



Hawai'i School Facilities Authority

Tools for Transit-Oriented Development

Brian Canevari

Program Manager

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Friday, April 17, 2026

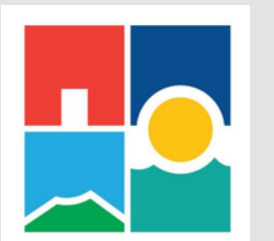


School Facilities Authority (SFA)

"We choose to go to the moon in this decade and do the other things, not because they are easy, but because they are hard." John F. Kennedy

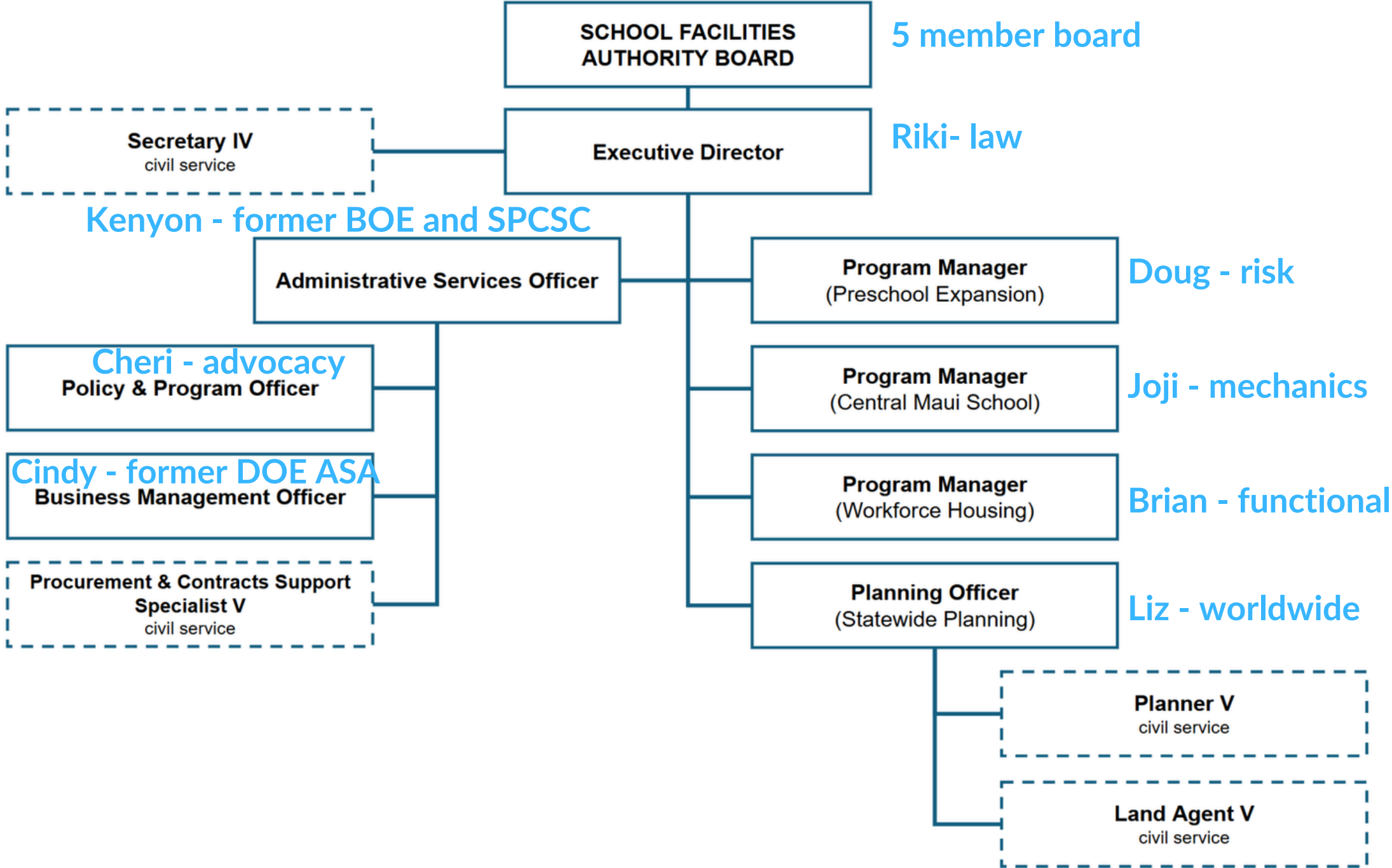
"Created to reform the process of funding capital improvement projects in Hawaii public schools not because it is easy, but because it is hard."

Riki Fujitani, Director, HISFA

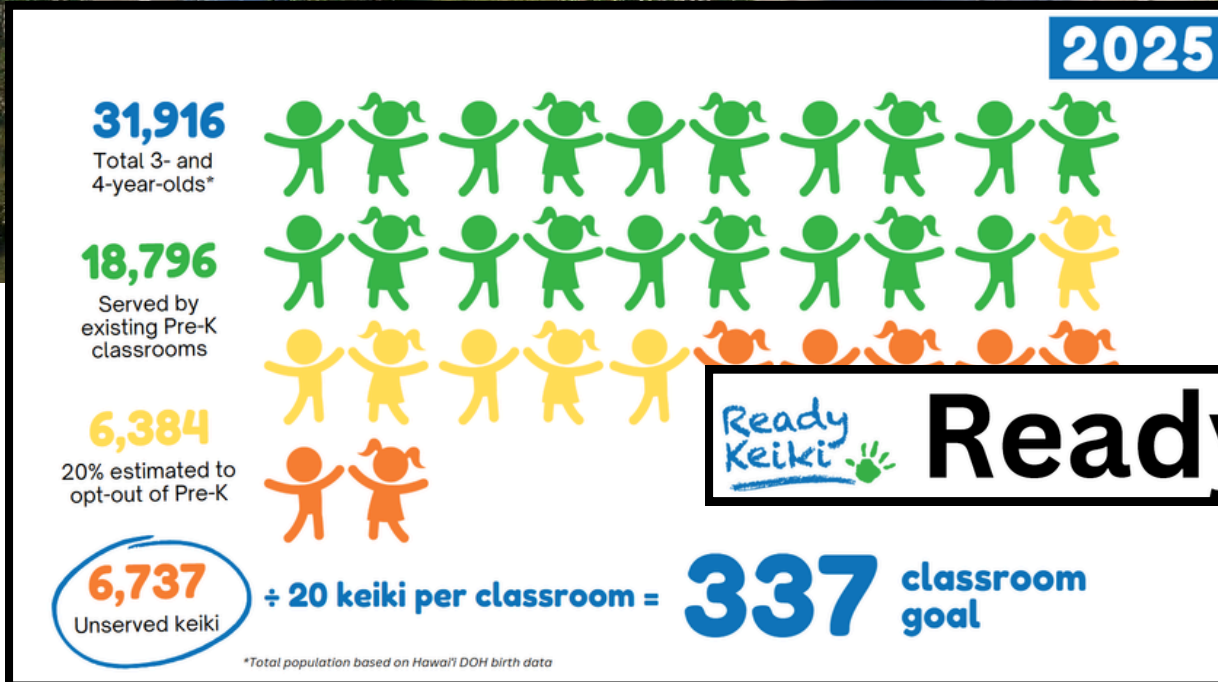


School Facilities Authority (SFA)

State agency established under HRS §302A-1701 to support public school facilities statewide



Expanding Preschool Spaces



Ready Keiki Initiative

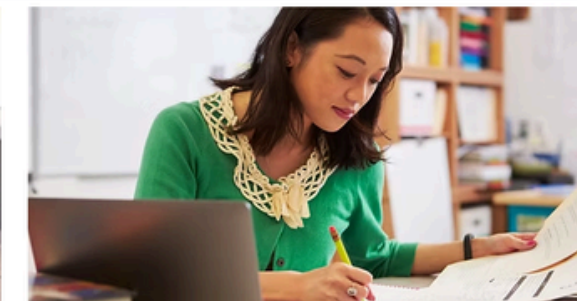
Expanding Educator Workforce Housing



[LINK](#) to website

“
With over 22,000 Department of Education employees, the need for workforce housing is significant. This project is an alternative way to provide modern housing facilities using public-private partnerships with minimal cost to taxpayers.

– Riki Fujitani, SFA Executive Director



New Central Maui School Project

Ua ao Hawai'i ke 'ōlino nei mālamalama

Hawai'i is enlightened, for the brightness of day is here.

Hawai'i is in an era of education.

'Ōlelo No'eau-2773

[LINK to website](#)

The New Central Maui School team is committed to a collaborative, transparent approach that brings together educators, cultural practitioners, designers, and the community. Through shared learning, listening, and thoughtful decision-making, the team is working to create a school that reflects Hawai'i's values and invests in the success of future generations.

Community And Culture

Mahalo to everyone who attended and participated in our two Open House events in September. A broad cross-section of our community, with various interests, questions, concerns, and suggestions, contributed to a great experience and many takeaways for our team. These have been reviewed and synthesized, and you can find a more detailed breakdown in the [FAQ of our Website!](#) This feedback helps inform next steps, refine priorities, and ensure community voices continue to shape the direction of the NCMS project.

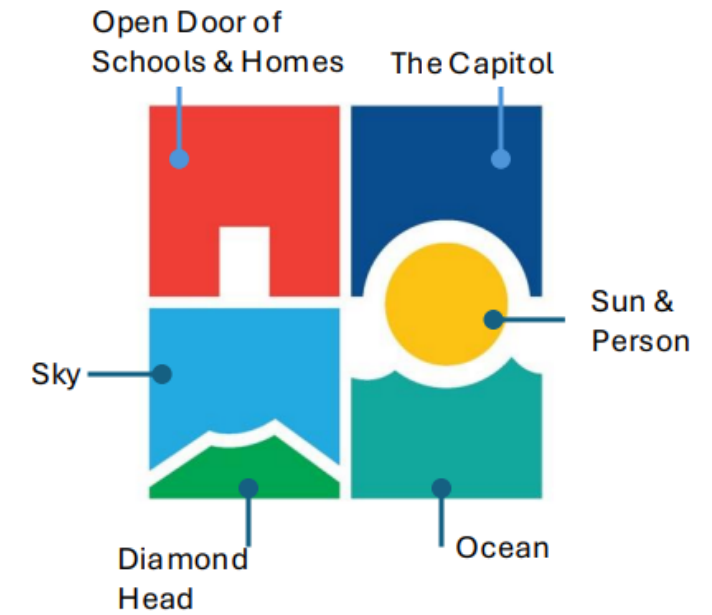


Design & Sustainability

SFA was one of four winners in the 2025 Mass Timber Competition: Building Sustainable Schools, sponsored by the Softwood Lumber Board and the USDA Forest Service. This year, the annual competition awarded \$1.8 million to support projects that accelerate the adoption of mass timber in the United States, with a focus on K-12 educational environments. SFA was awarded \$382,500 to help implement mass timber solutions in the New Central Maui School Project.



Hawai'i School Facilities Authority



The Meaning of Kahua

When the kahua is strong, what is built upon it will endure.

careful preparation

clear intention

respect for what will stand upon it

Whether in building, education, or community, a strong kahua ensures that what follows is **stable, resilient, and enduring.**

HI-TEC Hawai'i Technical Education Centers

3 Solutions for Hawai'i Skilled
Trades Workforce Industry

Hawai'i is
facing a critical
shortage of skilled
tradespeople.

Here are 3 solutions
to jump start trade
education across
Hawai'i.



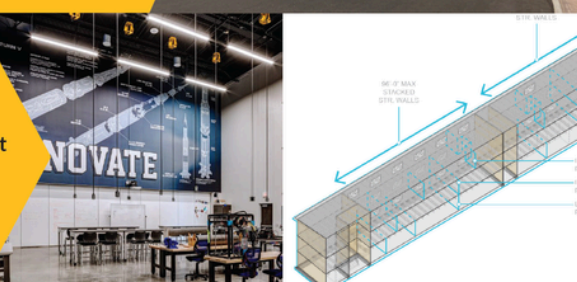
Solution #1: Regional Hubs

5-acre Public Charter
School flagship
campus dedicated
100% to Building &
Construction Trades.



Solution #2: Trade Modules

Trade-specific shops for district
high schools:
• The "Energy Shop":
Electrical + Solar + HVAC
• The "Metal Shop":
Welding + Fabrication



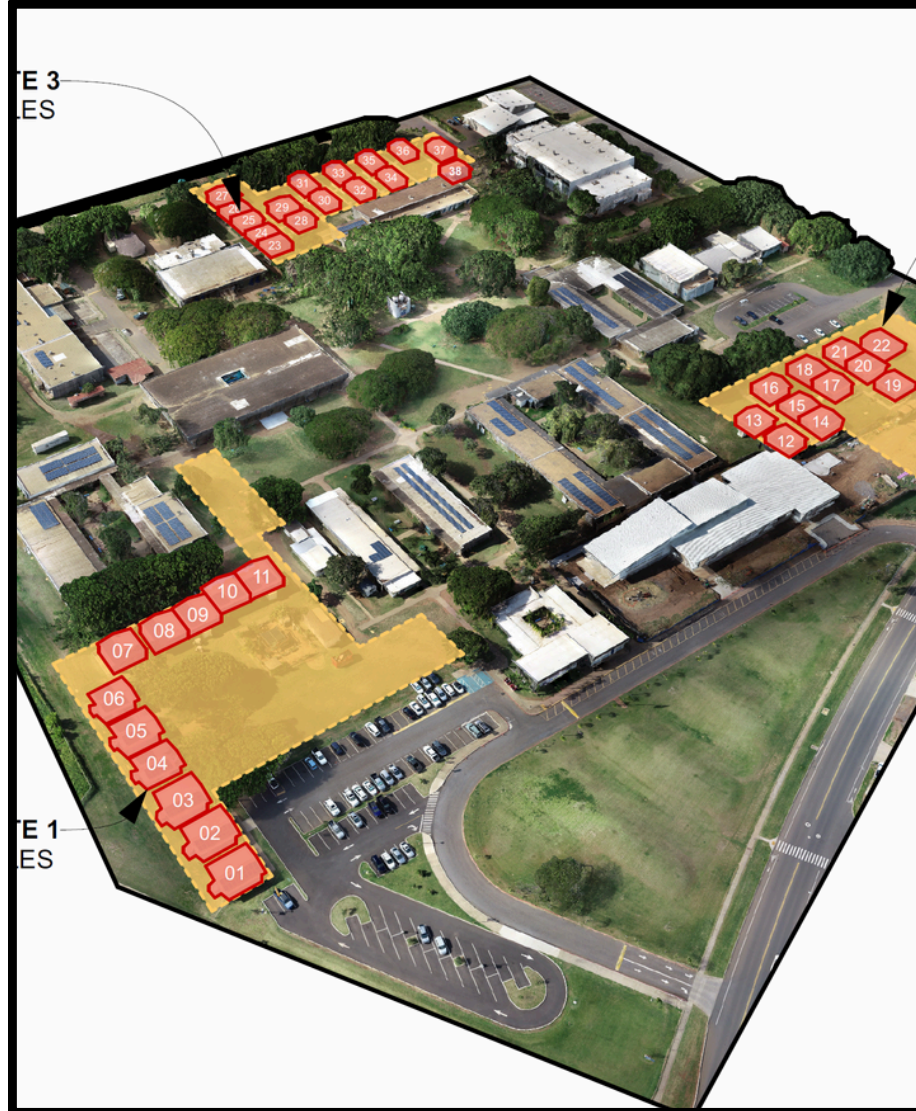
Solution #3: Replace + Modernize

Demo end-of-life portables
and replace with modern,
flexible buildings with
infrastructure to support
CTE programs.

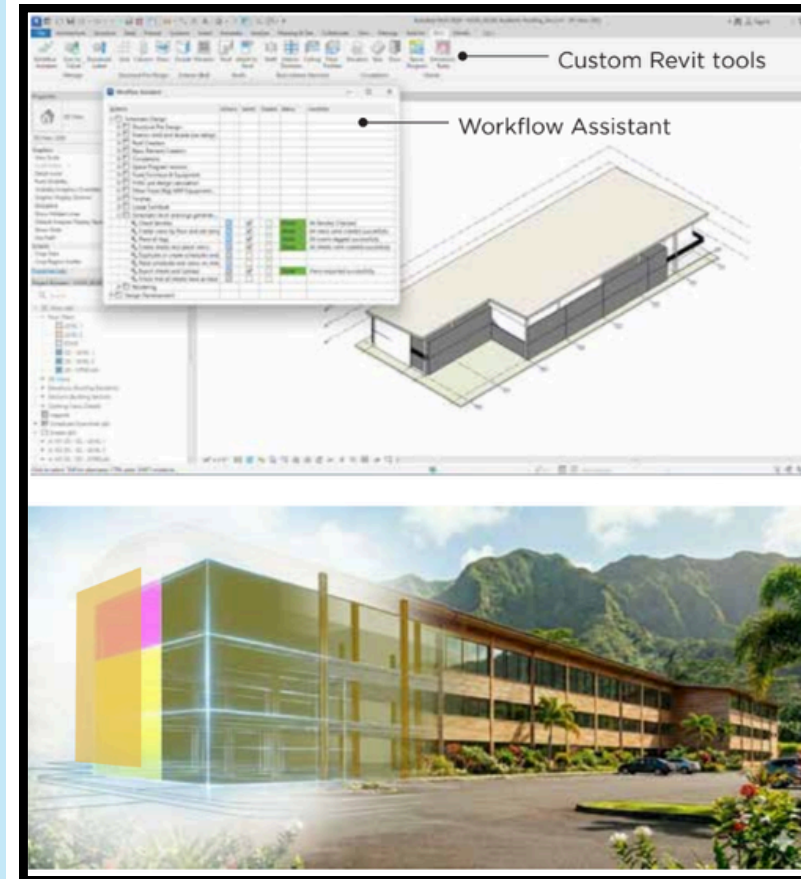


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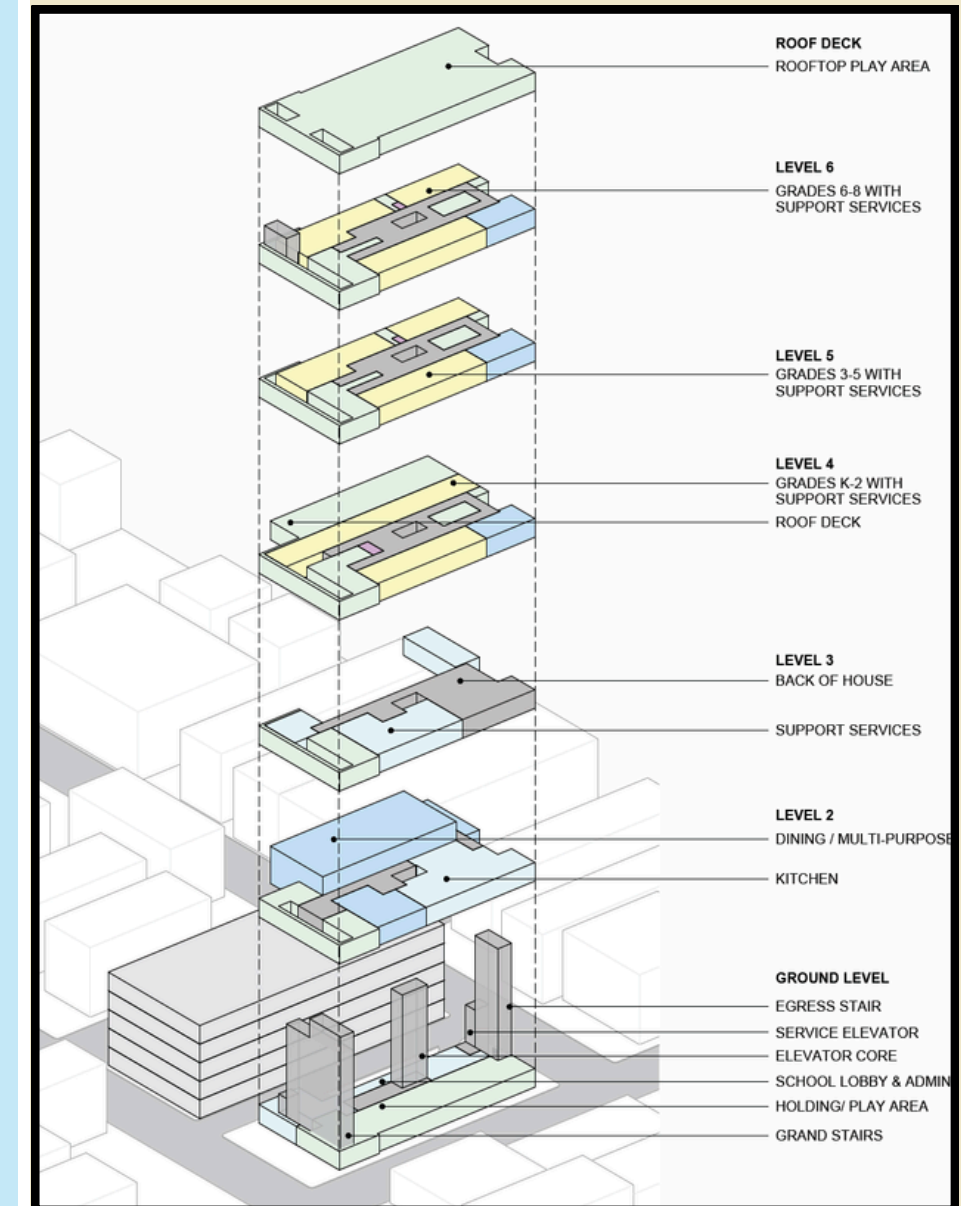
Trades Campus



