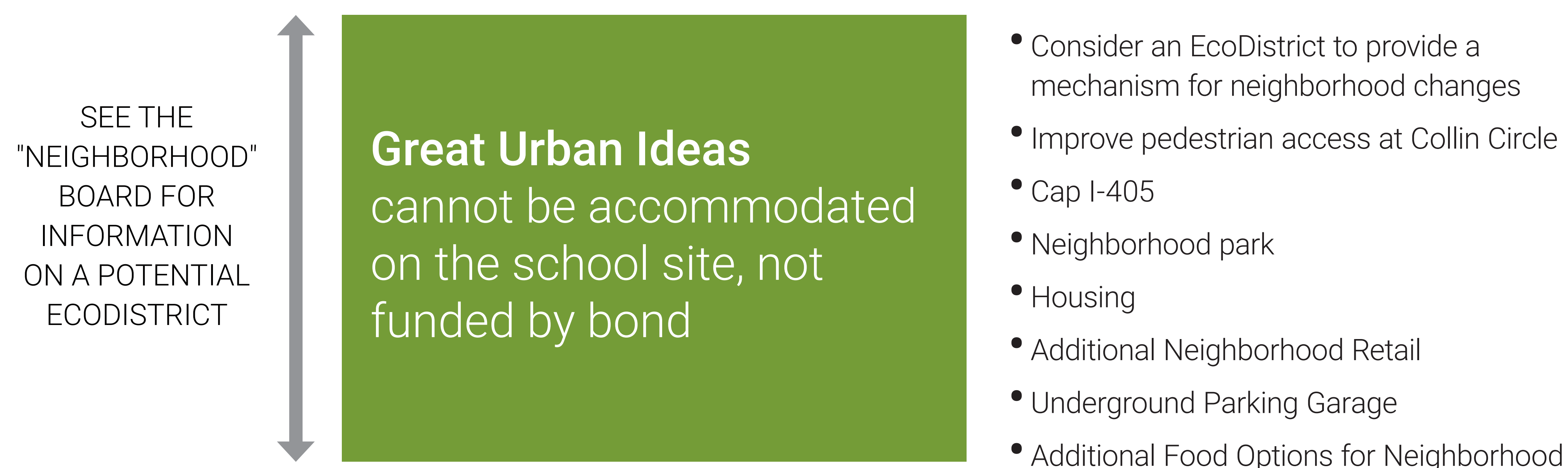
SUMMARY OF SPACE PROGRAM

	1700 Students		1975 Students	
	276,610 total sq ft		298,399 total sq ft	
	Quantity	Area (sq ft)	Quantity	Area (sq ft)
CAREER PREPARATION (CTE)		6,000		7,900
Design Lab			1	1,200
Culinary Arts			1	1,200
Robotics Lab			1	2,500
Model UN Parliament Style Classroom			1	1,800
Maker Space			1	1,200
		TBD per Site		
CLASSROOMS		70,660		85,400
Small	10	5,000	11	6,600
Medium	0	0	38	32,300
Large	41	40,180	14	15,400
Science Lab	11	16,500	14	18,900
Open Flex Area			7	8,400
Enclosed Project Room			5	1,250
Fine & Visual Arts		3,080		3,780
Band/Orchestra		3,470		4,070
Choir	0	0	1	1,500
Other		2,430		0
FINE & PERFORMING ARTS		21,350		24,150
Theater (500 seat)	1	5,000	1	5,000
Stage	1	3,500	1	3,500
Drama Classroom/Black Box	1	1,600	1	1,600
Scenery Construction/Production Storage	1	1,500	1	1,500
Other	1	9,750	1	12,550
PHYSICAL EDUCATION/ATHLETICS		35,580		36,830
Gym (large; two teaching stations)	1	13,000	1	13,000
Movement / Yoga	1	2,750	1	3,500
Weight Room/Aerobics/Spinning	1	2,500	1	3,000
Gym (auxiliary - practice)	1	5,700	1	5,700
Other	1	11,630	1	11,630
EDUCATION SUPPORT		63,900		63,330
Administration		15,260		15,660
Counseling/Career		2,735		3,455
Student Activities				
Athletic Director	1	150	1	150
AD Support Staff	1	120	1	120
Computer Lab (dedicated)	4	4,400	4	4,400
Computer Lab (non-specialized)	1	1,100	1	1,100
Special Education (SPED)		5,900		5,700
Emerging Language Learning (ELL)		800		850
Student Commons (Cafeteria)				
Commons: One lunch @ 600 students	1	7,800	1	7,000
Main Servery	1	1,700	1	1,500
Food Prep/Kitchen/Storage	1	3,120	1	2,720
Media Center/Library		6,720		6,580
Student Government Room/Office	1	200	1	200
Custodial		3,850		3,850
Other	1	10,045	1	10,045
PARTNER & COMMUNITY USES		1,200		600

4 PARTNERS



ON SITE IN NEIGHBORHOOD



WHICH PARTNERSHIPS ARE INCLUDED IN THE MASTER PLAN?

The MPC reviewed a list of all the ideas that have been considered for this school, from adding culinary arts career training to building dorms for the school's Sister City. The LHS Master Plan Committee recommends that any on-site partnerships be related to the educational mission of the school. The chart below shows the MPC's recommendation for how and where to accommodate these ideas.

"Schools will thrive when our entire community is invested in their success.
Every citizen of Portland is a stakeholder in schools."

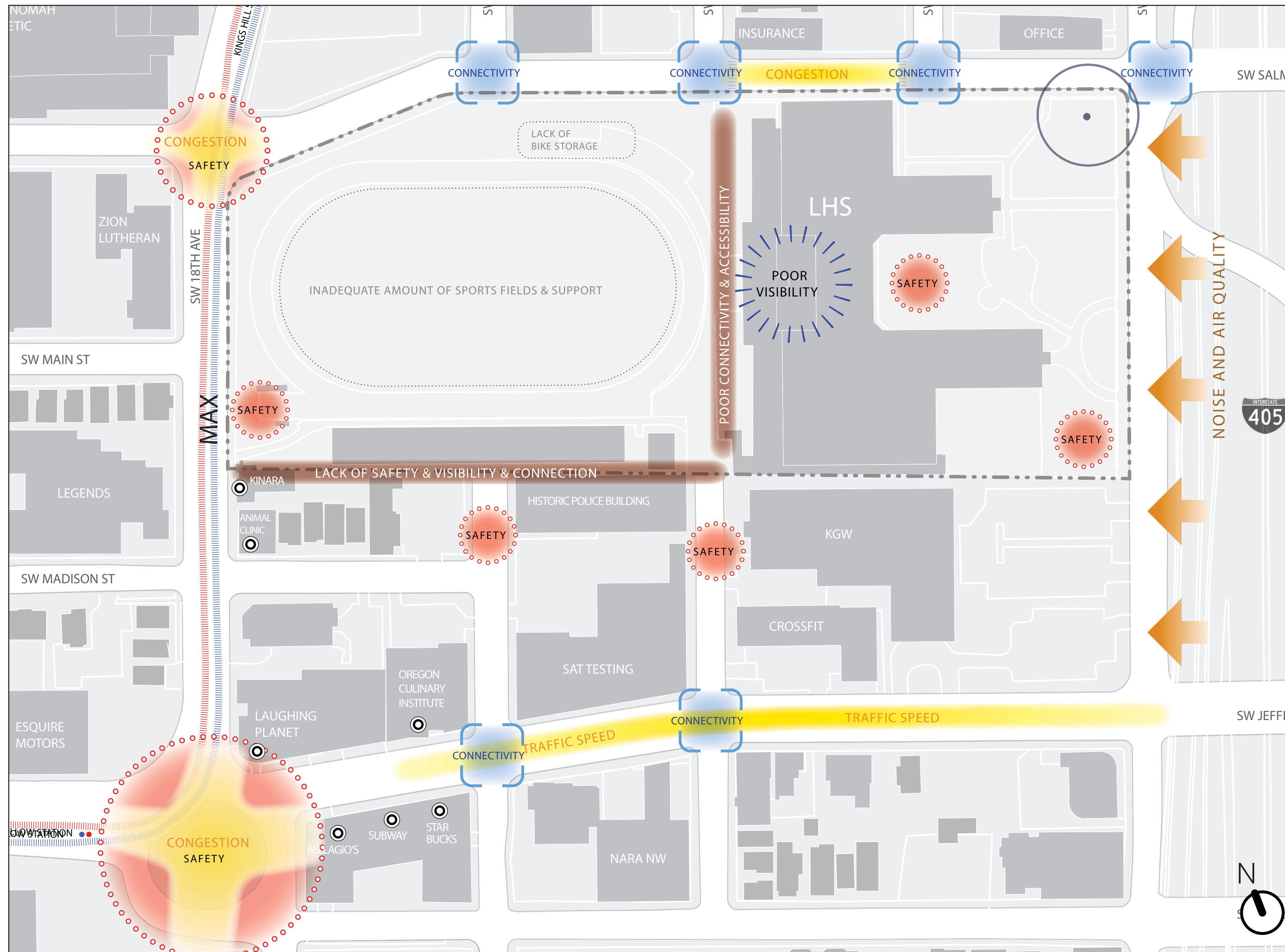
- From the PPS Long Range Facilities Plan, 2012

PPS LONG RANGE FACILITIES PLAN STRATEGIES

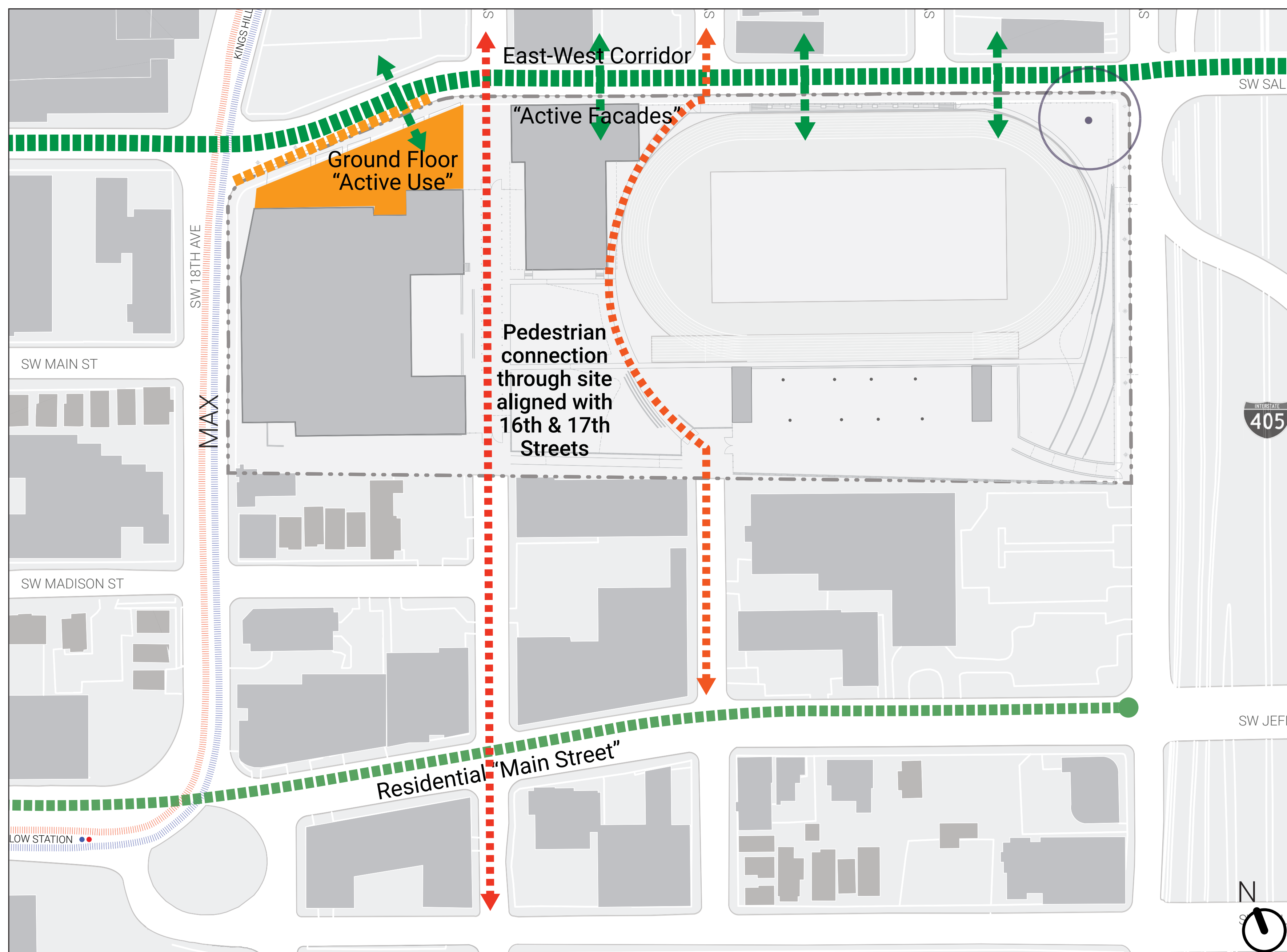
- Develop partnerships and relationships to increase engagement, ownership, and student and teacher success.
- Support enhanced community/school dual use areas and the resulting increased use and ownership of the schools by the community, including financial partnerships.
- Pursue partnerships with other public and/or private entities that leverage public resources to maximize efficiency, economies of scale and innovation.

