Schematic Design

DLRGROUP

PARKVIEW ELEMENTARY SCHOOL

CHICO UNIFIED SCHOOL DISTRICT

SCHEMATIC DESIGN
OCTOBER 2025

DLRGROUP

INDEX

Introduction and Design Research P.07

Proposed Program P.17

Site Analysis, Site Design & Proposed Project Phasing P.21

Building Design and Planning P.35

Appendix and Consultant Narratives P.97

Master Plan Budget Summary & Schematic Design Cost Estimate P.115

PROJECT TEAM

Chico Unified School District

Greg Blake	Superintendent of Schools
Tom Lando	Board of Education, President
Rebecca Konkin	Board of Education, Vice President
Gayle Olsen	Board of Education, Clerk
Eileen Robinson	Board of Education
Teisha Hase	Board of Education

Chico Unified School District Facilities Team

Julie A. Kristle	Director, Facilities/Construction
Maria Campos	Facilities Planner Construction Supervisor
Gareth Feldstein	Construction Manager
Evan Oelrichs	Construction Manager
Laura Markusen	Administrative Specialist
Kayci Tiner	Construction Records Technician

Chico Unified District Team General Oversight Committee

Steering Committee

Eileen Robinson - CUSD
Gareth Feldstein - CUSD
Heather Sufuentes - CUSD
Jaclyn Kruger - CUSD
Jessica Long
Julie Kistle - CUSD
Kelley Staley - CUSD
Kelly Skala
Laura Markusen
Leanne Miller
Mallory Alves
Maria Campos - CUSD
Marjorie Starkey
Stephanie Cunniff - Principal

Core Committee

Abby Bowen
Adrienne Jimmersen
Andrea Pappas
Bailey Lawrence
Beatriz Adriana
Blake Marchant
Brenna Hayes
Brittany Bledsoe
Cedric Lee
Christina Buck
Christine Gatti
Destny Brown
Emily Akimoto
Emily Lamb
Evalani Washington
Jaycee Singleton
Jeff Hayes
Jen Hays
Jessica Long
Jimena Garcia
Jodi Heithecker
Kelly Skala
Kevin Barry
Kurt Worley
Laura Markusen
Leanne Miller
Lisa Bristow
Mallory Alves
Mana Guadalupe Torres D.
Michelle Morris
Nichole Kermen
Peter Washington
Phil Strawn
Rachelle Page
Renee Harrison
Sarah Page
Tamara Manning
Tasha Cody

Design Team

Jesse Miller	Principal in Charge
Melissa Szpik	Client Leader
Dusty Bagliere	Project Manager
Chris McGiff-Brown	Design Leader
Alex Gordon	Design Architect
Jessica Crandall	Project Designer
Bryan Pliez	Designer
Kimberly Thach	Designer
Dean Menchaca	Designer
Fabiola Catalan	Senior Interior Designer
Corinne Smith	Interior Designer
Marilyn Denison	BOLD Ed Leader
Anat Grant	Acoustical Designer
Amir Nezamdoost	High Performance Design, Climate Strategy

Consultant Team

Rolls Anderson & Rolls	Civil Engineer
Melton Design Group	Landscape Architect
RW Engineers	Structural Engineer
The Engineering Enterprise	Electrical Engineer & Fire Alarm
Capitol Engineering Team	Mechanical and Plumbing Engineer, and Fire
AMD	Food Service

01

INTRODUCTION & DESIGN RESEARCH

Introduction

Executive Summary

Parkview Elementary School embraces its strong identity as a STEM-focused, neighborhood-centered campus that celebrates creativity, discovery, and connection to nature. Located in Chico, California, the existing campus will be redeveloped into a modern, innovative learning environment that reflects its proximity to Bidwell Park and its legacy of hands-on, experiential education. Designed to serve grades TK through 5, the new campus includes an administration and multipurpose complex, a TK–K classroom wing, and three learning clusters with integrated SPED and collaboration spaces. The modernization captures the essence of "PARK. PLAY. EXPERIMENT." — weaving natural inspiration and scientific curiosity into every aspect of the school's architecture, landscape, and learning experience.

Project Overview

The Parkview Elementary School project reimagines the existing site as a dynamic, park-like campus that blends indoor and outdoor learning. Guided by the concept "PARK. PLAY. EXPERIMENT.", the design connects the joy of exploration with the structure of inquiry-based STEM education. The plan balances efficient new construction with outdoor learning environments, flexible courtyards, and shaded play zones that encourage creativity, movement, and discovery. Every element of the site— from the color palette to the landscape design—reflects the interplay of nature, experimentation, and curiosity that defines Parkview's educational mission.

Design Vision

Anchored in the guiding principles to Celebrate Parkview's STEM Identity, Embrace Bidwell Park and the Neighborhood Context, Expand Classrooms to Outdoor Learning Environments, and Provide Safe, Inviting Access and Teacher Support Spaces, the design organizes the campus around a central spine of connected learning zones. Classrooms extend directly into outdoor areas where students can observe, build, and experiment. A series of shaded porches, gardens, and discovery nodes offer opportunities for learning through play and environmental engagement. The building massing and site layout frame views toward Bidwell Park, reinforcing a seamless connection between campus and nature while creating safe, visible circulation paths that unify the site.

Learning Environments

*The new learning clusters are designed to support STEM-based, project-driven exploration through flexible classroom layouts, breakout labs, and collaborative studios. Interior spaces open to outdoor learning terraces that function as extensions of the classroom—supporting science experiments, small group projects, and environmental observation. The integration of natural light, sustainable materials, and color cues** fosters an atmosphere of curiosity, calm, and creativity. Teachers benefit from enhanced workspaces and shared prep areas that strengthen collaboration and instructional support.*

Safety and Security

Safety and accessibility are central to the campus organization. The design provides defined entry points, open sightlines, and intuitive circulation that allow for clear supervision without compromising openness. Landscaped buffers, fencing, and pathways balance security with a welcoming atmosphere, ensuring that the school feels both safe and connected to its community.

Community and Legacy

Parkview Elementary School's transformation reflects the essence of "PARK. PLAY. EXPERIMENT." — a celebration of nature, imagination, and the spirit of learning through discovery. The design honors the school's connection to Bidwell Park while providing a modern, inclusive environment that supports the next generation of scientists, thinkers, and creators. More than a school, Parkview becomes a living laboratory—a place where curiosity takes root, play sparks innovation, and every student feels inspired to explore the world around them.

Parkview Elementary School's Mission Statement

To provide Parkview S.T.E.M. School students with an engaging curriculum for a world that is increasingly dependent upon science, technology, engineering, and mathematics.

Design Research

History

Chico, California, is located in the northern Sacramento Valley, a region long inhabited by the Mechoopda Maidu people who lived along local streams and relied on the valley's fertile resources. The city was formally established in 1860 by General John Bidwell, a pioneer and landowner whose influence shaped the town's early development. Bidwell's planning, agricultural innovation, and civic investment laid the foundation for the community that followed.

Chico quickly grew as an agricultural and trade hub. The area's rich soils supported orchards, vineyards, and grains, while the arrival of the railroad in the 1870s connected Chico to larger regional and state markets. This growth was accompanied by the development of lumber and milling industries, as well as civic and cultural institutions. A key milestone came in 1887 with the establishment of the Chico Normal School, now California State University, Chico, which continues to define the city's character as an educational and cultural center.

The built environment of Chico reflects its layered history. Historic structures downtown, the grid of Bidwell's original plan, and the presence of California bungalows and early 20th-century commercial buildings all speak to its periods of growth. Equally influential is Bidwell Park, donated to the city in 1905, which remains one of the largest municipal parks in the nation. This integration of urban fabric and natural landscape is central to Chico's identity, offering a balance of civic life, education, and access to open space.

Established in 1961, Parkview Elementary School has long been an important part of south Chico's educational and neighborhood landscape. Located near the edge of Bidwell Park, the school reflects Chico's broader connection between community and nature. Over the decades, Parkview has grown alongside its surrounding neighborhoods, serving generations of families and adapting to the city's evolving educational goals. Known for its emphasis on environmental awareness, hands-on learning, and strong community ties, Parkview continues to function as both a center of learning and a gathering place. Its enduring presence speaks to Chico's values of education, connection to place, and the integration of people, landscape, and community.

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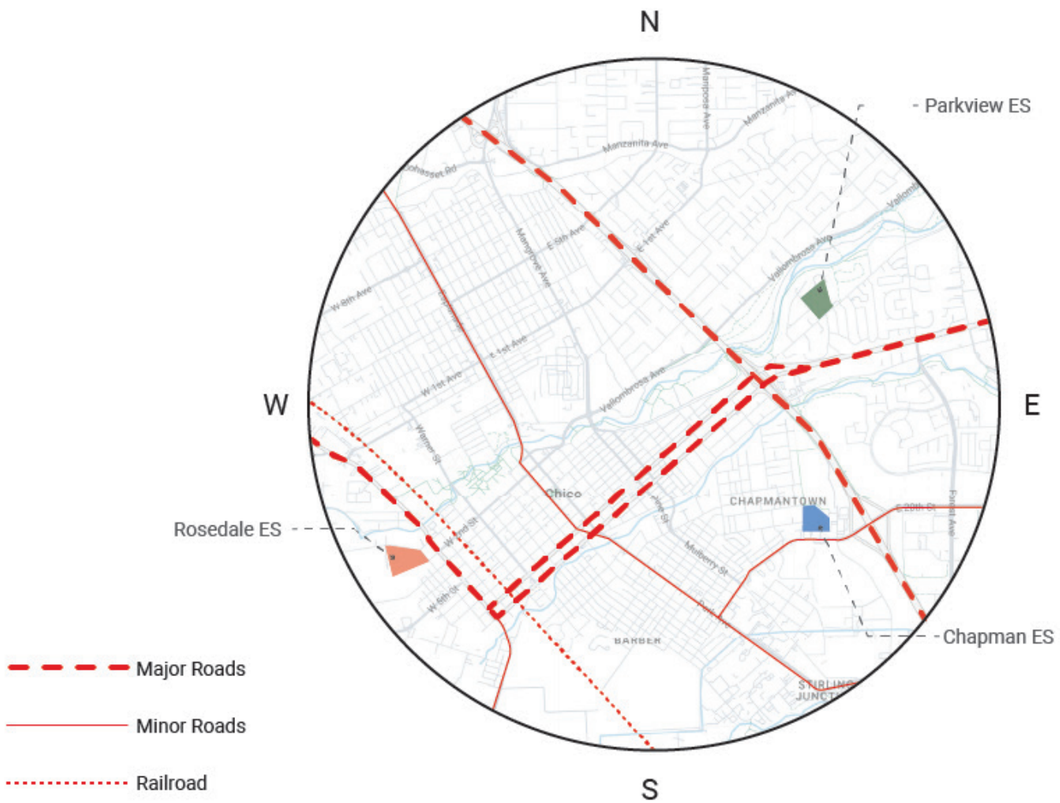
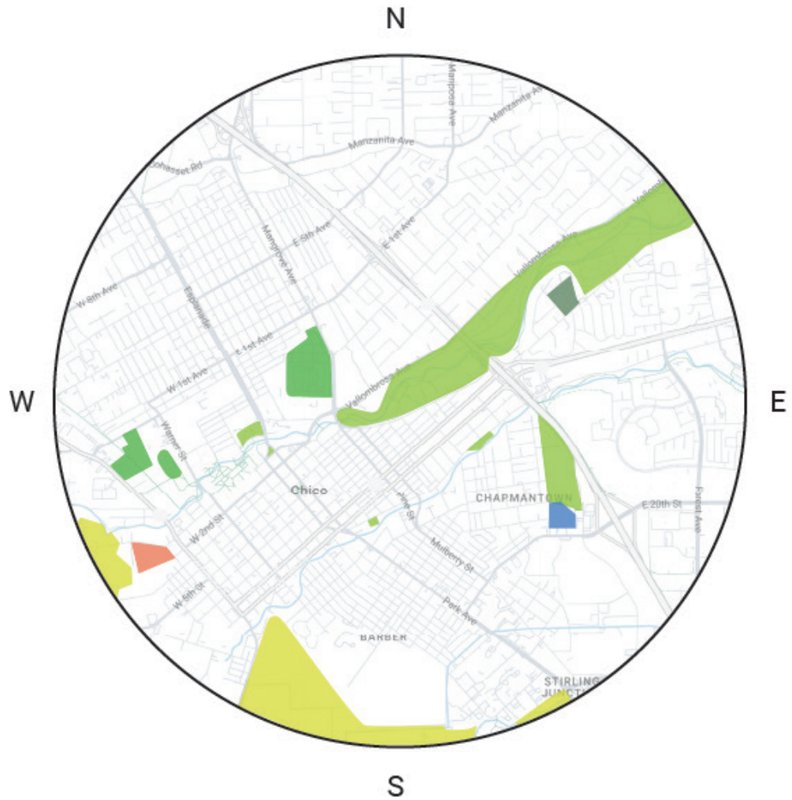
Site Research Diagrams

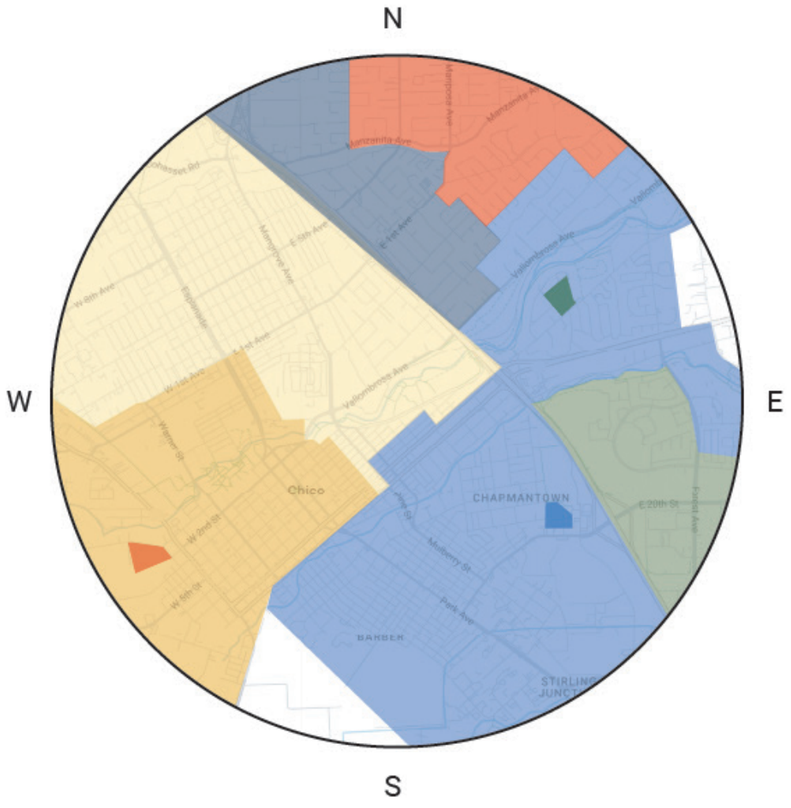
Transportation



Natural Features and Green Spaces



Neighborhoods | Communities



Communities

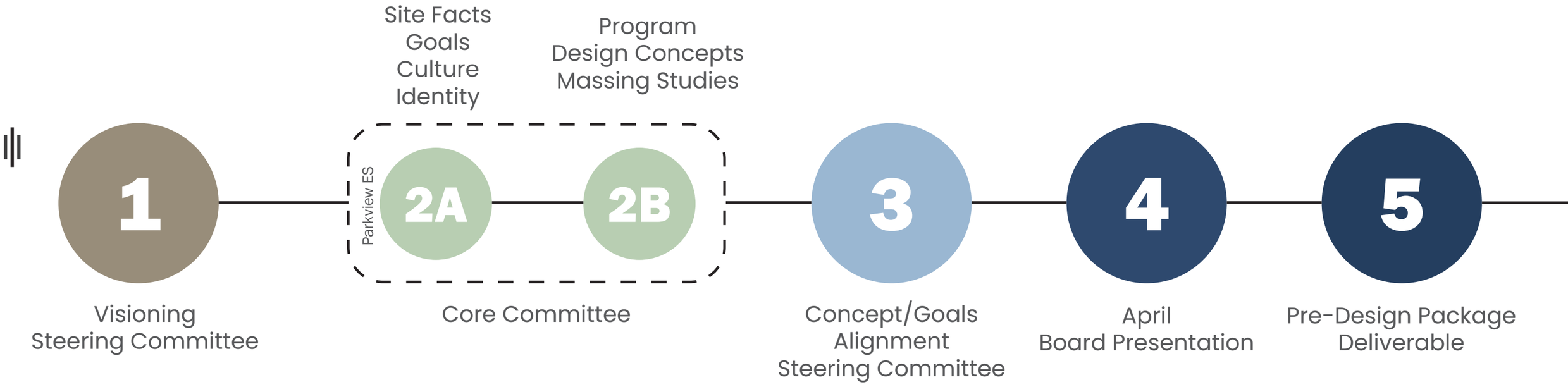
- District #2
- District #3
- District #4
- District #5
- District #6
- District #7

- Elementary Schools
- Jr. High Schools
- High Schools
- California State University, Chico

Process Overview

PRE-DESIGN COMMUNITY ENGAGEMENT

During the Pre-Design phase, the district and DLR Group engaged in series of meetings to establish the foundation for the project. The first session was a visioning workshop with the Steering Committee to define goals and priorities for the new school. Meetings 2A and 2B engaged the Core Committee in refining educational needs, site opportunities, and design principles. The Steering Committee then regrouped in Meeting 4 to align on key takeaways and direction. In conclusion the Architect's presented the Pre-Design findings and conceptual framework to the School Board for feedback and approval to proceed into Schematic Design.



SCHEMATIC DESIGN
COMMUNITY ENGAGEMENT

Weekly Facilities Meeting
Start

SD PHASE BEGINS **6/1**

6

COMMUNITY MEETING **8/26/25**

In August/September participants gathered for a Schematic Design community meeting. Parents, teachers, students, and local stakeholders were invited to review and discuss early concepts for the new elementary school. The design team presented site plans, floor layouts, and imagery that reflect feedback from previous visioning sessions. Attendees were encouraged to share ideas about learning environments, campus safety, outdoor spaces, and community use. The discussion helped refine priorities and ensure the design captures the school's unique identity and educational goals.

7

STEERING MEETING **9/15**

Following the community meeting, The Steering Committee and Architect's convened to review the feedback collected from participants. The group analyzed recurring themes and key priorities—such as safety, flexibility, and connection to nature—to determine how they could be reflected in the evolving Schematic Design. Architects and district representatives discussed potential design refinements, weighing community input against budget, program, and site constraints. This collaborative session ensured that the ideas shared by stakeholders directly informed the next iteration of the school's design.

Weekly Facilities Meeting
Finish

100% Schematic Design
SUBMITTAL **10/7**


MULTIPURPOSE

02
PROPOSED PROGRAM

Proposed Space Program

Chico Unified School District — 10/6/2025

Spatial Program - Parkview Elementary School

496 Student Population

Space/Functional Area	No. of Spaces	Net S.F.	Total Net S.F.	Acrual No. of Spaces	Actual S.F.	No. of T.S.	No. of Students	Capacity	Notes
ADMINISTRATION									
Main Office									
Main Office Lobby / Visitor Waiting	1	200	200	1	281				visitor waiting, single point of entry
Admin / Open Office/Reception	1	250	250	1	443				Counter, 2-3 workstations - Office Manager / Attendance
Office 1 - Principal	1	200	200	1	218				Principal and 4 visitors
Office 2	1	130	130	1	138				
Office 3	1	130	130	1	131				
Office 4	1	0	0	1	108				
Nurse/Health	1	200	200	1	256				2 desk/1-2cots/ 2-4 chairs
Toilet	1	65	65	1	69				
Storage	1	60	60	1	61				
Counselor	1	160	160	1	177				
Case Manager	1	100	100	1	102				
Case Manager Storage	1	50	50	1	50				Clothes, etc for students in need
Workroom /Mail Room	1	400	400	1	352				Mail distribution, workroom. # of mail slots?
Supply Storage	1	80	80	1	83				
File Storage Room	1	80	80	1	78				
Staff Room/Lounge	1	400	400	1	415				
Lactation Room	1	80	80	1	73				
Conference Room	1	375	375	1	236				25 sf per occupant (15 occupants)
Parent/Community Services	1	300	300	1	254				Accessible from lobby
Staff Restrooms	2	65	130	2	132				Adjacent to Staff Room or Workroom
Public Restrooms	1	65	65	1	69				Direct access/superviseable from the Main Lobby
Wellness Center									
Wellness Waiting	1	300	300	1	567				
Quiet Room	1	100	100	1	104				Combined with Hotelling Office
Speech Therapist	1	150	150	1	136				
Psychologist	1	150	150	4	332				Next to SPED Classroom
Hotelling Office	1	130	130	0	0				
Administration Sub Total			**4,285**		**4,865**				

Chico Unified School District — 10/6/2025

Spatial Program - Parkview Elementary School

496 Student Population

Space/Functional Area	No. of Spaces	Net S.F.	Total Net S.F.	Acrual No. of Spaces	Actual S.F.	No. of T.S.	No. of Students	Capacity	Notes
K-5 INSTRUCTIONAL COMMUNITY									
TK-Kindergarten Instructional Community									Based off of Emma Wilson TK-K Classrooms
TK Classroom	2	1,220	2,440	2	2,566	2	24	48	District capacity 24; direct access to playground and restrooms; per Ed Spec 1200 sf
TK Restroom	2	65	130	2	84				Classroom restroom
Kindergarten Classroom	3	1,220	3,660	3	3,795	3	24	72	Direct access to playground and restrooms
K Restroom	3	65	195	3	143				Classroom restroom
Teacher Collaboration / Workroom	3	200	600	3	590				
Outdoor Learning									Varies
Single-Use Restrooms	0	0	0	3	207				Student and Staff
TK-Kindergarten Sub Total			**7,025**		**7,385**	**5**		**120**	
Grade 1-5 Instructional Community									
1-3 Classroom	9	960	8,640	9	8,892	9	**24**	216	District Capacity 1-3: 24; 4-5: 28, sink, 2 CLRs per grade
4-5 Classoom	5	960	4,800	5	4,940	5	28	140	1 classroom to house a 4-5 grade class.
Small Group Collaboration	7	120	840	4	3,384				Central combined space connecting a pod of classrooms. Includes circulation space.
Outdoor Learning									Varies
Instruction Community Sub Total			**14,280**		**17,216**	**14**		**356**	
FLEX Classroom									**STEM, Art**
Classroom	2	1,350	2,700	2	2,732	2	0	0	classroom; storage in room, 8-10 computers, 2-6 sinks, dry/clean area
FLEX Classroom Sub Total			**2,700**		**2,732**	**2**		**0**	**Not Loaded for School Capacity per Master Plan**
Bubble Classroom									
Classroom	1	960	960	1	988	1	0	0	This is a classroom that can adjust to any grade level as needed year to year.
Bubble Classroom Sub Total			**960**		**988**	**1**		**0**	**Not Loaded for School Capacity per Master Plan**
Restrooms									
Grades 1-3 Restrooms	2	200	400	0	0				May adjust per code.
Grades 4-5 Restrooms	2	200	400	0	0				May adjust per code.
Staff Single-Use Restroom	2	65	130	4	320				
Student Single-Use Restroom	0	0	0	16	452				4 stalls per pod
Restrooms Sub Total			**930**		**772**				
SPECIAL EDUCATION									
SDC - Extensive Needs (TK-2 and 3-5)	2	1,250	2,500	4	5,056	2	10	20	large group, Conf space. Add an operable partition in middle to divide into two equal spaces.
Restroom	2	100	200	4	404				Restroom with changing table.
SPED Mild/Mod (TK-2 and 3-5)	2	1,350	2,700	0	0	0	0	0	small group, full class seating, one to one instruction, includes restroom.
Special Education Sub Total			**5,400**		**5,460**	**2**		**20**	

Chico Unified School District **10/6/2025**

Spatial Program - Parkview Elementary School

496 Student Population

Space/Functional Area	No. of Spaces	Net S.F.	Total Net S.F.	Acrual No. of Spaces	Actual S.F.	No. of T.S.	No. of Students	Capacity	Notes
LIBRARY									
									After hours use. Access to front of school. Possible adjacency to a Flex/STEM Lab
Circulation / Charge Desk / Control	1	120	120	1	0				
Librarian Office	1	100	100	1	116				
Learning Commons / Stack Space	1	600	600	1	0				book cases on perimeter, floating book cases.
Reading Area/Presentation Space	1	960	960	1	0				digital display like a classroom setting. Staff Meetings
Large Group Collaboration	1	420	420	1	0				24-28 students; 15 net sf/student = 420 sf Separate enclosed space off of the library
Library Area	0	0	0	1	2,065				Circulation / Charge Desk / Control, Learning Commons / Stack Space, Reading Area/Presentation Space, & Large Group Collaboration
Workroom/Storage	1	250	250	1	198				
Library Sub Total			**2,200**		**2,379**				
MULTI-PURPOSE									
Multipurpose/Dining									
Dining	1	3,800	3,800	1	3,771				Dining and PE, In wall tables.
Exterior - covered dining	1	0	0	1	0				Roughly 1900 sf of exterior space
Stage	1	700	700	1	798				Raised stage, ramp. Roll-Up door to the ext. with access to exterior raised platform.
After School Program Office	1	100	100	1	108				
After School Storage	1	200	200	1	215				
Storage									
Music/Chair Storage	1	130	130	1	130				Stage Storage
PE/MPR Equipment Storage	1	300	300	1	305				Access interior and exterior
Restrooms	2	400	800	2	385				Access to MPR and the Exterior
Single-Use Restroom	0	0	0	0	0				
Custodial	1	100	100	1	110				
Kitchen									**Kitchen is a District Standard layout. Use McManus ES layout.**
Servery	1	212	212	0	0				4' W Doors
Kitchen	1	1,142	1,142	1	1,355				4' W Door to the Service Yard. Combined with Servery
Walk-In: Freezer	1	140	140	1	124				
Walk-In: Cooler	1	140	140	1	124				
Dry Storage	1	140	140	1	140				
Office	1	100	100	1	90				Visibility into kitchen
Custodial	1	50	50	0	0				
Single-Use Restroom	1	65	65	1	73				3-4 Lockers outside of restroom in hallway
Exterior Service Yard with Can Wash	1	0	0	1					Service yard door to kitchen 4'-0"
Multipurpose Room Sub Total			**8,119**		**7,728**				
GENERAL SUPPORT SPACE									
MDF	1	120	120	1	111				
IDF	4	60	240	7	553				May vary depending on number of buildings
Electrical - Main	1	160	160	0	0				
Electrical - Secondary	1	60	60	7	363				May vary depending on number of buildings
Campus Storage	2	400	800	2	196				Throughout campus.
Custodial	3	80	240	6	421				Throughout campus.
Custodial Supply	1	180	180	0	0				Could be the custodial space at MPR.
General Support Sub Total			**1,800**		**3,005**				
Sub Total Square Footage			**47,699**		**52,530**	**24**		**496**	
Circulation & Grossing Factor (25%)			**11,925**		**3,964**				Includes circulation, fire rises, and building structure.
Campus Total Square Footage			***59,624***		**56,494**	***24***		***496***	


PARKVIEW
ELEMENTARY
Praseodymium
Erbium
Einstei-nium
Magnesium
Erbium
Neodymium
Titanium
Gold
Radon
Yttrium

03
SITE ANALYSIS, SITE DESIGN & PROPOSED PROJECT PHASING

Existing Parkview Elementary School Site Aerial and Images

1

Street View

2

Street View - Entrance

3

Lunch Shelter View

4

Playground View

5

Playground View

6

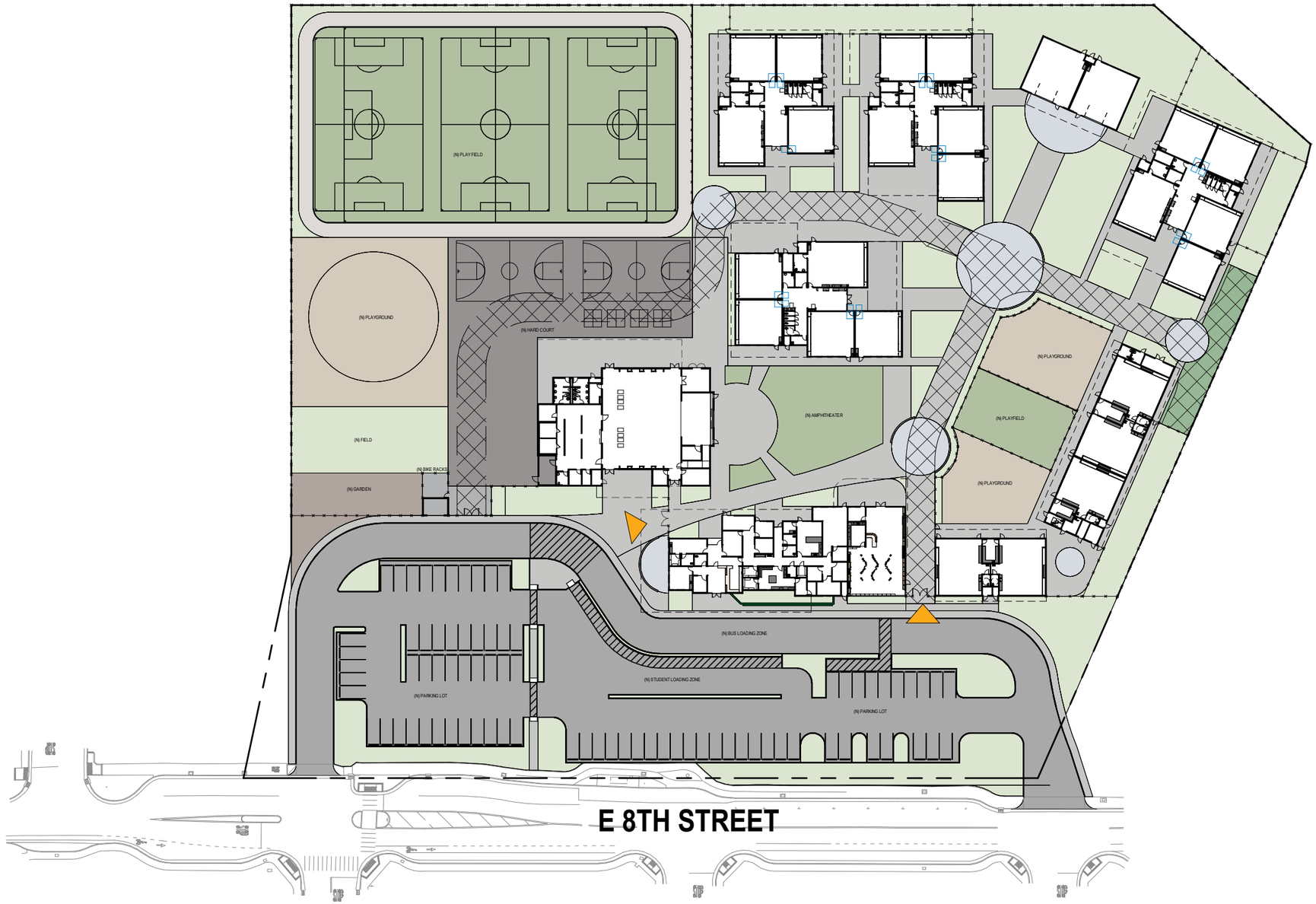
Courtyard View

7

Hard-court View

DLR GROUP

Site Plan - Overall



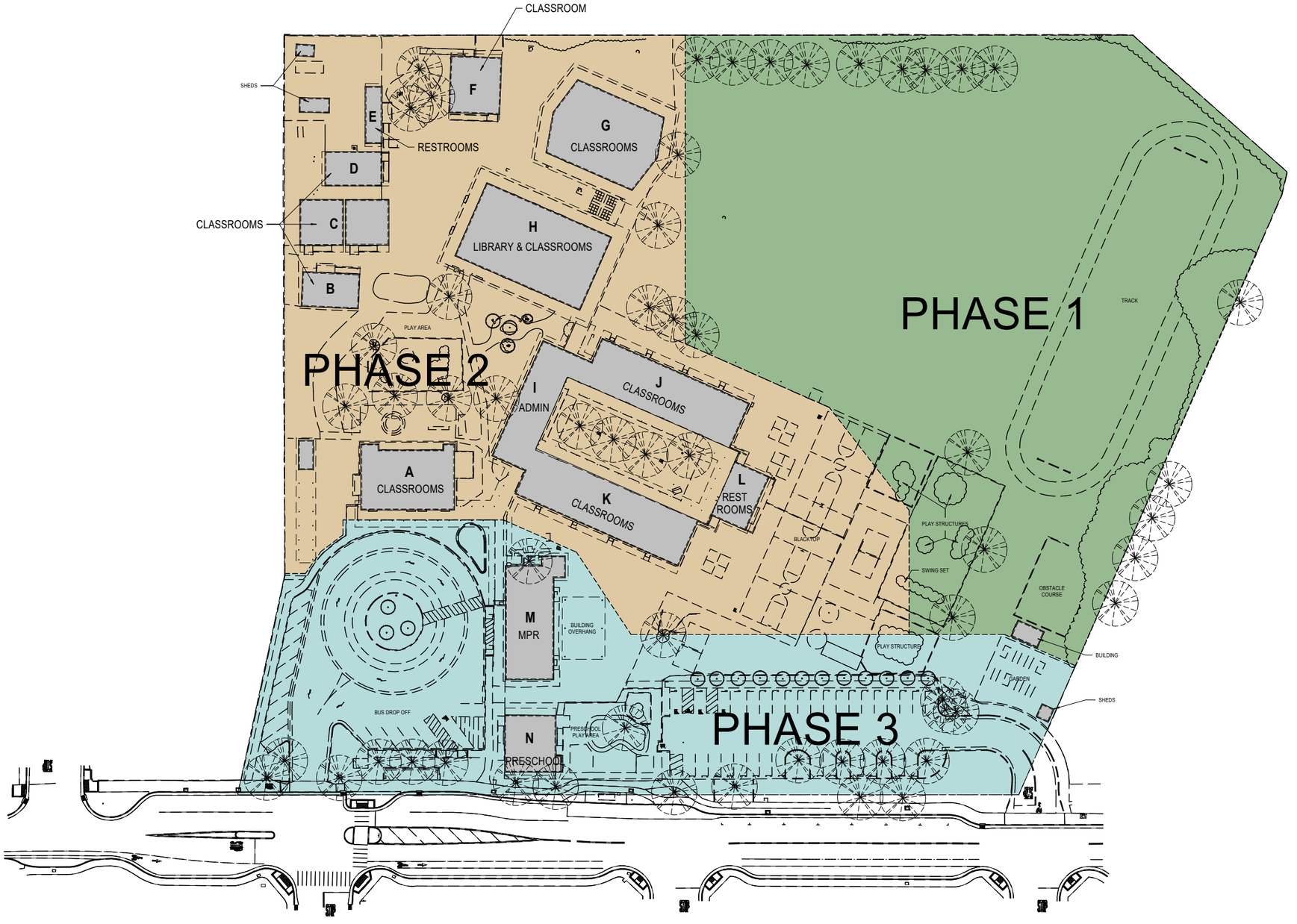
	TOTAL SITE
Elementary School:	7.72 Acres
Projected Enrollment:	496
Existing Parking:	49 Spaces
Planned Parking:	80 Spaces

