BORA

IBW HIGH SCHOOL MODERNIZATION
COMPREHENSIVE PLANNING PHASE REPORT

April 2024

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PORTLAND PUBLIC SCHOOLS' LAND ACKNOWLEDGMENT STATEMENT

"At PPS we strive to strengthen our relationship with the Native community and Native Nations. A symbol of this commitment is a land acknowledgment. These statements bring visibility to the first peoples of our collective home. This statement is meant to provide information and context while also encouraging all of us to reflect on our current day relationship with Native people and Native experiences.

We acknowledge that we live, work, and play on the traditional land of the Chinook, Clackamas, Kalapuya, Multnomah, Wasco, Kathlamet, Tualatin, Molalla. We also know that many other tribes made their homes along the Columbia and Willamette Rivers. We honor their history and acknowledge the sacrifices they made.

Let us also acknowledge the robust present-day federally recognized tribes of this area; the Grande Ronde, Siletz and Cowlitz. In addition, I would like to acknowledge the Chinook Nation, who has been seeking federal recognition for many years.

The urban Indian community is made up of tribal diversity that originates from around the country representing 400 tribes. The urban Indian community has vivid history, made up of people whose journeys have brought them to Portland by ways of forced displacement or seeking more opportunities."

PORTLAND PUBLIC SCHOOLS' ANTI-OPPRESSION STATEMENT

"Today, these tribes and communities celebrate their heritage, showing resilience and tenacity that would be greatly admired by their ancestors.

Within Portland Public Schools today we serve students and families representing more than 150 different tribal nations within our education system. It is our obligation to teach accurate information, past and present, about the impact of colonization on our students, all students today and make visible the multitude of Native families and many diverse ways Native communities and families are living in the present.

We encourage every person to reflect on their own history of colonization and genocide; and support Indigenous sovereignty, priorities, and actions. This acknowledgment is one step that we can take to improve our support of Indigenous communities in the area.

In additional to acknowledging the land and those that have been here since time began, we must also remember our stolen siblings from Africa whose labor built the vast wealth of this country. These two communities and the atrocities committed against them are intrinsically intertwined due to our existence within a white supremacist world. Everything we have is due to stolen land and stolen labor, and every system and institution that impacts our lives is built upon this legacy. It is our job to speak truth into spaces so that we can begin to heal."

PORTLAND PUBLIC SCHOOLS' CLIMATE RESPONSE STATEMENT

"In response to the human-caused climate crisis currently underway and the direct harm being done to our District, society, and planet, Portland Public Schools (PPS) is committing to immediately mobilize resources for climate action. To this end, the District commits to reducing greenhouse gas (GHG) emissions and minimizing other negative environmental impacts; improving our school communities' health and wellness; and building a culture of learning, responsibility, and sustainability centered on our values of racial equity and climate justice."

PORTLAND PUBLIC SCHOOLS' CLIMATE JUSTICE STATEMENT

"Climate change disproportionately impacts the vulnerable members of our community. Climate justice centers and prioritizes people with disabilities, communities of color, and other vulnerable populations in developing climate change solutions. The way we communicate about climate change matters - pushing against systems of oppression that have resulted in climate change through reframing knowledge, solutions, and systems is a form of climate justice."

EXECUTIVE SUMMARY

INTRODUCTION

BACKGROUND AND CONTEXT

This Comprehensive Plan builds on the 2019 Conceptual Master Plan [CMP] and establishes a program, site development strategy and recommended construction budget for the replacement of Ida B Wells High School.

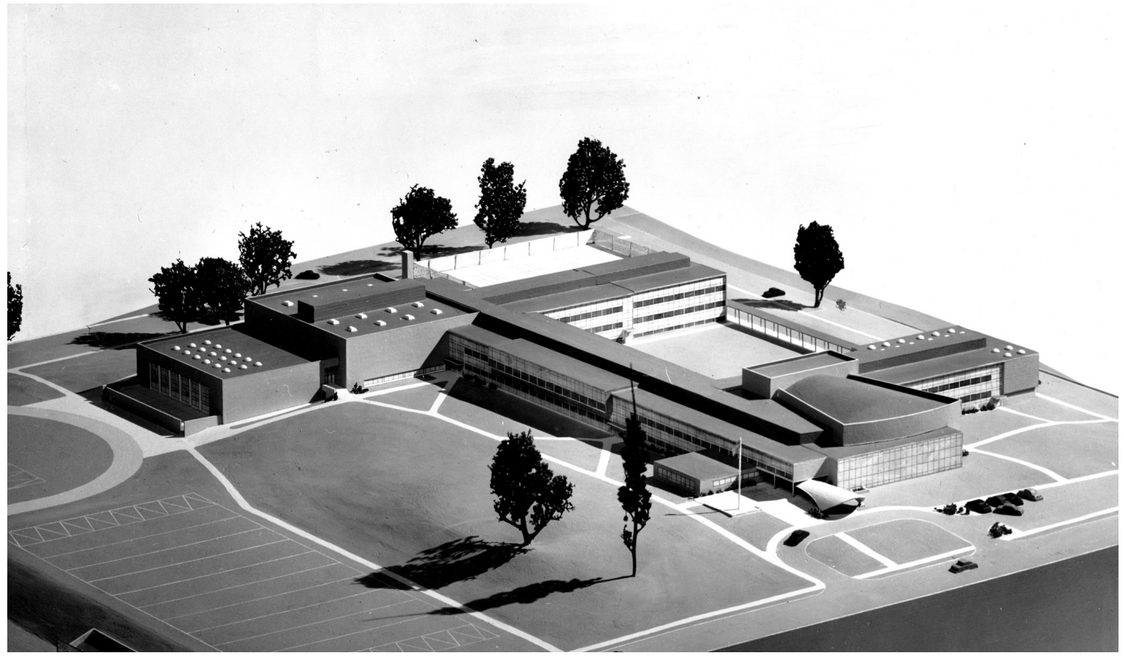
Established in 1956 as Wilson High School, IBW was “re-established” in January 2021 when it was renamed in honor of Ida B Wells-Barnett, an investigative journalist, educator, and early leader in the civil rights movement. She was one of the founders of the National Association for the Advancement of Colored People (NAACP). Wells dedicated her career to combating prejudice and violence, and advocating for African-American equality—especially that of women [Wikipedia, 4/5/2024]

The school serves students in Southwest Portland. Designed in “mid century modern” style, the building has been relatively well maintained with minor modifications over the intervening 60 years,and remains true to its original design.

The 2019 recommendation to replace the school rather than renovate the existing facility was based on several key criteria:

- The structural system [lift slab] while innovative at the time, is now known to present significant life safety risks in the event of seismic activity
- Accessibility challenges abound, including non-compliant pathways, doorways, restrooms and site conditions
- Almost all rooms are smaller than required by current Ed Spec and would likely become even smaller after necessary structural upgrades
- Building systems are in need of full replacement and fail to meet the district’s Climate and Resiliency policies.
- The exterior envelope requires significant upgrades to improve the building’s thermal performance

The Comprehensive Planning process began in September 2023, and the results of that effort are documented in this report.



IDA B WELLS HIGH SCHOOL OVERVIEW + HISTORY

SITE OVERVIEW

IBW sits between SW Vermont Street to the south and SW Capitol Highway to the north, in the Hillsdale neighborhood of Southwest Portland. Rieke Elementary School is located to the immediate west, and its site includes fields that are used by the high school students. The contiguous campuses are bisected by a private road that provides parking for both schools, a portion of which is used each weekend for a popular local farmers market.

Two official “Southwest Trails” cross the site, which is generally unfenced and popular with locals as a place to gather, play and walk: the campus is currently used as an outdoor space and amenity by its neighbors. Single family residential streets abound to the east and south, while a thriving commercial “town center” on Capital Highway, and a food cart pod at the northern entry to the site, provide ample opportunities for students [with means] to find lunch off site.

The largest of all PPS high school sites, a full range of athletic fields are provided on site, including two tennis courts that are currently striped for pickle ball. The site is also home to a pair of outdoor pools. Originally funded by the City, a public pool has been part of this high school site since its inception and it is a popular summer amenity, being the only outdoor city pool on the west side of the City.

The 26 acre site offers expansive views to the west hills and the coast range, and has challenging topography with over 60’ in elevation change across its width - achieving universal access to sports fields and from parking to the building entries will be a key concern.

Parking is currently provided for staff and some students, in several locations. In addition to the bisecting road between the two schools, a second vehicular route connects the Capitol Highway entry to SW Vermont to the east side of the site.

PROJECT VISION STATEMENT

The design of the new Ida B Wells High School will support the whole student in their journey toward lifelong learning and success, guided by a comprehensive definition of student health, a process rooted in equity and inclusion, and a finished place that demonstrates climate and disability justice. Inspired by the legacy of its namesake, the new building will embrace transparency and truth – in organization, in structure, in materials and in storytelling – to ensure Ida B Wells is embodied within its walls

COMMUNITY ENGAGEMENT

ENGAGEMENT PROCESS

The planning phase for Ida B Wells High School [IBW] has been guided in part by a Comprehensive Planning Committee [CPC] which met on six separate occasions to review, discuss and recommend next steps for the modernization project. The CPC was also invited to tour Lincoln High School, which represents the most relevant modernized school in PPS's roster as it utilized a similar site development strategy whereby the new high school was built adjacent to the existing school, while students remained on site.

Three Community Design Workshops, each attended by dozens of community members, shared out the project's progress with a broader group and sought additional input. A final Open House is planned for May 16, to update the Community on the Board of Education's direction regarding the proposed design.

Additional community engagement events included:

- Stakeholder Interviews with IBW leaders to identify key groups for engagement focus efforts
- Community Listening Sessions with
    1. Advisors of Affinity Groups
    2. Para-educators, Teachers, and Staff in Special Education
    3. Muslim & Arab Students
    4. Families Identifying as Members of Immigrant or Refugee Communities
    5. Student Leaders of Affinity Groups
    6. Students in Special Education
    7. Students & Families Who Speak Somali - Session Facilitated in Somali
    8. Teachers & Staff of Color
- Participation in-classroom with two cohorts of with Leadership students to seek input on design drivers for the new school

COMMON THEMES HEARD IN IBW COMMUNITY ENGAGEMENT DISCUSSIONS

Human experience

- An inviting building that evokes pride and respect
- A school that inspires students to learn
- An anchor for the community where students will thrive for generations to come
- A flexible, forward-thinking design to meet future needs

Community health, safety and belonging

- A healthy, supportive space for students, teachers and staff
- An inclusive space where all students feel a sense of belonging
- A safe place for learning
- A place where teachers feel appreciated and respected
- A place integrated with the neighborhood businesses
- A place that recognizes indigenous culture and people

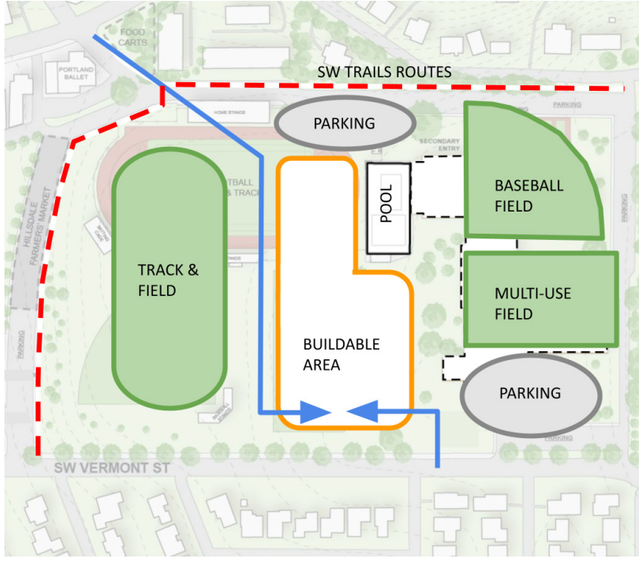
Site Design

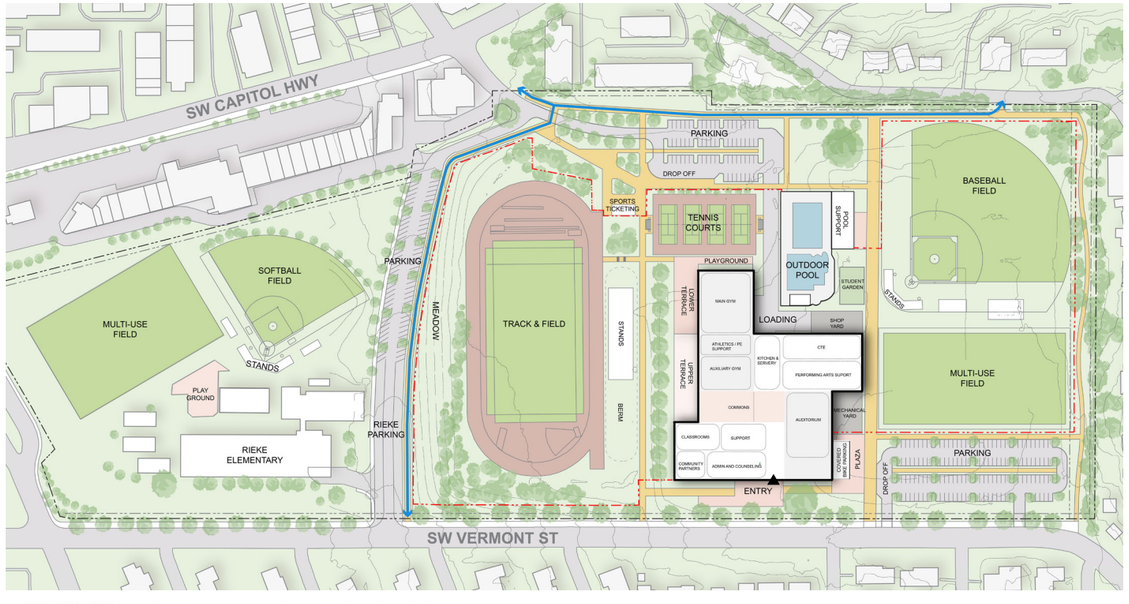
- A landscape plan that considers 10-50yr design
- A design that improves and adds (not subtracts) from the site
- A site that is welcoming and supporting to a diverse set of students
- A purposeful gathering space for neighborhood special events

RECOMMENDED DESIGN OPTION

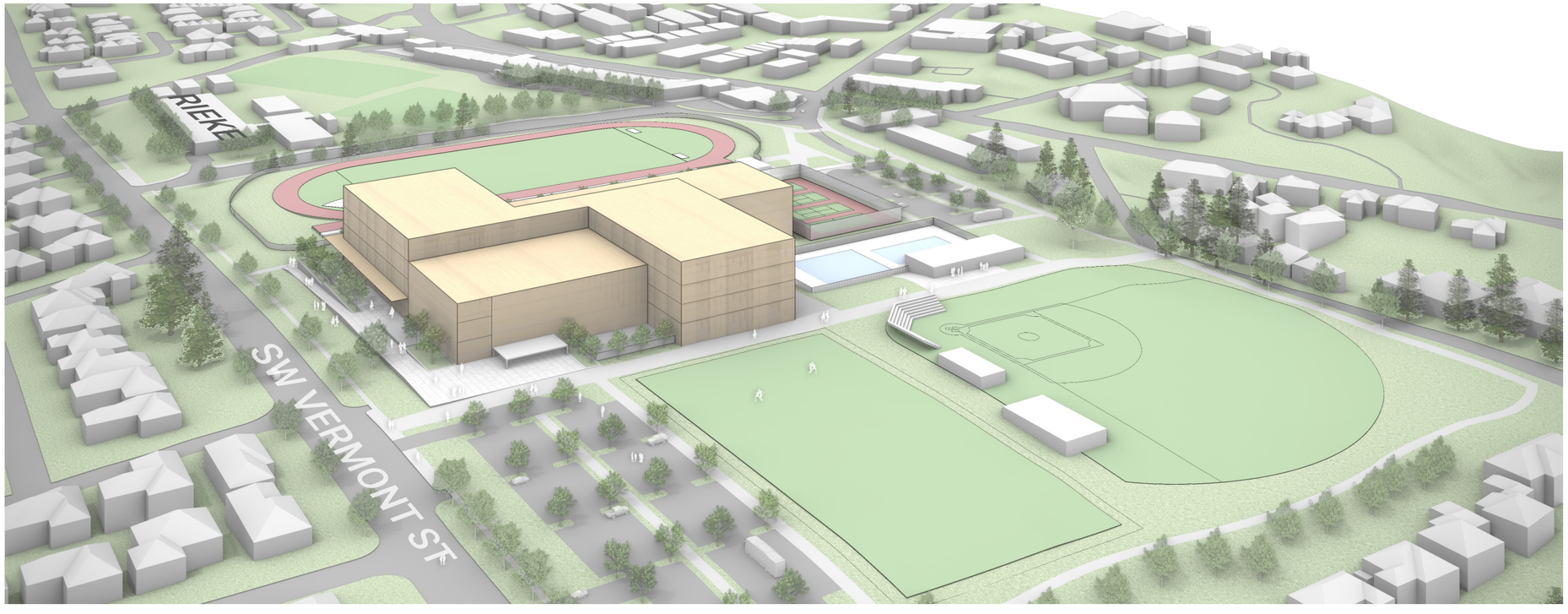
The comprehensive planning process culminated with the analysis of two main design options for the site: Scheme 1 (retains the existing track and field in its current location) and Scheme 2 (Relocates and reorients the track and field to the western portion of the campus). The Comprehensive Planning Committee (CPC) evaluated the two final schemes, and although there was not unanimity, it was clear that the favored option was Scheme 2, primarily due to its ability to improve the connection of the school to Capitol Highway. Through the engagement process, we heard clearly from the community that a strong priority for the project was to strengthen the pedestrian approaches to the school and make the entrance more accessible and welcoming, both from Capitol Highway and SW Vermont Street. Scheme 2 more clearly addresses this goal, and is unique in its ability to accommodate a complex set of design criteria that address multiple parallel priorities for both PPS and the community at large.

Following the final CPC Meeting (CPC 6) the PPS Office of School Modernization presented the two site design options along with associated estimated budgets to the PPS Facilities and Operations Committee, seeking direction for which Scheme to recommend to the school board for approval. The F&O committee saw the benefits of both schemes, ultimately directing OSM to proceed in recommending Scheme 2 to the board.





SCHEME 02



COST ESTIMATE SUMMARY

The construction budget identified for the Ida B. Wells Modernization project is **$368 million for completion in 2028 and $383 million for delivery in 2029**. This budget is based on the "Scheme 2" option recommended by the F&O Committee. The budget attempts to reflect lessons learned from recent PPS High School Modernization projects, including:

- Program alignment to reflect deficiencies in the 2017 Education Specification, as well as IBW-specific curriculum, largely associated with CTE/ Pathways
- Systems selection and spatial implications of the PPS Climate Policy, including all-electric building systems.

Bora engaged two cost consultants to support the development of this budget: DCW, and Gamut Project Solutions (GPS). The two firms took slightly different approaches to how they built their cost estimates, DCW taking more of a "cost model" approach based on precedent projects, while Gamut assembled a conceptual cost estimate, built up from assumptions made at the systems level. The fact that these two disparate approaches could be reconciled to within **2%** of each other increases our confidence in the results.

GPS, in addition to providing cost estimating services, also provided a conceptual construction schedule and site logistics plan. While onboarding of the General Contractor partner in the Schematic Design phase is still a critical milestone in confirming budget and schedule, having this early analysis from a consultant with strong construction management experience is again an important step in managing risk and increasing confidence in the assumptions that informed the construction budget. This budget assumes a healthy percentage of COBID participation, and is based on 3 competitive bids for all subcontractor work. The use of "consortium partners" (subcontractors who are guaranteed contract award) are not assumed for these cost estimates, and would likely carry additional risk and cost. Other possible areas of risk include:

- Construction market escalation (both labor and materials) in the post-pandemic economy
- Hazardous materials discovery beyond what is known and/or included in the budget
- Saturated labor market [for example, Federal investment in microprocessor manufacturing, and/ or three large high schools on identical construction schedules]
- Additional pre-construction fees and "doubled-up" contingencies in future sub-tier contractor budgets

COMPONENT	COMMENTS		TOTAL
Hard Cost	Bldg and Site work - Recommended Scheme (#2) Estimate by professional cost estimator	$	359,310,855
1.5% Green Energy Tech	Required by State of Oregon Calculation includes % of soft costs	$	5,989,663
Subtotal		**$**	**365,300,518**
Owner Direct Hard Costs	Offsite Improvements/Athletic Swing	$	2,200,000
TOTAL HARD COSTS		**$**	**367,500,518**
Soft Costs	~10% of Hard Costs	$	36,300,000
Fixtures, Furniture, Equipment, incl. technology	Based on current PPS project data ~$32/SF Escalated to middle of construction	$	10,000,000
Contingency	10% of Total Cost	$	41,200,000
Escalation	Included in Hard Cost Estimate		N/A
2020 Bond budget for planning and design		$	(20,000,000)
TOTAL*		**$**	**435,000,518**

*Total assumes delivery 6/2028 (Bldg) + 6/2029 (Site). If schedule is extended to delivery 2/2029 (Bldg) + 9/2030 (Site), the additional cost is approximately $15,000,000.

DESIGN AND CONSTRUCTION SCHEDULE

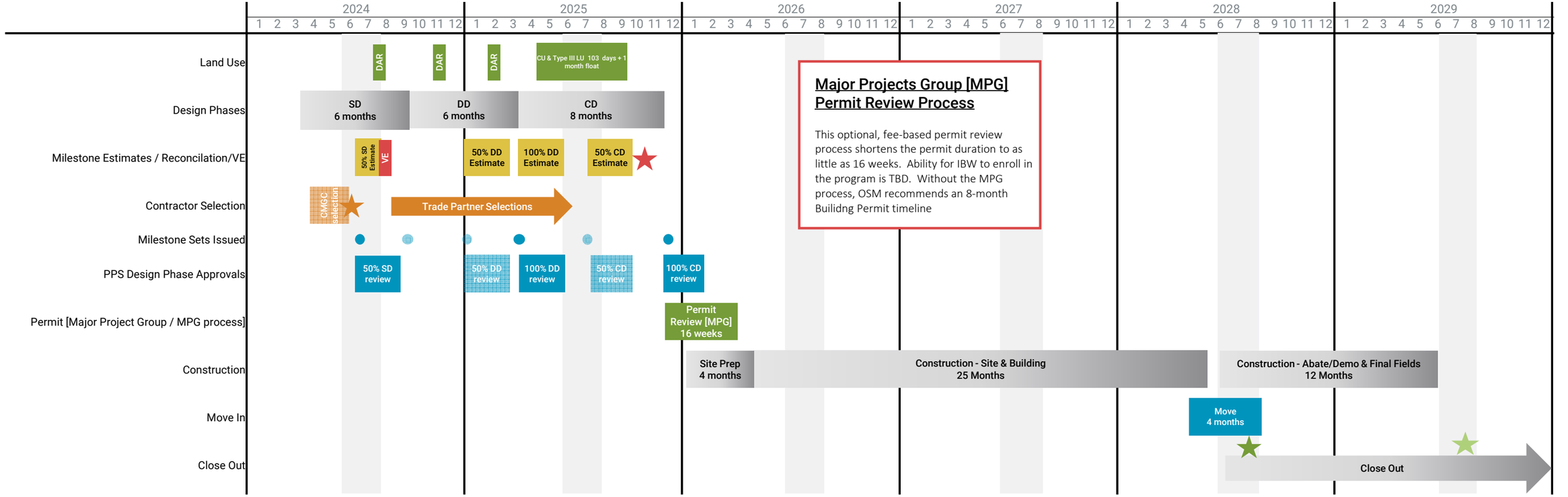
Bora worked with OSM to establish appropriate timelines for the design phases [Schematic Design, Design Development and Construction Documents, as shown in the graphic schedule below]. Note that design phases follow one another without pause - this schedule is based on the understanding that OSM will not require a pause between phases for its review and approval process, but instead will undertake these efforts concurrent with forward progress in the design schedule.

Gamut Project Solutions developed a construction schedule for each of the two Schemes studied in detail for this Comprehensive Plan. In GPS's professional opinion, Scheme 2 will take 25 months to construct, assuming the General Contractor will have access to the site for early prep work at least four months prior, without need for a separate permit for any early work.

Early selection of the contractor, and utilization of a CM/GC form of delivery, is a key component of this approach, with the contractor able to participate in the 50% SD estimating and reconciliation effort in July/August of 2024. A one week Third Party Value Engineering Workshop will be held in late summer, after which Target Values will be established for various components of the project.

A 2028 move in date depends on an expedited Permit Process through the City of Portland's Major Projects Groups or MGP, through which a pathway to permit approval in a 16 week window is achievable. Without this service, the IBW High School would likely not be ready for class until the Fall of 2029.

With the new school in use, the old buildings can be demolished after abatement work, and the remaining fields can be built where the school previously stood. The final sequencing of field construction will be studied in more detail in the design phases, but it is likely that the completion of all site work will occur one year after the school building opens.



IDA B WELLS HIGH SCHOOL
EXISTING CONDITIONS

SITE + LANDSCAPE

OVERVIEW

Ida B. Wells High School is located at 1151 SW Vermont Street in the Hillsdale neighborhood of Southwest Portland. The campus occupies an expansive parcel that is bounded by SW Vermont Street to the south, SW Capitol Highway and SW Burlingame Avenue to the north, Rieke Elementary School to the west, and a residential development to the east. The school occupies the eastern half of the property with baseball, track and football fields to the west. The elevation change from the east side of the site to the west side of the site is approximately 60'-0". A fence-enclosed outdoor pool is located on the west side of the gymnasium. Development in the surrounding area consists primarily of single-family residences built between 1950 and 1990, other than the Hillsdale Commercial District to the north. The Hillsdale businesses along SW Capitol Highway are mostly single level and low density in nature.

The existing school building consists of one building totaling approximately 260,900 SF of built space on an approximately 26-acre site, formerly a Fulton Park Dairy property. The main building was built in 1956, and has not been extensively modified since, with the exception of a minor addition to the north wing of the building in 1960. The school currently accommodates 1,700 students. During the previous comprehensive planning phase, it was determined that the existing school will be demolished, and a new school will be constructed elsewhere on the site so that the old school can remain operational during construction.

The existing Ida B. Wells property has the following amenities on-site:

- Grass Practice Field and Baseball Field
- Synthetic Turf Track and Football Field with grandstands
- Tennis Courts (2)
- Landscaped Courtyard
- Softball on Rieke ES site
- Turf Soccer Field on Rieke site
- Portland Parks and Recreation Owns and Operates Wilson Pool

UTILITIES

Sanitary Sewer

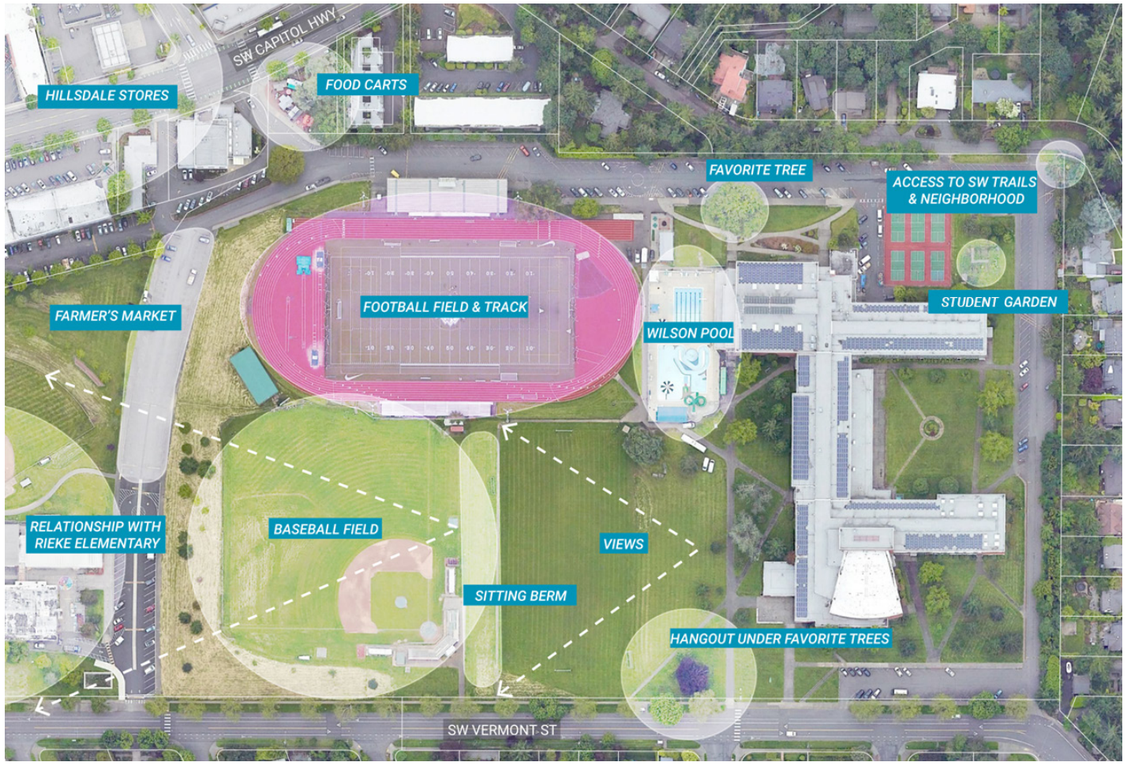
According to City records, the existing school has two (2) 6-inch diameter lateral connections to the public 8-inch to 12-inch concrete (CSP) combined sewer in SW Burlingame Avenue. Historic records also indicate there may be a sewer connection to the sanitary sewer in SW Capitol Hwy and through private property west of 6220 SW Capitol Hwy.