Portable Replacement

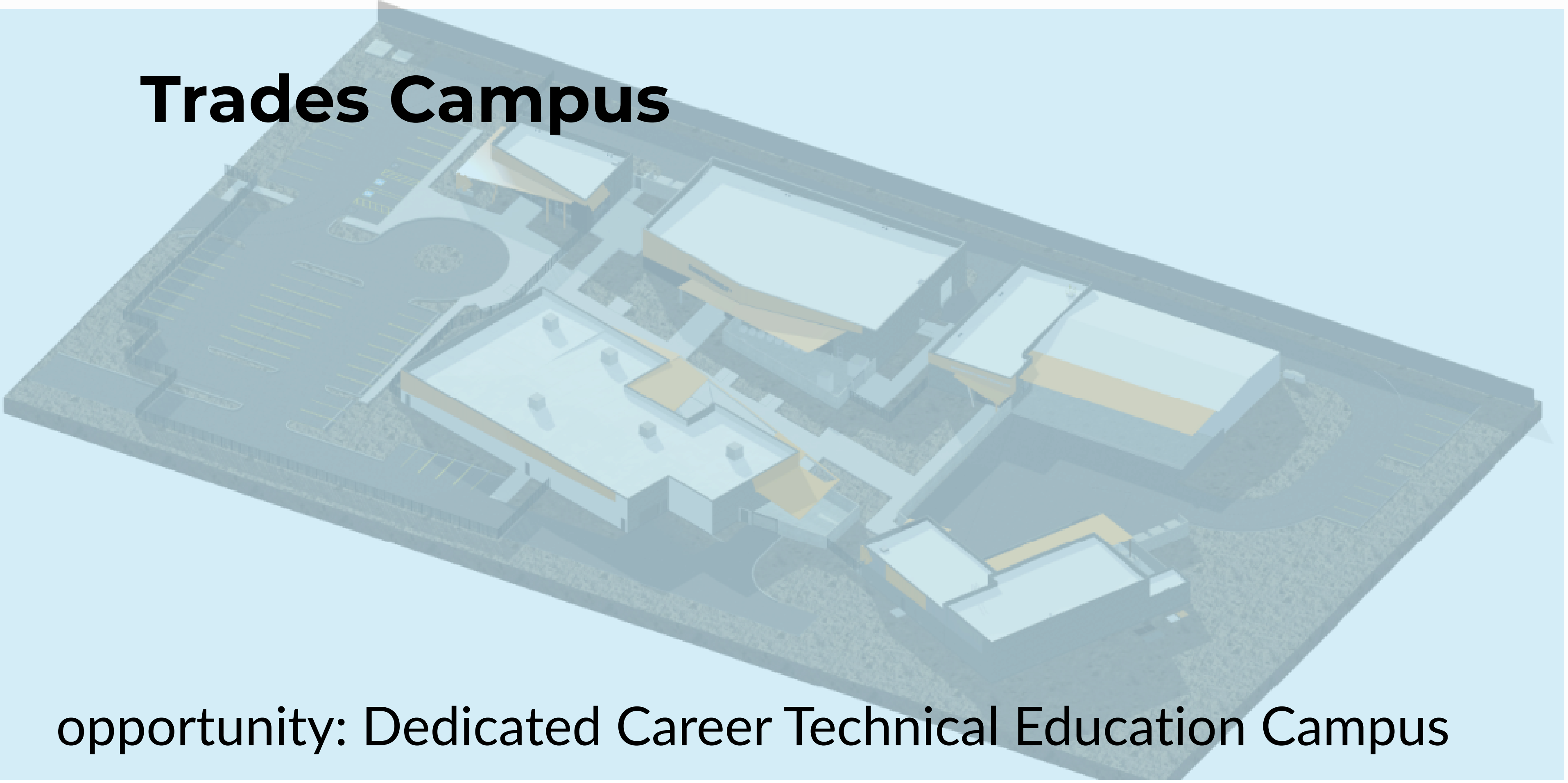


Akamai Digital Configurator



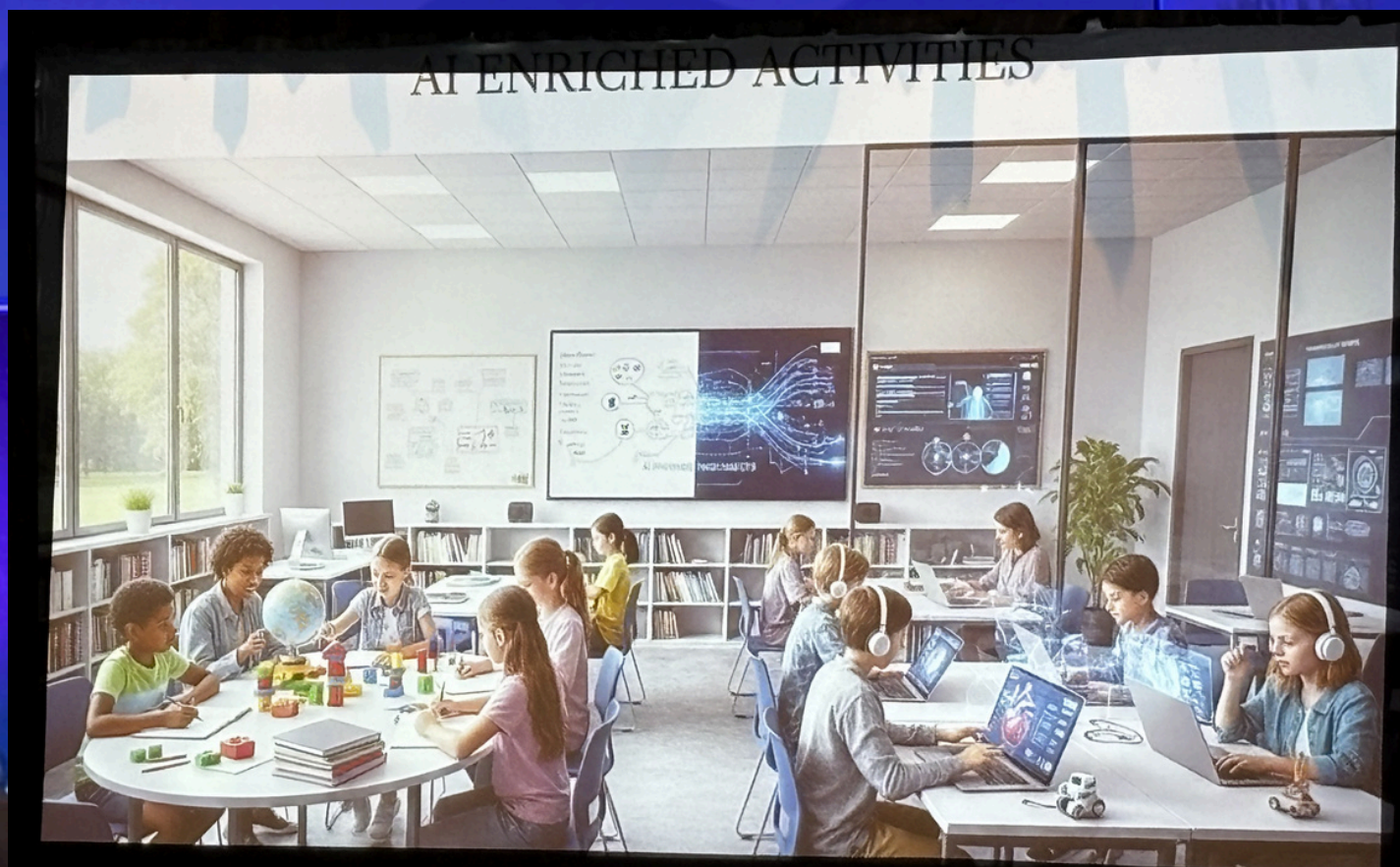
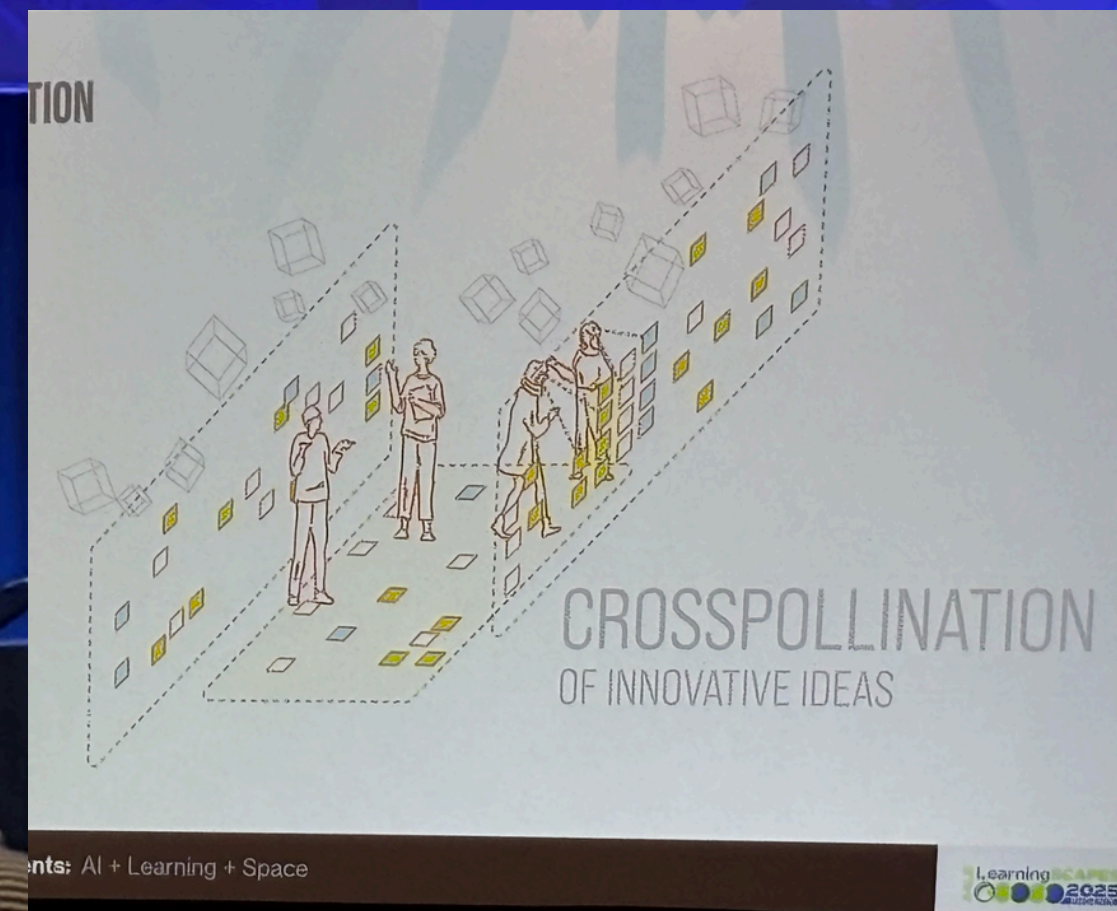
Vertical School

Trades Campus



opportunity: Dedicated Career Technical Education Campus

A4LE LearningSCAPES 2025 PHOENIX





West-MEC @
Agua Fria HS



A FASTER WAY FORWARD

WELCOME TO GENERATION ORANGE



Western Maricopa Education Center

Public school district completely dedicated to Career and Technical Education (CTE)

91% of West-MEC graduates are positively placed in their career fields right out of the gate.

West-MEC serves over 37,000 students across the Phoenix metropolitan area

- About Legislation and Regulations
- Perkins V**
- Every Student Succeeds Act (ESSA)
- Educational Flexibility (Ed-Flex)
- National FFA Organization Federal Charter Amendments
- Workforce Innovation and Opportunity Act (WIOA)
- Methods of Administration
- Uniform Guidance

[Home](#) > [Legislation and Regulations](#) > Perkins V

Perkins V

The Strengthening Career and Technical Education for the 21st Century Act (Perkins V) was signed into law by President Trump on July 31, 2018. This bipartisan measure reauthorized the Carl D. Perkins Career and Technical Education Act of 2006 (Perkins IV) and continued Congress' commitment in providing nearly \$1.4 billion annually for career and technical education (CTE) programs for our nation's youth and adults.

Perkins V represents an important opportunity to expand opportunities for every student to explore, choose, and follow career and technical education programs of study and career pathways to earn credentials of value. As States and local communities embark on the development of new plans for CTE, the Department hopes that the videos, resources, links, and media found below and throughout this Website can be useful tools for States and local recipients in "rethinking CTE" and arriving at bold goals under the newly-authorized Perkins V statute.

On this page

- About**
- Video Playlist
- History of the Act
- Links to Legislation
- Associated Resources
- Related Links

Video Playlist

1. Envisioning 21st Century Career and Technical Education	3:46
Download Transcript (DOCX, 18KB)	
1. Envisioning 21st Century Career and Technical Education	3:46
2. Leveraging Opportunities in Perkins V	3:46
3. Secondary and Postsecondary Split	4:47

National CTE Resource
<https://cte.ed.gov/legislation/perkins-v>



Career & Technical Education

Career and Technical Education (CTE) affords opportunities to all students interested in acquiring the academic, technical and employability skills necessary to succeed in post-high school education and/or high-demand careers. We envision a sustainable future in which Hawai'i graduates can live and thrive in Hawai'i by being prepared to succeed in high-skill, high-wage and high-demand occupations.

The mission of CTE is to serve our schools and the greater community by designing quality CTE programs that meet the needs of Hawai'i's labor workforce— inclusive of new pathways and programs of study, industry standards, work-based learning, industry recognized certifications, dual credit opportunities and professional development—as well as to ensure equity of access, and increase participation rates and successful outcomes.

CAREER PATHWAYS

CTE background

The impetus for expanding the CTE Career Pathways was directly related to:

- The passage of [Perkins V](#), which provided clearer language on CTE course rigor and alignment of secondary and post-secondary education with the workforce.
- Findings from a prior CTE course inventory that found only 44 of 77 courses utilized industry standards.
- Uncertainty over whether CTE offerings were vertically aligned with post-high school education and fully aligned with Hawai'i economic and workforce priorities.

An alignment study utilized state economic and workforce data to determine high-skill, high-wage and high-demand occupations for Hawai'i along with the state's economic priorities and initiatives. The results were used to inform the selection of CTE programs to meet the needs of the alignment study. This led to the expansion from six CTE Career Pathways to 13 and the redesign of the CTE programs of study.

The redesigned Career Pathways include:

- Revision of courses, program of study industry course standards, and recommended benchmark student learning activities to support deeper learning and the acquisition of academic, technical and employability skills.
- A robust approach to work-based learning (WBL) consisting of embedded WBL benchmark activities that are aligned to standards and a capstone WBL course for each program of study.

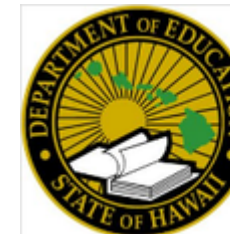
Refer to the [CTE Pathway Rollout Timeline \(PDF\)](#) for more information on the rollout.

Pathway Goals

Common Questions

- > **When should Career Pathways be used?**
- > **How can Career Pathways be used?**

Hawaii CTE Page:



Career & Technical Education

Career and Technical Education (CTE) affords opportunities to all students interested in acquiring the academic, technical and employability skills necessary to succeed in...

Hawai'i State Department of Education /





CTE Pathways and Programs Standards



CTE Pathways & Programs Standards

Hawaii Department of Education

Advanced Manufacturing

- Automation & Robotics Technology (ART) (Google Drive)
- Electro-Mechanical Technology (EMT) (Google Drive)
- Welding (Google Drive)

Agriculture, Food and Natural Resources

- Agriculture & Food Production (AFP) Business (Google Drive)
- Animal Systems (AS) (Google Drive)
- Food Systems (FS) (Google Drive)
- Natural Resources Management (NRM) (Google Drive)

Architectural Design & Engineering

- Architectural Design (AD) (Google Drive)
- Engineering (Google Drive)

Building & Construction

- Mechanical, Electrical & Plumbing (MEP) Systems (Google Drive)
- Residential & Commercial (R & C) Construction (Google Drive)

Business Management, Finance & Marketing

- Business Management (BM) (Google Drive)

Cultural Arts, Media & Entertainment

- Digital Design (DD) (Google Drive)
- Fashion & Artisan Design (FAD) (Google Drive)
- Film & Media Production (FMP) (Google Drive)

Education

- Learning Support Professionals (LSP) (Google Drive)
- Teaching As a Profession (TAP) (Google Drive)

Energy

- Alternative Fuels Technology (AFT) (Google Drive)
- Power Grid Technology (PGT) (Google Drive)
- Sustainable Energies Technology (SET) (Google Drive)

Health Services

- Diagnostic Services (DS) (Google Drive)
- Emergency Medical Services (EMS/EMT) (Google Drive)
- Human Performance Therapeutic Services (HPTS) (Google Drive)
- Nursing Services (NS) (Google Drive)
- Public Health Services (PHS) (Google Drive)

Hospitality, Tourism & Recreation

- Culinary Arts (CA) (Google Drive)

Information Technology & Digital Transformation

- Artificial Intelligence (AI) (Google Drive)
- Cybersecurity (Cyber) (Google Drive)
- Networking (Google Drive)
- Programming (Google Drive)
- Web Design & Development (WDD) (Google Drive)

Law & Public Safety

- Fire & Emergency Services (FES) (Google Drive)
- Law Enforcement Services (LES) (Google Drive)
- Pre-Law (Google Drive)

Transportation Services

- Automotive Collision Repair (ACR) (Google Drive)
- Automotive Maintenance & Light Repair (MLR) (Google Drive)
- Aeronautics: Aviation & Unmanned Aircraft Systems (UAS) (Google Drive)
- Aviation Maintenance Technology (AMT) (Google Drive)
- Marine Maintenance Technology (MMT) (Google Drive)

[link to spreadsheet](#)