Legend

- Pedestrian Entry
- 6’-0” Fence
- Property Line

N

Site Plan - Overall Phasing



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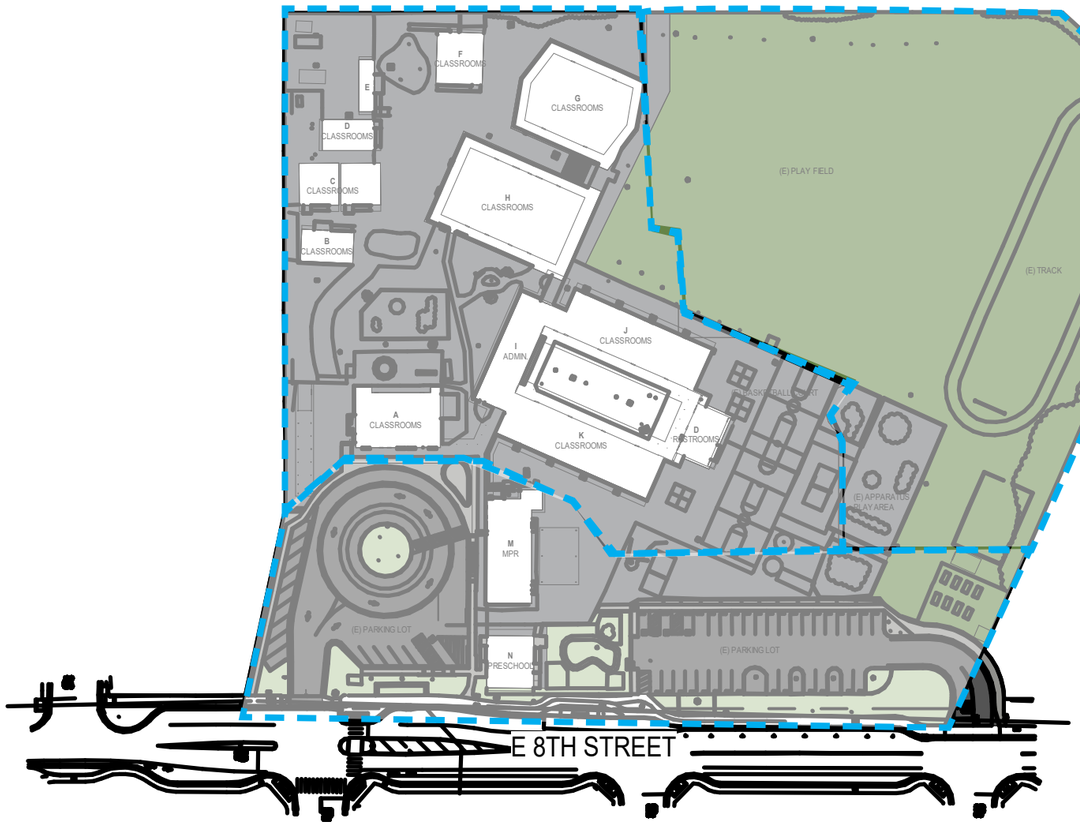
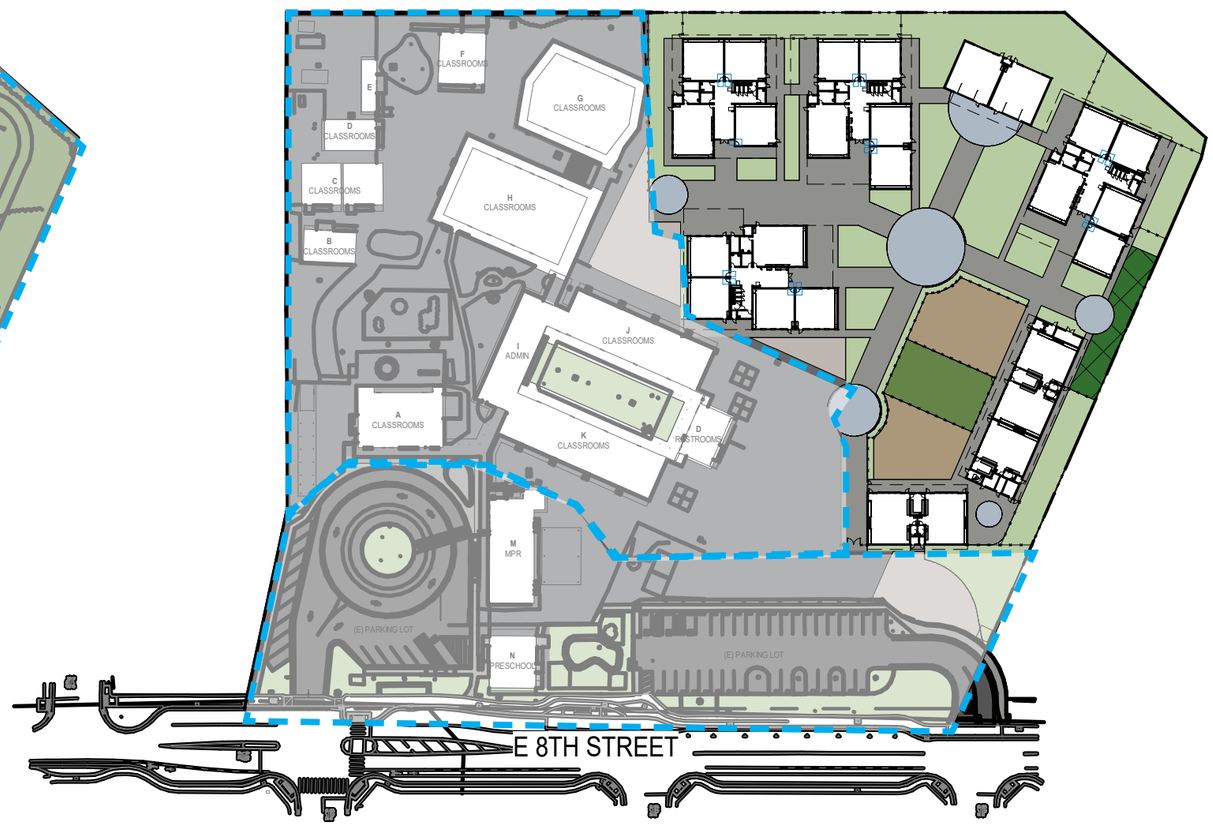
DLR GROUP

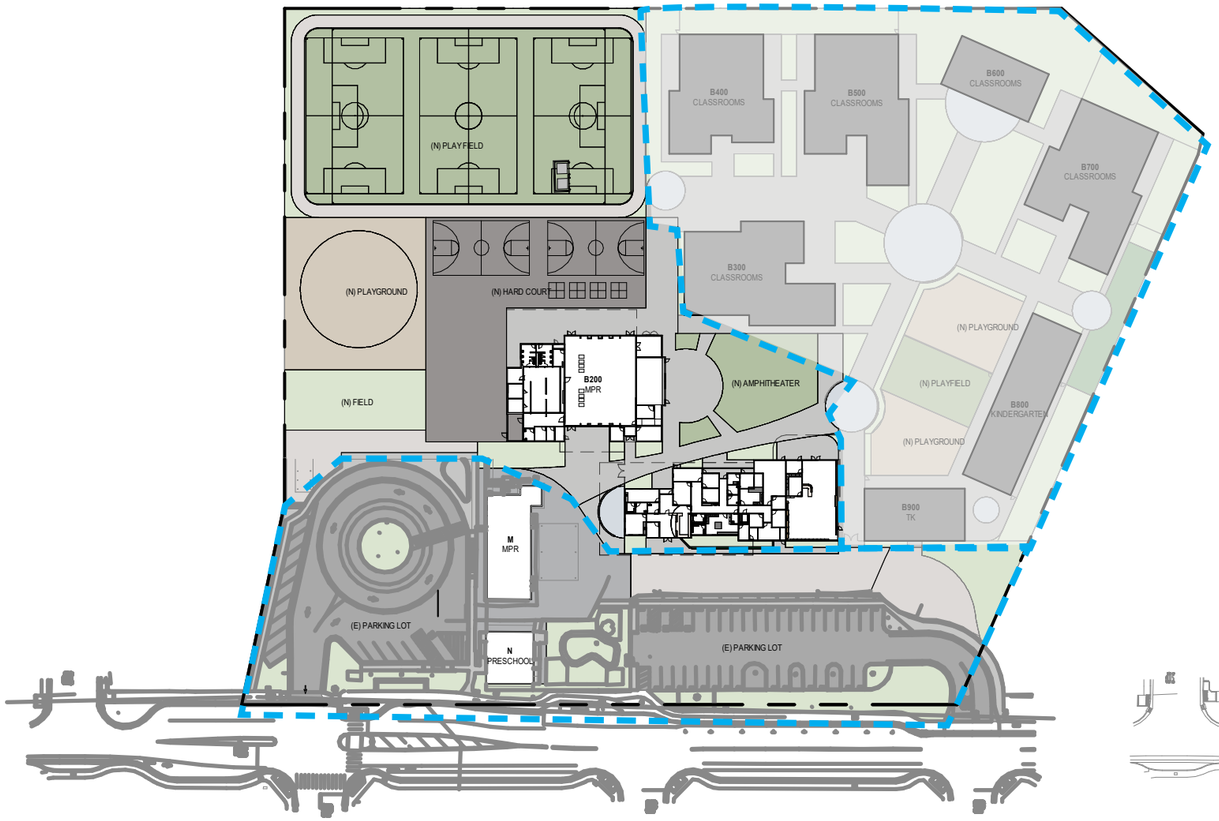
Phasing Sequence



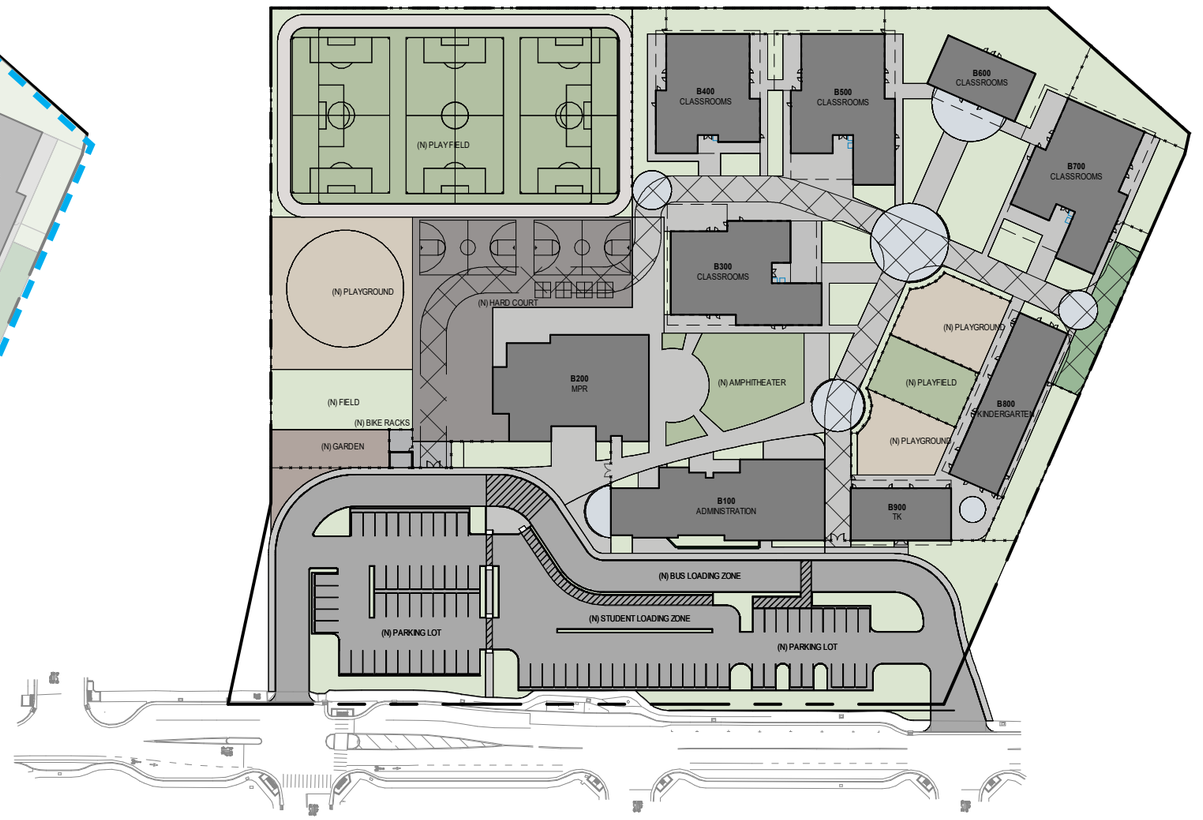
PARKVIEW ELEMENTARY SCHOOL
EXISTING SITE PLAN



PARKVIEW ELEMENTARY SCHOOL
SITE PLAN = PHASE 1 (NEW CONSTRUCTION)
BUILDINGS 300, 400, 500, 600, 700, 800, 900, 1000, 1100



PARKVIEW ELEMENTARY SCHOOL
PHASE 2: COMPLETE ADMINISTRATION BUILDING, MPR, AND FIELDS.
PHASE 3: COMPLETE PARKING LOT



PARKVIEW ELEMENTARY SCHOOL
PHASE 1, 2, 3: COMPLETE

DLR GROUP

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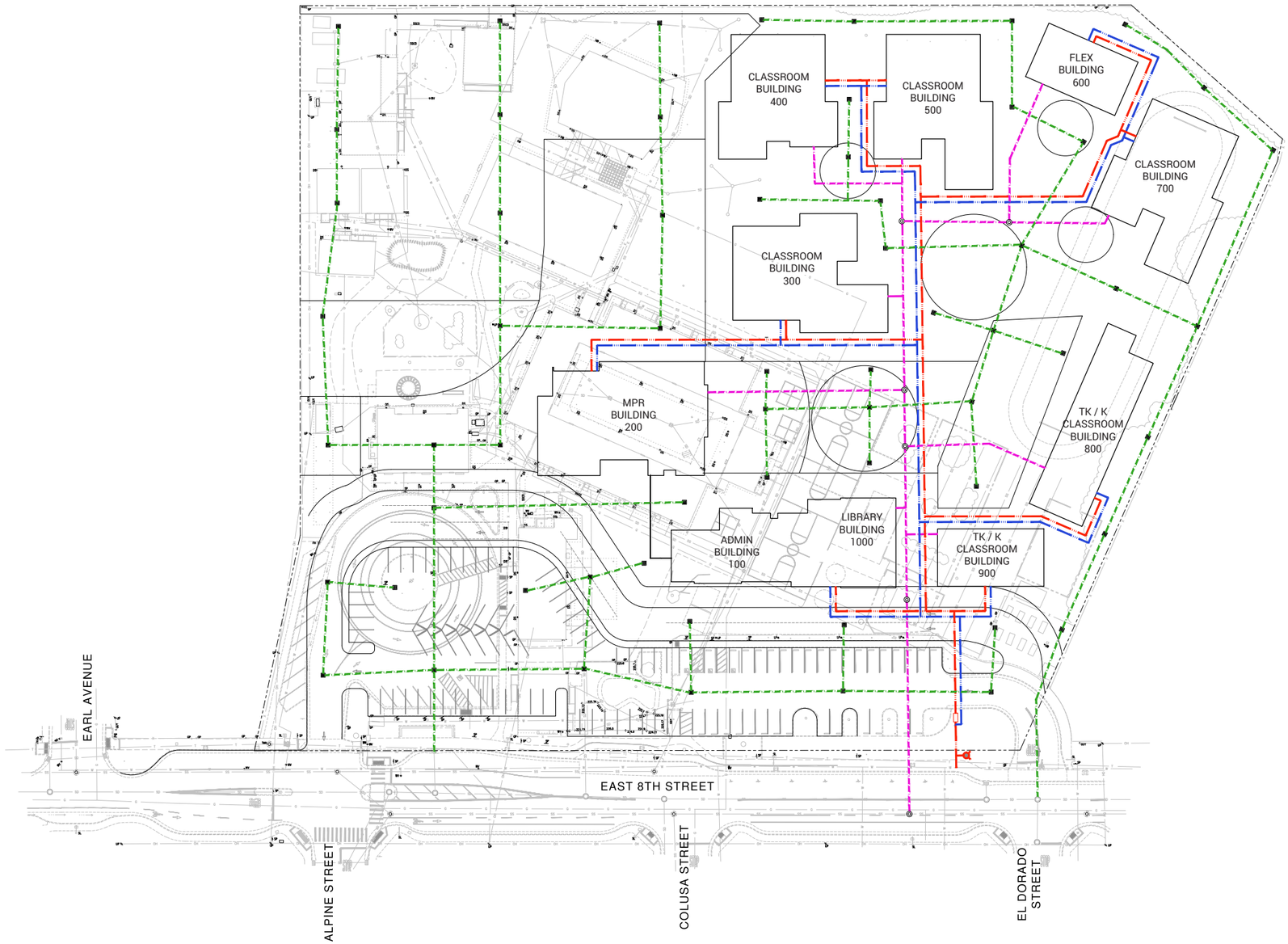
Civil Proposed Utility Plan



LEGEND

- PROPOSED STORM DRAIN PIPE
- PROPOSED STORM DRAIN CATCH BASIN
- PROPOSED SANITARY SEWER PIPE
- PROPOSED SANITARY SEWER MANHOLE
- PROPOSED DOMESTIC WATER LINE
- PROPOSED FIRE SUPPRESSION LINE
- PROPOSED FIRE HYDRANT

NOTES

PROPOSED FIRE HYDRANTS AND PIPING ARE NOT SHOWN ON THESE PLANS.

FIRE HYDRANTS MAY BE REQUIRED AROUND THE SITE AND SHALL BE APPROVED BY THE FIRE MARSHAL

ALL PROPOSED SEWER, STORM DRAIN, DOMESTIC WATER AND FIRE SUPPRESSION ARE CONCEPTUAL ONLY.

POINT OF CONNECTION TO PROPOSED BUILDINGS ARE UNKNOWN AND ONLY CONCEPTUALLY SHOWN.

DLR GROUP

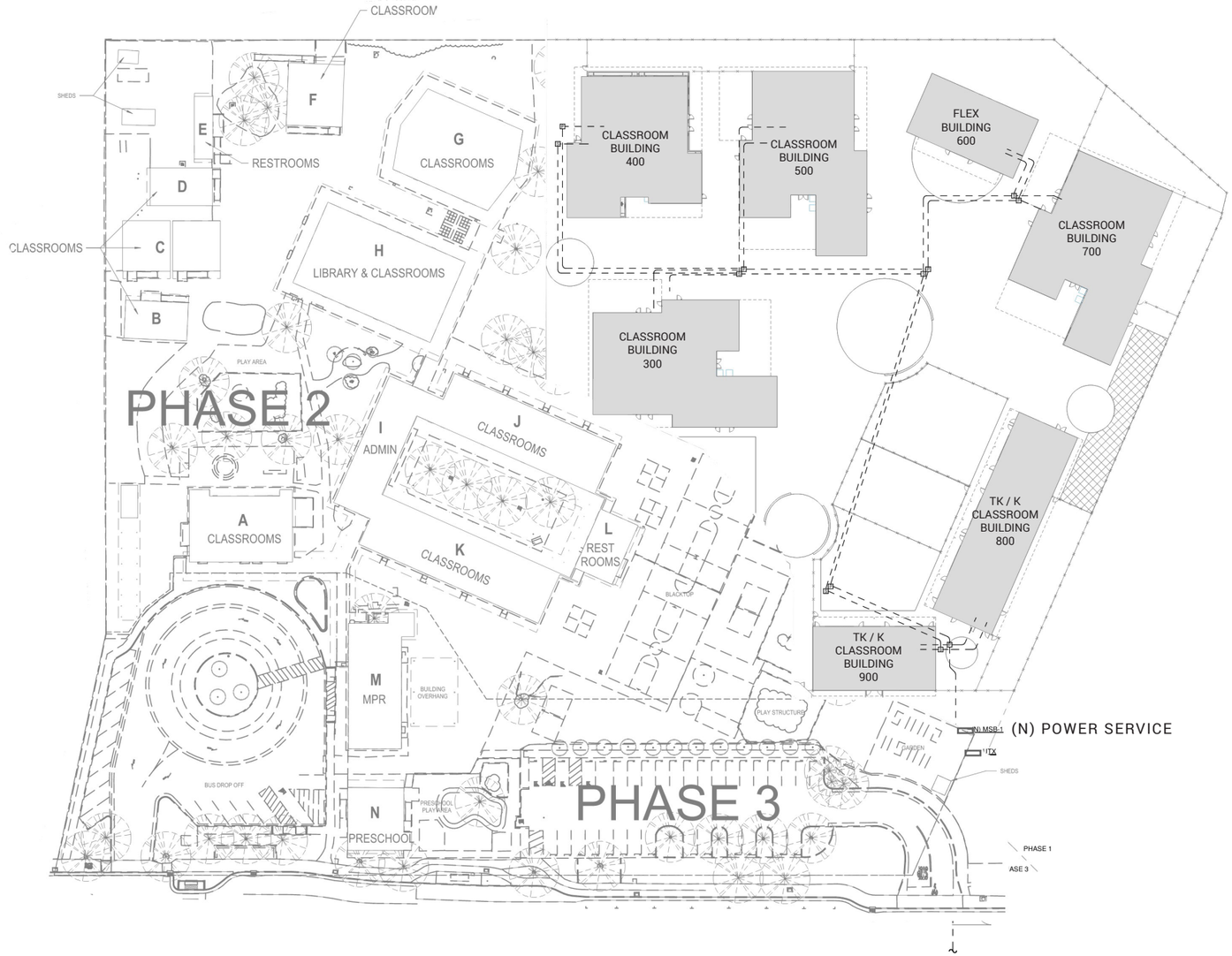
SCALE 1" = 50'

VERIFY SCALE
BAR IS ONE INCH ON ORIGINAL DRAWING
IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY

SCHEMATIC DESIGN PROGRESS DRAWINGS

NOTE: THESE DRAWING ARE FOR COORDINATION PURPOSES WITH THE DESIGN TEAM AND ARE NOT INTENDED FOR BIDDING OR CONSTRUCTION PURPOSES.

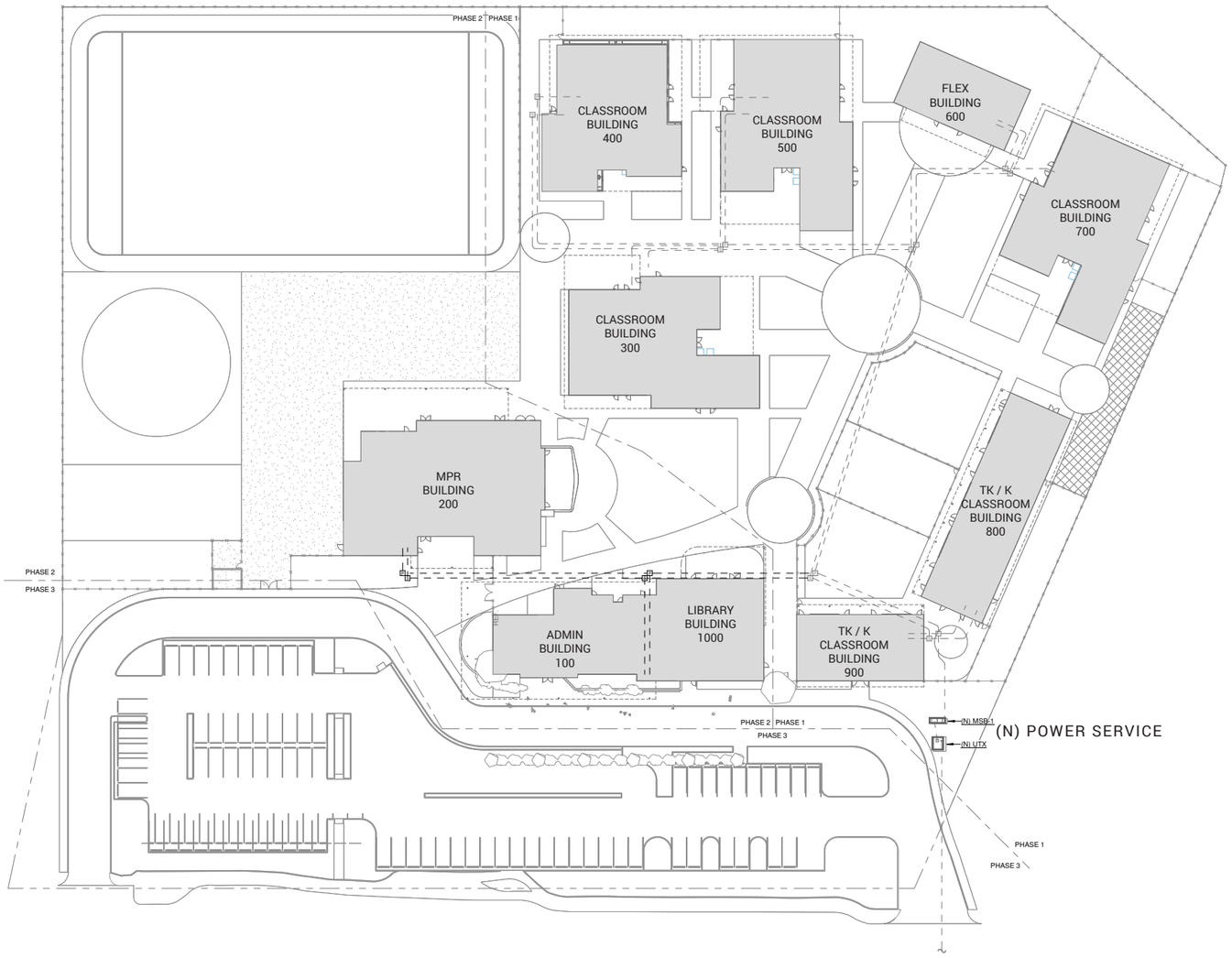
Electrical Phase 1



1 OVERALL SITE PLAN - PHASE 1 - NEW WORK

SCALE: 1/32" = 1'-0"

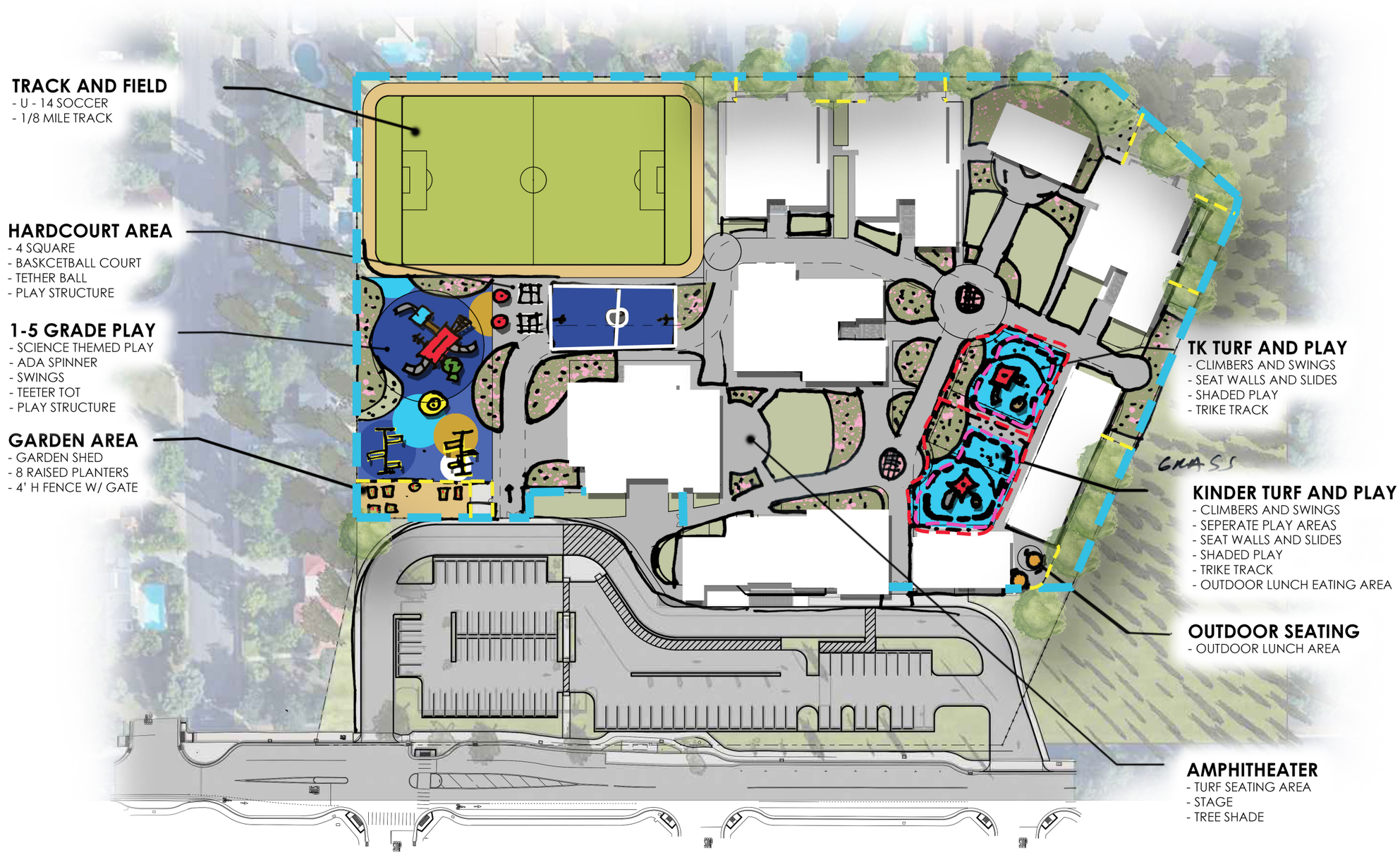
Electrical Phase 2



1 OVERALL SITE PLAN - PHASE 2 - NEW WORK

SCALE: 1/32" = 1'-0"

Landscape


TRACK AND FIELD
- U - 14 SOCCER
- 1/8 MILE TRACK
HARDCOURT AREA
- 4 SQUARE
- BASKCETBALL COURT
- TETHER BALL
- PLAY STRUCTURE
1-5 GRADE PLAY
- SCIENCE THEMED PLAY
- ADA SPINNER
- SWINGS
- TEETER TOT
- PLAY STRUCTURE
GARDEN AREA
- GARDEN SHED
- 8 RAISED PLANTERS
- 4' H FENCE W/ GATE
TK TURF AND PLAY
- CLIMBERS AND SWINGS
- SEAT WALLS AND SLIDES
- SHADED PLAY
- TRIKE TRACK
GRASS
KINDER TURF AND PLAY
- CLIMBERS AND SWINGS
- SEPERATE PLAY AREAS
- SEAT WALLS AND SLIDES
- SHADED PLAY
- TRIKE TRACK
- OUTDOOR LUNCH EATING AREA
OUTDOOR SEATING
- OUTDOOR LUNCH AREA
AMPHITHEATER
- TURF SEATING AREA
- STAGE
- TREE SHADE
NORTH
0 30 60
SCALE: 1" = 30'

Preliminary Play - Playground

INSPIRATION THEME: SCIENCE & SPACE

PLAY STRUCTURE

INTERPRATIVE PANEL

THEMED PLAY ELEMENT

ADA SPINNER

ADA SPINNER

SLIDE

CLIMBER

THEMED PLAY & SHADE

ADA SWING

PIP MOUNDING

THEMED PLAY ELEMENT

SENSORY ELEMENTS


LIBRARY

04

BUILDING DESIGN & PLANNING

Guiding Principles for Design

Celebrate Parkview School’s STEM Identity

Embrace Bidwell Park and the Existing Neighborhood Context

Expand Classrooms to Outdoor Learning Environments

Create Flexible and Inclusive Learning Environments

Improve Campus Access and Provide a Safe Inviting Landscape

Provide Teachers Enhanced Workspace and Support Spaces

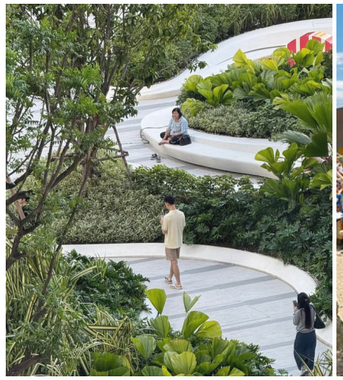
DESIGN CONCEPT

BLUE
School color
Primary accent
Secure
Calm
Reduce stress

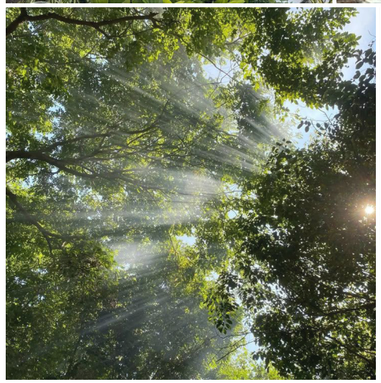
TAUPE GREY
Neutral, grounding color
Warmth
Comfort
Counterpoint to bold colors

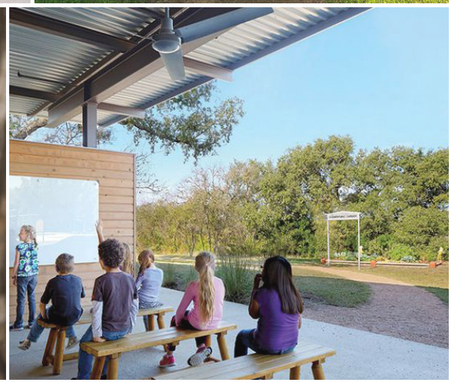
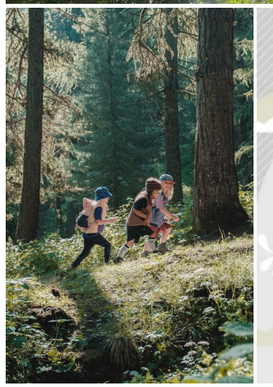
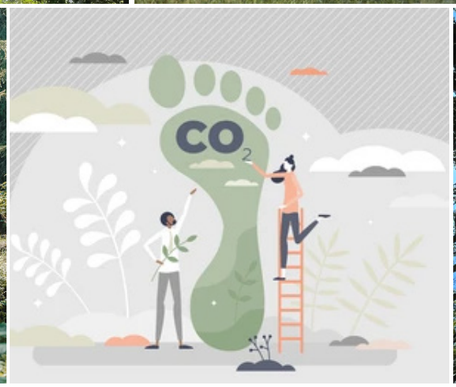
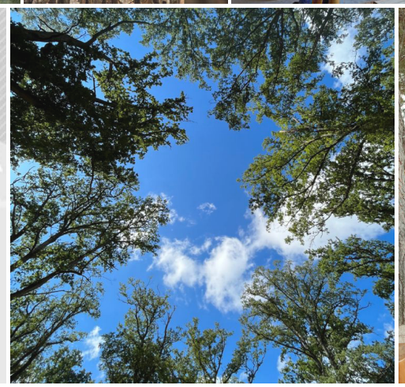
WHITE
The light filtering through canopy
Purity
Cleanliness
Security

GREEN
Symbolizes tree canopy
Calming
Growth
Harmony
Balance







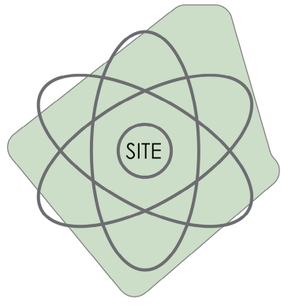

“PARK. PLAY. EXPERIMENT.”