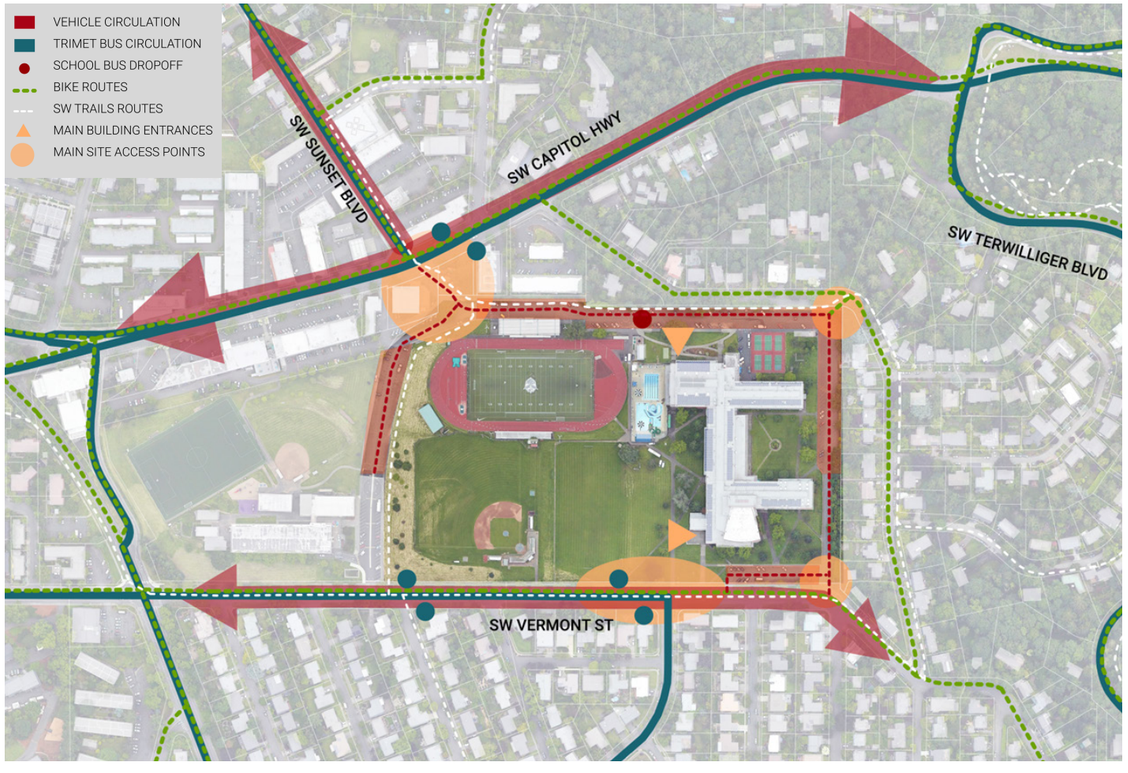
Stormwater

According to City records and available GIS data, the nearest public stormwater infrastructure is the public 8-inch to 15-inch concrete (CSP) storm sewer in SW Vermont Street. Currently, stormwater from the public right-of-way discharges to existing storm sewer infrastructure. Onsite stormwater runoff is directed to the stormwater-only sewer to the south in SW Vermont Street, to the north combined sewer in SW Burlingame Avenue, and to the northwest to a sanitary sewer line in SW Capitol Highway. Since the site was developed in the 1950s and 1960s stormwater management is not currently provided prior to discharge.

Water

There is an 8-inch cast iron (CI) and 8-inch ductile iron (DI) water main in SW Burlingame Avenue. The static water pressure is estimated as 72 – 90 psi at 542 feet in elevation. These lines are in the Bertha 750 Sunset





pressure zone. Water is available to this site from the 8-inch CI and 12-inch CI water main in SW Vermont Street. The static water pressure is estimated as 32 - 40 psi at 551 feet in elevation. These lines are in the Burlingame 643 Tank pressure zone.

The site is currently served through a 6-inch domestic meter and 6-inch fire service from the 8-inch CI Service in SW Burlingame Avenue. The site irrigation is provided by a 6-inch irrigation service off the 12-inch CI water main in SW Vermont Street and a 2-inch irrigation service of the 8-inch CI water main in SE Vermont Street. There is a 10-foot-wide Water Bureau easement (ORD 114505) over a 12-inch CI water main that runs along the eastern and northern perimeter parking lot of the campus. There are no connections from this 12-inch CI water main to the campus. It may be feasible to abandon the 12-inch CI main and quitclaim the easement. Costs associated with the main abandonment will be at the District's expense with all work being performed by the PWB.

Other

A gas meter is provided outside the north end of the boiler room served by a gas line owned by NW Natural Gas in SW Burlingame Avenue. Electrical and telecommunications utilities are also provided to the existing building from the surrounding streets.

RIGHT OF WAY AND STREETS

There are multiple streets adjacent to the Ida B. Wells High School project boundary. These include: SW Capitol Hwy, SW Burlingame Ave, SW Vermont St and S Bertha Blvd. Access to the school from Capitol Highway is through an access easement on privately-owned property that PPS does not own or control. PPS does own the private street between Rieke ES and Wells HS. This street is used for parking during the day and hosts a Farmers Market at weekends.

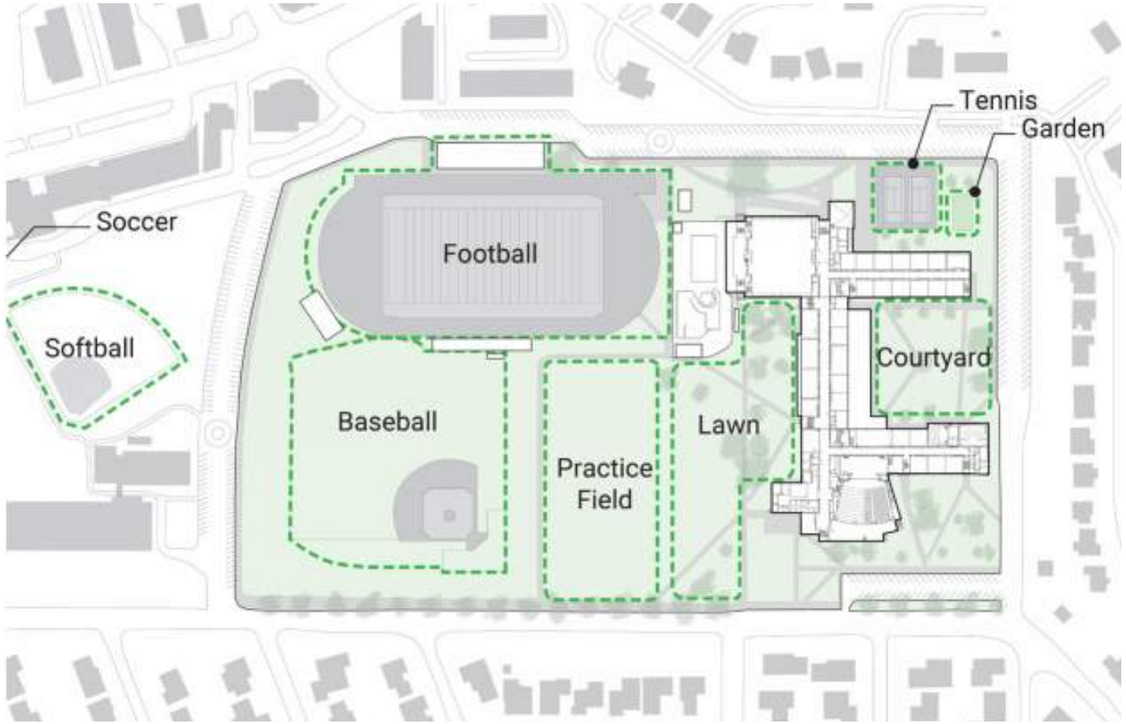
Each of these streets has existing sidewalk, street trees and pedestrian amenities. There are also two multi-use trails as part of the SW Trails system. One is running north-south between the two schools and another runs from Capitol Hwy, through the existing north parking lot and extends onto SW Burlingame Ave.

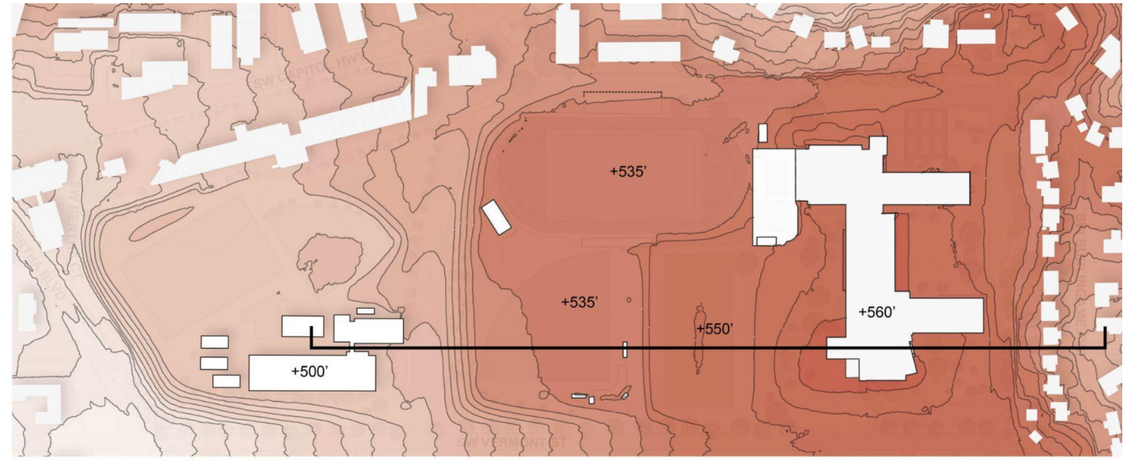
PARKING LOTS

The campus (Rieke ES and Wells HS) is supported by several existing parking lots that wrap the existing school on the north, east and west side and a small lot at the southeast corner. The collective parking lots provide approximately 368 stalls. The existing lots are paved in asphalt and provide parking and bus drop off for students as well as staff, emergency fire access, and trash access currently. The base site design reconfigures most of the existing parking to bring up to code and work with the new site and building design.

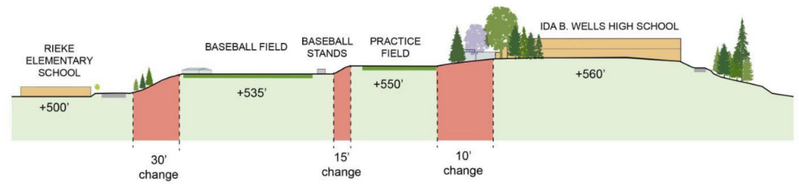
BALLFIELDS, FIELD HOUSE, MULTI-USE FIELDS, AND TENNIS COURTS

This area includes the zones of the school grounds around Rieke ES and Ida B Wells HS. There is presently one baseball diamond, one softball diamond, both with structures including bleachers and other amenities. There are two multi-use fields, one has been improved near Rieke ES and the other close to Wells HS is an unimproved grass area. There are two existing tennis courts within the enclosed tennis cages in the northeast corner of the site. The courts have been improved for pickleball use. The existing track area west of the existing school building contains football and soccer fields, a track, concessions, bleachers, and a variety of other amenities. These areas are fenced and have access points at the northeast and southeast corners. There are existing bleachers on both the north and south sides of the track.

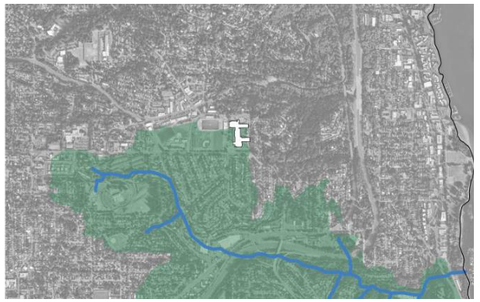




EXISTING TOPOGRAPHY



Attendance Area

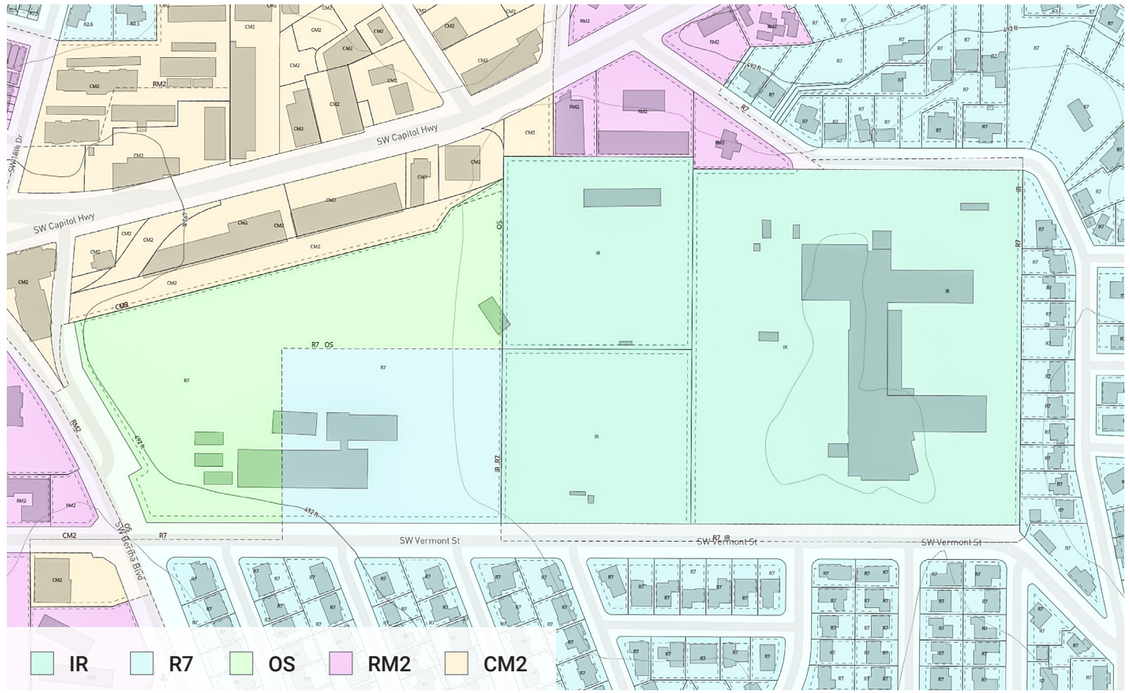


Stephen's Creek

ZONING

The Ida B. Wells site is made up of 4 separate tax lots (including Rieke Elementary) located between SW Capitol Highway and SW Burlingame Avenue to the north, SW Burlingame Avenue to the East, SW Vermont Street to the South, and SW Bertha to the West. Zoning designations on the site include IR – Institutional Residential, R7 – Single Dwelling Residential, OS – Open Space, with a Design Overlay on the IR portions only. The site falls within the Hillsdale Plan District. School uses are a Conditional Use in the OS and R7 zones.

In the IR zone, High Schools are a Limited use that can be approved either through a Conditional Use or through either a Conditional Use Master Plan or an Impact Mitigation Plan (for a large campus over 5 acres in size). Applicant may choose which process. All streets surrounding the site are local service transit streets (i.e. not transit streets). But the entire site is located in a Pedestrian district. The private street that connects SW Capital Highway to SW Vermont is classified as a Neighborhood Walkway.



The following table highlights the main zoning requirements for the site. Of note in the zoning table is the height limit at 75' and the 50' setback regulations for sports fields and courts where the site abuts a residential property.

STANDARD	REQUIREMENT
FAR	
Max FAR	2:1
Min Density/FAR	No requirement
Bonus Density	N/A
Height	
Max Height	75 ft
Setbacks	
Lot line abutting or across the street from OS, RF-R2.5	1 foot for every 2 feet of building height, but not less than 10 feet
Lot line abutting or across the street from RM1-RMP, IR zone	
Lot line abutting or across the street from C, CI, E or zone	
Max Building Setback	10 ft
Maximum Building Coverage	70% of site area
Minimum Landscape Area	20% of site area
Maximum Building Length	None
Landscaping Abutting an R-zoned lot	10 feet to the L3
Landscaping Across the street from an R-zoned lot	10 feet to the L1
Building Facade Articulation required	No
Ground Floor Windows required	Yes
Transit Street Main Entrance	No
Title 11 Trees	Applies – 1/3 of trees over 12" and all trees over 20" should be preserved

These additional standards from the multi-dwelling zones would apply in the IR zone if the site is developed as an "Institutional Campus" as approved though a CUMP or IMP:	
Street-Facing Facades (33.120.232)	- Windows must cover 40% of ground floor wall area for walls 5 feet or closer to the street lot line. - Windows must cover at least 25% of ground floor wall for walls over 5 feet from street lot line.
Required Outdoor and Common Area (33.120.240)	- At least 10% of the total site must be provided as common area – either as outdoor courtyards or play areas
Pedestrian Standards (33.120.255)	5 foot wide hard-surfaced pedestrian paths must connect the building to the street and connect all to all other areas of the site.
R7 and OS Development Standards	
Maximum FAR	0.5 to 1
Maximum Height	50 ft
Minimum Setback R7	1 foot for every 2 feet of building height but in no case less than 15 ft.
Minimum Setback OS (33.100.200.B.2)	1 foot for each foot of building height
Maximum Setback	20 ft
Maximum Building Coverage	50%
Minimum Landscaped Area	25%
Buffering from Across the street from a Residential Zone	15 feet to the L1
Outdoor activity facilities – min setbacks	50 feet from abutting residential properties
Pedestrian Standards	5 foot wide hard-surfaced pedestrian paths must connect the building to the street and connect all to all other areas of the site.
Hillsdale Plan District Requirements	
Drive-Through Facilities	Are prohibited

Additional Requirements	
Nonconforming Situations (22.258)	Up to 10% of the cost of the project must be spent bringing existing nonconforming elements of the site into conformance with the Zoning Code standards.
Schools and Schools Sites (33.281)	- Provisions for on-site bus loading must be accommodated and approved by PBOT as part of the CU - Parking area landscaping may be downgraded to 20 feet to the L2 in place of L3 - Site landscaping that required L3 landscaping may be replaced by L2 or L1.
Recreational Fields and Organized Sports (33.279)	- Development or alterations to a recreational field for organized sports requires a conditional use review. - Fields must be setback 50 feet from adjacent R or IR zoned sites. - Spectator searing must be setback 30 feet from adjacent R or IR zoned sites. - Accessory uses such as concession stands and restrooms must be setback 15 feet.
Superblock Regulations (33.293)	Does not apply
Major Public Trails (33.272)	Dedication of an 12 foot wide easement and construction of a public trail is potentially required. Determination is done by calculating the Rough Proportionality for the site.
Parking Standards	
Parking Minimum	No parking minimum
Parking Maximum	10.5/classroom for High School
Parking Location Restrictions	- In a pedestrian district no more than 50% of the frontage may be used for vehicle areas. - Vehicle areas may not be located between the portion of the building that complies with the maximum street setback and streets in the pedestrian district.
Parking Landscape Buffers	- 5' to the L2 required on all lot lines abutting a street. - 5' to the L3 required on all lot lines abutting a R or OS zone.
Parking Interior Landscaping	45 sf /parking space
Bike Parking	
Long Term	5 per classroom for grades 9-12
Short Term	2, or 1 per 100,000 sq. ft. of net building area for all grades
Loading Space	
Standard A space = 35' by 10' x 13' clearance	- One Standard A space req'd for buildings between 20,000 and 50,000 sq. ft. - Two Standard A spaces req'd for buildings over 50,000 sq. ft.

COMMUNITY USE OF SITE

IDA B WELLS' POOL

The swimming pool on the Ida B. Wells campus was built shortly after the construction of the school in 1956 and was intended for school use. The pool is now owned and operated by Portland Parks and Recreation and is considered a beloved Hillsdale staple to many people in the community, although it is unused by the school. Although the pool is only operational during summer months, the Hillsdale businesses rely heavily on the summer patronage that the pool attracts.

The project team did an assessment of the condition of the pool with the help of a pool specialist, determining that the pool is in good condition for future use. The restrooms and lockers that currently serve the pool will be demolished as they are within the existing school building, so a new restroom and locker facility will need to be provided for continued use of the pool.

HILLSDALE FARMERS MARKET

The Hillsdale Farmers' Market occupies the northern portion of the private street that connects SW Capitol Highway to SW Vermont Street between the Ida B. Wells and Rieke Elementary campuses. The market is a temporary destination that is erected and open only on Sundays throughout the year, from 9am until 1pm. The market was established in 2002 and hosts over 50 local farmers and food artisans from Oregon and Washington. When the market is not open, the street remains open for vehicle passage through the site, and the 38 parking spaces along this portion of the street are reserved for Ida B. Wells High School use.

The Farmer's Market is in the portion of the site that is zoned OS (Open Space) and is not a permitted use within that zone according to the current Zoning Code. According to the code, if a nonconforming use is discontinued for 3 continuous years, the nonconforming use rights are lost. This will be taken into consideration when construction planning for the project is underway.

TRAILS

The Ida B. Wells site is loved by the community for its openness to pedestrians and the ability to use it recreationally or traverse between the Hillsdale commercial area and the residential areas. There are currently two multi-use trails on the site that are designated within the SW Trails system. One trail runs north-south along the private street between the two schools, and the other runs from Capitol Hwy, through the existing north parking lot and extends onto SW Burlingame Ave.

The trails are currently at the edges of the parking lots and lack proper separation from vehicles. As part of the new school project and site improvements, the designated trails on the site will be improved. They will be widened to 12ft with 4ft landscape buffers on each side, with new concrete paved surfaces and street crossings. New wayfinding will direct local access to the public portions of the campus.

COMMUNITY ENGAGEMENT
+
STAKEHOLDER OUTREACH

OVERVIEW

The comprehensive planning process for the Ida B. Wells High School modernization began in the fall of 2023. Comprehensive planning is the first step in determining the shape of a new school. The project team solicited input from the Ida B. Wells community about the design through the Ida B. Wells Comprehensive Planning Committee (CPC), Community Design Workshops (CDW), stakeholder interviews, and community listening sessions.

Prior to the 2023 CPC process and while the school was still named Wilson High School, a conceptual master plan was completed as part of the planning effort for the 2020 Bond. The work was done through a Conceptual Master Planning Committee (CMPC), a group of school and community stakeholder representatives who worked together to help provide feedback for the master plan. This conceptual plan was used as the starting point for the new Ida B. Wells modernization comprehensive planning phase, but the new CPC process was not restricted by those plans.

This comprehensive planning process began in the fall of 2023 and continued into the spring of 2024. In addition to regular CPC meetings and CDW meetings, the project team's community engagement consultants, After Bruce, held several interviews and listening sessions and conducted a survey, and to allow the greater community an opportunity to weigh in on the design process. After a Comprehensive Plan is finalized and approved by the School Board in May, 2024, the project moves into design. The funding for the construction documents phase, permitting, and construction will need to be provided by future voter-approved bond.

COMPREHENSIVE PLANNING COMMITTEE

The Ida B. Wells Comprehensive Planning Committee (CPC) is a group of school and community stakeholder representatives who have worked together to provide feedback to the design team as they synthesize community input and re-imagine a new school. The committee includes parents, teachers, students, alumni, PPS staff, community members, and a school board member. The advising provided by the CPC is necessary to create the initial vision that will serve as the foundation for the project, and to help us understand qualitative questions about **experience, uniqueness, and the culture** of the school. There were a total of six CPC meetings between October 2023 and March 2024.

COMMUNITY DESIGN WORKSHOP

Between October 2023 and February 2024, the project team held three public community design workshops in the Ida B. Wells cafeteria and library. At each meeting, the design team presented the developing guiding principles and conceptual site design options for the project, followed by a feedback exercise where community members were asked to reflect on the design options and provide written comments. The design team collected and synthesized feedback following each meeting, allowing the community input to guide key aspects of the site plan development and project vision.

LEADERSHIP CLASS VISIT

In March 2024, the design team visited the Ida B. Wells Introduction to Leadership classes to facilitate an interactive visioning workshop with the students. Following an introduction and overview of the project by the design team, the students were asked to read and reflect on several questions about their vision for the new school. After a group discussion, the students worked in small groups to create collages that reflected their vision. The students presented their work at the end of class, and several themes emerged from safety and design, to the celebration and commemoration of Ida B. Wells. The design team will return to the school to hold a similar workshop with the Advanced Leadership classes later this spring.

How can the attributes and values of Ida B. Wells Be reflected in the design of the new school?

"I think Ida B. Wells leadership skills and her contributions to womens' rights will be reflected onto the school by making it a place that gives everyone space to be themselves and to have space to be themselves."

"Feelings of safety. Statue, posters, quotes by her - making her more known."

"Having the school feel welcoming and representation of her [Ida] because not a lot of people know about her or why she's important."

"Sense of community, bright future."

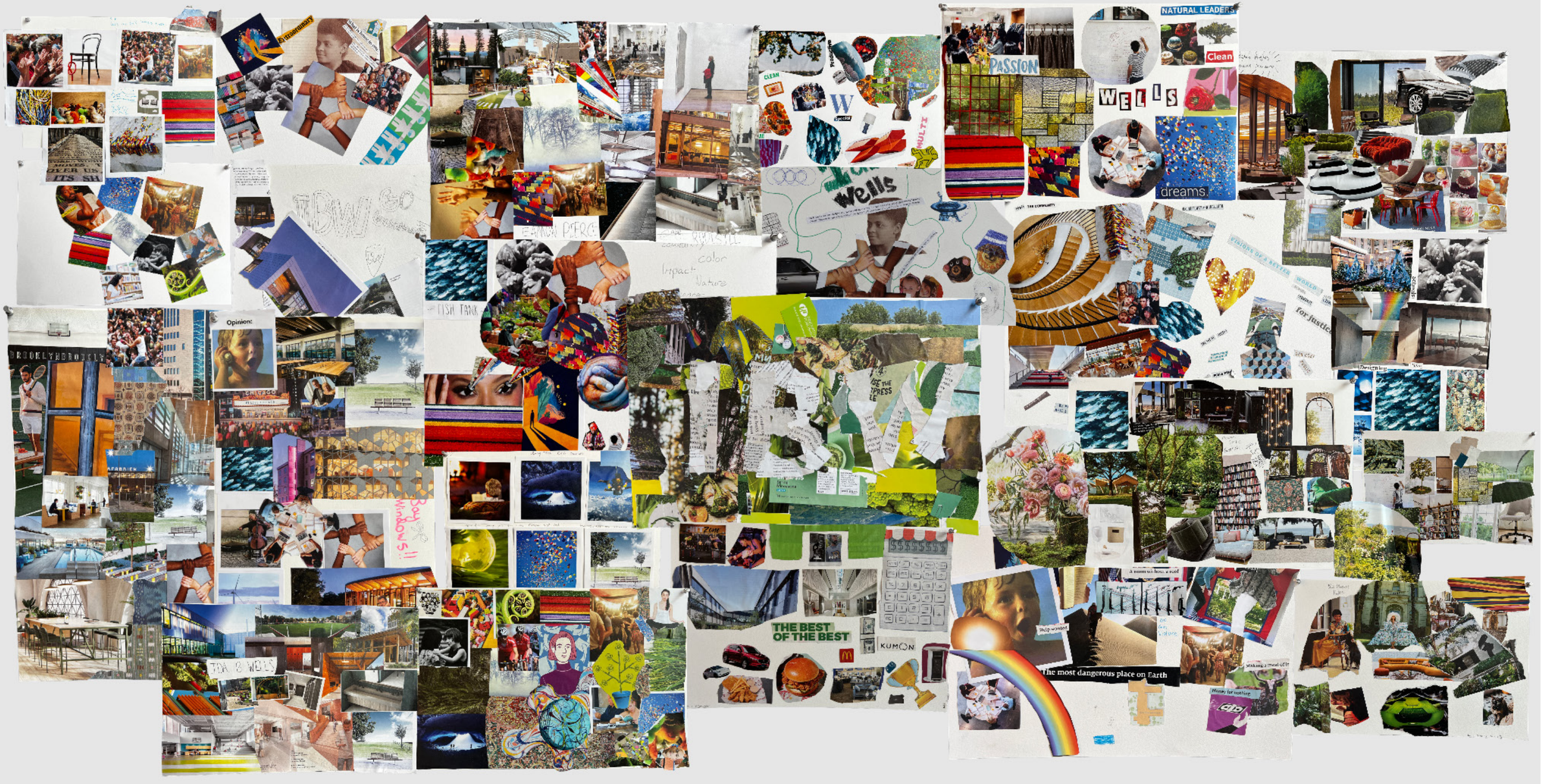
"Be different. No need to conform."

"Maybe they can make our school about journaling because Ida was a journalist."

"Murals with all different races, genders, sexualities, culture, religions, etc. Safe and easy to navigate."

"Make it really pretty and make it feel safe and cozy. Add lots of art and murals to commemorate her [Ida]."

"By creating something new it may reflect how students at Wells improve and become better through time and effort."



Collage of student-created collages from the Introduction to Leadership class

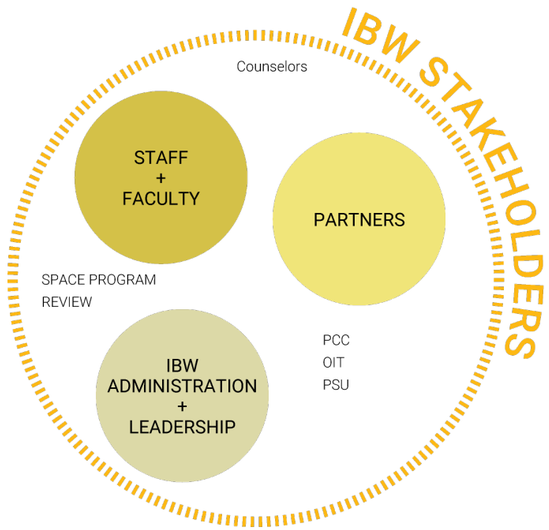
STAKEHOLDER ENGAGEMENT: BACKGROUND AND PROCESS

In late 2023, After Bruce conducted research and analysis to inform and establish a strategic framework for designing the community-based engagement component of the Modernization Process. As part of that effort, they conducted a scan of current and past PPS Modernization efforts, analyzed available data and information about the community directly served by Ida B. Wells High School (IBWHS), and reviewed existing literature and materials, research, surveys, and community briefs.