UPDATED 2025-2026 SCHOOL YEAR Planned HIDEOE Career Pathways & Programs of Study

File Edit View Insert Format Data Tools Extensions Help Gemini

Menus 100% View only

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI					
1			Advanced Manufacturing	Advanced Manufacturing	Advanced Manufacturing	Agriculture, Food & Natural Resources			Architecture Design & Engineering Tech			Building Construction			Business Mgmt, Marketing & Finance				Culture, Arts, Media & Entertainment			Education		Energy			Health Services				Hospitality, Tourism & Recreation		Information							
2	District	High School	Automati-on-Roboti-es	Electro-M-echanical	Welding	Ag food Productio-n	Animal Syste-ms	Food Syste-ms	Natural Resourc-es Manag	Architectur-e Design	Engineeri-ng Tech	Mechanic-al, Electrica-l & Plumbin-g	Res. & Com. Constru-c.	Busine-ss Mgmt.	Entrep-reneurship	Financi-al Mgmt	Marke-ting Mgmt	Supply Chain Logistic Mgmt	Digital Design	Fashion/Artisan Design	Film/Media Production	Learning Support Professional	Teachin-g as a Profession	Altern-ative Fuels	Pow-er Grid Tech	Renew-able Energy	Diagnosti-c Services	Emerg-ency Med Services	Human Performance Therape-utic	Nursin-g Services	Public Health Services	Culinary Arts	Sustainabl-e Hospit. Tourism Mgmt	Artifici-al Intellig-ence	Cyber Security					
3	Central	Aiea				X			X			X							X		X					X								X						
4	Central	Lilehua				X	X				X				X	X			X		X		X							X					X					
5	Central	Milliani						X		X	X		X		X		X		X	X	X		X							X						X				
6	Central	Moanalua								X	X		X		X	X	X		X	X	X						X									X				
7	Central	Radford							X			X	X						X		X							X								X				
8	Central	Waialua	X			X					X		X						X																		X			
9	East HI	Hilo			X	X				X	X		X	X			X		X								X													
10	East HI	Ka'u				X													X		X																			
11	East HI	Kea'au			X	X		X		X			X		X				X		X																X			
12	East HI	Pahoa			X		X	X					X		X				X		X		X	X					X						X	X				
13	East HI	Waiakea	X			X					X		X		X		X		X		X		X	X				X												
14	Honolulu	Anuenue				X		X					X		X				X		X						X		X											
15	Honolulu	Farrington							X	X			X		X		X		X	X	X						X		X											
16	Honolulu	Kaimuki				X						X		X		X			X		X																X			
17	Honolulu	Kaiser									X				X		X		X		X																			
18	Honolulu	Kalani				X	X				X			X		X			X		X																			
19	Honolulu	McKinley			X			X			X		X		X		X		X		X																			
20	Honolulu	Roosevelt						X			X		X		X		X		X		X						X		X											
21	Kauai	Kapaa						X			X		X		X		X		X		X						X		X											
22	Kauai	Kauai			X	X					X		X	X	X		X		X		X																	X		
23	Kauai	Waimea				X		X		X		X		X		X		X		X		X																		
24	Leeward	Campbell				X			X	X	X			X					X		X					X		X										X		
25	Leeward	Kapolei							X	X	X			X		X			X	X	X																		X	
26	Leeward	Nanakuli	X						X	X	X			X		X			X	X	X																			
27	Leeward	Pearl City							X	X	X			X		X			X	X	X							X											X	
28	Leeward	Waianae	X			X		X		X	X			X		X		X		X	X																			
29	Leeward	Waipahu	X		X	X		X	X	X	X			X		X			X	X	X						X												X	
30	Maui	Baldwin						X		X			X		X		X		X	X	X																			
31	Maui	Hana						X					X		X		X		X		X																			
32	Maui	King Kekaulike						X		X			X		X		X		X		X																			
33	Maui	Lahainaluna	X				X	X	X	X			X		X		X		X	X	X																			
34	Maui	Lanai				X							X		X		X		X		X																			
35	Maui	Maui	X		X			X		X			X		X		X		X		X																			
36	Maui	Kulanikaho'i									X			X		X		X		X							X													
37	Maui	Molokai				X							X		X		X		X		X																			
38	West HI	Honoka'a			X	X		X					X		X		X		X		X																			
39	West HI	Ila O Ehuuikainalino							X						X		X		X		X																			
40	West HI	Kealakehe				X			X					X		X			X		X						X													
41	West HI	Kohala				X			X					X		X		X		X																				
42	West HI	Konawaena	X			X		X					X	X	X	X	X		X		X																			
43	Windward	Castle				X					X				X				X		X																			
44	Windward	Kahuku				X							X		X				X		X																	X		
45	Windward	Kailua						X							X				X		X																			

READ FIRST Statewide Complex Area Hawaii Island School Kauai School Maui School Oahu School view POS Statewide Totals

Statewide Overview

[link to spreadsheet](#)

UPDATED 2025-2026 SCHOOL YEAR Planned HIDEO Career Pathways & Programs of Study

File Edit View Insert Format Data Tools Extensions Help Gemini

Menus 100% View only

Pathway	POS	Farrington	McKinley	Kalani	Kaimuki	Kaiser	Joosveinuenui	Aiea	Leilehua	Millilani	Moanalua	Radford	Waialua	Kapolei	Pearl City	Waipahu	Campbell	Waianae	Nanakuli	Kahuku	Castle	Kalaheo	Kailua	Olomana	POS totals
Advan. Man.	Automation-Robot												X			X		X	X						4
Advan. Man.	Electro-Mechanical		X																					X	1
Advan. Man.	Welding															X								X	2
Ag. Food, Nat. Res.	Ag. Food Production			X	X			X	X	X			X		X	X	X		X	X					11
Ag. Food, Nat. Res.	Animal Systems			X						X															2
Ag. Food, Nat. Res.	Food Systems		X					X	X		X				X			X					X	X	8
Ag. Food, Nat. Res.	Natural Resources Mgmt.	X						X			X			X	X	X	X		X			X			9
Arch. Design & Eng. Tech	Architecture Design	X								X				X	X	X	X		X						6
Arch. Design & Eng. Tech	Engineering Technology		X	X		X				X	X	X	X	X	X	X	X		X			X	X		14
Build & Construct	Mech/Electric/Plumb		X	X		X				X	X	X	X	X	X	X	X		X			X	X		0
Build & Construct	Res/Comm Construction	X	X							X	X	X	X	X	X	X	X		X			X	X		16
Bus. Mgmt/Fin/Market	Business Mgmt										X		X					X		X	X				2
Bus. Mgmt/Fin/Market	Entrepreneurship			X	X			X		X	X	X					X		X	X	X				10
Bus. Mgmt/Fin/Market	Financial Mgmt		X			X				X	X	X			X	X									6
Bus. Mgmt/Fin/Market	Marketing Mgmt	X				X				X	X			X				X							6
Bus. Mgmt/Fin/Market	Supply Chain Logistic Mgmt.																								0
Cultural Arts/Media/Ent	Digital Design	X	X	X		X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	21
Cultural Arts/Media/Ent	Fashion & Artisan Design	X								X	X			X	X	X			X		X				8
Cultural Arts/Media/Ent	Film & Media Production	X	X		X	X	X	X	X	X	X	X	X	X	X	X	X		X		X				18
Education	Learning Support																								0
Education	Teaching as a Profession	X						X	X				X	X	X	X									7
Energy	Alternative Fuels																								0
Energy	Power Grid Technology																								0
Energy	Renewable Energy																	X							1
HEALTH	Diagnostics					X	X	X			X			X	X	X									7
HEALTH	Emergency Services	X																							1
HEALTH	Human Therapeutic Performan	X	X	X				X	X	X			X		X										8
HEALTH	Nursing	X			X					X	X	X	X	X	X	X	X	X	X	X	X	X	X		14
HEALTH	Public Health																						X		1
Hospt./Tourism/Rec.	Culinary	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	24
Hospt./Tourism/Rec.	Sustainable Hospt./Tour Mgmt				X								X	X		X									4
Information Tech	Artificial Intelligence								X												X				2
Information Tech	Cybersecurity								X	X		X		X	X	X	X								7
Information Tech	Networking								X	X		X													4
Information Tech	Programming	X	X	X		X			X		X	X									X	X	X		12
Information Tech	Web Design					X																			1
Law/Public Safety	Fire & Emergency													X											1
Law/Public Safety	Law Enforcement									X		X		X											3
Law/Public Safety	Pre-Law							X		X	X			X											4
Transportation	Automotive Collision									X															1
Transportation	Automotive Maintenance		X					X	X	X		X			X	X	X	X		X			X		11
Transportation	Aviation Tech									X															1
Transportation	Marine Tech																								0

READ FIRST Statewide Complex Area Hawaii Island School Kauai School Maui School **Oahu School view** POS Statewide Totals

Oahu Schools
[link to spreadsheet](#)

UPDATED 2025-2026 SCHOOL YEAR Planned HIDEO Career Pathways & Programs of Study

File Edit View Insert Format Data Tools Extensions Help Gemini

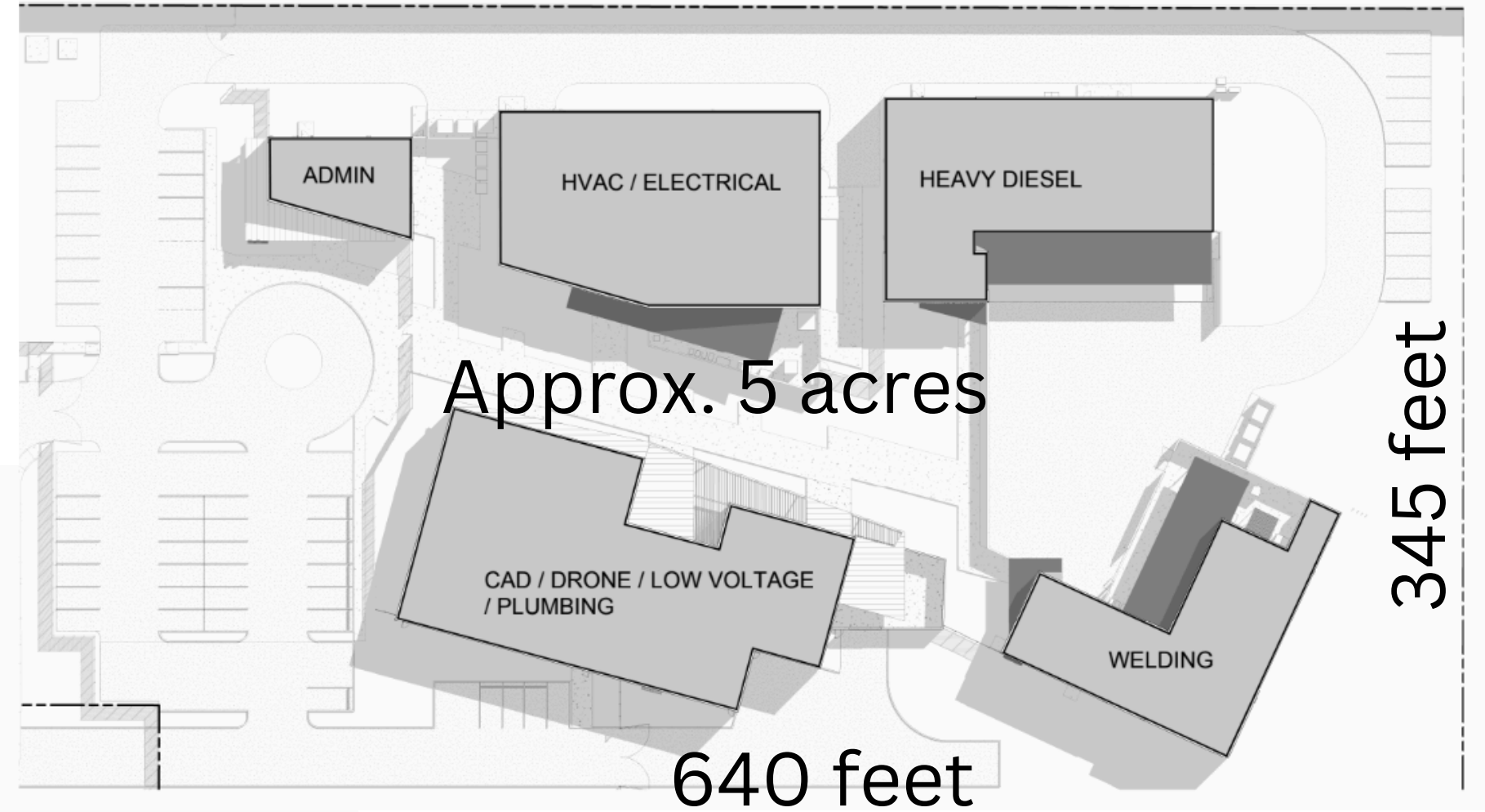
Menus 100% View only

A1	Pathway	POS	Maui	Lahaina luna	King Kekauli ke	Baldwin	Molokai	Hana	Kulanik aho'i	Lanai	POS Totals
2	Advan. Man.	Automation-Robot	X	X							2
3	Advan. Man.	Electro-Mechanical									0
4	Advan. Man.	Welding	X								1
5	Ag. Food, Nat. Res.	Ag. Food Production					X			X	2
6	Ag. Food, Nat. Res.	Animal Systems		X							1
7	Ag. Food, Nat. Res.	Food Systems	X	X	X			X			4
8	Ag. Food, Nat. Res.	Natural Resources Mgmt.		X		X					2
9	Arch. Design & Eng. Tech	Architecture Design	X	X							2
10	Arch. Design & Eng. Tech	Engineering Technology	X						X		2
11	Build & Construct	Mech/Electric/Plumb									0
12	Build & Construct	Res/Comm Construction	X	X	X	X	X	X		X	7
13	Bus. Mgmt/Fin/Market	Business Mgmt									0
14	Bus. Mgmt/Fin/Market	Entrepreneurship	X	X	X		X		X		5
15	Bus. Mgmt/Fin/Market	Financial Mgmt									0
16	Bus. Mgmt/Fin/Market	Marketing Mgmt		X		X					2
17	Bus. Mgmt/Fin/Market	Supply Chain Logistic Mgmt.									0
18	Cultural Arts/Media/Ent	Digital Design	X	X	X	X	X	X	X		7
19	Cultural Arts/Media/Ent	Fashion & Artisan Design		X		X					2
20	Cultural Arts/Media/Ent	Film & Media Production	X	X	X	X					4
21	Education	Learning Support									0
22	Education	Teaching as a Profession	X	X							2
23	Energy	Alternative Fuels									0
24	Energy	Power Grid Technology									0
25	Energy	Renewable Energy									0
26	HEALTH	Diagnostics							X		1
27	HEALTH	Emergency Services									0
28	HEALTH	Human Therapeutic Performance									0
29	HEALTH	Nursing	X	X	X		X				4
30	HEALTH	Public Health									0
31	Hospit./Tourism/Rec.	Culinary	X	X	X	X		X	X	X	7
32	Hospit./Tourism/Rec.	Sustainable Hospit./Tour Mgmt	X	X		X					3
33	Information Tech	Artificial Intelligence									0
34	Information Tech	Cybersecurity									0
35	Information Tech	Networking									0
36	Information Tech	Programming	X			X	X		X		4
37	Information Tech	Web Design									0
38	Law/Public Safety	Fire & Emergency									0
39	Law/Public Safety	Law Enforcement	X								1
40	Law/Public Safety	Pre-Law									0
41	Transportation	Automotive Collision			X						1
42	Transportation	Automotive Maintenance	X		X	X		X		X	5
43	Transportation	Aviation Tech									0
44	Transportation	Marine Tech									0

READ FIRST Statewide Complex Area Hawaii Island School Kauai School Maui School Oahu School

Maui Schools
[link to spreadsheet](#)





Project cost feasibility for compliance with Maui and Oahu structural codes approx \$65-80 million

Portable Classroom Replacement

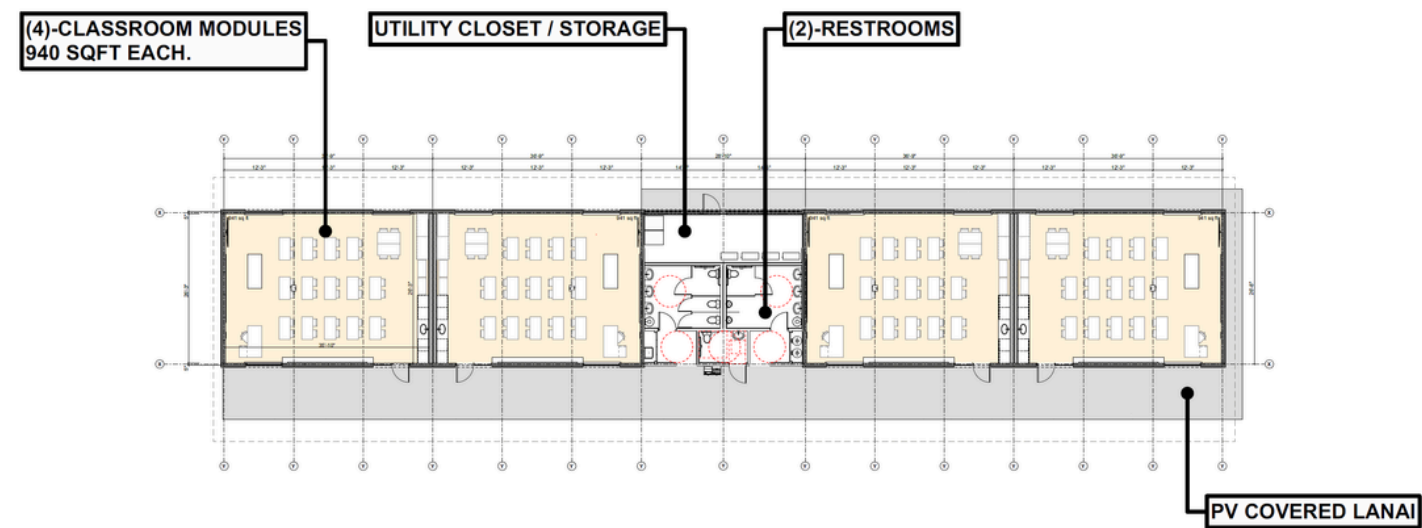
opportunity: Modernize with efficient solutions



- DEEP OVERHANG
- SOLAR WALKWAY
- NET-ZERO ENERGY

CONCEPTUAL RENDERING OF 1-STORY MASS TIMBER MODULAR CLASSROOM BUILDING





SFA continuously scales standardization to maximize state capital and deliver high-quality educational facilities. We hold this fully engineered prototype ready for the legislature to activate and fund.