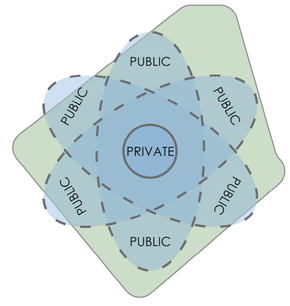
Inspired by the **environmental** hues of a **park**, this palette captures the spirit of **play** and **discovery.** From the dappled sunlight filtering through the tree canopy to the shifting tones of leaves and sky, the colors invite **experimentation** — blending **natural** elements with the curiosity and creativity sparked by a child’s exploration. The color palette is grounded in shades of blue, reflecting the sky and evoking **calm, openness,** and **depth**. Blue conveys continuity and stability while also suggesting **imagination** and **discovery.** Greens complement these tones with renewal and balance. Yellow acts as a vibrant accent, the warmth of sunlight through the canopy adding **joy, energy,** and **curiosity.**

Park

Play

Experiment





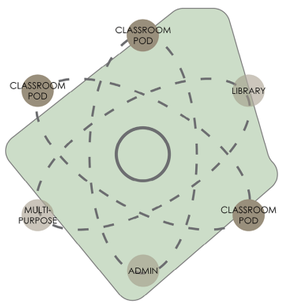
01 Identify Community Values

02 Determine Site Motif based on Values

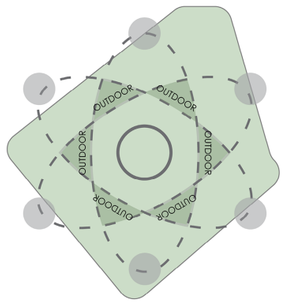
03 Radiate Program off Site Nucleus

Massing & Outdoor Spaces

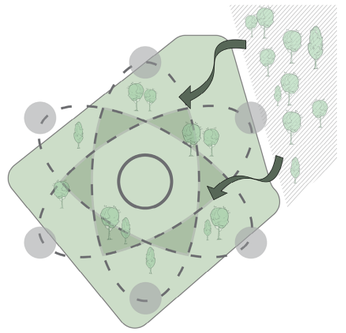
The massing and site design for the new Parkview Elementary School is shaped by the guiding principles of maintaining the school's identity, embracing its neighborhood context, and creating inclusive outdoor learning environments.
The design concept—"Generations, Gather, Grow"—inspires a concentric site layout that radiates from shared central gathering spaces, symbolizing growth, collaboration, and community connection. A series of pod-style classroom buildings are organized around these central courtyards, forming layers of outdoor learning zones that encourage interaction both within and across grade levels. Each building is shaped with intentional recesses and covered porches that blur the boundary between indoor and outdoor environments, providing shaded, flexible spaces for teaching, play, and reflection. Circulation paths naturally converge toward these shared nodes, promoting collaboration and exploration while reinforcing safe campus access and strong visual connections throughout the site. Together, the site layout, building massing, and landscape design embody a modern, flexible learning environment rooted in Chapman's enduring character and sense of place.



04 Utilize Site Motif to Define Program Adjacencies



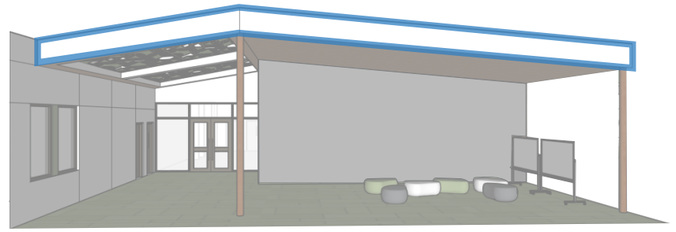
05 Create Outdoor Learning Enviroments from Intersections

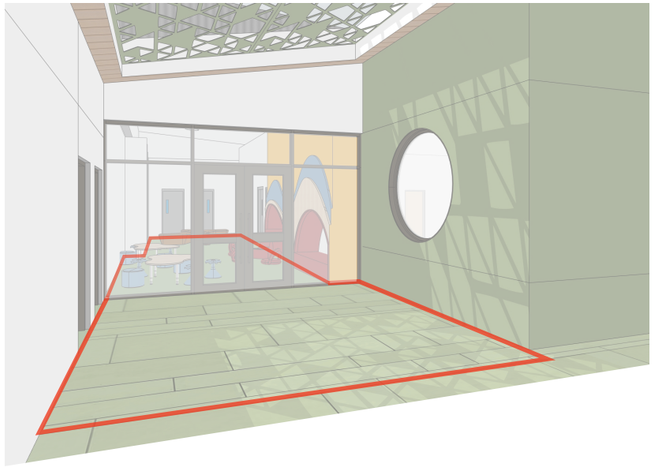


06 Invite Existing Park into the Site

Agrarian Forms for Child-Friendly Learning

This classroom building draws inspiration from the agrarian forms of Chico's rural landscape to create a learning environment that feels both familiar and appropriately scaled for elementary students. Simple gabled volumes echo barn structures, offering a sense of shelter and clarity that young learners intuitively understand.



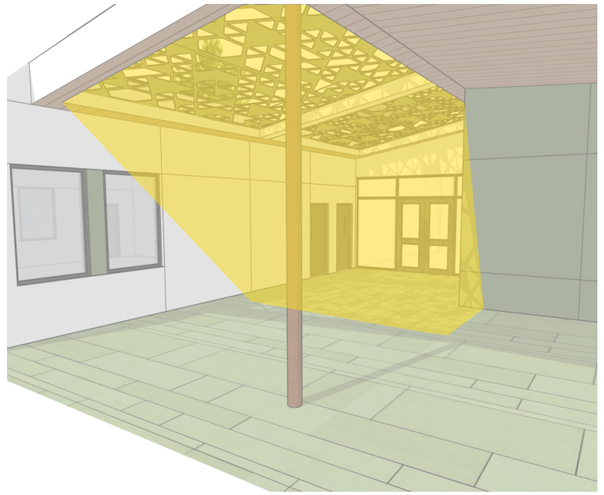


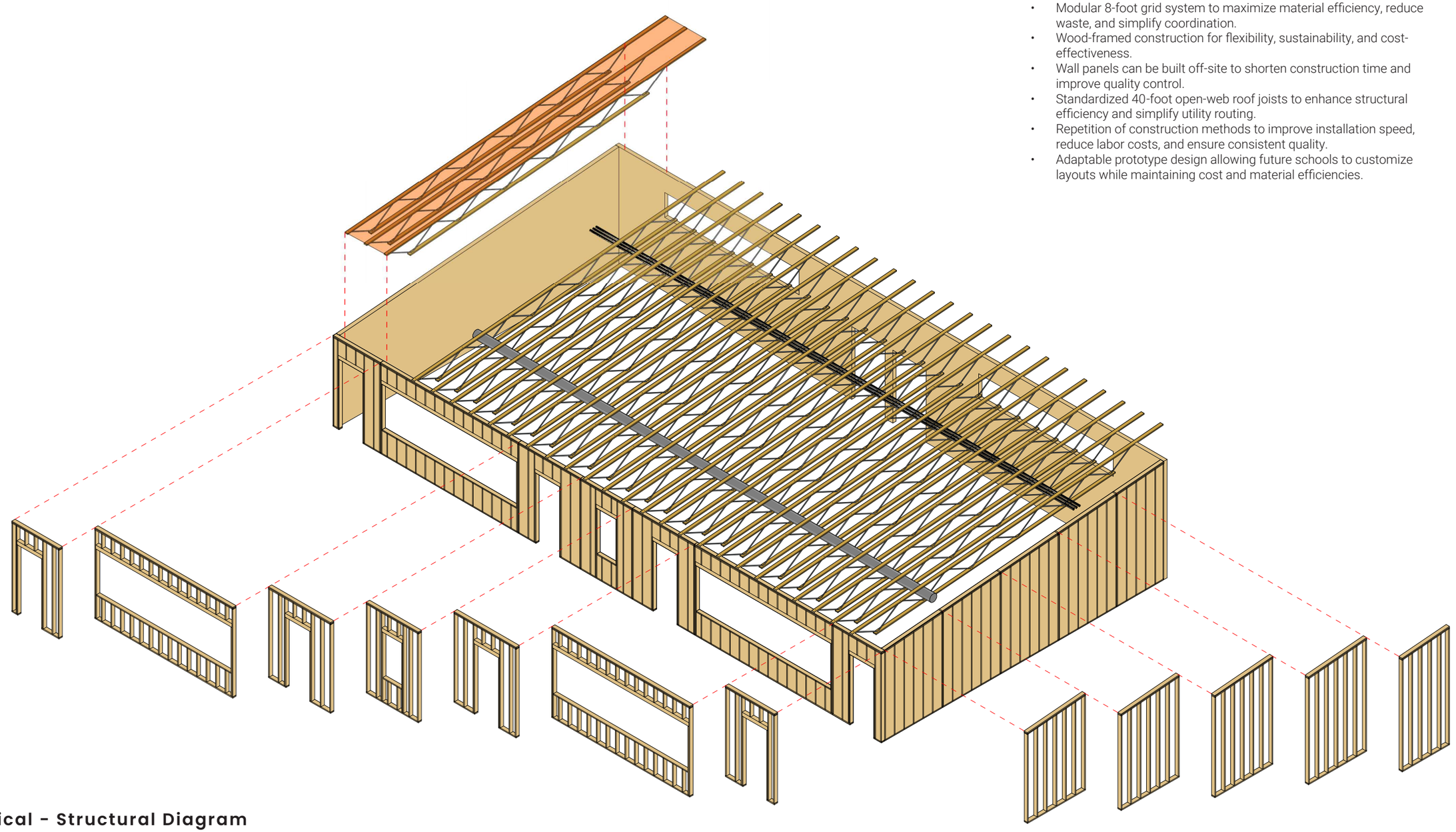
Child-Friendly Massing and Indoor–Outdoor Learning

The building's massing is intentionally broken down to child-friendly proportions, promoting comfort and reducing the institutional feel. Outdoor learning zones and shaded breezeways respond to Chico's Mediterranean climate, encouraging movement, fresh air, and flexibility in teaching.
The indoor–outdoor relationship fosters collaborative learning environments, unifying classroom spaces and cultivating a stronger sense of community.

Nature-Inspired Materials and Light-Filled Entry

A perforated canopy above the entry filters light like a tree canopy, reinforcing the connection to nature and the outdoors. Natural materials play a central role — warm wood siding wraps the classroom volumes, contrasting with earth-toned cladding on circulation areas. Accent colors drawn from Chico's environment, along with educational murals, add visual interest and connect students to nature and place.





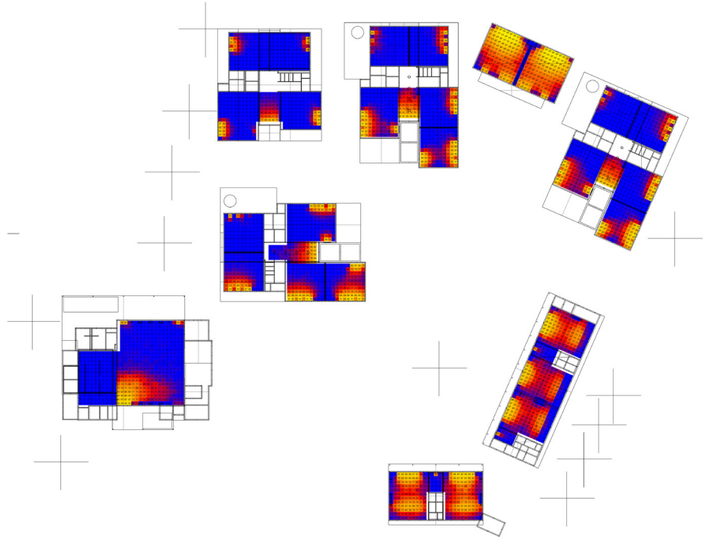
Key features to this method include:

- Modular 8-foot grid system to maximize material efficiency, reduce waste, and simplify coordination.
- Wood-framed construction for flexibility, sustainability, and cost-effectiveness.
- Wall panels can be built off-site to shorten construction time and improve quality control.
- Standardized 40-foot open-web roof joists to enhance structural efficiency and simplify utility routing.
- Repetition of construction methods to improve installation speed, reduce labor costs, and ensure consistent quality.
- Adaptable prototype design allowing future schools to customize layouts while maintaining cost and material efficiencies.

Prototypical - Structural Diagram

The prototype design method for the new elementary school promotes efficiency, adaptability, and consistency across projects. Using standardized components and modular construction principles, it streamlines both design and construction to achieve a high-quality, value-driven product.

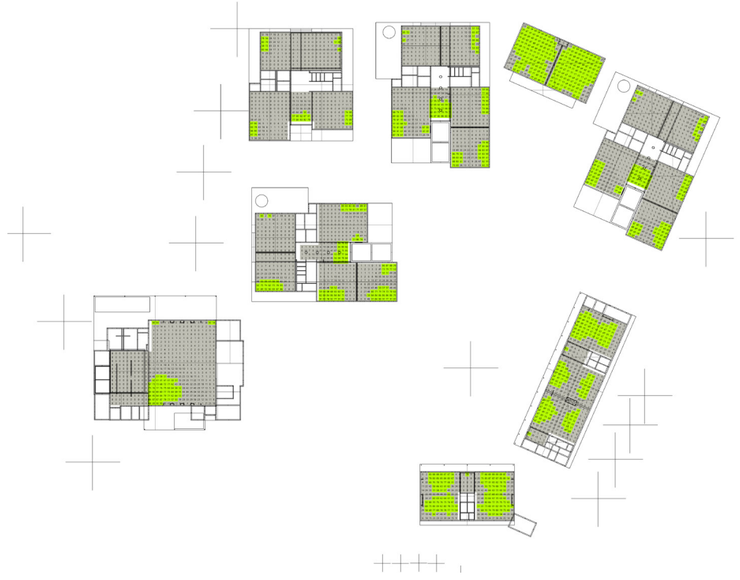
Climate Analysis



DAYLIGHT DISTRIBUTION

This plot represents how daylight distributes across the space.

Yellow & Red represent adequate amount of daylight.
Blue indicates non-daylit areas.



DAYLIGHT SUFFICIENCY

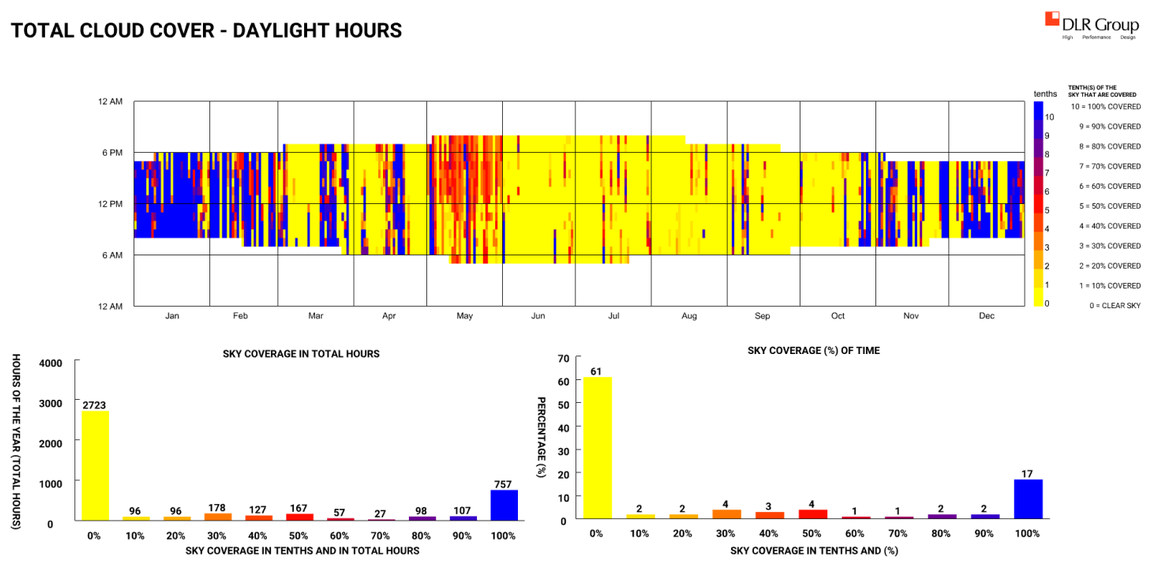
Spatial DA is the percentage of floor area that provides the minimum illuminance (in lux) required for each space function for a given percentage of the analysis period (50%);

GREEN indicates daylit areas according to sDA definition.
GRAY indicates non-daylit areas according to sDA definition
sDA = 17.6%

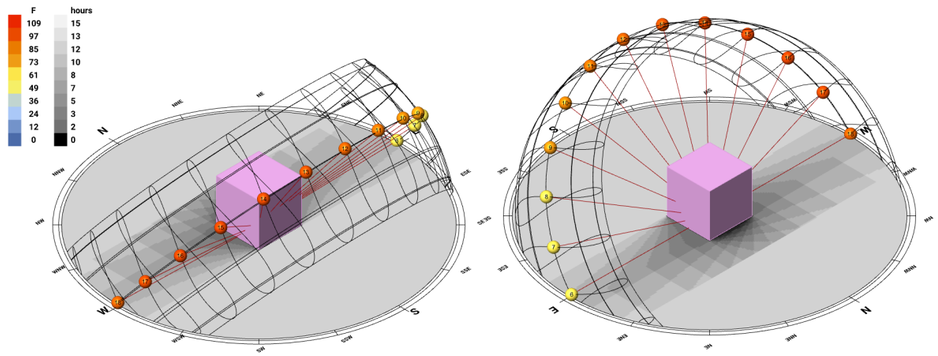
POTENTIAL FOR GLARE

ASE is the percentage of the analysis area that exceeds a direct sunlight illuminance level of 1000 lux more than 250 hours per year, with operable blinds left open;

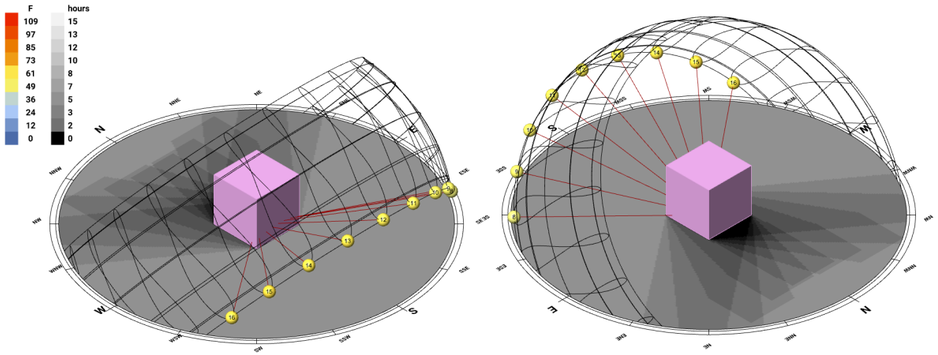
grey coloring indicates low glare risk
red indicates high glare risk
ASE = 5.6%



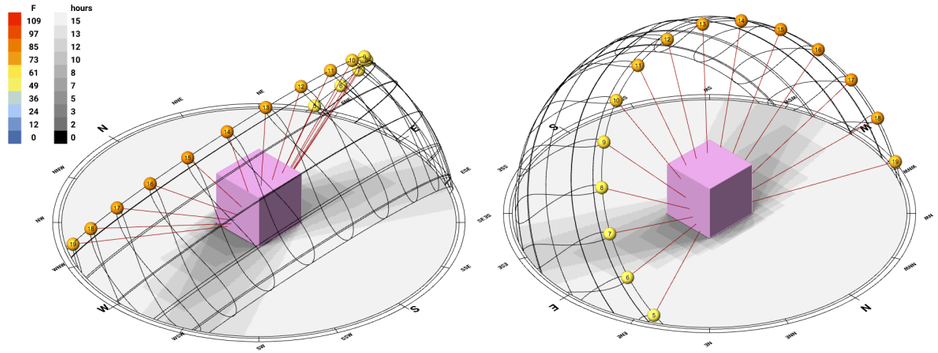
SUN PATH EQUINOX - 3D VIEW



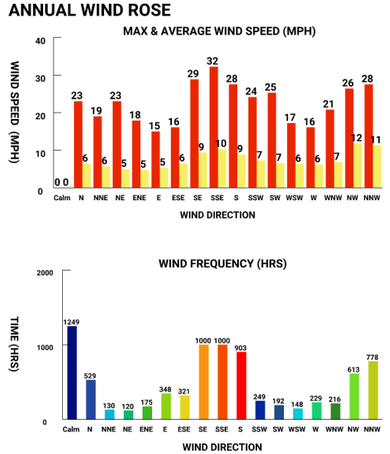
SUN PATH WINTER SOLSTICE - 3D VIEW



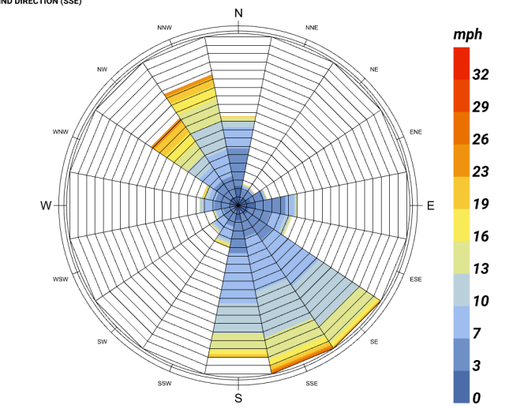
SUN PATH SUMMER SOLSTICE - 3D VIEW



ANNUAL WIND ROSE

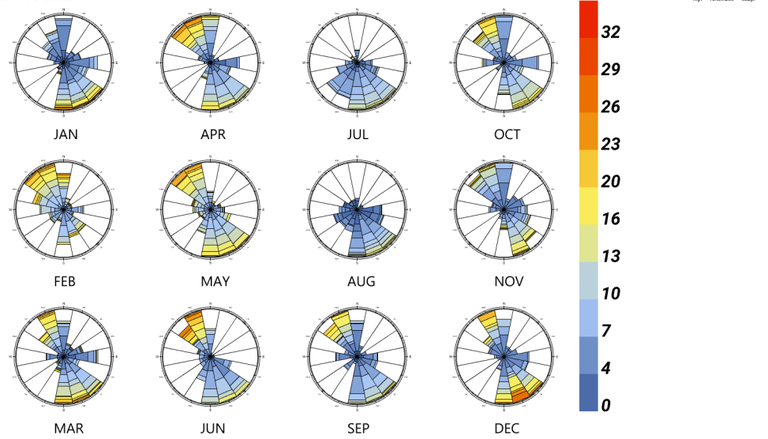


PREVAILING WIND DIRECTION (SSE)

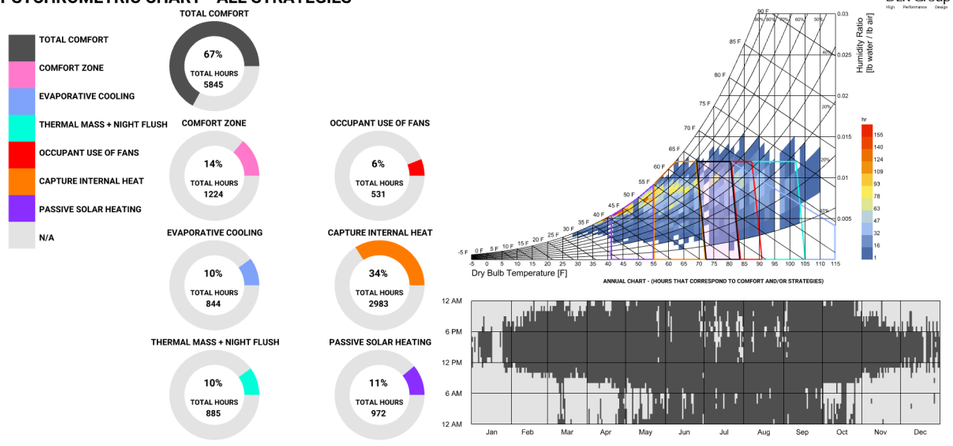


FREQUENCY INTERVAL - 50 HRS

MONTHLY GRID OF WIND ROSES



PSYCHROMETRIC CHART - ALL STRATEGIES



The campus design incorporates a variety of outdoor learning environments that extend education beyond the classroom and encourage flexible, student-centered engagement. A centrally placed amphitheater, integrated with the rear of the MPR, creates an indoor-outdoor connection to the stage platform—supporting both formal presentations and informal group learning. The expansive lunch canopy adjoining the MPR serves as an all-weather gathering hub for dining, collaboration, and play, while smaller outdoor nodes provide more intimate spaces for reflection and interaction. Collectively, these elements form a cohesive network of open-air settings that inspire exploration, strengthen community, and nurture a daily sense of belonging.

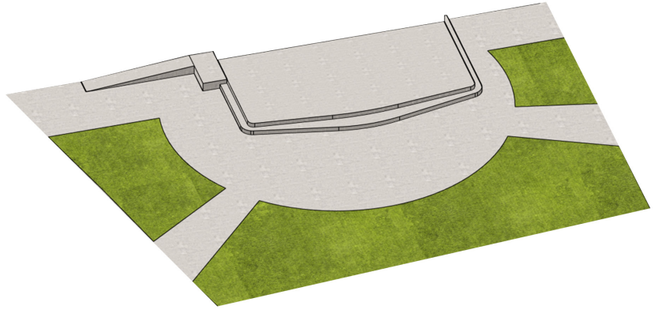
SITE SECTION

Each classroom cluster is intentionally designed to extend learning directly into the outdoors. Adjacent patios, shaded porches, and landscaped courtyards provide seamless transitions between indoor instruction and hands-on exploration. These outdoor extensions function as flexible learning environments—accommodating small group discussions, science experiments, art activities, or quiet reflection. Natural materials, planting zones, and seating elements are integrated to create comfortable, engaging spaces that invite curiosity and collaboration. By blurring the boundary between classroom and landscape, the design encourages teachers and students to embrace the environment as an active part of the educational experience.

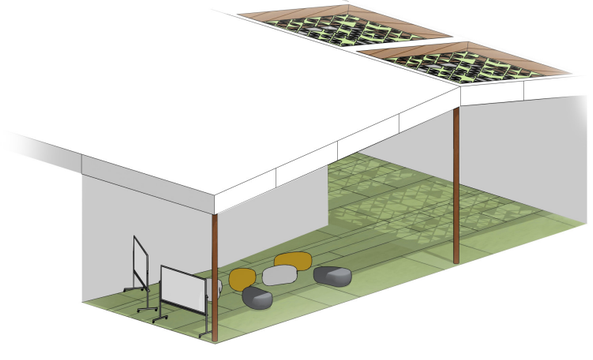
Outdoor Space Modalities

The campus design incorporates a variety of outdoor learning environments that extend education beyond the classroom and encourage flexible, student-centered engagement. A centrally placed amphitheater, integrated with the rear of the MPR, creates an indoor-outdoor connection to the stage platform—supporting both formal presentations and informal group learning. The expansive lunch canopy adjoining the MPR serves as an all-weather gathering hub for dining, collaboration, and play, while smaller outdoor nodes provide more intimate spaces for reflection and interaction. Collectively, these elements form a cohesive network of open-air settings that inspire exploration, strengthen community, and nurture a daily sense of belonging.