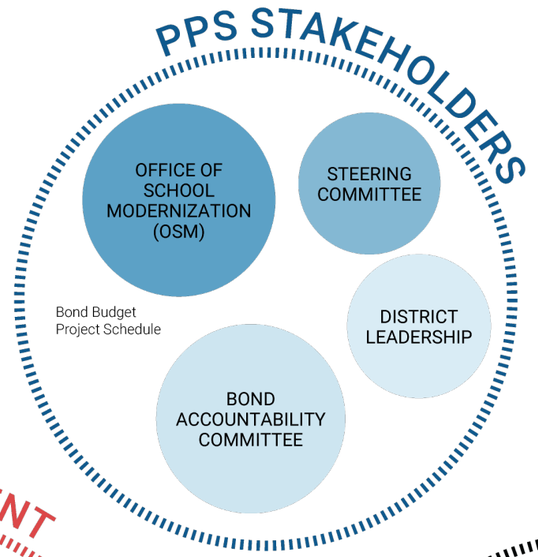
Two key purposes guided that research:

1. Provide the Ida B. Wells-Barnett High School Modernization Design and Community Engagement teams with actionable information regarding the overall IBWHS community landscape, demographic insights, and key audience engagement considerations;
2. Identify gaps, needs, and opportunities related to community engagement that may inform the design, approach, recruitment, and facilitation of the Community Engagement sessions, within the actionable parameters of PPS educational specifications

After Bruce's research culminated in a findings memo that articulated findings and recommendations to PPS and the Design Team. The recommendations were crafted with the goal of ensuring meaningful, equity-informed, and impactful engagement of critical and marginalized community voices otherwise missing from or underrepresented in the IBWHS Modernization process.



- PPS Strategic Plan
- PPS Racial Education Equity Policy
- Portland Public School reImagined
- PPS Climate Crisis Response, Climate Justice and Sustainable Practice Policy
- HS Comprehensive Ed Spec
- PPS Design Guidelines + Standards



- PPS Academic Planning
- PPS Transportation
- PPS Athletics
- PPS CTE
- PPS VAPA

PPS Partners:

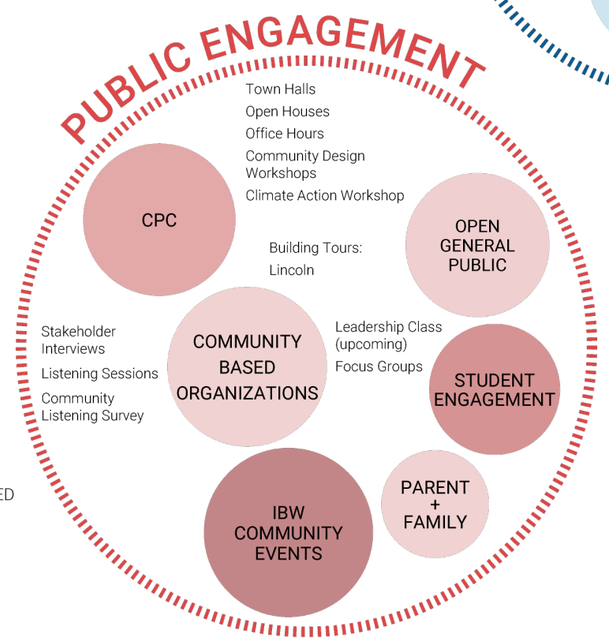
- Head Start
- Multnomah County Student Health Clinic

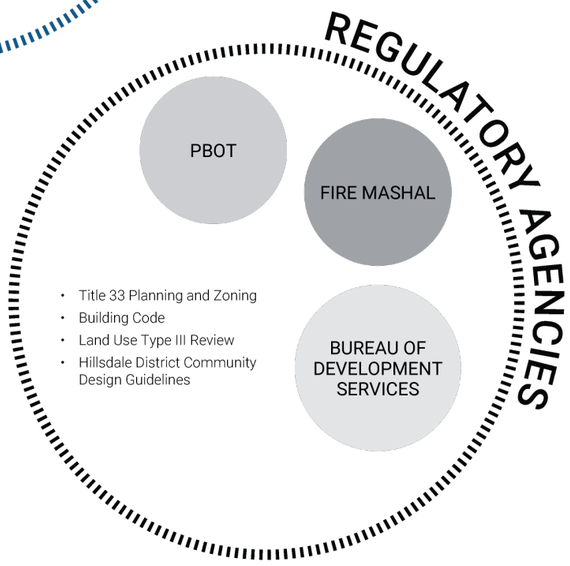
Stakeholder interviews

- Principal
- School Psychologist
- Muslim Parent of IBW Student
- School Social Worker
- Special Education Lead

Listening sessions

- Advisors to student affinity groups
- Special Education staff
- Muslim & Arab students
- Immigrant and refugee community members
- Students leaders and members of affinity groups
- Disability Community served by IBWHS
- Students in Special Education
- Teacher-supported session with medically fragile students in SPED
- Somali language facilitated Listening Session
- Teachers and staff of color (upcoming)
- Students and families of color





ENGAGEMENT DESIGN AND SUMMARY

Following review and discussion of the memo, feedback from PPS and the design team was incorporated into a finalized engagement plan, resulting in implementation of the following tactics and components:

STAKEHOLDER INTERVIEWS

Stakeholder interviews were conducted one-on-one and in small groups to glean more specific and nuanced insights into the day to day experience of key communities, gather critical feedback or anecdotes, help identify current barriers and motivations, inform other engagement strategies, and refine questions asked in listening sessions. Interviews were conducted with the following people:

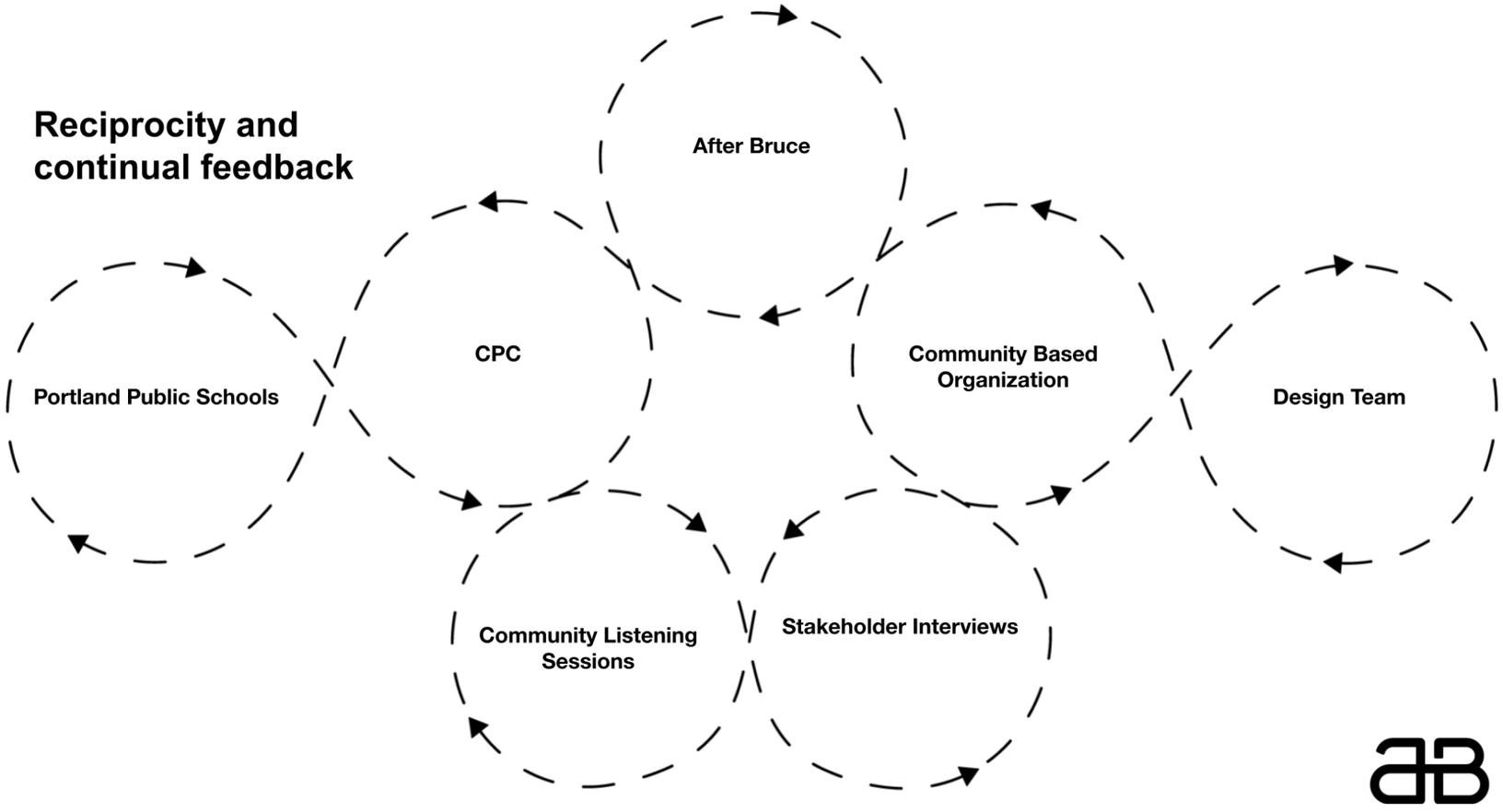
- *Principal*, Ayesha Coning
- *School Psychologist*, Emilee Refvem
- *Parent of IBWHS Student & Muslim Community Member,* Maryam Moussaoui
- *School Social Worker*, Britni Locke
- *Special Education Lead*, Michael Pine

The stakeholder interviews offered several insights that confirmed a number of our strategic recommendations. These included working in close collaboration with the Special Education team to co-create multiple avenues of engagement to ensure that students in Special Education and their caregivers are thoughtfully and intentionally included and in ways that support their ability to give input to the future plan. These modalities are described later in this report.

Interview insights also spurred further refinement of our engagement strategy, resulting in the addition of a Somali-facilitated listening session, Muslim and Arab student specific session, and a listening session hosted for students, families, and other residents at Stephens Creek Crossing.

SURVEY

The online survey tactic is supplemental to our listening sessions, and is not meant to elicit mass-responses. Rather, It's an opportunity to reach local communities who wouldn't otherwise be able to participate in listening sessions but want to contribute input to the modernization process. These may also include community members who may not currently have students at Ida B. Wells High School, but utilize or interact with the facilities in some way or are people who would otherwise not be engaged by existing materials. After Bruce drafted a 35-question survey that adapted listening session questions into a non-facilitator format. While there were some delays in review and approvals that affected the timing of the distribution date, the responses received to-date are integrated into the themes below. They will continue to circulate the survey and will look for an opportunity to update the questions in the next design phases.



COMMUNITY LISTENING SESSIONS

Community Listening Sessions are intimate, thoughtfully cultivated spaces meant to provide a safe, inclusive, and intentional environment for participants to share their truths. Feedback and input from these listening sessions was summarized into memos provided shortly after each session. The analysis of that data is contained within this report. The following listening sessions and office hours were completed during the comprehensive planning phase:

1. Advisors of Affinity Groups
2. Paraeducators, Teachers, and Staff in Special Education
3. Muslim & Arab Students
4. Families Identifying as Members of Immigrant or Refugee Communities
5. Student Leaders of Affinity Groups
6. Students in Special Education
7. Students & Families Who Speak Somali - Session Facilitated in Somali
8. Teachers & Staff of Color

DIY ENGAGEMENT GUIDE

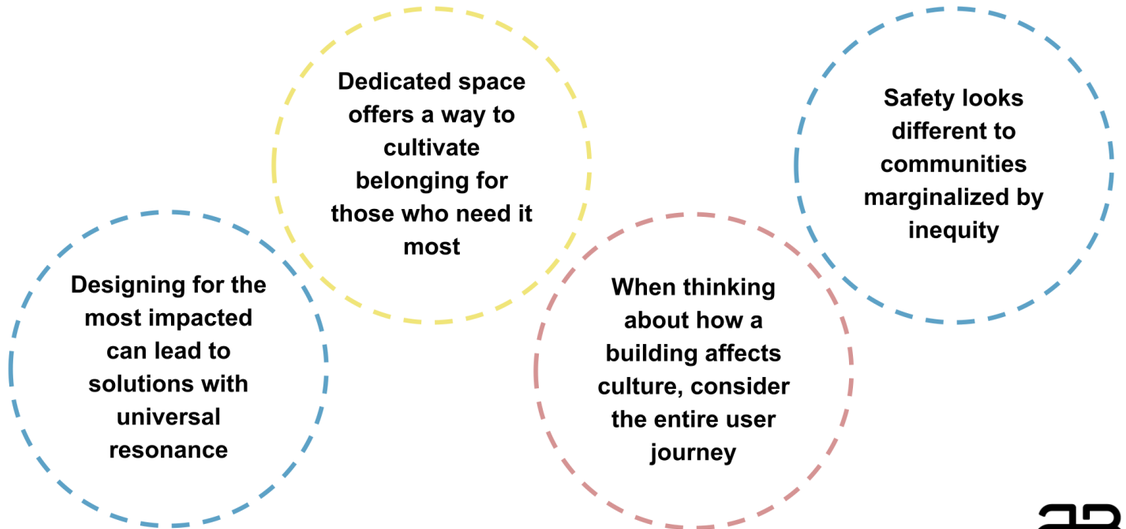
Stakeholder conversations confirmed our strategic recommendation to work alongside student leaders to develop an engagement and facilitation guide geared toward peer-to-peer engagement. Creating DIY facilitation guides and offering facilitation training not only offers students a career engagement opportunity, but supports peer-to-peer engagement between affinity group leaders and members. This method offers students a safe space to have open conversation, free of power dynamics that may otherwise arise.

A DIY guide was also created for parents later on, after some discussion during the students and families listening session. For parents and families with challenging schedules, it's often difficult to participate in listening sessions even when they're hosted nearby their residences. Some parents who attended our sessions are people who are seen as hubs of information or informal leaders in their communities, and offered to gather feedback on our behalf with other parents they've built relationships with. This approach doesn't forgo After Bruce-facilitated listening sessions, rather, it supplements those data gathering methods, enabling us to receive insights from people they wouldn't otherwise be able to reach.

REACH SUMMARY

After Bruce's recruitment channels include a loose network of school-based stakeholders, parents and community members, and a cohort of 49 community-based organizations in addition to communications facilitated through the principal. To-date, they have engaged with nearly 60 students including 29 student leaders, over two dozen staff and teachers of color, 29 teachers, paraeducators, and staff in the Special Education program, and dozens of parents and community members. Some of this cohort continue to be re-engaged throughout multiple engagements. They plan to continue to deepen engagement with community members reached to-date, and also expect these numbers to grow significantly in the next design phases.

EMERGING DESIGN THEMES



THEME 01: *Dedicated space cultivates belonging for those who need it most*

Students most marginalized by systemic inequities find belonging in each other. There are few spaces in the current building where they feel part of the broader community. Often, it is up to individual people to adapt existing spaces to offer a sense of welcoming. Students have expressed that they feel like most spaces in the school aren't for them. The lack of permanence is particularly challenging. Earlier in this process, After Bruce's research memo had noted several compounding factors for marginalized communities, particularly students from immigrant or refugee families. For instance, the myriad of current global conflicts may be contributing to trauma, stress, marginalization, and more in students and families who share any form of ties to regions where violence is especially acute. Even if not directly impacting an individual, these news cycles and events can re-traumatize and trigger PTSD for those who individually or whose families have experienced armed conflict or displacement. Engaging these communities at times like this to discuss subject matter related to place and belonging will require additional care, support, and resources.

In some cases, these students face communication barriers, have disabilities, or come from families and communities that do not have the time, resources, norms and traditions, or cultural capital that make it easier to express and advocate for their specific needs through regular or dominant culture avenues. In particular, it can be challenging not only to express these needs but anticipate the emotional labor that might arise from the reactions they might receive, like being asked to justify the need rather than affirming the need as valid.

Despite entrenched issues, barriers, and challenges that marginalize these students, their vision for the future of the campus centers around ideas for shared space that are adaptable, flexible, and responsive to the varied and evolving needs of students who don't always feel part of the everyday at Ida B. Wells.

Consistently, students who have participated in our listening sessions strongly believe that if other students and peers from their communities can be visibly reflected throughout the building and have a specific space they can feel pride in and help steward together, they can inevitably cultivate a deeper sense of welcoming and belonging for future, incoming students.

When the very structure of a place offers every student a chance to call the campus theirs, the whole campus climate shifts for the better.

As noted in Challenges and Limitations, systemic and structural factors exist at IBWHS that impede belonging. In this case, the new campus offers a tremendous and rare opportunity for design to address the issue of permanence and belonging in ways that are currently difficult. Additionally, it was also noted that illuminating connections between the impact of space on psychological well being and health outcomes by setting context can support greater awareness and motivation to provide input. Making explicit the myriad of ways the future plan may impact students, families, and nearby communities — demonstrating the stakes — is critical to encouraging more participation from voices currently missing or underrepresented in the process.

This became clear through Comprehensive Planning Phase and the input that was received from students about the ongoing challenges they face. However, in doing so there should also be an acknowledgment that these improvements are years away and do not offer solutions for current students. It is strongly recommended that school administration seek student, staff, and faculty support to offer an interim solution to this spatial challenge in particular.

THEME 02: *Designing for the most impacted can lead to universal solutions*

Accessibility is often focused on compliance. While compliance guidelines are critical for establishing important universal standards, gaps often persist especially for people most vulnerable to systemic inequities that drive them to the furthest margins. As feedback and insights rolled in, After Bruce found that design that fully considered the full range of differences and sought to address needs — beyond compliance — for students most impacted by those differences revealed solutions to a multitude of challenges faced by other communities.

For example, while the new campus will have spaces intentionally designed for students in Special Education, there is concern around integrating SPED students into regular classrooms. If those classrooms aren't designed with this practice in mind, they can inadvertently reinforce persistent feelings of being afterthoughts. Accommodations should go beyond space and accessibility, and might include dimmable lighting, proximity to sensory support spaces, or access to the outdoors. Designing with these considerations in mind will also benefit other students who may be grappling with less visible or clearly identified challenges related to anxiety, mental health, and other learning needs.

Similarly, solutions for language or navigation accessibility can benefit users universally. While maps in multiple languages at the entrance lobby is important, ensuring that there are thoughtful and connective wayfinding points throughout the entire campus can offer a more welcoming navigational experience for visitors who face any variety of barriers or challenges to making their way through campus. This is supportive for first time or infrequent visitors, people who are not English-proficient, new students, as well as students who may have recently arrived to the US and are unfamiliar with US public schools. For example, color-coded floors or wings as part of a simple navigation system alleviates many barriers for people with language and accessibility needs, and can benefit incoming freshmen as a whole.

Another example is related to ease of access to laundry facilities and showers nearby Special Education classrooms. This is an ongoing and critical need identified by staff, teachers, and paraeducators in the Special Education program. Solving the ease of access to these facilities would also support unhoused students who may not otherwise have access to these amenities.

THEME 03: *The entire user journey matters*

The way people move through a space has a direct impact on culture. It's critical to think about the aggregate of those movements throughout their entire day, and not just at specific points or intervals. When it comes to a sense of welcoming, the first point of contact isn't often enough. The best way to show someone they belong is to demonstrate it early and often. From the main entry of a building, the first human touch-point, navigable hallways and floors, and arrangement of rooms. Every component plays a role in facilitating the user journey. Compounded over time, how that journey is aided, supported, disrupted, or confused by the physical space affects the way people interact with each other and inform the culture of a place.

For example, staff and faculty in SPED who are understaffed and often can't leave their classrooms unattended, having adaptable planning space to be with their peers, have private conversations with parents, or support students in need of privacy can have an exponentially positive impact on their day-to-day lives.

While the new campus will have spaces intentionally designed for students in Special Education, the concern remains around integrating these students into regular classrooms. If those classrooms aren't designed with this practice in mind, they can inadvertently reinforce for students in Special Education persistent feelings of being afterthoughts. Accommodations aren't just a matter of space and accessibility; dimmable lighting, appropriate seating and desks, navigable walkways within the classroom, proximity to sensory support spaces, and windows or access to the outdoors can be factors to consider.

For students, having a centralized location for information and announcements would be critical. At the moment, information is dispersed, random, and difficult to find unless you are already in the know. Many students want to be able to access information about where and when affinity groups meet, especially as those times or locations may shift over the year. While there is an activities fair at the start of the school year, students noted that their peers may not always feel inclined to attend from the get-go, especially new students or students who need some time acclimating. Students may experience isolation due to identity or lived experience at any point in the year, compelling them to seek out affinity spaces that may offer safety and support. The centralized location for announcing meeting locations would help ensure students can find what they need, when they need it.

THEME 04: *Safety looks different to communities marginalized by inequity*

For communities experiencing compounding impacts of systemic inequity, safety can be defined in a myriad of ways. The lived experiences of communities prioritized in community engagement inform what makes a place safe or unsafe to them, and those definitions vary from dominant culture priorities or considerations. Engaging with communities around their own definitions of safety at school offered several critical insights. Overall, top of mind safety concerns related to the day-to-day experience of moving through the school and consistency in access to specific spaces.

For example, for students from these communities, safety means having ease of access to consistent, reliable, and culturally specific spaces at any point during school. Currently, the spaces where students feel safest are often in the classrooms of trusted teachers or advisors. However, those spaces aren't always readily available to students and don't offer private or smaller spaces for small group, sensitive conversations. Relatedly, parents and students share a concern related to the availability of a consistent and reliable space for students to safely gather on-campus together before and after school, especially for students who don't have places to go.

Some students bring their lunch to school due to a number of reasons relating to preference, diet, stigma surrounding the cafeteria, or for economic reasons. Students have expressed wanting but not having a place where they felt safe to reheat and eat culturally specific foods, free of stigma or bullying comments from peers.

NEXT PHASE RECOMMENDATIONS

The following recommendations are based on feedback, insight, and learnings gathered from the Comprehensive Planning Phase of community engagement. Upon commencement of the Design Phases, After Bruce recommends co-developing with Bora an updated engagement plans and roadmap at the start of both Schematic Design and Design Development, to ensure alignment with the design team's goals, timing, and needs.

Design Phase engagement methods will be conducted with expanded audiences and with existing stakeholders. Recommended expanded audiences may include but are not limited to:

- Feeder schools' staff, faculty, students and families (particularly BIPOC, LGBTQ+, low-income, food insecure, English-language learners)
- Special Education, ongoing and deepening engagement with current high school students and families as well as feeder school communities
- Immigrant and refugee communities, particularly 1-1.5 gen students, Muslim, Arab and Middle Eastern, African-diasporic students and community, Vietnamese, Ukrainian
- Student leaders of affinity groups and other student organizers; deepening ongoing trust building and engagement, particularly amongst students of color and LGBTQ+ students
- Unhoused students and families; designing engagement via trusted stakeholders
- English-language learners, which may likely require a more bespoke approach in the Design Phase than in the Comprehensive Planning Phase, based on input to-date
- Students new to or navigating alternatives to college; how these students utilize space and are in relationship with career pipelines and the college career center resources

In the Design Phase, After Bruce recommends listening sessions will be organized based on topic or theme, and will be supplemented by additional individual or small group key insight interviews, surveys, and DIY facilitation led by student leaders and by community ambassadors.

ENGAGEMENT - IMPACTS ON DESIGN

Current example of engagement-informed design in action:

Stakeholder interview with SPED lead

Listening session with IBW staff, paraeducators, and teachers in SPED

Co-designed a range of engagement methods resulting in:

- teacher-supported engagement with multiple SPED classes
- paraeducator and teacher supported engagement with medically fragile and most impacted SPED students with supplemental parent feedback form
- take home form for parents with context and guidance from teachers

Potential spatial implecations

- Sensory room
- Access to outside (during the school day) for medically fragile students
- Break room - planning room

PROPOSED SPACE PROGRAM

PROGRAMMING PROCESS OVERVIEW

BACKGROUND

The basis of the Space Program for IBW is the 2017 Education Specification [Ed Spec] issued by Portland Public Schools. This program was adopted without modification during the 2019 - 20 CMPC work - IBW was planned to meet the "Comprehensive High School" space criteria, without additional area to accommodate its unique focused programs. The target net area for IBW was previously identified in the 2020 CMPC Report to be is 206,690 NSF (net square feet), with a total building area of 280,098 GSF (gross square feet).

METHODOLOGY

Programming meetings with various internal stakeholders have been ongoing since December 2023, and will continue into the Schematic Design and Design Development phases in 2024. These meetings have included District staff and Ida B. Wells Leadership.

Two early collaborative Ed Spec workshops included the OSM PM teams and the Architectural teams for both Ida B Wells [IBW] and Cleveland [CHS] High Schools, as well as Heidi Bertman, Senior Program Manager with PPS's Design and Planning group. This group has been reviewing the current Education Specifications and is in the process of recommending certain changes to that document based on lessons learned in recent modernization projects. The two workshops resulted in the adoption of various changes to the Education Specification for IBW.

Bora analyzed IBW's published class schedule, for the 2023-24 school year and the forecasting guide for the 2024-25 school year, and studied IBW's current class enrollment data. Particular attention was given to the Career Technical Education programs [CTE] at IBW - Wells has the second highest number of such classes in the District, with only Benson Polytechnic High School offering more CTE classes to it students.

Throughout, the design team maintained a collaborative spreadsheet to track the proposed space program and compare it to the baseline Education Specification. Meetings were documented carefully, and a Deviations log was issued at the end of the phase to request formal modifications to the Education Specification. This log was submitted as part of the Comprehensive Planning Phase Approval packet for IBW, and is included in the appendix for reference.

ESTABLISHING A SPACE PROGRAM FOR IBW

Bora and OSM met with IBW Leadership in a series of meetings to discuss the emerging space program for the modernized school. Initially these conversations focused on the CTE programs, and included representatives from the School's and the District's CTE leadership teams. Subsequent meetings focused on the overall space program and opportunities to find synergies between spaces, while also ensuring the comprehensive high school program could be maintained.

After the preliminary analysis, the "first pass" of a space program for IBW resulted in a total building size of over 350,000 GSF. Subsequent review, adjustment and alignment brought the proposed net area down to 228,833 NSF with a total building size of 311,213 SF.

POSSIBLE PROGRAM ADJUSTMENTS FOR FURTHER CONSIDERATION

This program does not include two key program elements that IBW Leadership is keen to provide: a dedicated Yoga Room and a Multicultural Center. These spaces will be studied in more detail during the Schematic Design phase, and may be offset by other instructional spaces.

Additionally, IBW has expressed interest in a future Culinary Arts program. If this is added to the project, it would be also be offset with other CTE or instructional space. This will be studied in more detail during the Schematic Design phase.

COMPREHENSIVE HIGH SCHOOL ED SPEC PROGRAM

EXISTING SPACE

As described in the 2019 CMPC report, the existing program spaces at IBW total 177,826 NSF, compared to 206,690 NSF in the 2017 Ed Spec. The school was originally established in 1956, and few significant changes have been made to its spatial organization over the intervening years.

General Education classrooms are significantly smaller than the standard Ed Spec size of 980 SF: almost all are less than 850 SF in size. Similarly, Science Labs are undersized [1,100 SF typically, compared to the Ed Spec's target size of 1,500 SF] as are art classrooms.

CTE spaces often occupy General Education spaces. Some were purpose-built in the 1950s [specifically, the Wood Shop and Metal Shop] and are significantly smaller than the areas mandated for such spaces in today's Ed Spec.

The school has one Gymnasium [13,819 SF] whereas the Ed Spec calls for a main Gym and an Auxiliary Gym. Conversely, the Ed Spec calls for a shared mat room that accommodates wrestling, dance, yoga etc; currently, IBW has a dedicated wrestling room and a dedicated yoga room.

The existing theater at Wells has a larger house than the Ed Spec, and currently seats 884 audience members [including at the balcony]. The stage is undersized, and the room lacks an orchestra pit. IBW does have an appropriately sized Black Box classroom.

In addition to its undersized Band Room, IBW has a very undersized Choir Room; the 2019 CMPC did not recommend the inclusion of a choir room in the space program but the space is certainly needed for the school to maintain its current programs.

And, the various administrative, counseling and support spaces at Wells are significantly smaller in total area than the space allocated in the 2017 Ed Specs.

Finally it should be noted that, while the Pool facility is owned and operated by Portland Parks and Recreation, the original Joint Use agreement and the current version of that legal agreement allows summer time pool users to access and use the locker rooms and bathrooms below the gym.

In general, while Wells has most of the rooms required in the Education Specification, almost all of them are significantly smaller than current guidelines.

PROPOSED SPACE

The proposed space program for IBW totals 228,833 Net SF. There are three distinct reasons that this is larger than the 2017 Ed Spec size of 206,690 Net SF:

1. Space needs of IBW's Career Technical Education [CTE] programs:

IBW has a robust Career Technical Education [CTE] program, and many of these teaching spaces are larger than a standard General Education classroom. IBW sometimes refers to these classes as "Pathways", and encourages its students to embark on at least one of its eleven Pathways. As noted on the IBW website, within each Pathway, students can expect:

- Advancing levels of skill and knowledge
- Authentic opportunities to apply their learning
- Community leadership and service opportunities

The CTE classes that form much of the Pathways program require additional space beyond the Education Specification to provide safe instructional spaces. These classes include, but are not limited to:

- Woods & Metals
- Engineering
- Printmaking
- Sound Engineering
- Health Occupations

2. Lessons Learned from other modernized PPS High Schools:

The two early collaborative Ed Spec workshops in the Comprehensive Planning phase, which included team members from the Cleveland HS team as well as district leadership, focused on lessons learned from the Lincoln HS and Jefferson HS programming efforts,

as well considering other modernized HS projects in the district. Some key changes resulting from these workshops include:

- Adopting the "optional" larger size for the main Gymnasium, to support a higher audience capacity for events
- Allocating more space to Team Rooms for athletics
- Increasing the size of field storage for athletics / PE
- Adopting the larger Mat Room "optional" size, and adding dedicated storage to support multi-functional use of this space
- Additional custodial and storage spaces to support building maintenance and operations

3. Spaces related to PPS's Resiliency Goals, including:

- Spaces for electrified versus fossil fuel equipment
- Storage for Community supplies

The full array of changes to the 2017 Education Specification are detailed in the Deviations Log included in the Appendix

PROPOSED IBWHS PROGRAM SUMMARY

TUNING THE ED SPEC TO IBW'S NEEDS

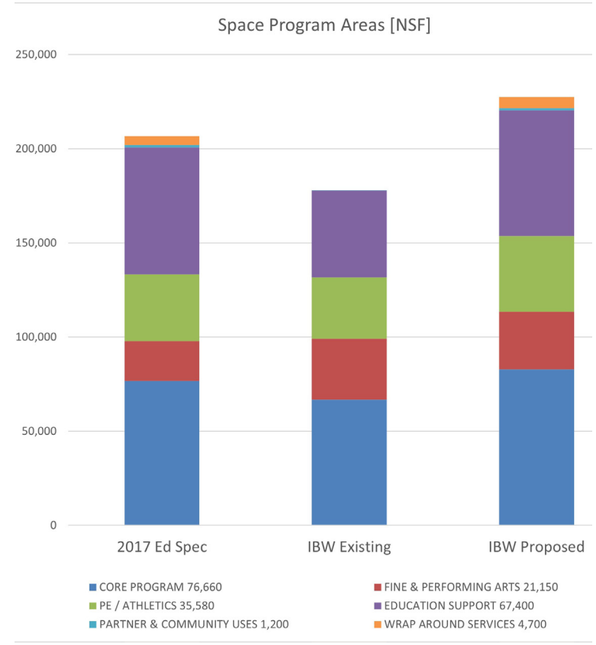
Various spaces in the Ed Spec were fine-tuned based on discussions with IBW leadership. While these have little effect on the total area of the building, these adjustments will be essential to ensure the effective functioning of the modernized High School. These changes include:

Dedicated Departmental Collaboration Spaces

The 2017 Ed Spec includes ten "Optional" teacher collaboration spaces that are the standard classroom size and which are intended to be usable as office space for teachers if the school capacity or administrative policies support this need. IBW Leadership is keen to provide departmental collaboration spaces for its teaching cohorts. Because the size of these various cohorts varies, the IBW Ed Spec has proposed two different sizes for these rooms, with some sized at 500 SF, in alignment with the smaller instructional spaces standard area.