You can help! If you have a capital partnership idea that you want to share with the District, contact LHSMOD@pps.net

5 NEIGHBORHOOD DESIGN



At a public workshop, the community noted **existing concerns** around Lincoln High School.



The proposed design responds to the **City's West Quadrant Plan**, which establishes urban design criteria that make Lincoln High School a more active part of the Goose Hollow neighborhood.

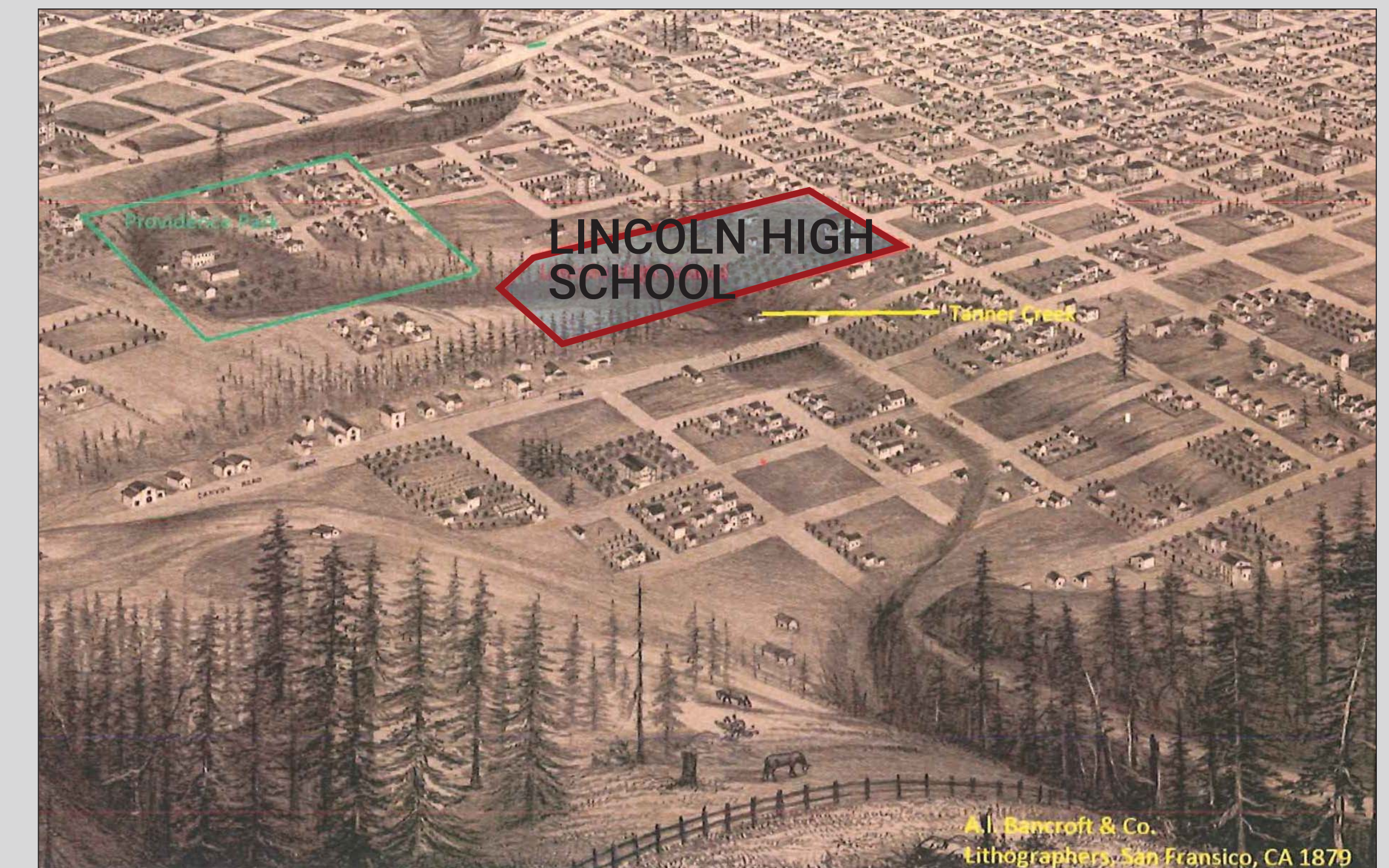
EQUITY, RESILIENCE, AND CLIMATE PROTECTION

How might the LHS community support the 'great urban ideas' that were developed during the master plan process?

The EcoDistricts Protocol is one mechanism that the District and neighbors could use to foster a broader sustainability agenda.

The EcoDistrict Protocol is based on three imperatives: Equity, Resilience, and Climate Protection. The Protocol articulates six priorities:

- Place** - Creating inclusive and vibrant communities
- Prosperity** - Supporting education and economic opportunities that build prosperity and accelerate innovation
- Health and Wellbeing** - Nurturing people's health & happiness
- Connectivity** - building effective and equitable connections between people and places
- Living Infrastructure** - Enabling flourishing ecosystems
- Resource Restoration** - Eliminating resource depletion and pollution and restoring natural capital



Civic History: Lincoln High School sits over the historic path of Tanner Creek. This creek was a center of the Chinese community, who cultivated large gardens in the original "hollow." The creek is currently routed through pipes 30 feet below the site. An EcoDistrict process would include neighborhood voices to tell this story in the future building and site design.

If you would like to be a part of a broader discussion about EcoDistricts and supporting neighborhood ideas, please contact LHSMod@pps.net

6 TRANSPORTATION

GOAL 1 ■

Create universal design (for people of all abilities) access through site

GOAL 2 ■

Establish pedestrian access through site, connecting the surrounding neighborhood

GOAL 3 ■

Separate parent & bus drop-off and move school buses off of Salmon Street

GOAL 4 ■

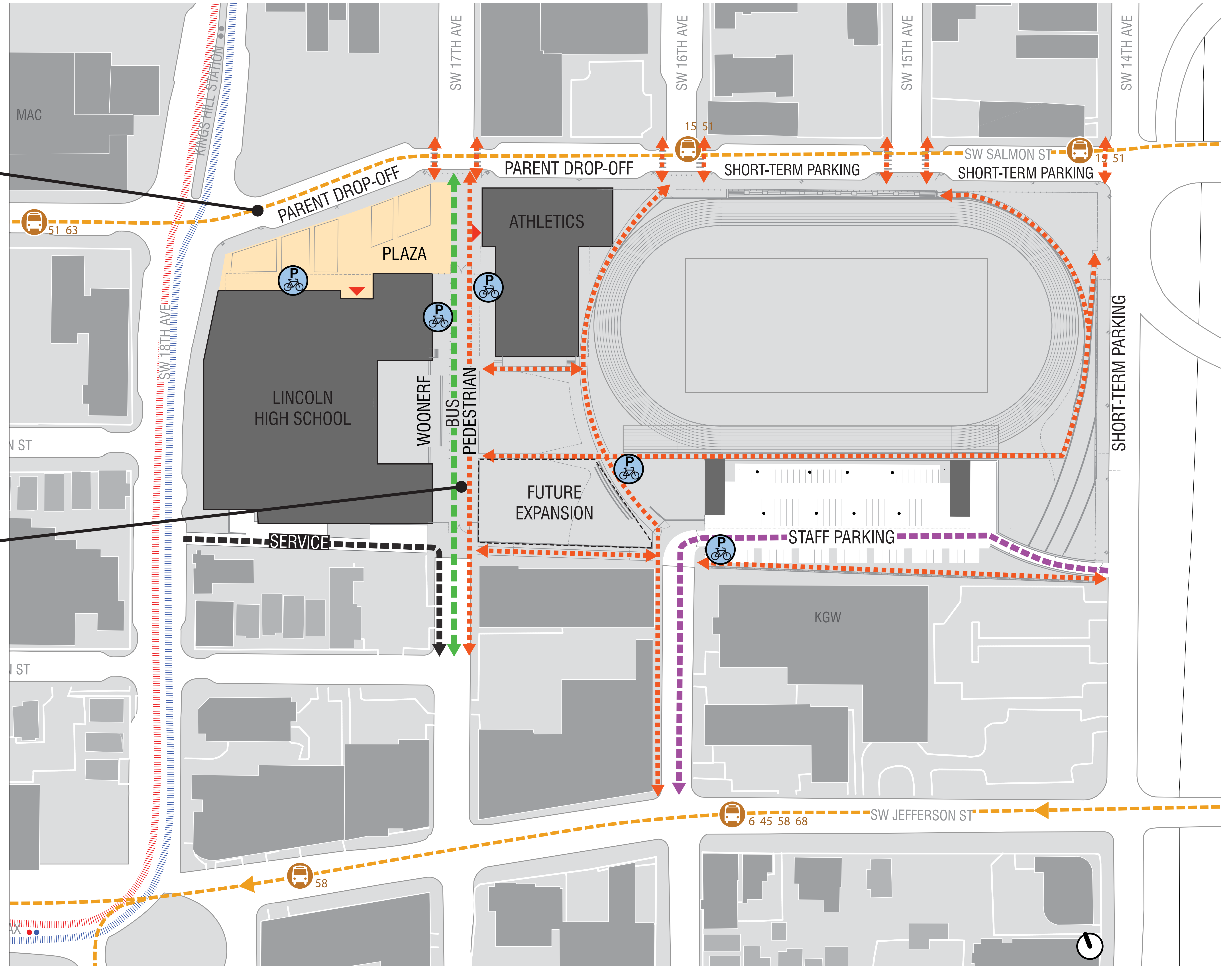
Minimize surface parking while meeting needs of staff



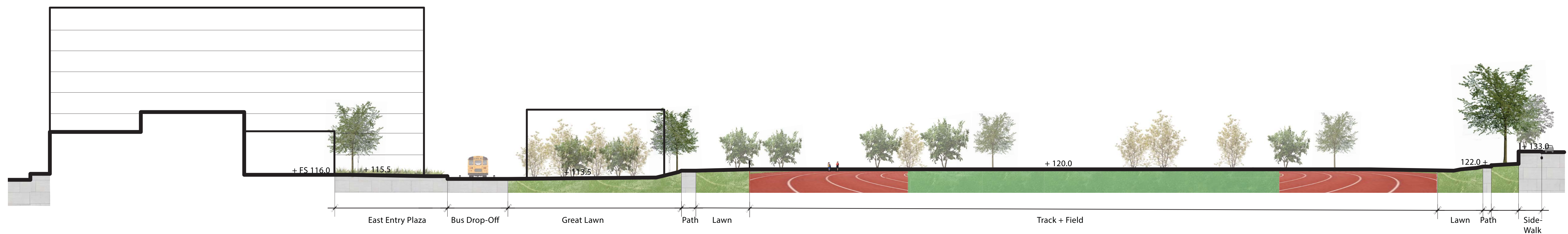
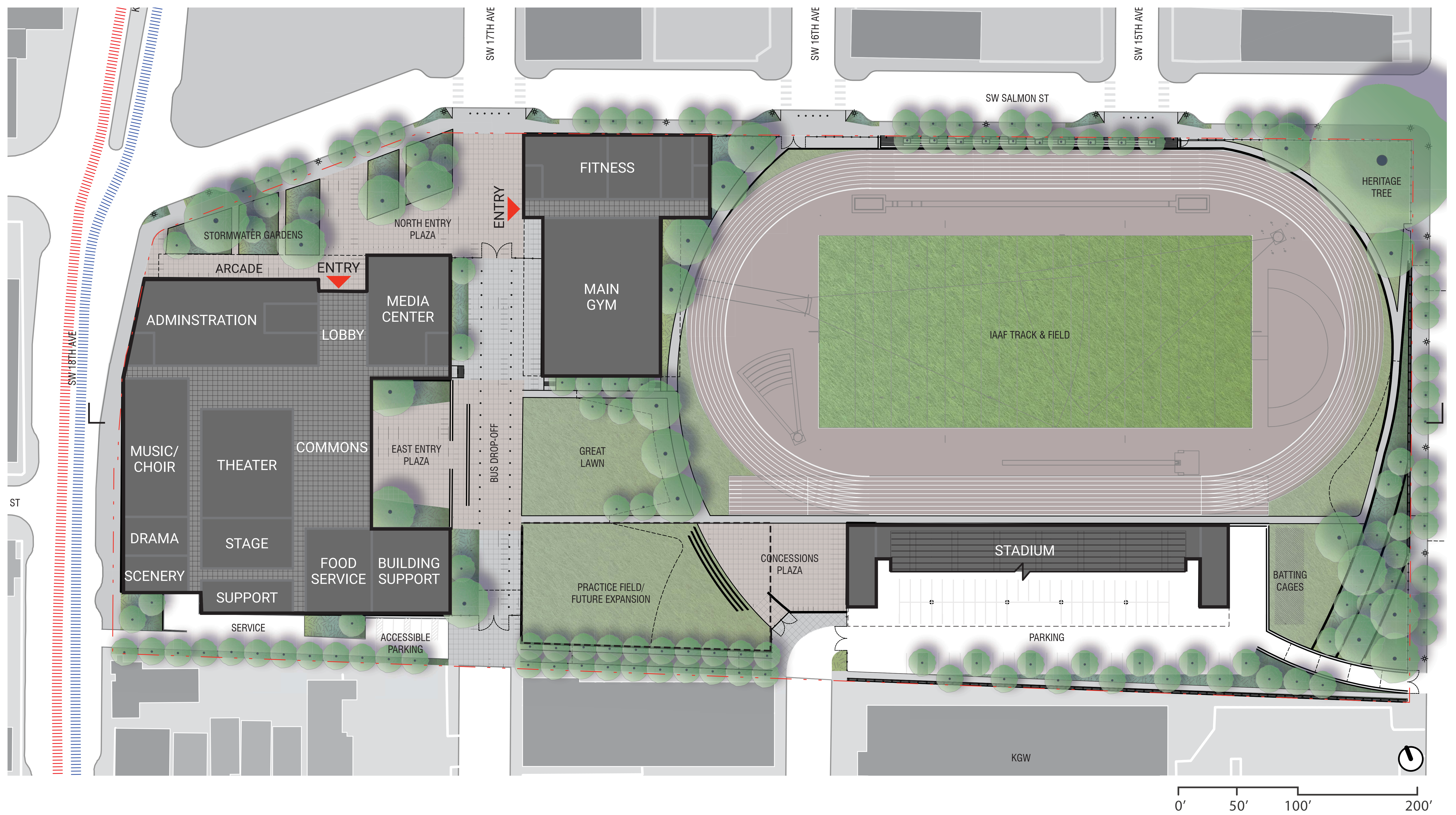
Future Plans: City of Portland Bureau of Transportation will be looking at options to increase multi-modal transportation along Salmon Street with curb extensions