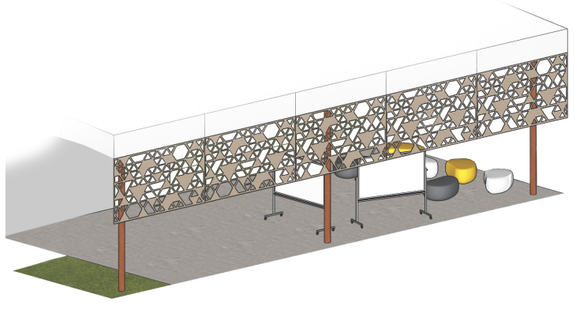
Central Student Union



1. Amphitheater

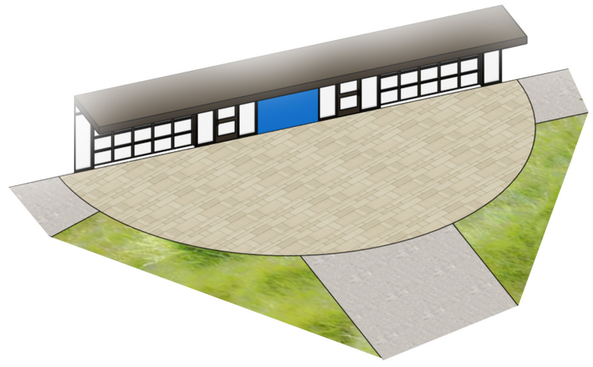


2. Classroom Outdoor Learning

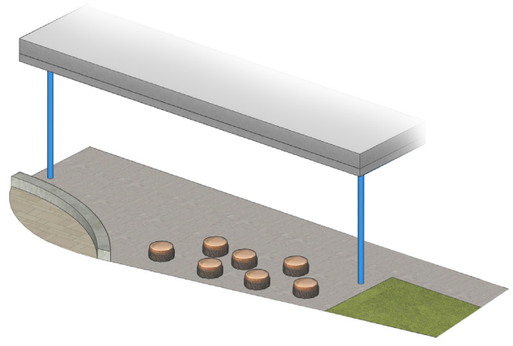


3. Classroom Outdoor Learning (Side)

4. Lunch Canopy



5. Flex Outdoor Seating



6. Outdoor Seating


LIBRARY
1
2
3
4
5
6

Aerial of ES Campus 01

Birds-eye view from the South corner of the elementary campus, overlooking administration building and quad.

Aerial of ES Campus 02

Birds-eye view from the North corner of the elementary campus, overlooking classroom building to the TK-Kindergarten.

Aerial of ES Campus 03

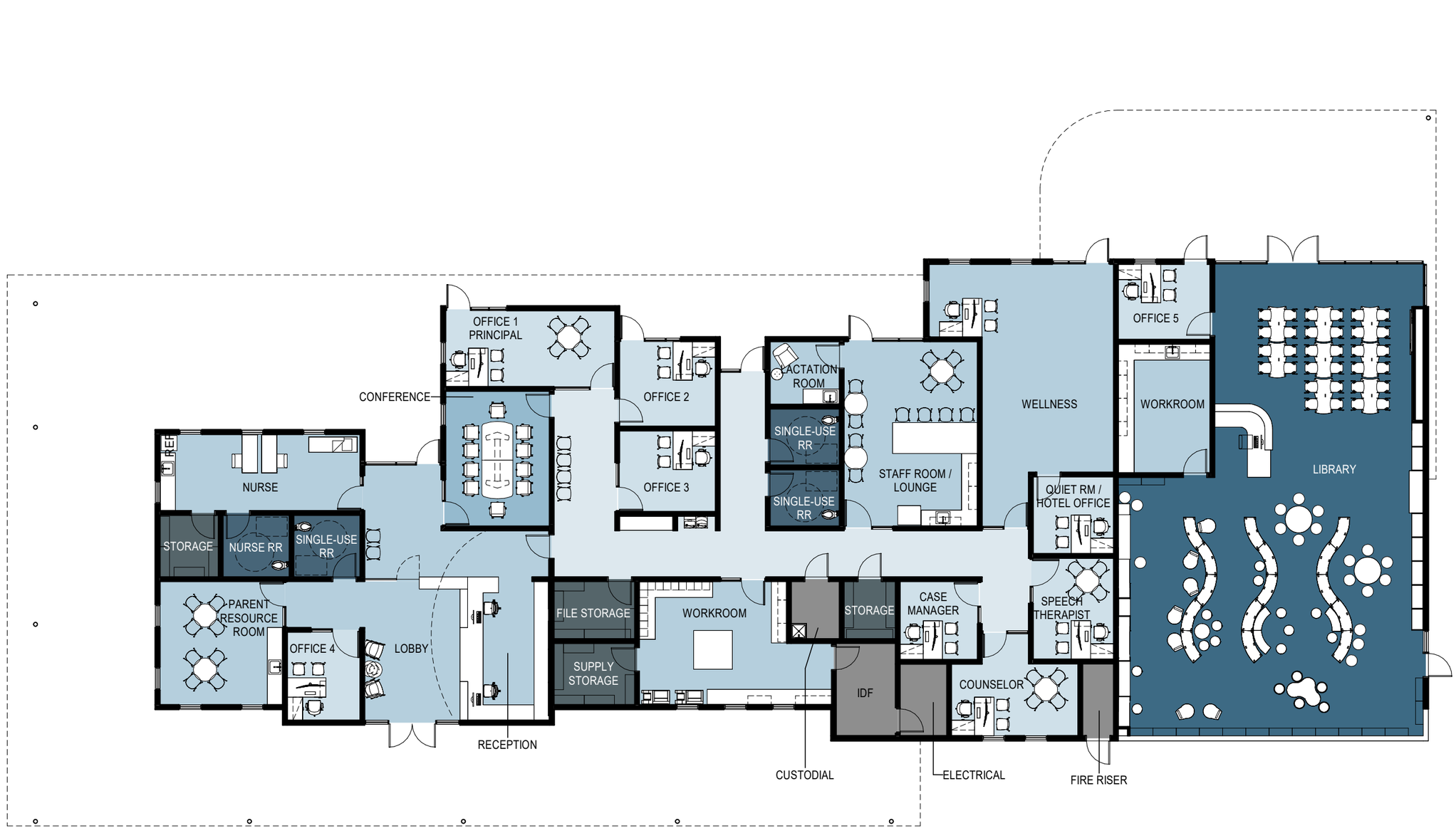
Perspective from the north corner of the ES central quad, looking towards the TK-Kindergarten play structures.

Aerial of ES Campus 04

Perspective from the north of the ES central quad, looking towards the classroom pods and tk/kindergarten classrooms.


PARKVIEW
ELEMENTARY

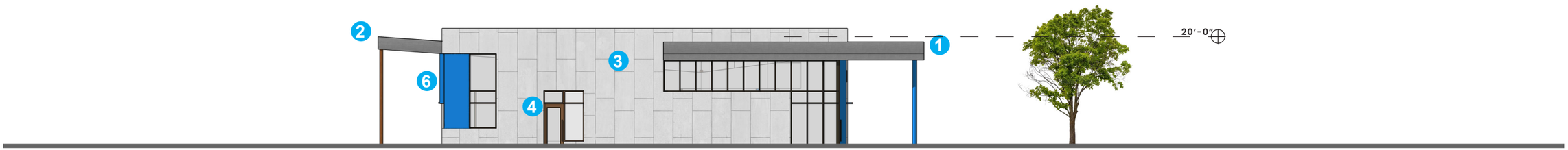
Floor Plan - Building 100 - Administration



- Circulation/Breakout
- Office
- Staff Support
- Conference
- Classrooms
- Multi-Use Area
- Restrooms
- Storage
- Utilities

DLR GROUP

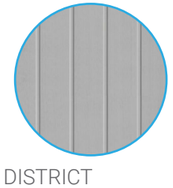
Elevations - Building 100 - Administration



West Elevation

East Elevation

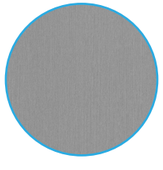
1 Metal Panel Fascia



2 Laser Cut Metal Panel

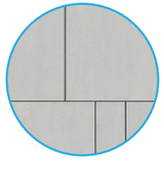
3 Painted Stucco with Concealed Reveals

4 Aluminum Store Front System

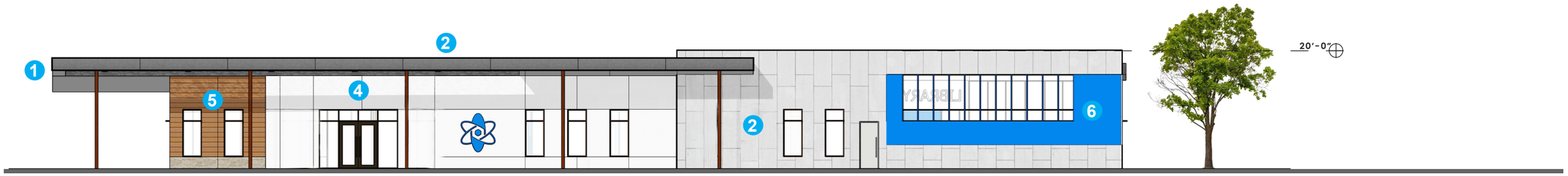


5 Wood Look Fiber Cement

6 Fiber Cement Panels with Concealed Reveals



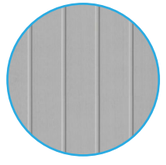
Elevations - Building 100 - Administration



North Elevation

South Elevation

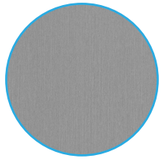
1 Metal Panel Fascia



2 Laser Cut Metal Panel

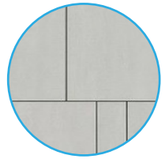
3 Painted Stucco with Concealed Reveals

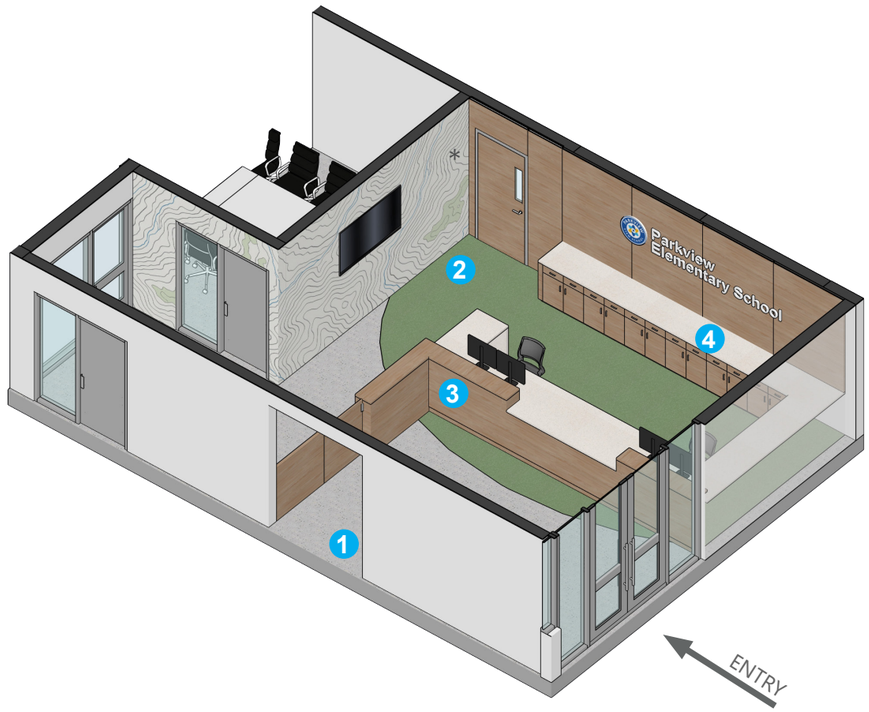
4 Aluminum Store Front System

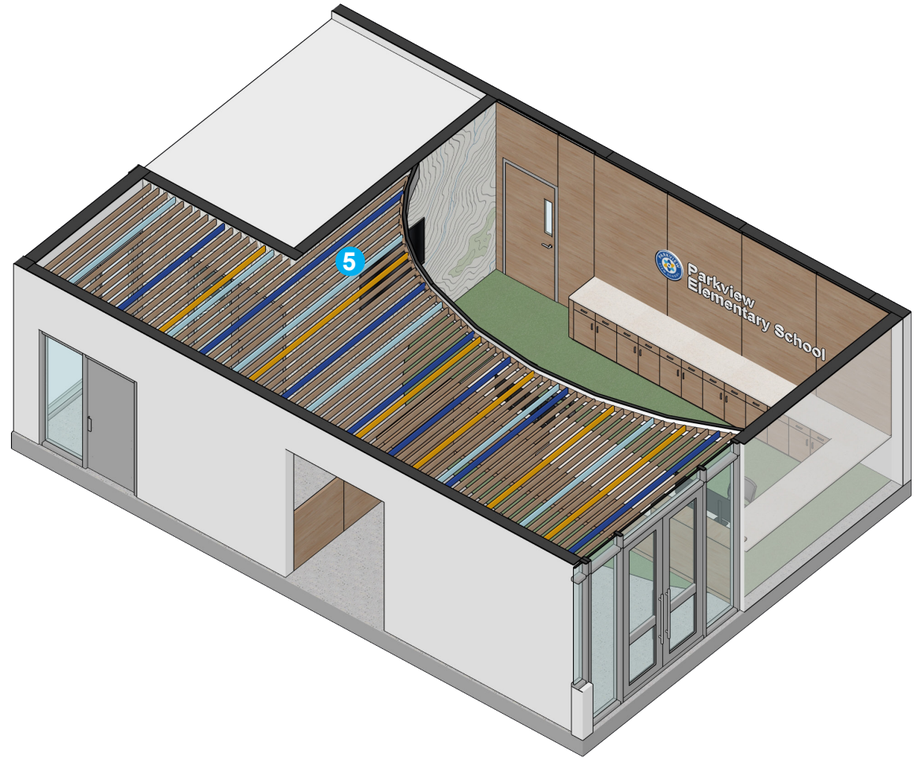


5 Wood Look Fiber Cement

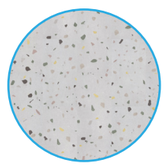
6 Fiber Cement Panels with Concealed Reveals



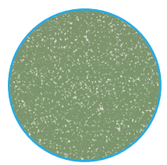




1 Luxury Vinyl Tile

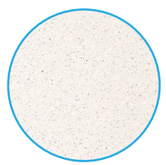


2 Resilient Flooring



3 High Pressure Laminate

4 Solid Surface



5 Wood-Like + Color Ceiling Baffles

Administration Reception Desk Axon + Materials

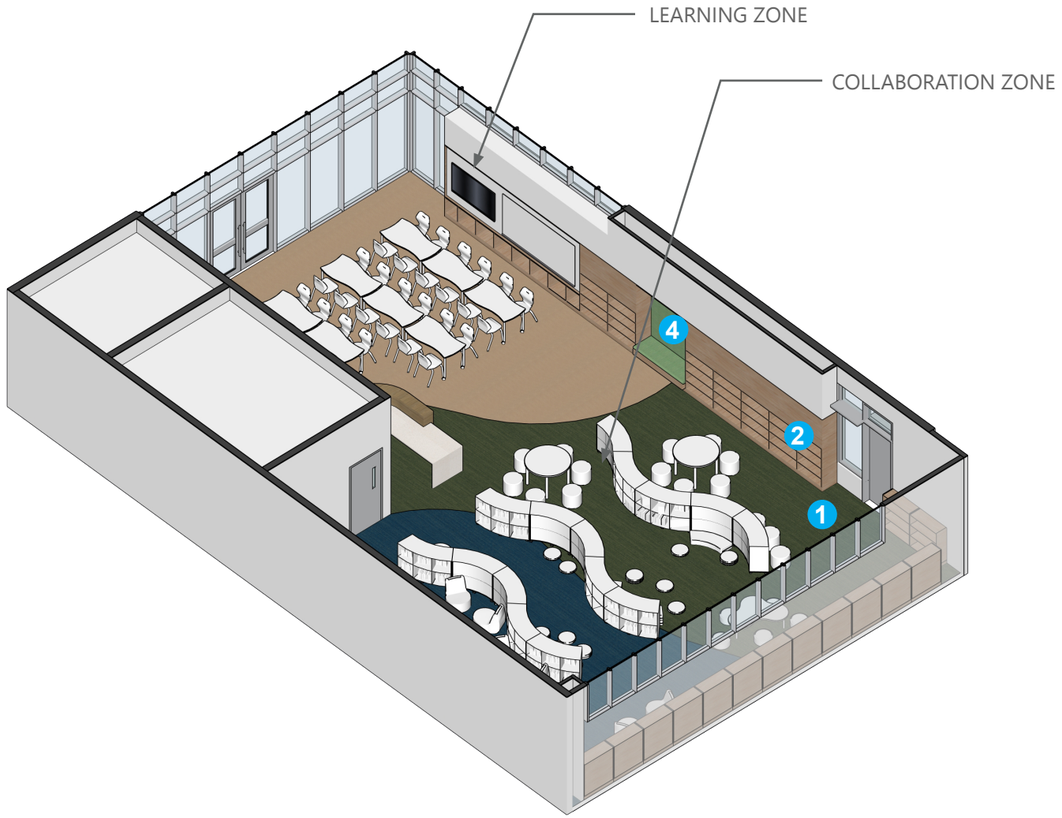
The administration reception creates a secure environment, while allowing a warm welcome to those who enter. Branding moments pair with the conceptual elements of the space to emphasize wayfinding and school culture.

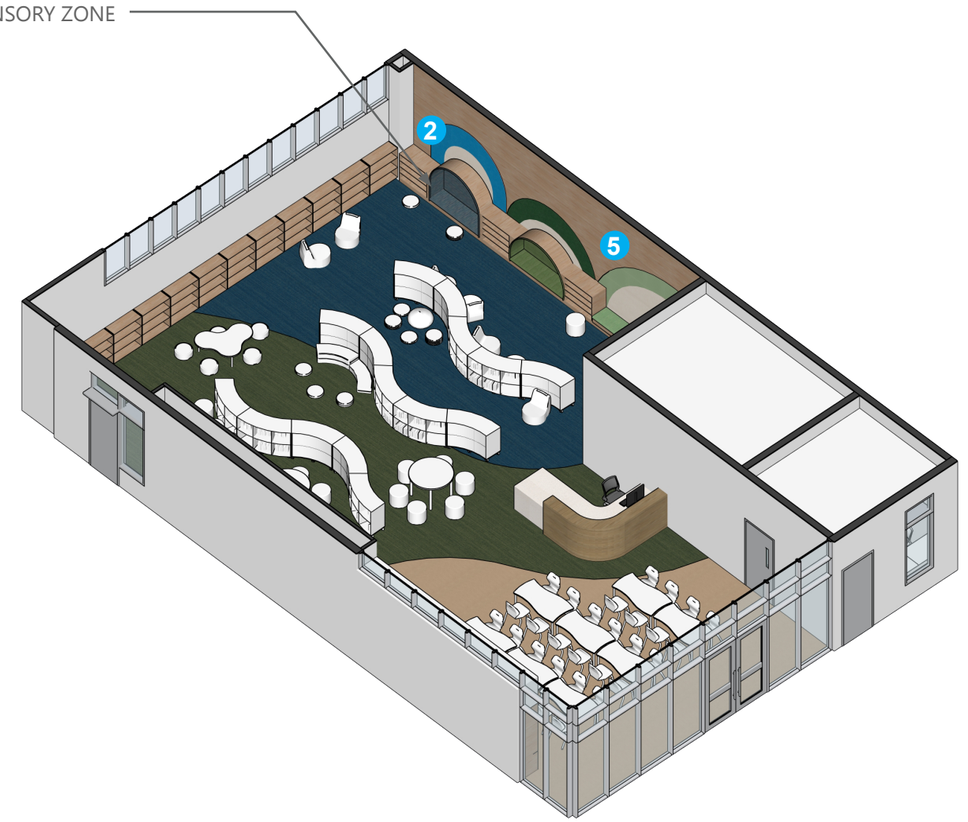
* School Brand Graphic Location

Reception Desk Interiors

* School Brand Graphic Location

The reception desk uses counter heights to create security for the space, having lowered portions for interactions with kids. The graphic branding wall with the monitor is the first element people see as they walk in the door. Acoustical baffles mitigate noise from the space and create wayfinding for new arrivals.





1 Carpet (3 Colors)

2 High Pressure Laminate

3 Acoustic Panel (3 Colors)

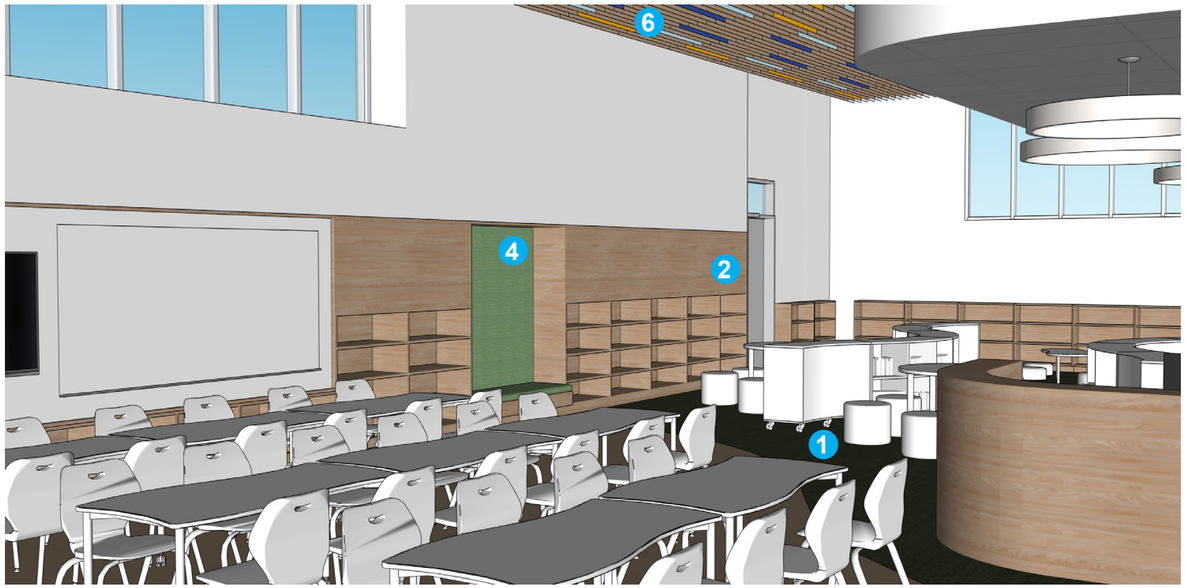
4 Niche Upholstery

5 Wallcovering

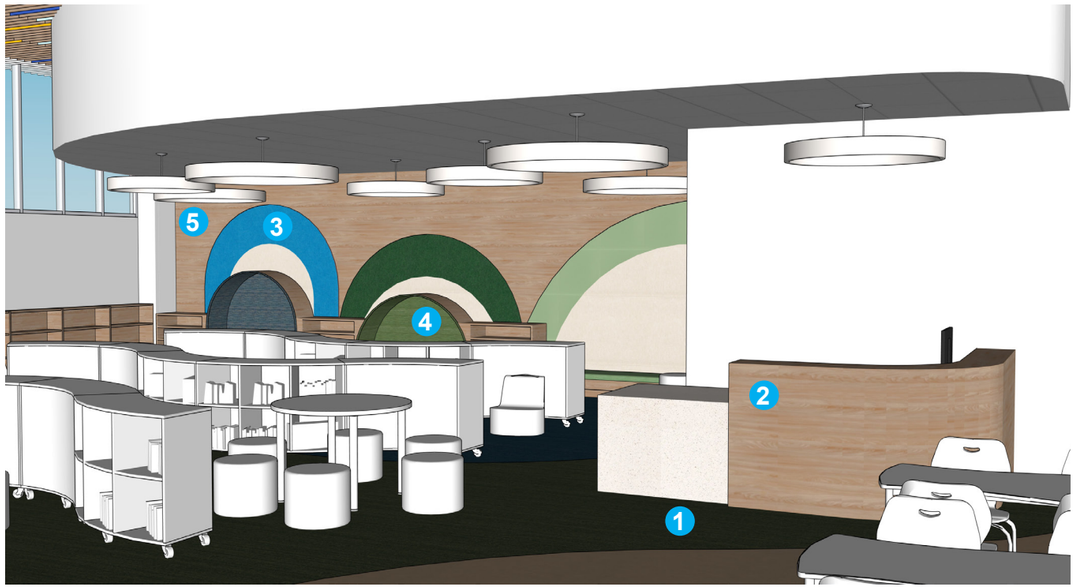
6 Wood-Like + Color Ceiling Baffles

Library Axon + Material Board

The library is separated into three distinct zones to allow for students to select how they want to learn. The Learning zone includes a teaching wall, with a markerboard and monitor, and enough student desks to allow for a class to occur in the space. The Huddle/ Collaboration zone utilizes flexible furniture to allow for small groups to form. The Sensory zone towards the back of the space creates a quiet area for more focused, individual learning. Built-in nooks provide students with a quiet space where they can individually learn.



ENTRY / TEACHING WALL VIEW



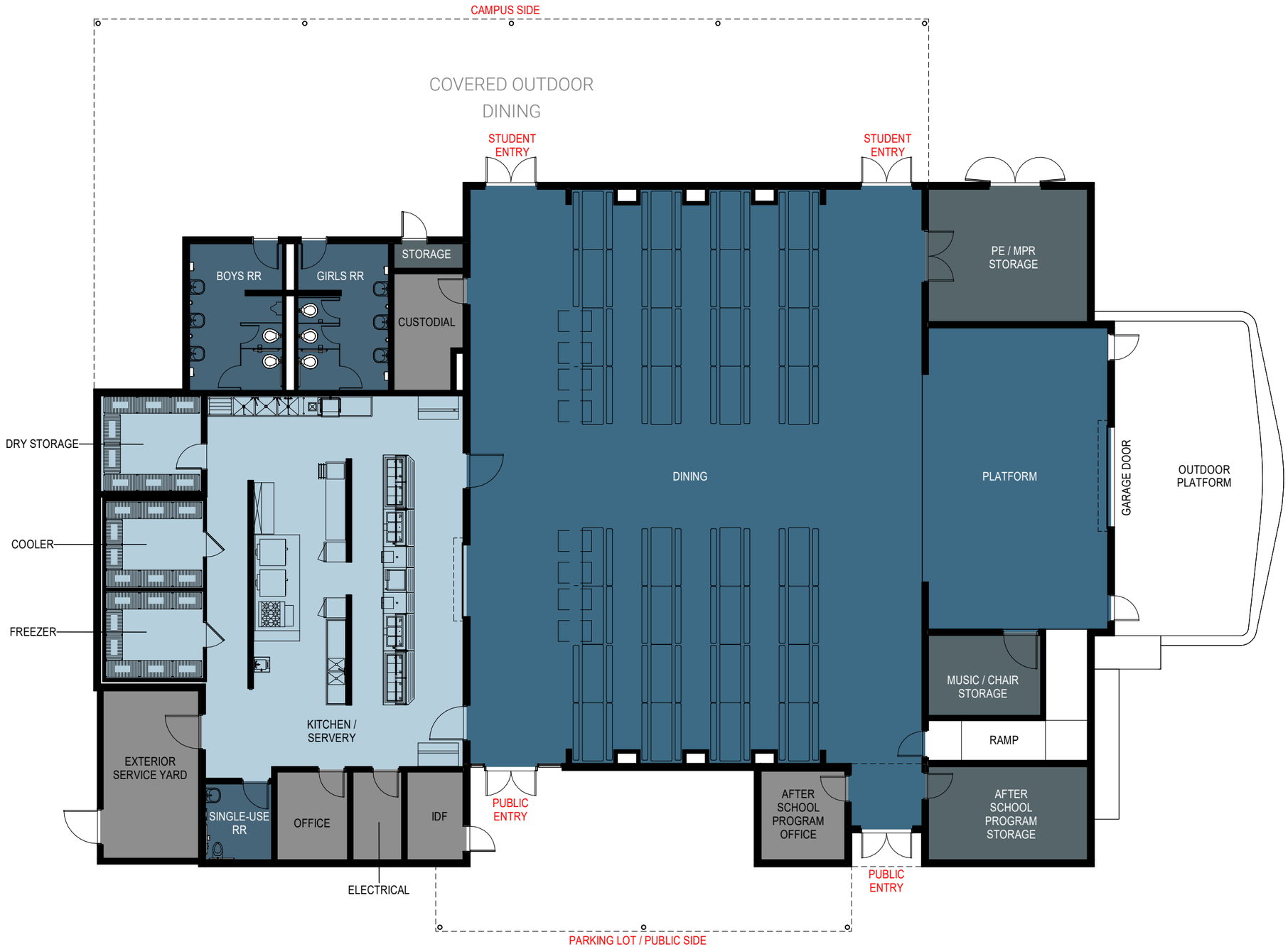
SENSORY WALL VIEW

Library Interior

Flexible furniture is utilized throughout the whole space to engage students in how they learn best. Acoustical panels, baffles, and carpeting contribute to the acoustics of the space. The large windows bring in lots of natural light, encouraging students to extend learning beyond the classroom.