Special Education

The SPED program has been adjusted to reflect lessons learned form other modernized high schools, and has been customized to meet IBW"s specific needs, including the provision of an additional classroom.



HIGH SCHOOL EDUCATION SPECIFICATION - AREA PROGRAM COMPARISON

	2017 Ed Spec			IBW Existing			IBW Proposed		
	Quantity	S.F. Room	S.F. Total	Quantity	S.F. Room	S.F. Total	Quantity	S.F. Room	S.F. Total
General Education (Gen-Ed) Classrooms	41		53,180			41,161	47		48,640
Science Labs	11		17,480			13,300	12		19,480
Fine & Performing Arts (Drama, Theater)	4		21,150			32,398	8		31,177
Career Preparation/CTE	3		6,000			12,231	5		14,800
Athletics (incudes area for P.E. instruction)	3		35,580			32,580	5		40,156
Education Support	2		67,400			46,156	10		67,445
Sub-Total Recommended Teaching Stations	***64***		***200,790***			***177,826***	***87***		***221,698***
Community Partners			1,200			78			1,200
Wrap-Around Service Providers			4,700			-			5,935
Sub-Total			***5,900***			***78***			***7,135***
SUB-TOTAL COMPREHENSIVE HIGH SCHOOL REQUIRED AREA			***206,690***			***177,904***			***228,833***
Net to Gross Ratio of 36%			***74,408***		47%	***82,996***		36%	***82,380***
TOTAL COMPREHENSIVE HIGH SCHOOL REQUIRED			***281,098***			***260,900***			***311,213***

FUTUREPROOFING: FLEXIBILITY & ADAPTABILITY

In Schematic Design, the design team will work with OSM to study opportunities for standardization of room sizes and services to support long term flexibility for spatial use at IBW. This may be achieved in a variety of ways, and will include studies such as:

- Continue to study the Departmental Collaborative Spaces [or teacher planning spaces]
- Consider a range of standard room sizes to support current and future CTE programs
- Review technology and infrastructure necessary to support future space modifications
- Consider storage carefully

The team can begin this testing by addressing three specific spaces that have been identified by IBW leadership as desired for this school, recognizing that there would need to be spatial offsets from other program areas in order to provide them:

- Multicultural Room
- Yoga Room
- Possible Culinary Arts classroom

NATURAL LIGHT IN LEARNING ENVIRONMENTS

Natural daylight is an essential for wellness and learning. Students at schools with quality daylight were found to be healthier overall, missing 3-4 fewer days of school than students at schools with less access to daylight.

With the exception of specific spaces that require darkness, such as black box theater or photography lab, all learning environments require access to quality daylight.

INDOOR AIR QUALITY IN LEARNING ENVIRONMENTS

AIR IS OUR LARGEST ENVIRONMENTAL INTAKE

We consume more pounds of air per day than food or water. Indoor air quality is essential for long-term health and short-term mental acuity. While oxygen is the most important for our health, we don't measure oxygen (O2) in a space, we measure carbon dioxide (CO2).

INDOOR AIR QUALITY [IAQ] STRATEGY *

1. Better oxygen (O2) levels

a. Operable windows
b. Greater levels of air circulation

2. Avoid outdoor pollutants

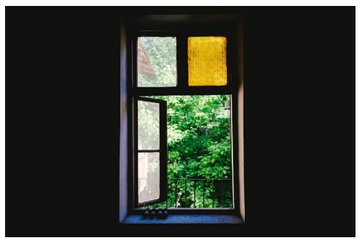
a. Filter outdoor air
b. Air tight exterior construction

3. Avoid or flush indoor pollutants

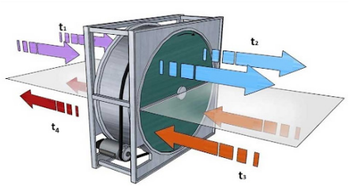
a. Avoid materials that off gas
b. Filter indoor air from airborne pathogens and body odor

** See CLIMATE RESPONSE/CLIMATE JUSTICE for detailed metrics*

① SUPPLY OXYGEN AND FLUSH CO2 TO PROMOTE MENTAL ACUITY



Outdoor air delivered via operable windows



Energy Recovery Ventilator / Heat Exchanger

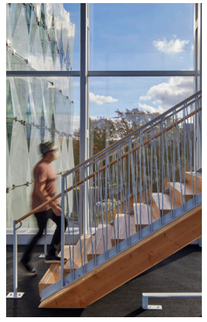
② AVOID OUTDOOR POLLUTANTS

CAR EXHAUST, WILDFIRE SMOKE, POLLEN, ETC

MERV 14 Filtration for Incoming Air

Tight Construction

③ AVOID OR FLUSH INDOOR POLLUTANTS



CHEMICALS TO AVOID

- Polyvinyl Chloride (PVC) + Chlorinated PVC (CPVC)
- Perfluorinated Compounds (PFOA, PFOS, PFBS)
- Antimicrobials
- Arsenic, Cadmium, Chromium, Lead, Mercury
- Alkylphenol Ethoxylates
- CFC, HCFC, HFC
- Formaldehyde
- Halogenated + Organophosphate Flame Retardants
- Antimony Trioxide Flame Retardants
- Orthophthalates
- Bisphenol A (BPA)
- Isocyanates
- Solvents

Avoid toxic chemical finishes

Avoid combustion in the building AND flush dust, odors, and airborne pathogens

OPTIMAL BUILDING ORIENTATION

Effectively managing solar energy results in less energy needed to heat and cool the building. A more efficient building costs less to operate and results in fewer carbon emissions. Two human responses to orientation are reactions to heat gain/ temperature and glare.

GLARE

East and West light is harder to control with exterior or interior shading devices. The challenge however is direct sunlight causing glare, specifically during the spring and fall for east and west facing classrooms. During the winter, it's often cloudy and during the summer, the sun remains high in the sky for most of the day. Southern sun is the easiest orientation to control with architectural strategies.

When glare is present, typical human response is to close the window coverings and turn on the electric lighting. Once down, window coverings are rarely raised resulting in higher energy consumption and costs.

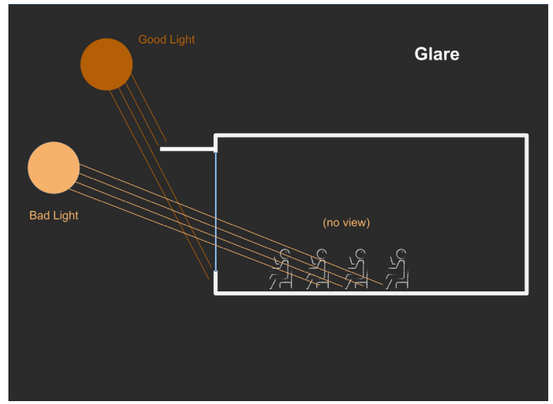
THERMAL COMFORT

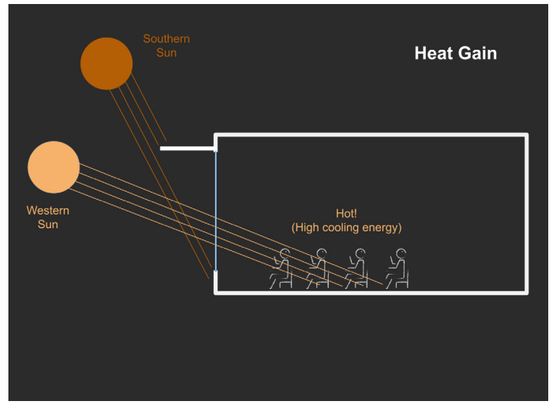
Cooling costs are directly related to the solar orientation and heat gain in this climate.

Portions of a building facing North require the lowest cooling energy. While Southern facing windows require only moderate cooling energy.

In contrast the east and west orientations require the largest cooling energy load.

By reducing the amount of exterior facade that faces the East and West orientations the cooling energy load can be minimized.





CLASSROOMS

CLASSROOM SIZE

Given the existing smaller classroom sizes at IBW the question was raised as to whether the larger 980 SF Ed Specification classroom size is needed. In conjunction to this question, the design team looked at a few factors in classroom size consideration.

FACTORS CONSIDERED:

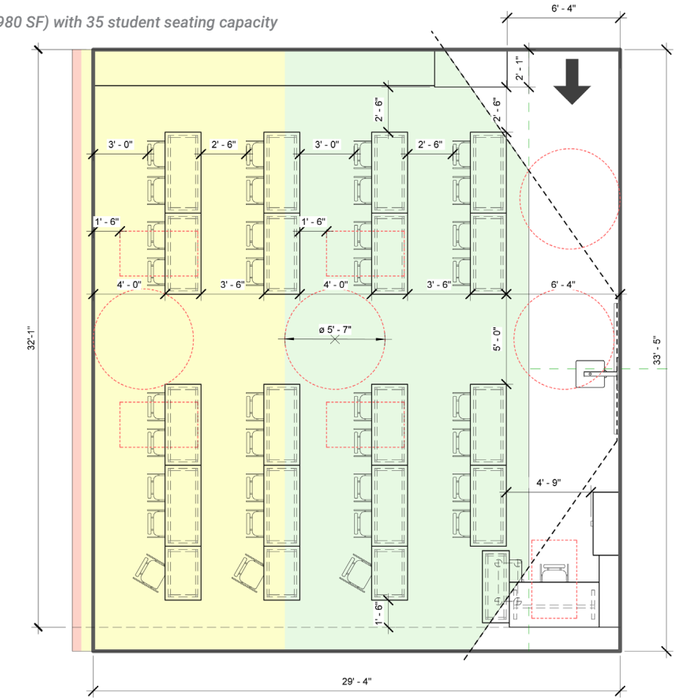
1. Flexibility of classroom configuration, in both format and organization of teaching format and style or locations for instructor stations within the classroom
2. Accessibility of various layouts to support access and movement for both teachers and students.
3. Sight lines and visual legibility of AV for all students within the room.

While studies of flexibility and accessibility will be on going into future phases, the example plan on the right highlights the visual legibility of projected content to students within the room. Current PPS standards for classroom AV includes short throw projectors. Based on the size and quality of the image the following plan illustrates the need to maintain a minimum distance from the projection to the back of the classroom.

- Green = easily legible
- Yellow = marginally legible
- Red = not legible

The standard Ed Spec classroom was maintained within the program at this time, but reduction of classroom sizes maybe considered.

Typical Classroom Layout (980 SF) with 35 student seating capacity



Rock Creek Middle School Classroom

PROJECT VISION
+
GUIDING PRINCIPLES

GUIDING PRINCIPLES

At the beginning of the Comprehensive Planning Phase, the project team met with the CPC and members of the community to learn about their goals and aspirations for the project. Based on discussions and feedback during this engagement, the project team drafted a vision statement and guiding principles that would be used to guide the design process moving forward.

VISION STATEMENT

The design of the new Ida B Wells High School will support the whole student in their journey toward lifelong learning and success, guided by a comprehensive definition of student health, a process rooted in equity and inclusion, and a finished place that demonstrates climate and disability justice. Inspired by the legacy of its namesake, the new building will embrace transparency and truth – in organization, in structure, in materials and in storytelling – to ensure Ida B Wells is embodied within its walls.

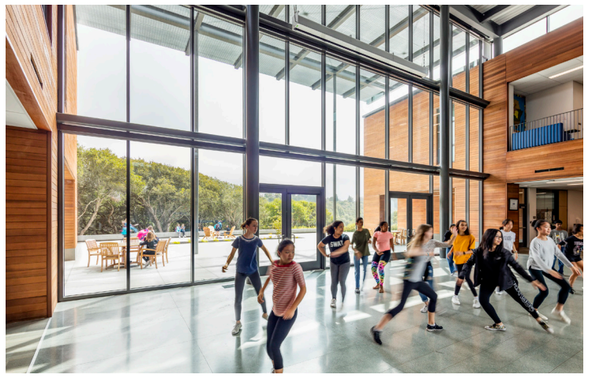
1. STUDENT HEALTH (INTELLECTUAL, PHYSICAL + MENTAL)

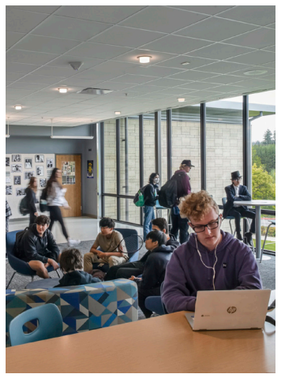
a. **SUPPORT** learning with great daylighting, healthy indoor air quality and excellent acoustics, borrowing the principles of biophilic design to achieve a welcoming environment.

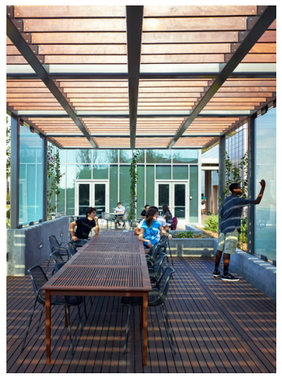
b. **CREATE** a bold, flexible teaching environment that will inspire and support a variety of learning styles well into the future.

c. **DEVELOP** dynamic habitats for teenagers and teachers, supporting their social need to connect with one another as part of the path to teaching and learning success.

d. **GATHER** students, faculty, and staff in a safe environment where they feel a sense of pride and belonging, coalescing the community within a central "heart" while creating a variety of flex spaces to offer choice.







2. EQUITY + INCLUSION

a. **LIFT** the voices of a diverse student body, empowering and making visible the many cultures within the community through meaningful, equity-informed, impactful engagement.

b. **SEEK** input from a broad set of voices throughout the process of design, respecting the truth of lived experience while elevating the most marginalized members of the community through transparency and trust-building activities.

c. **CONNECT** to the broader business and residential district by making the new school a focal point and beacon of activity in SW Portland – supporting the financial health of nearby retailers while preserving security and safety for the student population.

3. JUSTICE

a. **HONOR** the legacy of justice established by Ida B Wells through design, art and storytelling within the building and on the site.

b. **LEAD** by example in creating one of the most sustainable schools in the country, fully compliant with the PPS Climate Crisis Response Policy while employing simple and easily maintained systems within enduring functional spaces and being stewards of taxpayer dollars.

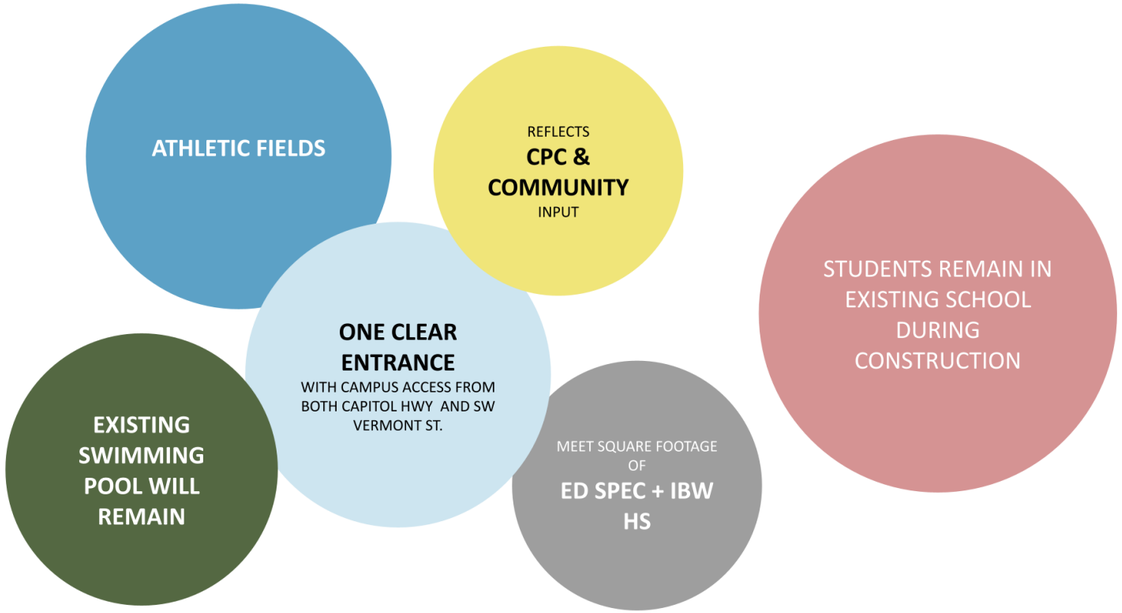
c. **EMBRACE** the lens of disability justice to create a school that is universally accessible, going beyond code to create a physical place of inclusion at the site and building scale.

DESIGN CONCEPTS

DRIVING FACTORS FOR PLANNING

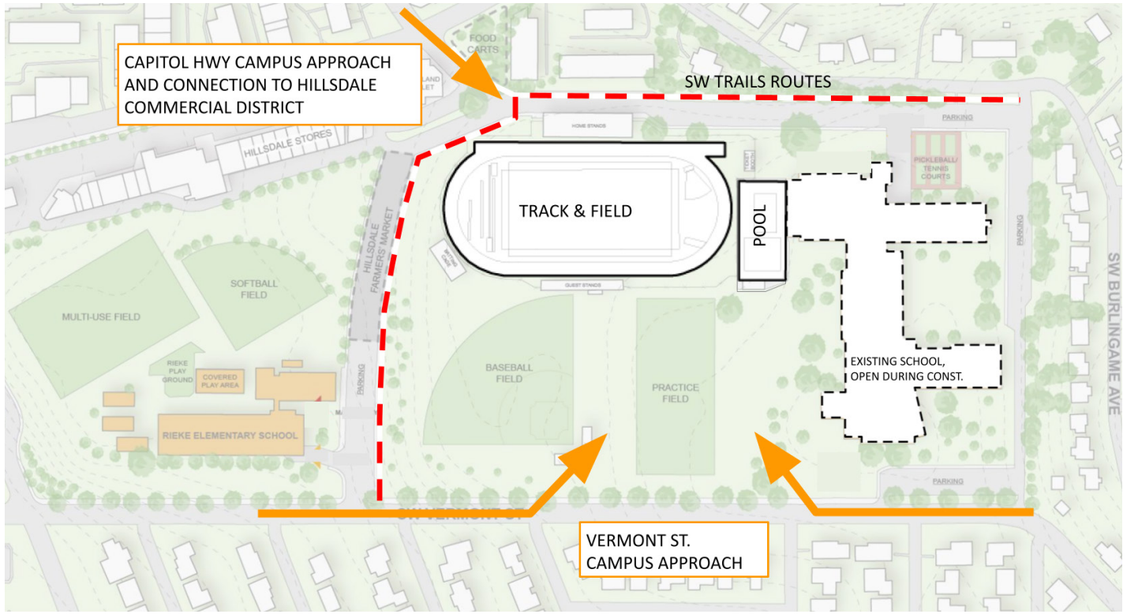
The project team looked at the Ida B. Wells site comprehensively to develop a range of site planning possibilities. Early on in this analysis, major site design drivers were identified, both physical components of the site (sports fields, public swimming pool, the location of the existing school), as well as parameters and guidelines provided by PPS including the education specification requirements for the building itself.

The design team also analyzed solar orientation of the building massing, the site topography, and site zoning requirements. Additionally, the design team studied the approaches to the campus and opportunities for the building entry to connect to the northwest approach from SW Capitol Highway, and/or the southern approach from SW Vermont Street.



High Level PPS Requirements

Site Diagram of Driving Factors



View of main entrance from Southwest Vermont St.

Track and field grandstand

Views to the west and existing baseball field

Ida B. Wells pool

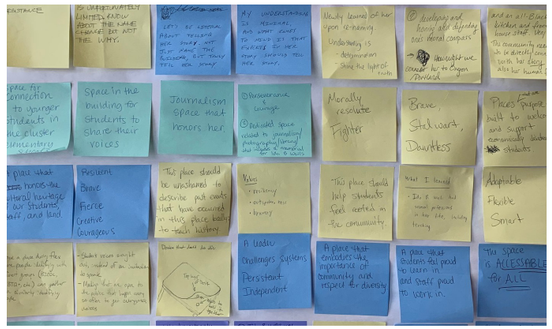
EARLY FEEDBACK

At the second Comprehensive Planning Committee meeting (CPC-2) and the first Community Design Workshop (CDW-1), the design team lead participants in exercises to help identify design drivers and solidify a vision for the project. Specific to the site itself, participants were asked to reflect on their favorite or least favorite aspects of the existing campus and building, and to think about what is working or isn't working in terms of arrival and circulation.

A different exercise focused on the legacy of Ida B. Wells-Barnett. Participants were asked "What do you understand about Ida B. Wells as a person and what comes to mind?", "What are her important attributes or values that should be reflected in the place?" Following the meetings, the design team transcribed and synthesized the comments, uncovering common emerging themes that would go on to inform the project's guiding principles and the further development of the site design options.

CPC-3

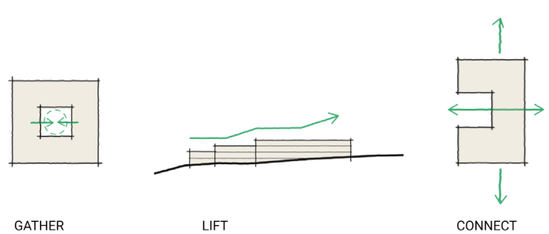
Based on the initial site analysis and early feedback from the CPC and CDW meetings, the design team developed 3 different design scenarios for CPC-3. During the meeting, participants were asked to provide comments about the successes and the challenges of each scheme, focusing on the experience (what is special and unique) and the function (arrival, track and field location). Rather than asking participants to "choose" their favorite scheme, the design team explained that their goal was to synthesize feedback and merge the best attributes of each scheme into a single option to eventually bring to the school board.



Bold
Innovative
Change
Truth
Lifting Up Voices
Persistence
Determination
Honor
Connection
Creative
Community
Support
Cultural Heritage

Knowledge sharing
Accessible to all
Gathering
Forums
Challenging Systems
Action
Justice
Advocacy
Pride
Feminism
Emphathy
Courage

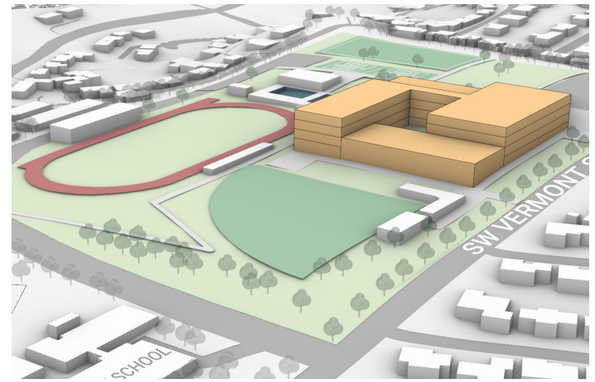
Power of the Written Word
Inclusive
Empowerment
Breaking Barriers
Welcoming
Diversity
Kindness
Perserverance
Values
Free Speech

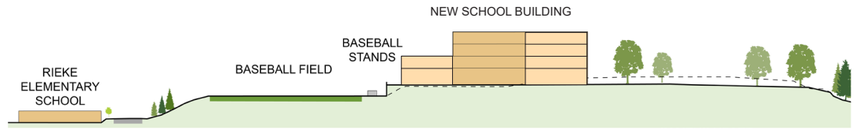


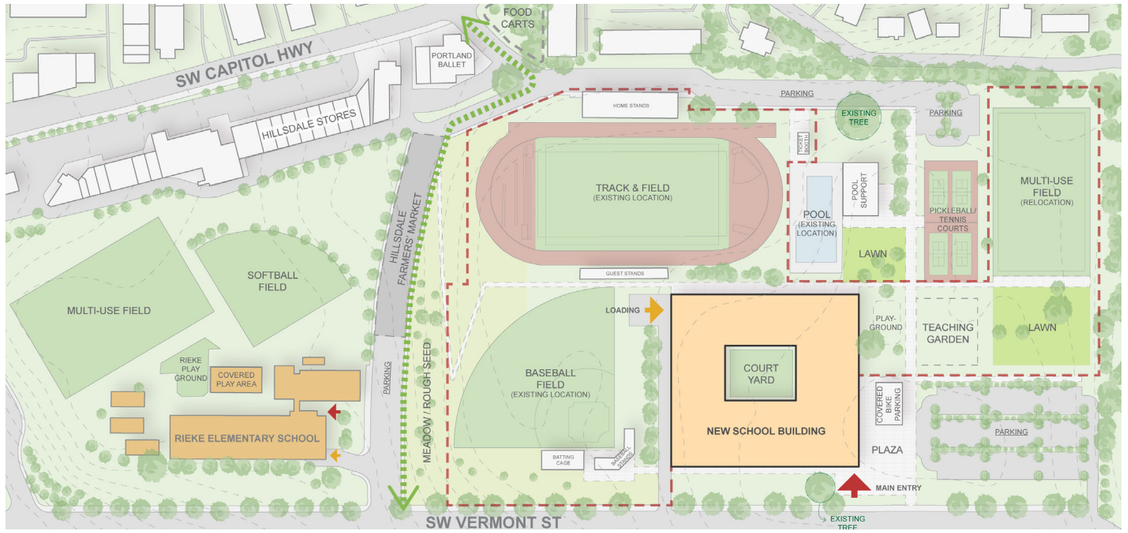
CPC-3: SITE PLANNING SCENARIO STUDIES

SCHEME 01| GATHER

- Option with least site work;
- Keeps existing track & field with improvements;
- Keeps existing baseball and softball fields with improvements;
- Keeps existing pool, adds new pool support building;
- New tennis and pickleball courts;
- Relocated multi-use field;
- Compact, 4-story building fits between existing school and fields







FEEDBACK

Successes

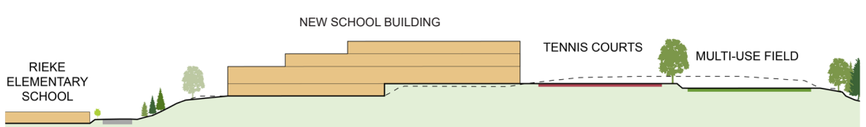
- Maintains major site elements in same place; less disruption
- Smaller footprint = more open site space
- Taller building = better views!