Woonerf: A multi-use street, or 'woonerf' will provide pedestrian access and controlled bus access for drop-off and pick-up

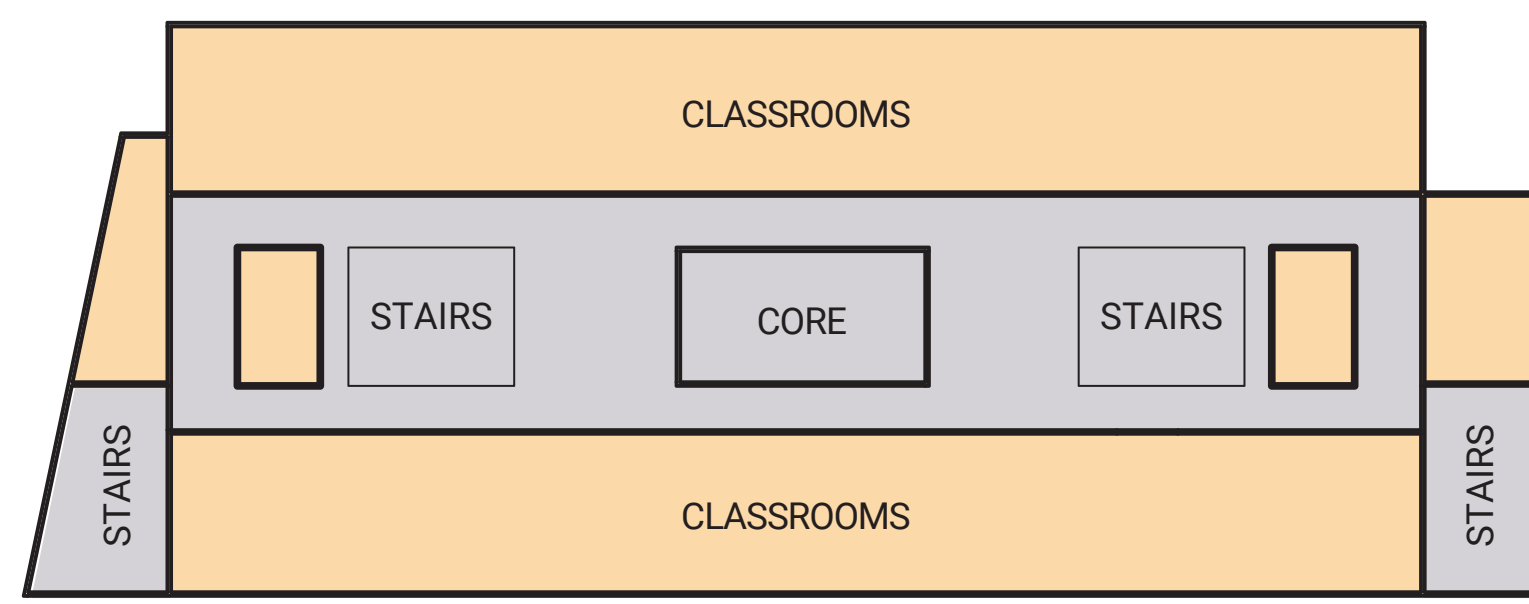


7 SITE DESIGN

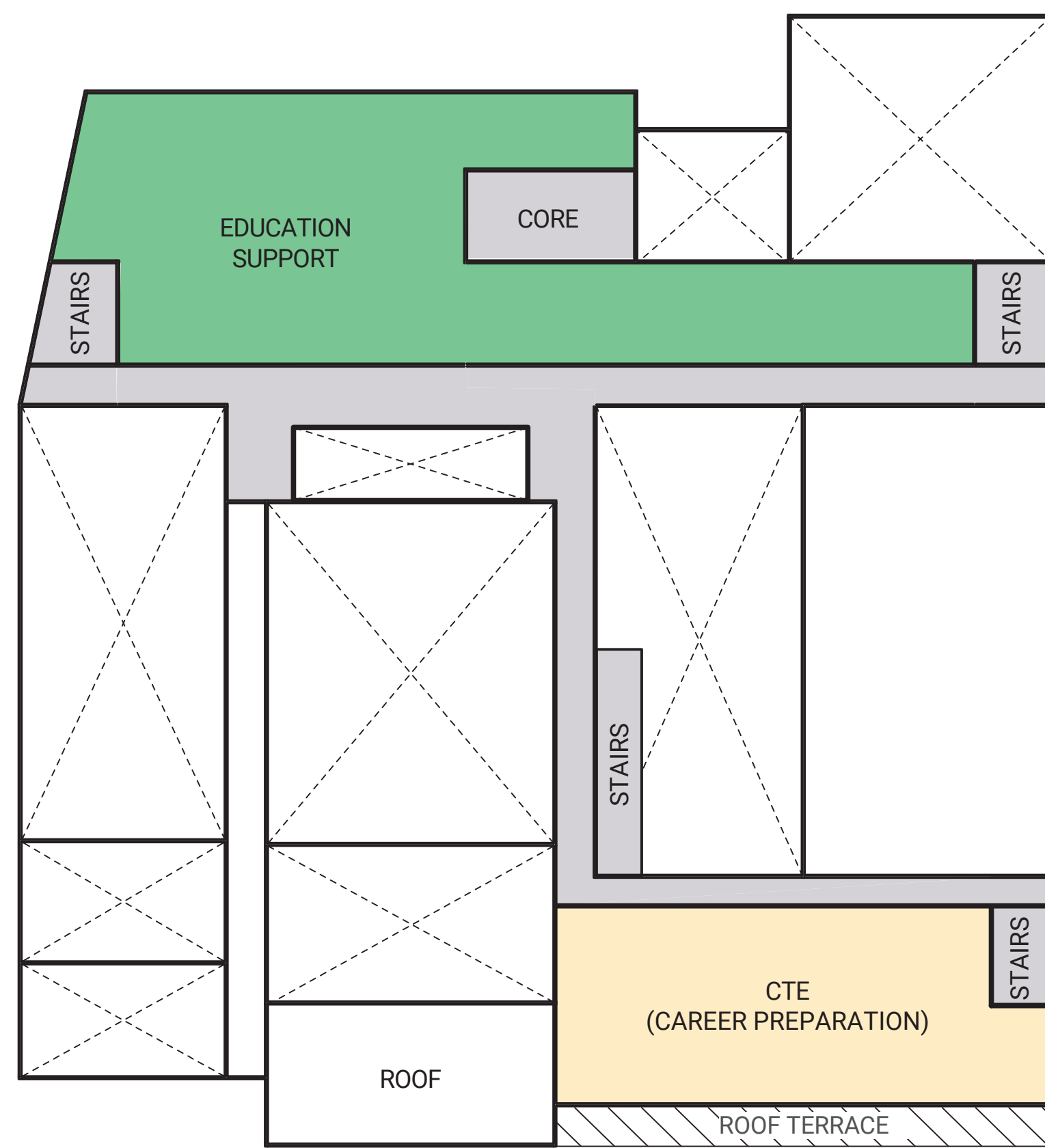


VIEW CUT THROUGH SITE

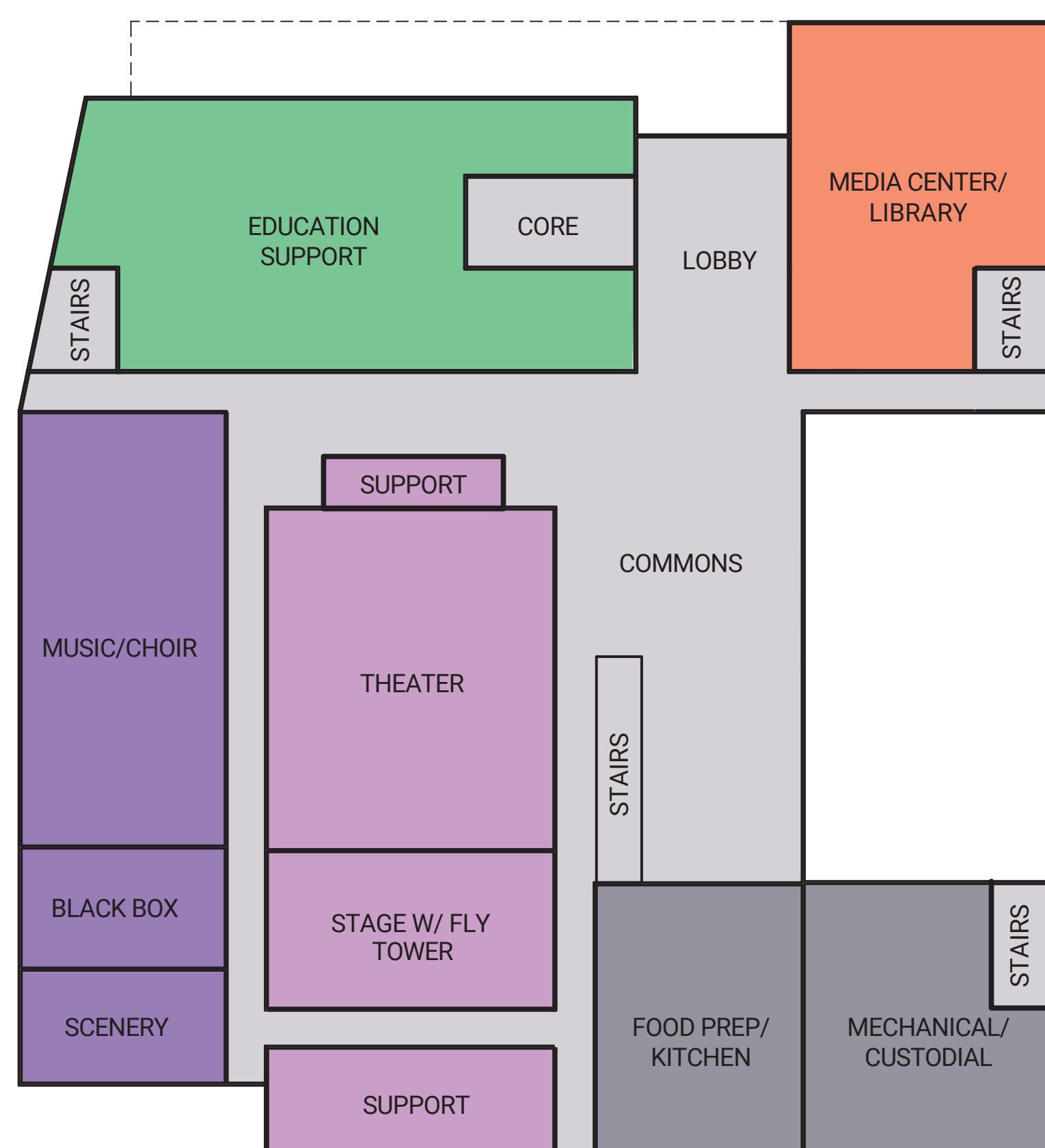
8 CONCEPT DESIGN



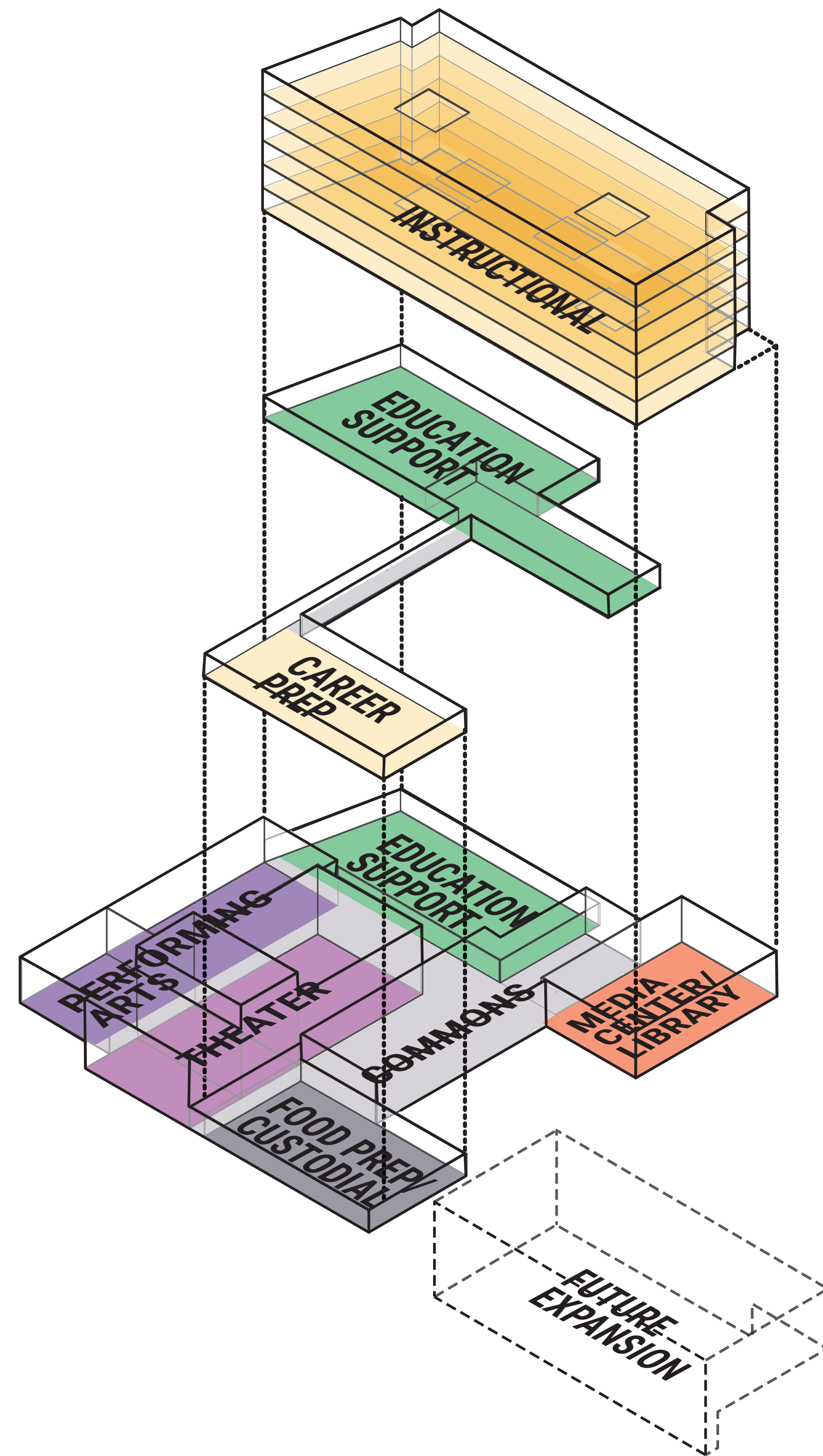
LEVELS 3-8 (TOWER)