CONCEPTUAL RENDERING OF 2-STORY MASS TIMBER MODULAR CLASSROOM BUILDING



CONCEPTUAL RENDERING OF 2-STORY MASS TIMBER MODULAR CLASSROOM BUILDING

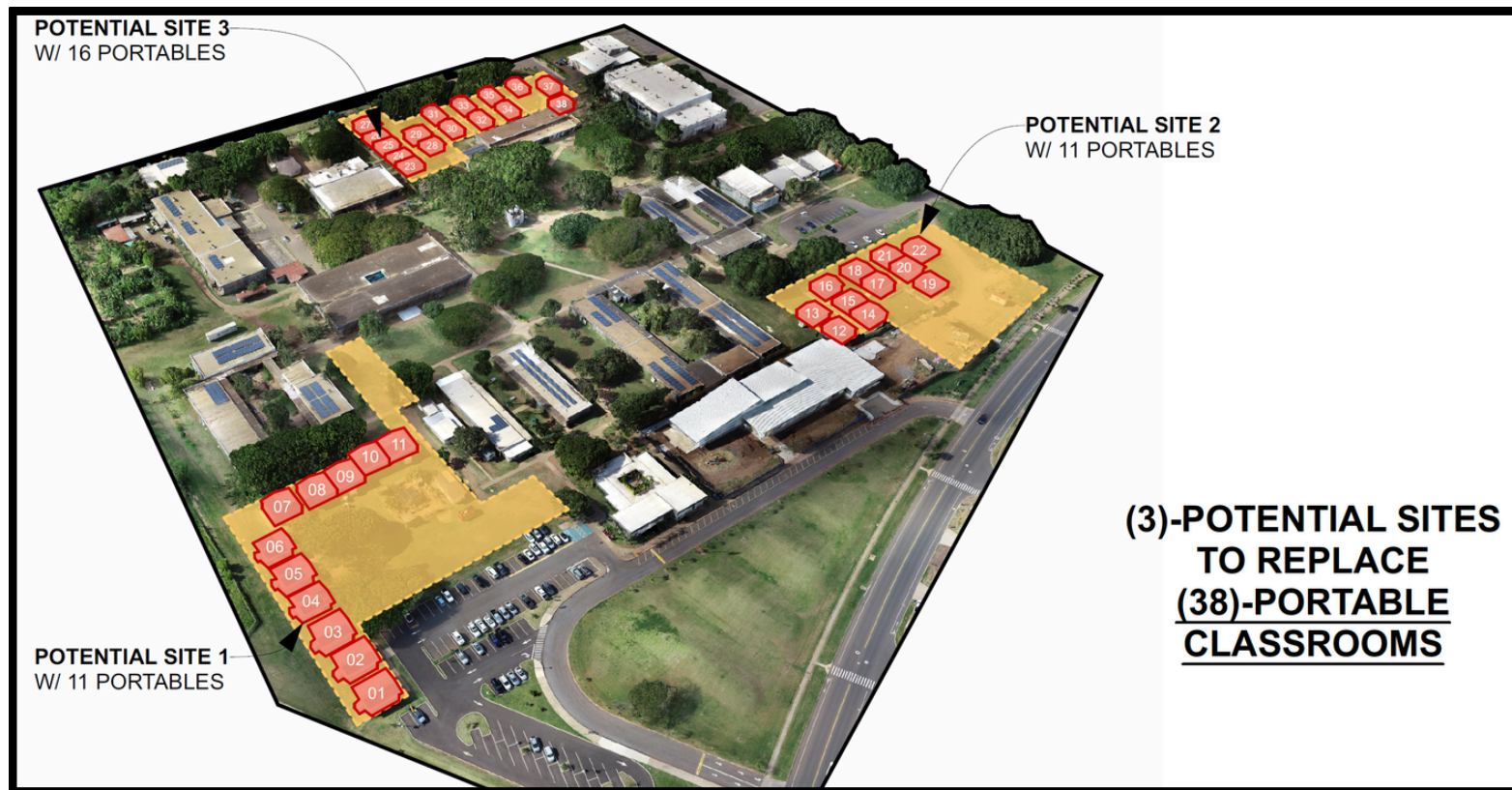


Statewide Portable Replacement

1,834 PORTABLE CLASSROOMS IN HAWAI'I

TOTAL 1,600,000 SQFT = 1,834 PORTABLES x 900 SF

TOTAL ~36,680 STUDENT CAPACITY (20 STUDENTS / PORTABLE)



(2) 1 story 3-classroom buildings = 6 classrooms



(4) 2 story 8-classroom buildings = 32 classrooms



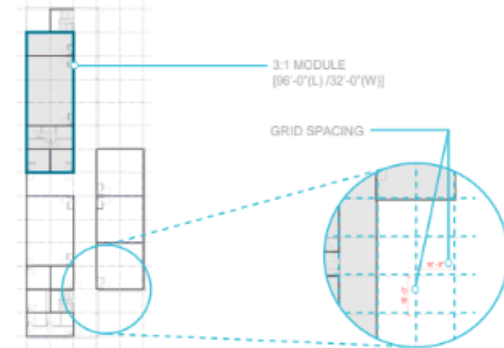
Akamai Configurator

opportunity: automate workflow

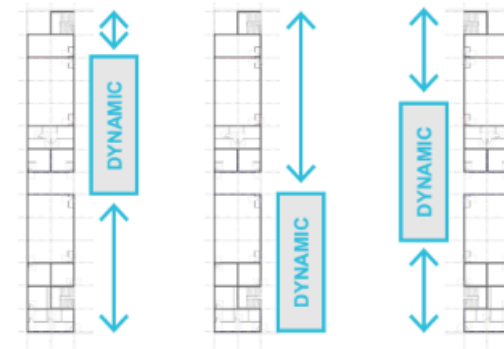


SYSTEM GUIDELINES

- GRID SPACING**
1. Typical grid spacing = 16'-0" X 16'-0"
 2. 3:1 ASPECT RATIO MODULE : This ratio helps to achieve the max diaphragm for shear.
 3. Structural stability, lateral load distribution and drift behaviour depend on this, increasing the grid spacing will affect building stiffness.

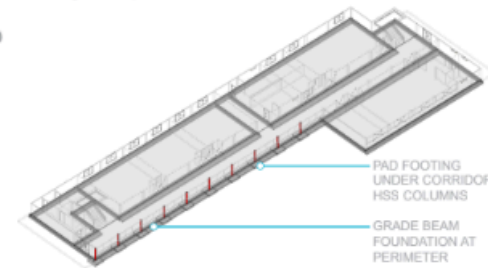


- DYNAMIC MODULE POSITIONING**
1. The dynamic module can be placed on either side of the corridor and be increased in length in increments similar to point 3.
 2. It can move along the Y-axis; does not affect primary load paths if column/beam connections remain aligned.
 3. In a Glulam version the movement will be at 16'-0" increments and CFS can be at 8'-0" increments.

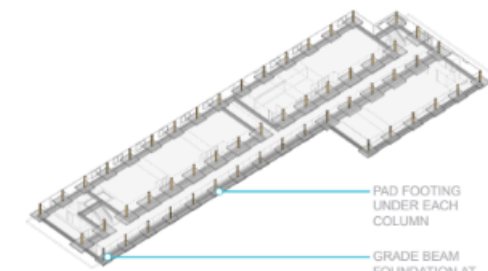


- FOUNDATIONS**
1. For the CFS option, only grade beam foundations are required.
 2. Options with Glulam post and beams will require pad footing at each post.
 3. Depending on site conditions stem and pedestals may be required.

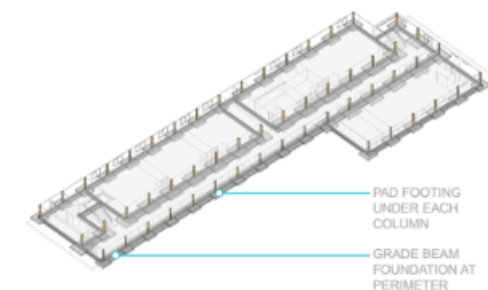
FOUNDATIONS FOR METAL DECK & COLD FORMED STEEL



FOUNDATIONS FOR METAL DECK & GLULAMS

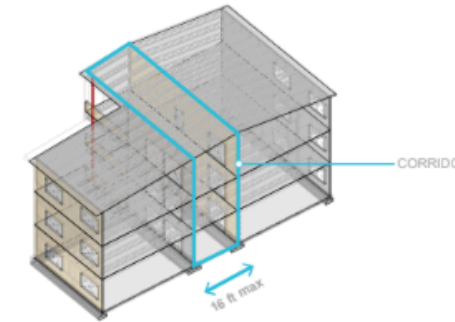


FOUNDATIONS FOR CLT DECK & GLULAMS



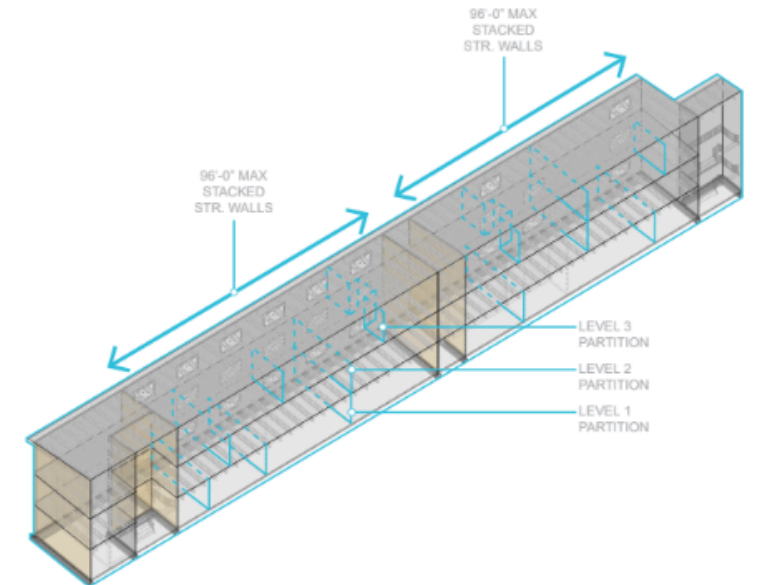
SYSTEM GUIDELINES

- CORRIDOR WIDTH**
- Designed for a maximum 16 ft; reducing corridor width is possible; increasing width may affect floor spans or require stronger beams.



- OTHER VARIABLES & CONSTRAINTS**
1. Within span limits small, changes in floor or thickness may be feasible.
 2. The facade / cladding options can vary without affecting structure, provided dead loads are accounted. (max 10 PSF)
 3. Handling on site and shipping:
 - A. CFS framing ships efficiently in small, lightweight bundles and can be handled manually on site. CFS flat-packed panels: ~8 ft wide x 12 ft tall; flat packing maximizes container efficiency.
 - B. Glulam & CLT systems panels are very large and heavy pieces limited by truck permits and crane capacity, requiring full crane handling.
 - C. CLT panels: ~16 ft long x 7-8 ft wide x 6-7/8 in thick; fits container lengthwise, width and thickness limited by door and forklift clearance.
 - D. Glulam beams: ~32 ft long (maybe spliced) x ≤3 ft deep; longer beams require flatbed shipping.
 4. Moisture protection and termite treatment critical; shipping heavy panels requires careful crane & logistics planning.
 5. Ability to stand up local fabrication facilities on the islands.

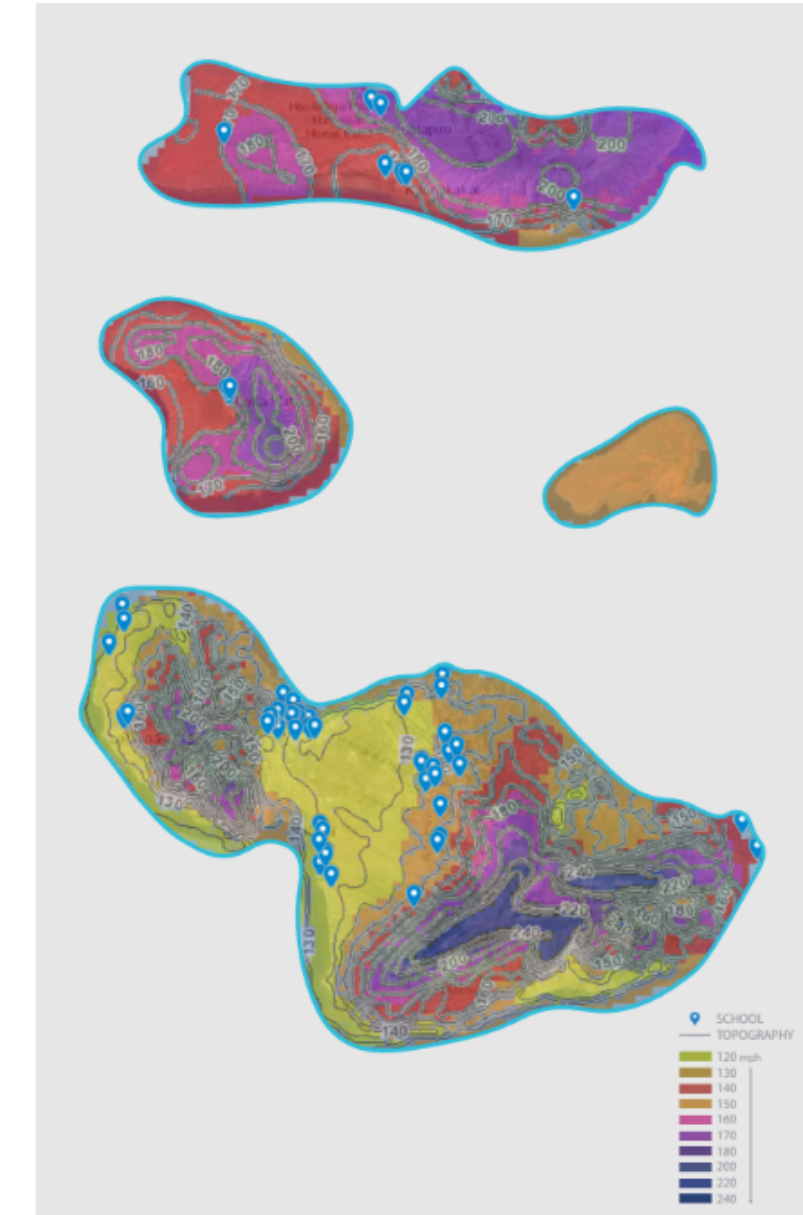
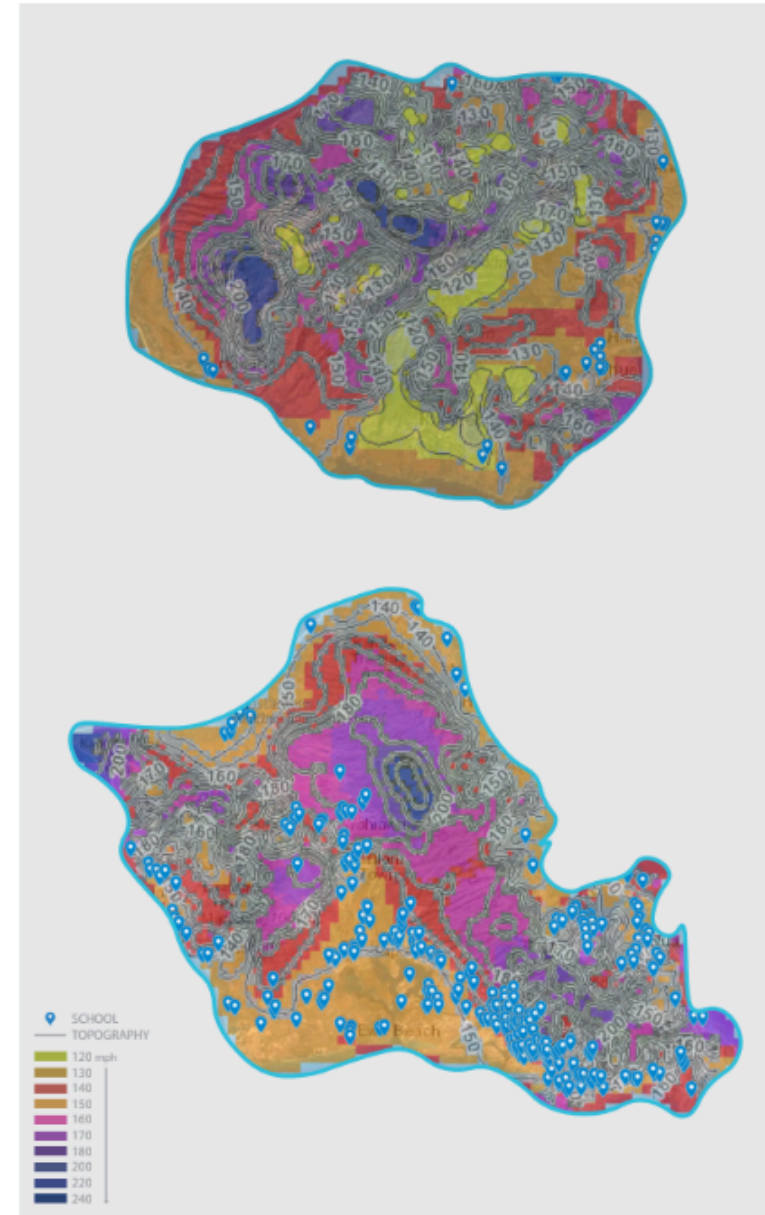
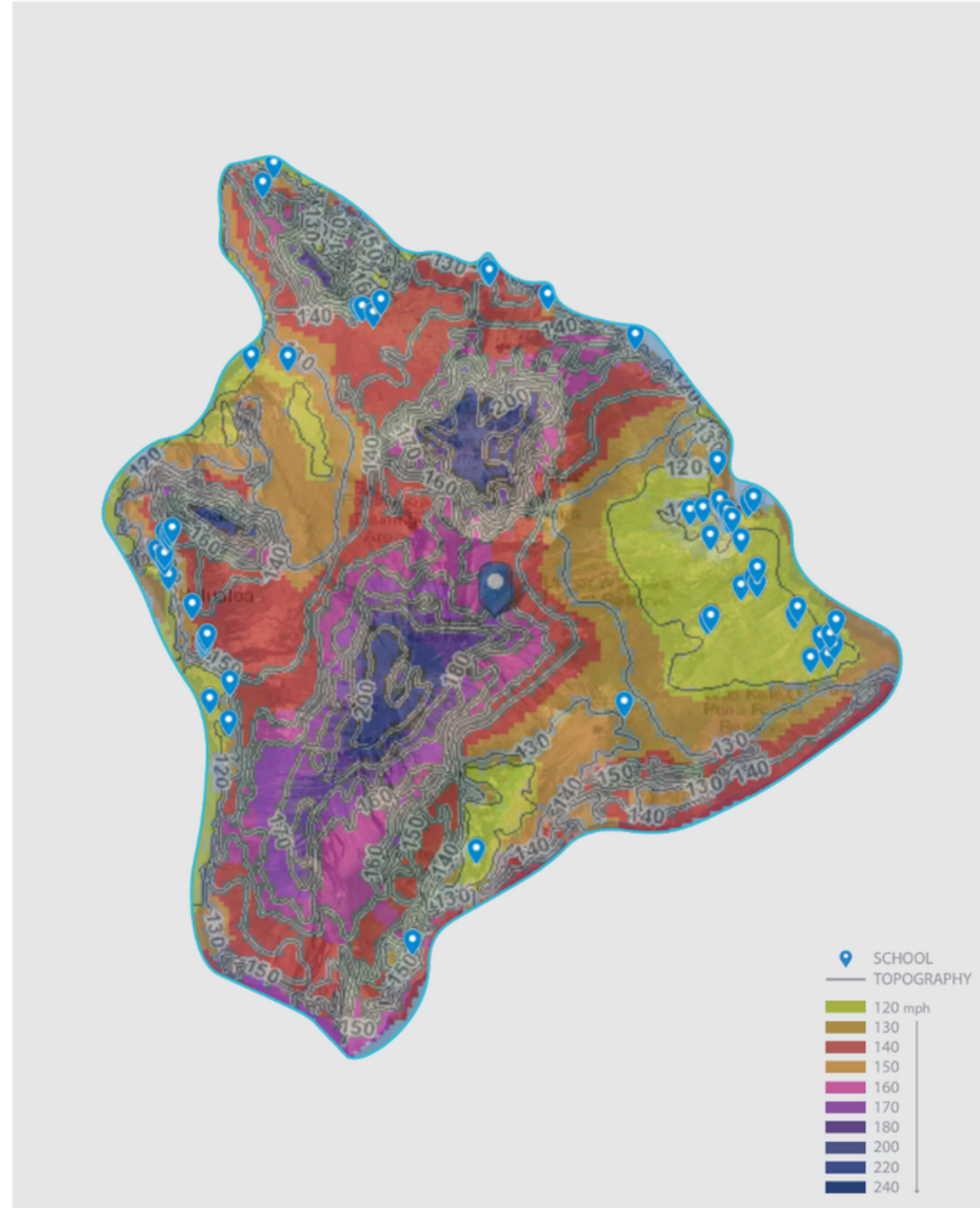
- INTERNAL LAYOUTS / PARTITIONS**
1. Non-Structural Walls can be moved freely within the standard structural stacked walls that are 96'-0" max apart as stated on page 4.
 2. In the stacked structural walls, partitions aren't required to be stacked in the same position on every floor.



THINK
MK THINK

SITE CONDITIONS / WIND

The prototype model has been designed to accommodate approximately 80% of SFA's desired geography. Structural design criteria for that geography are listed here.



THINK
MK THINK

Basic Project Inputs

Project Name

January Test

Location

Maui Waena - 795 Onehee Avenue, Kahului, Hawaii 96732, United States

Climate Zone

Climate Zone 1A (Hawaii)

Auto-populated

Building Information

Building Name

Building A

Building Type

Instructional Building

Project Type

Replacement Classrooms

New Building

Student Enrollment

450 students

50

450 students

1,200

Capacity Removed

0 students

0

0 students

1,200

NET Capacity

450 students

Grade Level

Elementary School

Middle School

High School

Construction Type

Mass Timber

Site Map - Maui Waena

Clear

Click and drag to draw a rectangle boundary. Use handles to resize or rotate the rectangle.



Site Validations

Required Program Area

85,000 sq ft

From FADS calculation

Drawn Area

96,446.76 sq ft

Current rectangle

Amount of Levels

1 level

2 levels

3 levels

Area Validated

Drawn area (96,446.76 sq ft) meets the required program area.