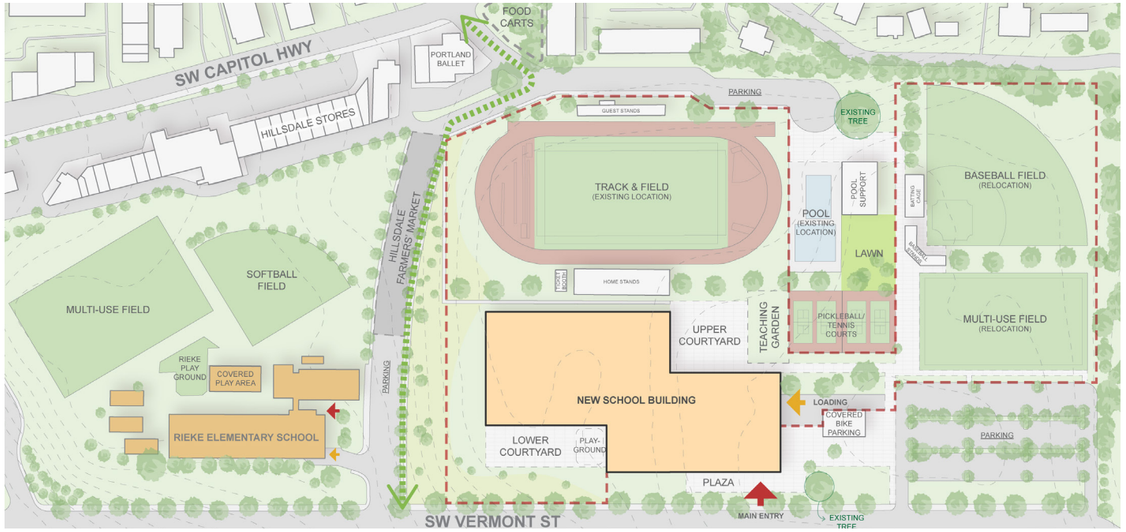
Challenges

- Weak connection to Capitol Hwy
- Not enough parking near Capitol Hwy
- Compact building feels too tall and cramped
- Fully enclosed courtyard is uninviting & disconnected
- Difficult loading access

SCHEME 02 | LIFT

- Option with moderate site work;
- Keeps existing track & field with improvements;
- Keeps existing pool, adds new pool support building;
- New tennis and pickleball courts;
- New baseball field and multi-use field;
- Improved softball field;
- Building form “steps up” with topography of site; 3 stories above grade





FEEDBACK

Successes

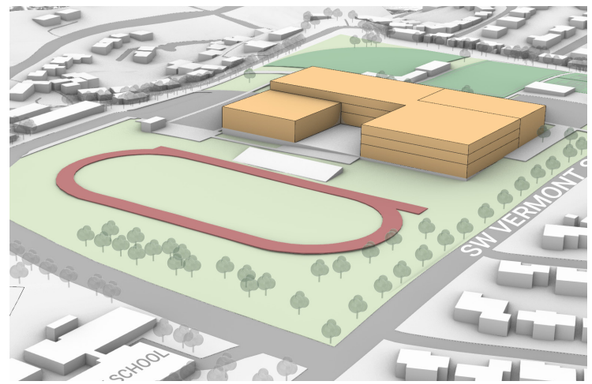
- Minimizes western sun exposure
- 2 or 3 stories is better for neighborhood scale
- Ideal baseball field orientation
- Massing integrates with natural landscape
- Variety of courtyards that are connected to site

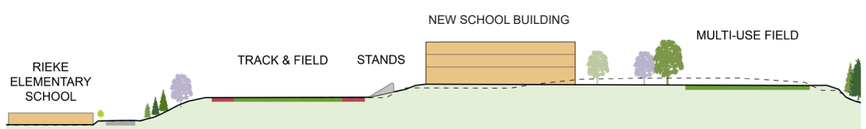
Challenges

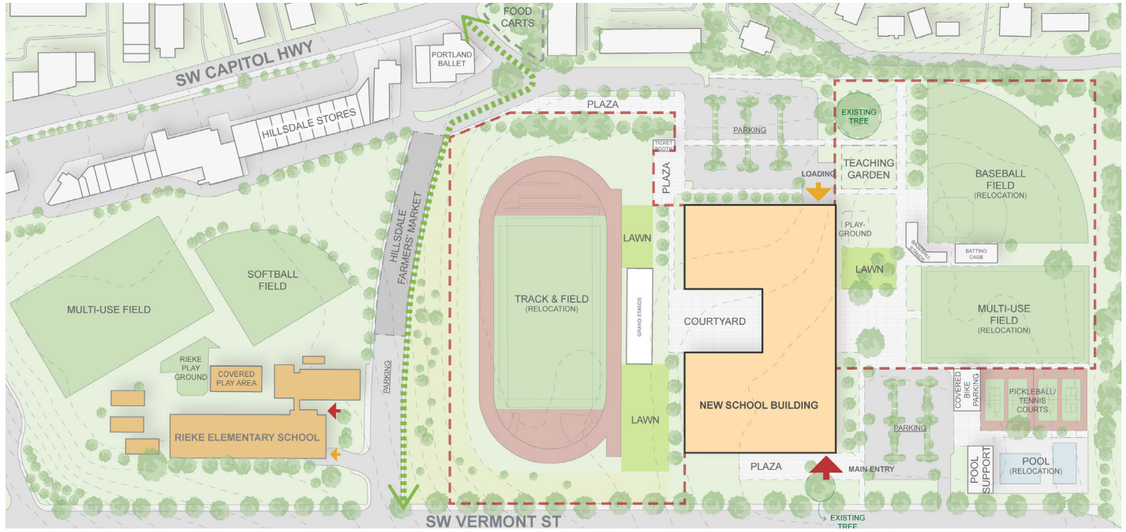
- Weak connection to Capitol Hwy
- Too close to Rieke Elementary
- Not enough parking near Capitol Hwy
- Difficult access to west side of building

SCHEME 03 | CONNECT

- Option with most site work;
- New track & field moved to N-S position;
- New pool and pool support building;
- New tennis and pickleball courts;
- New baseball and multi-use field;
- Improved softball field;
- Pedestrian plaza at Capitol Hwy approach;
- 3-stories above grade with central courtyard, views over track & field







FEEDBACK

Successes

- Strong connection to Capitol Hwy
- Ideal track & field and baseball field orientation
- Parking convenient at both sides of building
- 2 or 3 stories is better for neighborhood scale
- Centers building on campus
- Courtyard connects to site and views

Challenges

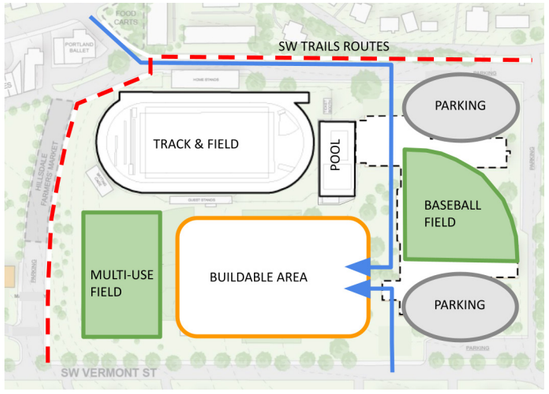
- Pool relocation is likely costly
- Pool is further away from Hillsdale businesses
- Moves more site elements; more disruption
- Harder to minimize western sun exposure
- Grandstand facing west

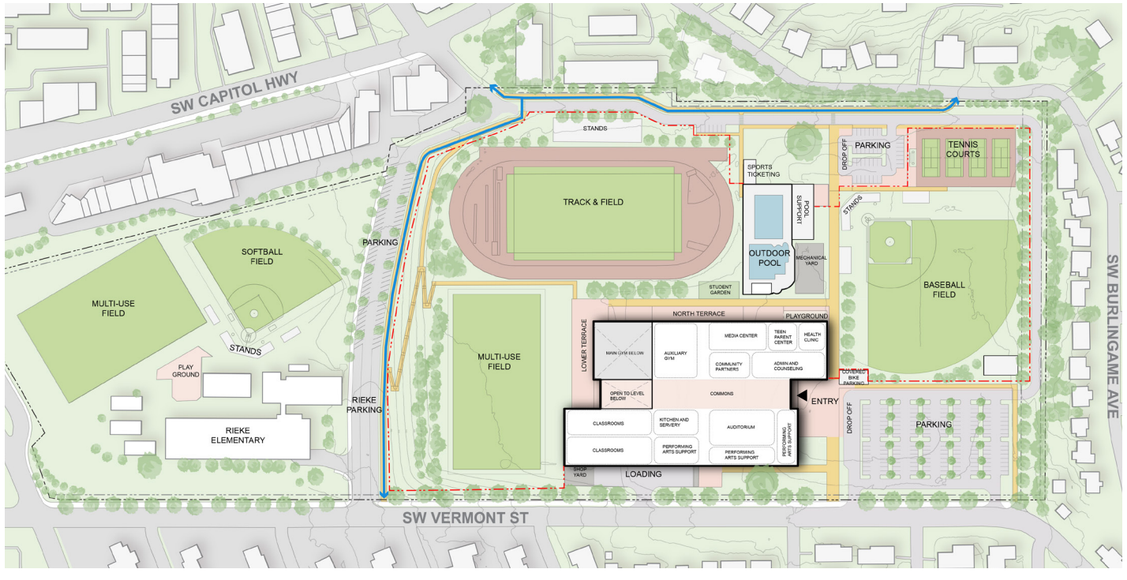
CPC-5: REFINED SITE DESIGN SCHEMES

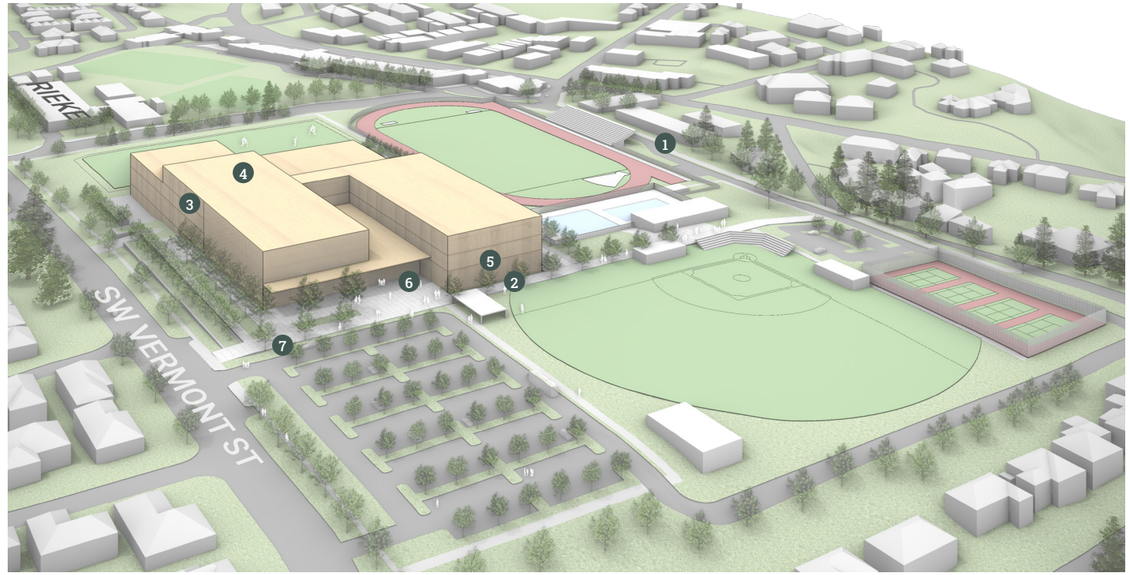
Following CPC-3, the design team received direction from PPS that the swimming pool on the site shall remain its current location. Taking the location of the pool into careful consideration, the design team developed two site schemes for CPC-4, and further refined them for CPC-5. During the meetings, the design team received feedback for each scheme, with the goal of recommending one scheme to the School Board for approval.

SCHEME 01

- Track and field remains in place with improvements
- Minimal track and field disruption during construction
- Pathway connection to Rieke parking and fields
- Main parking lot and drop-off near building entry
- Vehicular connection between the two parking lots
- Separation between school and pool offers flexibility with building footprint
- 3 stories above grade



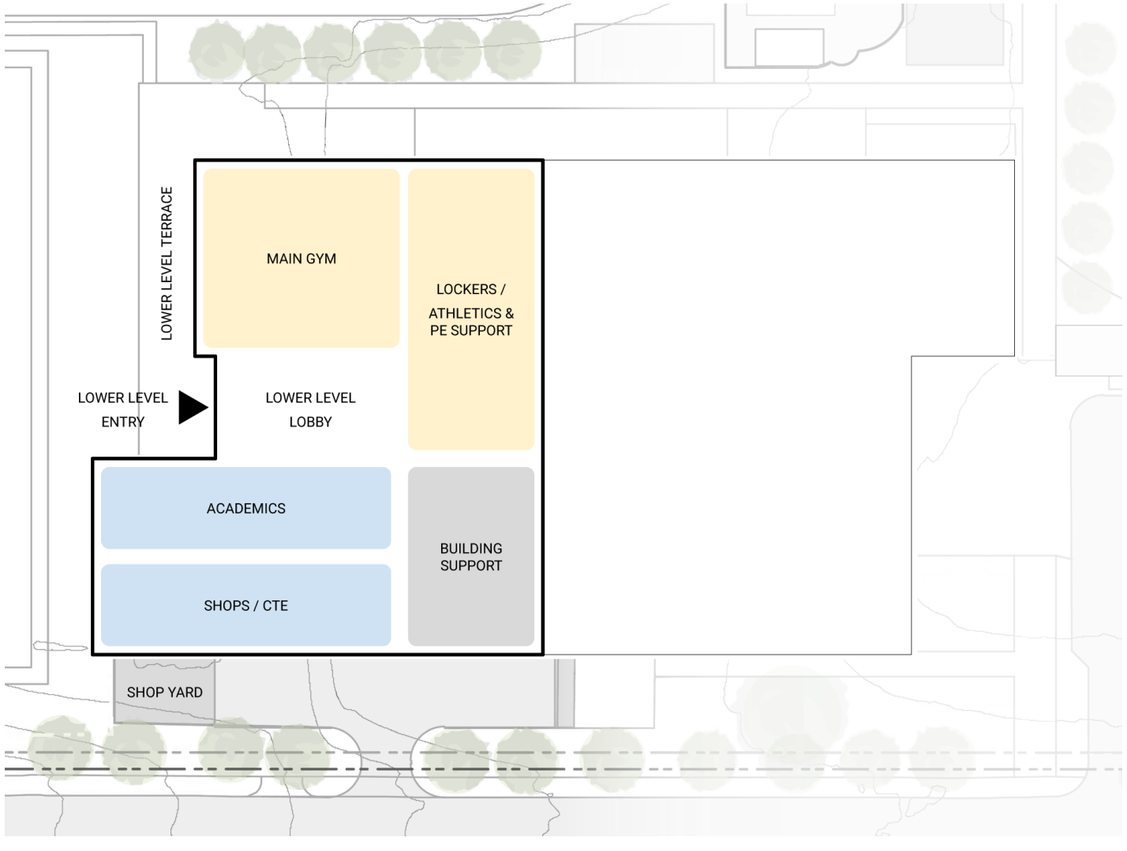




1. Improved SW Trails path **welcomes pedestrians coming from Capitol Highway and provides a safe route** to the building entry
2. Pathways through campus **connect to the SW Trails network and the broader business and residential district**, making the school a beacon of activity in SW Portland
3. Building sits west of existing school and south of existing pool and track. Building form takes advantage of sloping site and **steps down to reduce the overall building scale**
4. Building orientation and massing allows for **maximum daylighting and minimizes western sun exposure**, reducing building energy consumption and eliminating solar discomfort
5. Building massing is optimal for a timber structure, allowing for **reduced embodied carbon emissions, improved indoor air quality, and biophilic design** opportunities.
6. Central **commons acts as "heart" of campus** and connects to outdoor plazas, creating a variety of spaces for gathering and community connection
7. Site configuration allows for **universal accessibility**, going beyond code to create a **physical place of inclusion** at every scale

LOWER LEVEL

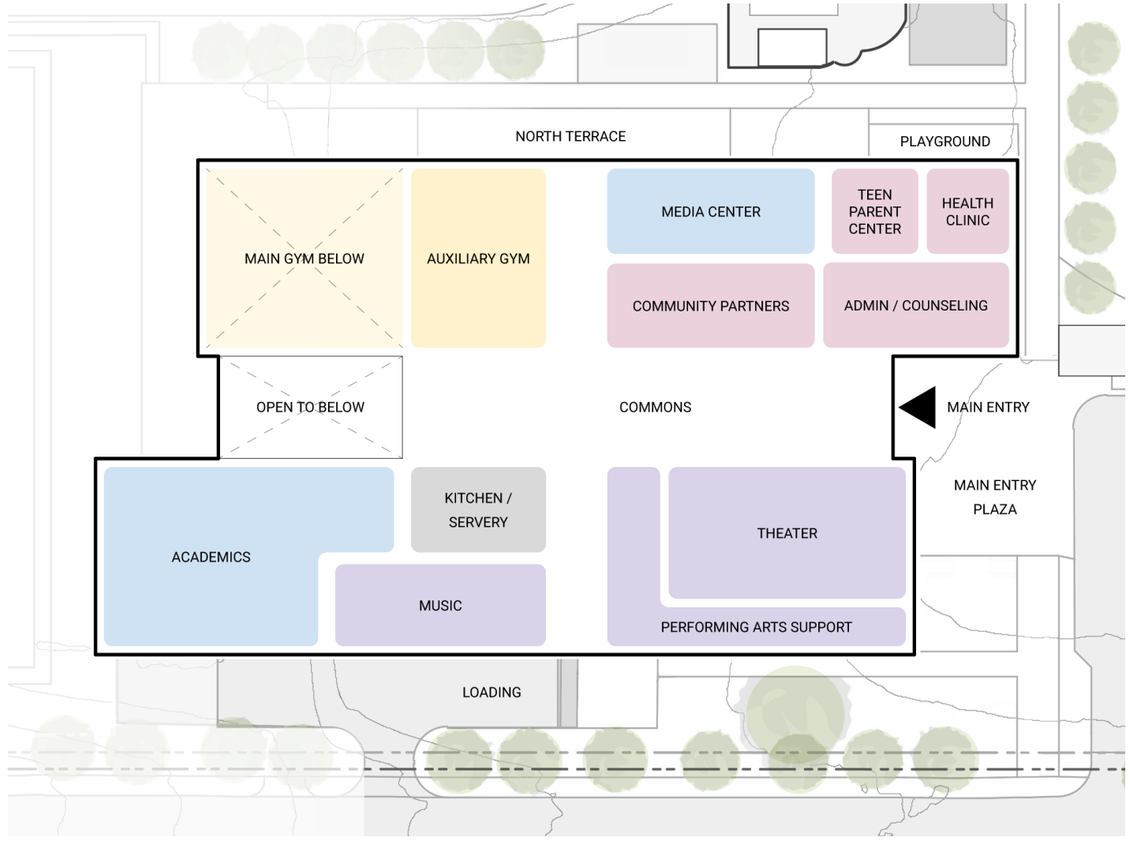
The lower level is mostly at grade with the topography of the site and contains all athletics and PE related programs, including the main gym and locker rooms, with direct access to the track & field, the multi-use field, and courtyard. It also includes CTE spaces with outdoor access to a shop yard and loading on the South. A double-height athletics entrance lobby connects openly to the student commons on the level above and to the generous courtyard to the west.



LEVEL 01

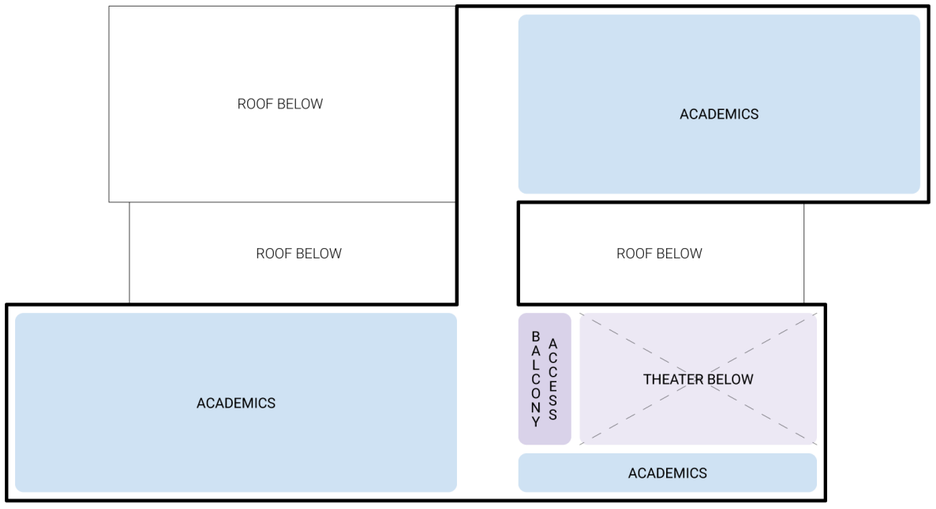
Level 1 contains all administrative and public-facing program areas, including the health clinic, the teen parent center, and spaces for community. It also includes the auxiliary gym, the media center, and some instructional spaces. The performing arts program to the south includes the main level of the theater and associated lobby, the black box theater, scene shop, choir space, and band room with associated offices and storage.

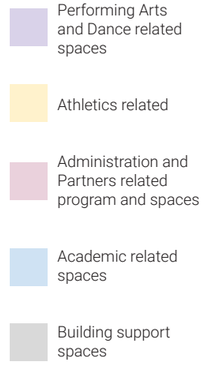
Anchoring all of these spaces in the center of the building is the student commons that connects to an entry plaza to the East, a double height space with views to the West, and the kitchen/servery/support spaces off of the loading area to the South.



LEVEL 02

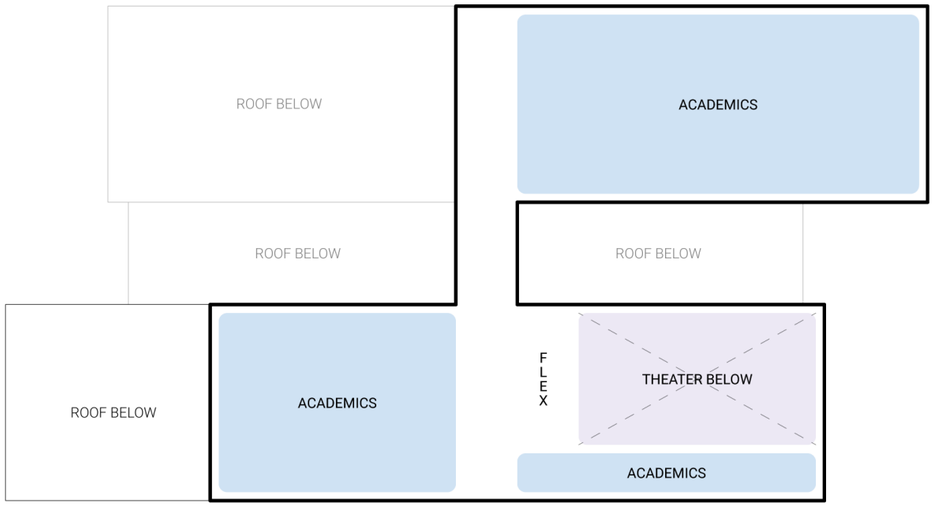
Level 2 provides access to the balcony level of the theater, with the remainder of the spaces designated as academic program, including teacher planning, support, and flex areas. The two primary “bars” of the massing are organized along an E-W axis, so that the spaces can be optimized around daylighting and the windows/envelope can better manage the risk of glare and solar heat gain.

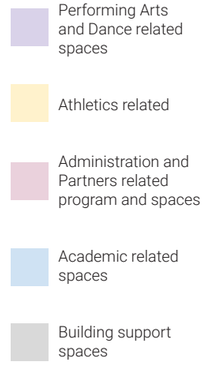




LEVEL 03

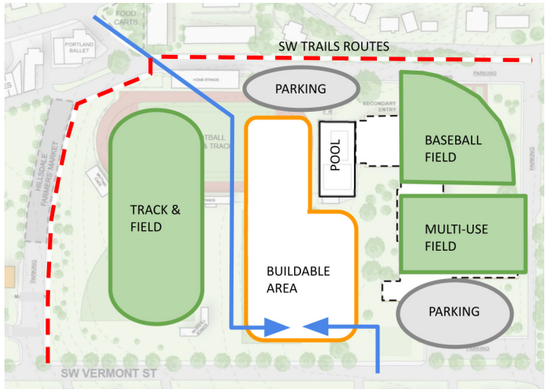
Level 3 consists entirely of academic program areas, containing a mix of science classrooms, visual arts, and CTE programs. By locating these specialized and technical spaces at the uppermost floor, we are able to take advantage of shorter duct routing for use types with higher ventilation requirements and also introduce the opportunity for top-lighting into spaces such as painting studios which benefit from more even and diffuse lighting over the course of the day.

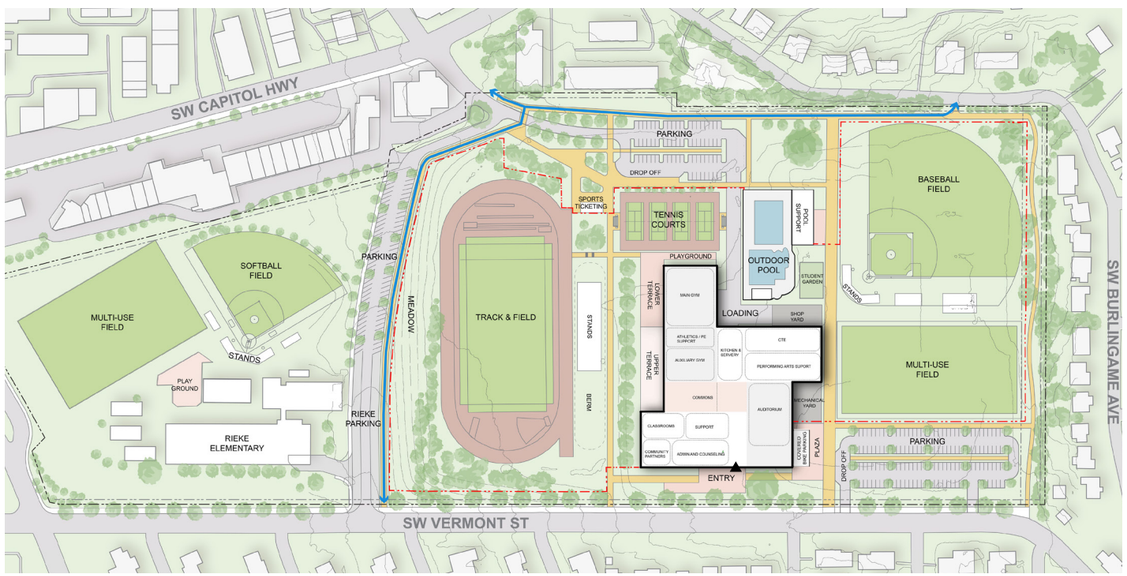




SCHEME 02

- Track and field in optimal N-S orientation
- Ample space for construction staging
- Direct pedestrian connection to Capitol Highway
- Parking lots and drop-offs near Capitol Highway and Vermont Street
- Vehicular access at opposite ends of building
- Limited area with building footprint due to pool and track locations
- 4 stories above grade

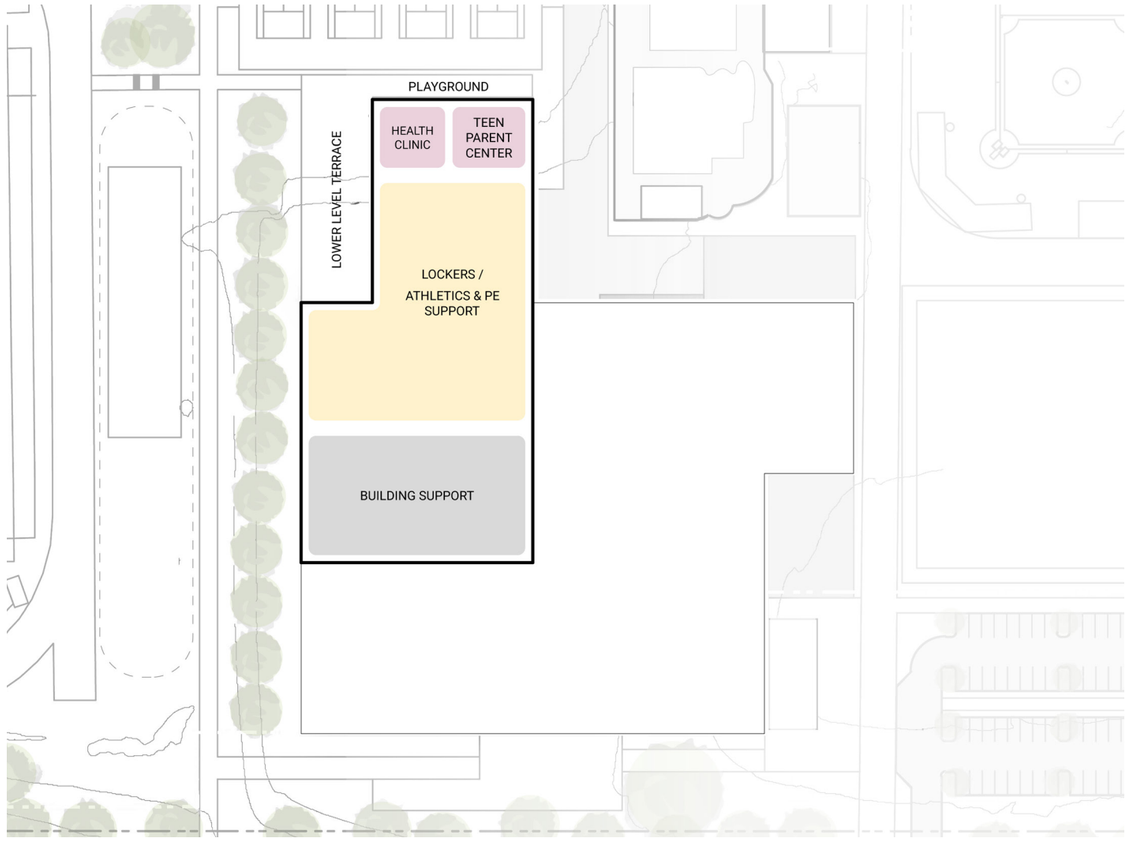




1. Pedestrian plaza adjacent to Capitol Highway campus entrance provides **direct and visible approach to building** from the North
2. Building sits west of existing school, south of existing pool, and east of relocated track. More **compact building form with north-south pedestrian connections across campus** on two sides.
3. Main entrance faces Vermont Street with **direct pathways connecting it to both campus approaches** and parking lots
4. Building orientation and massing allows for **maximum daylighting and minimizes western sun exposure**, reducing building energy consumption and eliminating solar discomfort
5. Pathways through campus **connect to the SW Trails network and the broader business and residential district**, making the school a beacon of activity in SW Portland
6. Building massing is optimal for a timber structure, allowing for **reduced embodied carbon emissions, improved indoor air quality, and biophilic design** opportunities
7. Central **commons acts as "heart" of campus** and connects to outdoor plazas, creating a variety of spaces for gathering and community connection
8. Site configuration allows for **universal accessibility**, going beyond code to create a **physical place of inclusion** at every scale

LOWER LEVEL

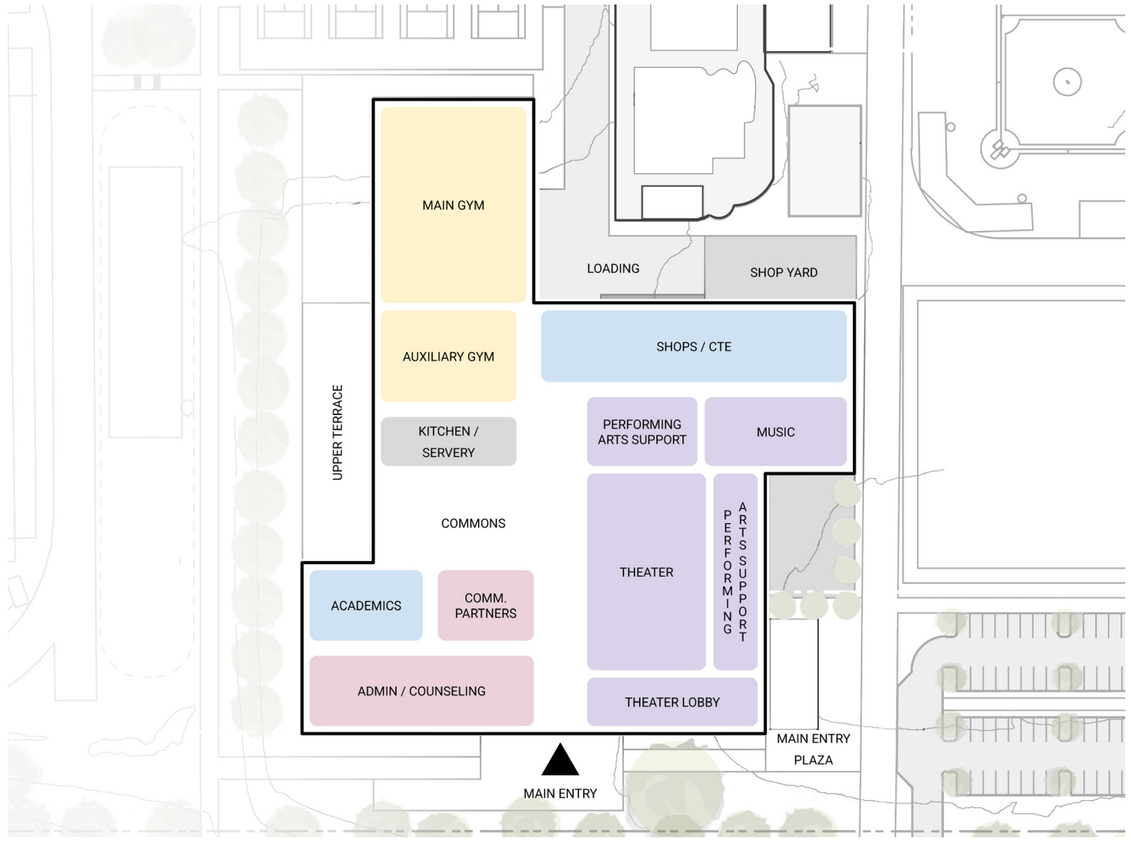
The lower level is mostly at grade with the topography of the site and contains all athletics and PE related programs other than the gyms, with direct at-grade access to the track & field and the northern portion of the campus. It also includes the health clinic and teen parent center with private entrances accessed from the north.