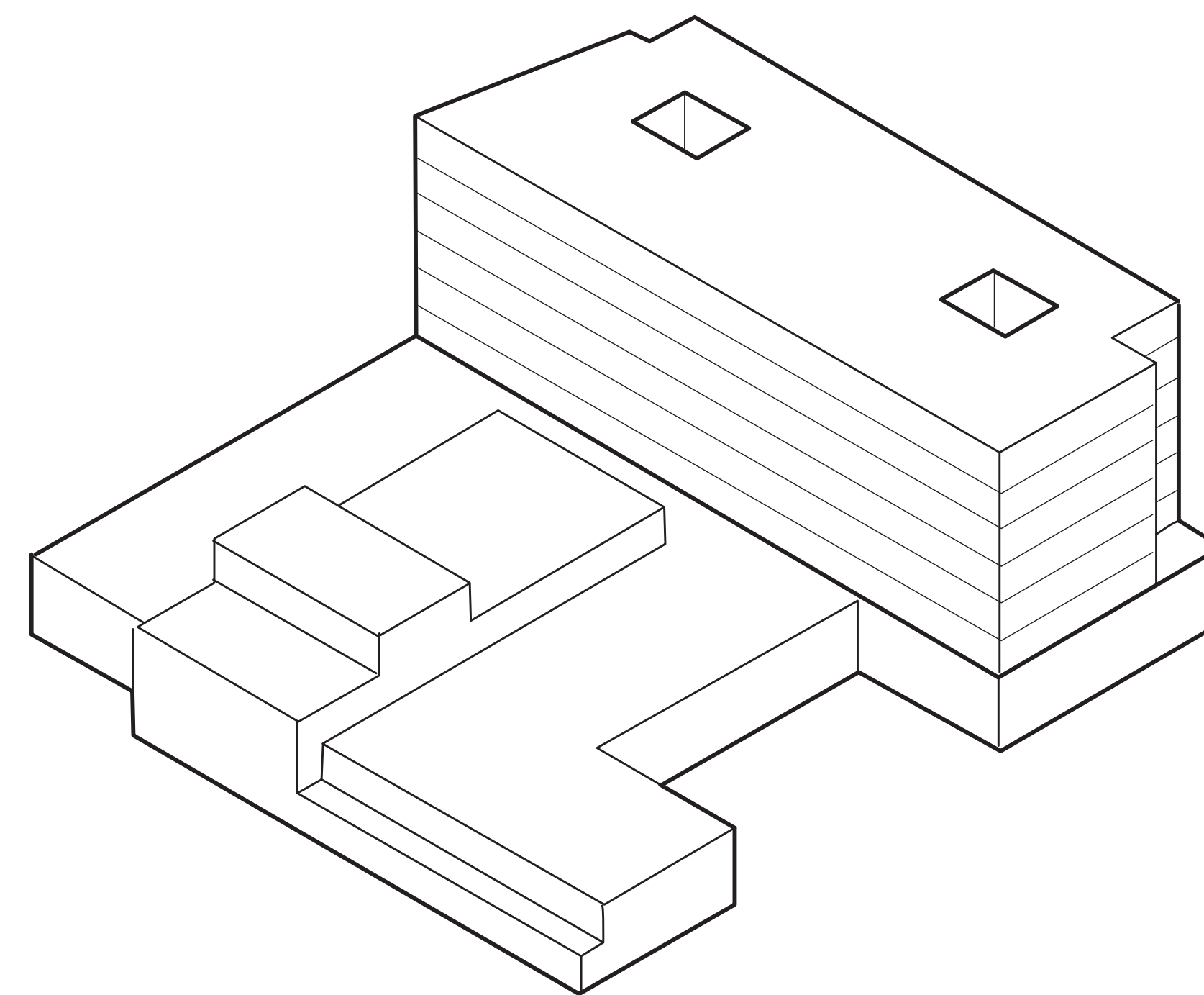
LEVEL 2



LEVEL 1



3-D DIAGRAM OF MAJOR SPACES

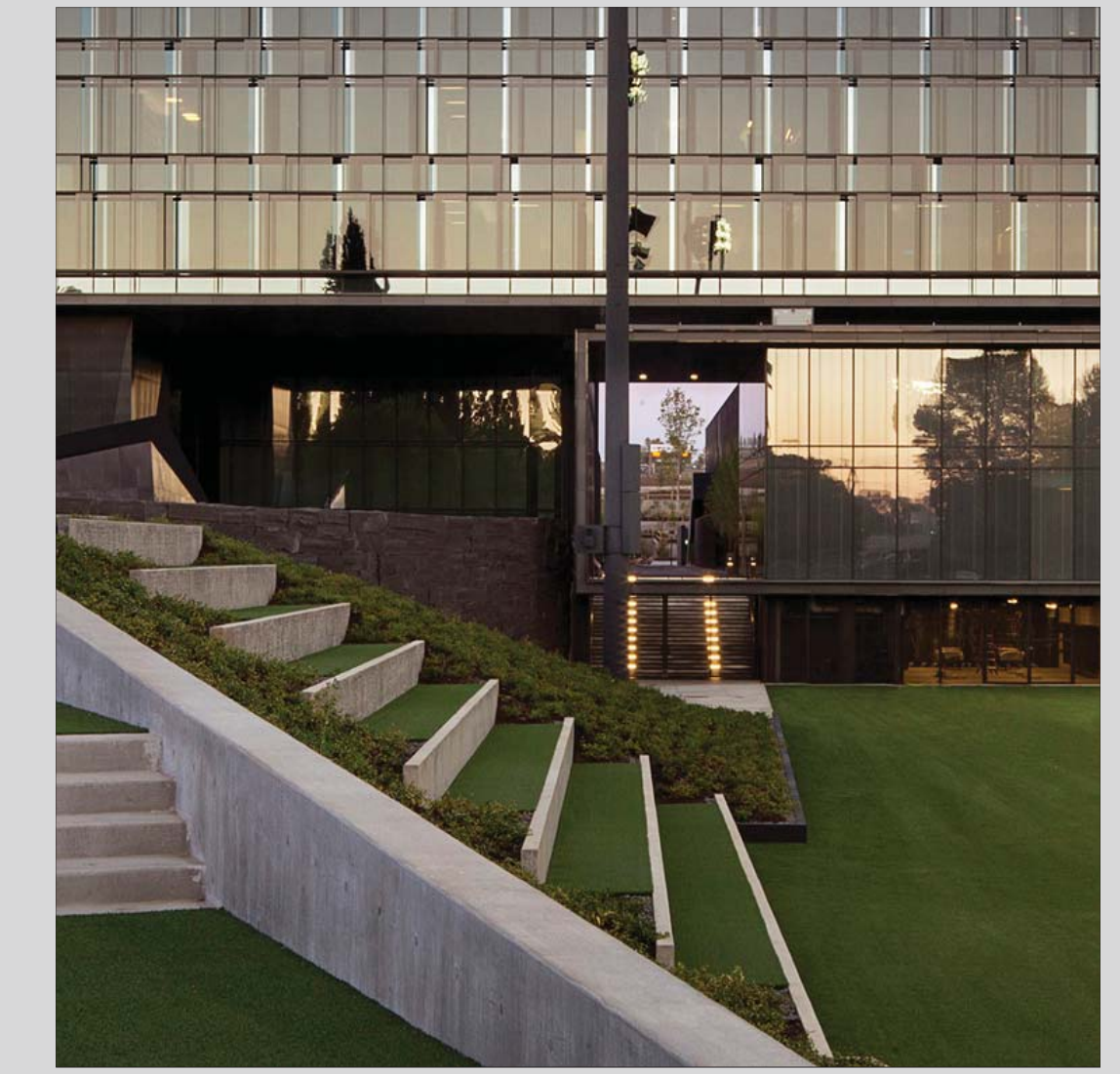


MASSING OF PROPOSED MAIN BUILDING

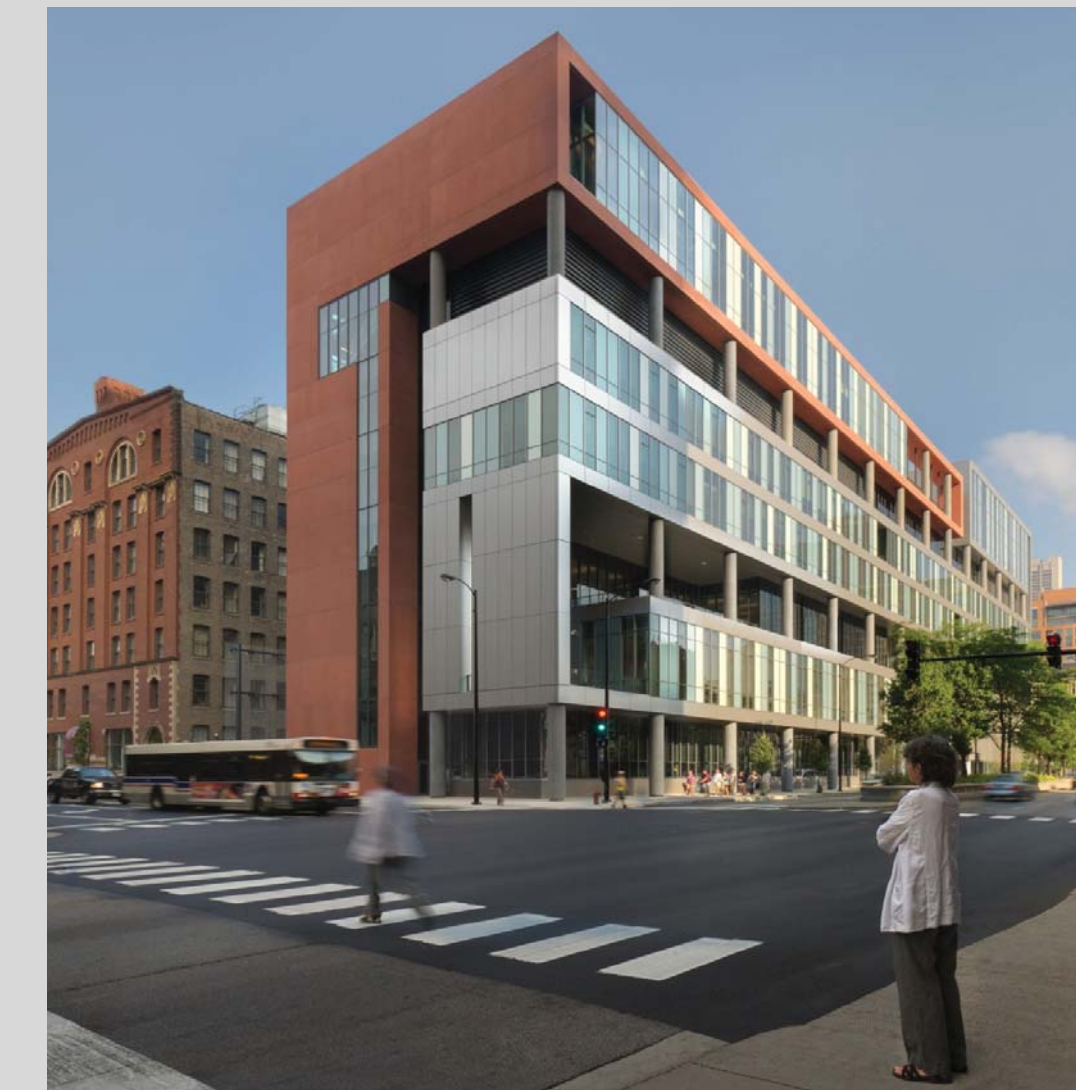
FEATURES OF A CONNECTED, URBAN-SCALED SCHOOL



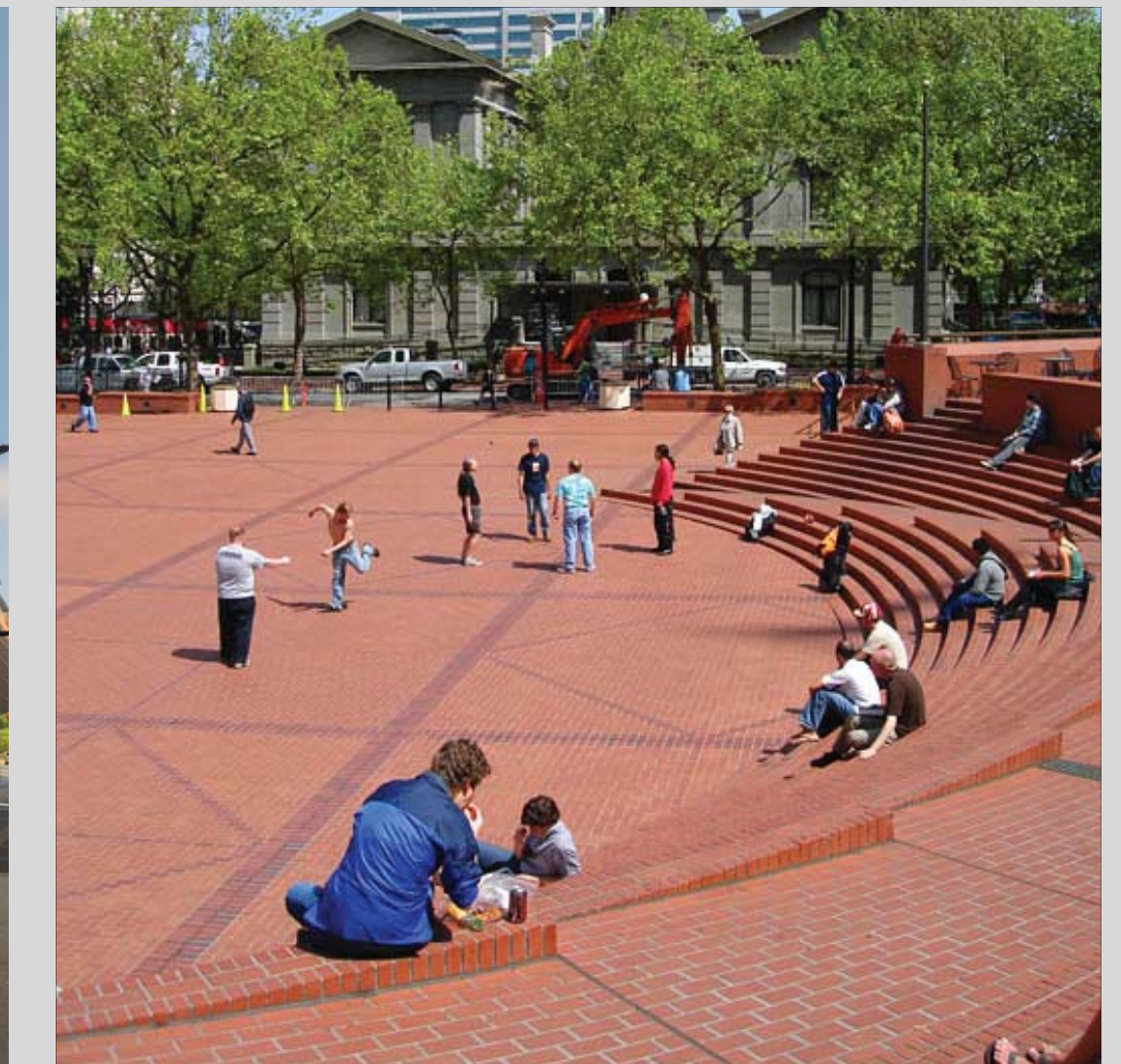
Interior connections between levels