Instructions

- **Draw Rectangle:** Click and drag on the map to create a rectangle
- **Resize:** Drag blue corner handles to resize from that specific corner
- **Rotate:** Drag the orange circle handle to rotate
- **Move:** Click inside the rectangle and drag to move it
- **Clear:** Double-click or use the Clear button to start over
- Area must be at least 85,000 sq ft

Generate Pre-Design

DC Digital Configurator - State Fa X +

https://dcc-deploy.vercel.app/project/2cba1c0c-0c1f-4490-9b2d-0feedb5baae9/building/4ac76bfa-d771-47e8-9572-cd16c1da2c34/viewer

Work

← Back to Catalog Tools **Layout Simulator**
Find the best layout for your requirements

Target Enrollment
300

Best Match
66%

Compliant Options
4/21

Catalogs Analyzed
11

⚙️ Simulation Parameters

SPACE PROGRAM

Student Enrollment

50 300 1000

Special Education Percentage

5% 10% 20%

Students per Classroom

20 25 35

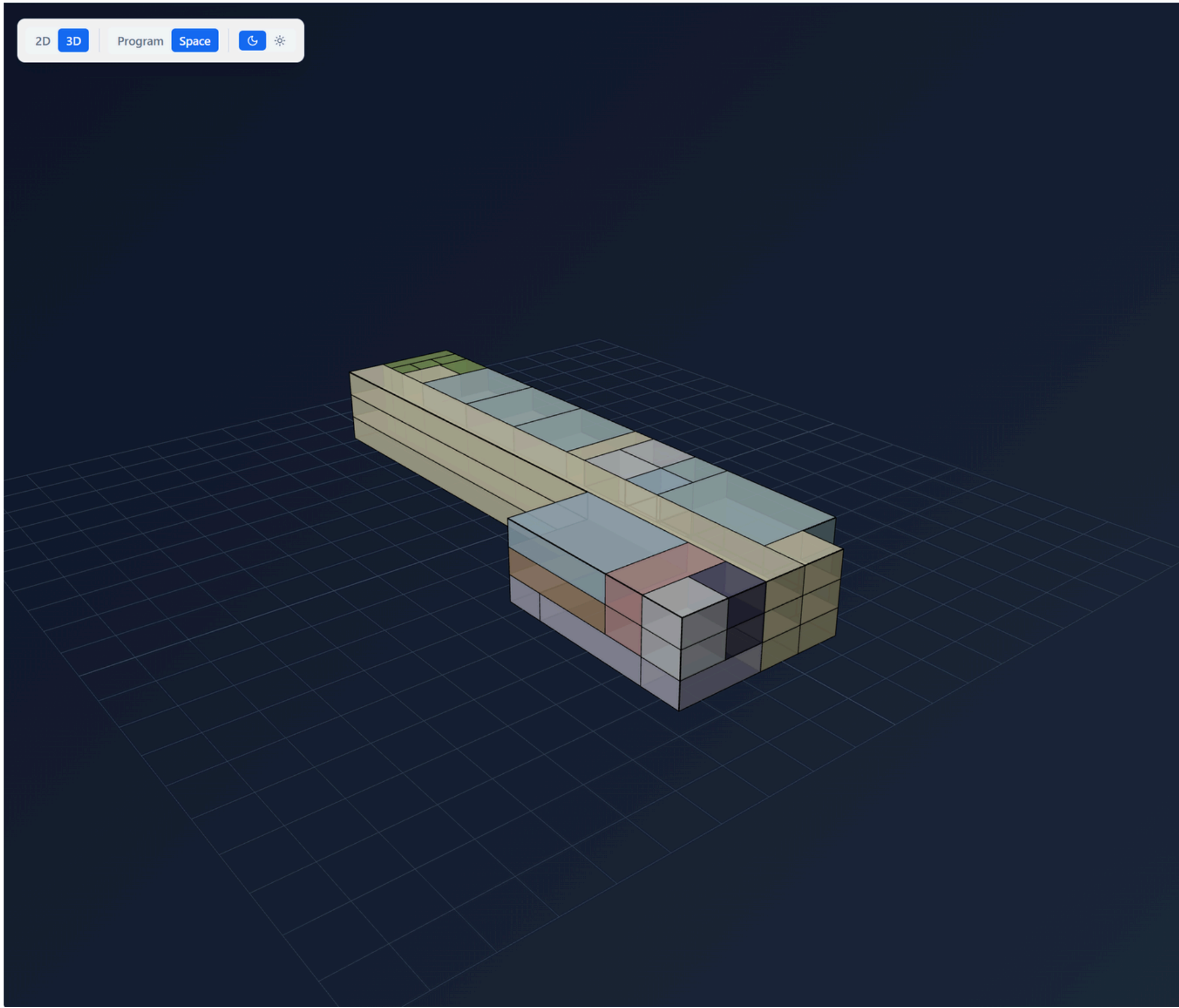
Grade Level

Middle School

🎯 Matching Options

Colors: ● Meets requirement ● Moderate excess / Insufficient ● Does not meet / Excessive

#	Catalog / Option	Match Score	Capacity	Expected Floors	Expected Area
1	Catalog 001 Option C	66%	300	3 Expected: 2	1,285.56 sqft using 2.6%
2	Catalog 0020 Option C	66%	300	3 Expected: 2	1,285.56 sqft using 2.6%
3	Catalog 001 Option D	59%	225	3 Expected: 2	1,285.56 sqft using 2.6%
4	Catalog 001 Option A	59%	300	3 Expected: 2	1,285.56 sqft using 2.6%



Program Compliance

Required space program (calculated in step 2) compared with layout space program (from selected catalog option)

Classroom	Breakout Room (1 required)	✓
Classroom	Fully Self-Contained Classroom - Large (2 required)	✓
Classroom	Fully Self-Contained Classroom - Small (3 required)	✗
Classroom	General Classroom (16 required)	✗
Classroom	Itinerant Services Room (1 required)	✗
Classroom	Resource Services Classroom (8 required)	✓
Classroom	Science Classroom (6 required)	✗
Classroom	Science Prep Area (6 required)	✗
Classroom	Supplemental Classroom (3 required)	✓
Faculty	Faculty Center (1 required)	✓
Administration	Restroom Staff (1 required)	✓
Student Support	Commons (1 required)	✓
Student Support	Electives (1 required)	✗
Student Support	Restroom Student (2 required)	✓
Technical	Electrical (1 required)	✗
Technical	IDF (1 required)	✗
Technical	Janitorial (1 required)	✗
Technical	Mechanical (1 required)	✗

Digital Configurator - State Fa x

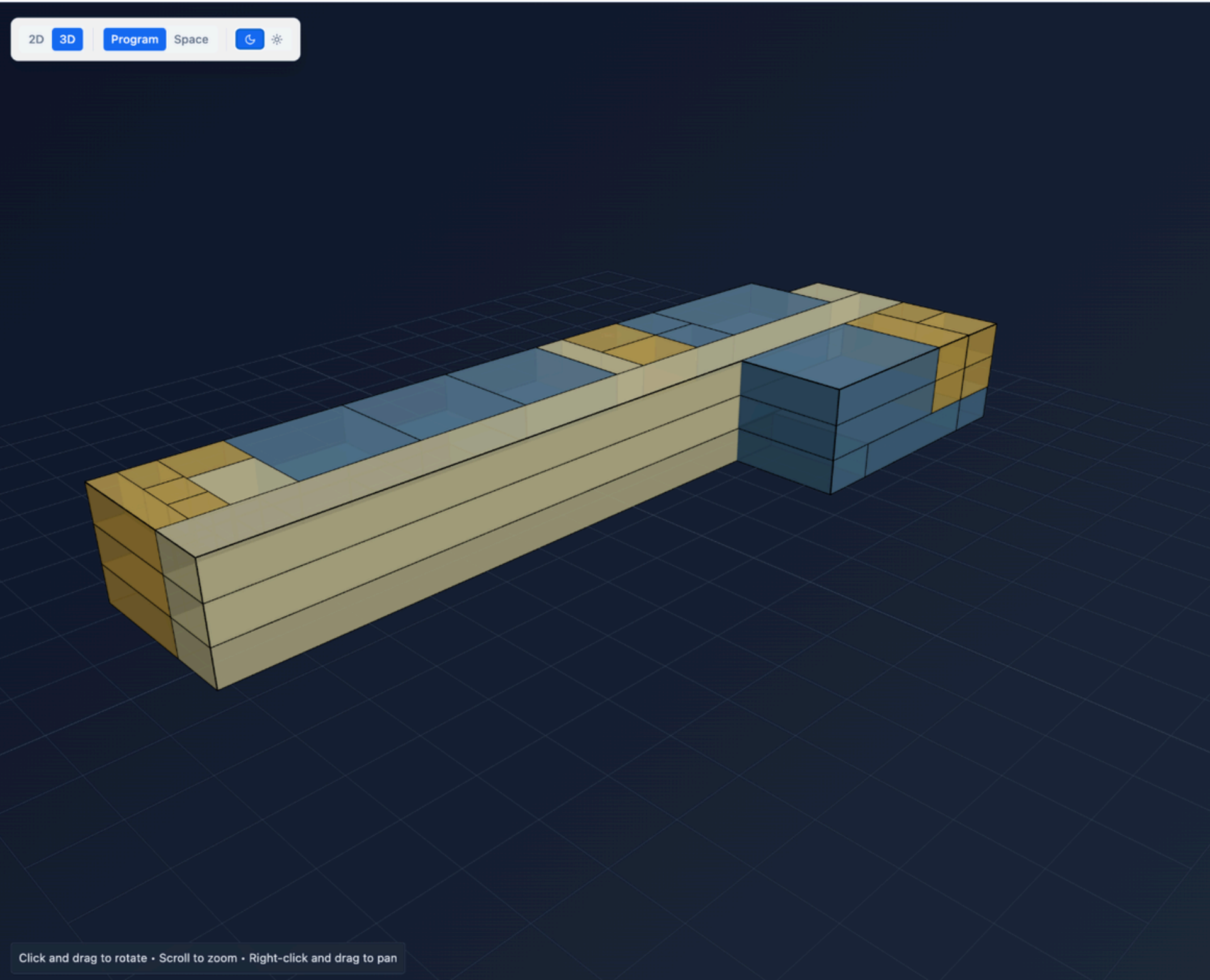
https://dcc-deploy.vercel.app/project/2cba1c0c-0c1f-4490-9b2d-0feedb5baae9/building/4ac76bfa-d771-47e8-9572-cd16c1da2c34/viewer

Work

← Back to Dashboard Pre-Design Viewer 3D Volumetric Model Results

Export Approve and Lock

2D 3D Program Space



Click and drag to rotate • Scroll to zoom • Right-click and drag to pan

Program Compliance Space Program **Cost Estimation**

Cost Estimation

Estimated construction cost range based on total area

Cost Parameters	
Total Program Area	19,260 SF
Cost Range (MS Facilities)	\$800 – \$1,100 / SF

Estimated Cost Range	
Low Estimate	\$15,408,000
High Estimate	\$21,186,000
Cost Range	\$15.4M – \$21.2M

Autodesk Revit 2024 - HISFA_NCMS Academic Building_Nico.rvt - 3D View: {3D}

File Architecture Structure Steel Precast Systems Insert Annotate Analyze Massing & Site Collaborate View Manage Add-Ins DCC Modify

Workflow Assistant Manage Sync to Cloud Download Latest

Grid Column Floor Facade Window Roof Attach to Roof Shaft Interior Divisions Ceiling Floor Finishes Elevators Stair Door Space Program Dimension Rules Checks

Properties 3D View

3D View: (3D)

Graphics View Scale Scale Value 1: Detail Level Parts Visibility Visibility/Graphics Overrides Graphic Display Options Discipline Show Hidden Lines Default Analysis Display Style Show Grids Sun Path Extents Crop View Crop Region Visible Properties help

Project Browser - HISFA_NCMS

Views (all)

- Floor Plans
 - LEVEL 1
 - LEVEL 2
 - ROOF
 - SD - LEVEL 1
 - SD - LEVEL 2
 - SD - SITEPLAN
- 3D Views
- Elevations (Building Elevation)
- Sections (Building Section)
- Drafting Views (Detail)
- Legends
- Schedules/Quantities (all)
- Sheets (all)
 - A-101 SD - SD - LEVEL 1
 - A-102 SD - SD - LEVEL 2
 - A-103 SD - SD - SITEPLAN

Workflow Assistant

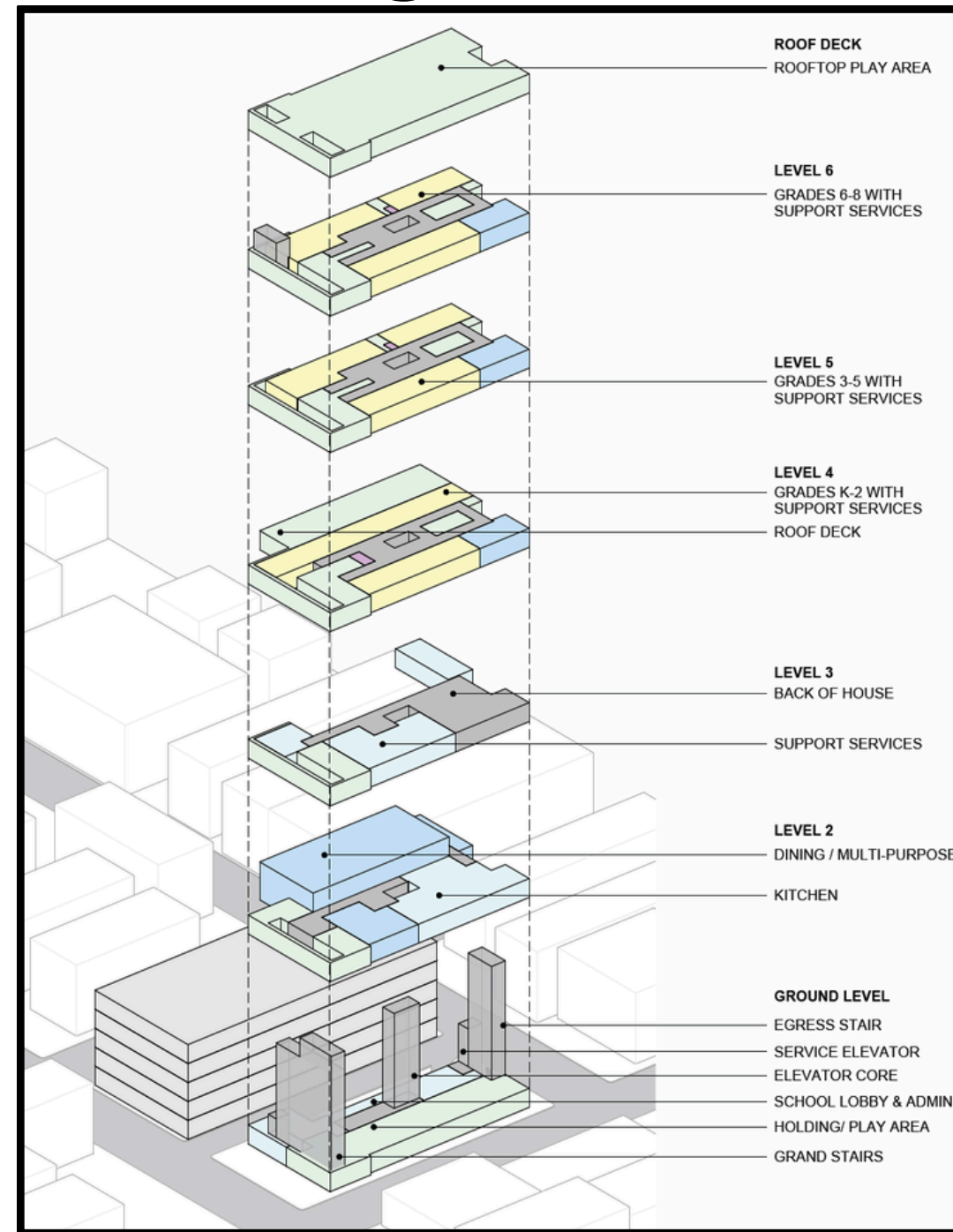
Systems	Actions	Done?	Disable	Status	Condition
Schematic Design					
Structural Pre Design					
Exterior shell and facade pre design					
Roof Creation					
Basic Element Creation					
Circulations					
Space Program revision					
Fixed Furniture & Equipment					
HVAC pre design calculation					
Other Fixed (Big) MEP Equipment...					
Finishes					
Loose Furniture					
Schematic-level drawings generati...					
Check families	▶	✓	☐	Done	All families Checked
Create views by floor and set temp	▶	✓	☐	Done	All views were created successfully
Place all tags	▶	✓	☐	Done	All rooms tagged successfully.
Create sheets and place views	▶	✓	☐	Done	All sheets were created successfully
Duplicate or create schedules and	▶	☐	☐		
Place schedules and views on shee	▶	☐	☐		
Export sheets and Upload	▶	✓	☐	Done	Views exported successfully.
Check that all sheets have at least	▶	☐	☐		
Rendering					
Design Development					

1/8" = 1'-0"

3:52 PM 1/6/2026

Vertical Schools

opportunity: elevating school facilities



Why?

Land Scarcity

Land is rare and prohibitively expensive.



Why?

Commute Traffic

Schools near homes reduce traffic congestion.

Consider
Oahu's Traffic
WHEN LOOKING
FOR A HOME

[LINK](#) to article



Why?



Statewide Housing Goals

New housing requires matching school capacity

Leveling Up Maui's Housing Options

Multi-level, multi-use, and affordable, a new development in Kihei provides one solution for helping Hawai'i's housing crisis.



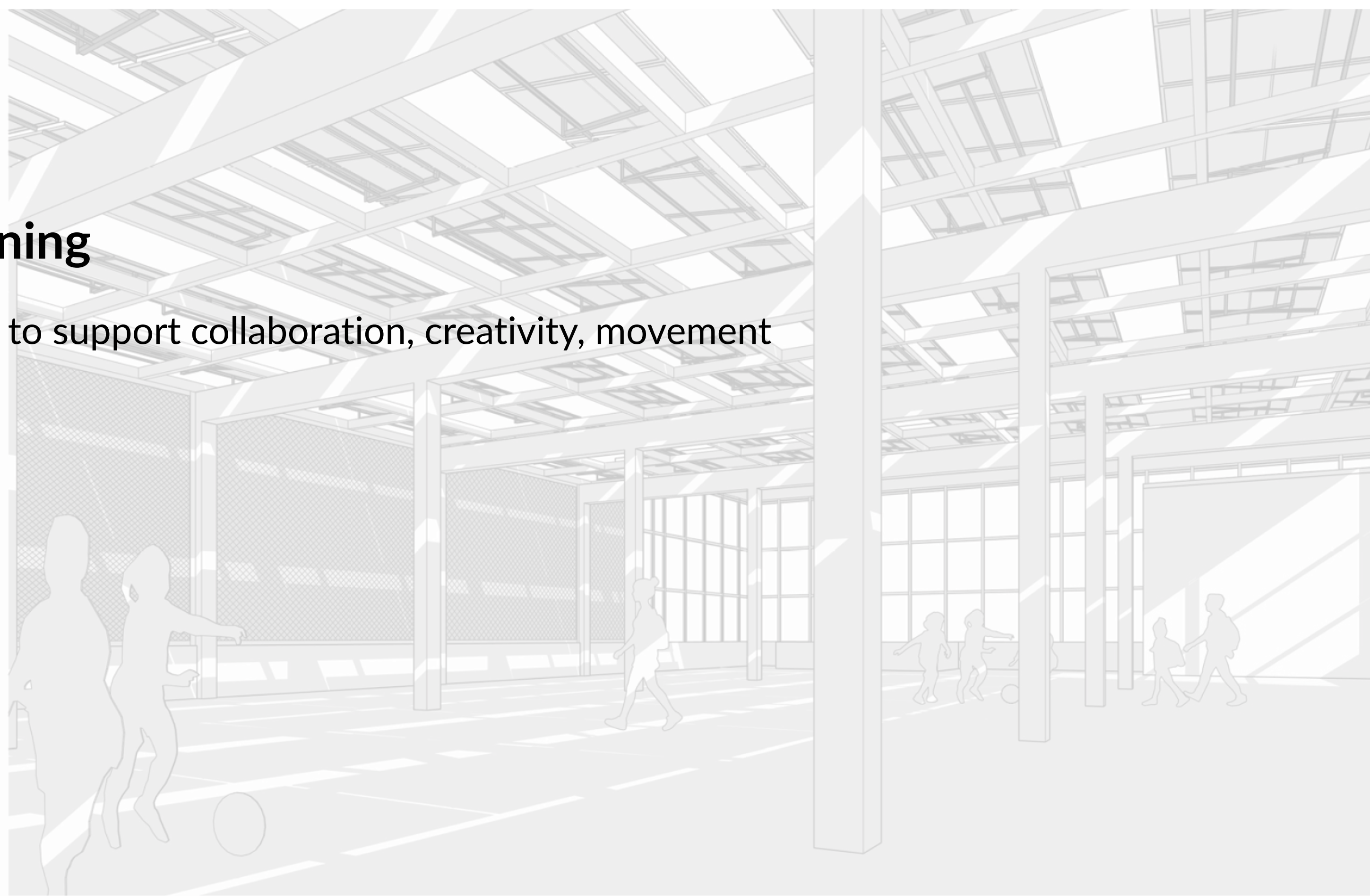
[LINK](#) to article about Hale o Pi'ikea

Imagine not really knowing your grandparents, because your 'ohana can't all afford to live in the same state. "It's a tragedy," says Keoni Kuoha, director of the Hawai'i Community Foundation's House Maui Initiative. "This loss of generational traditions tears at the fabric of our communities."