LEVEL 01

Level 1 contains all administrative and public-facing program areas, aside from the health clinic and the teen parent center. It also includes the main and auxiliary a gyms, and CTE shop spaces with outdoor access. The performing arts program to includes the main level of the theater and associated lobby, the black box theater, scene shop, choir space, and band room with associated offices and storage.

Anchoring all of these spaces in the center of the building is the double height student commons that connects to an entry plaza to the South, an outdoor terrace to the West, and the kitchen/servery/support spaces off of the loading area to the north.



LEVEL 02

Level 2 provides access to the balcony level of the theater and the media center, with the remainder of the spaces designated as academic program, including teacher planning, support, and flex areas. The two primary “bars” are connected by a central spine that opens to the commons below.

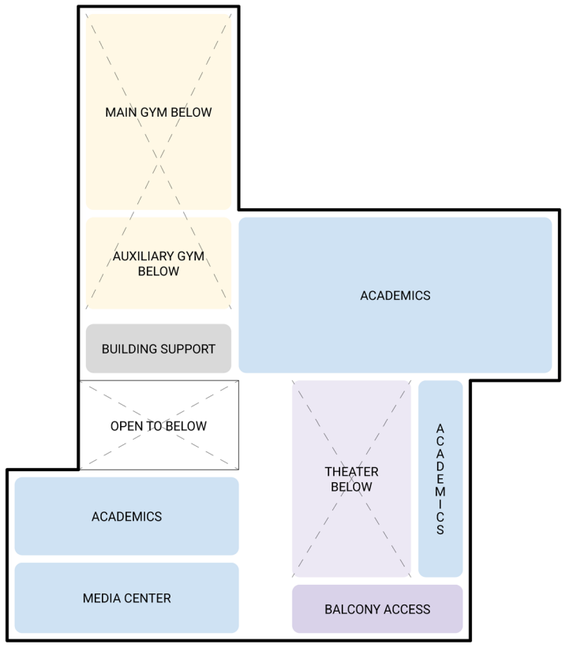
Performing Arts and Dance related spaces

Athletics related

Administration and Partners related program and spaces

Academic related spaces

Building support spaces



LEVEL 03

Level 3 consists entirely of academic program areas. The two primary “bars” of the massing are organized along an E-W axis, so that the spaces can be optimized around daylighting and the windows/envelope can better manage the risk of glare and solar heat gain.

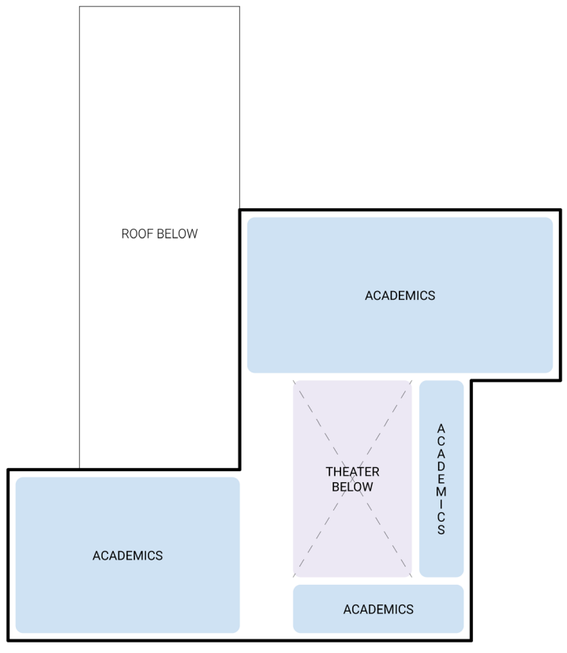
Performing Arts and Dance related spaces

Athletics related

Administration and Partners related program and spaces

Academic related spaces

Building support spaces



LEVEL 04

Level 4 consists entirely of academic program areas, containing a mix of science classrooms, visual arts, and CTE programs. By locating these specialized and technical spaces at the uppermost floor, we are able to take advantage of shorter duct routing for use types with higher ventilation requirements and also introduce the opportunity for top-lighting into spaces such as painting studios which benefit from more even and diffuse lighting over the course of the day.

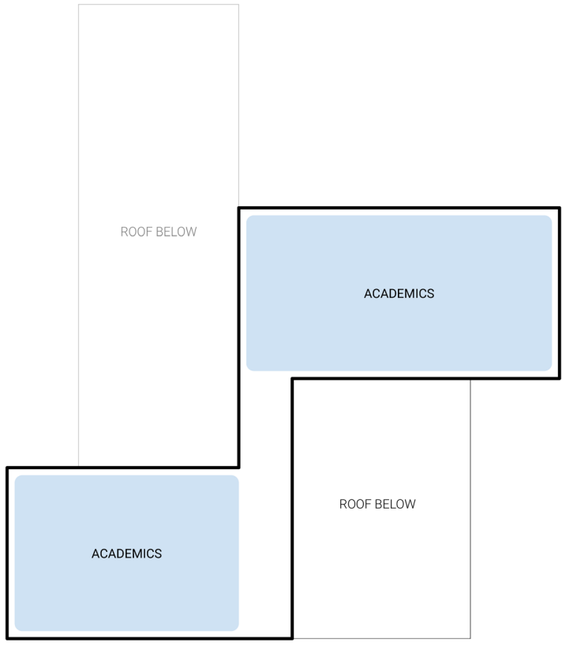
Performing Arts and Dance related spaces

Athletics related

Administration and Partners related program and spaces

Academic related spaces

Building support spaces



SYSTEM NARRATIVES

LANDSCAPE + ARBORIST

NEW HIGH SCHOOL BUILDING & COURTYARDS

The proposed replacement building will utilize the entirety of the existing multi-use field and part of the baseball fields along Vermont. None of the existing conditions on the Ida B Well site will remain, except for the existing Wilson Pool, plus some retained and protected trees. The new building will run along Vermont Street for a part of the block. Entrance and exit points from the building will connect to new and existing walkways. Many of these connections have grade differences, so egress will include stairs and ramps that allow moving from building level to adjacent street level accessibly.

Within this area there are multiple mature trees. There are several other landscape and community trees, some of which will be removed to accommodate the new building. These will be mitigated with new tree plantings on-site according to local tree code. Some existing on-site trees to remain will be protected per City of Portland standards.

The building will provide service and waste management via a new loading dock area to the north of the new building, which will be landscaped with required buffering and screening vegetation. The perimeter of the school building will include a combination of lawn and planted areas, including new trees, shrubs, and ground covers. This will accentuate the building and provide buffering from adjacent roadways.

The configuration of the school creates open spaces on the east and south sides of the building that will provide fully accessible gathering spaces for students coming to the building main entry from either Vermont St, Capitol Highway, or either of the parking lots.

PARKING LOTS

This project will replace most of the existing campus parking with a streamlined arrangement in two locations that will serve the new buildings, fields, and existing pool to achieve desired parking quantities and layout. The car drop off is contained within the parking lots. All parking will meet current code standards for parking lots, which the current parking lots do not, resulting in a reduction of total parking on the site. The total counts do not include potential parking opportunities on the road between Rieke ES and Wells HS. The new lots include:

Main Entry Staff Lot w/ Bus Drop-off (South)

This lot will facilitate school bus drop-off and a parent drop-off drive through, as well as 128 student/ parent parking stalls (2 ADA car stalls and 2 ADA van stalls). Parking areas *have landscaped areas between parking bays and at the ends of rows to provide lush buffering and break up expanses of pavement with trees, shrubs and ground cover and as required by code.*

Main Student Lot w/ Car Drop-off (North)

The lot includes 65 spaces meant for student parking, including a car drop-off that can slink around the perimeter of the lot to provide a capacity of at least 10 cars isling in the queue. There are two ADA accessible stalls with walkways connecting towards the building. Parking areas are landscaped between parking bays and at the ends of rows to provide lush buffering and break up expanses of pavement with trees, shrubs and ground cover and as required by code.

BIKE PARKING

Bike parking, including some covered bike parking, will be provided in multiple locations on the site. The total number of bike parking spaces on the site will depend on the building square footage and the number of classrooms.

BALL FIELDS, FIELD HOUSE, AND TENNIS COURTS

There are numerous proposed improvements that augment existing conditions to remain or replace existing areas with new uses. In addition to the specific zones, new walkways and landscaping will be installed in common areas and to provide transitions from walkways. Specific areas to be improved:

Baseball Field

The existing baseball field will be relocated and replaced with synthetic turf as shown on plans. New lighting, scoreboards, dugouts, a batting cage and perimeter fencing will be provided for this field.

Softball Field

The existing softball field surfacing will be demolished and regraded, then replaced with synthetic turf as shown on plans. New lighting, scoreboards, dugouts and other facilities will be provided for this field.

Multi-Use Field

The existing multi-use field will be relocated and replaced with synthetic turf as shown on plans. New lighting and perimeter fencing will be provided for this field.

Tennis Courts

Installation of 4 new tennis courts, with surfacing, fencing, gates and other equipment. Bleachers will be installed at each edge of the court. These will include perimeter landscaping around the court areas. These will require sports lighting.

Site Buffering

The edge of the site abutting residential property requires a vegetated buffer, including trees, shrubs and groundcover per City of Portland code.

The existing structures and track will be entirely replaced. A new track, with field markings A new maintenance building, a new Ticket booth with access gates in the central zones for access to stadium from school and parking. In addition to new fencing, and pedestrian gates, a vehicle access gate will be provided to allow or service and emergency vehicle access from the parking areas north of the stadium.

The area transitioning from ticket booth and around concessions will be expanded for better access, with amenity paving upgrades, wood cap seat walls, and site landscaping surrounding the large existing tree as a focal point to this area. The zone to the north of the stadium will be landscaped.

FENCES AND WALLS

In addition to new fencing around athletic facilities, there will be approximately 3,500 linear feet of new security fence, with operable gates at all pedestrian entrances, to create a more securable and protected campus for the students. This fence can replace the baseball fence on the north and east, sides of the baseball field. In addition, there will be a retaining wall between the baseball and multi-use field and between the multi-use field and south parking lot to accommodate the site topography while providing flat areas for fields and parking. Heights and lengths of retaining are dependent on topography contours and spot elevations from the forthcoming site survey.

CIVIL NARRATIVE

REFUSE COLLECTION

Garbage and recycling bins for pick up by Waste Management will be kept outside under a permanently covered structure that is hydraulically isolated from the surrounding pavement in accordance with the 2020 Portland Source Control Manual. The trash enclosures shall have a drain that discharges to the sanitary sewer.

FIRE ACCESS

The site falls within the jurisdiction of Portland Fire and Rescue. Because all buildings are fully sprinklered, the maximum hose-stretch length is 250-feet and the dead-end fire access road length can be up to 300-feet. An aerial fire apparatus road will be provided, or the building will be fitted to meet the alternative as allowed by the Portland Fire Code.

If the alternative is selected then the new building will have a flat roof with approved roof access at all stairways, as well as be equipped with at least one standpipe that terminates at the roof. The survey is needed to confirm the number of hydrants on and around the site, but it is likely new onsite hydrants may be needed to fit with the proposed site layouts.

GRADING

Because of the amount of grade change across the site and the large flat spaces needed for athletic fields, there will likely be several retaining walls across the site. The trail improvement along the private drive between the high school and the elementary school will encroach into the hillside to the east by a few feet, and the elements at the top of the slope may shift toward the slope slightly. The placement of these elements will be refined to minimize impacts to the slope once an accurate survey with 1-foot contours is provided in the next phase of design.

SANITARY SEWER

The sanitary sewer from the building must connect to the combined sewer line in SW Burlingame Avenue. During the pre-application meeting with the City, it was mentioned that the existing sewer line, which is 8-inch diameter, may need to be upsized as it surcharges. The Portland Bureau of Environmental Services (BES) considers this a portion of the building's lateral that is located in the public right-of-way, which cannot be smaller than the pipe on-property and therefore may require upsizing, depending on the existing lateral diameter and/or the expected sanitary flow rates from the proposed development. Upsizing an existing sanitary lateral in the public right-of-way requires a sewer connection permit for permitting in the right-of-way. This line is quite deep, and it is expected that the new building lateral or reuse of the existing lateral can connect via gravity.

DOMESTIC WATER AND FIRE PROTECTION

Water meters will be sized during the permit process based on the total fixture count. If the existing meter is adequately sized, it may remain. As mentioned, the site has two irrigation meters off SW Vermont Street and a domestic water meter served from SW Burlingame Avenue. It also has a 6-inch fire protection service from SW Burlingame Avenue. New backflow preventers likely will be required.

STORMWATER MANAGEMENT

Stormwater from any new site development will be managed according to the standards in the City of Portland 2020 Stormwater Management Manual (SWMM). The Geotechnical Engineer will provide onsite infiltration results which will inform the site's Stormwater Infiltration and Discharge hierarchy category. This information sets the framework for how stormwater will be required to be managed prior to discharge. Based on previous Land Use cases for the site, infiltration was previously not recommended. Although this will need to be confirmed by the Geotechnical Engineer, onsite infiltration will likely be infeasible. Therefore, since there is a nearby stormwater-only sewer to the south in SW Vermont Street, it is likely that the project will fall under Level 2: Offsite Discharge to the Separated Stormwater System. There is no separated stormwater main in Burlingame Avenue to the north, therefore all stormwater discharge shall be directed south toward SW Vermont Street, unless the District constructs a stormwater-only sewer extension from SW Capitol Highway in SW Burlingame.

Water quality treatment and flow control must be provided for all new or replaced impervious area so that the proposed peak flow from the 2-year, 5-year, 10-year and 25-year, 24-hour design storm events do not exceed the pre-development peak runoff from the same design storm events. We anticipate that the project will create between approximately 600,000 and 800,000 square feet of impervious runoff area, depending on whether or not the track & field is replaced. These totals include all new artificial turf fields including the softball field at Rieke Elementary and the replacement of the roadway and parking between the two schools. The total excludes the existing pool.

Runoff from all new and redeveloped impervious surfaces will be captured and conveyed in stormwater-only sewer pipes to a below-grade stormwater detention area. The stormwater detention facility shown in the concept storm plans utilizes corrugated plastic stormwater collection chambers that are arched in shape and placed below grade in the southwest corner of the field off SW Vermont Street (arch-chambers). Sufficient volume is provided in the chambers along with a flow control manhole to limit discharge to the 15-inch public storm main to meet the SWMM flow control requirements outlined above. To meet the pollution reduction requirements, vegetated treatment planters will be spread throughout the site in the parking lots and around the building that will filter runoff prior to it being piped to the underground detention chambers. Efforts will be made to provide vegetated facilities wherever possible, but if space is limited, such as at the sports fields, proprietary treatment vaults may also be utilized.

FRANCHISE UTILITIES

New conduits for communications from Astound and Lumen will feed the new school from SW Vermont Street. The IBW building will be fully electric, so no gas is proposed for the building. Due to the new building's size, it will likely require three electrical services. Coordination with the electrical provider, Portland General Electric (PGE), will confirm the design of the new service which could require two to three transformers on site. There is also a possibility of a medium voltage distribution switch which will be slightly smaller than the transformers. The project will also need a 750KW generator on site. This new electrical equipment will be housed in a utility yard outside the main electrical room with a generator nearby.

PUBLIC IMPROVEMENTS

Based on the pre-application meeting with the City, there could be significant public improvements triggered by

Figure 1: SW Bertha Blvd, looking north

the school development. The notes from the Portland Bureau of Transportation (PBOT) did mention that the project could elect to pursue a Public Works Alternative Review. An Alternative Review is required to be approved by PBOT to alter any of the standard right-of-way (ROW) improvements listed below.

SW Bertha Boulevard

SW Bertha Boulevard has a 30-foot pedestrian corridor width. The site abuts approximately 120 LF of this frontage. Improvements for this frontage to meet the standard would involve shifting the sidewalk east by 4-feet to provide the required furnishing zone width, increasing the sidewalk width from 7.5 to 8-feet. This would likely involve some retaining and/or regrading and could affect the large trees at that corner. Ramp reports shall be provided showing that the recently reconstructed curb ramps meet the current ADA code.

SW Bertha Court

SW Bertha Court's pedestrian corridor width varies but is around 28-feet from face of curb to property line. The site abuts approximately 400 LF of this frontage. Improvements for this frontage to meet the standard would involve shifting the sidewalk east by 4-feet to provide the required furnishing zone width, increasing the sidewalk width from 7.5-feet to 8-feet. This would likely involve significant retaining.

SW Vermont Street

The contiguous site has approximately 2,000 LF of frontage along SW Vermont Street. The existing sidewalk corridor configuration exceeds the required 12-foot minimum width with a 20-foot width. There are also seven crosswalks at T-intersections along the frontage. To meet the standard for this street, the sidewalk would need to be widened from 5-feet to 6-feet by expanding its width six-inches into the furnishing and frontage zones. Additionally, all seven intersections to the south require compliant ADA receiving ramps. Wood cobra head lighting could be required at mid-block crossings.

SW Burlingame Avenue

SW Burlingame Avenue is a paved street without curbs or sidewalks. This street would require a five-foot right-

Figure 2: SW Bertha Ct, looking north

Figure 3: SW Vermont Street, looking west

Figure 4: SW Burlingame Ave, looking east

of-way dedication to meet the standard. Additionally, it will require a minimum 20-foot-wide paved roadway with the curb set 14-feet from the centerline, 8-foot-wide public stormwater facility, 6-foot sidewalk, and a 1.5-foot frontage zone. There are large trees and significant grade changes in this zone that could make this design challenging.

RIEKE ELEMENTARY SCHOOL

Rieke Elementary School shares parking with Ida B Wells High School through the central parking lane between the schools. It occupies the shared contiguous site and therefore is subject to non-conforming site upgrades triggered by the development at IBW High School. Additionally, since the baseball field at IBW will be a new artificial turf field, the softball field at Rieke will also be rebuilt using artificial turf to meet Title IX requirements.

Non-conforming Site Upgrades

For Non-Conforming Development, the City requires that applicants for Land Use and Building Permit approvals apply up to an additional 10% of the cost of the proposed renovation or new development towards correcting deficiencies in the five categories outlined in Portland Section 33.258.070 (D)(2)(b) and shown below:

1. Landscaping and trees required for the following areas:
    a. Exterior display, storage, and work activity areas.
    b. Setbacks for surface parking and exterior development areas.
    c. Interior parking lot landscaping.
    d. Existing building setbacks.
    e. Minimum landscaped areas other than described above.
    f. On-site tree density standards of Subsection 11.50.050.C.
2. Pedestrian circulation systems, as set out in the pedestrian standards that apply to the site.*
3. Bicycle parking by upgrading existing racks and providing additional spaces in order to comply with 33.266.220, Bicycle Parking.
4. Screening.
5. Required paving of surface parking and exterior storage and display areas.

**Pedestrian circulation onsite as a part of non-conforming site upgrades are in addition to the ROW improvements required by PBOT.*

Rieke Campus Stormwater Management

The City of Portland considers artificial turf an impervious surface. Therefore, stormwater runoff will need to be managed for the new field. Additionally, according to section 1.2.3 of the Stormwater Management Manual, upgraded landscaping required by non-conforming upgrades should be constructed as vegetated stormwater facilities.

If the City determines this site is a desirable candidate for conversion of landscaping into vegetated stormwater facilities, they will be designed to meet these requirements. The new softball field will likely provide treatment in a proprietary treatment vault and detention in a below-grade chamber or piped system. Survey information is needed to determine where these will connect to the public system.

Figure 5: Rieke Softball Field

STRUCTURAL NARRATIVE

DESIGN CRITERIA

The new school buildings will be designed as a Risk Category IV structures. The following design criteria shall be used for this project:

General Live Loading

Classrooms	40 psf
Office	50 psf
Lobbies and First Floor Corridors	100 psf
Corridors above First Floor	80 psf
Storage Areas	125 psf
Common Areas	100 psf
Gymnasium	100 psf
Gymnasium Bleachers	150 psf
Library/Media Center	150 psf
Auditorium Stage Floors	150 psf
Auditorium Fixed Seats	60 psf
Auditorium Movable Seats & Lobbies	100 psf
Auditorium Catwalks	40 psf
Grandstands	100 psf
Green Roofs	20 psf Allowance
Solar Ready Roof Loading	5 psf Allowance
Snow Loading (includes rain on snow & Risk Category IV)	29 psf + drift

Project Soils

Currently, we do not have a geotechnical report available for the project. GRI provided a Geotechnical Evaluation Memo for the school campus dated October 29, 2019 which we are using until the geotechnical report is available. Based on GRI's memo, we understand that the site soils consist of fills, alluvial sand, silt and clay. The fill and alluvial soils are underlain by basalt rock formations.

Although portions of the project site are designated as steep slope areas per PortlandMaps, no landslides have been documented on the school campus. The site soils are also understood to not be susceptible to liquefaction.

Lateral Loading

Earthquake design will be based on the following:

- Seismic Resilient Structures Risk Category IV, I = Importance Factor = 1.5 (voluntary)
- Seismic Design Category D (to be verified by project specific Geotechnical Report)

The building code requires that schools be designed as a risk category III structure. The school buildings will be designed as a risk category IV structures. We expect the added cost of this design to be approximately $5 per square foot applied to the square footage of the new buildings.

Wind load effects on the structure and individual elements will be considered with recognition of its variation over the building's height and orientation to the wind.

Wind loading criteria are as follows:

- Wind Speed = 107 mph (3-second gust), Exposure B
- Wind Risk Category IV

PORTLAND PUBLIC SCHOOLS CLIMATE POLICY

Considering the adopted Climate Crisis Response, Climate Justice and Sustainable Practices Policy (CCRP) we will look at the structure in two ways. We will look at conventional structural solutions and another lower embodied carbon structural system option. Both structural solutions will be evaluated based on upfront cost, embodied carbon, construction schedule, and resiliency to make a final system selection.

NEW CONSTRUCTION

Classrooms

Classroom buildings will be 4-story mass timber structures, with mass timber beams, columns and slab members. Ground floors will be slab on grade, with upper floors consisting of a reinforced concrete topping slab cast over 3-ply CLT panels. A higher carbon alternative to the mass timber structural system would be conventional steel framing with concrete composite slabs.

In addition to the primary structure, an allowance should be provided for feature stairs and entrance canopies. Feature stairs will be steel framed with concrete treads and landings. Entrance canopies will be cantilevered steel framing members.

The roof of the classroom buildings will be designed to support exterior MEP spaces, green roofs, and will be designed to be solar ready per the OSSC code requirements. Surrounding the roof MEP space will be a tall mechanical screen to conceal mechanical air-handling units and other miscellaneous MEP systems. This mechanical screen will be steel framed and be approximately the same height as the units. We estimate the steel weight to be 10 psf for the screen.

FOUNDATION SYSTEM

Currently, we do not have a geotechnical report available for this project. GRI provided a Geotechnical Evaluation Memo for the school campus dated October 29, 2019, which we are using until the geotechnical report is available. Based on this memo, the classroom buildings, gymnasium, auditorium, and new grandstand are anticipated to be either supported on ground improvement or pile foundations extending into the underlying materials. Smaller site structures that are one or two-story lightly loaded structures with finished floor at existing grade will be supported on conventional spread footings.

Basement retaining walls will be designed to withstand hydrostatic pressure to consider potential high ground water levels due to the low permeability of the site soils and the anticipation that perched groundwater could approach the ground surface during prolonged rain and the wet winter season.

At basement retaining walls, temporary shoring walls are anticipated to facilitate construction, especially where new construction is close to the existing school buildings and site structures that are to remain operational during construction.

EXTERIOR WALLS

The exterior skin of the building is assumed to be a mix of metal panels, GRFC, glazing and brick veneer.

The backup system for the skin will be light gage metal stud framing that is supported on the ground floor and at each floor above. Stud framing will then run past the roof to act as a parapet. Deflection heads will be required at each floor line. Exterior studs supporting metal panels will require 18-gauge metal studs. Exterior studs to support brick veneer and/or precast concrete panels will need to be 16 gauge minimum.

At locations of brick veneer at the façade, additional miscellaneous steel will be required to support the brick in the form of steel lintels over the windows and brick relief angles provided at each floor line. Provide an additional 0.5 psf of steel weight at floors to accommodate beam stiffness and miscellaneous steel. Additionally, where precast concrete panels are included in the design, miscellaneous steel framing and allowances, similar to the brick veneer as noted above, will be required at precast concrete panel façade locations.

Additional miscellaneous steel will be required to support glazing systems at large open areas where there is not a floor provided for support, such as stairs. This steel weight is included in our estimate of steel weight at each floor.

ATHLETICS GRANDSTAND

Option 01: Retrofit

The existing grandstand structure consists of a combination of cast-in-place and precast concrete construction. The grandstand is supported by precast concrete raker beams supported on grade to the south and on concrete columns to the north. The raker beams support precast concrete seating risers. The grandstand is founded on concrete spread footings.

Based on the age of the grandstand, a seismic retrofit will be required to bring the grandstand structure up to current code. See the discussion below for the seismic retrofit. Additionally, we understand a new grandstand roof may be provided to cover the existing grandstand seating.

Based on our field observations, the grandstand is in fair condition for its age. The concrete columns and raker beams have only minor cracking. However, the concrete seating risers have significant cracking and spalling, especially on the bottom. It appears areas on the bottom of the risers have been repaired in the past. It is likely the damage is caused by water leaking down through cracks in the seating risers from above.

Seismic Retrofit

The major deficiencies are lateral bracing at the high end of the grandstand and inadequate ties around the existing concrete columns. Additionally, reinforcement will be required to ensure the precast concrete seat risers are well connected to the support structure below.

Seismic upgrade and repairs to make the grandstand code compliant will include:

- New 30-foot-long reinforced concrete shear wall at the north to brace the high end of the grandstand. A new pile cap and pile foundations under this wall will be required. The new shear wall will be connected to the existing structure with epoxy dowels.
- Encase all concrete columns with an additional 3-inch of concrete on all sides, reinforced with reinforcing ties at 4-inch o.c. and vertical bars at each corner. Roughen all-sides of the columns to ¼ inch amplitude to enable engagement with existing concrete. Alternatively, a fiber reinforced polymer wrap could be provided around each column in lieu of the additional concrete and additional ties.
- Provide allowance of 2psf steel framing to facilitate diaphragm connections between the seat risers and the seat risers to the new concrete shear wall.

Other Grandstand Repairs

Chip out and repair all cracked and loose concrete on the underside of the precast seating risers. Replace any corroded reinforcing steel. Repair small cracks with epoxy injection.

Remove and replace the waterproofing membrane on top of all the seating risers to protect the concrete below. Owner to consider a maintenance plan to ensure waterproofing joints are maintained to reduce risk of further precast seat riser degradation due to the water leaks.

Grandstand Roof

The new grandstand roof will consist of a metal roof deck spanning 10 ft between WF steel beams. The WF steel beams will span about 26 ft to be supported by steel trusses that cantilever over the existing grandstand seating structure. The cantilevered steel trusses will be supported by new steel columns at 26 ft on center located north of the existing concrete columns. The columns will be supported on a pile supported foundations.

The grandstand roof will be seismically supported by the new shear wall and seismic retrofit of the grandstand base structure. An additional shear wall and foundation on the east and west end of the grandstand will also be required to laterally support the roof.

Although the existing structural drawings have been made available, the precast concrete members were a delegated design and therefore no information for those components are included in the existing structural drawings. It is recommended that a structural investigation program be completed to collect the required structural information for the precast members to facilitate a complete retrofit of the grandstand.

Option 02: New Grandstand

The athletic grandstand will be a delegated design structure consisting of a steel framed structure. A roof covering the structure may be added to the scope of work as needed. The bleacher supplier will provide information to assist with the cost of the bleachers.

SWIMMING POOL

There is an existing pool on campus that is maintained by Portland Parks and Recreation. The pool site is predominantly a slab on grade supported by perimeter retaining walls of various heights. There is a partial basement north of the pool, that shares the north wall of the pool, that houses the pool utilities. We understand the existing pool will be unchanged and is out of the scope of this project.

For due diligence, KPFF walked the existing pool structure with BORA and PPS on January 31, 2024. The partial basement consists of reinforced concrete retaining walls, concrete joists and formed concrete slabs. In select locations the basement roof is framed with WF steel beams and concrete over metal deck. There appears to have been a retrofit to the basement structure near the pool where a new concrete spandrel beam and reinforcing steel angles and channels were installed. Around the pool facility, there are reinforced concrete retaining walls and concrete slab on grades.

Overall, the basement structure is in fair to poor condition. Along the existing concrete wall, next to the pool, the exposed steel angles, channels, and threaded rods have significant corrosion that appear to have reduced the steel member thickness. At one location, the concrete basement wall appears to have a horizontal crack that is leading to spalling of the concrete. Existing structure further away from the pool is in better condition and does not show signs of corrosion. The retaining walls and slab on grade portion of the pool appear to be in good condition.