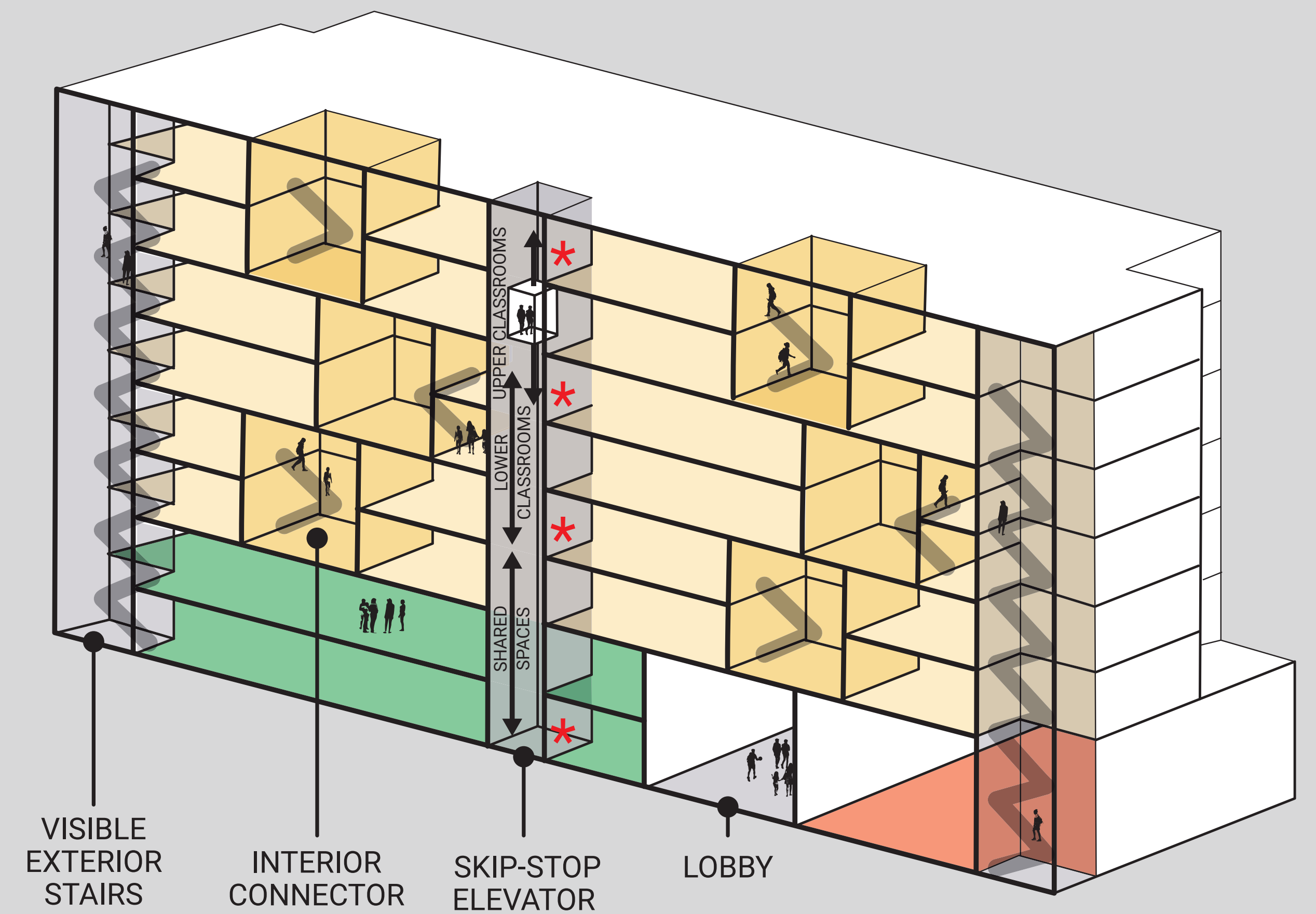
Stepped seating connecting sidewalk to sports field



Multi-story (Jones College Prep School, Chicago)



Public Plaza

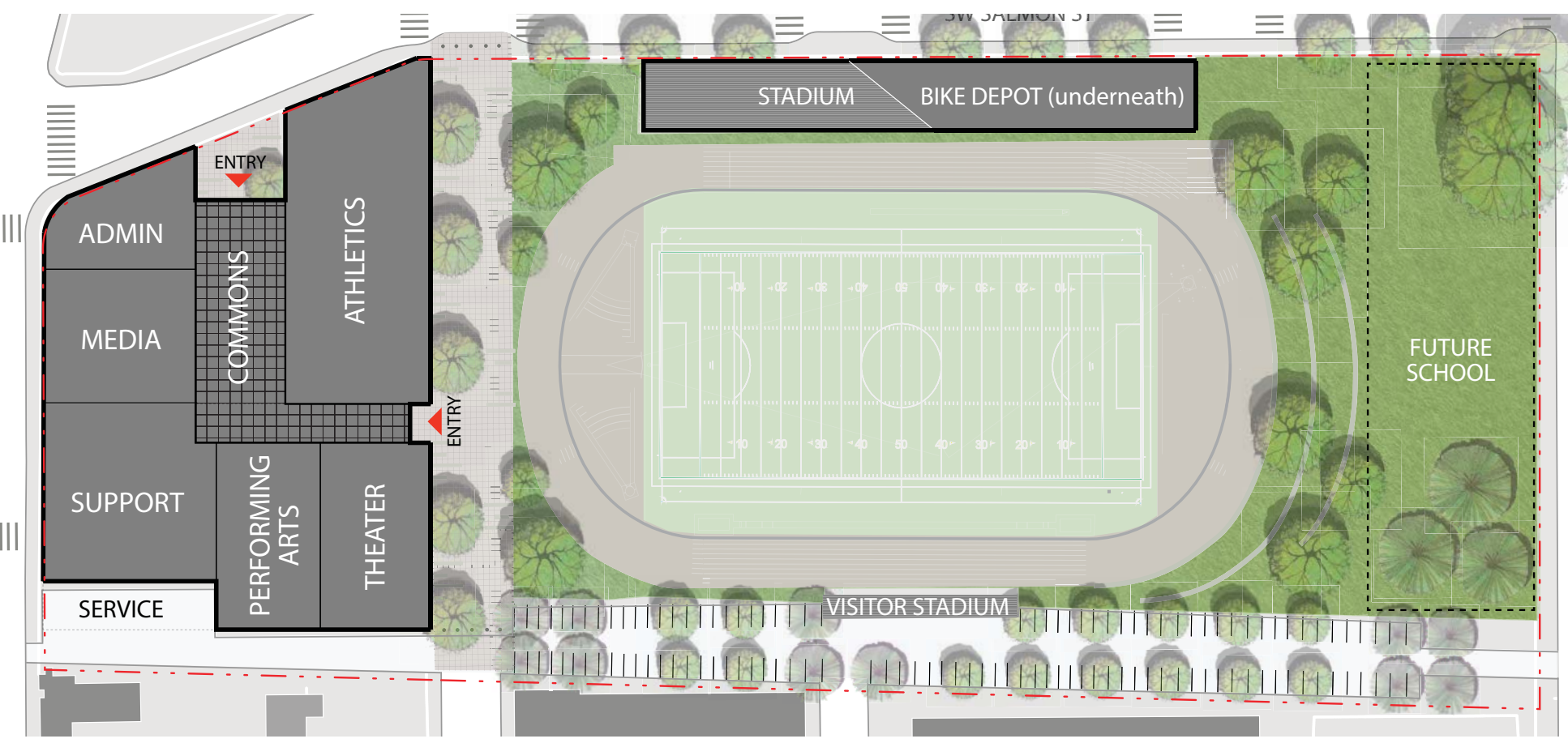


Strategies like skip-stop elevators, connector stairs, and zoning classes allow students to move efficiently through the building.