Why?

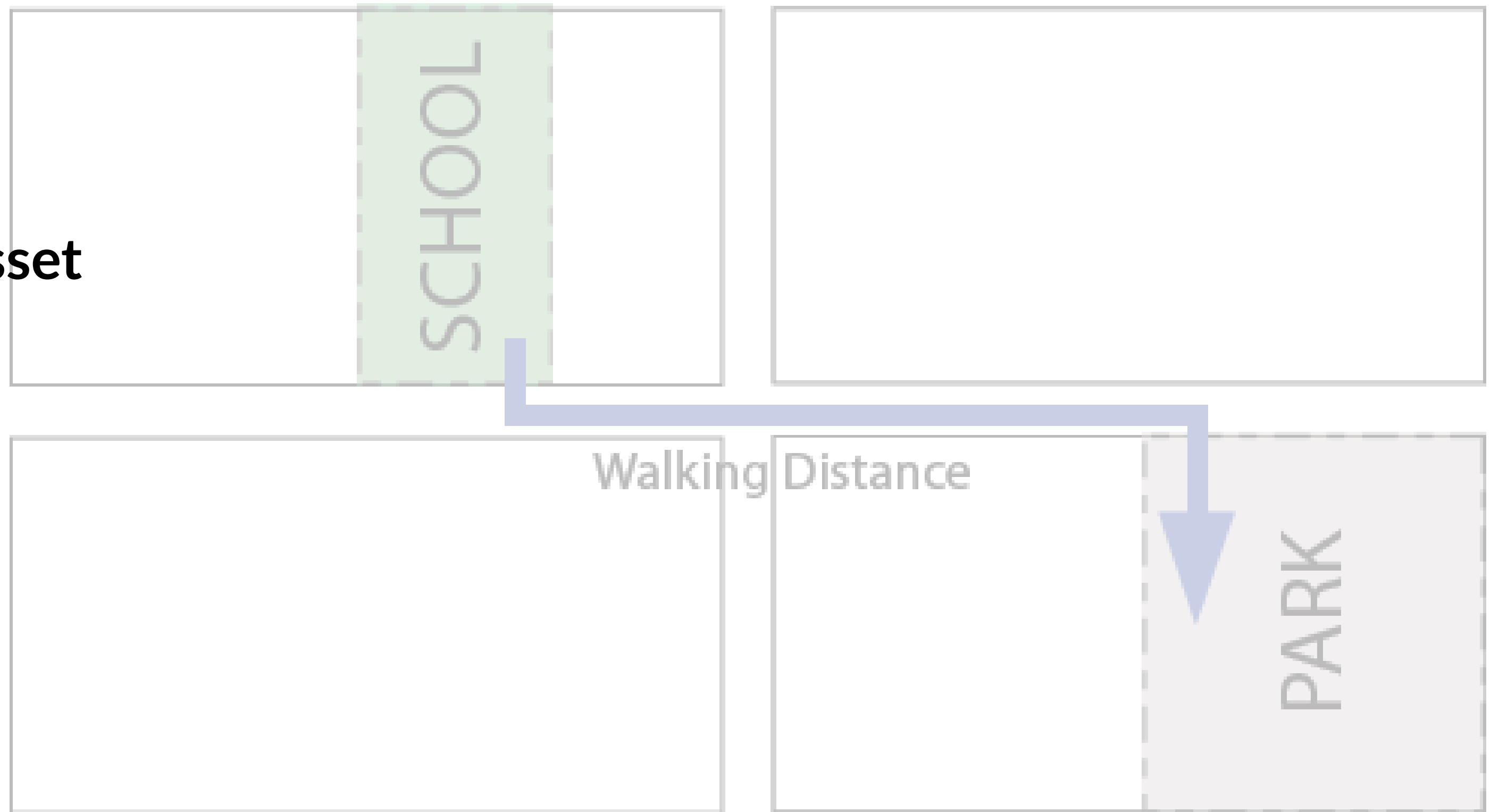
Innovative Learning

Spatial arrangements to support collaboration, creativity, movement



Why?

Community asset



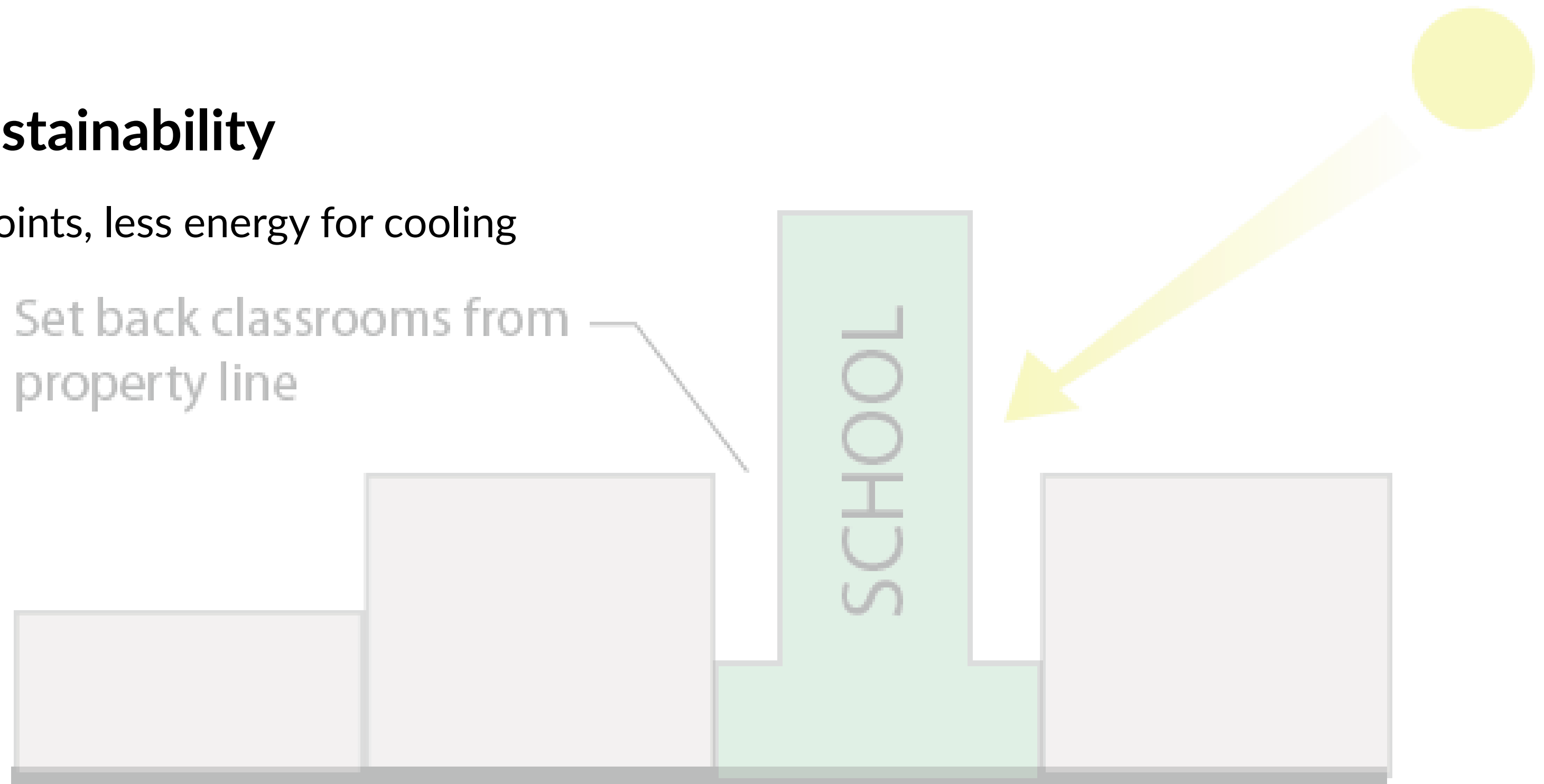
Promote school-community relationships with off-hours use and day use of public assets

Diagrammatic Neighborhood Plan

Why?

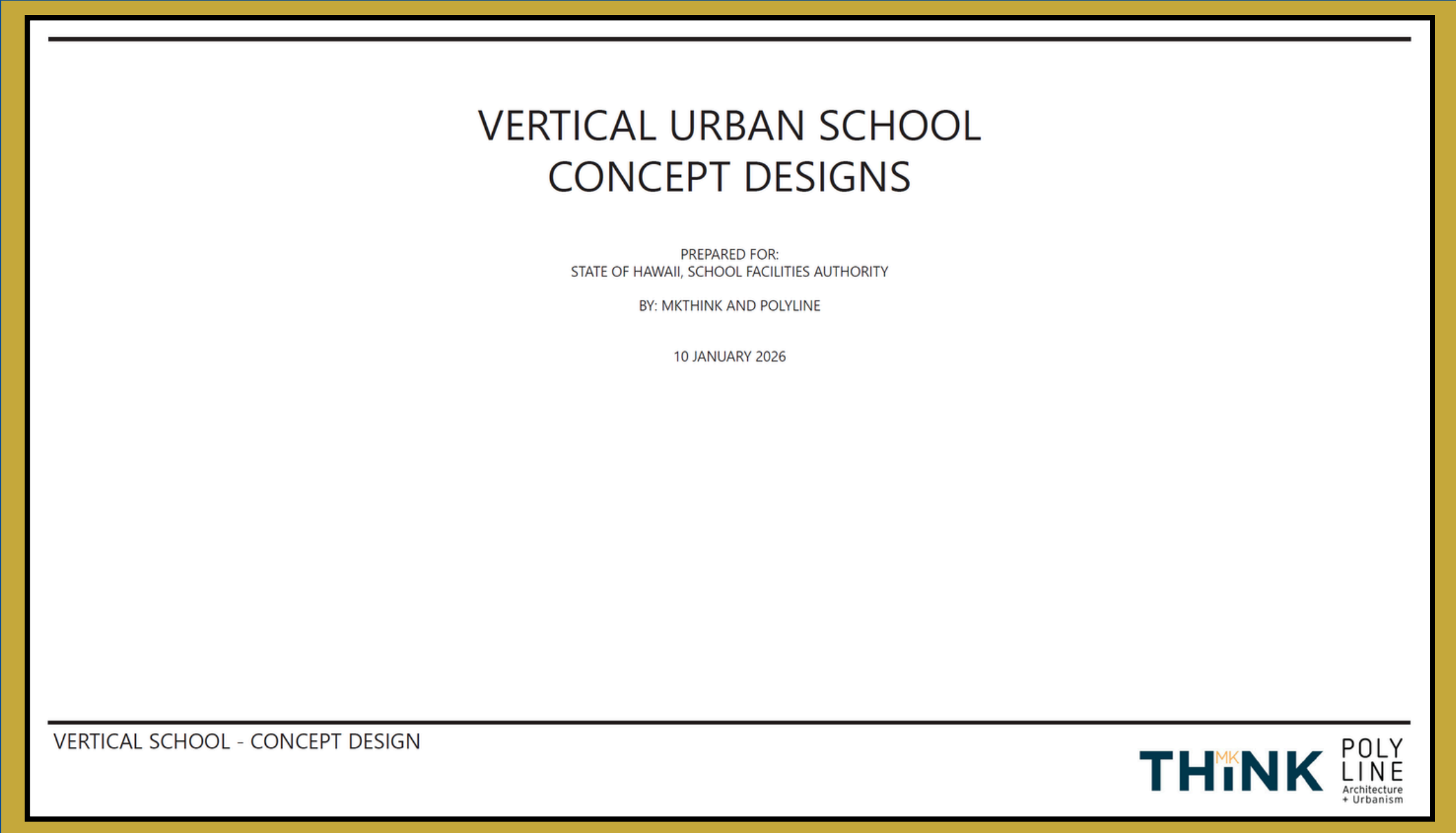
Safety & Sustainability

Fewer access points, less energy for cooling



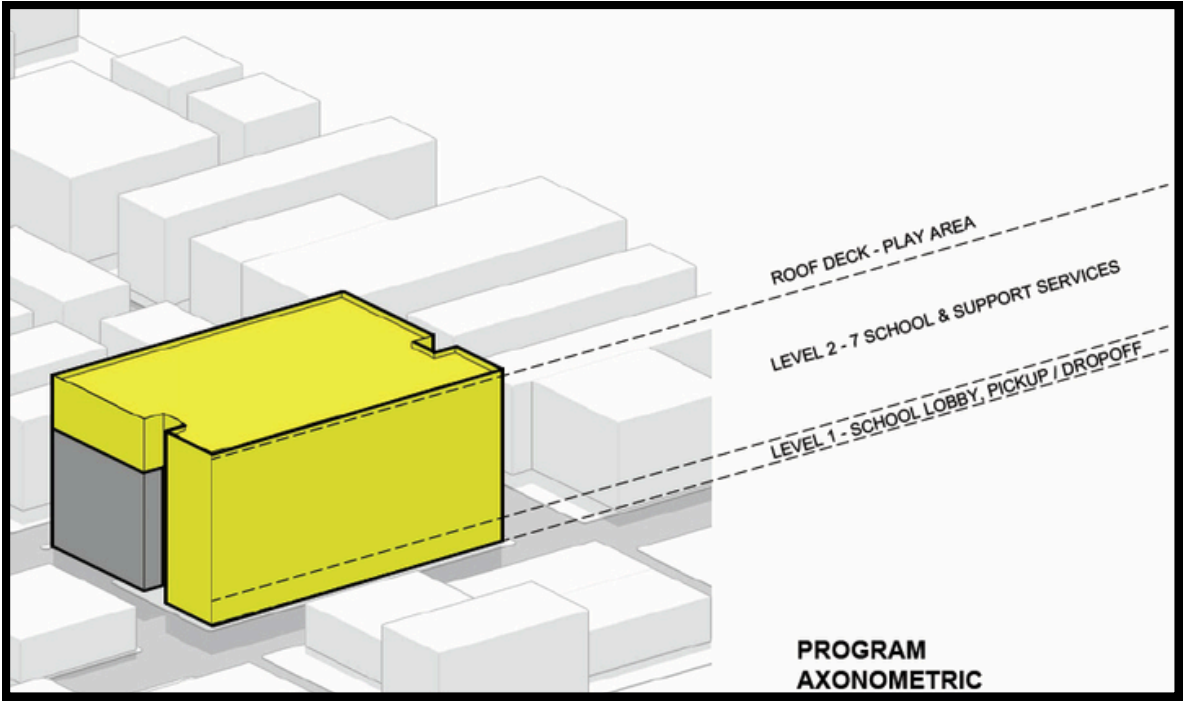
Diagrammatic Elevation

IMPORTANT DESIGN NOTE: The concepts presented in the following report should be viewed only as illustrative visualizations of possibilities to demonstrate the potential of vertical density.



The Stand-Alone School

A dedicated vertical campus featuring separate towers for parking and education connected by a central spine.



 school

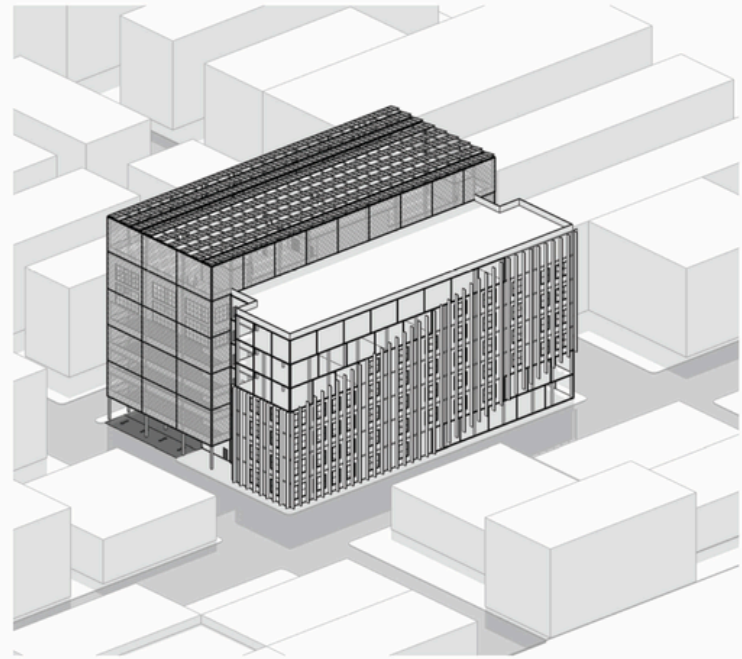
 Parking

Stand Alone School

These illustrative views show the proposed massing of the urban school.

The parking garage is envisioned as open-air for passive cross ventilation. It can be clad with the same mesh enclosure as the rooftop deck to be perceived as a total mass object and improve visual appeal of the garage.

The school is envisioned with curtain wall glass to optimize passive daylighting and offer views to occupants which area both shown to improve occupant wellness and learning outcomes. Solar shade fins are located in front of classroom spaces to reduce excess daylight and glare.