SITE STRUCTURES

On the school campus, we expect several small stand-alone one-story buildings, including:

- Concession building for the grandstand
- Pool support building housing new lockers and restrooms for the pool facility,
- Bike shelter
- Batting facility
- MEP Yard

The site buildings will be 8-inch CMU walls with wood framed roofs. Refer to the foundations section of this report for foundation information. The bike shelter will be steel framed with wide-flange beams and columns. The lateral system will be cantilevered steel columns. We estimate the steel weight of the bike structure to be 9 psf.

Additionally, we understand there will be an exterior MEP yard. The yard will consist of a slab on grade and reinforced concrete MEP pads for the equipment along with a perimeter cantilevered steel frame to support a screen wall supported on a continuous strip footing. Provide an allowance of 10 psf for the steel framed enclosure.

Due to the sloped site, we anticipate site retaining walls. Site retaining walls will be reinforced concrete and will be of variable height.

MECHANICAL, ELECTRICAL, PLUMBING & FIRE PROTECTION

MECHANICAL

Certifications and Standards

The project will be tailored to meet the requirements of the Portland Public Schools Energy & Sustainability Standards, and Portland Public Schools Climate Crisis Response, Climate Justice and Sustainable Practices Policy (Board Policy 3.30.080-P) "where in response to the human-caused climate crisis currently underway the District has committed to reducing greenhouse gas emissions and minimizing other negative environmental impacts; improving our school communities' health and wellness; and building a culture of learning, responsibility, and sustainability centered on our values of racial equity and climate justice."

Portland Public Schools intends to reduce greenhouse gas emissions by 50 percent by 2030 and reach net zero emissions by 2040.

Installation of fossil fuel infrastructure (gas-fired equipment) is prohibited.

The amount and global warming potential of refrigerant used in the systems will be limited as much as is practical.

The building will be designed to meet the requirements for a USGBC LEED v. 4.1 BD+C Schools Gold certification.

Preliminary Energy Use Estimates

To design an energy efficient building, it is important to understand the energy consumption breakdown for a typical building of similar use in a similar climate. The baseline 2018-2019 weighted average Energy Use Index (EUI) for PPS High Schools is 58.4 kBTU/SF/yr. The target EUI for Ida B. Wells-Barnett High School is 25 kBTU/SF/yr.

An integrated approach to the design process will be utilized to ensure that all aspects of a building work together to achieve this high threshold of performance. In addition to optimized envelope studies, a key strategy for reducing the building HVAC loads, multiple energy conservation measures will be evaluated within the HVAC systems energy modeling process.

- Air Source Heat Pump Central Plant
- Air Source & Ground Source Heat Pump Central Plant
- Water Source & Ground Source Heat Pump Central Plant
- Air to Air Heat Recovery within Air Handling Units
    - o High Efficiency ventilation system
    - o Reduces central plant peak heating/ cooling loads
    - o Reduces energy consumption of ventilation system year round

Central Heating and Cooling System

The primary source of heating/cooling for the central plant will be provided by two-pipe air source heat pumps located at grade in a secure equipment yard.

Each air source heat pump will be provided with variable speed primary circulation pumps and dedicated buffer tank.

Variable speed secondary pumps will distribute heating and cooling water from the central plant via four-pipe distribution system to air handling equipment heating and cooling coils.

Back-up electric resistance boilers will be provided to meet building heating requirements when outdoor air temperatures are below the operational limit of the air source heat pumps.

Each boiler will be provided with variable speed primary circulation pump.

MECHANICAL ALTERNATES

Alternate System A

The primary source of heating/cooling for the central plant will be provided by two-pipe air source heat pumps located at grade in a secure equipment yard.

Each air source heat pump will be provided with variable speed primary circulation pump and dedicated buffer tank. The secondary source of heating/cooling for the central plant will be provided by a closed loop ground source borefield located beneath the sports field. Water to water heat pumps located inside the building will provide heating/cooling from the bore field to the building.

In order to take advantage of all available Inflation Reduction Act (IRA) tax credits it is required that the ground source project meet prevailing wage and registered apprenticeship requirements in accordance with "Prevailing Wage and Apprenticeship Initial Guidance Under Section 45(b)(6)(B)(ii) and Other Substantially Similar Provisions" and meets certain domestic content requirements for steel, iron, and manufactured products defined as "40% of the total costs of all such manufactured products incorporated in a facility or project are attributable to manufactured products (including components), which are mined, produced, or manufactured in the United States". Variable speed secondary pumps will distribute heating and cooling water from the central plant via four-pipe distribution system to air handling equipment heating and cooling coils. Back-up electric resistance boilers will be provided to meet building heating requirements when outdoor air temperatures are below the operational limit of the air source heat pumps. Each boiler will be provided with variable speed primary circulation pump.

Alternate System B

The primary source of heating/cooling for the central plant will be provided by a closed loop ground source bore field located beneath the sports field. Water to water heat pumps located inside the building will provide heating/cooling from the bore field to the building.

In order to take advantage of all available Inflation Reduction Act (IRA) tax credits it is required that the ground source project meet prevailing wage and registered apprenticeship requirements in accordance with "Prevailing Wage and Apprenticeship Initial Guidance Under Section 45(b)(6)(B)(ii) and Other Substantially Similar Provisions" and meets certain domestic content requirements for steel, iron, and manufactured products defined as "40% of the total costs of all such manufactured products incorporated in a facility or project are attributable to manufactured products (including components), which are mined, produced, or manufactured in the United States".

The secondary source of cooling for the central plant will be provided by a closed loop fluid cooler located on the rooftop and high efficiency water to water chiller located within the building.

Variable speed secondary pumps will distribute heating and cooling water from the central plant via four-pipe distribution system to air handling equipment heating and cooling coils.

Back-up electric resistance boilers will not be required for this system as the ground source heat pumps will be sized for the full heating load of the facility.

MECHANICAL

Air Handling System

Variable Air Volume (VAV) design for classrooms and adjacent spaces will be provided. Air for cooling and ventilation will be distributed to all occupied spaces by central, custom, factory fabricated, variable air volume air handling units.

Zoning of air handling units will be based on environmental requirements and operating schedules.

The heat recovery wheel sized for full airflow rate will transfer energy from the return airstream to the supply air stream when the unit is operating outside the airside economizer mode.

During economizer mode face/bypass dampers will position for free cooling.

Supply and Return fan speeds will vary speed to maintain the minimum airflow required to maintain ventilation and dehumidification requirements.

Heating coil valves will modulate to maintain supply air temperature between 65 and 80 degrees F.

Cooling coil valves will modulate to maintain supply air temperature between 55 and 65 degrees F.

Terminal Heating/Cooling Equipment

Variable volume terminal units with reheat coils will be provided for occupied portions of the building. Finned tube heaters will be provided for exterior zones where additional heating is required with the exception of the Commons which will utilize a radiant floor for additional thermal comfort.

Unit heaters will be provided for unoccupied portions of the building.

Cabinet unit heaters will be provided for vestibules and stairwells for freeze protection.

DX split systems will be provided for elevator machine rooms, MDF, IDF, and electrical rooms. Wall mounted fan coil units will be mounted over the doorway where possible and condensing units will be located on the roof. Units to be provided with condensate pumps and condensate drains routed to nearest mop sink or floor drain.

PLUMBING

Domestic Cold-Water System

A utility vault located within the site will house the backflow device on the incoming domestic water supply. The domestic water system will be provided with positive means to control backflow, with appropriate backflow preventers at sources of possible contamination within the building, such as mechanical equipment or industrial cold/hot water systems.

Cold water will be distributed to the plumbing fixtures, and other areas requiring water. Refer to Architectural Drawings for plumbing fixtures and room locations. Freeze-proof hose bibs to be distributed around perimeter of building at every 100 feet.

Street water pressure should be a minimum of 70 psi to serve the building fixtures. The civil engineer has determined that water coming from SW Burlingame Ave has a static water pressure between 72-90 psi, while water availability from SW Vermont has much lower pressures of between 32-40 psi. A water booster would be required for anything lower than 70 psi; a pressure reducing station will be required for anything higher than 80 psi.

A backflow device will be provided for the irrigation system within the water service room. Irrigation piping will be stubbed out of the building for the landscape use.

Domestic Cold-Water System

Heat Pump Electric water heaters will provide domestic hot water to the building.

Domestic hot water heaters will be located throughout the building close to areas they will serve while trying to locate them centrally. Hot water recirculating systems will be utilized to maintain a minimum loop temperature controlled by temperature setpoint.

The domestic hot water system components will be controlled by the building management system.

The water heaters will produce 140 degrees F for health and equipment efficiency purposes.

A master thermostatic mixing valve will temper the hot water to 120 °F for general use.

An additional thermostatic mixing valve will provide tepid water to emergency fixtures per ANSI/ISEA Z358.1. Tepid water will be supplied no less than 60 °Fand no greater than 100°F .

Expansion tanks will be provided on hot water systems at water heaters to eliminate pressure buildup when the system is not being used.

Water hammer arrestors will be installed at the end of larger pipe headers and mains.

Isolation valves will be provided to shut off major plumbing groups and by classrooms, areas or floors as determined practical based on the building floor plan and plumbing fixture layouts.

Storm Drain System

A roof and overflow drain system will be provided as required by code. Overflow storm drain system will daylight utilizing downspout nozzles at the level above grade or if the roof plan created by the architect requires roof and overflow drains, systems may be combined.

The storm water piping will be routed the street utilities.

Sanitary Sewer System

Sanitary waste and vent piping will be provided in toilet rooms and other spaces as required.

Separate acid resisting waste and vent piping systems will be provided for labs and classrooms, as required. The acid resisting waste piping system will be piped to a sampling manhole located outside the building where it will connect to the sanitary sewer system. There will be an acid neutralization tank outside with limestone chips.

Sanitary waste piping leaving the site will connect to a combination sewer per civil plans. Sanitary waste piping will run parallel to the storm water and be connected to piping provided by Civil near the curb line. This will allow the sewers to connect to their appropriate separate (sanitary and storm) sewer systems in the future. Initial findings by the civil engineer indicate the existing waste line on SW Burlingame is quite deep suggesting that waste systems can run by gravity without the use of any large pumping systems.

Sump pumps will be provided for elevator shafts and connected to the gravity sanitary system within the building.

Floors shall slope to Floor Drains and be installed in every single occupancy restroom as well as multi-stall restrooms and Custodial closets.

Compressed Air System

Compressed air will be produced by a packaged system, which includes duplex air compressors, receiver tank, and air dryer. Compressed air will be delivered at 100 PSI to all required labs or classrooms. Pressure will be reduced by means of a pressure regulator for those spaces requiring 15 PSI compressed air.

FIRE PROTECTION

The Ida B Wells High School modernization project will incorporate a new automatic fire protection sprinkler system. This system will be installed to align with the adopted editions of building codes, as well as Portland Public School standards and current local codes.

Fire Protection Water Utility Service

A new 8-inch fire line to the building shall connect to the city water main. The backflow preventer will be located at the property line. The backflow assembly shall be a double check detector assembly to meet the city's water metering requirement for services over 2-inches (Ch 21.12 Water Services).

Fire Department Connection (FDC)

The Fire Department Connection (FDC) location will be provided and shall be located to be easily identifiable and readily accessible from the approved fire apparatus access roads.

A clear space of 3 feet will be maintained around the FDC. The FDC will connect to the fire sprinkler system downstream of the fire pump.

Hydraulics Calculations

Water supply data will be provided by either Authority Having Jurisdiction Hydraulic Model or by test using a minimum of two hydrants in accordance with NFPA 291. Hydraulic calculations will commence at the gauge hydrant used in the waterflow test and include the backflow prevention device as well as all fire protection system valves and include fittings with a 10-psi safety factor. Water data will be confirmed at the project location. At the time of this report water flow test information is not available.

The Ida B Wells High School modernization project will incorporate a new automatic fire protection sprinkler system. This system will be installed to align with the adopted editions of building codes, as well as Portland Public School standards and current local codes.

Extent of Sprinkler Coverage

The building will be fully sprinklered in accordance with the building codes and current local codes. Ordinary electrical equipment rooms, telephones closets, housekeeping closets and similar areas will be provided with sprinklers. With approval of the AHJ sprinkler protection is permitted to be omitted in main electrical switchgear and generator rooms provided with direct access to the outside and enclosed by two-hour fire rated construction. Additional areas where sprinkler protection is permitted to be omitted per NFPA 13 will be presented to the Authority Having Jurisdiction for final acceptance.

Multiple Riser Design

Multiple riser designs that require the operation of more than one floor cutoff valve to isolate any portion of the system are not permitted.

ELECTRICAL

Primary Site Electrical Distribution

The site of construction will be served from Portland General Electric (PGE). The new building will include new primary feeds from local PGE infrastructure to a new pad-vault mounted sectionalizing cabinet. The cabinet will serve (3) new utility transformers and all utility distribution equipment will be located in a utility yard exterior to the building. Two (2) 4" conduits will be provided from the connection point determined by PGE to the sectionalizing cabinet and from the sectionalizing cabinet to each transformer for primary power.

Building Main Power Service

Three (3) oil filled, pad mount transformers, will be located in a utility yard spaced according to PGE clearance requirements. PGE will confirm exact transformer quantity as design progresses. Each utility transformer will be pad-vault mounted with secondary feeds to three (3) EUSERC service switchboards, one (1) per service located within the main electrical room and will contain the service disconnect. The vaults, primary and secondary conduits, and main switchboards with utility metering equipment will be provided by the project and installed per PGE requirements. The utility (PGE) will provide the primary conductors, the sectionalizing cabinet, pad mounted transformers, and the secondary conductors into the main switchboards.

Site Building and Sports Field Power

The site will be provided with power served from the main building service. Sports field lighting and supporting buildings will be provided with dedicated panels and service disconnect from the main building distribution. New 480Y/277V feeders will be provided at these buildings with service disconnect and step-down transformers to provide 208Y/120V power as needed.

ELECTRICAL BUILDING DISTRIBUTION

Three (3) main services will be provided to serve the main building, each rated at 4000 amps at a service voltage of 480Y/277V. Main service switchgear will be rated for 100KAIC minimum. A secondary voltage of 208Y/120V will be derived using energy efficient and noise mitigating K-rated transformers providing a level of isolation from other loads and deriving a new grounded neutral point. The electrical power system will incorporate metering and system performance tracking at the main distribution and sub-distribution panels as well as branch panels to track system load profiles. The metering will provide information on system loading and power quality in accordance with the Oregon Energy Efficiency Specialty Code and LEED requirements where applicable. Power distribution throughout the building will be accomplished with conduit and wire feeders to satellite electrical rooms at 480Y/277V. Satellite electrical rooms will contain step down transformers and 208Y/120V branch panels to serve equipment and receptacles in the adjacent areas. In the satellite electrical rooms the 480/277V distribution will provide power for local mechanical and lighting loads. The 208Y/120V panelboard will provide power to local mechanical, receptacle and equipment loads. Larger mechanical loads in a central room or located at the rooftop will be fed from a mechanically focused distribution panel. Minimum branch panel size will be 200A with 200% neutral bussing with a minimum SCCR of 20KAIC. Circuit breakers within branch panels shall be rated for use as light switches.

PPS Standards Note:

- PPS standards indicate that the main switchgear be sized for 150% of the calculated load that this may prove impractical and cost prohibitive given the size of the service.
- PPS Standards note to use fused switches in the main switchgear. It is recommended to provide circuit breakers as they are more versatile and easier to maintain.

Flexibility

The power distribution system will be developed to provide flexibility for reconfiguring spaces. Spare raceways and or chases will be provided for future distribution and to accommodate flexibility.

Power Quality

Quality of power supply is affected by noise sources within a facility as well as outside (utility transferred). The power distribution system will include measures to help safeguard equipment from utility surges and transient conditions. Surge Protective Devices (SPD) will be provided at the service entrance electrical equipment and within all branch panels for a first level of protection and at all branch panelboards for a second level of protection. A second level of SPD's could be utilized by the owner using portable plug strips with surge protection at equipment. Load types will be separated on panels to prevent large mechanical loads from affecting general-purpose branch circuitry.

Additional Harmonic mitigating transformers will be provided as a third level, where appropriate, to mitigate noise on the distribution system around sensitive loads such as theatrical dimming panels, large scale AV systems or sensitive lab equipment.

Feeder and Branch Circuit Wiring

Copper conductors routed in metallic raceway will be used throughout the interior building for branch and feeder distribution. Circuits exposed to the exterior conditions such as on exterior walls or roof-top mounting will be GRC. Feeders routed within the building will also be in GRC. Underground raceway will be Schedule 40 PVC. Branch circuits may utilize EMT conduit or metal clad (MC) cabling may be used in specific applications for local distribution of branch circuits within an individual space. The homeruns back to the panel will be copper conductors in raceway types as noted above. Lab spaces will use surface metal raceway (SMR, Wiremold) to route power and data cables adjacent to the tasks in the lab. The SMR permits ease of reconfiguration of power and data cabling within a space without disturbing building walls and finishes. PPS to confirm SMR is appropriate for lab spaces as not all recent construction has utilized this product. Branch circuit neutrals will be oversized on shared circuits with high harmonic loads. Ground fault circuit interrupter receptacles will be provided in toilet rooms at sinks, roof, outdoor and wet areas.

Conduit routing along the roof will be minimized where possible and conduit will be routed interior to the building and stub up at rooftop equipment.

Aluminum conductors are prohibited per PPS standards.

Equipment Connections

Electrical power connections will be made to all mechanical equipment and include providing all electrically associated devices such as disconnect switches, contactors, magnetic or manual starters, lock-out switches, etc., not furnished under Division 23. VFDs will be furnished under Division 23 and installed under Division 26.

Electrical power connections will be made to support miscellaneous equipment. Connections include disconnect safety switches and wiring to support interlocks to remote devices.

Grounding System

A grounded power system will be provided in compliance with the NEC. This ground system consists of the building service ground comprised of multiple ground rods, UFER ground and bonding to the water service and structure steel. The grounding system will be extended throughout all electrical systems in the facility. Grounding buses will be provided in the electrical and telecom network rooms. All metallic systems will be grounded to the building grid. An equipment grounding conductor will be provided in all feeder and branch

wiring runs. Separate isolated ground conductors will be provided for branch circuits with sensitive loads.

Emergency Generator

The Emergency and Optional Standby power will be provided by a 750KW diesel fired generator. The generator will be exterior mounted with a weatherproof, sound attenuated enclosure and built in sub-base 24-hr fuel tank. A single feeder from the generator will be brought into the building to an emergency power main distribution switchboard. Separate transfer switches will be provided for emergency loads and standby loads. Onsite fuel storage will provide for 24-hours power source operation at full load. A remote docking station will be provided for connection of a temporary generator during maintenance of the system. A remote fuel filling station may be required pending the final location of the generator and its accessibility from the street by a fuel dispensing truck.

Emergency loads will be those designated as life safety (meeting the criteria of NEC 700) and will include egress lighting, fire pump and fire alarm systems as well as any equipment necessary for the function of the generator itself such as battery charger and block heater. Note that while PPS standards indicate the fire alarm shall not be on generator power, if the building is intended to be used as a resilient shelter the fire alarm system much be on generator to ensure it is functional as long as the building is occupied.

Optional Standby loads will include loads designated by the owner as needing an alternate power source such as the network room loads, UPS systems, selected cooling, designated equipment loads, resilient shelter loads, security systems, one hand dryer per restroom and will meet the criteria of NEC 702.

Hydrolyzed Vegetable Oil (HVO) will be investigated as a possible fossil fuel reducing source of fuel for the generators. HVO has a much longer shelf life and can be swapped 1 for 1 with diesel with no equipment necessary. HVO comes at a premium and may be more difficult to source than Diesel, however, is a more planet conscious fuel to use in backup generators.

ELECTRICAL

Resiliency

A level of resiliency is desired by PPS. The criteria around this resiliency is still in discussion. Current basis of design for resiliency is that the generator will backup passive HVAC ventilation systems only for resilient spaces and heating/cooling will not be provided with generator power. Lighting within these resilient spaces will also be served from the generator.

Backup Source Alternates

With regards to the Climate Justice Policy, alternate sources of power that do not rely on fossil fuels are constantly in review for cost effectiveness and viability. Currently, there are no alternate sources that can provide the same flexible and reliable cost-effective backup power source while also having less carbon emissions than a standard diesel generator. The generator will be the basis of design and will be consistently evaluated in comparison to alternate less fossil fuel reliant sources for better compliance with the policy.

Renewable Power System (PV)

A renewable power source using PV (Photovoltaic) is proposed for the facility. The photovoltaic array will be located on the roof and will be approximately 200KW in size. Power inverters will be located within the building and tied into the normal power source for the building. PV system panel technology to be used is Crystal silicon construction with a minimum efficiency rating of 18.8 percent. Provide PV inverter output with remote monitoring system per PPS Standards. No energized PV conductors will route through the interior of the building where normally occupied by staff or students.

Size of PV array noted is based on similarly sized school projects. Exact PV array size will be verified and coordinated during design in later phases. It is also possible that PV from the existing building can be captured and re-used, however, for the purposes of pricing contractor shall assume a brand-new array.

Electric Vehicle Charging

Electric vehicle (EV) charging stations will be provided within the surface parking lots to accommodate electric vehicles. The requirements are to provide 6 parking spaces with electric vehicle charging stations to comply with LEED requirements. EV changing stations will be level 2 compliant and the basis of design will be Blink Series 7 Dual Port.

Fire Alarm

The fire alarm systems will adhere to all national and state codes outlined in this report, including those stipulated by local authorities and Portland Public School standards. The fire alarm system will consist of a Potter AFC Series addressable fire alarm system equipped with voice evacuation capabilities. The school will be fully equipped with sprinklers in accordance with NFPA 13 standards. Fire alarm wiring will be class B hardwired system, including an automatically actuated alarm system as detailed in tables 11, 12, and 13 provided below. The fire alarm system will adhere to all group E occupancy requirements. A manual fire alarm system for initiating occupant notification will not be necessary, as the building is equipped with an automatic sprinkler system that will activate the emergency voice/alarm communication system upon sprinkler waterflow.

The project aims to eliminate the use of fossil fuel sources for equipment as outlined in the district's Comprehensive Climate Resilience Policy (CCRP). Carbon monoxide detection devices are not mandated for this project.

Elevators are included in the project plans. Each lobby will require a smoke detector, while machine rooms will be equipped with a combination of heat and smoke detectors. Additionally, the fire alarm system will be integrated with the elevator controls to facilitate recall sequences, fireman's hat operation, and shunt trip functionality.

Two-way communication system will be provided within areas of refuge, elevator landing on each accessible floor that is one or more stores above or below the story of exit discharge to comply with NFPA 101 and 72.

Duct smoke detectors must be installed in units with an airflow of 2000 CFM or higher, situated on the return air side. Additionally, smoke detectors will be positioned within 5 feet of fire smoke dampers (FSD) at all penetrations of fire barriers.

In addition to the above project design features, there will be an emergency generator, access control system, emergency lighting, public announcement system, and antenna system. These systems will be integrated with the fire alarm system for monitoring.

ENTITLEMENTS

LAND USE

In December 2023, the project team attended an Early Assistance Pre-application Conference with the City of Portland to discuss the redevelopment of the Ida B. Wells site. The planner notes from the meeting are summarized below. Complete notes from the meeting are included in the appendix of this report.

CONDITIONAL USE REVIEW

1. Type III Conditional Use Review Required

A Type III Conditional Use Review is required for the project per 33.281.050.C. The Type III land use review process is governed by 33.730.030. As part of this process, a Hearings Officer issues the decision on the Conditional Use Review, and that decision can be appealed by City Council.

2. Neighborhood Contact Requirement

Per 33.420.030, for proposals in the Design overlay zone that will add at least 10,000 square feet of net building area to a site, the neighborhood contact steps of 33.705.020.C., Neighborhood Contact III, are required. This requirement must be completed 14 days before submitting a land use review application.

3. Conditional Use Review Approval Criteria

Because this site includes multiple base zones, two sets of Conditional Use approval criteria must be addressed: 33.815.100 (Uses in the Open Space Zone) and 33.815.105 (Institutional and Other Uses in Residential and Campus Institutional Zones).

4. Adjustments

If Zoning Code standards will not be met outright, the conditional use review application can include adjustment requests, subject to limitations in 33.805.030.

5. Conditional Use Master Plan or Impact Mitigation Plan Option

Though not required, the project can pursue a Conditional Use Master Plan or Impact Mitigation Plan for this site instead of a standard Conditional Use Review. These reviews are also subject to the Type III land use review process and are generally intended for master plans that involve multiple phases of development. The requirements and approval criteria for a Conditional Use Master Plan are in 33.820 and the requirements and approval criteria for an Impact Mitigation Plan are in 33.848.

DESIGN REVIEW

The following issues and requirements have been summarized as they may impact the project. BDS Pre-Application Conference Response 23-105044 Page 4.

1. Design Review Options

a. Design Standards Track

For work proposed in the part of the site which has a design overlay and is IR zoned, since there is no Impact Mitigation Plan or Conditional Use Master Plan in effect for this site, the proposal is eligible to use the non-discretionary design standards track in Section 33.420.050. The Design Standards of Section 33.420.050, Table 420-2 will apply if this track is chosen. The table features required standards, all of which must be met, as well as optional standards, which are assigned points. The number of points that must be earned varies with the building height, site area and type of development. Note, development standards listed in Section 33.420.050 are separate from those in the base zone and cannot be adjusted or modified. If they cannot be met, a Design Review is required.

b. Design Standards Track

If not using design standards, a Type III Design Review will be required per Table 825-1 of Section 33.825.025. Additional information about Design Review can be found in the sections below.

c. Neighborhood Contact Requirement (33.420.030)

For proposals in the Design Overlay Zone that will add at least 10,000 square feet of net building area to a site, the neighborhood contact steps of 33.705.020.C., Neighborhood Contact III, are required. This requirement must be completed 14 days before submitting a Design Review application (or building permit for projects utilizing the Design Standards). Additional information on the requirements of Neighborhood Contact III requirements at portland.gov/bds/neighborhood-contact. A timeline of the process is available at https://www.portland.gov/sites/default/files/2022/Neighborhood%20Contact%203%20Timeline%202022.04.pdf.

2. Design Review and Other Land Use Review Processes

a. Modifications and Adjustments

The development standards of the Zoning Code are expected to be met. However, if a standard cannot be met, a Modification or Adjustment review can be requested alongside the Design Review. To be approved, requests for Modifications or Adjustments must mitigate and better meet the purpose of the standard and applicable Design Guidelines.

1. A Modification Review may be requested for site-related standards (such as setbacks, size of loading spaces) that are not met. Approval Criteria are found under Section 33.825.040.
2. An Adjustment Review may be requested as part of the Design Review for use-related development standards (such as building height, number of loading spaces, number of parking spaces) that are not met. Approval Criteria are found under Section 33.805.040.

All additional land use reviews should be listed on the land use application, the respective fees paid, and a response provided that addresses the additional approval criteria listed in the relevant Portland Zoning Code Chapters. BDS Pre-Application Conference Response 23-105044 Page 5

c. Certificate of Compliance

Approval of a Design Review allows for the proposed work to be built. The expectation is that the building permit will reflect the project (including the details) that was approved. To ensure this, a Certificate of Compliance will be required at the time of building permit as indicated in a condition of approval. The Certificate of Compliance form can be found at portland.gov/.

BUILDING CODES

The project will be required to follow, but is not limited to, the following codes:

- 2010 ADA Design Standards
- 2017 ICC A.117.1
- 2021 International Building Code
- 2022 Oregon Structural Specialty Code
- 2021 Oregon Electrical Specialty Code
- 2021 Oregon Energy Efficiency Specialty Code
- 2021 Oregon Plumbing Specialty Code
- 2022 Oregon Mechanical Specialty Code
- 2024 NFPA 221
- 2021 Portland Fire Code
- OAR 333-60 Public Health - Public Swimming Pools

NOTES

- Several areas of the building will be considered Type A occupancy, including the theater, cafeteria & Commons, and large classrooms. These areas will require extra care for egress and will affect building planning.
- Maximum allowable building height per the zoning code is 75 feet, which also meets the building code limit.
- The total area of the proposed design will require multiple code buildings to meet the allowable area, and this would typically require firewalls for separation. A firewall alternative maybe a possible code path, to be explored in the next phase.
- This project does not anticipate an atrium, and active smoke evacuation is not planned.
- Per OSSC Section 1207, enhanced classroom acoustics will be required for most classrooms.
- All-User, All-Gender, Gender-Inclusive restrooms continue to pose some permanent challenges and may result in significant building costs.

CLIMATE RESPONSE/
CLIMATE JUSTICE

ANALYSIS + GROUND SETTING

PPS CLIMATE CRISIS RESPONSE + CLIMATE JUSTICE

Ida B. Wells High School will be one of the first Portland Public School projects to be designed and constructed following the adoption of the new PPS Climate Crisis Response, Climate Justice and Sustainable Practices Policy. This policy focuses on two overarching objectives that will positively impact the future students and the surrounding community, 1) Emission Reduction, and 2) Engagement, Resilience, and Wellness. As stated in the policy:

"In response to the human-caused climate crisis currently underway and the direct harm being done to our District, society, and planet, Portland Public Schools (PPS) is committing to immediately mobilize resources for climate action. To this end, the District commits to reducing greenhouse gas (GHG) emissions and minimizing other negative environmental impacts; improving our school communities' health and wellness; and building a culture of learning, responsibility, and sustainability centered on our values of racial equity and climate justice."

Because of its unique position as one of the first school modernization following adaptation, Ida B. Wells High School will serve as a leading example for what's possible. The project will aim to achieve all ten goals laid out in the Policy in a meaningful way.