9 COST COMPARISON

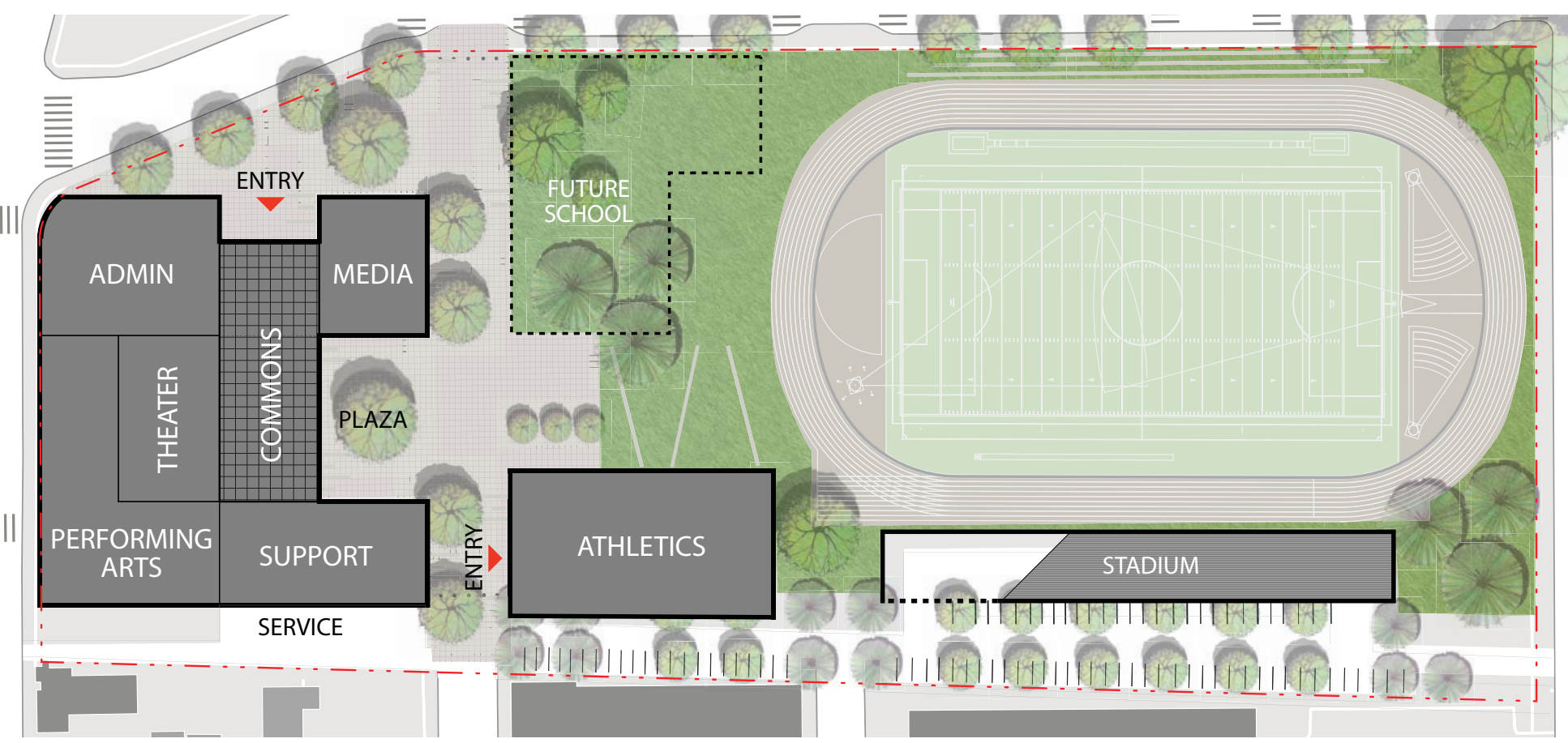
A

Consolidated building to west; future expansion to east



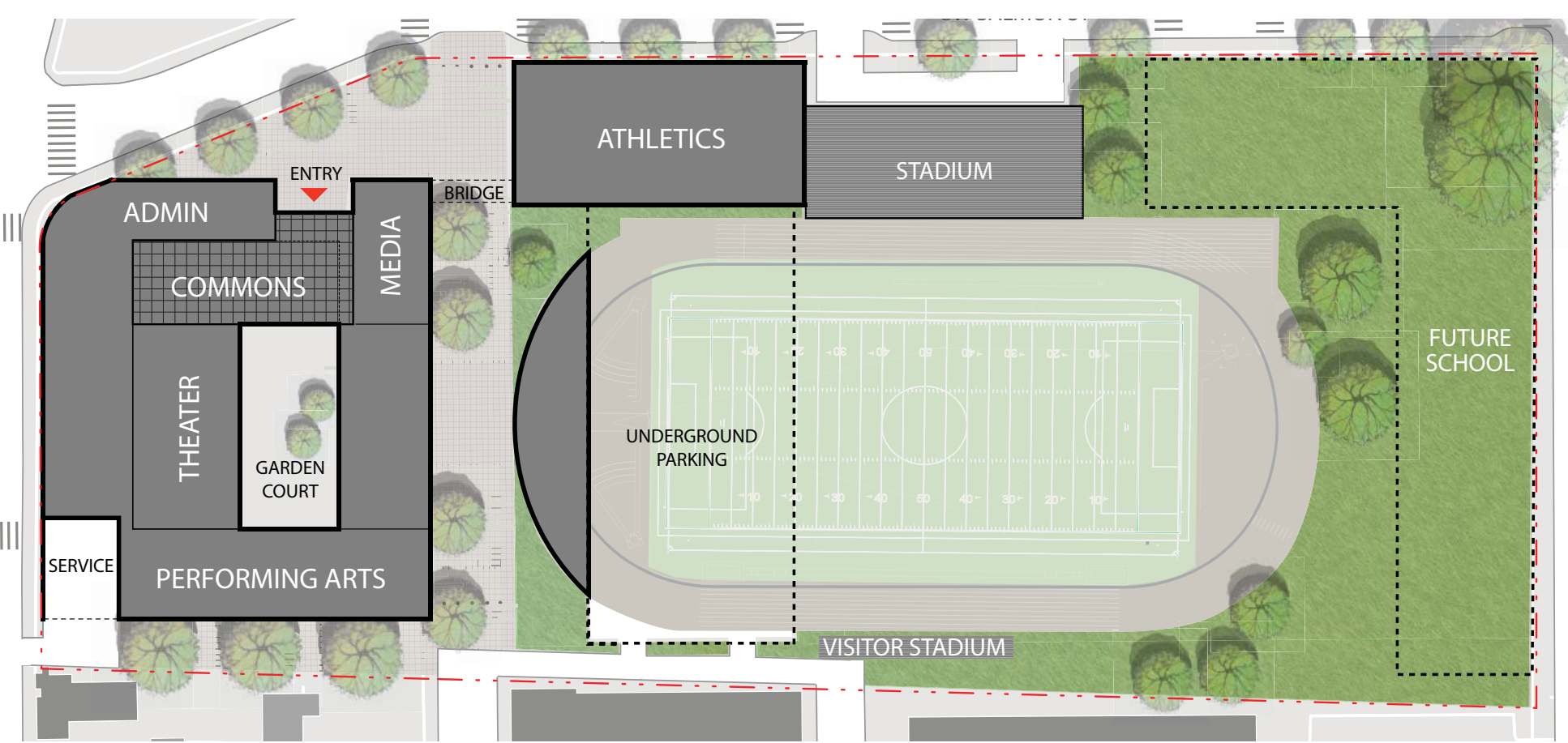
B

Separate athletics building; entry plaza on Salmon; future expansion near highschool