NORTHWEST OVERALL AXONOMETRIC VIEW

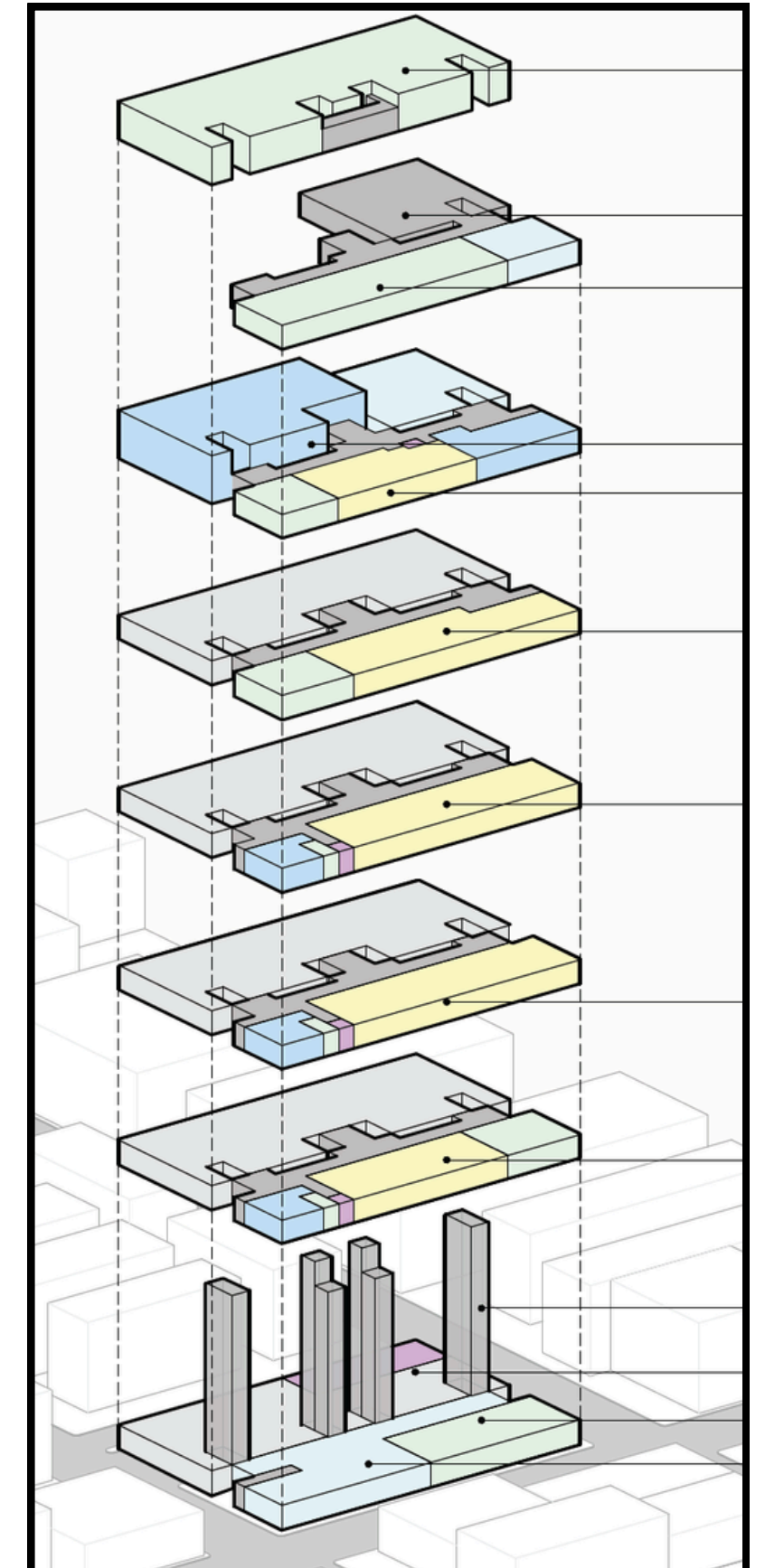
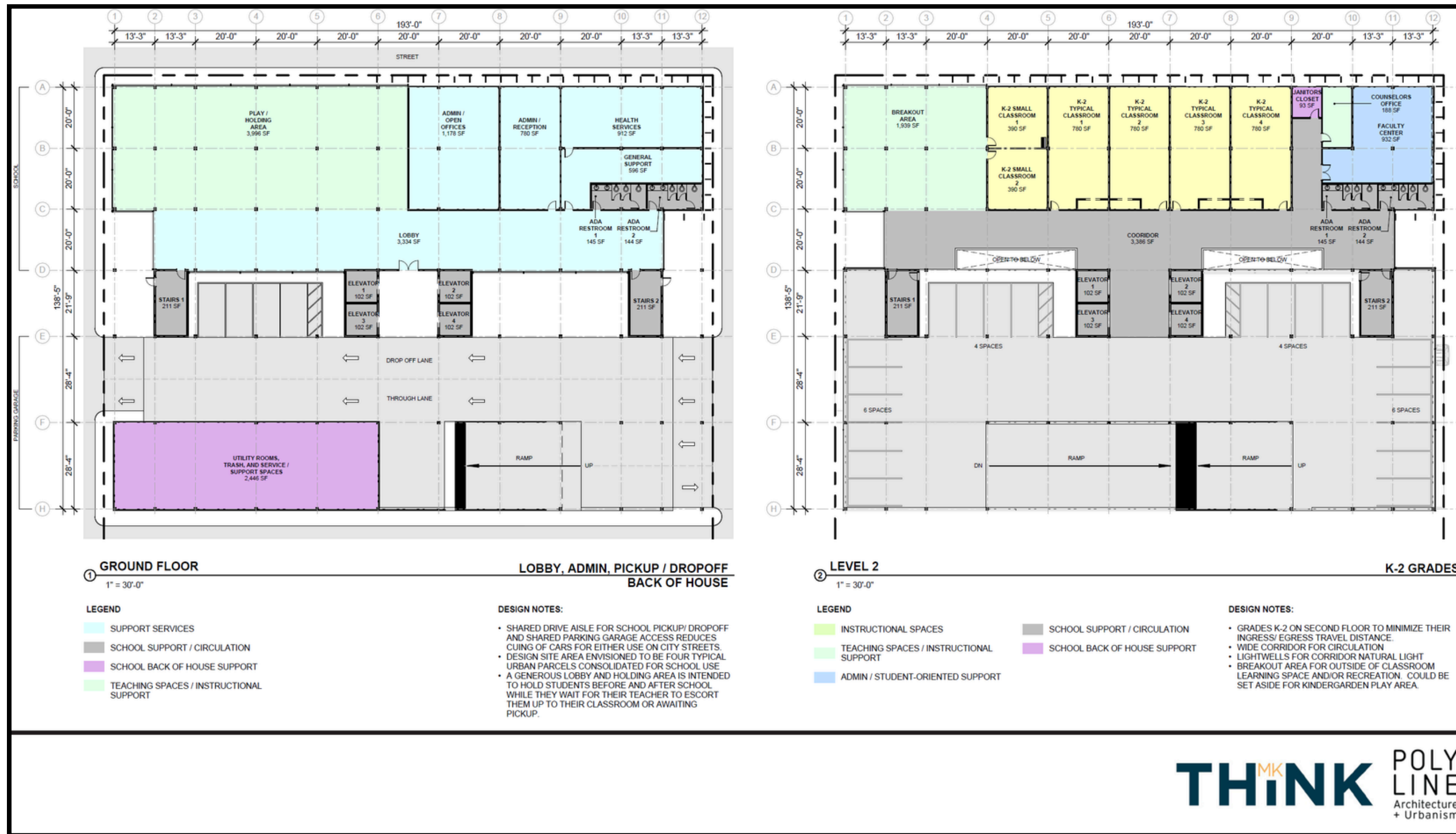


NORTH WEST STREET VIEW

THiNK POLY LINE
Architecture + Urbanism



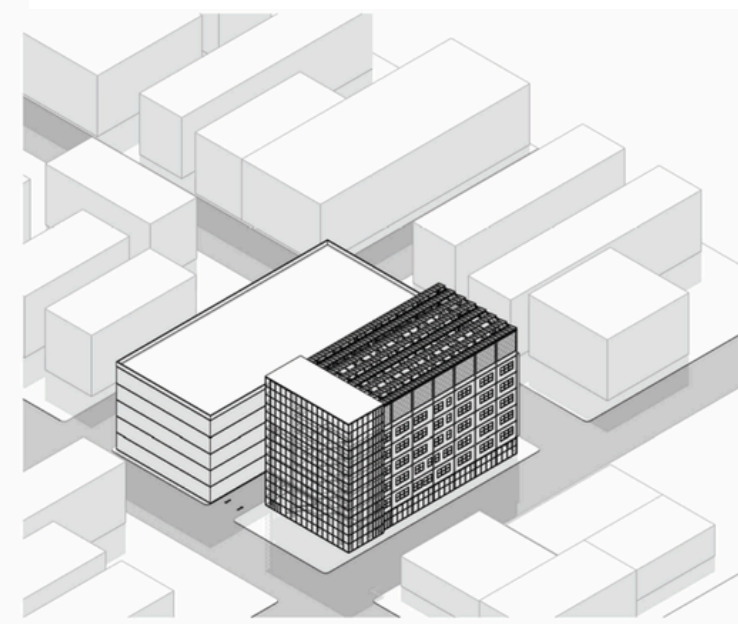
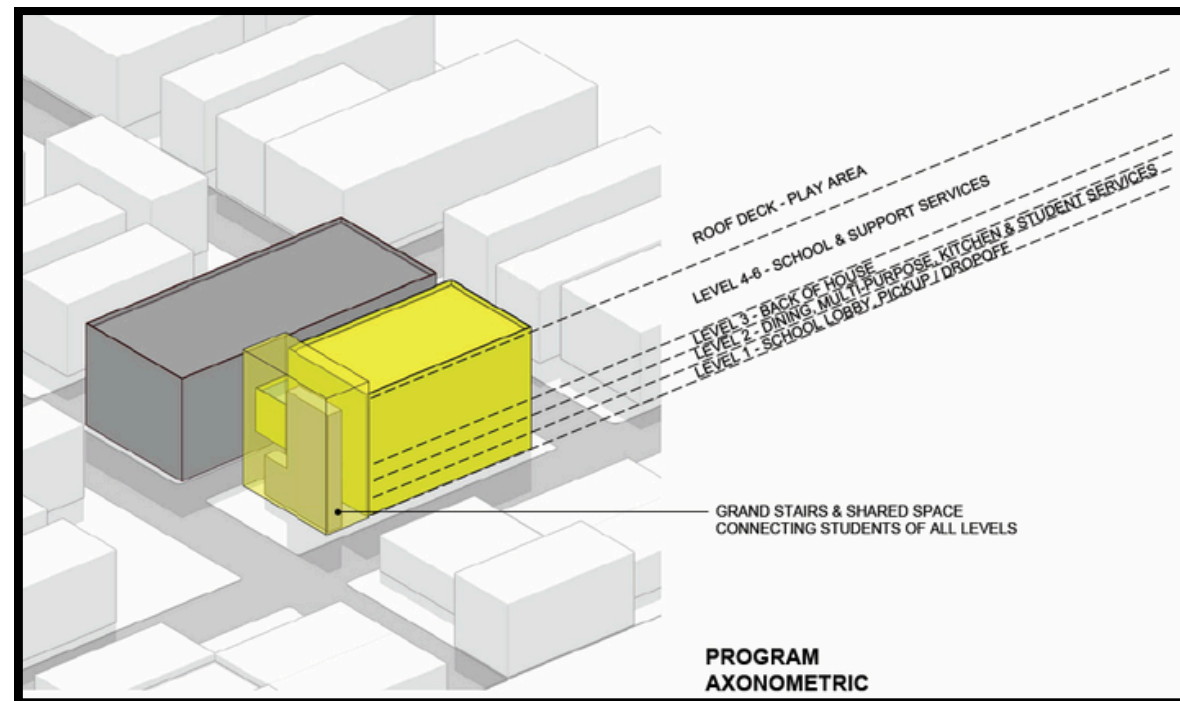
The Stand-Alone School



THiNK POLY LINE
Architecture + Urbanism

The Adjacent School

A school built next to private development on a separate parcel (CPR), sharing infrastructure costs like driveways and parking to save taxpayer money.



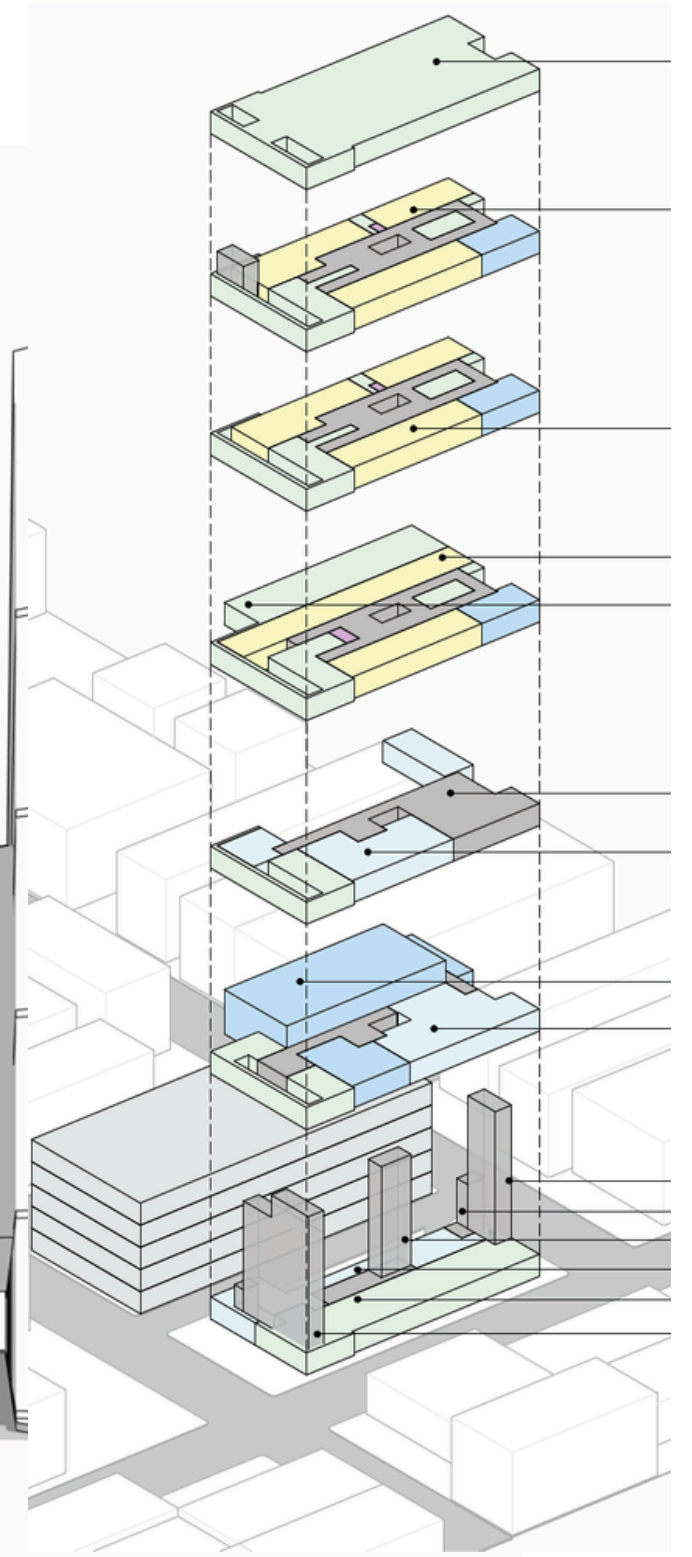
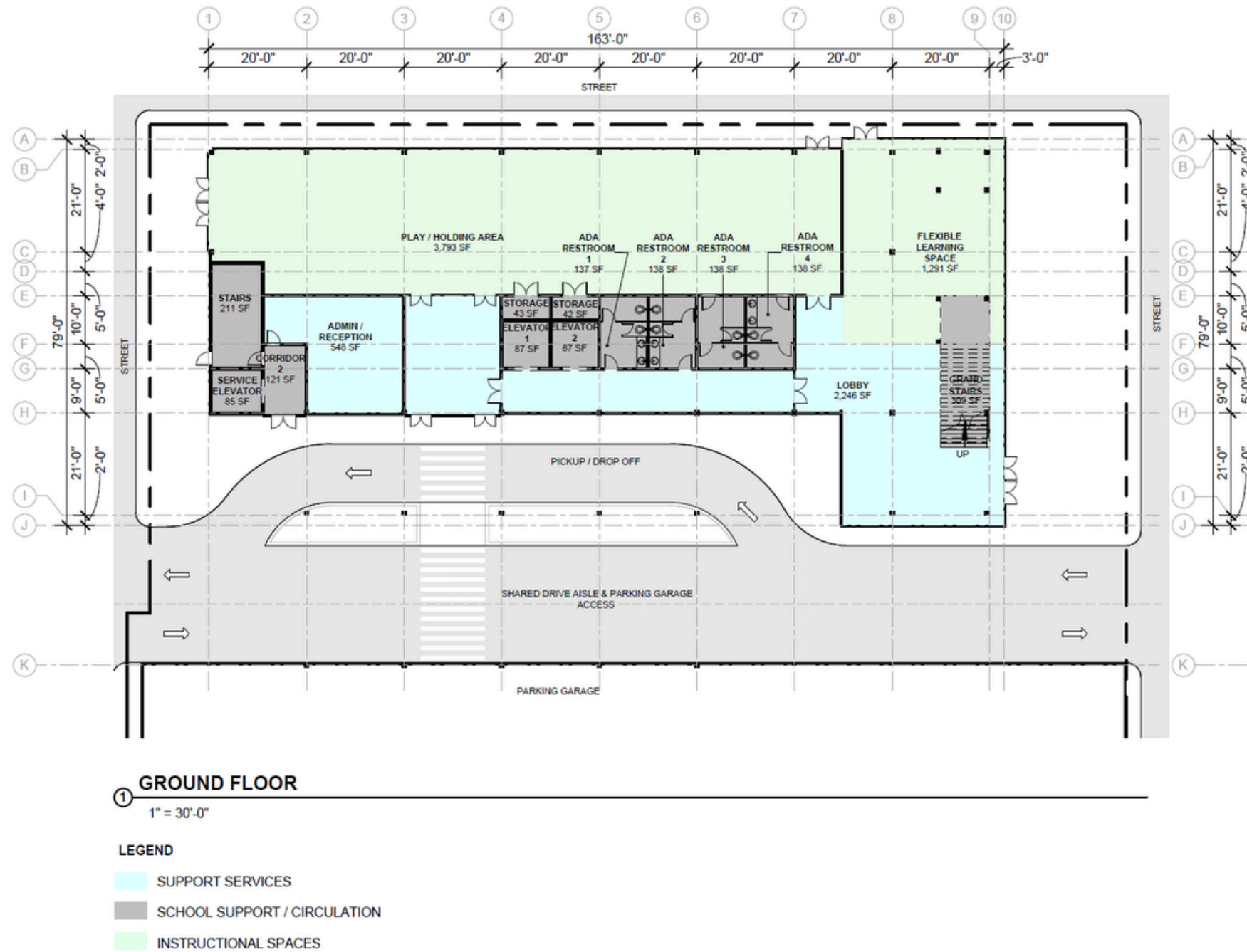
school



Adjacent private development with parking

THINK POLY LINE
Architecture + Urbanism

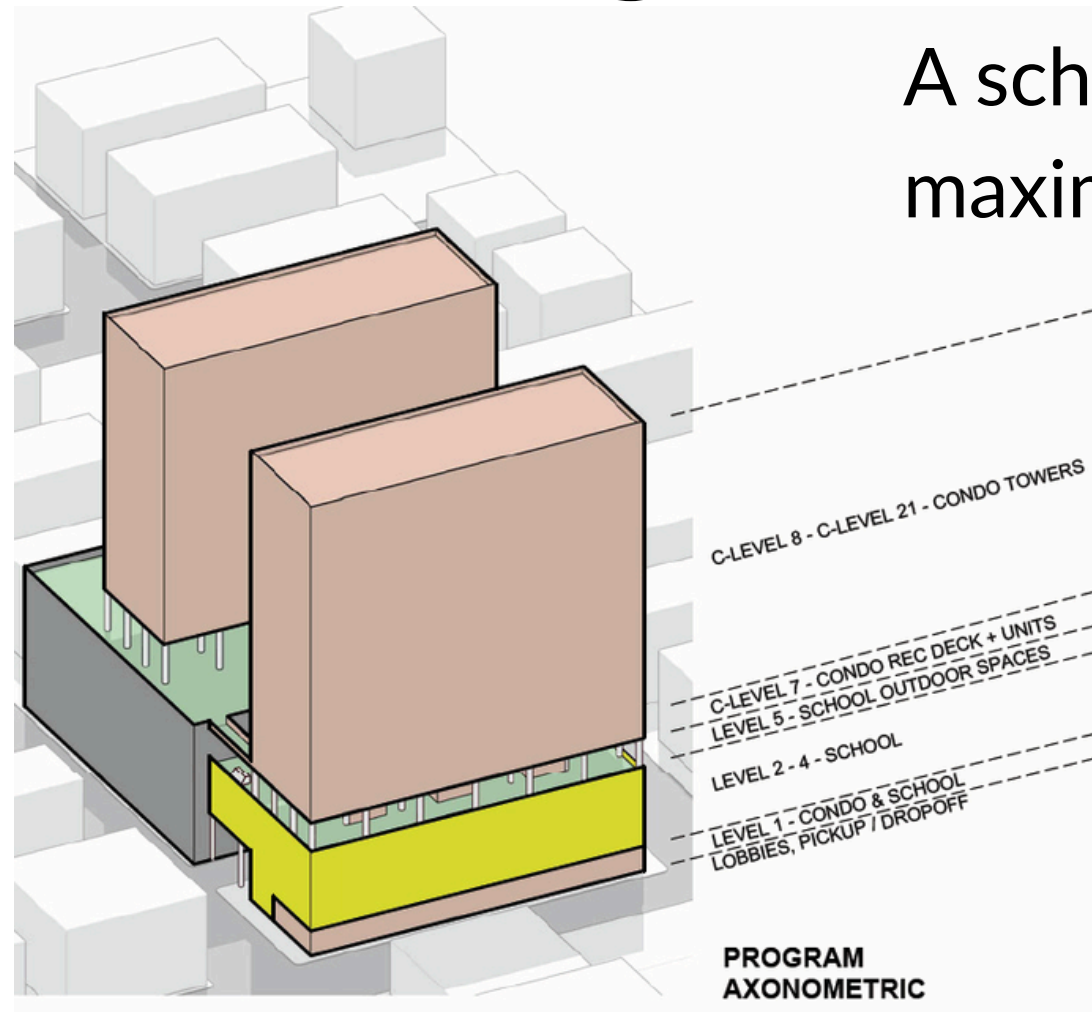
The Adjacent School



THiNK POLY LINE
Architecture + Urbanism

The Integrated School

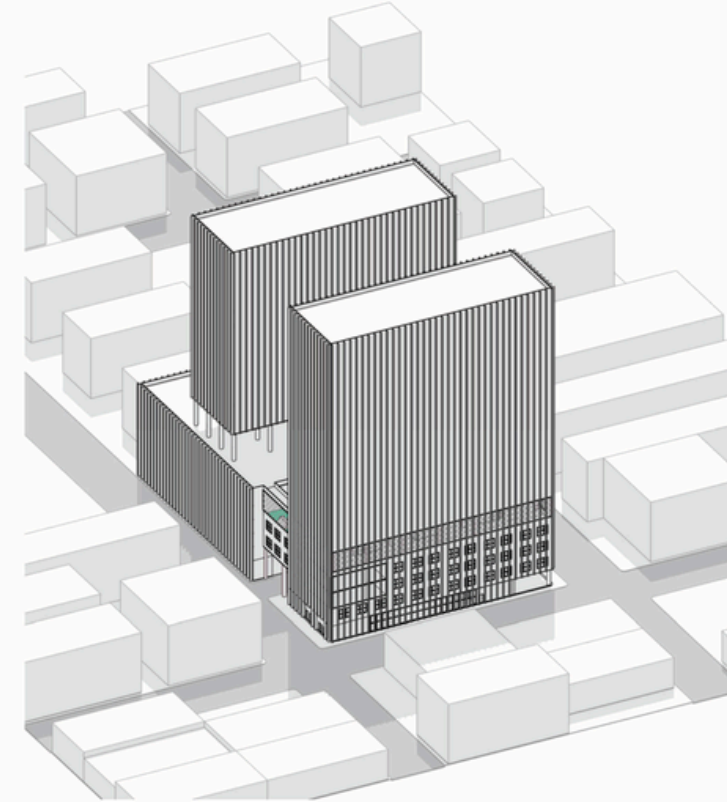
A school built within a high-rise (example shows podium levels), maximizing land use efficiency and sharing major utility systems.