- **Goal 1.1:** PPS will design and construct new low-carbon schools and renovations that are energy-efficient, resilient, and adaptable
- **Goal 1.2:** PPS will maximize reductions in Green House Gas emissions from district operations, maintenance, and facilities management
- **Goal 1.3:** PPS will maximize the carbon sequestration potential and other environmental benefits of green school yards and increase the ability of school grounds to adapt to climate extremes
- **Goal 1.4:** PPS will minimize greenhouse gas emissions from student and staff transportation, including transitioning to electric or low-emission vehicles
- **Goal 1.5:** PPS will reduce the demand for new materials and resources, and procure materials, products, and services in a manner that integrates climate considerations, fiscal responsibility, and equity priorities
- **Goal 2.1:** PPS will address climate-based impacts on health, safety, and wellness of its students and employees
- **Goal 2.2:** PPS will support frontline student communities to build resilience from climate change induced stresses and support preparation for and recovery from these events.
- **Goal 3.1:** PPS will empower staff as allies for a healthy climate
- **Goal 3.2:** With guidance from frontline students and communities, PPS will develop curricular learning opportunities, so PPS graduates know the causes and consequences of climate change, understand climate justice, and have opportunities to practice climate solutions
- **Goal 3.3:** PPS staff will collaborate with students to create opportunities to engage youth in hands-on climate learning, preparation, and practice on a regular basis at all PPS schools

CLIMATE JUSTICE

In parallel to leadership around greenhouse gas emissions, the policy demonstrates Portland and the Portland School District's commitment to climate justice, Recognizing that Climate change disproportionately impacts the vulnerable members of our community. PPS states that Climate Justice centers and prioritizes people with disabilities, communities of color, and other vulnerable populations in developing climate change solutions. The way we communicate about climate change matters - pushing against systems of oppression that have resulted in climate change through reframing knowledge, solutions, and systems is a form of climate justice. This commitment will serve as a primary design driver throughout the modernization process.

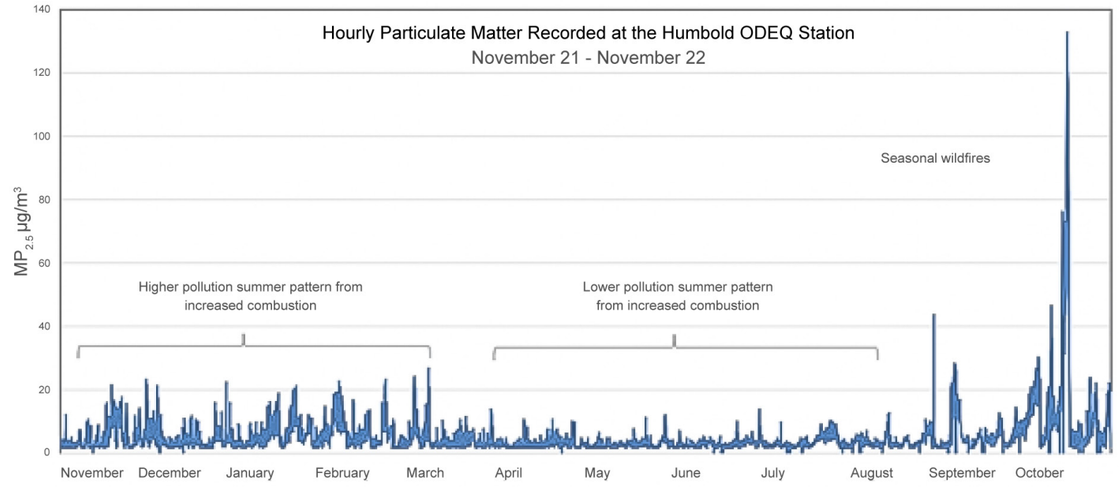
INDOOR ENVIRONMENT

Creating a healthy and joyous indoor environmental that actively facilitate learning will be fundamental to IBW's design. Research shows that the physical environment has an over arching impacts on academic performance and student well being and IBW will be designed in line with the most up to date science.

Factors that will be addressed and incorporated into the design include indoor air quality, adequate and balanced daylight, views to nature, biophilic elements, safe and non-toxic materials, and quality acoustical conditions.

OUTDOOR AIR QUALITY

Like most of Portland and the Pacific Northwest Region, the Ida B. Wells High School site enjoys excellent outdoor air quality most of the year. The graph below shows one year of hourly air quality measurements taken at the Humboldt Oregon Department of Environmental quality monitoring station. During the summer months, air quality is excellent, while during the winter months, local air quality suffers from combustion of gas and wood for building heating. Major roads nearby has the potential to impact air quality depending on the time of day and wind direction. Ida B. Wells high school will improve local outdoor air quality by shifting from gas to electric heating.



BENCHMARKING ENERGY AND WATER

Energy

Ida B. Wells recorded an EUI of 90.5 kBtu/sf/yr during for the 21-22 school year. This is considerably higher than the PPS average of 58 kBtu/sf/yr and three times higher than the standard for new construction. 87% of this energy was from onsite combustion of natural gas used for space heating, water heating, and cooking. 13% was for energy use comes from grid electricity which is used for lights and plugs.

The modernized building will achieve a PPS goal of 30 EUI for new conduction. The future Ida B. Wells High School will be powered with 100% electricity, supplied from both the grid and roof-top solar panels.

Water

Ida B. Wells High School has historically used around 1.5 million gallons of water per year, including both potable water reuse and irrigation of the ground and playing fields.

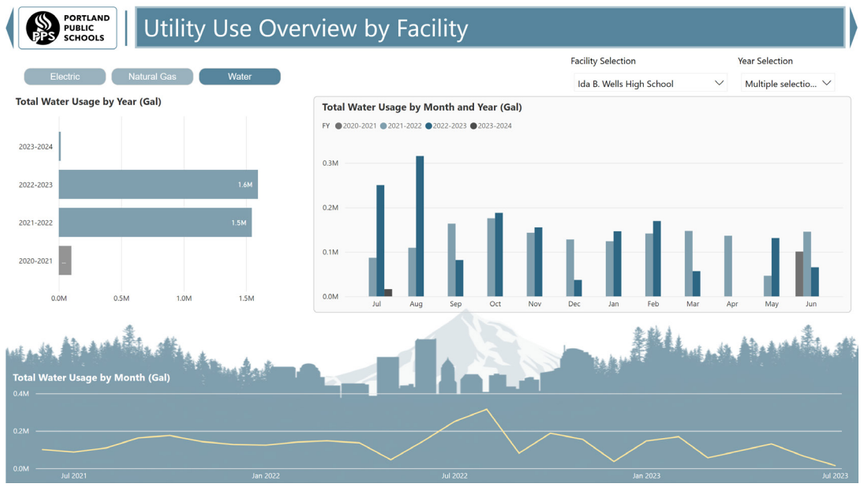


Figure 1: Ida B. Wells Water Usage (2021-2023)

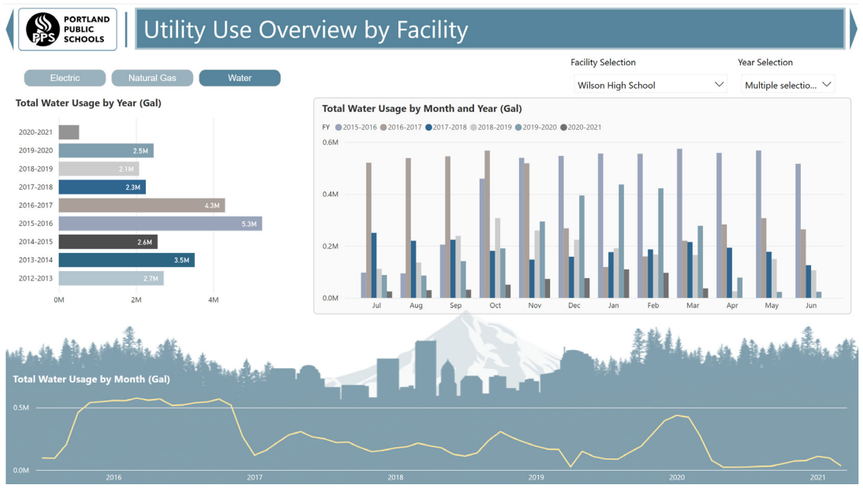


Figure 2: Ida B. Wells [formerly Wilson High School] Water Usage (2013-2021)

TECHNICAL CRITERIA

INDOOR AIR QUALITY

Indoor air quality is essential for long-term health and short-term mental acuity. High quality indoor air will be developed to all spaces in the building and verified through measurement against the below criteria. The objective for this project is to achieve indoor air quality that is measurably superior that industry baseline standards.

Minimum IAQ to achieve (during typical conditions)

- Carbon dioxide < 750 ppm
- Carbon monoxide < 9 ppm
- Formaldehyde < 50 ppb
- PM2.5 < 12 µg/m3
- PM10 <150 µg/m3
- Total VOCs < 500 µg/m3
- Ozone < 51 ppb

The following design strategies will be used to achieve high quality indoor air.

- Install equipment for ongoing air quality monitoring
- Filter all incoming and circulating air with MERV 14 media filters
- The ventilation systems must comply with ASHRAE 62.1
- The design ventilation rate should achieve a threshold CO2 below 800ppm
- Ventilation controls based on demand
- Zero VOC threshold for indoor wet-applied coatings
- Store potential contamination sources in negatively pressured spaces with direct exhaust
- Include walk-off mats or grates at all entrances.

DAYLIGHT

Daylight inspires, stimulates, invigorates, and connects us to the outdoors. While excellent in some areas, some spaces of the current high school are daylight challenged. This lack of daylight has the potential to impact mood, focus, memory, energy, and all-around mental acuity. Unlike indoor air quality, which needs to be consistent throughout, lighting quality and quantity will vary from space to space, with this report defining ideal daylight conditions along a variety of daylight metrics, each described below. Overall, the objective is for learning environments and major program spaces to be designed to be lit primarily with daylight and the effectiveness of the design solution will be analyzed and refined through.

View Criteria

Views to nature are important for mood and focus. All learning environments will have views of greenery. This becomes even more important for spaces that might be lit through indirect (borrowed) daylight.

Daylight Access

Access to daylight can be divided into two major categories, direct access and indirect access. All learning environments should prioritize direct access to daylight. Where indirect access is necessary, spaces should still achieve at least 50% daylight autonomy and quality views.

Threshold for Glare

Glare is defined as an uncomfortably high contrast between dark and light surfaces within the visual field. Generally, this is the result of direct sunlight striking a surface within a space. A moderate glare threshold is suitable for spaces where occupants can move to avoid occasional glare. This works in circulation and informal spaces. Learning environments with assigned seats require a zero-glare threshold.

Light Quantity

Different spaces require different quantities of light. Measured in Food Candles, light should mostly come from the sun, with electric light supplementing the difference. Classrooms will achieve a minimum 40 footcandle threshold measured horizontally at 30” off the finished floor. Other spaces will define illumination thresholds based on Illuminating Engineering Society (IES) guidelines.

Light Color Temperature

Color temperature defines the spectrum of light from warm to white to cool and follows the natural rhythm of the diurnal cycle, from warm in the morning to cool in mid day, to warm again at night. Different color temperatures impact occupants in different ways, with cool light encouraging focus and warm encouraging relaxation. The ideal scenario is for spaces to shift color temperature over time to match the body's natural circadian rhythm. A high color temperature (5000K) that mimics daylight will encourage concentration during the day, while a lower color temperature (2700K) is better during evening events.

Maximum Lighting Power Density

Lighting power density, measured in Watts per Square Foot indicates the energy used to light a space. The objective is to achieve LPDs below code minimum for each space type.

Lighting Controls

Lighting controls include shades, dimmers, vacancy sensors, and daylight sensors. These features allow for both greater user variation and control which leads to increased occupant satisfaction. Manual blinds and daylight sensors should be included in all spaces with windows while vacancy sensors should be included in all spaces that are only occasionally occupied. Dimmers are useful in most spaces.

THERMAL COMFORT

Thermal comfort is essential for optimal physical and mental performance and the factors that determine thermal comfort are broad, including aspects of both the space and users. Air temperature, surface temperature, air flow, and humidity levels combine to create a subjective feeling of a given thermal environment. Each of these factors should be taken into account to provide high-performance, thermally healthy spaces. Ida B. Wells High School currently suffers from poor thermal comfort because of both its historic windows and its outdated systems. The objective is to deliver summer and winter thermal comfort will be delivered based on 99% and 1% design temperature. The following design and operational criteria are recommended:

- Air temperature should be set appropriately based on the season: 70 degrees Fahrenheit during the winter and 74 degrees during the summer.
- Surface temperature should match the air temperature. To achieve this, windows should be replaced with modern IGUs to increase airtightness and thermal resistance, while decreasing solar heat gain
- Air flow should be constant and minimal during the winter. During the summer, fans can be used to provide comfort while using less cooling energy.
- Relative humidity should be maintained around 50%.

Since significant variation exists amongst individuals, a high level of satisfaction regarding thermal comfort can only be achieved through environmental variation and user choice. Spaces for individuals should have individual thermostats. Spaces for larger groups, such as classrooms, should build in subtitle environmental variation throughout to allow users to choose an environment that suits their needs.

ACOUSTICS

Like daylight and air, quality acoustics are necessary for a high performance learning environment. Each space type will define maximum acceptable background noise, and recommended Noise Reduction Coefficient (NRC) and Sound Transmission Class (STC) metrics. The objective is to design for the acoustical conditions necessary for an ideal learning environment.

MATERIAL SAFETY

The selection of construction materials, finish materials, and furniture will deeply affect occupant health as well as distantly impact the health and equity of both people and planet. The below guide identifies the chemicals that are best to avoid in the built environment for all around positive outcomes.

DURABILITY CRITERIA

Durability and Longevity are key features of both a sustainable building and an economically reasonable building. The below building system lifestyle criteria establish thresholds that design decisions can be reviewed against.

Building design lifespan: 100 years beyond modernization

Structure: 50+ years

Enclosure materials design: 30 years

Roof design: 30 years

Mechanical systems design: 20 years

Integrated technology design: 5 years

STRUCTURAL SYSTEM SELECTION

In alignment with the PPS climate response policy, and goals around carbon emissions. The massing of the addition has been designed in a way that will allow for the efficient and economic use of mass timber construction. The assumption is that wood will be the primary structural system unless it its impractical for a given space.

MECHANICAL SYSTEM SELECTION

The most appropriate mechanical system will be chosen by considering the system's full life cycle impact on energy efficiency, refrigerant management, maintenance, training, complexity, comfort, cost. A thorough comparison, looking at each of these denominations will be performance on two or more systems to inform a final decision. The mechanical system will be able to track and log data and will be all electric. An initial preference is for hydronic based distribution.

THERMAL ENCLOSURE

The thermal enclosure is the building system that ensures energy efficiency, thermal comfort, and indoor air quality. It will be designed to the following minimum values.

Wall: R-15.625 Minimum

Roof: R-31.25 Minimum

Slab Edge: R13

Glazing Area: <35%

Window Frame: Fiberglass

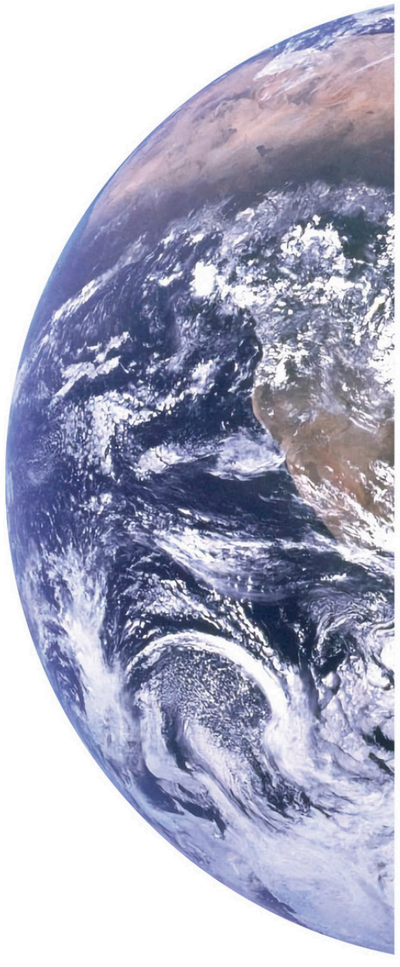
Window U Value: U 0.28 Maximum (assembly u-value)

Window SHGC: 0.27

Solid exterior wall: To explore

Tested Airtightness: 0.20 cfm/sf @ 1.57psf

Intrinsic to our material selection philosophy is the knowledge that many substances, ubiquitous in the built environment, cause harm to people and the natural environment. On each project, we set out to avoid the chemicals of concern listed below, and with each effort, come one step closer to a world free of these dangerous chemicals.



EXTERNAL Environmental Concerns

Polyvinyl Chloride (PVC) + Chlorinated PVC (CPVC)

The production of PVC is extraordinarily toxic and energy intensive, and there are no safe outcomes at the end of its useful life. Its negative impacts bear heavily on lower income and minority communities that live near production and incineration facilities. These inequitable societal and environmental costs are not reflected in the purchase price of PVC products, though alternatives are readily available for most applications.

- Vinyl Flooring
- PVC Roofing
- Vinyl Windows
- Plastic Wall Protection
- Fabrics + Window Coverings
- Furniture

Perfluorinated Compounds (PFOA, PFOS, PFBS)

PFCs are reproductive toxins and endocrine disruptors that are extremely persistent and bioaccumulate in the environment. They are used to increase water, stain, or wrinkle resistance in products. Increased awareness of their negative impacts are making them easier to avoid.

- Carpet
- Resilient Flooring
- Floor Sealant + Coatings
- Grout

Antimicrobials

Antimicrobials are developmental and aquatic toxins. Some provide necessary product preservation, but overuse may contribute to increased antibiotic resistance. They provide no proven health benefit and should be avoided when marketed with health claims.

- Textiles
- Countertops
- Baby Changing Stations
- Many Other Touch Surfaces

Arsenic, Cadmium, Chromium, Lead, Mercury

These toxic metals are extremely hazardous in very small doses, especially to young children. In addition to some architectural products where they can be avoided, they are found in plumbing and electronic equipment, batteries, and fluorescent lighting.

- Wood Preservatives
- Glazes + Pigments
- Metal Plating
- Fly Ash Recycled Content in Carpet
- Products with Recycled PVC
- Rubber Flooring with Recycled Tires

Alkylphenol Ethoxylates

APEs are endocrine disruptors that bioaccumulate in the environment. It is unclear at this time how prevalent their use is in the products we specify.

- Paint

CFC, HCFC, HFC

These substances contribute substantially to global warming. Regulations are gradually phasing out the worst of these, along with those that are ozone-depleting.

- XPS + Spray Foam Insulation

INTERNAL Health Concerns

Formaldehyde

Formaldehyde is readily emitted into interior environments causing respiratory and other short and long term health issues. Options for ultra-low emitting or no-added formaldehyde are typically available.

- Composite Wood Products
- Insulation

Halogenated + Organophosphate Flame Retardants

Flame retardants are associated with lower IQ and hyperactivity in children, hormone disruption and reduced fertility in adults, and these types are highly persistent and bioaccumulate in the environment. They often do not increase fire safety and pose additional risks to fire-fighting personnel.

- EPS/XPS Insulation
- Single-Ply Roofing
- Upholstery Foam

Antimony Trioxide Flame Retardants

Antimony Trioxide is a concerning member of the non-halogenated and non-organophosphate flame retardant categories.

- Batt + Spray Applied Insulation
- Carpet Backing + Vinyl Flooring
- Single-Ply Roofing
- Polyurethane + Epoxy Coatings
- PET Textiles

Orthophthalates

Phthalates are developmental and reproductive toxins, endocrine disruptors, and asthmagens, and persist and bioaccumulate in the environment. They are used primarily to make materials such as PVC softer and more flexible, providing another reason to avoid vinyl products.

- Carpet Backing + Vinyl Flooring
- Woodwork Adhesives + Binders
- Roofing

Bisphenol A (BPA)

BPA is a reproductive and developmental toxin and endocrine disruptor that persists and bioaccumulates in the environment. It is a component of some polycarbonate plastics and epoxies and should be easy to identify in ingredient disclosure documentation.

- Flooring
- Laminate
- Grout + Mortar
- Polycarbonate Panels/Skylights
- Whiteboard Paint

Isocyanates

Isocyanates are asthmagens and air pollutants. Some provide the only and preferred alternative to formaldehyde binders, but other products with isocyanates should be avoided.

- Spray Foam Insulation
- Whiteboard Paint

Solvents

Solvents can cause short term health effects like headaches and contribute to long term neurodevelopmental effects and cancer. Use water-based alternatives.

- Paints
- Wood Finishes
- Adhesives

References
Perkins&Will Precautionary List | Green Science Policy Institute Six Classes | Healthy Building Network Transformation Targets
International Living Future Institute LBC Red List | Cradle to Cradle Products Innovation Institute Restricted Substances List

RESILIENCE

OVERVIEW

With increasing climate uncertainty, coupled with an increasingly fragile utility grid, it's essential for the design of Ida B. Wells High School to anticipate and accommodate disruptions that are sure to occur over the next half century. Spaces will need to be designed for passive operations to maintain safe and comfortable conditions during periods of disruption. Backup power for essential services, such as data will be explored, and each relevant climate risk will be subdued and addressed individually.

As part of a resilient design process, passive strategies to provide light, air, and thermal comfort, as well as back up power needs will be analyzed and documented for each space.

CLIMATE CRISIS RESPONSE POLICY

The New PPS Climate Response Policy provides a goal dedicated to resilience, housed under pillar 2: Improve Health and wellness.

- **Goal 2.2:** PPS will support frontline student communities to build resilience from climate change induced stresses and support preparation for and recovery from these events.

RESILIENCE AND ADAPTATION

The project will identify and anticipate the future impacts of climate change over the next 50 years and incorporate strategies to keep the building functional during periods of smoke inundation and extreme temperatures. Each proposed system (architectural, mechanical, etc.) will be analyzed for both today's climate and that of the future. Dedicated passive strategies, such as operable windows, will be used to keep the building comfortable during periods without utility power or when maximizing outdoor air is deemed necessary.

CLIMATE RISKS

The most immediate climate risks for Portland are the threats of wildfire smoke, heat wave, and utility disruption which can take place in summer or winter. All three of these risks, while current challenges faced by the Portland community, will increase in frequency and severity over the next century. It's essential that Ida B. Wells High School is prepared.

Wildfire smoke inundation is a regional challenge that will be increasingly common as summers warm and rainfall patterns shift. Advanced filtration systems will be incorporated into the design as well as the ability to add filtration, such as standalone HEPAs filters as needed when quality is especially problematic. Ensuring a tight enclosure and adequate ventilation, especially for the renovation of the existing building, will be essential in allowing educational spaces to remain usable during periods of inundation.

Airborne Pathogen transfer has taken on new importance since the COVID-19 Pandemic, and the same design strategies that make a building safer during a pandemic will decrease the spread of other airborne diseases, such as colds and flu. In addition to ductwork capable of supplying 5 air changes per hour, each classroom will be equipment with operable windows to allow for safe levels of ventilation during times of high pathogen transfer.

UTILITY RESILIENCE

Decreasing reliability of municipal utilities is likely in the near future due to both extreme weather and an influx of population putting pressure on existing infrastructure. This means that power outages during times of extreme heat and cold are increasingly possible. Aside from adding backup power, which will be explored, passive design strategies, such as limiting east and west facing glazing will be priorities, and optimizing insulation will be essential to ensure health and comfort during periods of disruption.

COMMUNITY RESILIENCE AND RESOURCES

The social network within a community will contribute to resilience just as much as the built environment. Providing spaces and resources to support the community during climate induced adversity is essential to the success of this project and for the realization of PPS's goal around resilience.

TECHNICAL CRITERIA

Durability + Longevity Criteria

Durability and Longevity are key features of both a sustainable building and an economically reasonable building. The below building system lifestyle criteria establish thresholds that design decisions can be reviewed against.

Building design lifespan: 100 years beyond modernization

- Structure lifespan: 50+ years
- Enclosure materials design lifespan: 30 years
- Roof design lifespan: 30 years
- Mechanical systems design lifespan: 20 years
- Integrated technology design lifespan: 5 years

Passive Survivability

Future climate design preparations criteria: Use Year 2035 as a HVAC BOD

Passive survivability criteria: 2 of days without power in summer or winter

Backup Power Systems

Energy Generation: Rooftop Solar

PV system capacity: Based in PPS requirements

On-site storage: To be explored

Off-grid operations criteria: To be explored

Backup Stormwater Systems

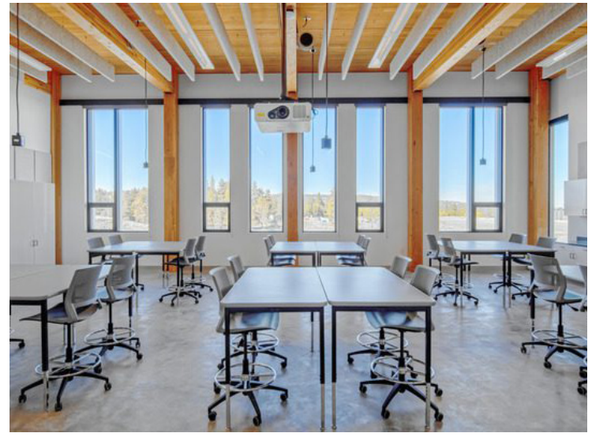
On-site water systems: To be explored

Stormwater management: To be explored

Storage capacity: To be explored

Collected water uses: To be explored

Collected water filtration: To be explored



DESIGN AND CONSTRUCTION SCHEDULE

OVERALL PROJECT SCHEDULE

Bora worked with OSM to establish appropriate timelines for the design phases [Schematic Design, Design Development and Construction Documents, as shown in the graphic schedule below]. Note that design phases follow one another without pause - this schedule is based on the understanding that OSM will not require a pause between phases for its review and approval process, but instead will undertake these efforts concurrent with forward progress in the design schedule.

Gamut Project Solutions [GPS] developed a construction schedule for each of the two Schemes studied in detail for this Comprehensive Plan. In GPS's professional opinion, Scheme 2 will take 25 months to construct, assuming the General Contractor will have access to the site for early prep work at least four months prior, without need for a separate permit for any early work.

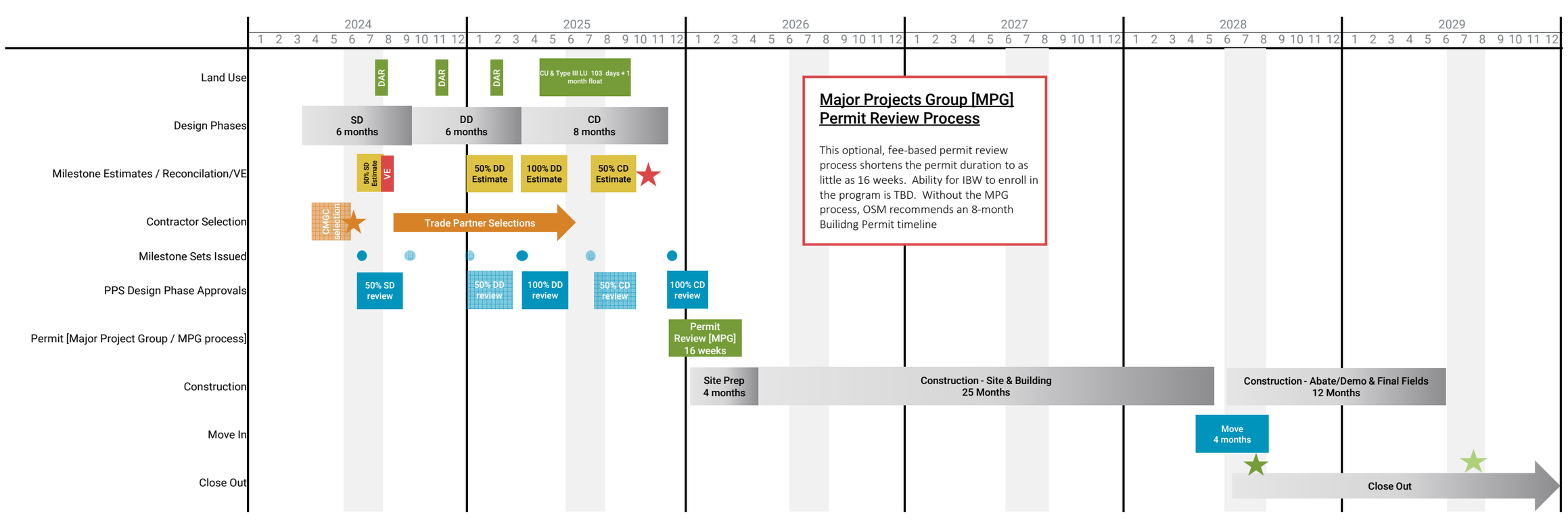
Early selection of the contractor, and utilization of a CM/GC form of delivery, is a key component of this approach, with the contractor able to participate in the 50% SD estimating and reconciliation effort in July/August of 2024. A one week Third Party Value Engineering Workshop will be held in late summer, after which Target Values will be established for various components of the project. This schedule also assumes a single permit package, issued at 100% Construction Documents [100% CD].

The building permit application submittal process can't begin until the Land Use approval process is complete. This project anticipates three "DARs" - Design Advise Request meetings with the Design Commission - followed by a combined Conditional Use and Land Use application that will be based on the 100% Design Development document set.

A 2028 move in date depends on an expedited Permit Process through the City of Portland's Major Projects Groups or MGP, through which a pathway to permit approval in a 16 week window is achievable. Without this service, the IBW High School would likely not be ready for class until the Fall of 2029.

This schedule shows an overlap between construction completion for the first phase of construction in the spring of 2028 and the PPS "Move In" activities. Ideally these would not overlap: a clean handover of a completed building to the owner prior to any move in activities is a more efficient work flow and avoids claims of damage.

One the new school is operational and any artifacts salvaged, the work to abate and demolish the old buildings can begin. With demolition complete, the remaining fields can be built where the school previously stood, and all final site work can be achieved. The final sequencing of field construction will be studied in more detail in the design phases, but it is likely that the completion of all site work will occur one year after the school building opens.



APPENDIX

APPENDIX

A complete appendix can be viewed at the following location: **Link to Virtual Appendix**

The appendix include:

- CPC Meeting Records
- CDW Meeting Records
- Programming Meeting Notes
- IBW Leadership Meeting Notes
- Community Engagement
    - Hillsdale Neighborhood Association
    - Landscape & Research
    - Findings & Recommendations
    - Community Perspective Survey
- Landscape Scan
- Climate Workshop Meeting Notes
- Early Assistance Meeting Notes
- Cost Model Reports
- Full Space Program
- Education Specifications Deviations Log
- Pool Conditions Assessment
- Constructibility + Site Logistics Report
- Consultant Narratives