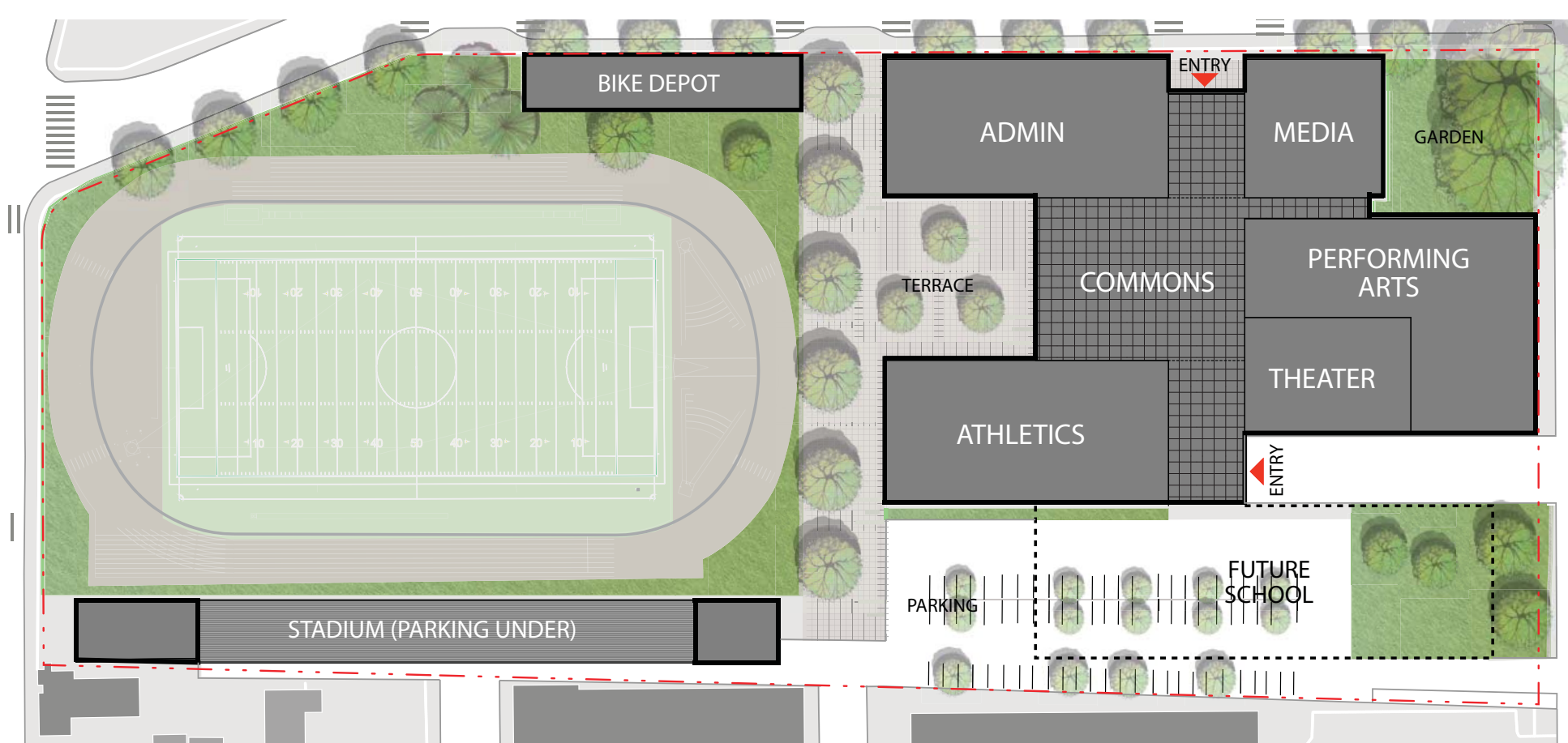
C

Separate athletics building; entry plaza on Salmon; future expansion to east



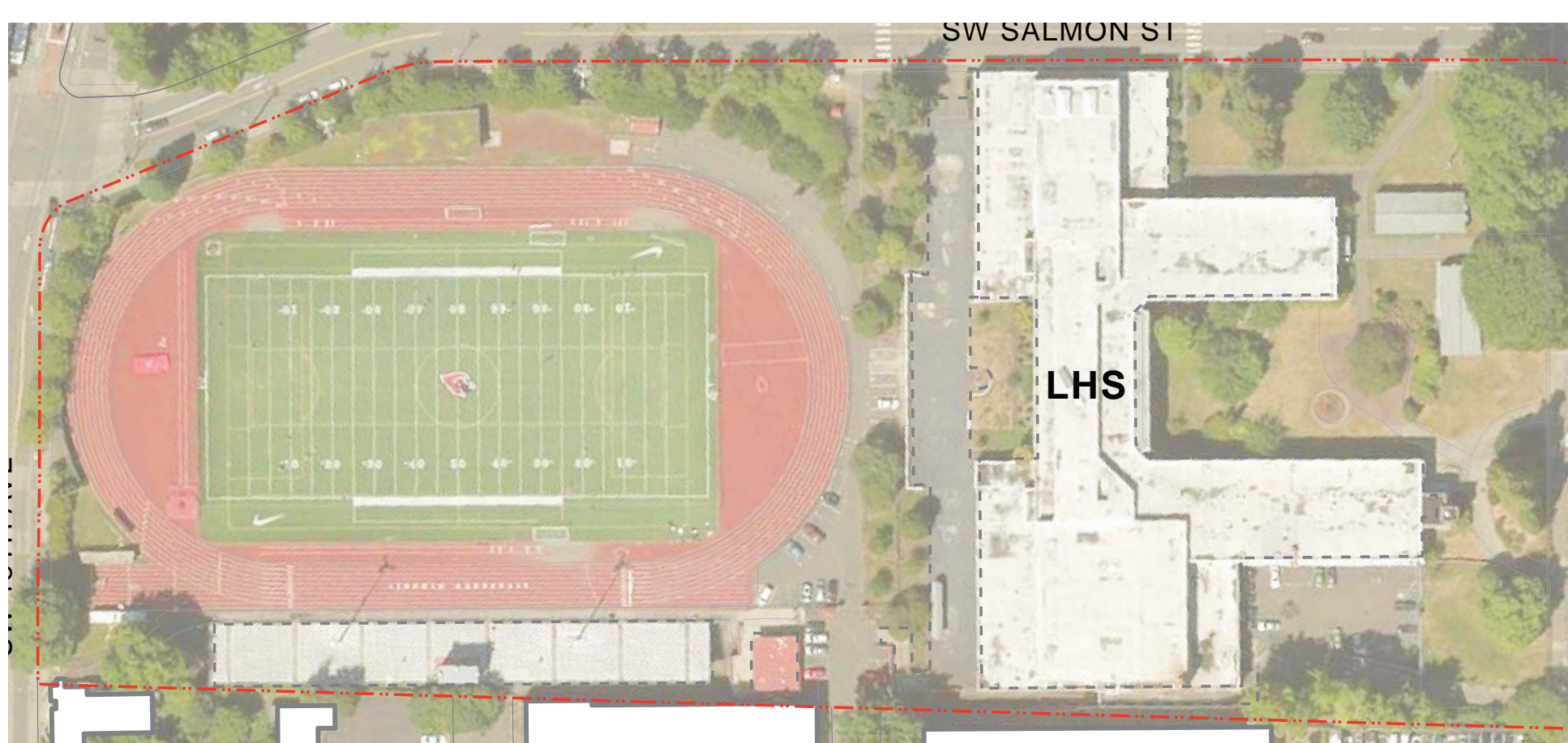
D

Rebuild a new school on east side



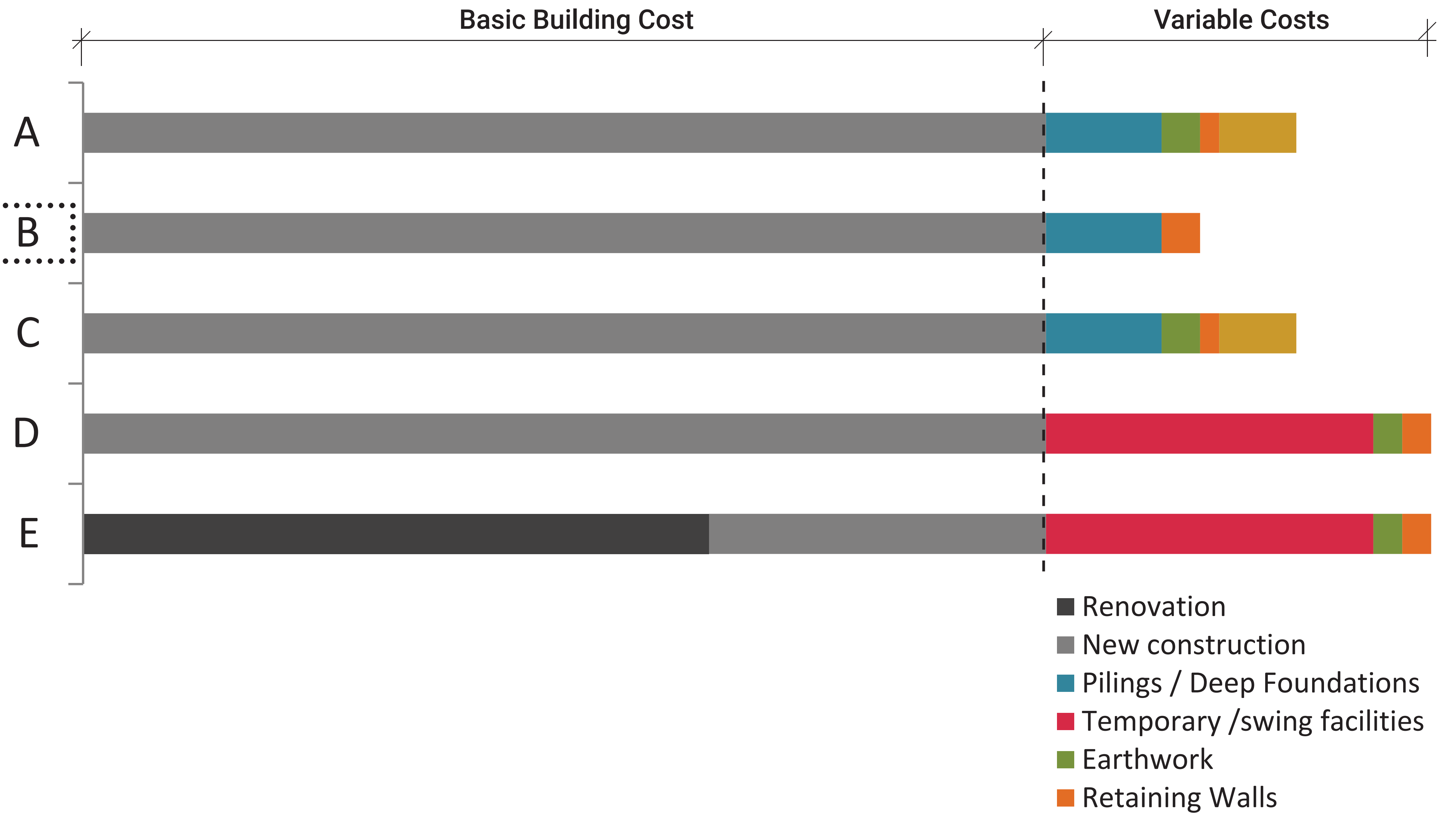
E

Renovate existing school, add 100,000 sf to meet District standards



COST DRIVERS BETWEEN DESIGN APPROACHES

Approach selected by MPC



METHODOLOGY

The MPC explored several master plan layout approaches for the site. Each was reviewed based on how well it met the vision statement and by its relative cost. Since the same base building is being planned for each approach, this chart illustrates the main cost drivers that differentiate the approaches from one another.

- Options A, B, and C locate the building on the west side of the site, where it will need to be supported by a foundation with bored piles.
- Option D requires a significant upgrade of the existing building, including seismic (earthquake), accessibility, unhealthy materials, and modifications to non-complying spaces. Since it is undersized, it would also require that a 100,000sf addition be built.
- Options D and E locate the building on the east side of the site, which would require the students to relocate to a temporary, or “swing” site on the football field.
- Other drivers are the amount of earthwork (removed or added soil) and the extent of retaining walls.
- Options A and C involve placing the stadium along Salmon Street. This prominent location would require a more substantial construction that would provide finished spaces underneath.
- The selected approach, Option B, is approximately \$6 million dollars less than Options D and E.

THE LINCOLN STORY

MEETING THE NEEDS OF ALL STUDENTS

- Lincoln has the highest population & the smallest of the District high school facilities.
- The existing building is not designed for the current student population.
- The building needs an additional 100,000 square feet of space to meet the District's educational specifications for all high schools.

FISCAL RESPONSIBILITY

- The MPC looked at options for upgrading the existing building and rebuilding the school.
- The recommended plan is the most cost effective option for the District and the taxpayers. (see the "Cost Comparison" board for detail)

COMMUNITY RESOURCE

- Design for gymnasium could serve as community space in the event of a natural disaster
- Gym, Theatre, Track will serve as important urban resources beyond the school's needs
- New design provides public through-access making the campus a better urban neighbor

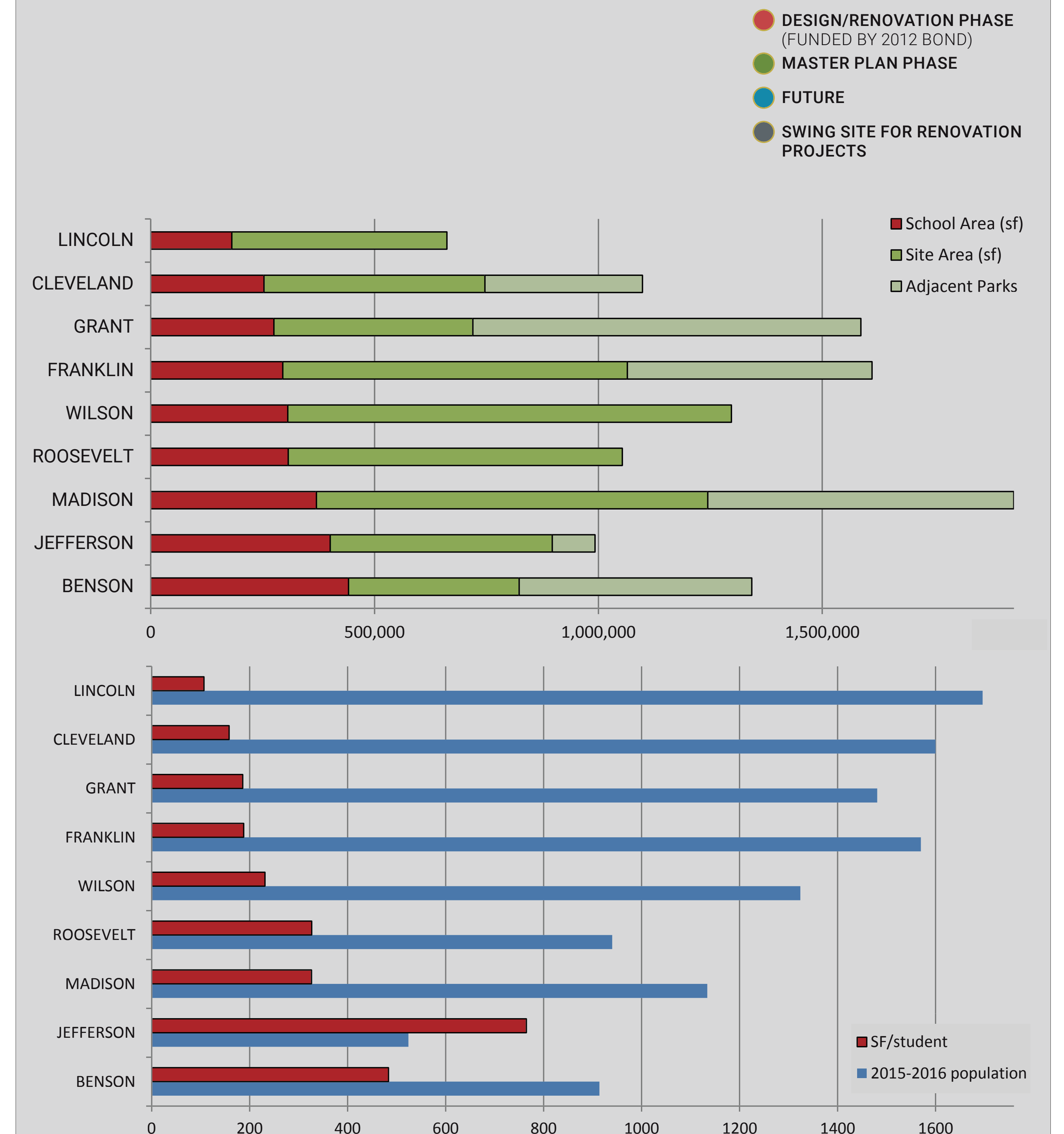
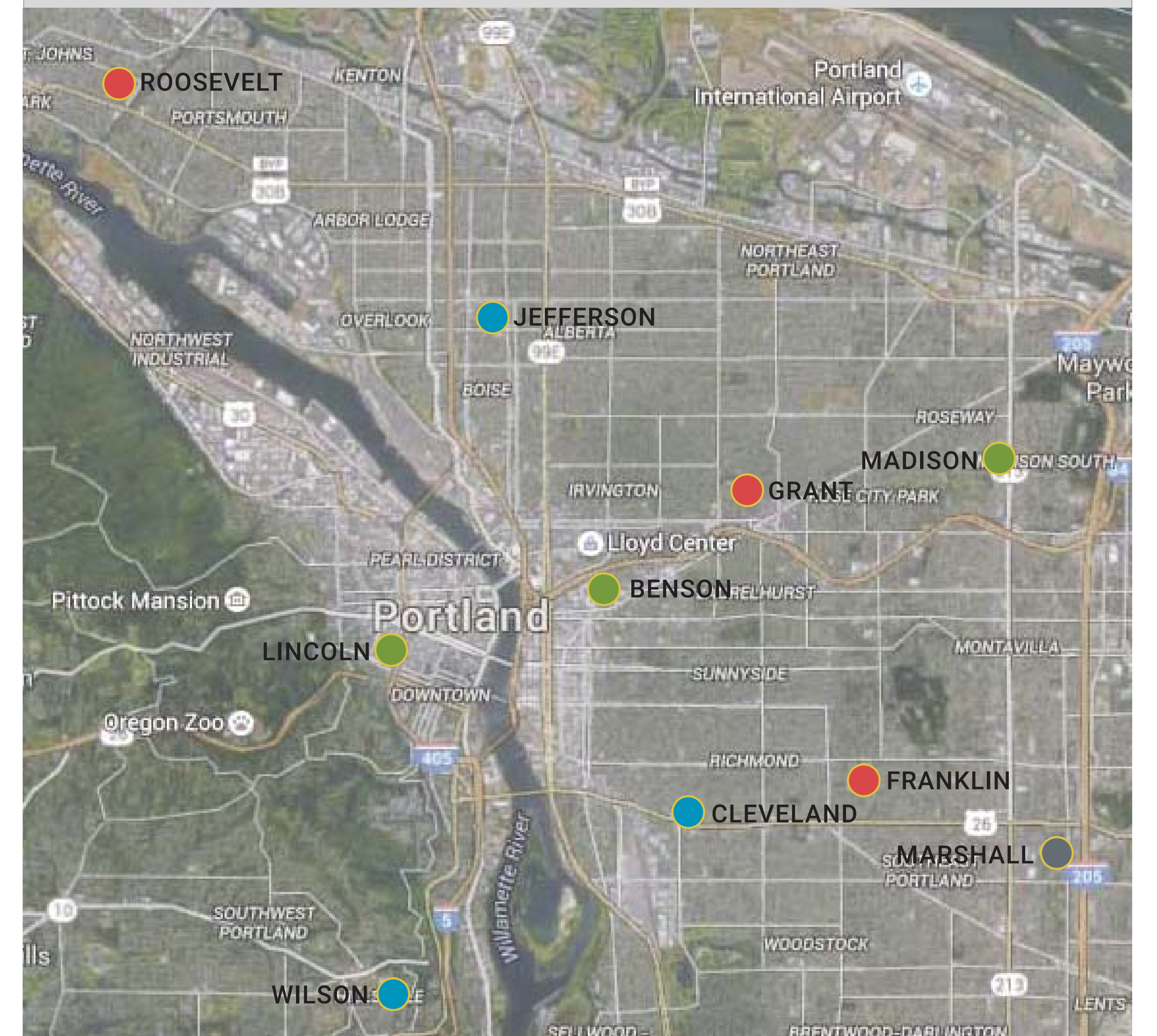