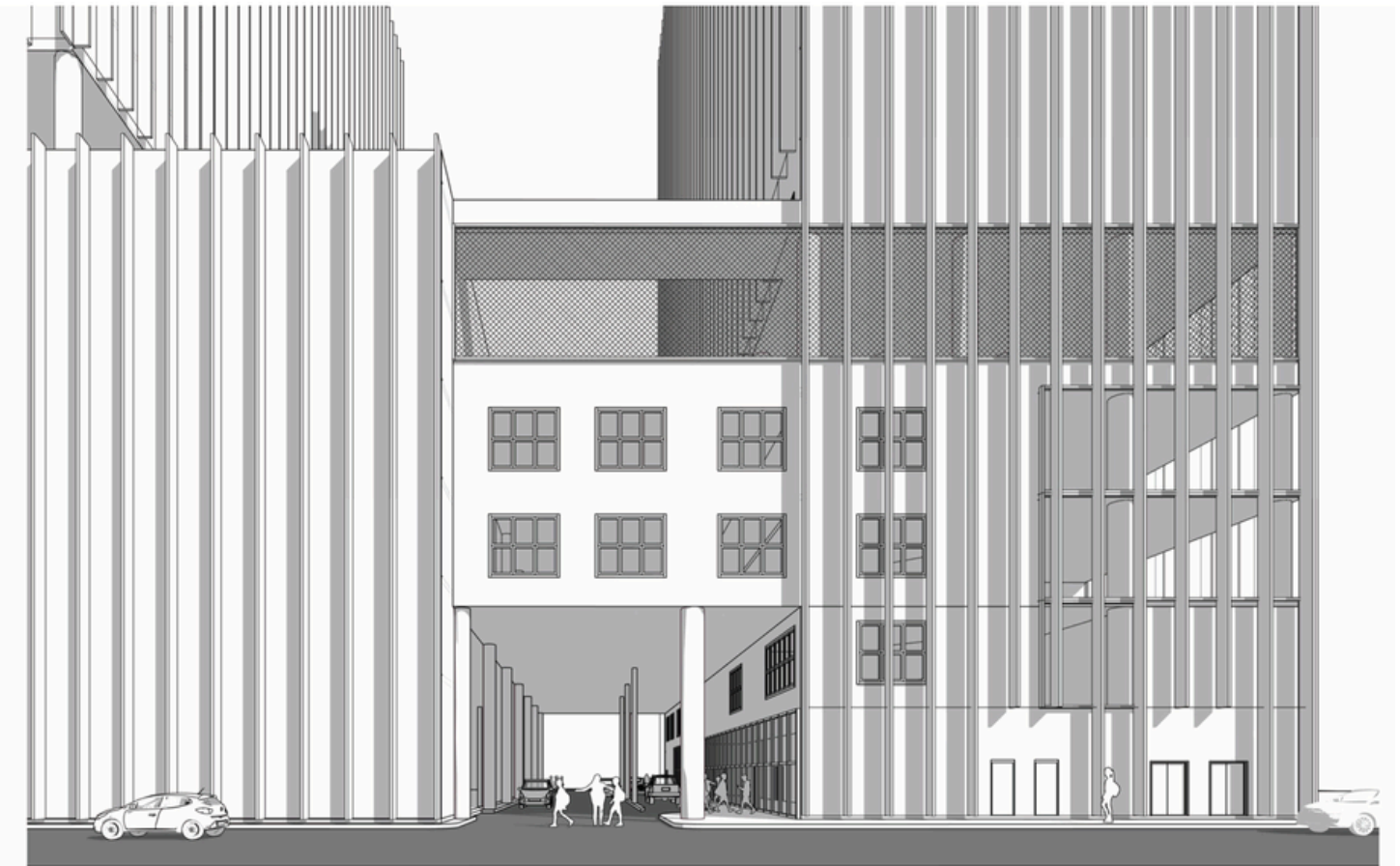
- School
- Parking
- Housing/Commercial/ Office

Integrated School

To create a cohesive overall structure between the school and private condo tower above, a unifying and consistent vertical shade fin system is proposed.

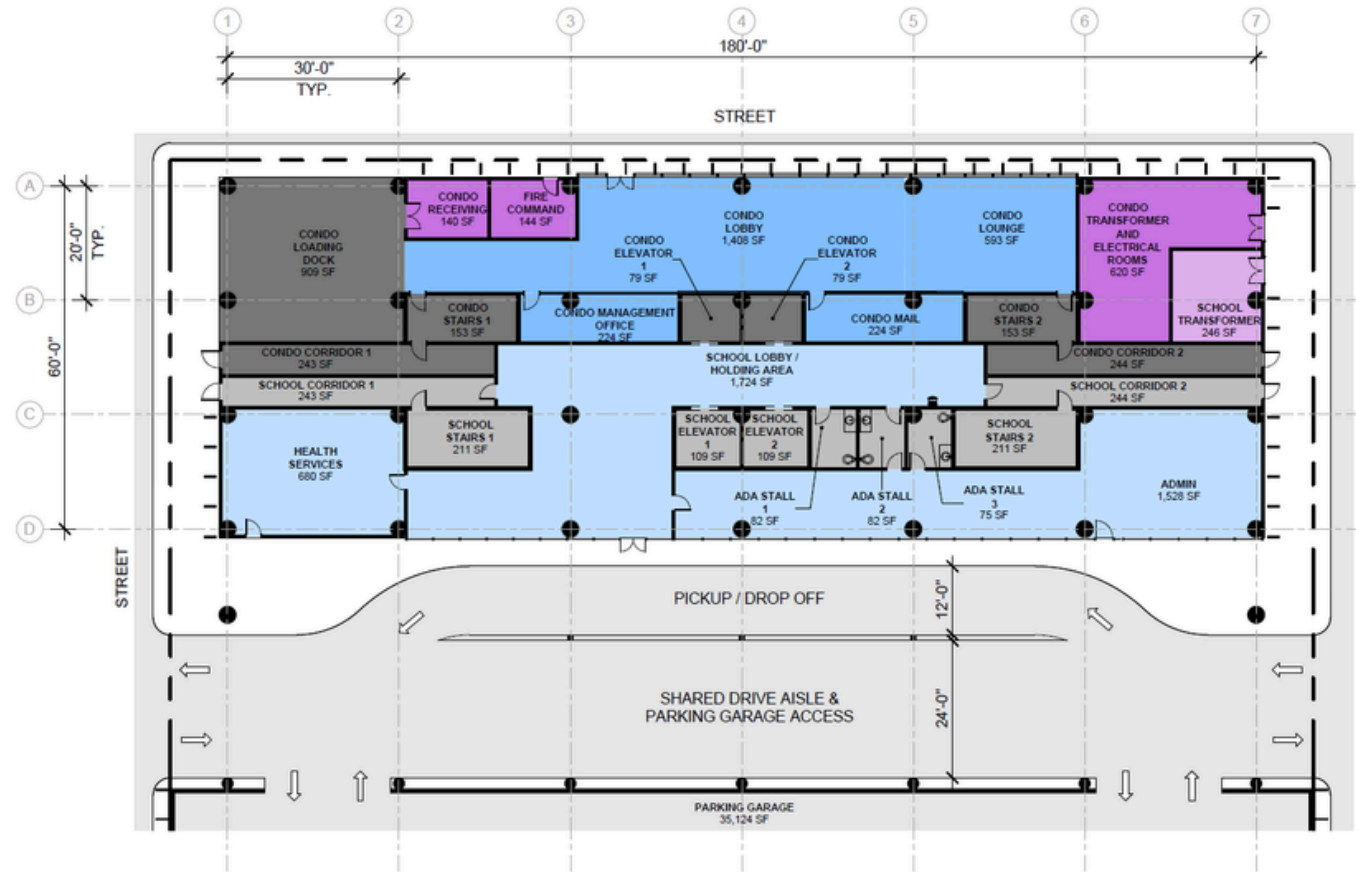


NORTHWEST OVERALL AXONOMETRIC VIEW



SHARED DRIVE AISLE VIEW

The Integrated School



1 GROUND FLOOR

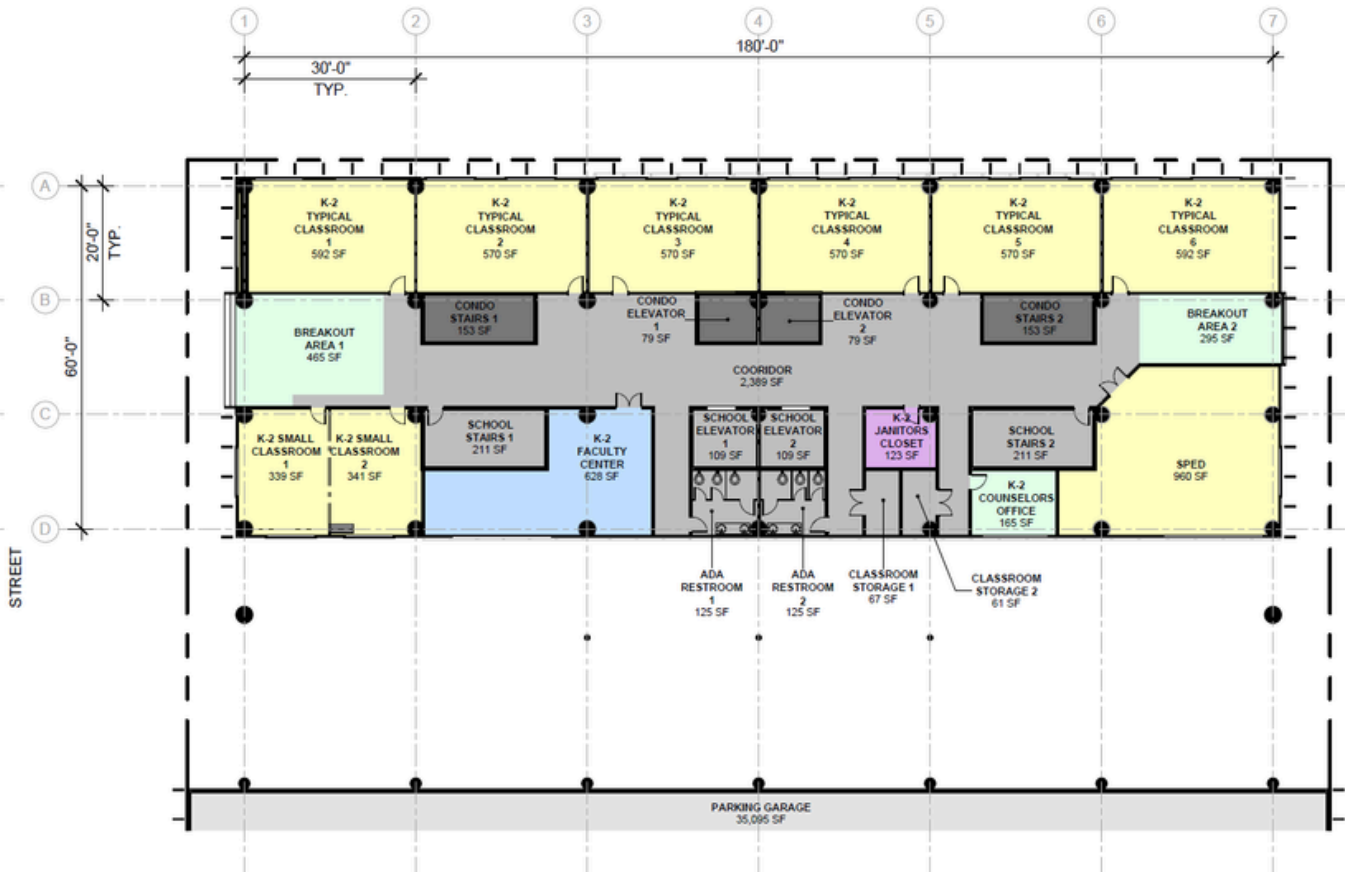
1" = 30'-0"

LEGEND

- ADMIN / STUDENT-ORIENTED SUPPORT
- SCHOOL SUPPORT / CIRCULATION
- SCHOOL BACK OF HOUSE SUPPORT
- CONDO - ORIENTED SUPPORT
- CONDO SUPPORT / CIRCULATION
- CONDO BACK OF HOUSE SUPPORT

DESIGN NOTES:

- SHARED DRIVE AISLE FOR SCHOOL PICKUP/ DROPOFF AND SHARED PARKING GARAGE ACCESS REDUCES CUEING OF CARS FOR EITHER USE ON CITY STREETS.
- SPLIT FLOOR PLATE FOR CONDO AND SCHOOL USE.



2 LEVEL 2

1" = 30'-0"

LEGEND

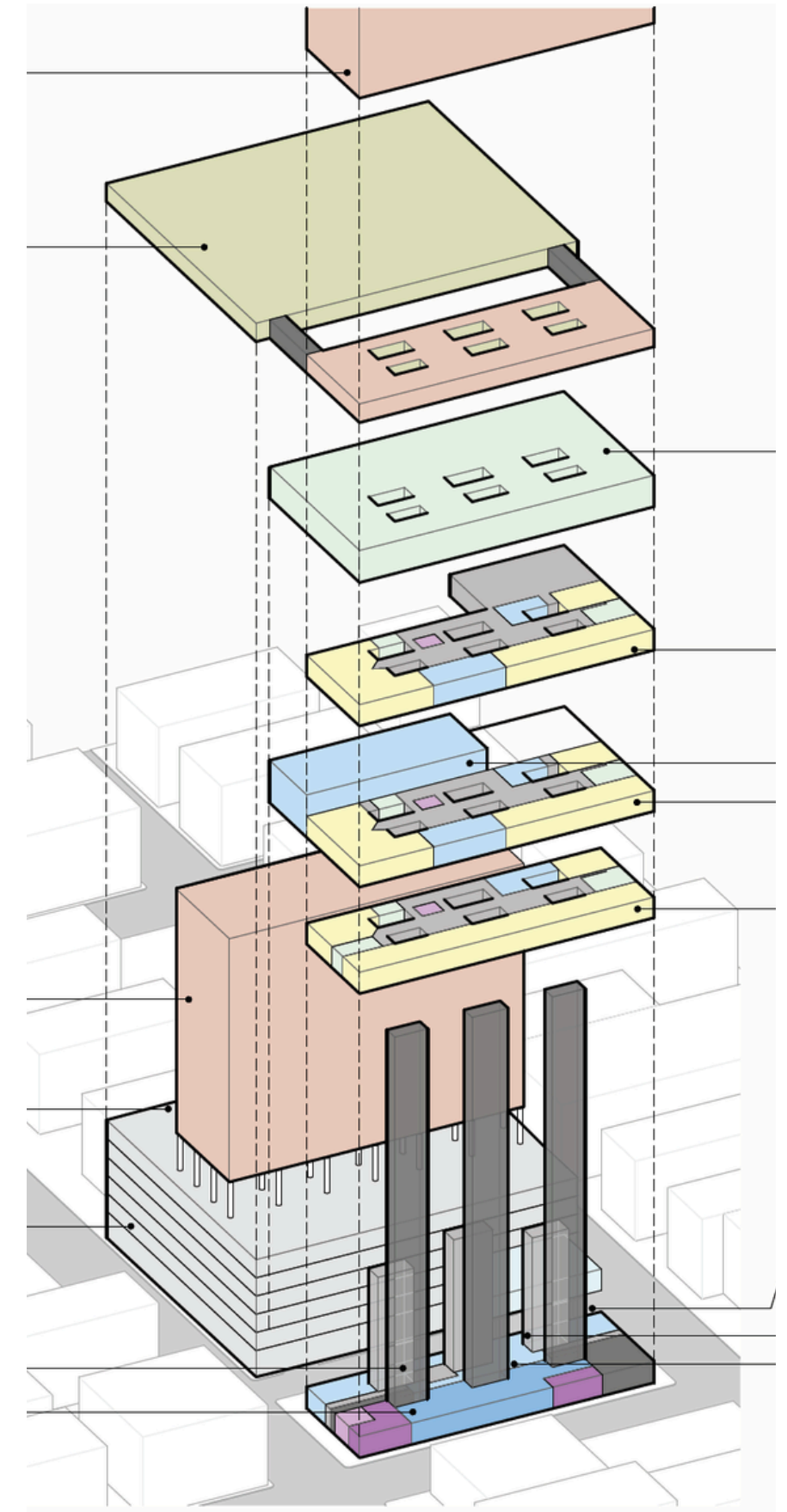
- INSTRUCTIONAL SPACES
- TEACHING SPACES / INSTRUCTIONAL SUPPORT
- ADMIN / STUDENT-ORIENTED SUPPORT
- SCHOOL SUPPORT / CIRCULATION
- SCHOOL BACK OF HOUSE SUPPORT
- CONDO SUPPORT / CIRCULATION

DESIGN NOTES:

- DOUBLE HEIGHT SHARED DRIVE AISLE FOR VEHICULAR CLEARANCE.
- GRADES K-2 AT SECOND FLOOR TO MINIMIZE THEIR INGRESS/ EGRESS TRAVEL DISTANCE.
- WIDE CORRIDORS FOR CIRCULATION, DAYLIGHT ACCESS FROM END WALLS, AND CREATING EXTERNAL CLASSROOM BREAKOUT AREAS.

Condo circulation

School circulation



Key takeaway

The 600-Student Model:

This report recommends shifting from the standard 900-student middle school model to a 600-student model

A smaller footprint allows schools to fit into tighter urban infill lots and aligns better with charter school and specialized academy enrollments.

Next Steps (The Ask)

- Bring SFA to the Table:
 - Initial design development meetings
 - master planning sessions
 - land use and infrastructure analysis
- Fund the Prototype:
 - Appropriate funds
 - commission technical design for a vertical school chassis
 - scale it statewide
- Include educational facilities in every project:
 - Outdoor learning environments
 - Flexible education spaces
 - trades learning opportunities

Brian Canevari

Program Manager

Brian.Canevari@hisfa.com

call/ text 808-896-5070





Hawai'i School Facilities Authority

Tools for Transit- Oriented Development

Brian Canevari

Program Manager

Brian.Canevari@hisfa.com

Friday, April 17, 2026