MULTIPURPOSE

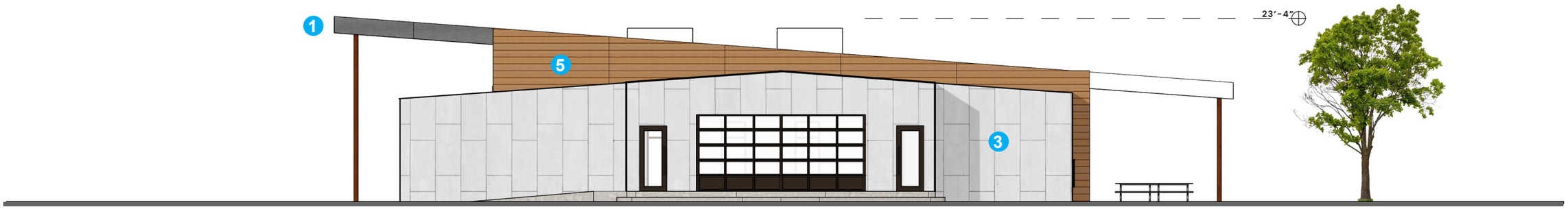
Floor Plan - Building 200 - Multipurpose



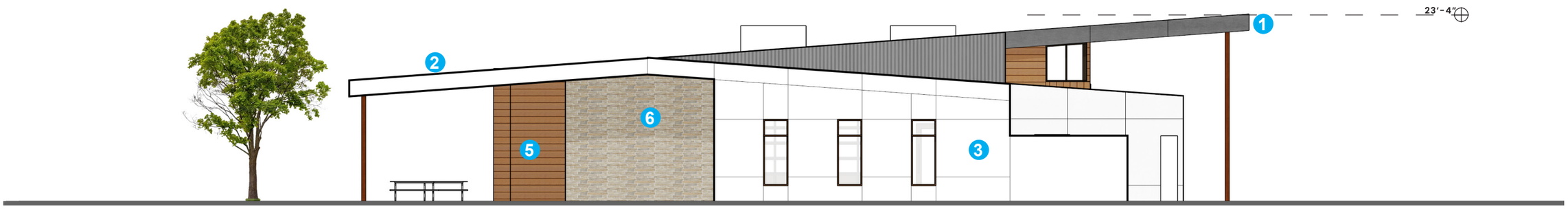
- Circulation/Breakout
- Office
- Staff Support
- Conference
- Classrooms
- Multi-Use Area
- Restrooms
- Storage
- Utilities

DLR GROUP

Elevations - Building 200 - Multipurpose

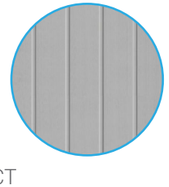


West Elevation



East Elevation

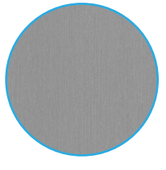
1 Metal Panel Fascia



2 Laser Cut Metal Panel

3 Painted Stucco with Concealed Reveals

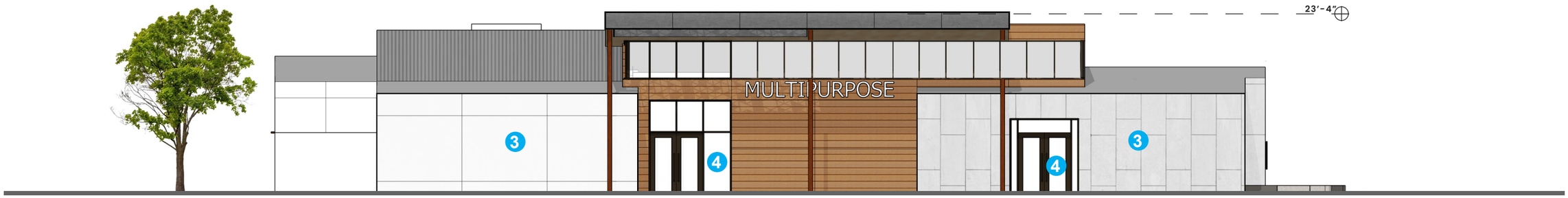
4 Aluminum Store Front System



5 Wood Look Fiber Cement

6 Thin Brick Veneer

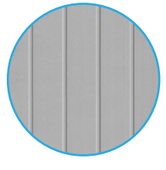
Elevations - Building 200 - Multipurpose



North Elevation

South Elevation

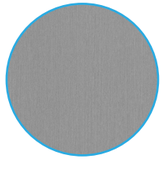
1 Metal Panel Fascia



2 Laser Cut Metal Panel

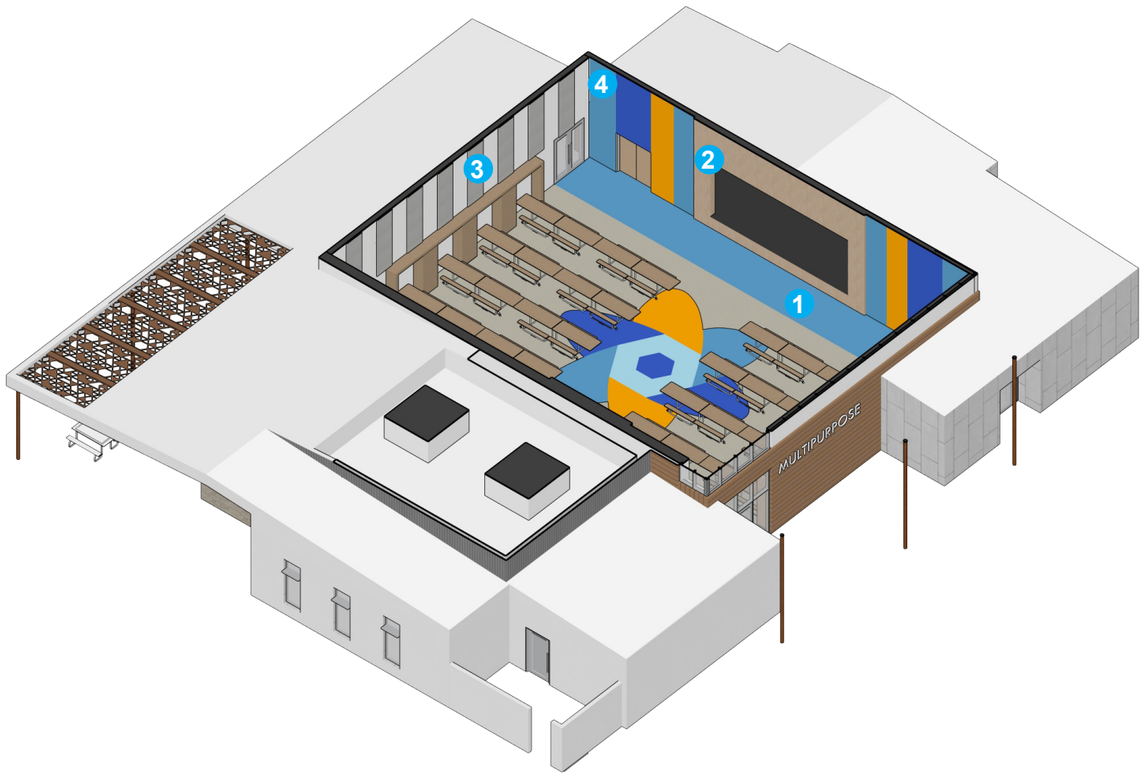
3 Painted Stucco with Concealed Reveals

4 Aluminum Store Front System

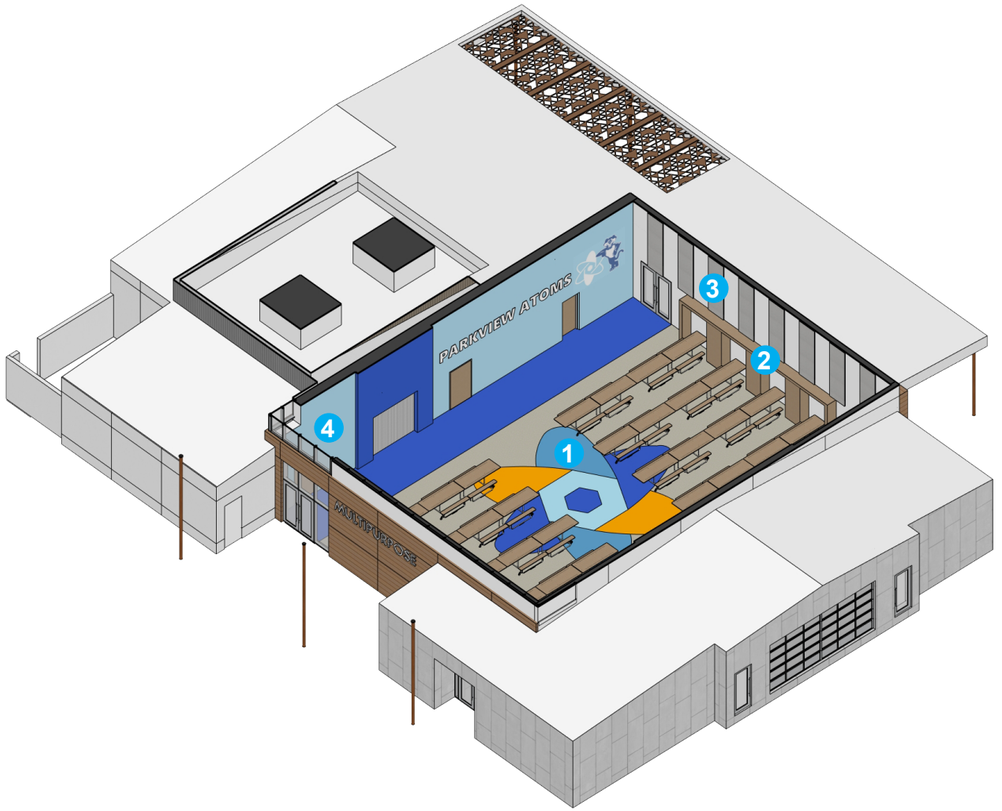


5 Wood Look Fiber Cement

6 Thin Brick Veneer

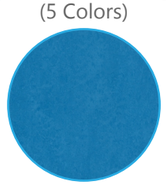


STAGE VIEW



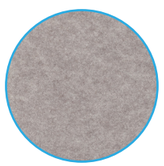
KITCHEN VIEW

1 Resilient Flooring (5 Colors)

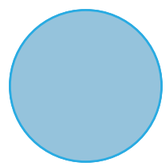


2 High Pressure Laminate

3 Acoustic Panels



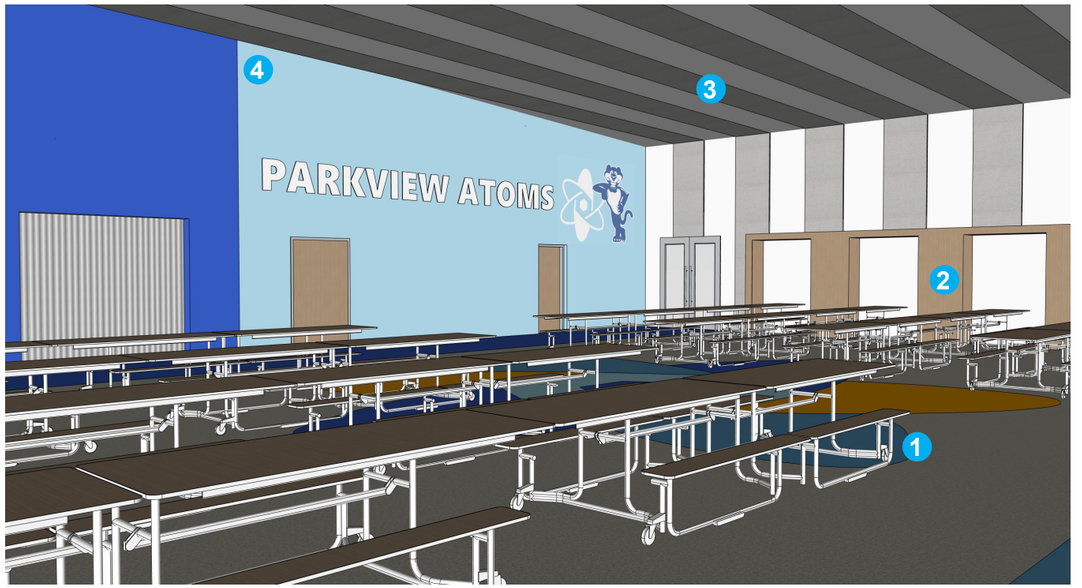
4 Paint (4 Colors)



Multipurpose Room Axon + Material Selection

The MPR space contains both a stage and a kitchen. This multi-functional space utilizes branding and conceptual elements to feature these programs. This space is for the entire community, so school branding plays a key role throughout the space to emphasize the community and school itself.

STAGE VIEW



KITCHEN VIEW

Multipurpose Room Interiors

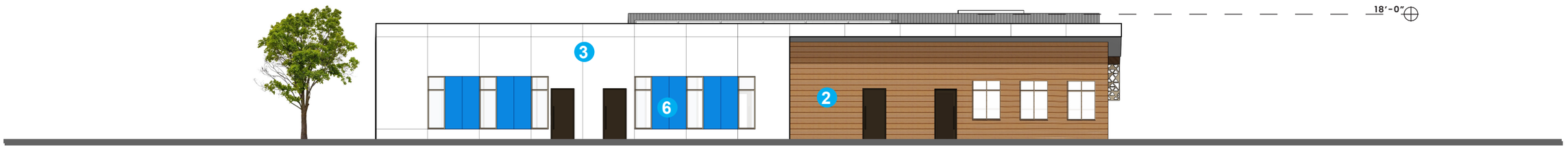
Color is used to draw emphasis to both the stage and kitchen. The tables are stored along the wall in alcoves, making the space flexible when it needs to convert for other activities. Acoustical panels dampen noise within the space.

Floor Plan - Building 300 & 700 - Classroom

- Circulation/Breakout
- Office
- Staff Support
- Conference
- Classrooms
- Multi-Use Area
- Restrooms
- Storage
- Utilities

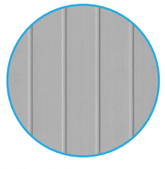
DLR GROUP

North Elevation



South Elevation

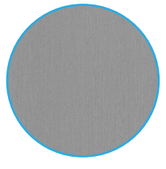
1 Metal Panel Fascia



2 Laser Cut Metal Panel

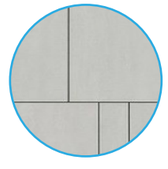
3 Painted Stucco with Concealed Reveals

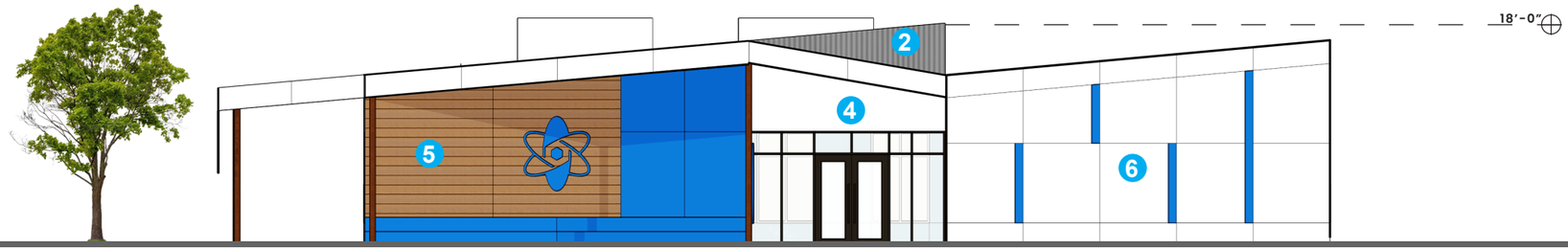
4 Aluminum Store Front System



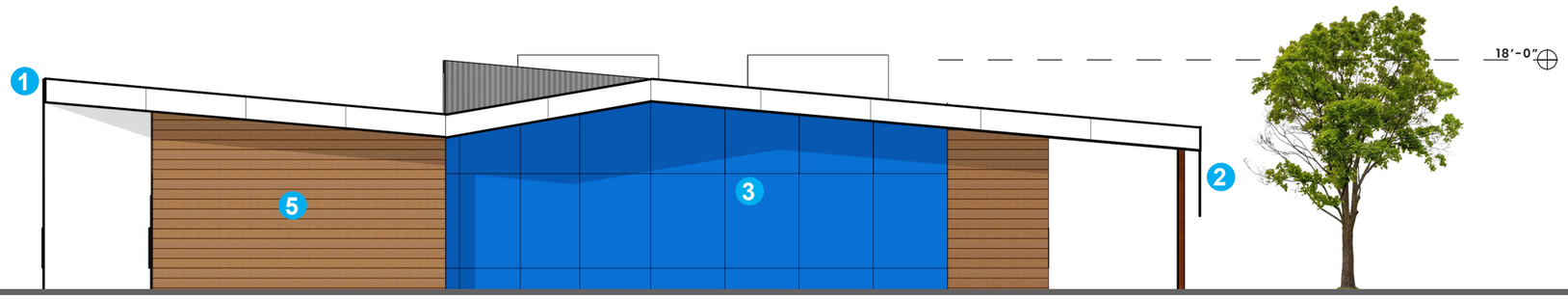
5 Wood Look Fiber Cement

6 Fiber Cement Panels with Concealed Reveals



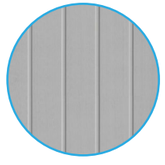


West Elevation



East Elevation

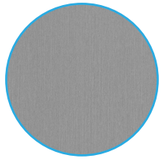
1 Metal Panel Fascia



2 Laser Cut Metal Panel

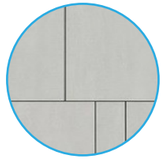
3 Painted Stucco with Concealed Reveals

4 Aluminum Store Front System



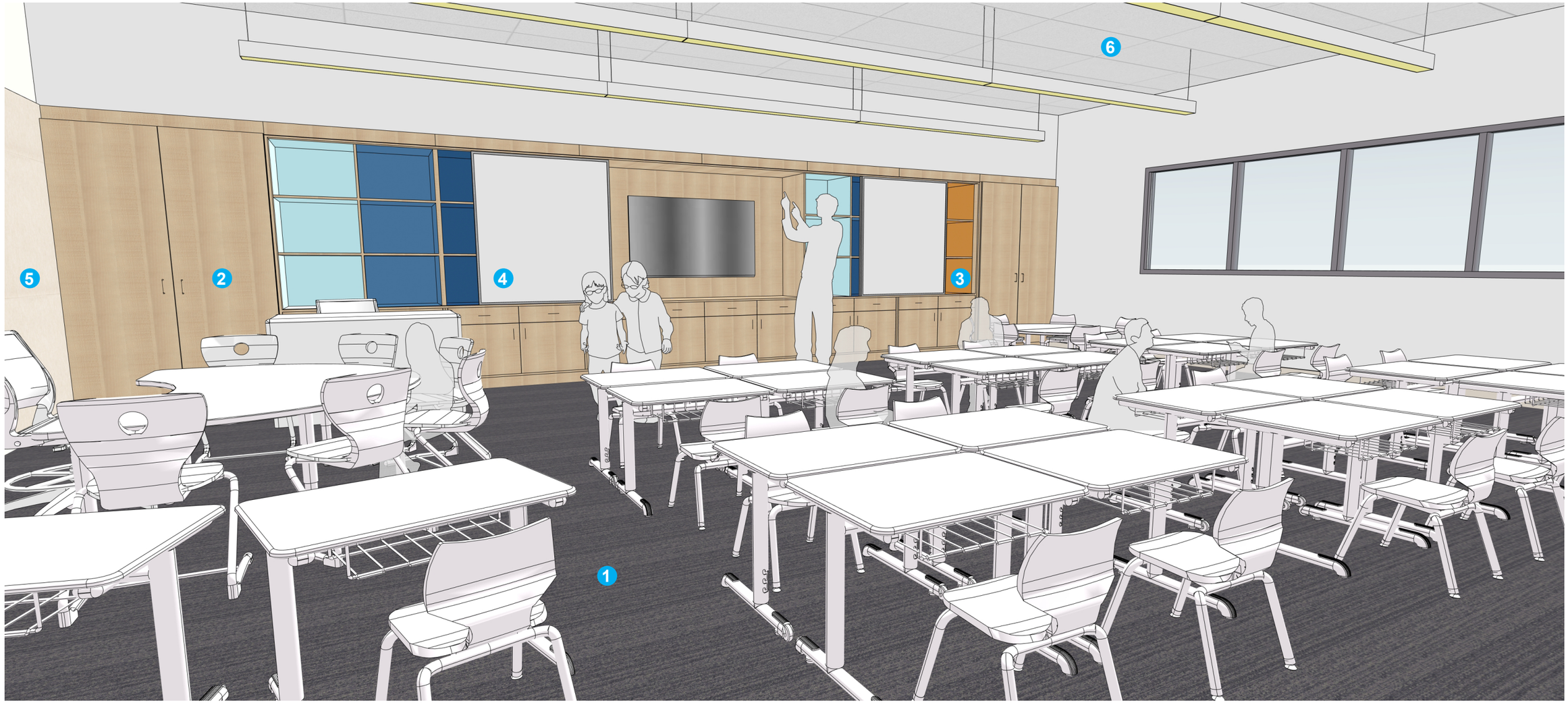
5 Wood Look Fiber Cement

6 Fiber Cement Panels with Concealed Reveals



Typical Classroom

The typical classroom creates a functional and comfortable space for students and teachers. The teaching wall includes a monitor and sliding markerboards that hide open storage behind them. Acoustical panels cover the walls, dampening noise and giving teachers tackable panels around the whole space. A sink and backpack hooks are located next to the entry for students to use as they walk in.



1 Carpet

2 High Pressure Laminate

3 Colored Laminate (3 Colors)

4 Markerboard

5 Acoustic Panel

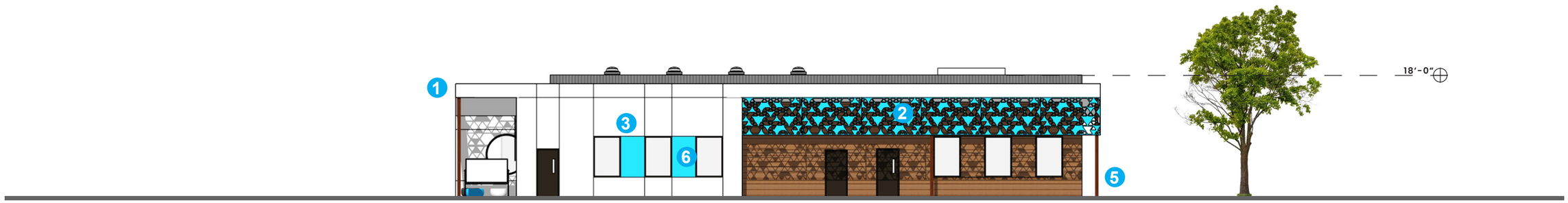
6 Acoustic Ceiling Tiles

Typical Classroom - Materials

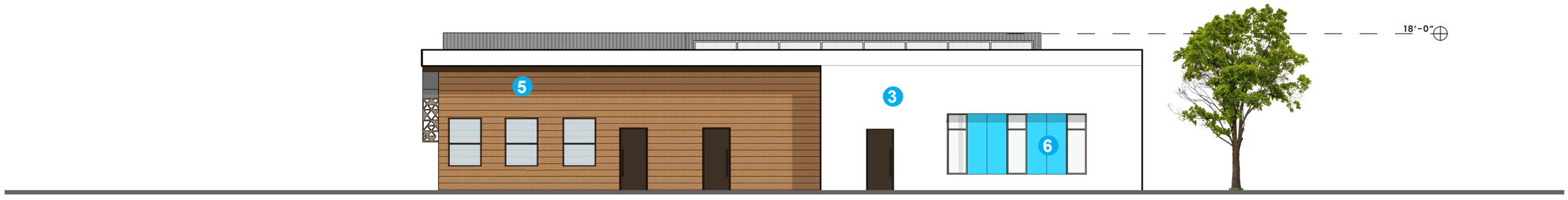
Floor Plan - Building 400, 500, & 600 - Classroom

- Circulation/Breakout
- Office
- Staff Support
- Conference
- Classrooms
- Multi-Use Area
- Restrooms
- Storage
- Utilities

DLR GROUP

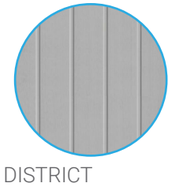


North Elevation



South Elevation

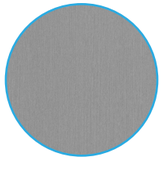
1 Metal Panel Fascia



2 Laser Cut Metal Panel

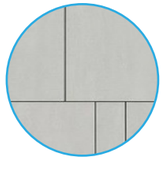
3 Painted Stucco with Concealed Reveals

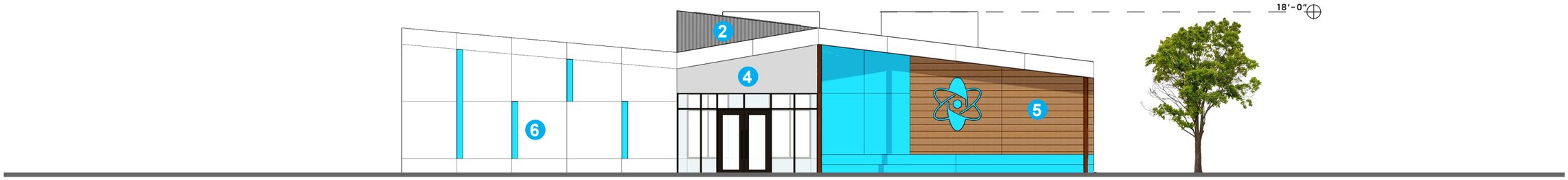
4 Aluminum Store Front System



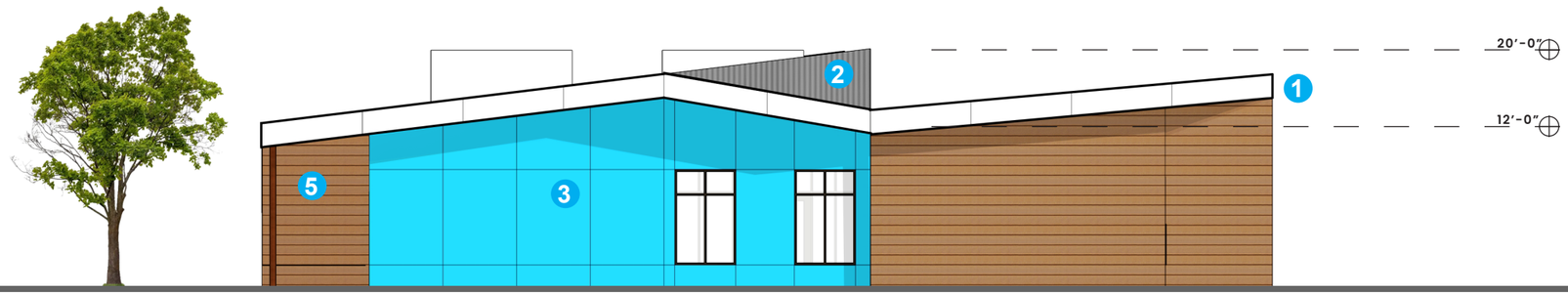
5 Wood Look Fiber Cement

6 Fiber Cement Panels with Concealed Reveals



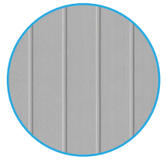


West Elevation



East Elevation

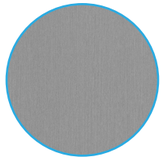
1 Metal Panel Fascia



2 Laser Cut Metal Panel

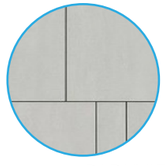
3 Painted Stucco with Concealed Reveals

4 Aluminum Store Front System



5 Wood Look Fiber Cement

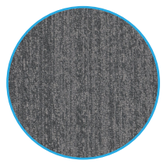
6 Fiber Cement Panels with Concealed Reveals



SPED Classroom - Teaching Wall

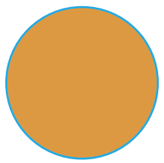
The SPED classroom create a functional and comfortable space for student and teachers. The teaching wall includes a monitor and sliding makerboards that hide open storage behind them. Markboards cover the walls to allow for flexibility of the teaching space.

1 Carpet



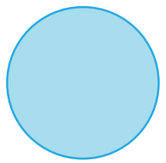
2 High Pressure Laminate

3 Colored Laminate (3 Colors)

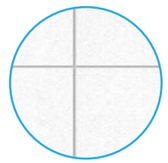


4 Markerboard

5 Paint



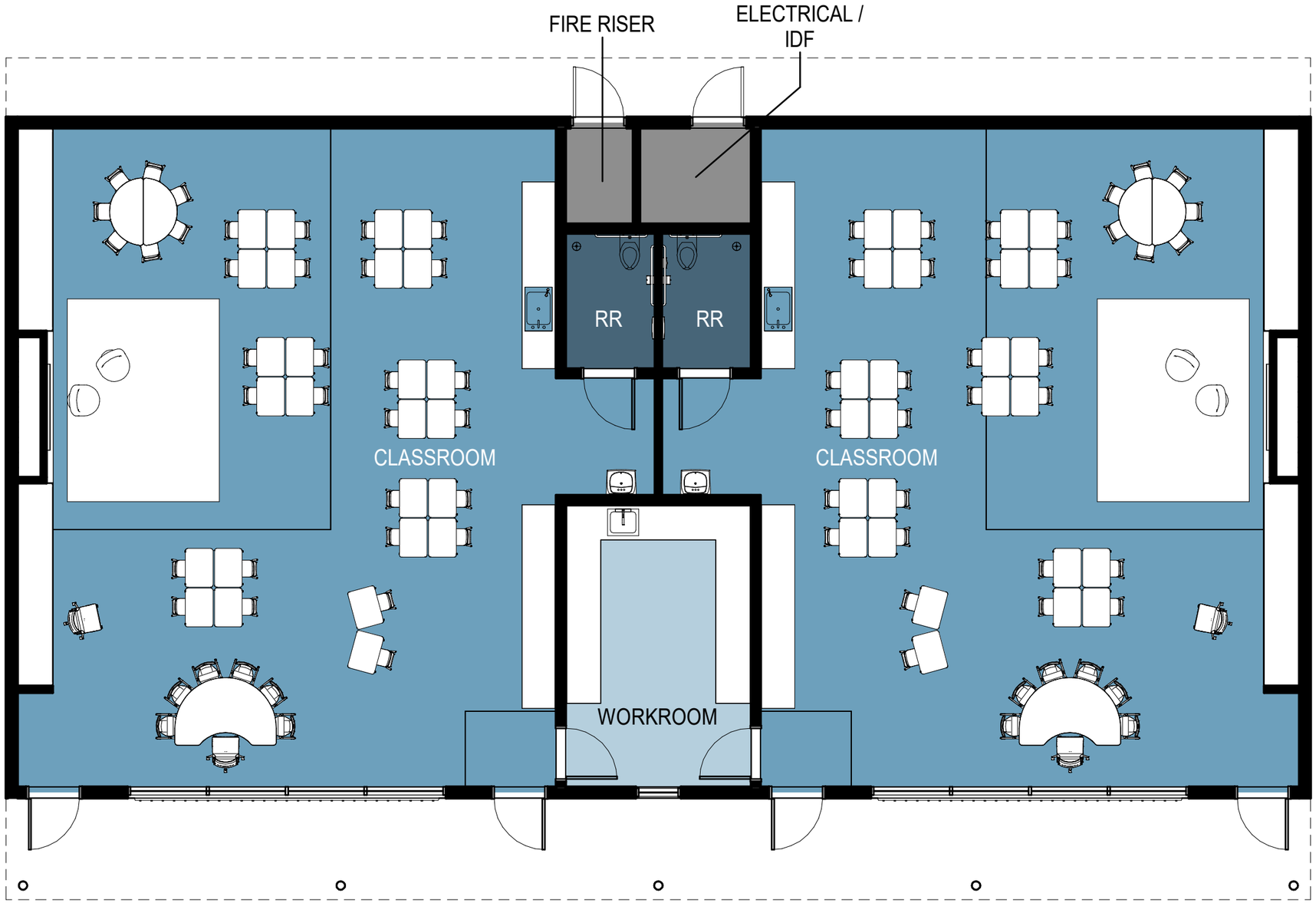
6 Acoustic Ceiling Tiles



SPED Classroom - Nooks

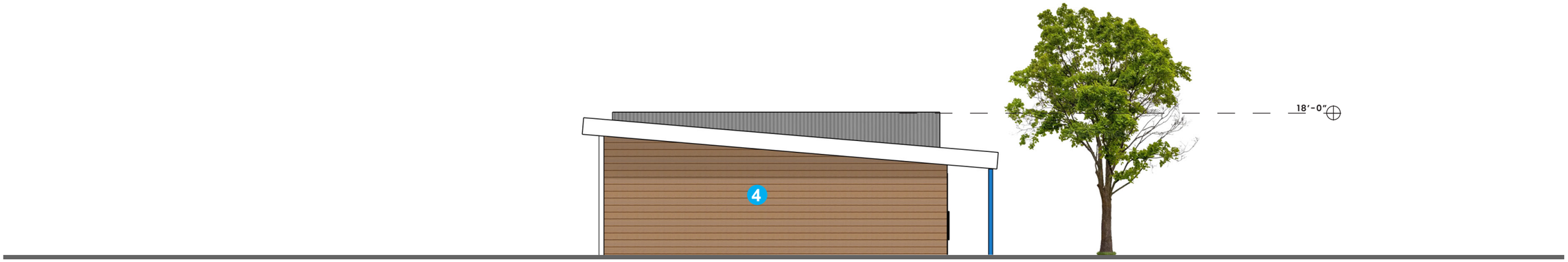
A sink is located next to the entry for students to use as they walk in. Built-in nooks allow for students to have a sensory space within the classroom, providing students within a space for quiet individual learning and to collect themselves

Floor Plan - Building 800 - Kindergarten

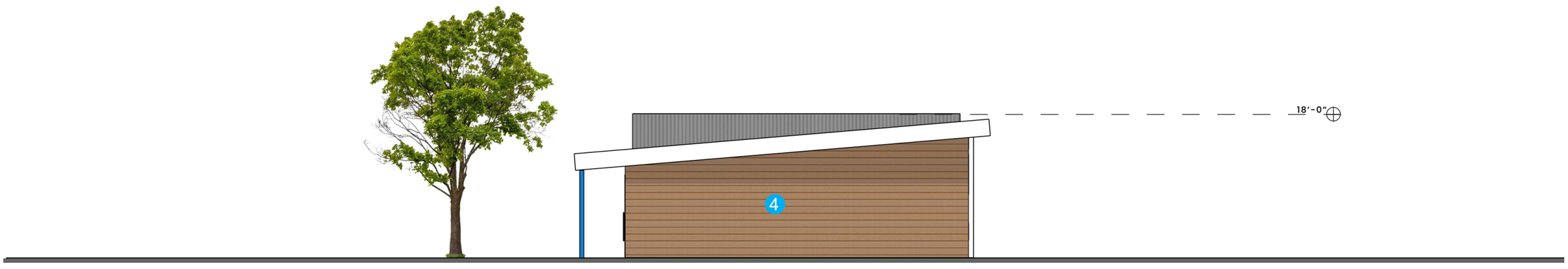


- Circulation/Breakout
- Office
- Staff Support
- Conference
- Classrooms
- Multi-Use Area
- Restrooms
- Storage
- Utilities