The Master Plan Advisory Committee (MPC) has met 6 times since December.



Photos of LHS today: (clockwise from upper left) Main hallway, Weight Room, Cafeteria, Library

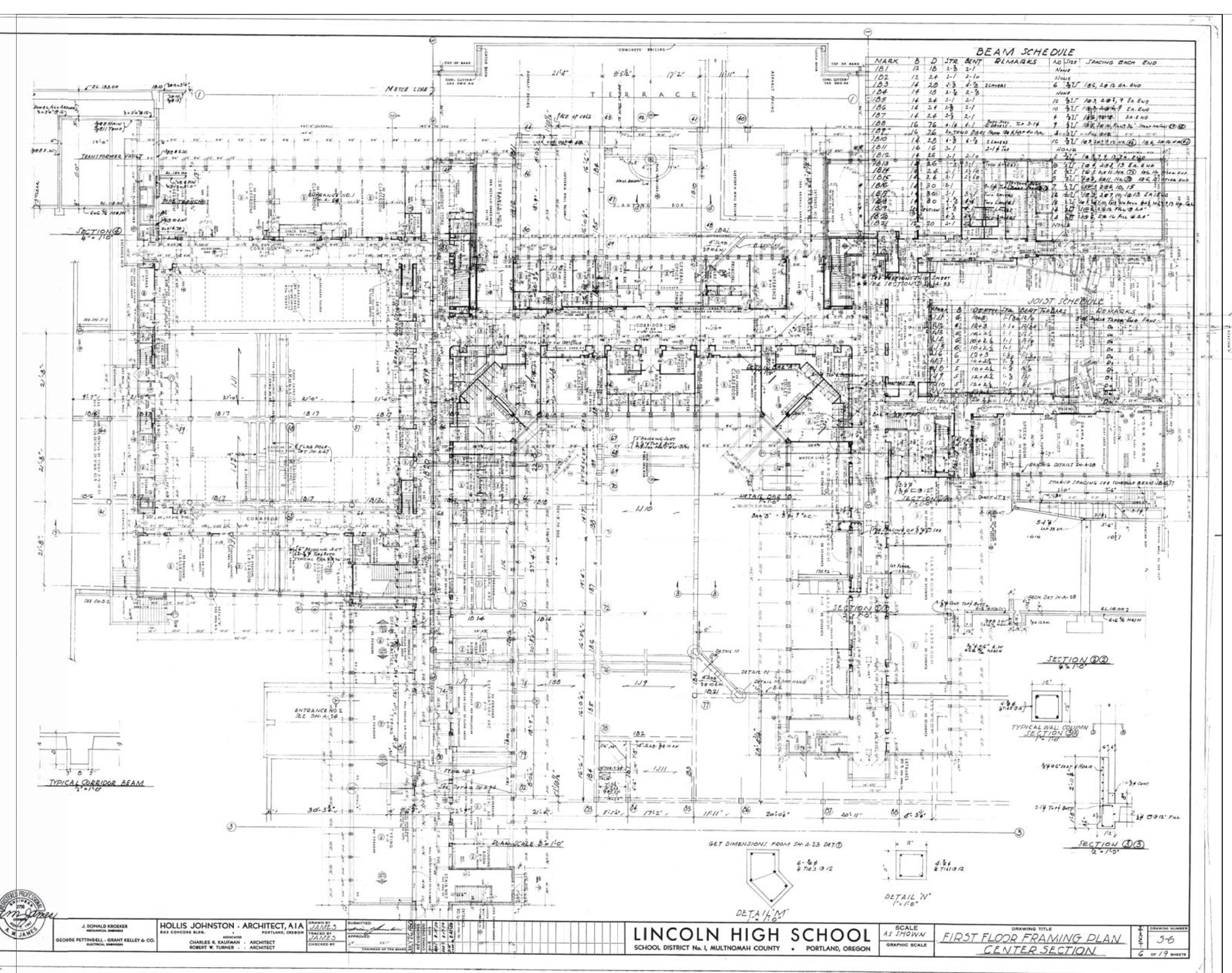
HIGH SCHOOL FACILITIES ACROSS THE DISTRICT



10 SEISMIC + RESILIENCY

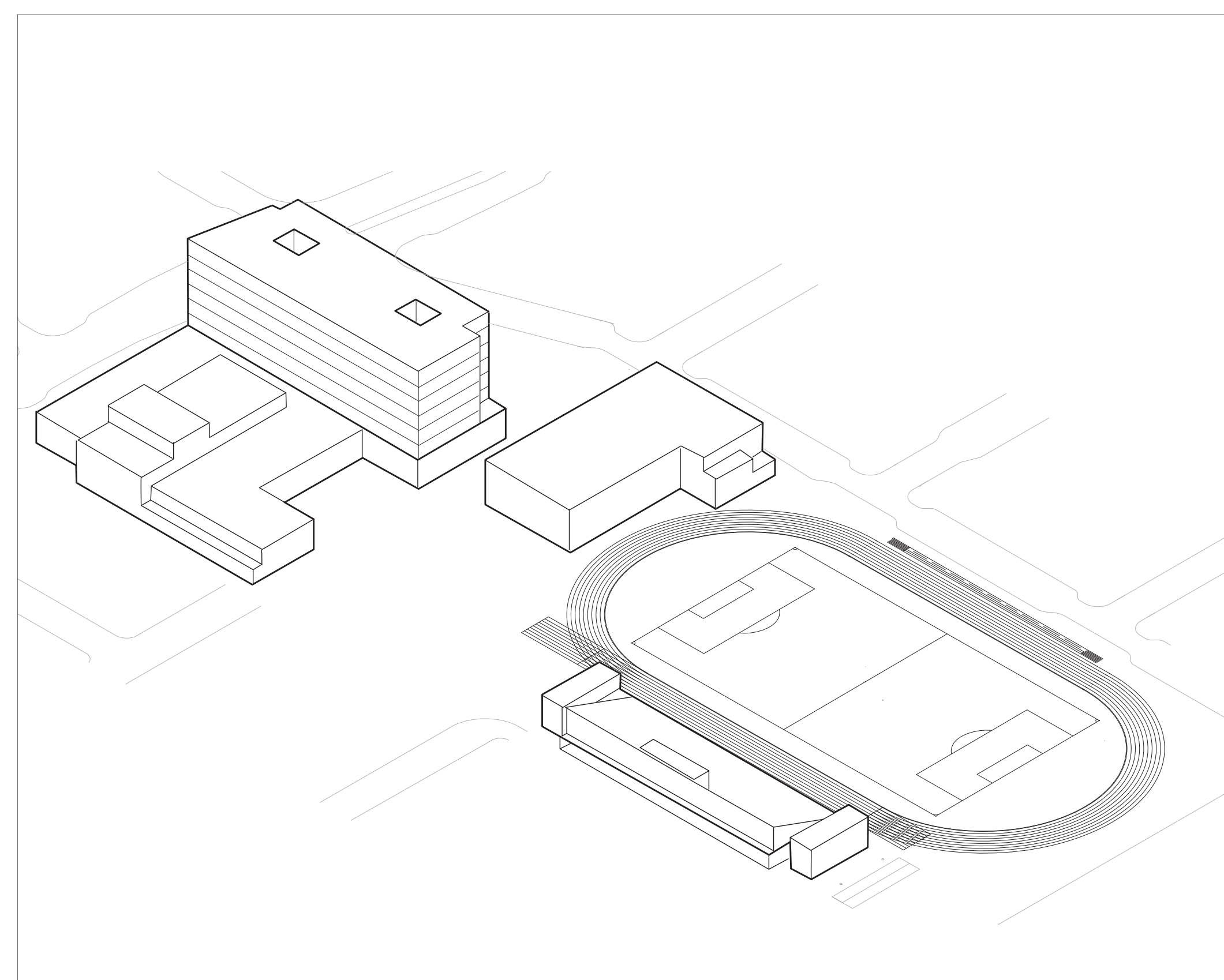
Analysis for seismic upgrade of existing building

- Constructed circa 1951 prior to building code advances in seismic design.
- Reinforced, cast-in-place concrete construction. Reinforced concrete shear walls provide resistance to seismic loading.
- Original shear wall reinforcing is likely insufficient to meet current code reinforcing detailing requirements for ductility.
- The original shear wall foundations may be insufficient for overturning resistance.
- The existing building configuration classifies the building as "irregular". (I.E. Re-entrant building corners) Irregularities can result in higher force concentrations in the building and an increase risk of damage during a seismic event.
- Quality of the existing construction cannot easily be verified.
- No seismic joints present.
- Seismic retrofit of the existing building may be cost prohibitive and may likely to equal or exceed the cost of a new building. There is no guarantee that the retrofit will meet all the requirements of the current building code.



Analysis for new construction

- The cost of the new buildings may be equal to or possibly less than that of the seismic retrofit option. The resulting buildings will meet all requirements of the current building code
- Constructed per current building code for Risk Category III buildings. (Gym may be designed as a Risk Category IV building.)
- Composite steel and concrete floor and roof system supported by steel frame resulting in a lighter building and reduced seismic force demand.
- Special reinforced concrete shear walls or Steel Buckling Restrained Braced Frames will provide resistance to seismic loading. Lateral elements will be designed and detailed to provide a ductile lateral force resisting system.
- New foundations will be designed based on site specific Geotechnical recommendations. Foundations may consist of conventional concrete spread footings or auger cast pile foundations depending on the soil conditions.
- New buildings can be designed to eliminate building irregularities resulting in better performance during a seismic event.
- Special inspection will be performed during construction providing a high level of quality assurance.
- Seismic separation joints will be provided between adjacent buildings to prevent pounding.



CITY RESOURCES RELATED TO EMERGENCY RESPONSE

Find a BEECN site near you

A Basic Earthquake Emergency Communication Node or BEECN is a place to go in Portland after a major earthquake to ask for emergency assistance if phone service is down, or report severe damage or injury. Enter your address below to find the closest BEECN near you.