DLR GROUP

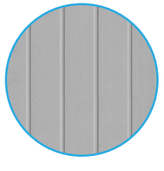


West Elevation



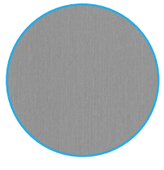
East Elevation

1 Metal Panel Fascia



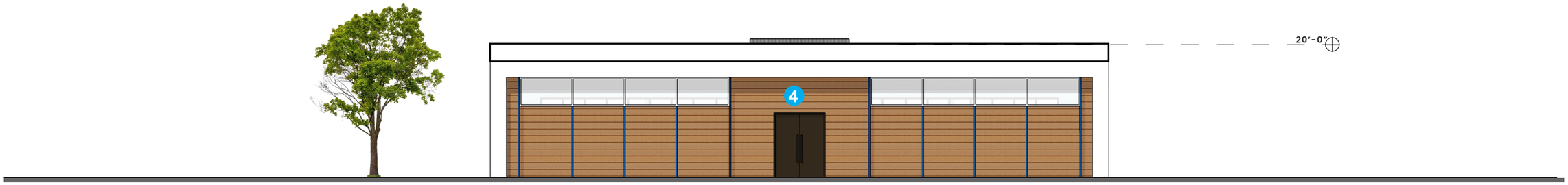
2 Painted Stucco with Concealed Reveals

3 Aluminum Store Front System



4 Wood Look Fiber Cement

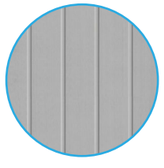
5 Thin Brick Veneer



North Elevation

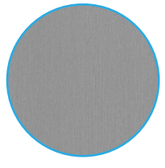
South Elevation

1 Metal Panel Fascia



2 Painted Stucco with Concealed Reveals

3 Aluminum Store Front System

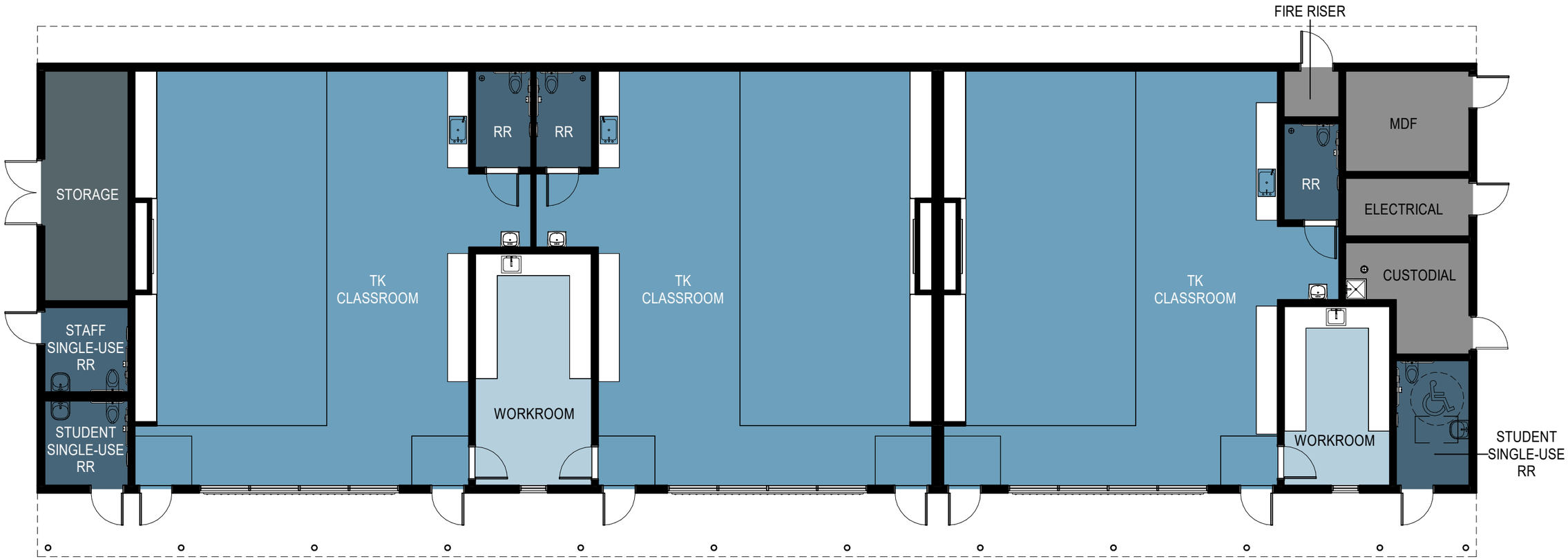


4 Wood Look Fiber Cement

5 Thin Brick Veneer

Floor Plan - Building 900 - Transitional Kindergarten

- Circulation/Breakout
- Office
- Staff Support
- Conference
- Classrooms
- Multi-Use Area
- Restrooms
- Storage
- Utilities



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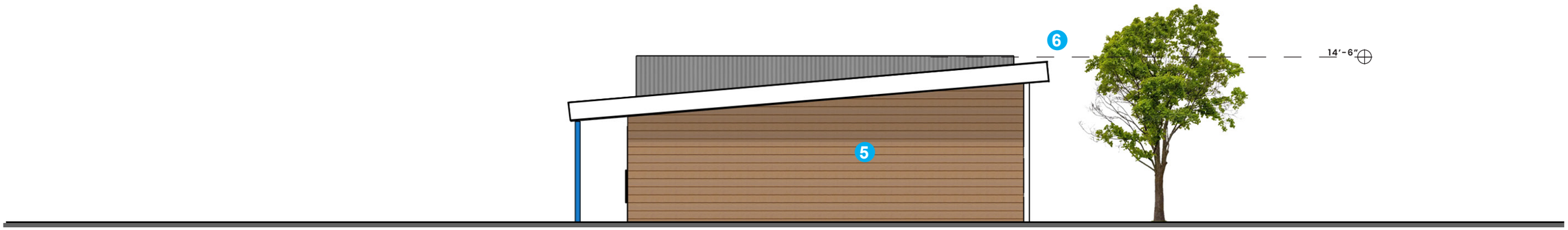
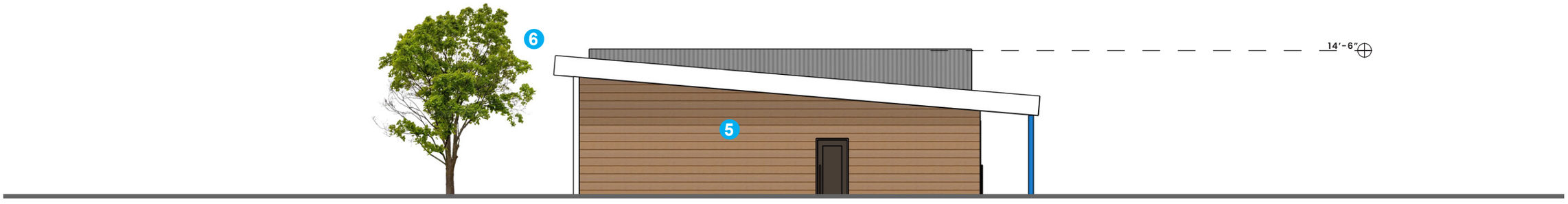
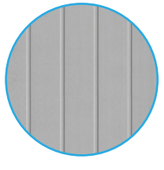


West Elevation



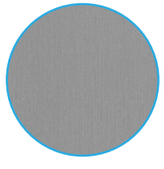
East Elevation

1 Metal Panel Fascia



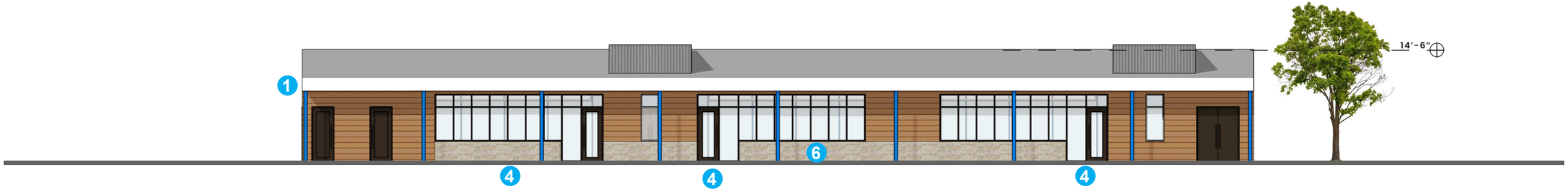
2 Painted Stucco with Concealed Reveals

3 Aluminum Store Front System



4 Wood Look Fiber Cement

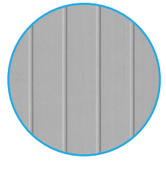
5 Thin Brick Veneer



South Elevation

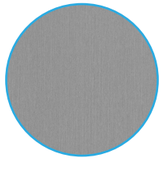
North Elevation

1 Metal Panel Fascia



2 Painted Stucco with Concealed Reveals

3 Aluminum Store Front System



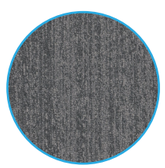
4 Wood Look Fiber Cement

5 Thin Brick Veneer

TK / K Classroom - Teaching Wall

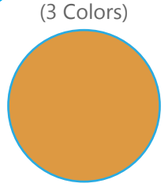
The typical classroom creates a functional and comfortable space for students and teachers. The teaching wall includes a monitor and sliding markerboards that hide open storage behind them. Acoustical panels cover the walls, dampening noise and giving teachers tackable panels around the whole space. A sink and backpack hooks are located next to the entry for students to use as they walk in.

1 Carpet



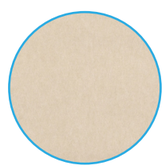
2 High Pressure Laminate

3 Colored Laminate (3 Colors)

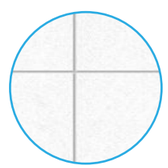


4 Markerboard

5 Acoustic Panel



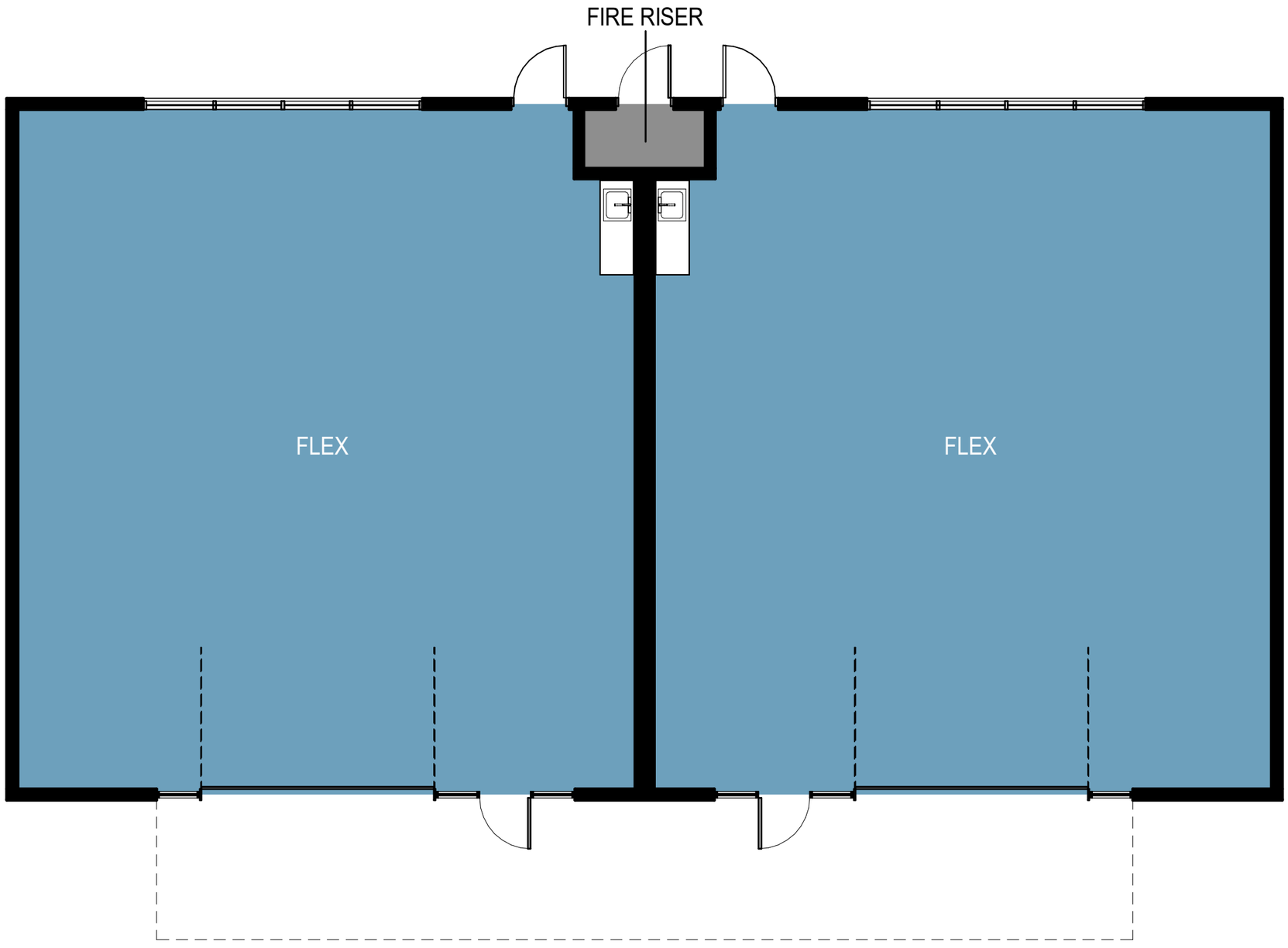
6 Acoustic Ceiling Tiles



TK / K Classroom - Back Wall

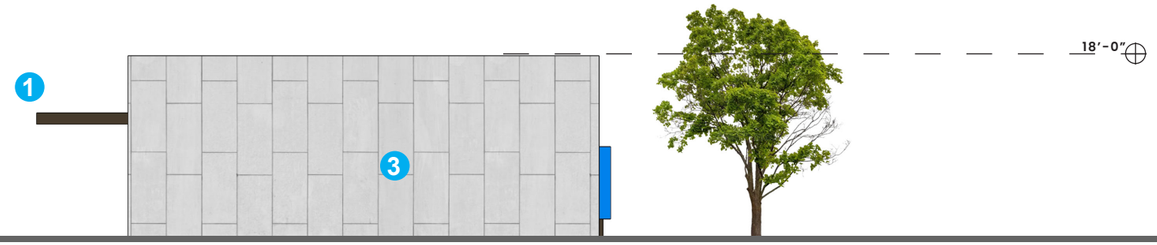
A sink and cubbies are located next to the entry for students to use as they walk in.

Floor Plan - Building 1000 - FLEX CLASSROOM BUILDING

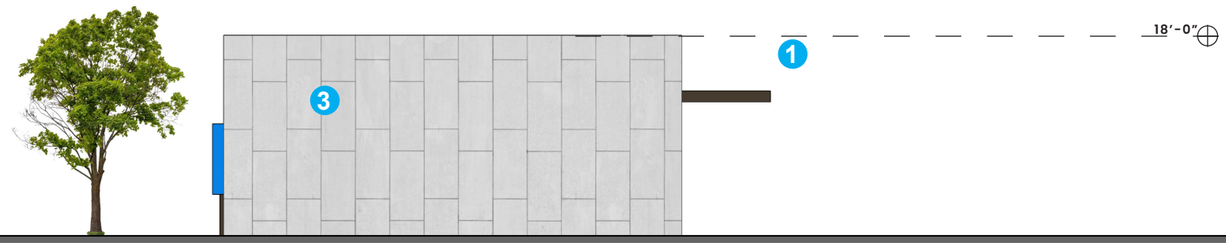


- Circulation/Breakout
- Office
- Staff Support
- Conference
- Classrooms
- Multi-Use Area
- Restrooms
- Storage
- Utilities

DLR GROUP

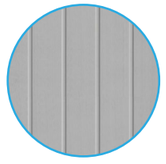


East Elevation



West Elevation

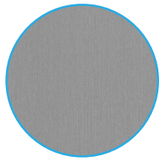
1 Metal Panel Fascia



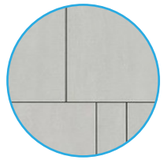
2 Laser Cut Metal Panel

3 Painted Stucco with Concealed Reveals

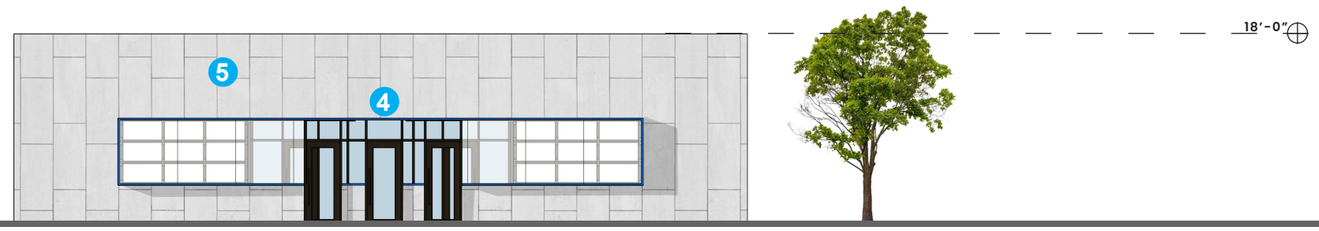
4 Aluminum Store Front System



5 Fiber Cement Panels with Concealed Reveals

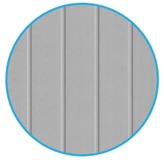


South Elevation



North Elevation

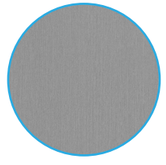
1 Metal Panel Fascia



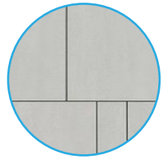
2 Laser Cut Metal Panel

3 Painted Stucco with Concealed Reveals

4 Aluminum Store Front System



5 Fiber Cement Panels with Concealed Reveals



05

APPENDIX & CONSULTANT NARRATIVES

Civil Narrative

Site Water Findings

Water for the site is provided by California Water Service Company (Cal Water). Cal Water has an 8" diameter main in East 8th Street. An 8" diameter Cal Water main extends from East 8th Street into the southwesterly portion of the school site to serve a fire hydrant. This water main is owned and operated by Cal Water and there are no known water services that extend from this main. Although we do not have an easement document to verify, typically Cal Water has a 20' wide easement that accompany main extensions on private property. No other hydrants are along the site frontage.

A Cal Water meter is located near the southwesterly driveway into the site. A large backflow assembly that appears to be for fire suppression is in this location along with a small backflow that is likely for irrigation. Another backflow assembly is located at the westerly end of the easterly parking lot. Records depict water to serve the site from this backflow assembly and being routed throughout the site.

Site Water Recommendations

The water for the site should be upgraded to provide separate services for domestic, irrigation and fire suppression. All of the services should have backflow assemblies. Domestic and irrigation water will be separately metered. The records that we have do not provide the size of the existing water services to the site. Cal Water should be contacted to determine the existing sizes. It could then be determined if the existing services are undersized and need to be replaced. A flow test should be requested from Cal Water to determine the available water pressure and flow for the site.

Based on the District's Master Plan, the onsite water system is dated and should all be replaced. Additionally, during the project design the onsite piping could be properly sized for the facility.

Site Sanitary Sewer Findings

Sanitary sewer at the site utilizes a gravity piping system that flows to a City of Chico sewer main piping system within East 8th Street. The site connects to the City's system at a manhole in the street. The depth of the existing main at the manholes in the street is approximately 7 feet from the lid to the pipe invert. City sewer is located within East 8th Street along the entire frontage of the site. Historic plans from the District depict a sewer lift station in the westerly portion of the site. The remainder of the site appears to be a gravity flow system. District records show an existing septic tank and leach lines. No evidence of this was found during the site topographic survey and it is unknown if this infrastructure remains.

Based on our conceptual review, continuing to utilize the existing point of connection in East 8th Street should allow the entire site to be served with a gravity sewer system.

Site Sanitary Sewer Recommendations

Based on the District's Master Plan, the onsite sanitary system has met its useful life and should be replaced. Sewer from the site should continue to connect to the City's system at the manhole located within East 8th Street. All onsite sewer piping should be replaced and routed to maintain minimal slopes to serve the entire site.

Site Storm Drain Findings

Onsite storm drain infrastructure consists of gravity pipes with some infiltration areas. The portions of the site that do discharge from the site connection to a City of Chico storm drain manhole located in East 8th Street at the approximate mid-point of the site frontage. The City storm drain pipe is a 36" diameter pipe. The pipe serving the school at the manhole is a 10" diameter pipe. The distance from the manhole rim to the 10" pipe invert is approximately 3.9'. Other City storm drain structures that are located within East 8th Street could be considered for an outfall for the project. The depth of these other locations are approximately the same as the existing point of connection.

Site Storm Drain Recommendations

Based on the District's Master Plan, all onsite storm drain infrastructure has met its useful life and should be replaced. The point of outfall from the site could remain at the existing manhole or could be relocated to another City structure within East 8th Street. The new storm drain system should be a gravity system that is routed through the site.

Percolation tests should be performed for use with the drainage design. Portion of the site will need to be infiltrated or treated to meet local requirements.

Landscape Narrative

School Site Design Narrative

Set across a dynamic 7.72-acre site, the site design for Parkview Elementary is a visual manifestation of its core mission: fostering the next generation of innovators in Science, Technology, Engineering, and Math (STEM). The entire campus is conceived as a macrocosm of its symbol—the Atom—where all learning orbits around a powerful core. The landscape architecture compliments the fun, bright blue of the school logo while also weaving in a natural color palette on the buildings. The campus is enriched with pops of color that guide students through the site, ground their focus, and spark creativity.

The Nucleus and the Gateway

The campus layout is loosely shaped like a fundamental atomic structure, promoting a seamless flow between major functions. At the heart, the Library serves as the dense, information-rich nucleus, surrounded by the three main classroom "orbitals."
The journey of discovery begins at the Gateway, defined by the strategic placement of the Administration Building and the Multipurpose Room. Both structures are designed with impressive, welcoming overhangs on the roof. These architectural elements feature decorative perforation, casting geometric, solar-powered patterns onto the plaza below—a subtle nod to light refraction and technology.
The entry experience is dramatically defined by a large, fun, steel cut-out sign bearing the "Parkview Elementary School" name, designed to visually resemble the periodic table of elements, immediately reinforcing the scientific identity of the school.
Adjacent to the Multipurpose Room, a tiered outdoor amphitheater is integrated into the landscape, providing a setting for lectures, presentations, and community events that encourage collaboration and public speaking—essential engineering skills.

The Orbital Rings and Focused Learning

The school's aesthetic utilizes a clean blue and white color palette, symbolic of clarity, sky, and technology, balanced by warm natural wood accents on the building facades.
The three classroom buildings and the Misc Use Room sit along the major pathways, acting as structured "orbital rings." Each classroom building is distinguished by its own unique, large blue or green mural, serving as both a visual identifier and an inspiring backdrop for lessons.

Integral to the learning environment are several outdoor learning spaces positioned within and immediately adjacent to the three classroom buildings. These areas, shielded by natural materials and fabric shade, allow for quick transition from classroom theory to open-air experimentation, observation, and gathering. A small, accessible garden area is also situated near the front of the campus, providing a hands-on lab for botany and environmental science.

The Kinetic Zone and Early Exploration

The youngest students inhabit a cleverly designed T/TK building structure. It consists of two separate buildings united beneath one large, continuous roof that extends to create a sheltered outdoor picnic area. Their play areas are intentionally separate for age-appropriate engagement, and are linked by a dedicated trike track —a winding, low-speed path encouraging movement, balance, and spatial awareness, subtly teaching physics through play.

The main hardtop area is dedicated to Grades 1 through 5. Though the theme of the tons of play elements is nature-themed (promoting biological sciences and environmental studies), the area itself is a structured environment with safe pour-in-place surfacing and protected by ample fabric shade canopies. Traditional recreation is integrated, featuring areas for basketball, wall ball, and 4-square, alongside natural log play for unstructured climbing and balance challenges.
The school features a large turf field for physical education and organized sports. Surrounding the field, sculpted turf mounding provides natural, amphitheater-style seating areas, perfect for outdoor class discussions, observation, or enjoying school events—blending structured recreation with accessible topography.

Parkview Elementary is designed as a continuous circuit of exploration—a campus that stimulates curiosity, grounds learning in the real world, and fosters collaboration across every element of its design.

CONCEPT PLANT SCHEDULE

	EXISTING TREE TO KEEP	20
	EXISTING TREE KEEP RECCOMENDED NOT INTIALLY SURVEYED	14
##	TREE ID NUMBER	

Parkview Elementary Tree Survey
Date Staked: 2025-08-13

By Greg Melton

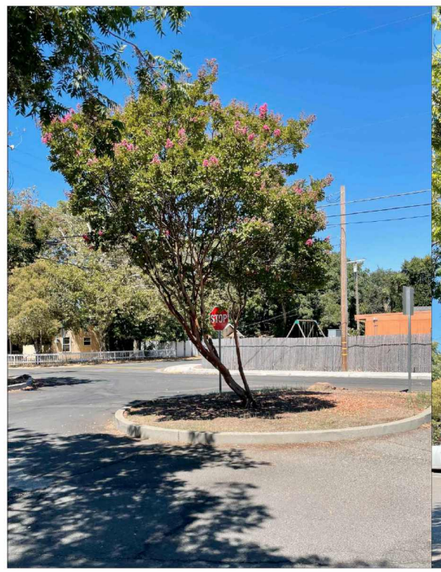
MDG
MELTONDESIGNGROUP.inc

Plant #	Species	D.B.H. (in)	Comments Concerning Condition	Health Rating	Recommendations
1	Valley Oak *(Quercus lobata)*	30		Healthy	KEEP
2	Valley Oak *(Quercus lobata)*	24		Healthy	KEEP
3	White Oak *(Quercus alba)*	18		Healthy	KEEP
4	Valley Oak *(Quercus lobata)*	24		Healthy	KEEP
5	Chinese Pistache *(Pistachia chinensis)*	18		Healthy	KEEP
6	Chinese Pistache *(Pistachia chinensis)*	18		Healthy	KEEP
7	Chinese Pistache *(Pistachia chinensis)*	18		Healthy	KEEP
8	Chinese Pistache *(Pistachia chinensis)*	18		Healthy	KEEP
9	Valley Oak *(Quercus lobata)*	N/A		Healthy	KEEP
10	Valley Oak *(Quercus lobata)*	N/A		Healthy	KEEP
11	Valley Oak *(Quercus lobata)*	N/A		Healthy	KEEP
12	Valley Oak *(Quercus lobata)*	N/A		Healthy	KEEP
13	Valley Oak *(Quercus lobata)*	N/A		Healthy	KEEP
14	Sycamore *(Plantanus occidentalis)*	18		Healthy	KEEP

Parkview Elementary Tree Survey
Date Staked: 2025-08-13

Plant #	Species	D.B.H. (in)	Comments Concerning Condition	Health Rating	Recommendations
15	Silver Birch (Betula pendula)	8	Multi-Trunk	Healthy	KEEP
16	Silver Birch (Betula pendula)	8	Multi-Trunk	Healthy	KEEP
17	Pin Oak (Quercus palustris)	8		Healthy	KEEP
18	Pin Oak (Quercus palustris)	24		Healthy	KEEP
19	Pin Oak (Quercus palustris)	24		Healthy	KEEP
20	Pin Oak (Quercus palustris)	24		Healthy	KEEP

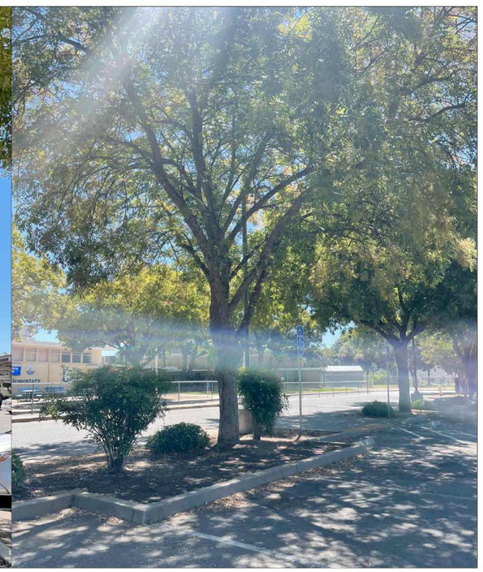
DLR GROUP



TREE 1

TREE 2

TREE 3



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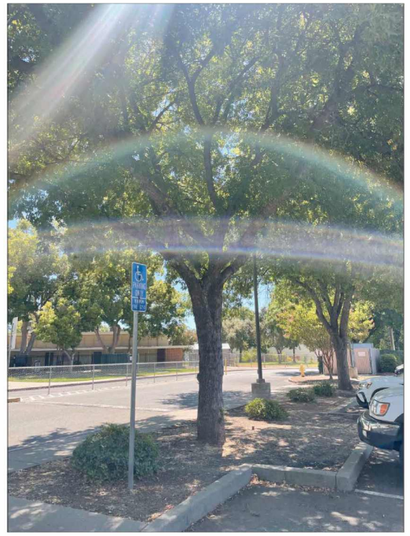

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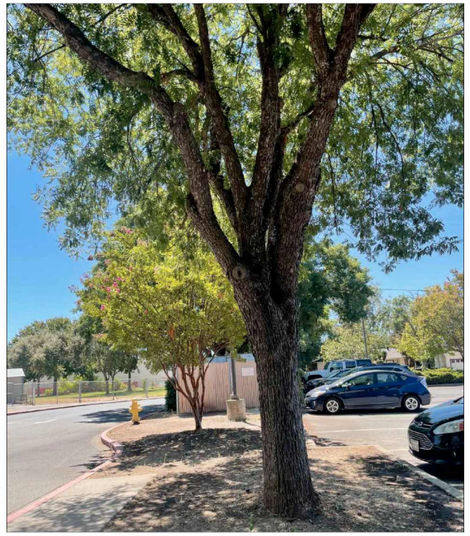

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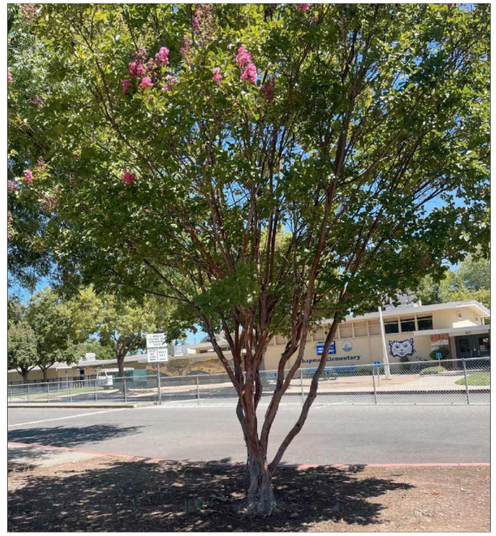

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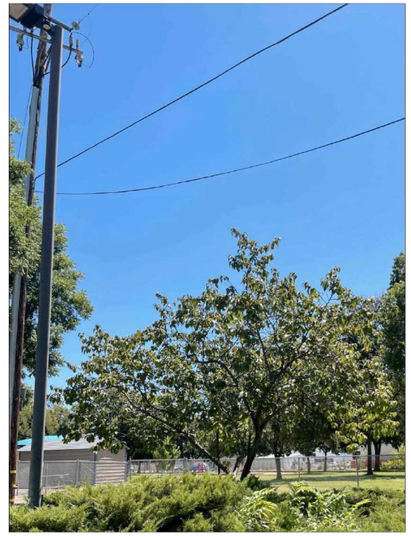

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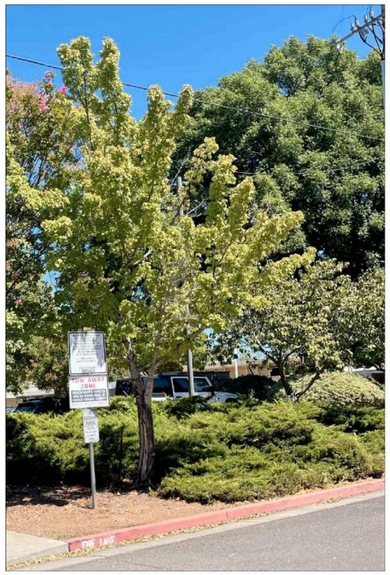
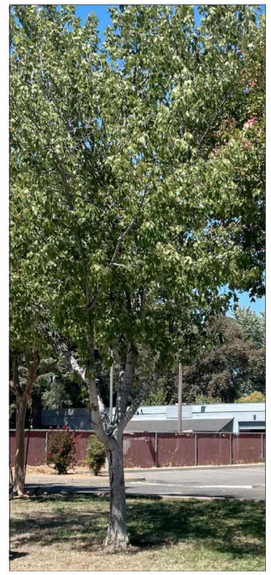


TREE 10

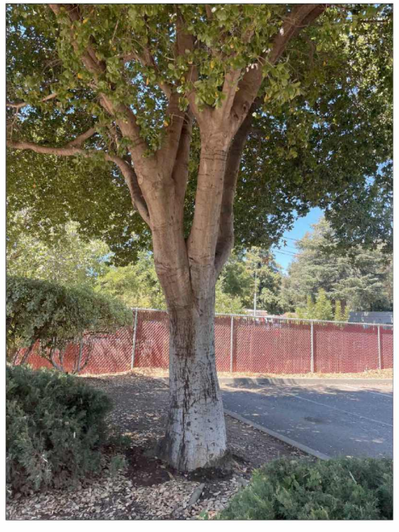
TREE 11

TREE 12



TREE 13

TREE 14



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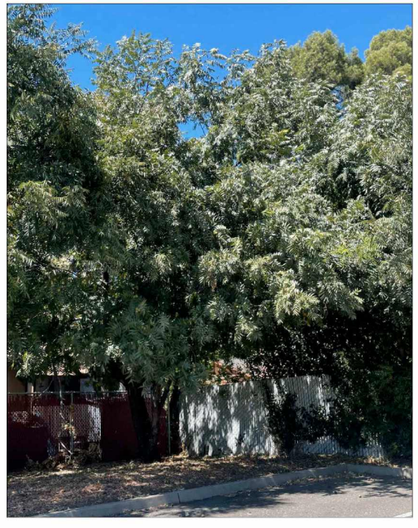
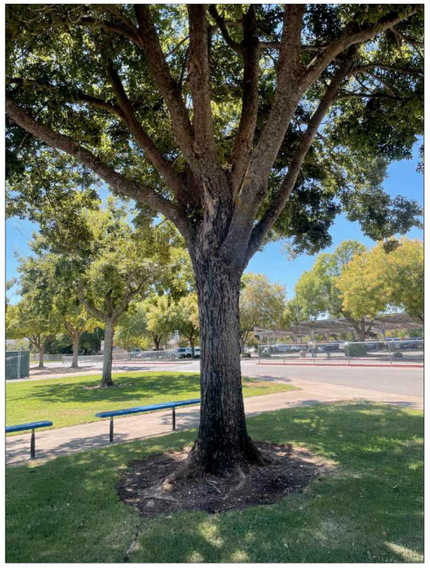


TREE 18

TREE 19



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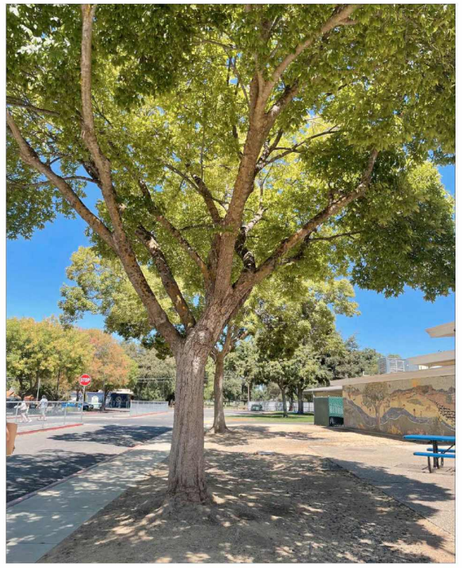

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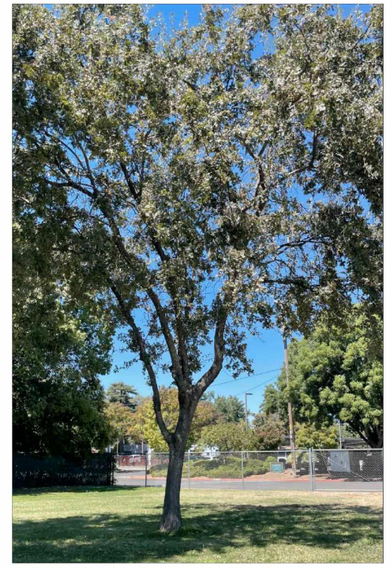

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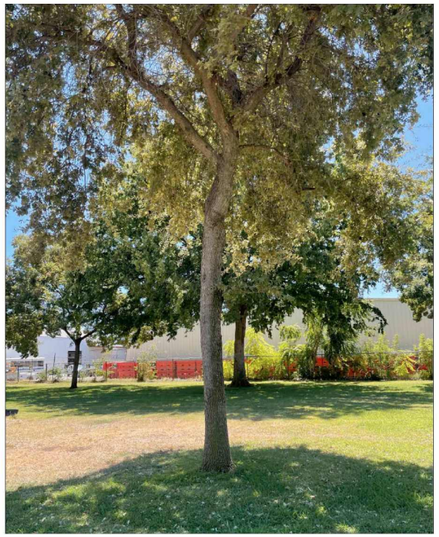

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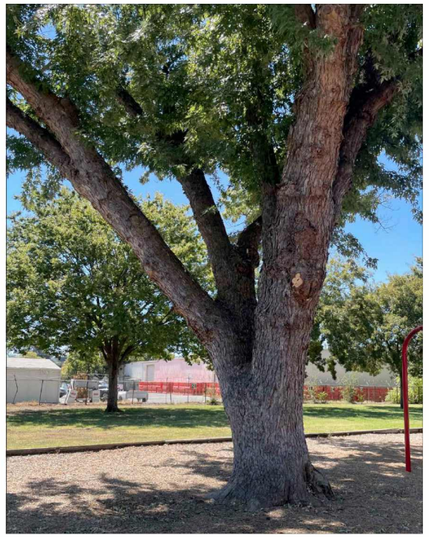

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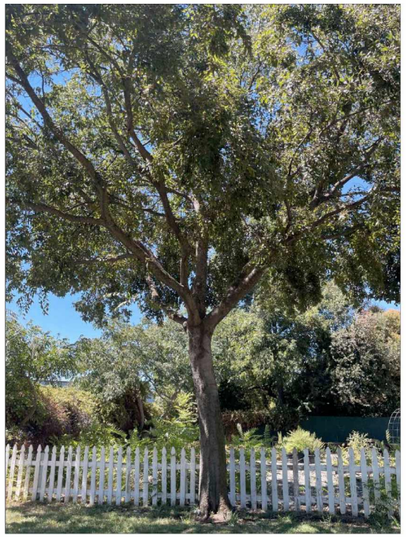

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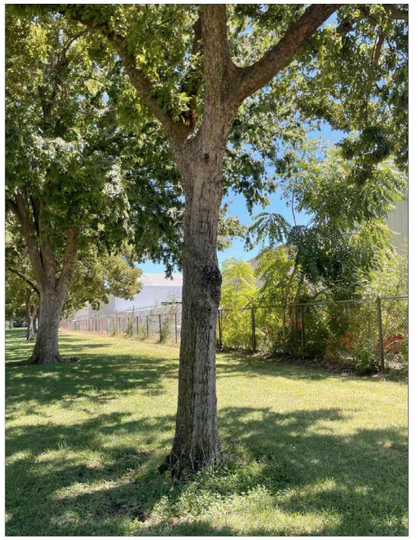

TREE 27

Structural Narrative

Gravity System

The buildings are to be constructed of mostly wood materials including solid sawn and engineered lumber. One potential option for the roof framing system is open web trusses (OWT) produced by Redbuilt. Open web trusses are a cost-effective framing system capable of long, uninterrupted spans. The voids between truss web members provide flexibility for routing of mechanical, plumbing, and electrical distribution systems throughout the building.

The walls are to be wood-framed light construction with an assortment of 2x6 and 2x8 walls where required. The building posts are to be solid sawn timber and PSL elements as needed to support the heavy beam element loads. Steel columns will be specified only where structurally necessary to support large beam loads or cantilevered overhang elements.

The foundations are to consist of conventional shallow foundations made up of normal-weight concrete. Pad footings are to be located at the bearing points for highly loaded columns. The floors are to be a slab-on-grade system.

Lateral System

The main lateral force resisting system of all buildings will consist of plywood attached to wood roof elements to form roof diaphragms and plywood attached to wood studs to form shear walls. Anchorage to the foundations is expected to be cast-in-place anchors with holdowns elements as needed.

Modular Construction

Each building will be designed to facilitate off-site construction of both wall and roof panels. The floor plans will be laid out to fit an 8’-0” panel module which saves material by minimizing plywood cuts. Prefabricated panels can then be transported to the construction site and assembled like a kit of parts.

By intentionally designing with prefabrication in mind, the team can help set up the construction of the project for success regardless of the contractor that is selected. Even if off-site prefabrication is not pursued, the buildings are laid in an efficient manner which will ultimately help the construction schedule and overall construction budget.

Mechanical Narrative

General Description

The intent of this document is to respond to the Owner's Project Requirements (OPR), establish design concepts and team expectations, and clarify design intent for the proposed Mechanical, Plumbing and Fire Protection systems serving buildings to be newly constructed.

Definitions

A. Demand Control Ventilation: This is solely an energy conservation measure. A California Energy Code compliant carbon dioxide (CO2) sensor will be installed, which will:

1. Reduce the amount of outside air delivered to the space when measured CO2 ppm level in the room is below the setpoint.
2. The sequence of operation shall be as follows:

a. EMS unitary controller will be connected to a wall mounted CO2 sensor to monitor zone CO2 concentration during occupied hours and manual override(after hours) operation.
b. When zone CO2 level is below 800 ppm, outside air damper shall be set to "Lower Min." or "DCV" position (0.15 cfm/sqft), as scheduled in the equipment schedule on the drawings. When zone CO2 level exceeds 800 ppm, outside air damper shall be set to "Upper Min." position (mechanical ventilation cfm required per CEC 120.1(c)3. and CEC Table 120.1-A), as scheduled in the equipment schedule on the drawings. Outside air damper shall remain at "Upper Min." position until CO2 level has dropped below 700 ppm, and will then return to "Lower Min." or "DCV" position (0.15 cfm/sqft).

B. Occupancy Sensor Ventilation Control: This is solely an energy conservation measure. A California Energy Code compliant occupancy sensor will be installed, which will:

1. Relax (set-up or set-back) the space temperature setpoint after the space has been vacant for more than 5 minutes (adjustable).
2. Cycle off the HVAC system completely during vacancy when the relaxed space temperature setpoint is satisfied.
3. The sequence of operation shall be as follows:

a. When the zone has been scheduled for occupancy for at least one hour and the occupancy sensor has confirmed that zone has been vacant for 5 minutes (adjustable), the zone shall be placed into Occupied-Standby Mode.
b. During Occupied-Standby Mode, EMS shall set-up/set-back the cooling and heating room temperature setpoints by 2 degF (adjustable).
c. If set-up/set-back room temperature setpoint is satisfied, the EMS system shall completely turn off the HVAC system. The HVAC system shall cycle on as needed to maintain set-up/set-back room temperature setpoint during Occupied-Standby Mode.
d. Upon detection of occupancy, Occupied-Standby Mode shall be cleared.

Applicable Codes and Standards

A. California Building Codes, 2025 Edition:

1. California Building Code (CBC).
2. California Existing Building Code.
3. California Historical Building Code.
4. California Fire Code (CFC).
5. California Green Building Standards Code (CalGreen).
6. California Energy Code (CEC).
7. California Mechanical Code (CMC).
8. California Plumbing Code (CPC).

B. National Fire Protection Association Codes and Standards, dates of publication as referenced by the 2025 CBC:

1. NFPA 13, Installation of Sprinkler Systems.

Calgreen Measures

The following CalGreen requirements will be incorporated into the design of mechanical systems for the Project:

A. Division 5.1 – Planning and Design – Mandatory Measuers:
1. 5.106.8 Light Pollution Reduction: New outdoor lighting systems shall be designed and installed to comply with the requirements of 5.106.8 therein.

B. Division 5.2 -- Energy Efficiency – Mandatory Measures:
1. 5.201.1 Energy Efficiency: Building shall meet or exceed the requirements of the California Building Energy Efficiency Standards.

C. Division 5.3 – Water Efficiency and Conservation – Mandatory Measures:
1. 5.303.3 Plumbing fixtures will meet the minimum flow rates as mandated therein.
2. 5.303.6 Standards for Plumbing Fixtures and Fittings: Plumbing fixtures will be installed in accordance with the California Plumbing Code, and will meet the applicable standards referenced in Table 1701.1 of the California Plumbing Code and in Chapter 6 of the California Green Building Standards Code.

D. Section 5.504 Pollutant Control – Mandatory Measures:
1. 5.504.1 Temporary Ventilation: The permanent HVAC system will only be used during construction if necessary to condition the building or areas of addition or alteration within the required temperature range for material and equipment installation. If the HVAC system is used during construction, MERV 8 return air filters will be installed, and the filters will be replaced immediately prior to occupancy, or conclusion of construction if building is occupied.
2. 5.504.3 Covering of Duct Openings and Protection of Mechanical Equipment During Construction: At the time of rough installation and during storage on the construction site until final startup of the heating, cooling, and ventilating equipment, all duct and other related air distribution component openings will be covered with approved materials.
3. 5.504.5.3 Filters: MERV 13 air filters will be installed prior to occupancy. Recommendations for maintenance with filters of the same value will be included in the O & M manual.
a. 5.504.5.3.1 Labeling: Specified filters will be clearly labeled by the manufacturer indicating the MERV rating.

E. Section 5.506 Indoor Air Quality – Mandatory Measures:

1. 5.506.1 The minimum requirements of the 2025 CEC Section 120.1 (Requirements for Ventilation), or the applicable local code, whichever is more stringent, and Division 1, Chapter 4 of CCR, Title 8 will be met.
2. 5.506.2 Carbon Dioxide (CO2) Monitoring: For buildings or additions equipped with demand control ventilation, CO2 sensors and ventilation controls shall be specified and installed in accordance with the requirements of the California Energy Code, Section 120.1(c)(4).
3. 5.506.3 Carbon Dioxide (CO2) Monitoring in Classrooms: Each public K-12 school classroom, as listed in Table 120.1-A of the California Energy Code, shall be equipped with a carbon dioxide monitor or sensor that meets the requirements of 5.506.3.

F. Section 5.508 Outdoor Air Quality – Mandatory Measures:

1. Ozone Depletion and Greenhouse Gas Reductions: Installations of HVAC, Refrigeration, and Fire Suppression equipment will comply with Sections 5.508.1.1 and 5.508.1.2:

a. 5.508.1.1 No equipment containing Clorofluorocarons (CFCs) will be used for this Project.

b. 5.508.1.2 No equipment containing Halons will be used for this Project.

Heating, Ventilating and Air Conditioning (HVAC)

HVAC Design Criteria:

A. HVAC Load Calculation Software and Methodology:

1. Software: Energy Pro 9.
2. Methodology:
   a. Cooling: CLTD/CLF/SCL.
   b. Heating: UATD.

B. Outdoor Temperatures:

1. Summer Dry Bulb Temperature: 105 Deg. F. (ASHRAE 0.1%)
2. Summer Wet Bulb Temperature: 72 Deg. F. (ASHRAE 0.1%)
3. Winter Dry Bulb Temperature: 22 Deg. F. (Median of Extremes)

a. Based on "Climatic Data for Region X (Arizona, California, Hawaii, Nevada), ASHRAE, Fifth Edition - May 1982", for Chico, CA.

b. 0.1% annual basis estimates there will be 9 hours per year that exceed the listed summer ambient temperatures.

c. Median of Extremes is the median of the annual low winter ambient temperatures.

C. Indoor Temperatures:

Room Type	Summer/Winter Design Temps (Deg. F.)
Open Office	74/70
Private Office	74/70
Corridor/Storage/Support	76/68
Conference	74/70
IDF/MDF	80/65
Classroom/Library	74/70
Multi-Purpose/Gym	76/68
Kitchen	76/70
Restroom	76/68

D. Humidification:

Room Type	Relative Humidity Range
All Rooms	20% thru 60%

E. Interior Loads:

1. Equipment and Lights:

Room Type	Equip. Watts/Sqft	Lights Watts/Sqft
Open Office	1.5	0.60
Private Office	1.5	0.65
Corridor/Storage/Support	0	0.40
Conference	1.0	0.75
IDF/MDF	15.0	0.40
Classroom/Library	1.0	0.60
Multi-Purpose/Gym	1.0	0.75
Kitchen	Based on proposed kitchen equipment, using heat gains from ASHRAE Fundamentals, Chapter 18	0.95
Restroom	0	0.65

2. Ventilation:

Room Type	Min. Outside Air (cfm/sqft)	Min. Exhaust Air (cfm/sqft)
Open Office	0.15	N/A
Private Office	0.15	N/A
Corridor/Storage/Support	0.15	N/A
Conference	0.50	N/A
IDF/MDF	0	N/A
Classroom/Library	0.38	N/A
Multi-Purpose/Gym	0.50	N/A
Kitchen	0.15	0.70
Restroom	0.15	70cfm per flushing fixture

3. People:

Room Type	Sqft/Person	Sensible Heat Gain/Person (BTU/Hour)	Latent Heat Gain/Person (BTU/Hour)
Open Office	100	250	200
Private Office	100	250	200
Corridor/Storage/Support	100	250	250
Conference	15	245	155
IDF/MDF	0	0	0
Classroom/Library	32	245	155
Multi-Purpose/Gym	7	245	155
Kitchen	200	275	475
Restroom	100	250	250

F. Noise Criteria:

Room Type	NC Range
Open Office	35-40
Private Office	30-35
Corridor/Storage/Support	35-40
Conference	25-30
IDF/MDF	40-45
Classroom/Library	30-35
Multi-Purpose/Gym	40-45
Kitchen	40-45
Restroom	40-45

HVAC SYSTEM:

A. Discussion:

1. The HVAC systems for the new campus will be all electric. There will be no fossil fuel burned on this campus for space heating. The HVAC systems will incorporate equipment with heat pump technology for all space heating applications. The HVAC System shall be comprised of rooftop packaged heat pump units, mini-split system air conditioning & heat pump units, and VRF heat recovery (capable of simultaneous heating and cooling operation) split system units. All rooftop packaged heat pump units and unitary split system heat pump units shall have full economizer (free cooling) functionality. Provide packaged units with powered exhaust modules to facilitate 100% space relief. All HVAC systems will utilize traditional overhead mixing air delivery method.

Proposed HVAC system consists of the following subsystems and components:

A. Heating and Cooling Packaged Units:
1. Roof mounted packaged heat pump units with:
a. Dx compressor and cooling coil with R-454B refrigerant, hinged access panels, louvered condenser coil guards, phase monitor/protection, and thru-the-bottom wiring connection kit.
1) For units 6 nominal tons and larger, unit shall include factory installed variable speed supply fan motor, and multiple stage compressor, to facilitate single zone VAV operation per 2025 CEC requirements.
b. Fully modulating power exhaust economizer with exhaust fan VFD, controlled to maintain space pressure of 0.01" – 0.03" positive during all modes of operation, via differential pressure transducer.
c. Factory installed electric resistance auxiliary strip heater, sized for minimum supply air discharge temperature of 90 degF during heating mode, and sized for minimum supply air discharge temperature of 70 degF during defrost mode (approx. 15 degF delta T). Unit shall be wired from factory for single point power connection.
d. Vibration isolation roof curb, with minimum 2" deflection springs. Refer to acoustical design criteria narrative for additional requirements.
e. For dx packaged heat pump units serving as make-up air units for kitchen hood exhaust, control make-up air unit for neutral discharge air temperature setpoint. Include necessary internal components to facilitate 100% OSA operation. Interlock make-up air unit to run when kitchen hood exhaust fan is turned on.
f. Comply with ASHRAE 15 for refrigerant concentration limits, typ.
g. Unit Controls: Electro-mechanical controls interface, for control by EMS system.
1) CO2 Demand Control Ventilation Control will be utilized in the following spaces:
a) Classrooms/Library, Multi-Purpose/Gym, Platform.
2) Occupancy Sensor Ventilation Control will be utilized in the following spaces:
a) Multi-Purpose/Gym.
3) Sequences of Operation shall be included on the permit Drawings.
h. Energy Efficiency:
1) 5 tons and smaller (high efficiency model):
a) Cooling: 16.0 SEER2, minimum.
b) Heating: 6.7 HSPF2, minimum.
2) 6 thru 10 tons (high efficiency model):
a) Cooling: 16.8 IEER, minimum.
b) Heating: 3.5 COP, minimum.
3) 12.5 tons and larger (high efficiency model):
a) Cooling: 14.9 IEER, minimum.
b) Heating: 3.4 COP, minimum.
i. Serves: Classrooms/Library, Multi-Purpose/Gym, Platform, Kitchen.

B. Heating and Cooling Split System Units:
1. Mini-Split Air Conditioner (Cooling Only) & Heat Pump (Heating & Cooling) Units:
a. Split system air conditioning unit with R-454B refrigerant. Condensing units will be located on roof. The following indoor terminal equipment/mounting styles will be utilized, as appropriate for spaces served:
1) Wall-mounted.
2) Ceiling-recessed, four-way blow.
b. Comply with ASHRAE 15 for refrigerant concentration limits, typ.
c. Unit Controls: System controlled via factory wall mounted hard wired programmable thermostat. Space temperature shall be monitored by EMS via remote room temp sensor.
d. Serves: IDF/MDF Rooms, After School Program Rooms.

2. Variable Refrigerant Flow Split System Heat Pump Units (Heat Recovery Type):
a. Variable refrigerant flow split system heat pumps with R-454B or R-32 refrigerant, and 2-pipe or 3-pipe distribution system. Condensing units will be located on roof. The following indoor terminal equipment mounting styles will be utilized, as appropriate for spaces served:
1) Ceiling-recessed, one-way blow.
2) Ceiling-recessed, four-way blow.
3) Horizontal ducted, concealed above ceiling.
b. Refrigerant Control Unit for heat recovery (simultaneous heating & cooling) operation installed in accessible and serviceable location, either on the roof in pre-fab'd enclosure, or inside the building concealed above finished ceiling.
c. Ventilation air will be provided by a rooftop packaged heat pump dedicated outside air system (DOAS) unit.
d. Comply with ASHRAE 15 for refrigerant concentration limits, typ.
e. Unit Controls: Manufacturer's control panel and room sensors, and interface to DDC system.
f. Serves: Administration Area.

C. Heating-Only Equipment:
1. Electric unit heaters.
a. Mounting: Wall mounted.
b. Controls: Programmable thermostat.
c. Serves: Fire Riser Rooms.

D. Exhaust, Relief, and Ventilation:
1. Centrifugal roof ventilators:
a. Building exhaust applications.
b. Fan controlled by speed controller on factory EC motor.
c. Serves: Janitor Closets, Restrooms.
2. Centrifugal roof ventilators – Kitchen Hood:
a. Kitchen hood exhaust applications.
b. Upblast air discharge.
c. Hinged, extended roof curb.
d. Grease collection tray.
e. Serves: Type I Kitchen Hood.
3. Ceiling mounted ventilators:
a. Building exhaust applications.
b. Fan controlled by factory accessory solid state speed controller.
c. Serves: Janitor Closets, Restrooms.
4. In-line centrifugal fans:
a. Building exhaust applications.
b. Fan controlled by factory accessory solid state speed controller.
c. Serves: Janitor Closets, Restrooms.

E. Air Distribution System:
1. G90 galvanized steel ductwork.
2. Install 1" thick internal duct liner on all supply air and return air ductwork for a minimum of the first 10 feet of duct length from the connected hvac unit, typical. First inlet or outlet connection shall be at least 10 feet from the connected hvac unit, typical.
3. Grease exhaust ductwork shall be fully welded 16 gauge minimum black steel where concealed, and fully welded 18 gauge minimum Type 304 stainless steel where exposed. Provide and install Firemaster Fastwrap XL, or equal, field applied grease duct enclosure on entire length of grease ductwork.
a. At Contractor's option, 18 gauge minimum Type 304 stainless steel may be used where concealed.
4. Supply, return and exhaust ductwork shall be sized for maximum friction loss of 0.08"/100 feet of duct for ductwork carrying up to 4,000 cfm, and shall be sized for maximum air velocity of 1200 fpm for ductwork carrying more than 4,000 fpm.
5. Barometric relief ductwork and associated exterior wall louvers or gravity hoods shall be sized for a maximum air velocity of 400 fpm, typical.
6. Flexible ductwork will be used to connect metal ductwork to single outlets and inlets in accessible ceiling areas, maximum 5 feet in length.
7. Provide 1" thick internally lined plenum can at each lay-in ceiling supply diffuser and return grille, with round collar on one side of plenum can for connection to flex duct.
8. Manual air dampers at each terminal branch to single air outlets and inlets, and where otherwise required for balancing.
9. Typical inlet and outlet types utilized will be:

a. Supply air:
1) Square and rectangular modular-core air diffusers with removable, configurable modules.
2) Square and rectangular ceiling and sidewall diffusers with adjustable blades.
b. Return and exhaust air:
1) Eggcrate style inlets.
2) Square and rectangular ceiling and sidewall grilles with adjustable blades.
F. Controls:
1. New manufacturer's proprietary language-based direct digital control automatic temperature control system will be provided by the following pre-selected manufacturer:
a. FIN.

Plumbing

Plumbing System:
A. Discussion:
1. The plumbing systems for the new campus will be all electric. There will be no fossil fuel burned on this campus for domestic water heating. The plumbing systems will incorporate equipment with electric resistance or heat pump technology for all domestic water heating applications. The plumbing systems for the new campus will be comprised of both storage tank and instantaneous (tankless) electric domestic water heaters. A concrete grease interceptor will be provided for the kitchen's grease waste system, installed outside the building in a location accessible by pump truck. Proposed plumbing system consists of the following subsystems and components:
A. Domestic Water System:
1. Building Domestic Water Distribution Systems:
a. Piping inside building to five feet from building:
1) Copper Type L with brazed fittings.
2. Domestic Hot Water Generation:
a. Electric storage tank type water heaters.
1) Controls: DDC Time-of-Day control.
b. Electric Instantaneous point-of-use (tankless) type water heaters.
B. Sanitary Sewer System:
1. Building Sewer, Drain, Waste, and Vent System:
a. Sewer, drain, waste and vent piping materials inside building to 5 feet from building:
1) Cast iron soil pipe and fittings (no hub) for drain, waste and vent systems.
2) Polypropylene piping for grease waste and grease vent systems (at Kitchen).
C. Storm Drainage System:
1. Building Roof Drainage System:
a. Combination roof drain and overflow units.
b. Roof drainage piping materials:
1) Cast iron soil pipe and fittings.
c. Storm drainage system specialties include:
1) Downspout nozzles for overflow termination.

Fire Protection

Proposed Fire Protection system consists of the following subsystems and components:

D. Building Fire Protection System:
1. An automatic wet-pipe fire sprinkler system will be provided, with a riser located in a dedicated riser room in each building. All riser rooms will have an exterior door.
2. An electrically operated alarm bell will be located on an exterior wall, just outside each building's riser room door.
3. The automatic wet-pipe fire sprinkler system will be monitored by the campus fire alarm system.
4. Fire protection piping materials inside building:
a. Schedule 40 black steel piping for sizes up to 2", schedule 10 black steel piping for sizes 2-1/2" and larger.
5. Building fire riser connection to site fire water service piping below grade will use a one-piece stainless steel elbow fitting (Ames IBR, or equal).

END OF BASIS OF DESIGN

Electrical Narrative

Power Distribution

BUILDING SERVICES AND POWER DISTRIBUTION:

EXISTING CONDITIONS:

The campus is served by a 1200A, 120/208V Cutler-Hammer Main Switchboard, roughly 50 years old, manufacturer is Zinsco. The gear is roughly 50 years old and is not in serviceable condition, and is located in a fenced enclosure near the front of the campus with the PG&E transformer. The electrical service is not sufficient to support the new, all-electric campus.

NEW WORK:

A new PG&E transformer and Main Switchboard will be located in a secure enclosure at the SE side of the campus, where it will not be in conflict with new construction or demolition. Per preliminary load calculations, the campus will require a 1600A, 277/480V switchboard to support the new campus. New equipment for the PV system and EV charging will also be located in the equipment enclosure.

PHASED WORK:

The existing electrical service should remain as connected and worked around so that the existing campus remains energized during the first phase of construction.

PHOTOVOLTAIC SYSTEM:

Per Section 140.10 of the 2022 Building Energy Efficiency Standards, photovoltaics and battery storage systems are prescriptive requirements for new construction. The proposed new system size is based on these prescriptive requirements; system capacity will be adjusted as required when the energy model is completed. To avoid the cost of a Battery Energy Storage System, we anticipate utilizing trade-offs from other high-efficiency systems within the energy model to justify omitting the BESS requirement.

ELECTRIC VEHICLE CHARGING SYSTEM

Preliminary design of parking lots includes 100 spaces. As this is an alteration of an existing parking facility, Section 5.106.5.6.4 of the 2022 CalGreen code applies, and the installation of infrastructure for EV capable spaces without EVSE is not required. Therefore, we anticipate the installation of 4 new EV charging stations, without additional EV capable spaces.

EMERGENCY POWER:

The campus will not be provided with emergency power. Emergency lighting will be accomplished with the use of battery packs in light fixtures and mini-inverters.

2022 California Energy Code (Title 24) PV and BESS Requirements Non Residential - Section 140 (Prescriptive Requirements)

BUILDING TYPE	School
PROJECT ZIP CODE	95928
CLIMATE ZONE	11
CLIMATE ZONE GROUP	2, 4, 6-14
CONDITIONED FLOOR AREA (CFA,sq ft)	44,840
BESS ROUND TRIP EFFICIENCY (FACTOR D)	80%
SARA (sq ft)	42,000
FACTOR A	1.63
FACTOR B	1.87
FACTOR C	0.46
kWpvdc required	73.1
kWhbatt required	152.8
kWbatt required	33.6

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EMERGENCY POWER:

The campus will not be provided with emergency power. Emergency lighting will be accomplished with the use of battery packs in light fixtures and mini-inverters.

PRELIMINARY LOAD CALCULATIONS:

PROJECT:	Chapman Elementary School				Voltage	480
LOCATION:	Chico, CA					
Area	Square Footage	Lighting (w/sf)	Receptacles (w/sf)	Mechanical (w/sf)	Total (kW)	Total (A)
Bldg 100	5,293	0.8	3.0	12.0	83	100
Bldg 700	3,740	0.6	1.9	12.0	54	65
Bldg 600	5,055	0.6	1.9	12.0	73	88
Bldg 300	6,546	0.6	1.9	12.0	95	114
Bldg 400	6,546	0.6	1.9	12.0	95	114
Bldg 500	6,546	0.6	1.9	12.0	95	114
Bldg 200	12,403	0.8	3.0	25.0	357	430
EV Charging						
25% spare/future					213	256
TOTAL	46,130				**853**	**1,026**
				Proposed Service Size		**1600A**

LIGHTING AND LIGHTING CONTROLS

APPLICABLE CODES AND STANDARDS

- California Title 24, Part 6 (2022 Building Energy Efficiency Standards)
- Illuminating Engineering Society (IES) Lighting Handbook
- ASHRAE 90.1-2019 (as referenced by Title 24 where applicable)
- California Green Building Standards Code (CALGreen)
- ANSI/IES RP-3-20: Recommended Practice for Lighting in Educational Facilities

LUMINAIRES:

The lighting design for the new campus is developed in accordance with the 2022 California Building Energy Efficiency Standards (Title 24, Part 6) and the Illuminating Engineering Society (IES) recommendations. The lighting system aims to provide energy efficiency, visual comfort, and flexibility to support various educational and administrative functions. Luminaire characteristics will meet the following minimum requirements:

- Correlated Color Temperature (CCT): 3500K interior, 3000K exterior
- Minimum Color Rendering Index (CRI): 80 interior, 70 exterior
- Lumen Maintenance L70: Min. 50,000 hours
- Minimum Luminaire Efficacy: 50 lm/W, or per current DLC by fixture type, whichever is higher.
- Measured Flicker: 10% or less across the entire dimming range.
- Minimum Warranty: 5-year, full replacement
- UL Listed
- Design Lights Consortium (DLC) compliant
- RoHS compliant
- LED Lighting Facts Labeled
- California Energy Commission 2022 Appliance Efficiency Regulations “Title 20”

Light fixtures will be selected based on architectural aesthetic, performance and efficacy, ease of maintenance, durability, visual comfort/glare control, and budget. A “low ambient” design strategy will be employed to encourage the use of low wattage task lights at the work surface. The following is a summary of the lighting goals for this project:

Space Type	IES Recommended Light Level (fc)	LPD (W/ft^2) per Title 24	Recommended Fixture Types
Private Office	30-50 fc	0.65	LED recessed troffers
Reception Area	30-50 fc	0.75	LED decorative pendants, recessed LED downlights
Break Room	20-30 fc	0.55	LED recessed troffers, surface-mounted fixtures
Conference Rooms	30-50 fc	0.85	LED linear pendants, recessed troffers, wall sconces
Library	30-50 fc (reading), 20-30 fc (stacks)	0.8	LED recessed linear, pendant-mounted fixtures
Cafeteria	30-50 fc	0.75	LED linear pendants, surface-mounted LED fixtures
All-Electric Kitchen	50-70 fc	1.1	LED high-bay fixtures, vapor-tight LED fixtures
Classroom	30-50 fc	0.65	Linear suspended direct/indirect LED
Gymnasium	50-70 fc (playing area)	0.9	LED high-bay fixtures, indirect lighting
Gym Lobby	20-30 fc	0.7	LED recessed downlights, linear fixtures
Locker Rooms	20-30 fc	0.6	LED vapor-tight fixtures, recessed LED troffers
Multi-User Restrooms	10-30 fc	0.5	LED recessed downlights, wall sconces
Exterior Walkways	1-5 fc	0.1	LED bollards, pole-mounted LED fixtures
Parking Lots	0.5-1 fc	0.06	LED pole-mounted area lights

LIGHTING CONTROLS:

While the district prefers stand-alone controls to be used where-ever possible, it is anticipated that a networked lighting control system will be required to meet the requirements of the California Building Energy Efficiency Standards. Stand-alone controls will be provided in storage rooms, custodial spaces, restrooms, and other spaces where allowed by the Standards. Specific design features of the new networked lighting control system shall include:

- Exterior lighting control will be time based (on/off) to meet T24 requirements, with motion control at parking lot pole lights.
- Interior lighting control will be via a networked, distributed dimming system. All interior spaces will include occupancy sensors, and all daylit zones will be continuously dimmed by photosensors.
- Classrooms/Labs will include multi-scene dimming controls, with at least two 'scenes' (Lecture, AV Mode). Classroom occupancy sensors may also control HVAC in the space where required by the standards.
- The lighting control systems shall feature a GUI (Graphic User Interface) and shall be Auto Demand Response Capable (2-way communication).
- Where required by the California Building California Building Energy Efficiency Standards, Section 130.5(d), in offices, conference rooms, copy and break rooms, and reception lobbies, the lighting control system will also control 120V receptacles.
- Approved lighting control Manufacturers for lighting control systems include Acuity "nLight", Wattstopper "DLM". Special consideration will be given to use of wireless lighting controls, with fixture integrated sensors, which offers initial cost savings and easier maintenance and troubleshooting. Wireless lighting control components that require batteries are not acceptable.

TELECOMMUNICATIONS

UTILITY SERVICE:

We anticipate that Telecommunications and Cable TV utility service will originate from E 8th Avenue. New pullboxes will be set for these utilities at the street and extend 2-4"C for telecommunications and 1-2"C for Cable TV (if necessary) to the campus Entrance Facility, which will be located in the campus MDF.

SITE DISTRIBUTION:

Provide conduit infrastructure, a duct bank consisting of 4-2"C from the campus MDF Room to the IDF room at every building on campus. Two of these conduits shall be used for distribution of fiber in innerduct or Maxcell type sleeve; the remaining conduits for other low voltage systems. The site conduit infrastructure shall be designed to match the overall project phasing and include telecommunication vaults at strategic locations to best facilitate the overall build-out of the site distribution infrastructure. Telecommunication and electrical conduit duct banks should share trenches if properly separated according to BICSI and NEC standards.

TELECOMMUNICATIONS ROOMS:

ENTRANCE FACILITY (EF):

- The Entrance Facility is the location where outside communications services enter the building and are transitioned Chico USD owned cabling infrastructure.
- The EF shall be in the MDF room to maximize program space put have dedicated space for the telecommunications / Cable TV utility company equipment.
- Provide a 4'w section of wall with plywood backboard dedicated to the utility MPOE.
- Provide a dedicated 120V circuit and double-duplex receptacles at the MPOE.

MDF ROOM (EQUIPMENT ROOM):

- Provide 4'w x 8'h x 3/4" fire treated plywood backboard on all walls.
- Minimum ceiling height is 8' with 10' preferred.
- The floor, walls, and ceiling should be sealed to reduce dust. Finishes should be light in color to enhance room lighting. Floors should have anti-static properties.
- Lighting should be powered by separate circuits than the communications equipment and provide brightness not less than 500 lx (50 foot-candles) as measured 3 ft. above the finished floor.
- Entrance door should be lockable, not less than 36' wide and should be without a doorsill. For the MDF, the ideal door solution is double doors with a removable center-post.
- Racks should all be standard 19" 2-post, black aluminum P/N: R2P with high capacity Panduit PatchRunner 2 Vertical Cable Management System vertical managers on both sides.
- PatchRunner 2 Vertical Cable Management System high-capacity vertical managers should be sized to be no more than 35% upon installation according to manufacturer's calculations (fill charts).
- Racks should have interbay routing paths available at the top, middle and bottom of 19" racks to provide a shortest path between any two points when TR racks are ganged together.
- Provide cable runway around perimeter of the room, and above the racks.
- The MDF/Equipment Room should be powered by separate circuits terminated in its own electrical panel.
- Fire alarm control panel, security alarm panel, and other head end equipment may be located in the MDF/TR spaces.

TELECOMMUNICATION ROOMS (TR):

- Provide 4'w x 8'h x 3/4" fire treated plywood backboard on all walls.
- Entrance door should be lockable, not less than 36' wide and should be without a doorsill.
- Racks should all be standard 19" 2-post, black aluminum P/N: R2P with high capacity Panduit PatchRunner 2 Vertical Cable Management System vertical managers on both sides.
- PatchRunner 2 Vertical Cable Management System high-capacity vertical managers should be sized to be no more than 35% upon installation according to manufacturer's calculations (fill charts).
- Racks should have interbay routing paths available at the top, middle and bottom of 19" racks to provide a shortest path between any two points when TR racks are ganged together.
- Provide cable runway around perimeter of the room, and above the racks.
- Provide (1) N5-20R receptacle and (1) L5-30R receptacle on dedicated circuits at the cable runway behind each rack. Provide rack mounted UPS at each rack.
- Fire alarm control panel, security alarm panel, and other head end equipment may be located in the IDF rooms.

BACKBONE CABLING:

Chico USD has standardized on General Cable brand plenum rated indoor/outdoor, tight-buffered, armored cable. All fiber connections between buildings should be made using General Cable singlemode, plenum rated, indoor/outdoor tight-buffered cable with corrugated armor jacket, 12-strand unless otherwise noted. Backbone fiber terminations should be done with ILSINTESCH "Splice On" fiber connectors. 50 micron OM4 factory pre-polished connectors should be used to terminate multimode and ILSINTECH "Splice On" fiber connectors OS2 for singlemode backbone terminations.

HORIZONTAL CABLING:

Horizontal cabling provides connectivity between the user workstation space and the MDF/TR. The project shall use General Cable GenSPEED 10 UTP Gen 4 Category 6A Cable, with blue jacket, riser or plenum rated as determined by the application. UTP Category 6A jack modules shall be blue Panduit Mini-Com TX6A 10GIG. Typical outlet types are as follows:

- Workstation outlets: 2-Cat 6A each
- Wireless access points: 2-Cat 6A each
- Classroom flat panel display: 2-Cat 6A each
- Wall phone (1 per classroom): 1-Cat6A
- Clock/speaker (1 per classroom): 1-Cat 6A
- Security cameras: 1-Cat 6A each

Typical space layouts as follows:

- Classroom: (1) instructor workstation outlet adjacent to teaching wall, (1) outlet at flat panel display, (1) WAP outlet centered in room, (1) clock/speaker.
- Private Office: (1) workstation outlet for smaller offices, (2) workstation outlets if over 150 s.f.
- Multi-Purpose Room: (1) workstation outlet each wall (4 total), up to (4) WAP outlets at ceiling, (2) clock/speaker with wire guard.
- Library: (1) workstation outlets each wall (4 total), (2) WAP outlets at ceiling, (1) clock/speaker.

SCHOOL COMMUNICATION SYSTEM:

The campus will include a new IP-based School Communication System, the basis of design shall be the Valcom IP6000 platform to provide efficient communication, emergency notifications, and synchronized time-keeping across all buildings.

The system's head-end equipment, centrally located in the Main Distribution Frame (MDF), includes the VE6023 Telephone Paging Server and VE8090R SIP Intercom Controller. These rack-mounted units provide seamless integration with the campus's existing VoIP phone system, enabling live and automated messaging, intercom functionality, and emergency notifications across all buildings. The MDF serves as the hub, connecting to the VoIP infrastructure via SIP trunks, ensuring priority overrides and urgent calls are efficiently managed from administrative offices or security stations.

The primary head-end equipment for the Valcom IP6000 system will be housed in the Main Distribution Frame (MDF). This will include the Valcom VIP-802A IP Gateways, VIP-821 Enhanced Network Trunk Interfaces, and VIP-172L IP Paging Horns for external coverage. The system will interface directly with the campus VoIP phone system, allowing administrative and emergency communications to be managed through a unified platform. A dedicated network switch, separate from the primary data network, will be implemented to ensure priority handling of voice and paging traffic.

Inter-Building Connectivity: Fiber optic backbone cabling will be used to interconnect buildings to the MDF/Equipment Room, ensuring low-latency communication and high bandwidth for IP paging and message distribution.
Intra-Building Infrastructure: Each building will be equipped with Category 6E/6A structured cabling to support PoE-powered Valcom IP speakers, call stations, and digital message boards.

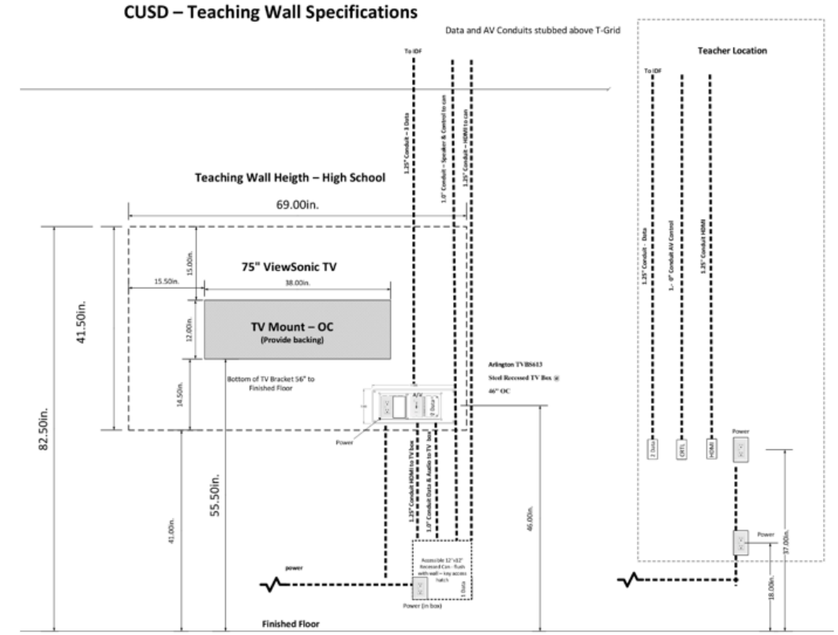
- Classroom combination clock/speaker: VE4031A-A with flush backbox.
- Interior wall mount speaker: VE4028 with VB-R12 flush backbox
- Interior ceiling mount speaker: VE4020, with flush backbox
- Exterior wall mount speaker: Speaker: VE4080AL, with V-9805 flush backbox.

Redundancy: Battery-backed PoE switches in key locations will ensure continued operation during power outages.

AUDIOVISUAL:

CLASSROOM AV:

Classroom AV system scope will consist of infrastructure (conduit, boxes, cabling) to be installed per district standards, with Extron AV components, flat panel display, speakers, etc. to be owner furnished, contractor installed. Refer to the attached "Teaching Wall Elevation" for rough-in requirements for the new interactive flat panel displays.



Notes:

- AV Input Conduit Pathway not to exceed 40' (from TV to Teacher Desk location)
- 16" x 48" Backing Required for TV Mounting location
- Arlington Steel Recessed box required at TV Location (TVBS613) with divider as noted on diagram
- All AV Conduits must be 1" or greater. Not more than 270 degree of turns without pull box.
- TV height may need to be adjusted for Grade level. Typically 76" to 81". Height in diagram is 80.5 inches.
- Recess of TV not to exceed 4 inches from soffit face
- Soffit opening should be 72" wide by 45" tall (minimum)

MULTIPURPOSE ROOM AV:

The multi-purpose AV systems shall consist of amplified speakers, with a ceiling mounted projector (Epson PRO L1505UH) installed at the back of the stage behind a motorized projection screen for rear projection. Source equipment, amplifiers, etc. will be installed in a wall mounted rack at the stage, or in a secure room.

ELECTRONIC SAFETY & SECURITY

FIRE ALARM:

Fire Alarm Control Panel (FACP): A new Silent Knight 6820EVS will serve as the central processing unit for the fire alarm system, providing intelligent monitoring, control, and communication across all connected devices. The panel will be installed in the building's MDF Room, with remote annunciator & voice evacuation microphone
(LOC) installed at the administration building lobby for quick access and monitoring.

System Components:

- Initiating Devices:
- Intelligent smoke detectors
- Heat detectors
- Attic Heat detectors
- Manual pull stations
- Duct detectors in HVAC systems greater than 2000 CFM
- Waterflow and tamper switches for sprinkler monitoring
- Notification Appliances:
- Ceiling-mounted and wall-mounted speaker strobes/strobes in classrooms, corridors, gymnasium, cafeteria, and assembly areas as required by code.
- Voice evacuation speakers in large gathering spaces
- LED annunciator panels at designated locations for visual indication.
- Auxiliary Functions:
- Fire alarm interfaces with the building's HVAC system for smoke control and automatic shutdown.
- Magnetic door holders for corridor separation, releasing upon alarm activation
- Remote monitoring capability with central station connection.
  Wiring and Network Infrastructure:
- The fire alarm system will utilize an addressable loop configuration to minimize wiring and improve troubleshooting.
- Dedicated power circuits and backup battery systems will ensure continuous operation during power failures.
- Networked fiber-optic or copper connections will be used for inter-building communication between multiple structures within the campus.

INTRUSION ALARM:

The district does not currently use intrusion alarm on K-8 campuses. Infrastructure for future intrusion alarm components (such as door alarm contacts) will be considered.

ACCESS CONTROL:

Chico Unified School District utilizes a POE card reader system, consisting of a door mounted POE card reader, and alarm contact, electrified lock, and request to exit device integrated with the POE lockset.
1-CAT6A cable is to be installed at the accessible ceiling space at each access controlled door to tie the POE lockset into the campus system.
At double doors, or where automatic ADA door opener is installed, a central 'mercury' panel (EP1502) with power supply will be installed, with door contacts, request to exit devices, electric locks, and separate door or pedestal mounted card readers.
An emergency lockdown station will be installed at the administration building reception desk, which will provide manual means to initiate a campuswide lockdown, changing the school's security mode, notifying security personnel and locking electrified doors controlled by an automatic schedule.

VIDEO SURVEILLANCE:

IP cameras will be installed at the exterior of buildings, typically at all four corners of each building and the main entrance. Scope of work for each camera includes two data drops installed in a single box above the accessible ceiling space, with a 1' conduit sleeve to a flush box at the exterior camera location. Cameras are owner furnished, owner installed.

FEEDER SCHEDULE

FEEDER SCHEDULE GENERAL NOTES

1. COPPER FEEDER SIZES SHOWN IN THIS SCHEDULE ARE BASED ON CONDUCTORS WITH THHN/THWN-2 INSULATION IN EMT CONDUIT.
2. ALUMINUM FEEDER SIZES SHOWN IN THIS SCHEDULE ARE BASED ON CONDUCTORS WITH XHHW-2 INSULATION IN EMT CONDUIT.
3. FEEDER SIZES SHOWN IN THIS SCHEDULE ARE BASED ON AN AMBIENT TEMPERATURE OF 30 DEGREES C (86 DEGREES F).
4. FEEDERS CONSISTING OF MULTIPLE SETS OF CONDUCTORS AND CONDUITS ARE TO BE PROVIDED WITH THE INDICATED SIZE GROUND CONDUCTOR IN EACH CONDUIT.
5. PER CEC ARTICLE 110.14, ALL FEEDERS SIZED AT #2 AWG OR LESS ARE CALCULATED PER 60 DEGREE TABLE. FEEDERS GREATER THAN #2 AWG ARE RATED 75 DEGREE. 90 DEGREE COLUMN IS USED WHEN APPLYING DERATING FACTORS.

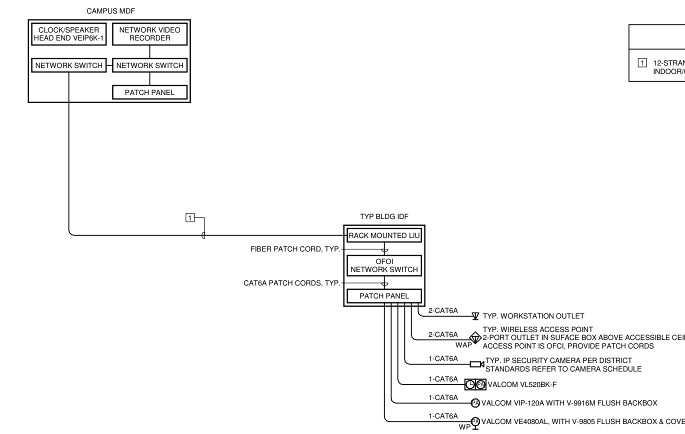
FEEDER SCHEDULE REMARKS

A. OVERSIZED 150% NEUTRAL, SUITABLE FOR SERVICE FROM K-13 RATED TRANSFORMERS.
B. FEEDER APPROVED FOR USE WITH SEPARATELY DERIVED SYSTEM; GROUNDING AS REQUIRED BY CEC ARTICLES 240 AND 250.
C. FEEDER GROUND AND BONDING JUMPER SHALL HAVE AN AREA NOT LESS THAN 12.5% OF THE AREA OF THE LARGEST PHASE CONDUCTOR.
D. INCREASE CONDUIT TO THE NEXT LARGER TRADE SIZE WHEN USING SCHEDULE 40 OR 80 PVC CONDUIT.
E. PER CEC SECTION 240.4(B), FOR OVERCURRENT DEVICES RATED 800A OR LESS, THE NEXT HIGHER STANDARD OVERCURRENT DEVICE RATING (ABOVE THE AMPACITY OF THE CONDUCTORS) CAN BE USED. RULE CAN NOT BE APPLIED IF 100% RATED BREAKERS ARE USED.
F. PER CEC 240.21(C), THE PROVISIONS OF 240.4(B) SHALL NOT BE PERMITTED FOR TRANSFORMER SECONDARY CONDUCTORS.

FEEDER TAG	FEEDER DESCRIPTION	CONDUIT	FEEDER CONDUCTORS		SEPARATELY DERIVED SYSTEM		REMARKS
			PHASE/NEUTRAL	GROUND	GROUNDING ELECTRODE	SYSTEM BONDING JUMPER	
703	70 AMP, 3 WIRE	1-1.00"	3 #4 CU	1 #8 CU	-	-	-
1504	150 AMP, 4 WIRE	1-2.00"	4 #1/0 CU	1 #6 CU	-	-	-
T1504	150 AMP, 4 WIRE	1-2.00"	4 #1/0 CU	1 #6 CU	#6 CU IN 0.75" C.	#6 CU	B,F
1753	175 AMP, 3 WIRE	1-1.50"	3 #2/0 CU	1 #6 CU	-	-	-
2004	200 AMP, 4 WIRE	1-2.00"	4 #3/0 CU	1 #6 CU	-	-	-
2504	255 AMP, 4 WIRE	1-2.50"	4 #250 KCMIL CU	1 #4 CU	-	-	-
3004	310 AMP, 4 WIRE	1-3.00"	4 #350 KCMIL CU	1 #4 CU	-	-	-
T4004	400 AMP, 4 WIRE	2-2.00"	2 SETS OF 4 #3/0 CU	1 #1/0 CU/SET	#1/0 CU IN 0.75" C,	#1/0 CU	B,F
5004	510 AMP, 4 WIRE	2-2.50"	2 SETS OF 4 #250 KCMIL CU	1 #2 CU/SET	-	-	D
7004	670 AMP, 4 WIRE	2-3.00"	2 SETS OF 4 #400 KCMIL CU	1 #1/0 CU/SET	-	-	E

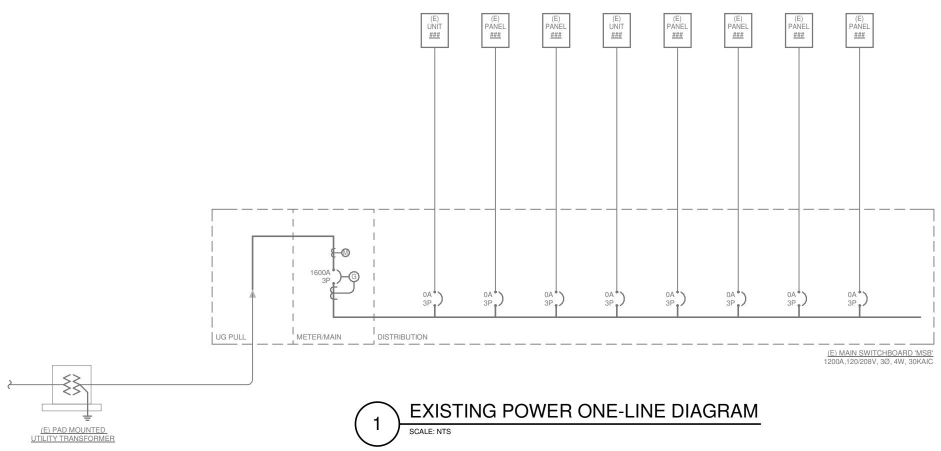
NUMBERED SHEET NOTES

1. 12-STRAND SINGLE-MODE / 12-STRAND MULTI-MODE, GENERAL CABLE OS2, PLENUM RATED, INDOOR/OUTDOOR TIGHT-BUFFERED CABLE WITH CORRUGATED ARMOR JACKET.



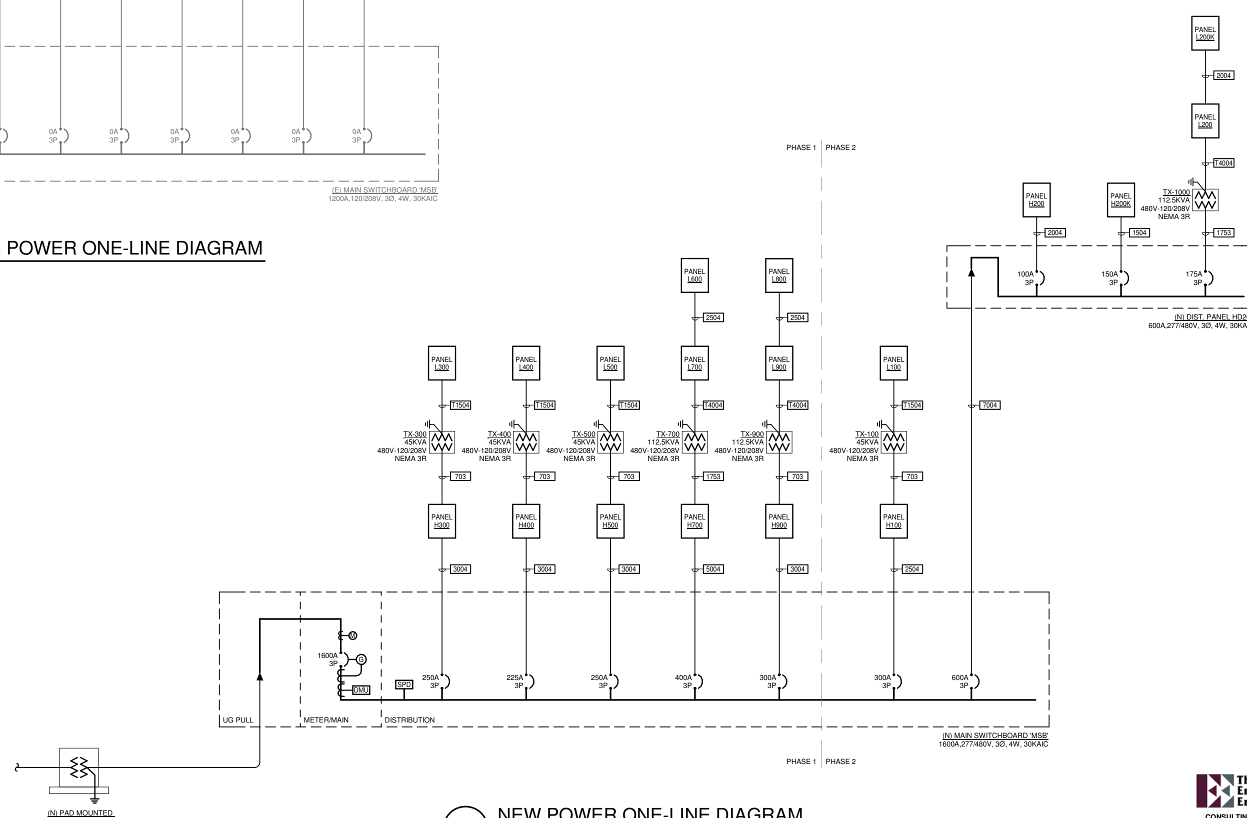
1 CAMPUS TELECOMMUNICATIONS RISER DIAGRAM

SCALE: 12" = 1'-0"



1 EXISTING POWER ONE-LINE DIAGRAM

SCALE: NTS



2 NEW POWER ONE-LINE DIAGRAM

SCALE: 12" = 1'-0"

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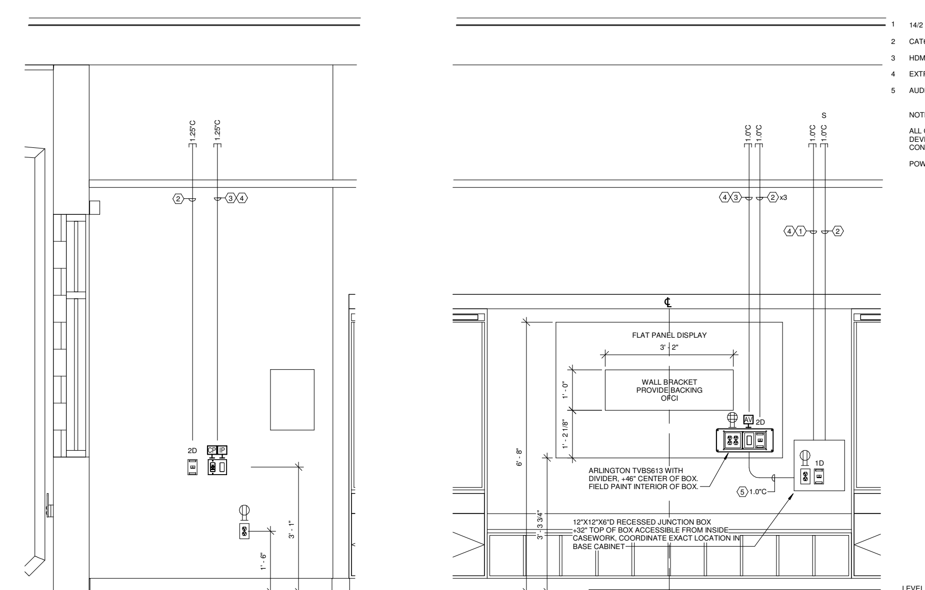

1 14/2 SPEAKER WIRE (TO CLG SPEAKERS)
2 CAT6 CABLES (NETWORK) QTY AS NOTED
3 HDMI CABLE
4 EXTRON AV CONTROL CABLE
5 AUDIO CABLE

NOTES:

ALL CABLING (EXCEPT FOR NETWORK) AND EXTR(DEVICES FURNISHED BY OWNER, INSTALLED BY CONTRACTOR.

POWER CONDUIT NOT SHOWN FOR CLARITY

2 TEACHING WALL ELEVATION / AV RISER DIAGRAM

SCALE: 3/4" = 1'-0"

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Acoustics Narrative

Acoustic design criteria for reverberation time (T60), background noise from HVAC systems (NC and dBA) and sound isolation (STC) for occupied spaces in the project are provided in Table 1. The criteria are based on industry best practices and align with LEED v4.1 for Schools and ASHRAE Handbook, HVAC Applications, Chapter 49 ("Noise and Vibration Control"). The project is not pursuing LEED certification.

Table 1: Acoustic Design Criteria: Reverberation Time (T60), Background Noise (NC), Interior Sound Isolation (STC)

Room	Reverberation Time T60(s)	Background Noise NC	Sound Isolation STC (Partitions without doors)
Classroom	0.6	35	45
Breakout	1.0	35	45
Admin Office, Conference, Wellness	0.6	40	40
Library	1.0	35	45
Multipurpose	1.0 – 1.5	35	50
Flex Classroom	1.0	35	45
Restroom	-	-	53

ROOM ACOUSTICS GUIDELINES

Acoustically absorptive materials are incorporated on the ceilings of all occupied spaces to limit noise buildup and reverberation. Additional acoustic absorption may be needed based on Reverberation Time criteria in Table 1. Locations of acoustic treatment are coordinated with Architecture and Interiors.

SOUND ISOLATION GUIDELINES

Doors located in walls with acoustic performance requirements of STC 35 and above incorporate standard solid cores and full perimeter compression sound seals. Acoustically rated (STC) door assemblies are currently not anticipated.

All walls in occupied spaces extend and seal to the bottom of the structure above.

Sound isolation and vibration isolation for mechanical equipment located above regularly occupied spaces is incorporated to mitigate airborne and structure-borne noise.

Where possible, ductwork will not penetrate demising partitions. Outlets and other recessed equipment will not be placed back-to-back in a single stud bay. Back box putty pads will be required to reduce sound transmission.

BUILDING SYSTEM NOISE & VIBRATION CONTROL

Mechanical noise will be analyzed and noise control recommendations provided (e.g. duct silencers) to meet interior noise design criteria in Table 1, and local noise regulations at the property line.

Where possible, ducts, registers and grilles shall be sized to limit maximum air velocities as indicated in Tables 2 and 3 below, to ensure that regenerated noise due to air movement does not cause the design noise criteria to be exceeded. All ductwork serving acoustically sensitive areas is internally lined with 1" thick acoustical lining.

Table 2 – Maximum Airflow Velocities per ASHRAE Chapter 47, Table 4

Duct Location	Design NC/RC	Maximum Airflow Velocity, fpm: Rectangular Duct	Maximum Airflow Velocity, fpm: Circular Duct
In shaft or above drywall ceiling	45	3500	5000
	40	3000	4250
	35	2500	3500
	30	2100	3000
	25	1700	2500
	20	1500	2250
Above suspended acoustic ceiling (ACT)	45	2500	4500
	40	2150	3750
	35	1750	3000
	30	1460	2500
	25	1200	2000
	20	1000	1750
Duct located within occupied space	45	2000	3900
	40	1750	3250
	35	1450	2600
	30	1200	2150
	25	950	1700
	20	750	1500

Notes:

1. Table 8 provides velocities for Design NC/RC of 45, 35 & 25. NC/RC 40, 30 & 20 are interpolated.
2. Branch ducts should have airflow velocities of about 80% of values listed.
3. Velocities in feet minute to outlets should be 50% of value or less.
4. Elbows and other fittings can increase airflow noise substantially, depending on type. Thus, duct airflow velocities should be reduced accordingly.

Table 3: Minimum Recommended Air Velocities at Neck of Supply Diffusers or Return Registers per ASHRAE Chapter 47, Table 9

Type of Opening	Design NC/RC	"Free" Opening Airflow Velocity, fpm
Supply air outlet	45	625
	40	560
	35	500
	30	425
	25	350
	20	300
Return air opening	45	750
	40	675
	35	600
	30	500
	25	425
	20	375

If volume control boxes or fan coil units are incorporated, they should be located remote of acoustically sensitive occupied spaces where possible.,

Grilles, registers, and diffusers are to be selected with a manufacturer's NC rating 5 to 10 NC points below the noise criteria for the space being served. Where possible connections to diffusers should utilize lined flex duct to reduce airflow-generated noise.

As far as is practical. HVAC systems serving acoustically sensitive occupied areas should be "self-balancing". Balancing dampers will not be located immediately upstream of diffusers. A minimum 5 feet of acoustical flexible duct or internally lined sheet metal duct between the damper and the connection to the diffuser is recommended. Dampers shall not be incorporated into grilles, and diffuser blades will not be used for balancing the air system.

Vibration isolation measures are incorporated per ASHRAE for mechanical equipment and associated piping near acoustically sensitive areas to control the transfer of vibration into the building, which can lead to structure-borne noise:

- External vibration isolation shall be incorporated for MEP units.
- Flexible ductwork connections to air handling equipment
- Suspended, rooftop piping and pipe risers resiliently isolated from the building structure.
- Flexible pipe connectors incorporated for HVAC piping connected to vibration-isolated equipment, and where piping and ductwork exit mechanical rooms.
- Heat exchangers and expansion tanks vibration isolated per ASHRAE standards.

Electrical systems contain various components that create noise. Unlike noise from the HVAC system, which is typically broadband in nature, electrical components tend to generate highly tonal noise. Such noise can be annoying or distracting even at moderate levels. As such, noise and vibration control measures are to be incorporated into the design of the electrical system. These will include the use of vibration isolators for transformers and flexible conduit connections.

BOLD Bridging Organization, Learning and Design

Student Engagement Opportunities

Real World Learning with DLR Group

Objectives:

- Engage students in a project based learning exercise exploring and reflecting on learning spaces through a creative, hands-on project.

- Students first discuss their observations and preferences, then focus on the design and function of different spaces within the school.

- Students produce visual or written representations of their ideal school spaces, along with completed reflection worksheets.

- These outputs will be collected, documented, and shared with the design team to help incorporate student perspectives into planning decisions.

Summary Master Plan Construction Budget

Parkview Elementary School

New Construction (Buildings & Sitework)

2023 Master Plan Construction Budget: $56,144,000

Schematic Design Cost Estimate

Provided by MTI

Schematic Design Cost Plan

Parkview Elementary School Reconstruction
Chico Unified School District
Chico, California

October 6, 2025
MTI Job No. 25-1092

Overall Project Cost Summary	*Current Construction $*	*Escalation $*	*Total Construction $*	*$/SF*	*Contingency (10%)*	*Soft Costs (15%)*	*Total Project $*
New Construction							
Administration Building	7,310,035	731,003	8,041,038	739.68	804,104	1,326,771	10,171,914
Multipurpose Building	8,489,994	848,999	9,338,993	876.65	933,899	1,540,934	11,813,826
Pod A - 4 Classrooms	4,148,985	414,898	4,563,883	683.83	456,388	753,041	5,773,312
Pod B - 5 Classrooms	15,457,179	1,545,718	17,002,897	683.42	1,700,290	2,805,478	21,508,665
Pod E - 2 TK/Kinder Classrooms	2,550,188	255,019	2,805,207	712.80	280,521	462,859	3,548,587
Pod F - 3 TK/Kinder Classrooms	4,161,910	416,191	4,578,101	725.30	457,810	755,387	5,791,298
Flex Building	1,926,308	192,631	2,118,939	684.63	211,894	349,625	2,680,458
Subtotal - New Construction	44,044,599	4,404,460	48,449,059	856.54	4,844,906	7,994,095	61,288,060
Sitework	11,237,440	1,123,744	12,361,184	36.82	1,236,118	2,039,595	15,636,897
Total	**55,282,039**	**5,528,204**	**60,810,243**	**915.55**	**6,081,024**	**10,033,690**	**76,924,957**

MARCENE TAYLOR INC.

Intentionally Blank


PARKVIEW
STEM SCHOOL